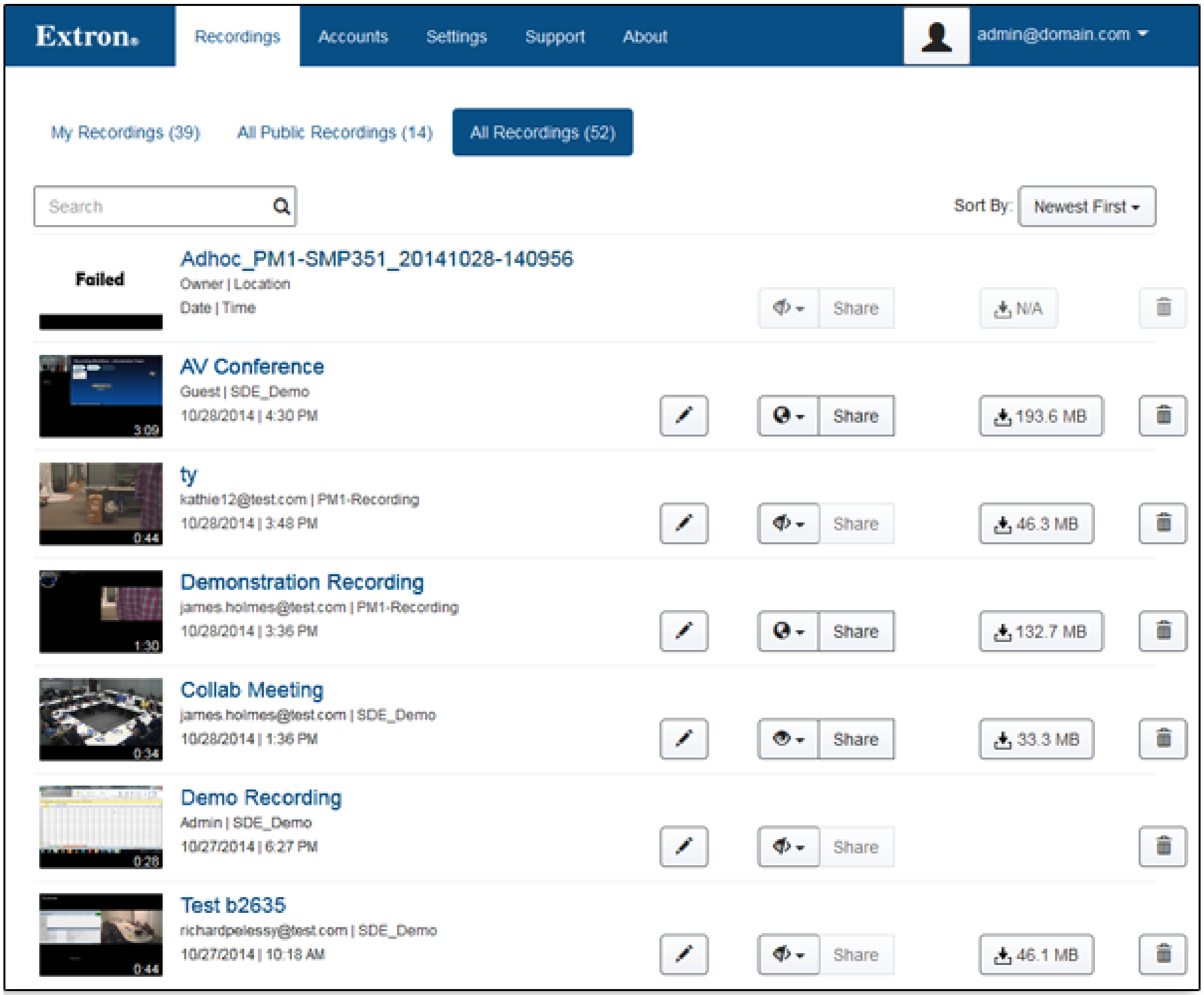
Help

Using Extron Streaming Content Manager



Failed	Adhoc_PM1-SMP351_20141028-140956 Owner | Location Date | Time	Share	N/A
3:09	AV Conference Guest | SDE_Demo 10/28/2014 | 4:30 PM	Share	193.6 MB
0:44	ty kathie12@test.com | PM1-Recording 10/28/2014 | 3:48 PM	Share	46.3 MB
1:30	Demonstration Recording james.holmes@test.com | PM1-Recording 10/28/2014 | 3:36 PM	Share	132.7 MB
0:34	Collab Meeting james.holmes@test.com | SDE_Demo 10/28/2014 | 1:36 PM	Share	33.3 MB
0:28	Demo Recording Admin | SDE_Demo 10/27/2014 | 6:27 PM	Share	
0:44	Test b2635 richardpelessy@test.com | SDE_Demo 10/27/2014 | 10:18 AM	Share	46.1 MB

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

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11 15

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Prerequisites

System and Web Browser Requirements

System Installation Requirements

In order to install and set up Streaming Content Manager you need the following items:

Hardware

- Server hardware to support a Web server and database installation
- Display: 1024 x 768 screen resolution or higher

Framework

- Microsoft® .Net® framework version 4.5 or higher

Web Server

Microsoft IIS extensible Web server:

- IIS verson 7.0 or higher (Microsoft Windows Server® 2008 R2)
- IIS version 8.5 or higher (Windows Windows Server 2012)

NOTE: Only the English versions of Microsoft Windows Server are supported.

NOTE: HTTPS binding for IIS services and for the SCM website is required prior to installation. In this process you create or obtain an SSL certificate, tie it and HTTPS protocol to the IIS services for SCM, then create a binding association between HTTPS and the SCM website. This sets Streaming Content Manager to use secure protocol and to open using HTTPS. By default, when SCM is installed, it creates a self-signed SSL certificate and sets up the HTTPS binding within IIS (for instructions on how to accomplish this manually, particularly if using an SSL certificate from a certification authority [CA], see **Adding HTTPS Binding**).

E-mail Server

- Microsoft Exchange Server that supports Microsoft Exchange Web Services or Microsoft Exchange Server using SMTP

Database

- Microsoft SQL Server® 2008 or later, full or Express editions

Managed Directory System (optional)

To use a Microsoft Active Directory® (AD) system for adding and validating users, you will also need:

- An Active Directory server running Active Directory (AD)

Storage space requirements for the recording storage server depend on a variety of factors (see **Network Drives for Recording Ingest and Storage**).

Web Browser Requirements

In order to open and use Streaming Content Manager, use one of the supported Web browsers (and versions) listed below.

- Google® Chrome™ version 35 or higher
- Mozilla® Firefox® version 28 or higher

> **NOTE:** Recordings created with SMP 351 Streaming Media Processors using firmware version 1.00.*xxx* do not play within Firefox. Recordings created on SMP units that use newer firmware do play within Firefox.

- Microsoft® Internet Explorer® version 9 or higher (for Windows® operating systems)

> **NOTE:** If you are using Internet Explorer, compatibility mode must be turned off (see "Turning Off Internet Explorer Compatibility Mode", below, for details).

- Apple® Safari® version 6 or higher (for Mac® OS X® operating systems)

Browser preferences

- Chrome is the preferred browser for sighted users.
- Firefox is the preferred browser for screen reader users. SCM has been tested to work with Firefox and the NVDA (NonVisual Desktop Access) screen reader, which is available at **http://www.nvaccess.org/**.

> **NOTE:** SCM is accessible to users with screen readers and those who use keyboard controls for navigation. The interface is accessible, and supports commonly available screen readers.

Turning Off Internet Explorer Compatibility Mode

The Streaming Content Manager does not support compatibility mode in Microsoft Internet Explorer.

To check compatibility view settings:

1. From the **`Tools`** menu of the browser, select **`Compatibility View Settings`**. The `Compatibility View Settings` dialog box opens.
2. Be sure that the **`Display all websites in Compatibility View`** check box is cleared and that the DNS name or IP address of the SCM is not in the list of websites that have been added to Compatibility view.

About Streaming Content Manager

About Streaming Content Manager

General Product Overview

Extron Streaming Content Manager (SCM) is a software management tool for processing, packaging, and delivering enhanced packages of recording files produced by the Extron SMP 351 Streaming Media Processor and other recording devices. SCM processes and transfers recording packages to a network storage directory and provides a way to manage access to the recordings.

> **NOTE:** SCM is accessible to users with screen readers and those who use keyboard controls for navigation. The interface is accessible, and supports commonly available screen readers.

What SCM Does

Preparing and Managing Recordings

Streaming Content Manager monitors the designated network server location for new recordings. When SCM detects new recordings on the server, SCM integrates the basic SMP recording package (.m4v recording files, recording metadata, and time-synchronized thumbnails) with an advanced set of playback controls into a package with Extron Media Player (EMP). EMP operates from almost any PC or personal device using a variety of browser applications. SCM then transfers recording packages to a managed network storage directory. From the network storage location, SCM automatically distributes recording packages to event presenters and viewers via a secure web page interface.

Within SCM, administrators define the recording ingest and storage directories and determine whether or not unauthenticated users (those who do not have accounts within SCM) will be able to access public and unlisted recordings.

The SCM web portal provides users and administrators with access for managing AV recordings, identifying the total number of recordings, and monitoring recent activity. Recording data include:

- The quantity of recordings by each user
- The date, time, and title or file name of each recording
- The privacy setting (private, public, or unlisted) of the recording

- The source device location name
- File package size.

Recordings can be sorted based on recording title or file name, date and time, and recording source device location name. Recordings can be deleted or downloaded, and links to recordings can be shared with others who have access to the SCM system.

Managing Users and Access to AV Recordings

With data from standard LDAP/AD (Lightweight Directory Access Protocol, Active Directory®) network services or from a locally defined set of users and passwords, SCM identifies, authenticates, and manages user access to recording packages (see **LDAP** and **Active Directory® (AD)** in the glossary for definitions). Recordings that cannot be authenticated by SCM are saved to a guest account that is controlled by the SCM administrator. See **User Roles** and **Comparing User Types Based on Origin (Local or AD Accounts)** for a more detailed discussion about types of user accounts.

The SCM web portal provides administrators with the ability to add and delete users and includes tools to manage and update user profiles.

Within SCM, administrators select and set up the users and their roles. Users can be added and access can be managed using standard network directory services (LDAP/Active Directory [AD]). SCM, or an AD system via SCM, authenticates users and provides them access to download or share their recording packages.

Administrators can access summary data about users such as the date and time of last log-in, the date and time of the last uploaded recording, and the total number of recordings made by that user, broken out by privacy status (private, public, and unlisted).

Signal Flow Within Streaming Content Manager

1. Recordings (and their thumbnail and chapter marker images, timing data, and metadata) are created by a recording device such as an SMP 351.
2. Recordings are automatically uploaded from the SMP into a designated server folder. This folder is the "ingest location" for the SCM system.
3. SCM monitors ("watches") the ingest location for new recordings and for when each recording has finished uploading to the server.
4. When the recording is uploaded, SCM transfers ("ingests") the raw recording package, moving it into its own server, checking the metadata, verifying that the components (including video, thumbnails, chapter markers, metadata, and timing data) are included.
5. SCM packages the recording with the EMP player files along with instructions on how to synchronize the recording and its associated files. It then transfers (distributes) the complete recording package to the SCM storage directory.

6. Once the recording package is stored in the storage directory, the raw recording is deleted from the ingest location. It may still be available in the recording device (SMP) for a brief period until the device determines that memory is needed for new recordings, at which time the recording is deleted or overwritten.

   NOTE: For an SMP 351, if internal storage space is nearly full, the SMP uses an automatic disk cleanup feature to make room for new recordings. As the need arises, the unit automatically deletes old recordings. Recordings can be marked as "locked" to prevent them from being removed by automatic disk cleanup.

   - If the SMP is set up to automatically upload recordings to a server, and if the recordings have been successfully uploaded to the server, the unit deletes recordings (starting with the oldest) until there is enough free space on the disk.
   - If an the SMP has been set up to upload recordings to a server but some recordings were not successfully uploaded, then successfully uploaded recordings are deleted first. Then, if more space is still needed, the SMP deletes recordings that have not been uploaded, starting with the oldest files.
   - If there is no upload method configured, the SMP deletes the oldest **unlocked** files first and then deletes newer files until enough space is available.

7. The recording package appears in the All Recordings list (viewable by administrators) within SCM, and its privacy level is set to "private" by default. If the owner of the recording has an account in SCM, and if e-mail connection is configured and enabled for SCM, the recording owner receives an e-mail notifying them that the recording is available in SCM in their My Recordings list.
8. The user logs in to SCM, and SCM or an Active Directory system validates their credentials. SCM opens to the `My Recordings` page, where the user can download, delete, or edit information about their recordings and can view or download public recordings.

User Roles

Streaming Content Manager includes two built-in types of user accounts that cannot be deleted and supports four different user account roles, as described below. In addition to the roles defined for SCM accounts, unauthenticated users may have limited access to the system (by visiting the SCM site or by receiving a link to a recording by e-mail) if the system is configured to allow access. Unauthenticated users are any users who do not have an account in the SCM system.

	Role				
Action	**System Administrator**	**Administrator**	**User**	**Guest**	**Unauthenticated User**
Account management					
Account is created by:	SCM	System administrator or other administrator	System administrator or other administrator	SCM	
Account may be local	X	X	X	X	
Account may originate from an Active Directory (AD) system		X	X		
Account may be deleted		X	X		
May log into their account	X	X	X		
May add or delete another user	X	X			
May reset a local user's password	X	X			
May reset their own password	X	X (if not added via Active Directory)	X (if not added via Active Directory)		
System settings					
May configure recording package ingest settings	X	X			
May configure general system settings	X	X			
May configure e-mail notification settings	X	X			
May add, delete, or edit AD settings or profiles	X	X			
May view system logs	X	X			
Recordings					
May create recordings	X	X	X	***	
May view public recordings	X	X	X		X*, **
May view unlisted recordings	X	X	X*		X*, **

	Role				
Action	System Administrator	Administrator	User	Guest	Unauthenticated User
May view own recordings ("My Recordings")	X	X	X		
May view all recordings ("All Recordings")	X	X			
May edit metadata for public recordings	X	X			
May edit metadata or change settings for own recordings ("My Recordings")	X	X	X		
May edit metadata or change settings for all recordings ("All Recordings")	X	X			

NOTES:

- If the user or administrator is added via LDAP/AD, the username and password cannot be changed within SCM. They must be changed within the AD system.
- The roles of the system administrator and guest account cannot be changed.
- *Users and unauthenticated users can view an unlisted recording only if they have received a link to that recording from another user.
- **Unauthenticated users may view public or unlisted recordings only if the SCM system is configured (**`System Settings`** > `Recording Package Settings`) to allow them to do so (see **Setting Up Recording Package Settings**).

  *** The standard SCM guest account acts as the holding account or "owner" of recordings that are not associated with a validated SCM system user. It allows recordings to be ingested and processed by the SCM system and accessed by an administrator.
- The guest account does not appear in the list of user accounts. It appears only in the recordings lists as the owner of unassigned recordings.

User Roles and Usernames	
Role	**Username is...**
System Administrator	"Admin" (by default) or can be changed to an e-mail address after system configuration
Administrator	• E-mail address, if added locally • LDAP/AD system username, if added via Active Directory
User	• E-mail address, if added locally • LDAP/AD system username, if added via Active Directory
Guest	—
Unauthenticated users (visitors who do not have an account in the SCM system)	—

NOTE: If the user or administrator is added via LDAP/AD, the username and password cannot be changed within SCM.

Comparing User Types Based on Origin (Local or AD Accounts)

The following table illustrates some of the differences in user accounts based on whether they originate locally or are added via an Active Directory (AD) user management system.

	User Account Type or Origin	
	Local (SCM-only)	**Remote (AD)**
Where are credentials added, maintained and validated?	Added, stored, and validated solely within SCM	Added to the SCM database but the name, username, and password are maintained and validated within the AD system.
User profile settings: what can be edited within SCM?	• Name • E-mail address • Password • Local time zone	• Local time zone
User profile settings: what cannot be edited within SCM?	—	• Name • Username • E-mail address • Password (All must be changed within the AD system.)
Username is:	E-mail address	AD system username

System Design and Planning

This section discusses elements to consider when planning for SCM installation and maintenance. It covers the following topics:

- **Factors to consider**
- **How to estimate recording storage requirements**

Factors to consider include the following:

- Will users be managed locally (entirely within SCM), or remotely (outside SCM, via an Active Directory [AD] system)? SCM can include both locally-managed and AD-managed users. Adding and managing users from an AD system requires credentials for and a connection to an AD system (see **Setting Up LDAP/AD Connections** and **Adding Users**).
- All recordings must be on the same server.
- For optimal speed in systems using video streaming, it is best to use separate servers (separate hard drives and processors) for each of the following:
  - Recording ingest
  - SCM server installation and database storage
  - Recording storage
- Microsoft SQL Server is recommended and preferable for regular, full-scale deployments. SQL Express can be used for demonstration installations and for small scale installations. However, SQL Express has limitations on database size (4 GB or 10 GB, depending on the SQL Express edition), it supports only a single physical CPU, can use only 1 GB of available RAM, and does not include the SQL Server Agent service.
- How much **storage space** is needed for recordings and for the database (see **How to Estimate Storage Requirements for Recordings**)? The required amount of storage space depends on the following factors:
  - The encoding settings of the recording devices. The higher the resolution and the greater the motion content, the more space is needed per hour of recording. The settings for variable bit rates, compression, and the level of motion content all affect the recording size.
  - How many hours per day recordings are made per room.
  - How many rooms in the facility will be used for recording.
  - The frequency with which recordings will be removed (deleted) from the server. The longer recordings are retained, the more space will be needed.
- Will unauthenticated users (people who do not have a user account within SCM) need access to recordings? If so, SCM must be configured to allow access to those users (see **Setting Up Recording Package Settings**).

How to Estimate Storage Requirements for Recordings

There are several data points that you need in order to estimate the amount of storage space to allocate:

- The amount of **storage required for each hour of recording**
- The number of **recording hours per week**
- The number of weeks that you intend to retain the content (**content retention time**)

These points are covered in this section, as is the **storage space calculation**.

Step 1: Estimating Storage per Recording Hour

You need to know the video and audio bitrates configured in your Extron SMP 351 recorders. For these examples, assume each recording is 60 minutes long. If your recordings are longer or shorter, then in later stages of calculations use the **portion** of the hour (for example, 1.25 = a 75 minute recording, 0.83 = a 50 minute recording). The calculation also assumes the bitrates remain **constant** during the recording; if you are using VBR (variable bitrate, which is the default) then the actual bitrates are often slightly lower than this estimate.

To estimate storage per recording hour:

1. Identify the SMP 351 video bitrate and audio bitrate, which are in kbps (kilobits per second). See the *SMP 351 User Guide* or the Encoder Presets embedded web page in the SMP for details.
2. Insert those bitrates into the following equation:

   [(video bitrate + audio bitrate) × 3600 seconds per hour] / 8 = *x* kBph (kilobytes per hour)
3. Use the kBph value to calculate MBph and GBph:
   - (*x* kBph / 1024) = *y* MBph (megabytes per hour)
   - (*x* kBph / 1048576) = *z* GBph (gigabytes per hour)

Example

Using the default “720p High” encoder preset, with

- Video bitrate = 5000 kbps
- Audio bitrate = 192 kbps

For a 1-hour recording (3600 seconds),

- ([5000 + 192] × 3600) / 8 = 2336400 kBph
- 2336400 kBph / 1024 = 2281.64 MBph
- 2336400 kBph / 1048576 = 2.23 GBph

For the default encoder presets of an SMP 351, the following are the estimated storage requirements for each hour of recording:

Estimated Storage Requirements				
Encoder Preset	**Video Bitrate (kbps)**	**Audio Bitrate (kbps)**	**MB per hour**	**GB per hour**
1080p High	8000	320	3656.25	3.57
1080p Low	6000	128	2692.97	2.63
720p High	5000	192	2281.64	2.23
720p Low	3000	128	1374.61	1.34
480p High	2500	128	1154.88	1.13
480p Low	1500	80	694.34	0.68
VGA High	3500	128	1594.34	1.56
VGA Low	2500	128	1154.88	1.13
SMP 351 max. rates	10000	320	4535.16	4.43
SMP 351 min. rates	200	80	123.05	0.12

NOTE: If you allow users to choose from one of several encoding rates, do the above calculation for each of the possible rates. You will also need to estimate how often each of the encoding rates is selected.

Step 2: Estimating the Recording Hours per Week

Next, attempt to estimate the **usage** of the recorders. The factor that most affects the hours recorded per day is the policy decision on whether recordings are **compulsory** or **voluntary**. Where participants must opt in to record something, there is a generally low ratio of recorded-to-idle hours. Conversely, in environments where a recording occurs unless the participants opt out, there is much greater use.

To estimate the recording hours per week:

(Number of recording devices × average recorded hours per day per device × recording days per week) = hours recorded per week (hpw)

Example:

(5 recording devices × 3.5 hours per day × 5 days) = 87.5 hpw

General guidelines:

- For corporate environments, where nearly all recordings are voluntary and meeting spaces are not as heavily used, you can expect 0.25 to 1.5 hours per day of recorded content from each device.
- For educational environments that have an opt-in recording policy but rooms are generally in-use most of the day, you might reasonably start with a per-device estimate of 1 to 2.5 hours per day of recording, with increased usage over time as awareness and adoption increases.
- For educational environments that have an opt-out recording policy and rooms that are generally in-use most of the day, you can expect each device to produce 4.5 to 7.5 hours per day of recording, with higher averages if weekend classes are commonly offered.

Step 3: Evaluating Content Retention

Determining how much content will be stored is often a matter of a setting a policy that works for your organization. In our experience, recorded video content falls into three general categories:

- **Short-term material (StM)** — Items that you keep for 0 to 4 weeks, after which you delete the content. Most corporate team meetings will fall into this category, where the recording is used to supplement note-taking but after a few weeks has little value.
  - The longest duration that short-term material is kept is the StM-Duration, in this case 4 weeks.
- **Semi-durable material (SDM)** — These are recordings that you have available for 4 to 26 weeks, then either delete or move to offline or archived storage. Examples include product marketing and promotional material. Most educational classroom recordings fall into this category, where content is generally deleted after completion of the term.
  - The longest duration that semi-durable material is kept is the SDM-Duration, in this case 26 weeks.
- **Permanent material (PM)** — These are recordings that you keep longer than 26 weeks and move to offline or archived storage only as capacity demands. This may be corporate training material and recordings of special events.
  - Set the PM-Duration to the longest time of your estimate, in this case 52 weeks.

For most corporate usage, a good starting ratio is:

- StM Ratio = 60%
- SDM Ratio = 35%
- PM Ratio = 5%

For most educational environments, the ratio is:

- StM Ratio = 25%
- SDM Ratio = 65%
- PM Ratio = 10%

We recommend that you do your initial estimation for one year and re-evaluate your assumptions against actual usage semi-annually.

Step 4: Calculating the Total Storage Requirement

You now have the data:

- MBph = The amount of storage required for each hour of recording, from **step 1**
- hpw = The number of recording hours per week, from **step 2**
- The number of weeks that you intend to retain each type of content

The calculations are as follows:

Short-term storage (StS) = 2 × (hpw × StM-Ratio) × StM-Duration (weeks) × MBph

Semi-durable storage (SDS) = 2 × (hpw × SDM-Ratio) × SDM-Duration (weeks) × MBph

Permanent storage (PS) =2 × (hpw × PM-Ratio) × PM-Duration (weeks) × MBph

TOTAL STORAGE = StS + SDS + PS

Example:

Assuming a typical corporate retention policy, with 87.5 recorded hours per week, and standardizing on the 720p Low recording profile (1374.61 MBph):

StS = 2 × (35 × 60%) × 4 × 1374.61 = 577,336 MB = 936 GB

SDS = 2 × (35 × 35%) × 26 × 1374.61 = 2,189,065 MB = 3,548 GB

PS = 2 × (35 × 5%) × 52 × 1374.61 = 625,447 MB = 1,014 GB

TOTAL STORAGE FOR ONE YEAR = 3,391,849 MB = 5,498 GB

Understanding Time Zone Settings

Streaming Content Manager saves and displays time using different time zones depending on the context. It is important to understand time zone settings and how they are used by the SCM system or server, what is displayed to each user, and what is logged.

Definitions

UTC time is coordinated universal time, a standard time reference. This is more precise than but is similar to GMT (Greenwich Mean Time). Greenwich, England, is used to define the starting point (midnight at hour 00:00) of the "universal day". UTC does not vary with the seasons. Time zones around the world are defined with reference to an offset in hours from UTC.

Local time is region-specific and may or may not include a seasonal offset such as daylight saving time.

What Time System is Used Where in SCM

- Within the SCM web pages and in e-mails, the local time zone is displayed to each user. However, recordings are logged in SCM in both local time and UTC to aid in troubleshooting.
- On the `Accounts` pages, an administrator sees all user login and recording times displayed in the local time zone of the administrator.
- The time of each recording is displayed to the owner in each individual user's local time. For example, if a recording is made by one user at 10:15 am Central Time in the United States and another user logs in using Pacific Time, the second user sees the recording time listed as 8:15 am.
- Error e-mails are time stamped using the local time of the user (owner, e-mail recipient).
- System logs register UTC and the local time of the SCM system (usually the same as the local time of the server).

Where Time Zones Are Set Within SCM

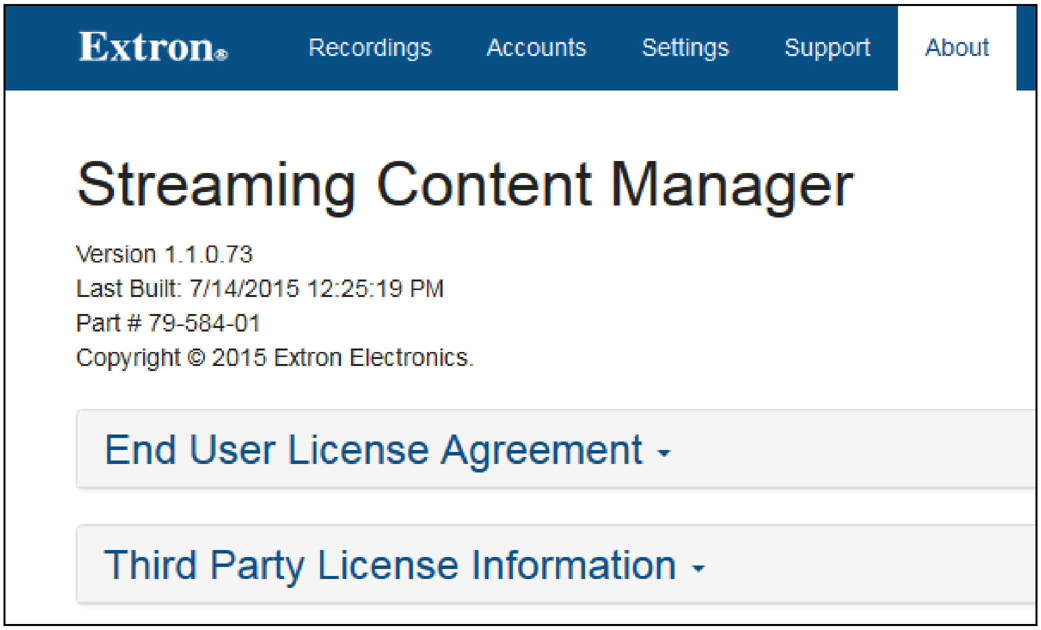
- Initial setup sets the default SCM system time to United States Pacific Time (UTC - 08:00 hours). The same is true for the system administrator account. Both the SCM system time and the local time setting for the system administrator account can be changed after installation. If you do not change the time settings, system time and system administrator time remain set to Pacific Time.
  - SCM system time can be changed in the General System Settings section of the `Settings` page (see **Setting General System Settings**).
  - The local time zone for the system administrator account can be changed by the system administrator only via the `My Profile` page (see **Editing the System Administrator Profile**).

How to Find Information About SCM

For support and troubleshooting purposes you may wish to look up the SCM version, part number, and license, view a list of licensed third party technology used within SCM, or access and read the SCM help file. This section shows you how to find that information.

To view the SCM version and part number information, license, and third party licenses:

1. Click the **About** tab at the top of the page. The About page opens, showing the version number, build date, part number, and copyright statement.

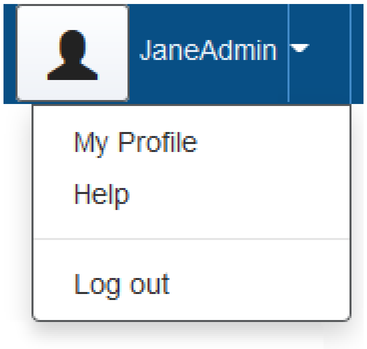
   Streaming Content Manager

   Version 1.1.0.73
   Last Built: 7/14/2015 12:25:19 PM
   Part # 79-584-01
   Copyright © 2015 Extron Electronics.

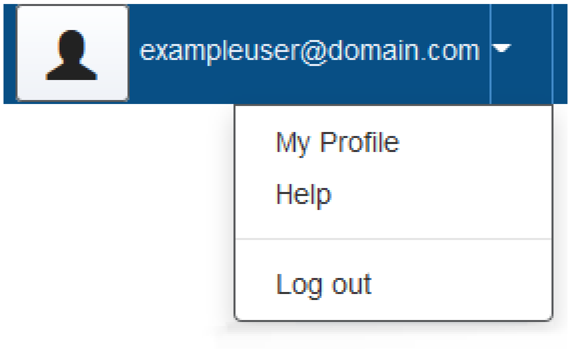
2. To view the end user license agreement (EULA), click the **End User License Agreement** link to expand it.
   - If you want to print a copy of the license, click the **Printable Version** link directly below the title.
   - When finished reading the EULA, click the **End User License Agreement** link to collapse it.
3. To view a list of licenses for third party technology used within SCM, click the **Third Party License Information** link. A panel showing the name, version, and the URL link for each license opens.
   - Use the scroll bar along the right side to navigate up and down the list as needed.
   - When finished viewing the list, click the **Third Party License Information** link to collapse the list.

To access the SCM help file:

1. In the upper right corner of the screen, click the **down** arrow ▼ adjacent to your e-mail address or username to open the drop-down menu.



or



2. Click `Help`. The help file opens in a separate tab or window, depending on your browser settings.

Quick Start Guide for Administrators

Below are the fundamental steps to configure Streaming Content Manager (SCM). See the other sections of this help file for more information about the individual features and settings available in the SCM web pages.

Step 1: Set Up Servers and Network Services.

1. Install and configure database software and services on a network server. The database must be set for Windows® authentication, SQL Server® authentication, or mixed mode. You will need the following information for SCM setup:
   - The server name, IP address, or connection path of the database installation
   - Permission settings for SCM to access the database (the user ID and password for the SCM account)
   - The name of the SCM database
   - A decision on whether or not to use Windows authentication
2. If users will be drawn from a managed directory (Active Directory [AD]) system, establish the directory system and set up a username and password for SCM to use to access the system. You will need the following information for LDAP/AD connection setup:
   - AD system host name
   - Connection string
   - Port number
   - SCM username and password for accessing the directory
   - User schema settings (if the system uses custom values rather than standard defaults)
3. **Create a recording ingest network server location** to which recordings will be uploaded. Ensure that the SCM system will have read, write, and delete access to that location. SCM must be allowed to copy files from it. This server folder can be part of an Opencast scheduling system. Make a note of the server path so you can use it as the ingest location during SCM recording package setup.
4. **Create a recording package storage server location** where output recording packages will be stored after ingest and processing. SCM must have read, write, and delete access to this location, as well.

5. **Optional: Set up an e-mail server and services** and **create an account (with username and password) for the SCM system**. For SCM configuration you will need:
   - The full path of the e-mail server
   - The e-mail username of the SCM system
   - The password for the SCM system e-mail account

Step 2: Set Up Recording Devices.

1. **Make hardware connections** (connect source devices to inputs, connect display devices to outputs, make network connections).
2. **Configure default recording file names.** Using the front panel menu, commands, or the embedded web pages for the devices, select the options the recording device will use for naming its files. Use the same file name structure for every recorder that will be part of the system. Note the chosen file name parameters: you will need the file naming information to use as ingest filter criteria during SCM recording ingest location setup.
3. **Configure default recording upload locations.** Designate the network storage folder location to which each recorder will upload its files when recording is completed. All recording devices must use the same server location. The path for this server folder will be needed during SCM
4. **Set up the ingest location** for recording packages. The recorders and the SCM FileWatcher and Distribution Web services must have read/write access to this network location.

Step 3: Install the SCM Software.

Full instructions for SCM installation are available in **Installing Streaming Content Manager**. The following procedure is simply an overview of the process.

1. **Download the software** from the Extron website to the server where SCM will be installed.
2. **Open and run the installer.** The installer checks the server to ensure that various components (IIS; .Net framework v4.5, ASP.Net, Windows Server with SQL Server Native Client, SQL Server management objects, and CLR types) are installed and it displays the results of the check . If any components are missing, you must install them on the server before proceeding with the installation:
   a. Download and install the missing item.
   b. In the SCM installer window, click the **Back** button.
   c. Click the **Next** button to restart the component check and then proceed to installation.
3. Read and accept the end user license agreement. The installer program displays the default installation path.
4. **Optional:** if you want to change the path to a different location, click **Change**. In the Choose Folder dialog box, navigate to and select the desired location, and click **Ok**.
5. Click **Next** to start the server component installation. When the server installation is complete, a new window opens asking whether you want to install SQL Express to use for the SCM database.

6. Click **Yes** to have the SCM installer program install SQL Express and use that server for SCM installation.

   Or...

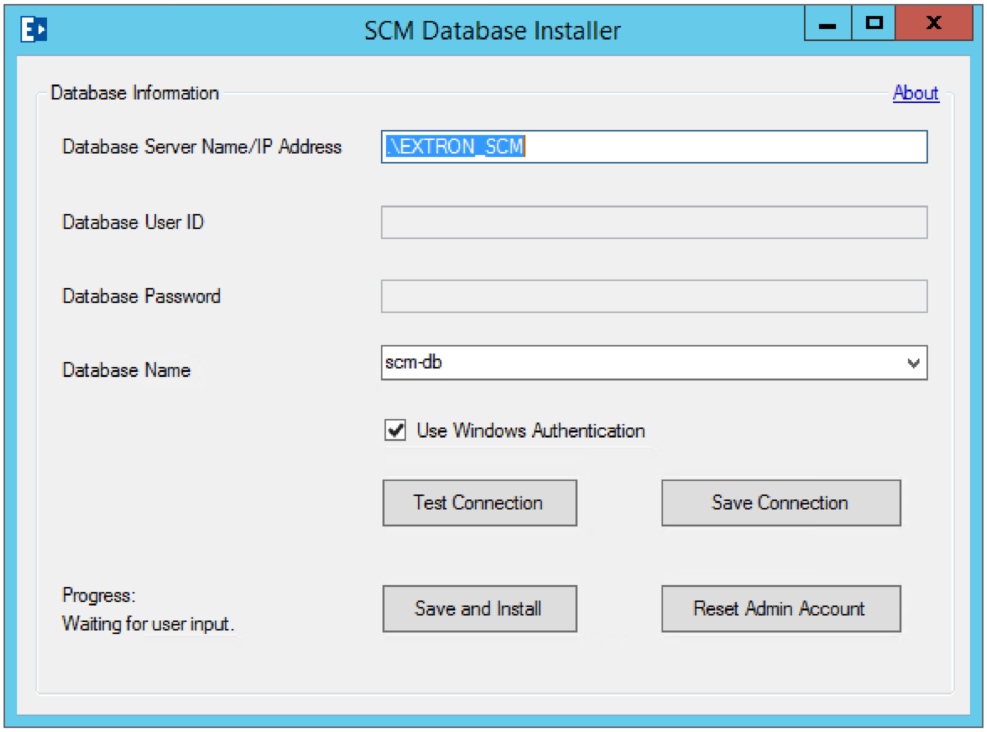
   Click **No** to use an existing instance of SQL Server 2008 R2 or higher for the SCM installation.

   > **TIP:** Extron recommends using Microsoft SQL Server 2008 R2 or higher for regular, full-scale deployments. SQL Express can be used for demonstration installations and for small scale installations. However, SQL Express has limitations on database size (4 GB or 10 GB, depending on the SQL Express edition), it supports only a single physical CPU, can use only 1 GB of available RAM, and does not include the SQL Server Agent service.
   >
   > The SQL Server Agent service is not used by SCM, but it is handy because it allows you to schedule database maintenance jobs. For example, if the database has grown enormously and the SQL Service administrator would like to do maintenance on that data or archive old data to another database, using SQL Server Agent you could create a job and schedule it to occur during SCM system downtime.

   See the full installation instructions for details about each option.

7. When the `SCM Database Installer` window opens, configure the database connection:

   a. In the `SCM Database Installer` window, enter the SCM database name or IP address into the **`Database Server Name/IP Address`** field.



SCM Database Installer

Database Information

Database Server Name/IP Address: .\EXTRON_SCM

Database User ID:

Database Password:

Database Name: scm-db

☑ Use Windows Authentication

Progress:
Waiting for user input.

   b. **For SQL Express installations installed by the SCM installer**, select (check) **`Use Windows Authentication`**. You cannot deselect that option or enter database user ID or password credentials.

For SQL Server installations and SQL Express installations not installed by SCM, either select (check) **Use Windows Authentication**, *or* deselect **Use Windows Authentication** and then enter the user ID (into the **Database User ID** field) and password (into the **Database Password** field) that the SCM system will use to access its database. If Windows authentication is not used, SQL Server authentication will be used.

c. In the **Database Name** drop-down list, select an existing database, or select the option to create a new database and then create one.

> **NOTE:** If you create a new database, you must have database creator privileges on that server. The default new database name is "SCM" or "scm-db". The name can be changed manually (using other tools) after installation, before opening and configuring the SCM.

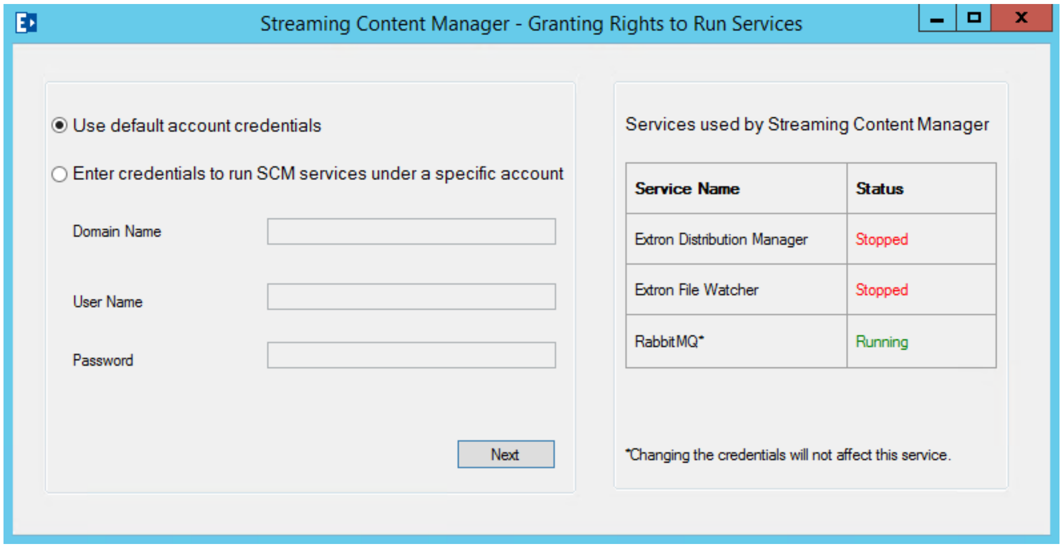
d. Click the **Test Connection** button to test the settings and ensure that a database connection can be made. If the connection is successful, a check mark appears to the right of the **Test Connection** button. If it is not successful, an error message appears.

e. If necessary, correct the settings and retest the connection. Repeat as needed until the database connection can be made successfully.

f. Click the **Save Connection** button to save the settings. If the connection is successful, a check mark appears to the right of the **Save Connection** button. If it is not successful, an error message appears.

g. Once the settings have been tested successfully and saved, click **Save and Install** to begin database installation. The installer displays a success message when database installation is successfully completed.

h. Click **OK**. The success message closes, and the installer performs various tasks and installs files for other services. When those files are installed, an `SCM Granting Rights to Run Services` window opens to allow you to either use the default credentials on the server or to enter credentials for a specific account that will be used to run the SCM services.



Streaming Content Manager - Granting Rights to Run Services

● Use default account credentials

○ Enter credentials to run SCM services under a specific account

Domain Name

User Name

Password

Services used by Streaming Content Manager

Service Name	Status
Extron Distribution Manager	Stopped
Extron File Watcher	Stopped
RabbitMQ*	Running

*Changing the credentials will not affect this service.

8. **Set up the SCM server credentials**: select the option to use the default credentials or select the option to enter the appropriate credentials (domain, username, and password) for the SCM server account, then enter the credentials.

9. Click the **Next** button. The installer verifies the password, domain, and username, and grants access. The the **Next** button becomes a **Close** button.
10. Click the **Close** button. The SCM Granting Rights to Run Services window closes. The Streaming Content Manager - InstallShield Wizard window opens, confirming that the installation was successful.
11. If desired, select **Check here if you want to add a shortcut to the desktop.**
12. Click **Finish**. The installation wizard closes. SCM has been installed and is now ready for configuration. SCM opens in your default web browser.

Step 4: Configure the Streaming Content Manager.

1. Open a web browser, enter the IP address or URL of Streaming Content Manager into the address field, and connect to SCM.
2. At the Log In page, enter admin for the user name and extron1111@ for the password, then click **Log In**. The system configuration page opens. You are now logged in as the system administrator.

   NOTE: It is recommended that you change the password for the system administrator account at this time to allow better system security (see **Editing the System Administrator Profile** for details).

   If the password must be reset to the factory default later, run the installer application (see **Step 3: Install the SCM Software.** above). Skip the software installation, and in the SCM Database Installer dialog box, click the **Reset Admin Account** button to reset the system administrator account (delete any e-mail address for the account and reset to factory user name and password).
3. Configure the recording package settings (see **Setting Up Recording Package Settings**) and click **Apply**.
4. If users will be added from an Active Directory (AD) system, configure the LDAP/AD server settings, timeout periods, and user schema settings (see **Setting Up LDAP/AD Connections**) and click **Apply**.
5. Select the default time zone to be used by the SCM system and to be used as the default zone for new users (see **Setting General System Settings**).
6. Set the application URL for SCM and click **Apply** (see **Setting General System Settings**).
7. Set up and test e-mail notification server connections (see **Configuring E-mail Notification Settings**) and click **Apply**.

Step 5: Add Users

1. Log in to Streaming Content Manager as the system administrator (see step 4, number 1 above).
2. Navigate to the Accounts page.
3. Click **Create Account**.
4. Choose whether to add users locally (purely within the SCM system) or to draw users from a managed directory (LDAP/AD).
5. Proceed to create or add user accounts (see **Adding Users**).

Installing Streaming Content Manager

Prerequisites and Preparation

Extron provides an installer program that steps through first installing the SCM software onto a server and then creating the SCM database within an existing database installation. Configuration of SCM features such as recording package settings, Active Directory connection settings, default time zone, system URL, and e-mail server settings, is performed after installation, from within SCM. The installer program can also be used to upgrade the SCM software (see **Upgrading Streaming Content Manager**) or to uninstall the software and its database tables (see **Uninstalling Streaming Content Manager**).

In preparation for installation, it is helpful to read the following topics: **Server Account Permissions and SCM Installation** and **Adding HTTPS Binding**. For step-by-step instructions on using the installer application to install the SCM program and its database, see **Installation Instructions**.

> **NOTE:** The installer program also includes features that allow you to update the database or reset the system administrator credentials (username, e-mail address, and password). Those features are covered elsewhere in this help file.

Installation Prerequisites

In order to install and set up Streaming Content Manager you need the items listed in **System Installation Requirements** in the Prerequisites section of these help files.

Obtaining the Software

The Streaming Content Manger software can be downloaded from the Extron Download page (**www.extron.com/download/index.aspx**) or via the `Downloads` tab within the Streaming Content Manager product page (**http://www.extron.com/product/product.aspx?id=scm&s=5**). Locate the software package and follow the on-screen directions to download the installer. You need to have an Extron Insider account and log in with your account username and password in order to download the file. Note the name and location to which the file is downloaded.

Server Account Permissions: What is Needed for Installation

During installation of SCM you will be prompted to enter the domain name, username, and password that will be used for the SCM server installation. If this information is not entered during installation, it can be manually changed outside the installation program (using other tools such as Microsoft IIS Manager) after installation. See **Server Account Permissions and SCM Installation** for details about what permissions and access must be set up depending on whether or not credentials are entered during installation and on whether Windows® Authentication is used for the database setup.

Recommendations Regarding Security Certificates

The SCM software makes use of secure HTTP (HTTPS) to ensure secure communications with SCM. HTTPS uses SSL certificates to enable users to confirm the identity of a Web server, and also as part of the encryption mechanism used to secure communications with websites.

About self-signed and CA security certificates

By default, when SCM is installed, it creates a self-signed SSL certificate and sets up the HTTPS binding within IIS (for instructions on how to accomplish this manually, see **Adding HTTPS Binding**). Such a self-signed certificate originates from SCM and not from a generally trusted source. Because the self-signed certificate originates from SCM and not from a generally trusted source, it does not enable users to confirm the identity of the SCM without additional configuration for each client of the SCM. Modern Web browsers are sensitive to the dual use of SSL certificates and may warn or block the user (prevent login) when the user accesses SCM from a client where such additional configuration has not been done. Using a certificate issued by a generally trusted certification authority (CA) is often preferable to using a self-signed certificate, but the process for obtaining a certificate issued by a generally trusted certification authority is outside the scope of this document.

For further reading

For further information about CA security certificates, how to configure them from within IIS, and how to import them, you may want to start by reading the material at the following sites:

- *Configure Web Server Security (IIS 7)* — **https://technet.microsoft.com/en-us/library/cc731278(v=ws.10).aspx** — This serves as a starting point, describing various IIS 7 security features and providing links to topics on what to configure within IIS 7 and how.
- *What Are CA Certificates?* — **https://technet.microsoft.com/en-us/library/cc778623(v=ws.10).aspx**
- *Configuring Server Certificates in IIS 7* — **https://technet.microsoft.com/en-us/library/cc732230(v=ws.10).aspx** — This page includes links to instructions on how to configure, create, view, import, export, and remove server certificates.
- *Import a Certificate* — **https://technet.microsoft.com/en-us/library/cc754489.aspx** — This covers how to perform additional configuration for a client so that a self-signed certificate will be registered as from a trusted source.

How to Install SCM

Set up HTTPS binding manually prior to installation if using a CA security certificate (see **Adding HTTPS Binding**) or allow the installer program to automatically generate a self-signed certificate and set up HTTPS binding automatically during installation. To proceed with installation, see **Installation Instructions** for step-by-step directions.

Server Account Permissions and SCM Installation

Server access permissions and related requirements for SCM installation differ based on whether or not credentials are entered during the installation process. This section details those requirements and also discusses the main steps to ensure that the SCM application pool can access the SCM database.

Requirements if Credentials Are Provided During Installation

If the domain name, username (for a named user of the domain or on an local machine), and password are entered during installation:

- The named account will be assigned as the identity for the SCM application pool in IIS.
- The named account will be assigned as the service identity for the FileWatcher and DistributionManager Windows services.
- The named account must have read, write, and delete access to the recording package **ingest location**. This is the server location that is checked by the file watcher service (Extron FileWatcher) for arrival of new recordings and from which recordings are transferred (ingested) into the SCM system.

  If the location is a network path, the administrator must grant two types of permissions to the account used by the SCM services: folder share permissions and local folder security (NTFS) permissions.

  - To grant **folder share** permissions, right-click on the folder in Windows Explorer, select **Properties**, select the **Sharing** tab, then click the **Share** button. In the File Sharing dialog box, select the account name, set its permission level to **Read/Write**, and click **Share**. Click **Done**, then click **Close** to exit the Properties dialog box.
  - To grant **local folder security** permissions, right-click on the folder in Windows Explorer, select **Properties**, select the **Security** tab, then click the **Edit** button. In the Permissions dialog box, select the account name, enable the **Allow Full control** check box, and click **OK**. Click **OK** to exit the Properties dialog box.

- The named account must have read, write, and delete access to the recording package **storage location** so the SCM distribution manager service (Extron DistributionManager) can transfer recording from the ingest location to the storage location and then permit recordings to be edited and deleted.

  If the location is a network path, the administrator must grant two types of permissions to the account used by the SCM services: folder share permissions and local folder security (NTFS) permissions.

  - To grant **folder share** permissions, right-click on the folder in Windows Explorer, select **Properties**, select the **Sharing** tab, then click the **Share** button. In the File Sharing dialog box, select the account name, set its permission level to **Read/Write**, and click **Share**. Click **Done**, then click **Close** to exit the Properties dialog box.
  - To grant **local folder security** permissions, right-click on the folder in Windows Explorer, select **Properties**, select the **Security** tab, then click the **Edit** button. In the Permissions dialog box, select the account name, enable the **Allow Full control** check box, and click **OK**. Click **OK** to exit the Properties dialog box.
- The named account must have full control permissions on the SCM installation folder. This is set automatically by the SCM installer.

Requirements if Credentials Are Not Provided During Installation

If the credentials for a named account are not entered during Installation (if **Use default account credentials** is selected during the Granting Rights part of the installation process):

- The DefaultAppPool will be assigned as the identity for the SCM application pool in IIS. The DefaultAppPool Identity will default to ApplicationPoolIdentity which corresponds to the IIS_IUSRS named account on the system.
- The IIS_IUSRS user must have read access to storage location. Note that IIS_IUSRS is, by default, a member of the Users group, which has read permission on most folders on the local machine.
- The built-in LOCAL_SERVICE account will be assigned as the service identity for the FileWatcher and DistributionManager Windows services. The LOCAL_SERVICE account must have read, write, and delete access to the recording package ingest location and the storage location.

NOTE: Network paths are not recommended.

SCM Application Pool Database Access For a System Using Windows Authentication

For database installation using Windows Authentication, the identity used by the SCM Application Pool (either the named account specified above or IIS_IUSRS if default account credentials were selected) must have access to the database created by the installation.

To set up the application pool to access the database:

1. Create a login for the identity used by the SCM application pool on the database being used.
2. Assign required privileges on the database for the newly-created login (see **Database** in the Troubleshooting topic for more information).

The identity used by the SCM Windows services must also have access to the database created by the installation. If credentials were not provided during installation (if **Use default account credentials** was selected), then set up the LOCAL_SERVICE account to access the database using the same steps described above.

Adding HTTPS Binding

Once you set up an Internet Information Services (IIS) extensible Web server, the IIS by default uses port 80 and is set for binding to HTTP. Multiple bindings can be added to IIS, HTTPS, and other protocols and services. Binding the server to HTTPS allows secure protocols to be used with Streaming Content Manager.

By default, the SCM installer program automatically generates a self-signed certificate and sets up HTTPS binding during installation. If you want to use a certification authority (CA) security certificate instead of the default self-signed certificate, follow the directions in this topic for manually setting up HTTPS binding.

To add HTTPS binding manually, you must:

1. Create a certificate for SSL (see **Generating a Self-signed Certificate on IIS**) or buy a certificate from a service provider such as **VeriSign, Inc.** Before doing so, it is a good idea to read **Recommendations Regarding Security Certificates**.
2. Set up HTTPS binding for IIS (see **Setting up HTTPS Binding to the IIS**).
3. Set up HTTPS binding for the website (see **Setting up HTTPS Binding for the Website**).

The instructions in this section include details on how to accomplish the binding using a self-signed security certificate.

Generating a Self-signed Certificate on IIS

To generate a self-signed security certificate:

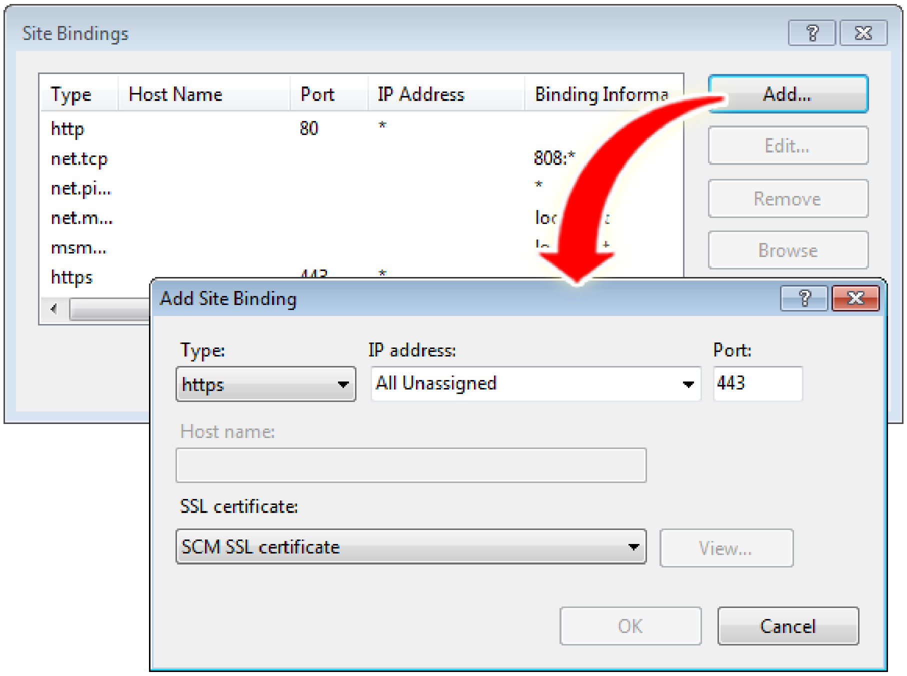
1. Open Internet Information Services (IIS) Manager:
   - If you are using Windows Server 2012 or Windows Server 2012 R2:
     On the taskbar, click **Server Manager**> **Tools** > **Internet Information Services (IIS) Manager**.
   - If you are using Windows Server 2008 R2:
     On the taskbar, click **Start** > **Administrative Tools**> **Internet Information Services (IIS) Manager**.
2. In the Connections panel, select the root option named with the SCM system name. The center panel of the window becomes the server home page and displays options.
3. From the IIS section of the screen (if grouped by area) or the Security section of the screen (if grouped by category), double-click **Server Certificate**. The center panel becomes a Server Certificates panel.
4. In the Actions panel on the right of the screen, click **Create Self-Signed Certificate**. A Create Self-Signed Certificate dialog box opens.
5. Enter a "friendly" name for the certificate into the field.
6. Click **OK**. The dialog box closes and the name of the new certificate appears in the Server Certificates panel.

Setting up HTTPS Binding to the IIS

Once you have created a self-signed security certificate or added an SSL certificate from a service provider to the server, set up HTTPS binding for IIS.

To add HTTPS binding to IIS:

1. Open IIS Manager (see step 1 in **Generating a Self-signed Certificate on IIS** above).
2. In the `Connections` panel, expand the server name, expand **`Sites`**, and then click **`Default Web Site`**.
3. In the `Actions` panel on the right of the screen, click **`Bindings...`** (within the Edit Site section). A dialog box opens.
4. In the `Site Bindings` dialog box click **Add**. Another dialog box opens.



Type	Host Name	Port	IP Address	Binding Informa
http		80	*	
net.tcp				808:*
net.pi...				*
net.m...				loc
msm...				l
https		443	*	

Type: https

IP address: All Unassigned

Port: 443

Host name:

SSL certificate: SCM SSL certificate

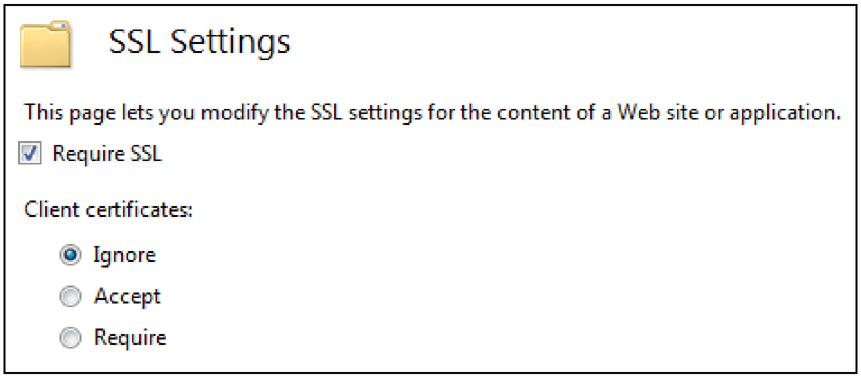
5. In the `Add Site Binding` dialog box, add the binding information.
   - From the **`Type`** drop-down list select **`HTTPS`**.
   - In the `IP address` drop-down list select **`All Unassigned`**.
   - In the **`Port`** field, enter the default port, `433`.
   - From the **`SSL certificate`** drop-down list, select the name of the self-signed certificate created using the procedure above (see **Generating a Self-signed Certificate on IIS**) or the certificate obtained through the security service provider.
6. Click **`OK`**. The `Add Site Binding` dialog box closes. The certificate is installed and HTTPS binding is added to the IIS system.
7. Click **`Close`** to close the `Site Bindings` dialog box.

Setting up HTTPS Binding for the Website

Once HTTPS binding has been set up for IIS, you can add HTTPS binding to the SCM website.

To add HTTPS binding to the SCM website:

1. Open IIS Manager (see step 1 in **Generating a Self-signed Certificate on IIS** above).
2. In the `Connections` panel, expand the server name, expand **`Sites`**, expand **`Default Web Site`**, and click on the name of the SCM website within that. The center panel of the window displays options.
3. In the center panel double-click **`SSL Settings`** in the IIS section (if grouped by area) or the Security section (if grouped by category). The center panel changes to show SSL settings.



SSL Settings

This page lets you modify the SSL settings for the content of a Web site or application.

☑ Require SSL

Client certificates:

● Ignore

○ Accept

○ Require

4. Select (check) the **`Require SSL`** check box.
5. For client certificates select the radio button for the desired option.
6. In the `Actions` panel on the right of the screen, click **`Apply`**. The SSL settings are saved for the SCM website, which now will use HTTPS protocol.

Installation Instructions

This topic includes step-by-step instructions on using the installer application to install the SCM program and its database. In preparation for installation, it is helpful to read the following topics: **Prerequisites and Preparation**, **Server Account Permissions and SCM Installation**, and **Adding HTTPS Binding**.

> **NOTE:** The installer program also includes features that allow you to update the database or reset the system administrator credentials (username, e-mail address, and password). Those features are covered elsewhere in this help file.

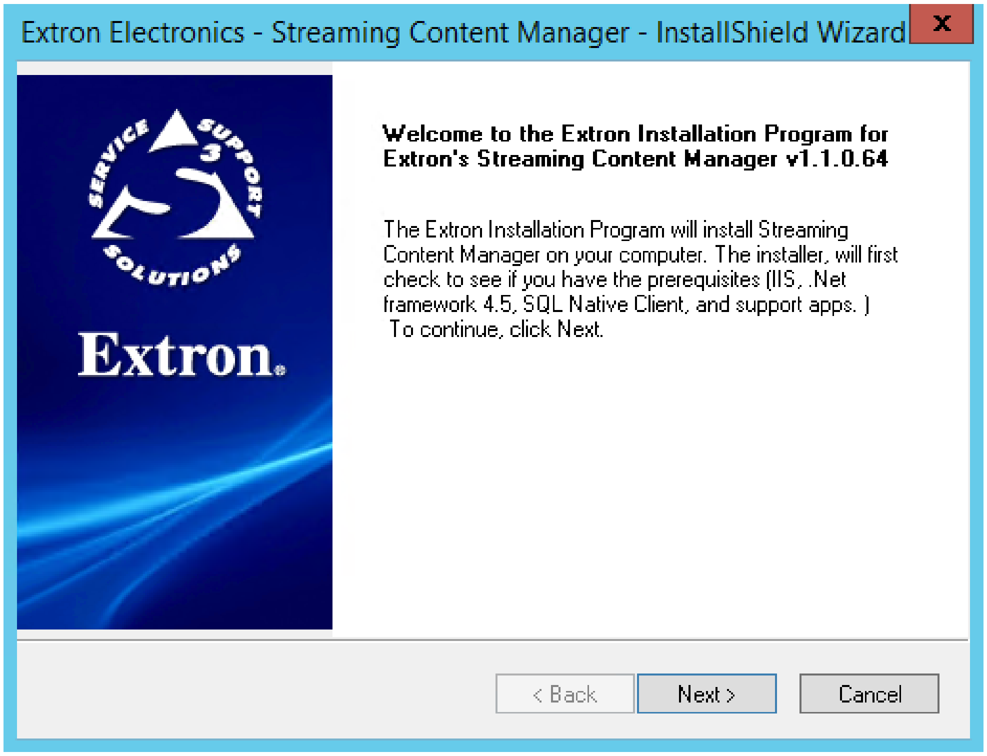
How to Install SCM

> **TIP:** Restart the server before and after any installation, upgrade, or uninstallation.

If you will use a certification authority (CA) security certificate, you should perform manual HTTPS binding first (see **Adding HTTPS Binding**), then proceed with installation. If you want to use the default self-signed certificate and let the installer bind the site for you, proceed directly to installation.

To install the SCM software and database:

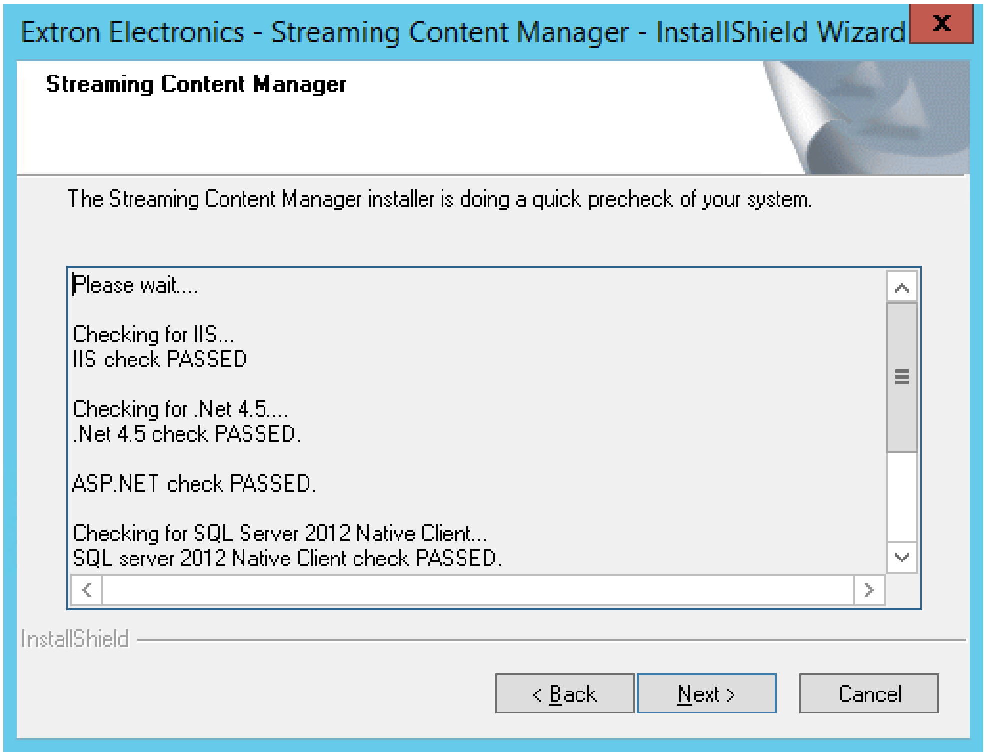
1. Copy the SCM installer package to the server onto which SCM will be installed.
2. Start the installer by double-clicking on the file . The program gathers information and briefly configures Windows settings, then opens the Extron Electronics Streaming Content Manager - InstallShield Wizard.


Extron Electronics - Streaming Content Manager - InstallShield Wizard

Welcome to the Extron Installation Program for Extron's Streaming Content Manager v1.1.0.64

The Extron Installation Program will install Streaming Content Manager on your computer. The installer, will first check to see if you have the prerequisites (IIS, .Net framework 4.5, SQL Native Client, and support apps.)
To continue, click Next.

3. Click **Next**. The installer checks the server to ensure that various components (IIS; .Net framework v4.5, ASP.Net, Windows Server with SQL Server Native Client, SQL Server management objects, and CLR types) are installed and it displays the results of the check (see the example below). If any required Windows features or IIS components are missing, the installer program attempts to install them on the server before proceeding with the installation.

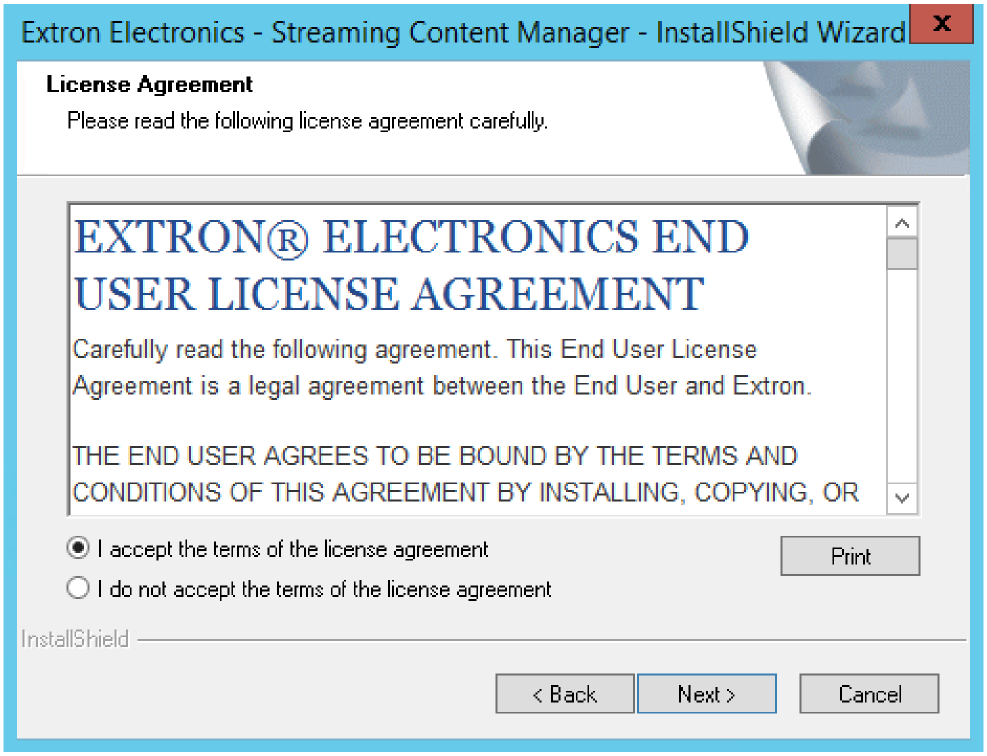

Extron Electronics - Streaming Content Manager - InstallShield Wizard
X
Streaming Content Manager

The Streaming Content Manager installer is doing a quick precheck of your system.

```
Please wait....

Checking for IIS...
IIS check PASSED

Checking for .Net 4.5....
.Net 4.5 check PASSED.

ASP.NET check PASSED.

Checking for SQL Server 2012 Native Client...
SQL server 2012 Native Client check PASSED.
```

InstallShield
< Back
Next >
Cancel

4. If all the required components are installed, click **Next**. The license agreement is displayed in the window.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

License Agreement

Please read the following license agreement carefully.

EXTRON® ELECTRONICS END USER LICENSE AGREEMENT

Carefully read the following agreement. This End User License Agreement is a legal agreement between the End User and Extron.

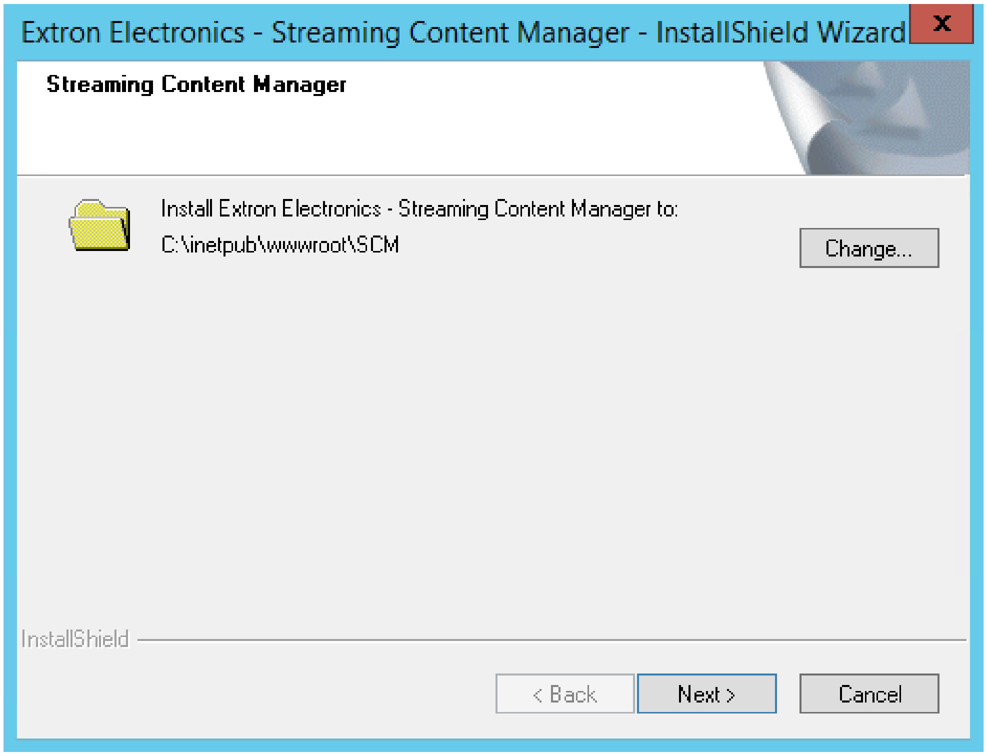
THE END USER AGREES TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS AGREEMENT BY INSTALLING, COPYING, OR

● I accept the terms of the license agreement

○ I do not accept the terms of the license agreement

5. Read the license agreement.
6. If you want to save and print a copy of the agreement for your records, click the **Print** button. The text of the agreement is sent to your default printer for printing.

7. In the installation wizard window, select **`I accept the terms of the license agreement`** and click **`Next`**. The installer displays the default installation path.

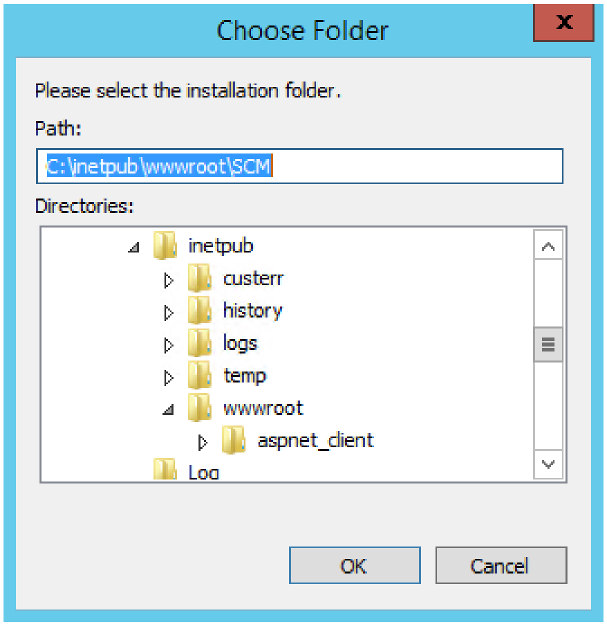


Extron Electronics - Streaming Content Manager - InstallShield Wizard

Streaming Content Manager

Install Extron Electronics - Streaming Content Manager to:
C:\inetpub\wwwroot\SCM

8. Optional: if you want to change the path to a different location, click **`Change`**. In the `Choose Folder` dialog box, navigate to and select the desired location, and click **`Ok`**.



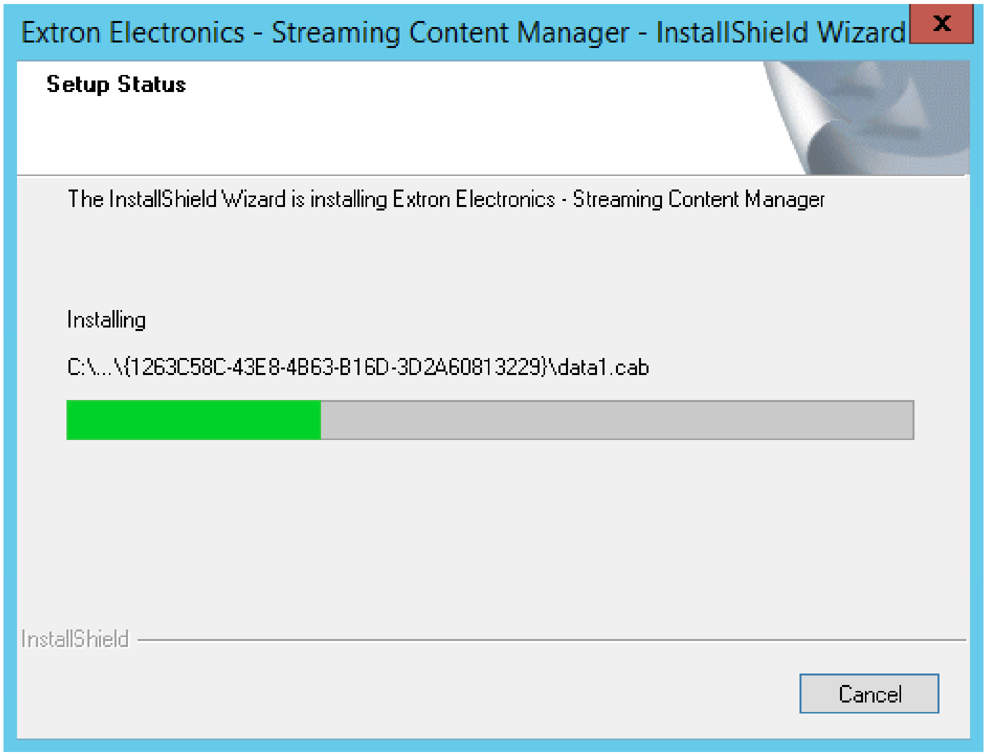
Choose Folder

Please select the installation folder.

Path: C:\inetpub\wwwroot\SCM

Directories:

9. Click **`Next`**. The program installs SCM software on the server, displaying the progress of the installation within the wizard window.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

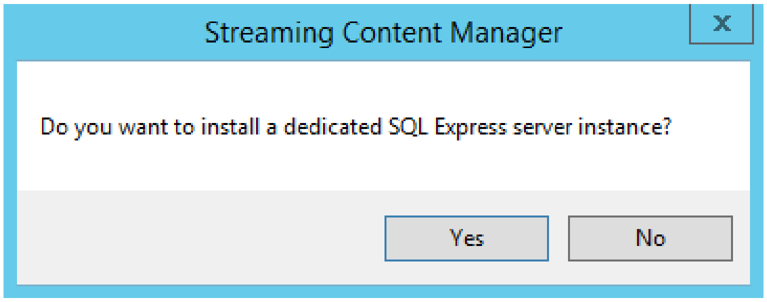
Setup Status

The InstallShield Wizard is installing Extron Electronics - Streaming Content Manager

Installing

C:\...\{1263C58C-43E8-4B63-B16D-3D2A60813229}\data1.cab

When the SCM server installation is complete, the `Streaming Content Manager - InstallShield Wizard` window closes and a dialog box opens asking whether to install a dedicated SQL Express Server instance.



Streaming Content Manager

Do you want to install a dedicated SQL Express server instance?

10. Click **Yes** to have the SCM installer program install SQL Express and use that server for SCM installation.

    Or...

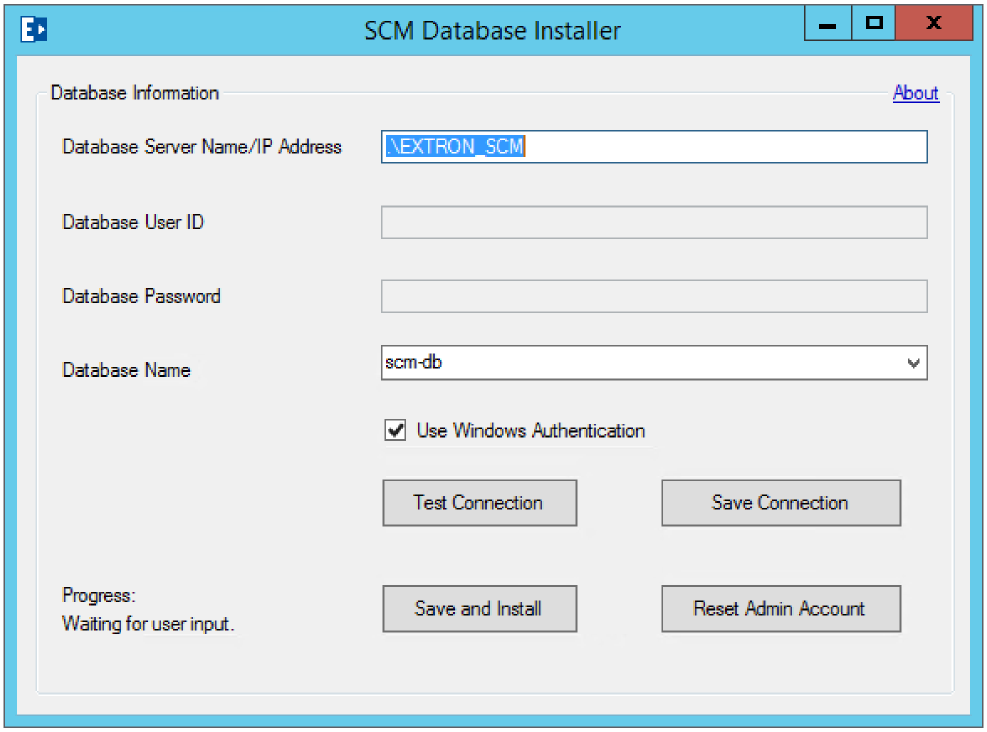
    Click **No** to use an existing instance of SQL Server 2008 R2 or higher for the SCM installation.

    > **TIP:** Extron recommends using Microsoft® SQL Server 2008 R2 or higher for regular, full-scale deployments. SQL Express can be used for demonstration installations and for small scale installations. However, SQL Express has limitations on database size (4 GB or 10 GB, depending on the SQL Express edition), it supports only a single physical CPU, can use only 1 GB of available RAM, and does not include the SQL Server Agent service.
    >
    > The SQL Server Agent service is not used by SCM, but it is handy because it allows you to schedule database maintenance jobs. For example, if the database has grown enormously and the SQL Service administrator would like to do maintenance on that data or archive old data to another database, using SQL Server Agent you could create a job and schedule it to occur during SCM system downtime.

    - If you select **Yes** so you can have the installation program install SQL Express, the program extracts the appropriate files and proceeds to install a SQL Express instance.
        - If SQL Express server has already been installed and is detected, SCM opens a dialog box stating that a SQL Express server instance with the same name exists and, therefore, SQL Express cannot be installed. Click **OK** to close the dialog box and skip the installation. Proceed to step 11.
        - If any problems are encountered during installation (such as the need for a server restart), a `SQL Server 2012 Setup` window opens, showing which operations failed and which passed, so you can resolve any issues.
        - If no problems are encountered, the SQL Express installation completes. Proceed to step 11.
    - If you select **No** so you can use a full SQL Server database, proceed to step 11.

    The `SCM Database Installer` window opens.

11. In the `SCM Database Installer` window, enter the SCM database name or IP address into the **`Database Server Name/IP Address`** field.



SCM Database Installer

Database Information

Database Server Name/IP Address: \EXTRON_SCM

Database User ID:

Database Password:

Database Name: scm-db

☑ Use Windows Authentication

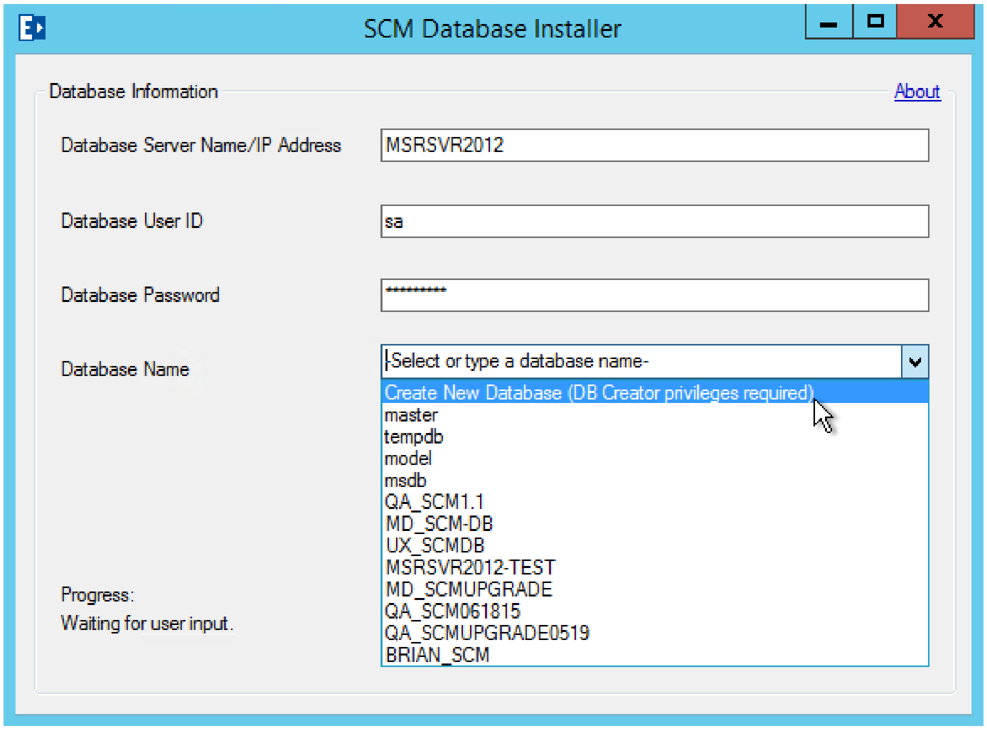
Progress:
Waiting for user input.

12. **For SQL Express installations installed by the SCM installer**, select (check) **`Use Windows Authentication`**. You cannot deselect that option or enter database user ID or password credentials.

    For SQL Server installations and SQL Express installations not installed by SCM, either select (check) **`Use Windows Authentication`**, <u>or</u> deselect **`Use Windows Authentication`** and then enter the user ID (into the **`Database User ID`** field) and password (into the **`Database Password`** field) that the SCM system will use to access its database.

13. In the **Database Name** drop-down list (shown in the example below), select an existing database, or select the option to create a new database.

    NOTE: If you create a new database, you must have database creator privileges on that server. The default new database name is "SCM" or "scm-db". The name can be changed manually (using other tools) after installation, before opening and configuring the SCM.

    Database Server Name/IP Address: MSRSVR2012

    Database User ID: sa

    Database Password: **********

    Database Name: -Select or type a database name-

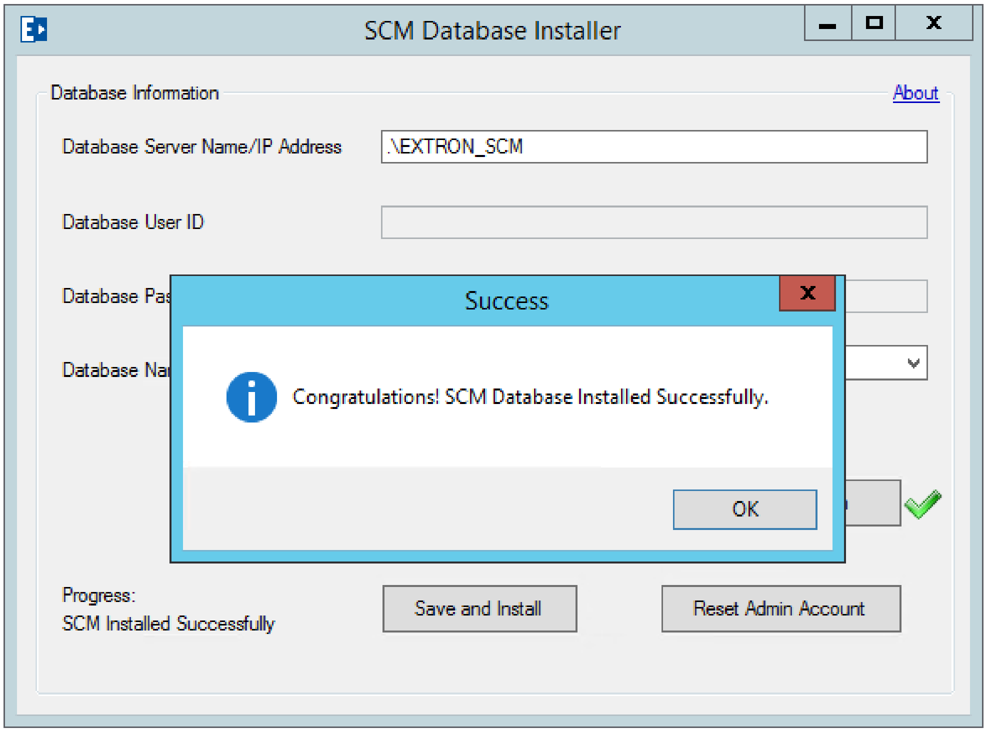
    Create New Database (DB Creator privileges required)
    master
    tempdb
    model
    msdb
    QA_SCM1.1
    MD_SCM-DB
    UX_SCMDB
    MSRSVR2012-TEST
    MD_SCMUPGRADE
    QA_SCM061815
    QA_SCMUPGRADE0519
    BRIAN_SCM

    Progress:
    Waiting for user input.

14. Click the **Test Connection** button to test the settings and ensure that a database connection can be made. If the connection is successful, a check mark appears to the right of the **Test Connection** button. If it is not successful, an error message appears.
15. If connection errors arose in step 14, correct the settings and retest the connection.
16. Click the **Save Connection** button to save the settings. If the connection is successful, a check mark appears to the right of the **Save Connection** button. If it is not successful, an error message appears.

17. Once the settings have been tested successfully and saved, click `Save and Install` to begin database installation.

- **If an SCM database has not been previously installed** on that server, the installer displays a success message when database installation is successfully completed. You can then proceed to step 18.



SCM Database Installer

Database Information

Database Server Name/IP Address: .\EXTRON_SCM

Database User ID

Database Pas

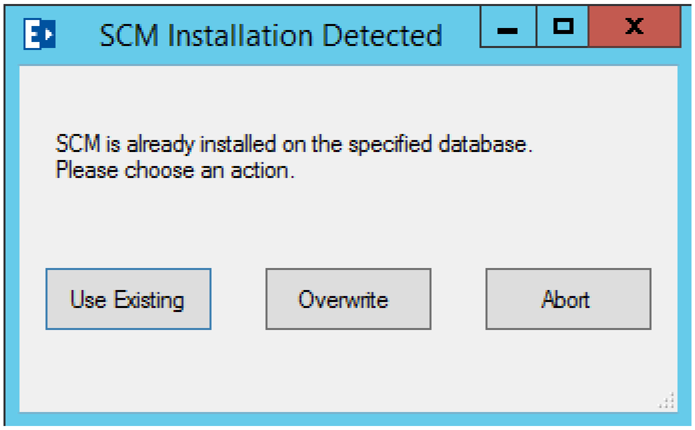
Database Na

Success

Congratulations! SCM Database Installed Successfully.

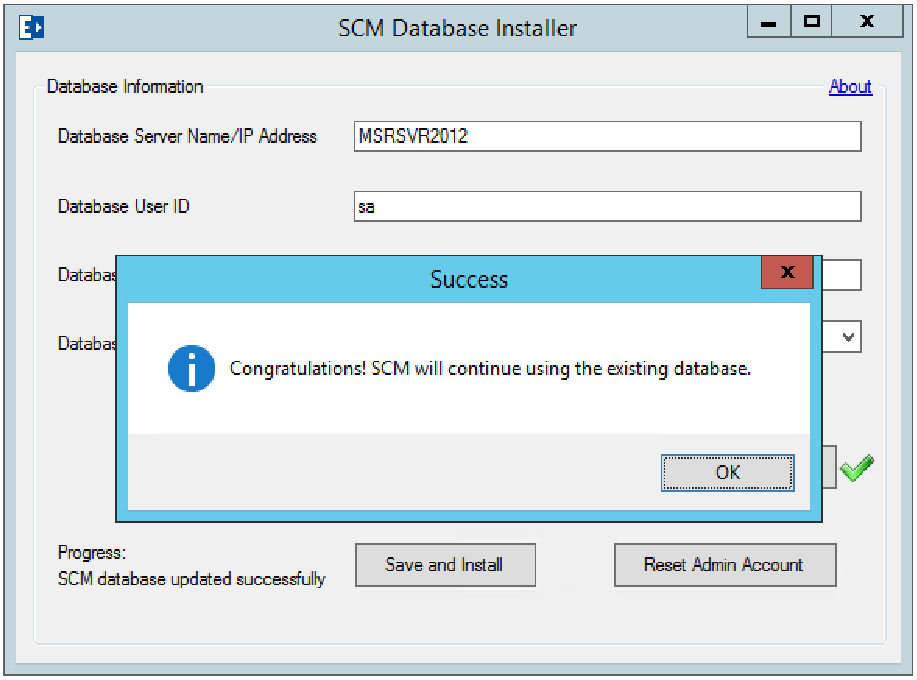
Progress:
SCM Installed Successfully

- **If an SCM database has previously been installed** on that server, a message appears stating that SCM is installed at that location already and asking you to choose how to proceed.



SCM is already installed on the specified database.
Please choose an action.

- If you click **`Use Existing`**, the installer will not replace the existing SCM database. You can continue to use the previously-installed database. The following image is an example of a success message that appears after testing and saving a connection to an existing database.



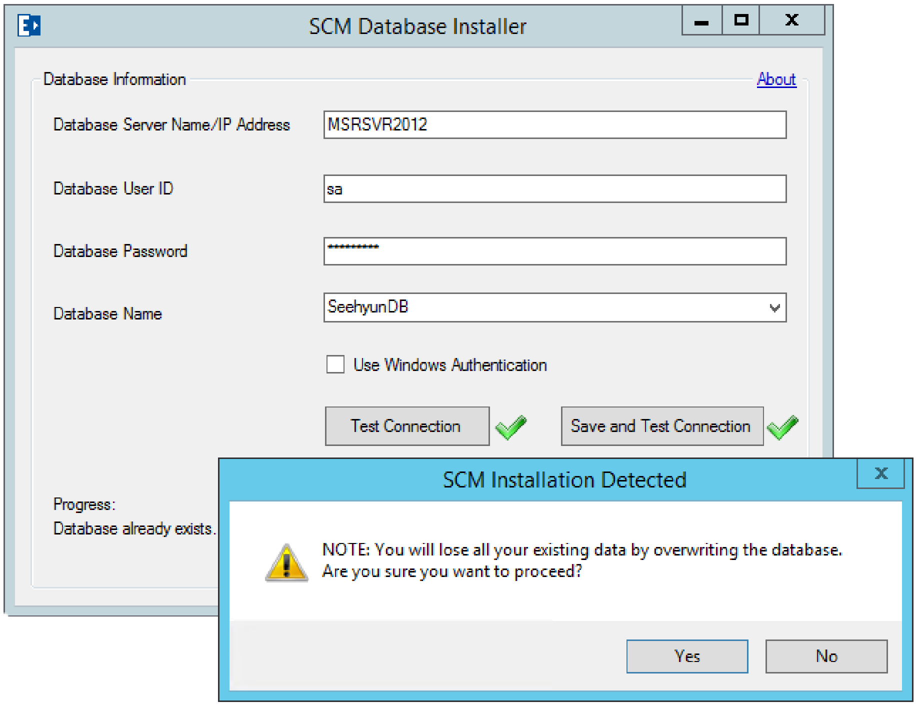
Database Server Name/IP Address: MSRSVR2012

Database User ID: sa

Congratulations! SCM will continue using the existing database.

Progress:
SCM database updated successfully

- If you click **Overwrite**, the existing database will be erased and replaced by a new SCM database installation. A message similar to the following example appears asking you to confirm that you wish to overwrite the database. Click **Yes** to close that message and to overwrite the data and database.



Database Server Name/IP Address: MSRSVR2012

Database User ID: sa

Database Password: **********

Database Name: SeehyunDB

□ Use Windows Authentication

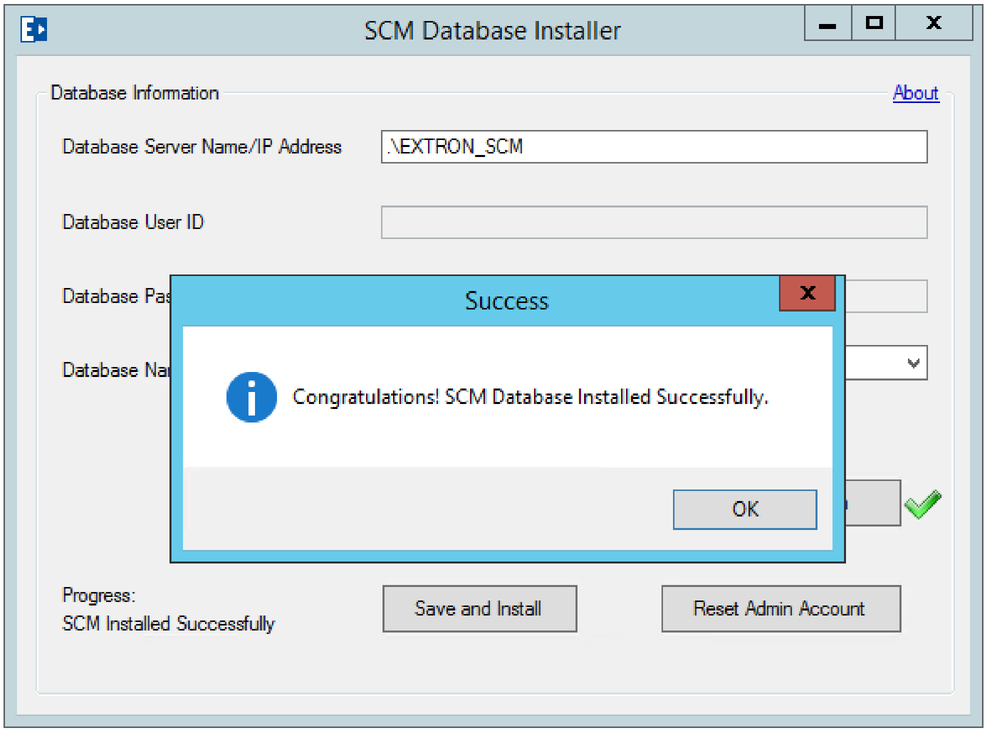
Progress:
Database already exists.

NOTE: You will lose all your existing data by overwriting the database.
Are you sure you want to proceed?

The reinstallation progress is indicated by the text in the lower left corner of the window.

- If you click **Abort**, the database installer closes without changing the existing database or installing a new one.

The installer displays a success message when database installation is successfully completed.



SCM Database Installer

Database Information

Database Server Name/IP Address: .\EXTRON_SCM

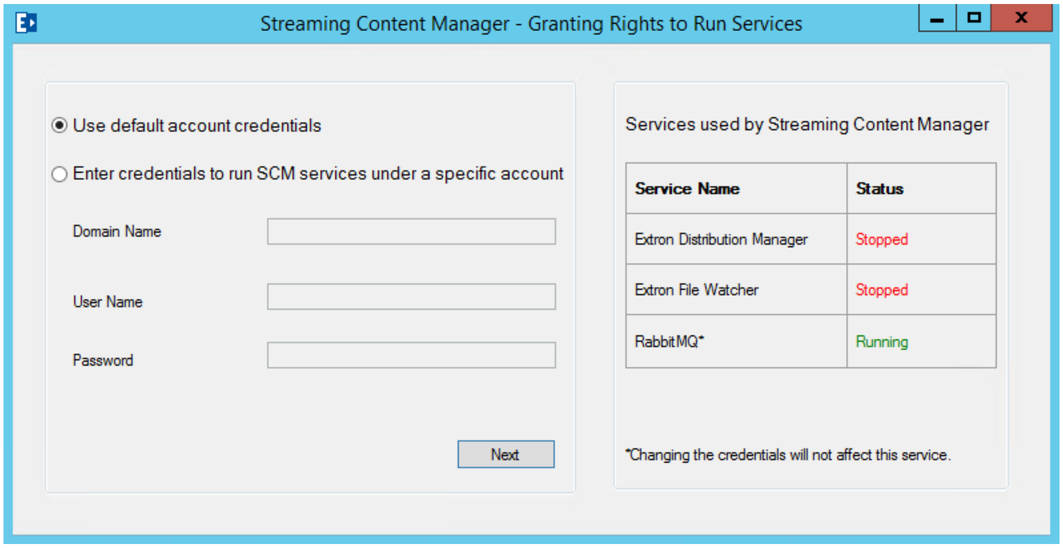
Database User ID

Success

Congratulations! SCM Database Installed Successfully.

Progress:
SCM Installed Successfully

18. Click **OK**. The success message closes, and the installer performs various tasks and installs files for other services. When those files are installed, an `SCM Granting Rights to Run Services` window opens to allow you to either use the default credentials on the server or to enter credentials for a specific account that will be used to run the SCM services.



Streaming Content Manager - Granting Rights to Run Services

● Use default account credentials

○ Enter credentials to run SCM services under a specific account

Domain Name

User Name

Password

Services used by Streaming Content Manager

Service Name	Status
Extron Distribution Manager	Stopped
Extron File Watcher	Stopped
RabbitMQ*	Running

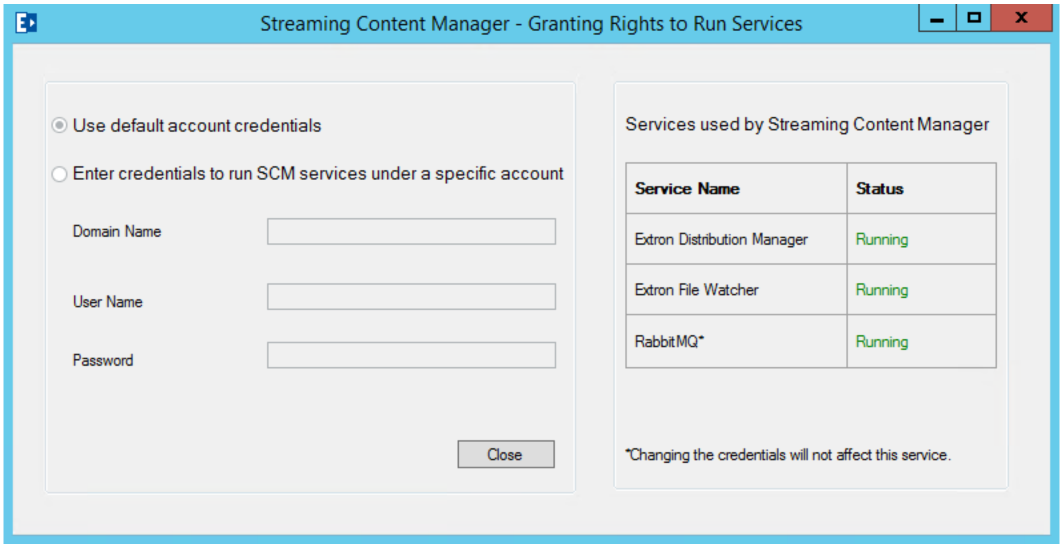
*Changing the credentials will not affect this service.

19. Select the appropriate radio button to either use the default account credentials for the web server or to provide the credentials for a specific account on the SCM server.

    - If you choose to enter credentials, enter the domain name, username, and password that will be used for the SCM services. The username and password are required. See **Server Account Permissions and SCM Installation** for details about requirements for service accounts, their access and permissions.
    - If you do not enter a domain name, it is automatically set to the localhost. The user account specified during installation is used by the SCM web application and Windows services.

    > **NOTE:** If the domain name is not entered at this time, it can be manually changed outside the installation program (using other tools) after installation.

20. Click the **`Next`** button. The installer verifies the password, domain, and username, and grants access. The **`Next`** button becomes a **`Close`** button.



Streaming Content Manager - Granting Rights to Run Services

● Use default account credentials

○ Enter credentials to run SCM services under a specific account

Domain Name

User Name

Password

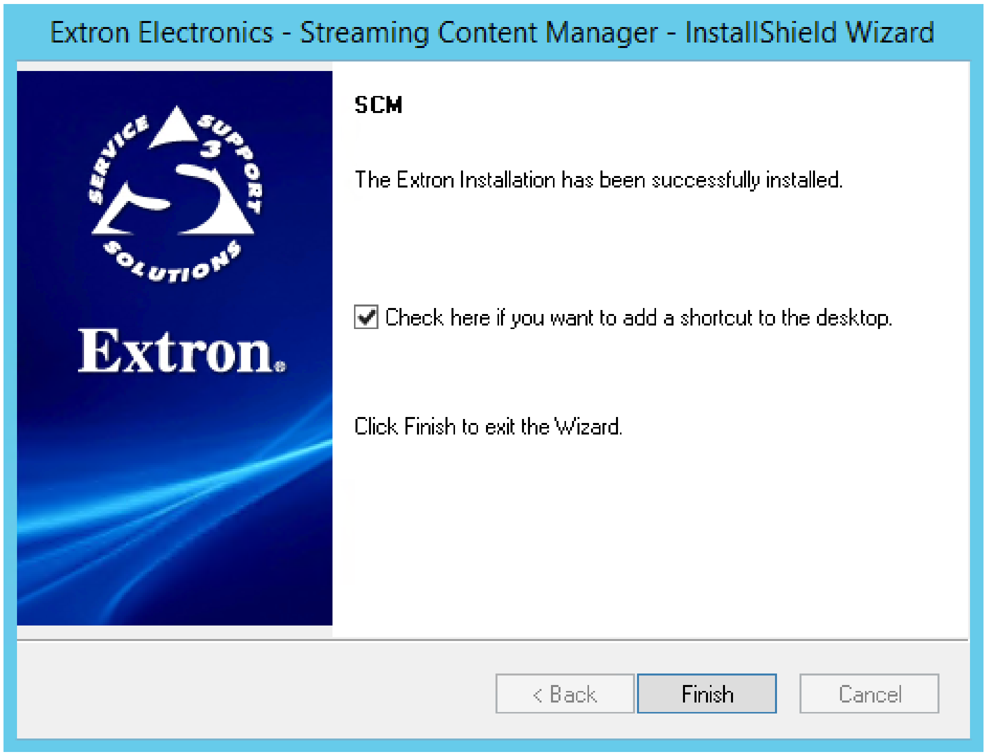
Close

Services used by Streaming Content Manager

Service Name	Status
Extron Distribution Manager	Running
Extron File Watcher	Running
RabbitMQ*	Running

*Changing the credentials will not affect this service.

21. Click the **Close** button. The SCM Granting Rights to Run Services window closes. The Streaming Content Manager – InstallShield Wizard window opens, confirming that the installation was successful.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

SCM

The Extron Installation has been successfully installed.

☑ Check here if you want to add a shortcut to the desktop.

Click Finish to exit the Wizard.

22. If desired, select **Check here if you want to add a shortcut to the desktop.**

23. Click **Finish**. The installation wizard closes. SCM has been installed and is now ready for configuration. SCM opens in your default web browser.

24. Log in (see **Logging In and Logging Out**) using the system administrator credentials (see **Step 4: Configure the Streaming Content Manager.**) and configure the system (see **System Configuration and Management**).

Changing Accounts and Permissions After Installation

The default account or another account specified during installation may not have the permissions settings necessary for all of the SCM Web and Windows services to run correctly (see **Server Account Permissions and SCM Installation** for details). If the need arises, you can change the account used to run the SCM services. The Permissions utility within the SCM installer program provides a simple way to accomplish that.

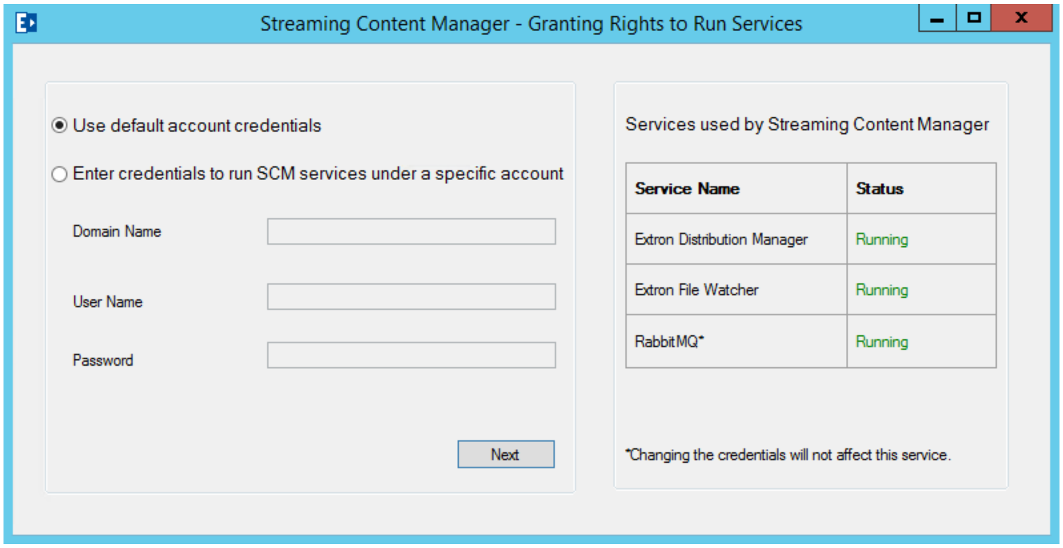
To access the Permissions utility and change the account:

1. From the server on which SCM is installed, open the Windows Command Prompt.
2. Change the directory to the bin folder within or underneath the path on the drive where SCM is installed. in most cases that folder is `C:\inetpub\wwwroot\SCM\bin`.

   Example command: `cd C:\inetpub\wwwroot\SCM\bin`
3. Enter the following command, replacing the path to SCM if necessary:

   ```
   Extron.Installer.Permissions.exe -I C:\inetpub\wwwroot\SCM
   ```

   The installer Permissions utility opens.

   Streaming Content Manager - Granting Rights to Run Services

   ● Use default account credentials

   ○ Enter credentials to run SCM services under a specific account

   Domain Name

   User Name

   Password

   Services used by Streaming Content Manager

Service Name	Status
Extron Distribution Manager	Running
Extron File Watcher	Running
RabbitMQ*	Running

   *Changing the credentials will not affect this service.

4. Select the **`Enter credentials to run SCM services under a specific account`** radio button.
5. Enter the new domain name (optional), username, and password that will be used for the SCM Web and Windows services. The username and password are required.
6. Click the **`Next`** button. The installer verifies the password, domain, and username, and grants access. The installer program then closes.

Upgrading Streaming Content Manager

When updated versions of Streaming Content Manager become available you may want to upgrade your system to the latest version. This section covers what to consider and do prior to installation and details the upgrade process.

NOTE: The installer program detects whether or not SCM is already installed and, if it is, what version is installed. SCM allows upgrades from a lower to a higher version and also replacement or repair of the version that is currently installed. Downgrades to older versions are prevented, however.

Prerequisites for SCM Upgrades

All the prerequisites for SCM installation (system hardware, database, server, memory, and account permissions requirements) also apply to upgrading the software (see **Prerequisites**). In addition, to have the installer program automatically back up the server files and the database, the accounts used by SCM must have permission to back up files.

Pre-upgrade Recommendations

Prior to upgrading the SCM software, the following tasks are strongly recommended:

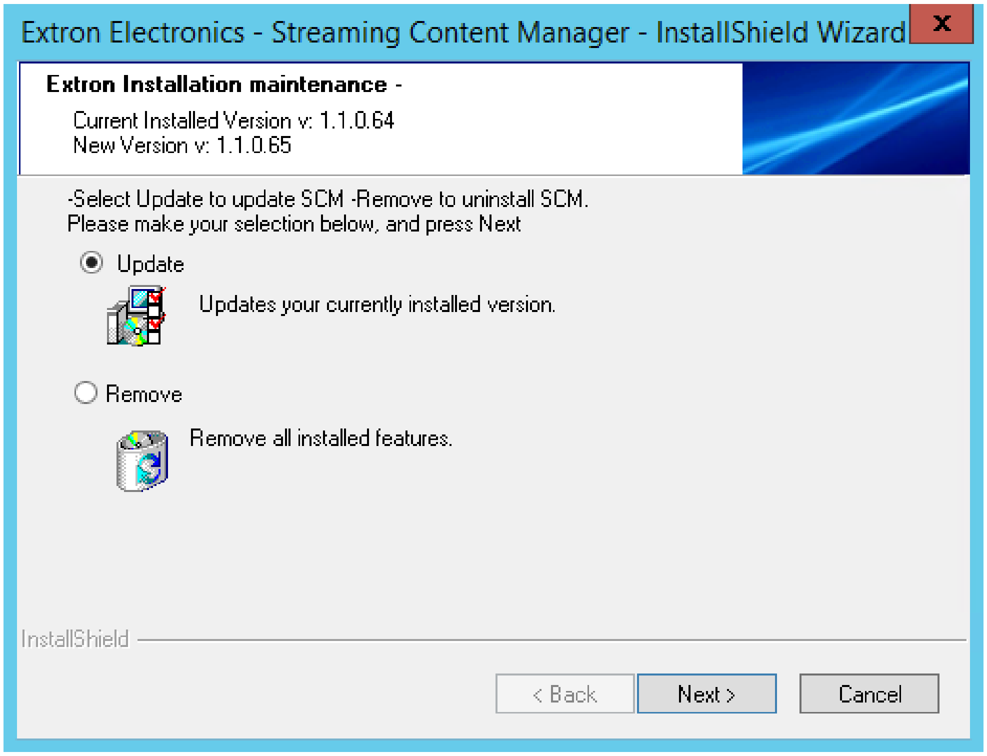
- **Back up the SCM database.** The database backup is helpful so that if anything goes awry during the database upgrade you can restore the system to its previous configuration and with its previous records. The installation and upgrade utility program can back up the database for you, but you can perform the backup on your own prior to installation at a convenient time and to store the backup database files to a location of your choosing. Use SQL Management Studio to back up the SCM database to a location of your choice.
- **Notify users** (content owners and viewers) that the SCM services will be unavailable during the upgrade. Services are stopped during the upgrade process.
- **Ensure that you have enough free space** on the SCM server to accommodate twice the size of the SCM system installation (excluding recordings) to allow room for backups of the system and settings.

Procedure for Upgrading SCM

To upgrade SCM:

1. Copy the new SCM installer package to the server onto which SCM will be installed.

2. Start the installer by double-clicking on the file . The program detects the existing installation, gathers information about it, then opens the `Extron Electronics Streaming Content Manager – InstallShield Wizard Installation Maintenance` window.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

Extron Installation maintenance -

Current Installed Version v: 1.1.0.64
New Version v: 1.1.0.65

-Select Update to update SCM -Remove to uninstall SCM.
Please make your selection below, and press Next

● Update

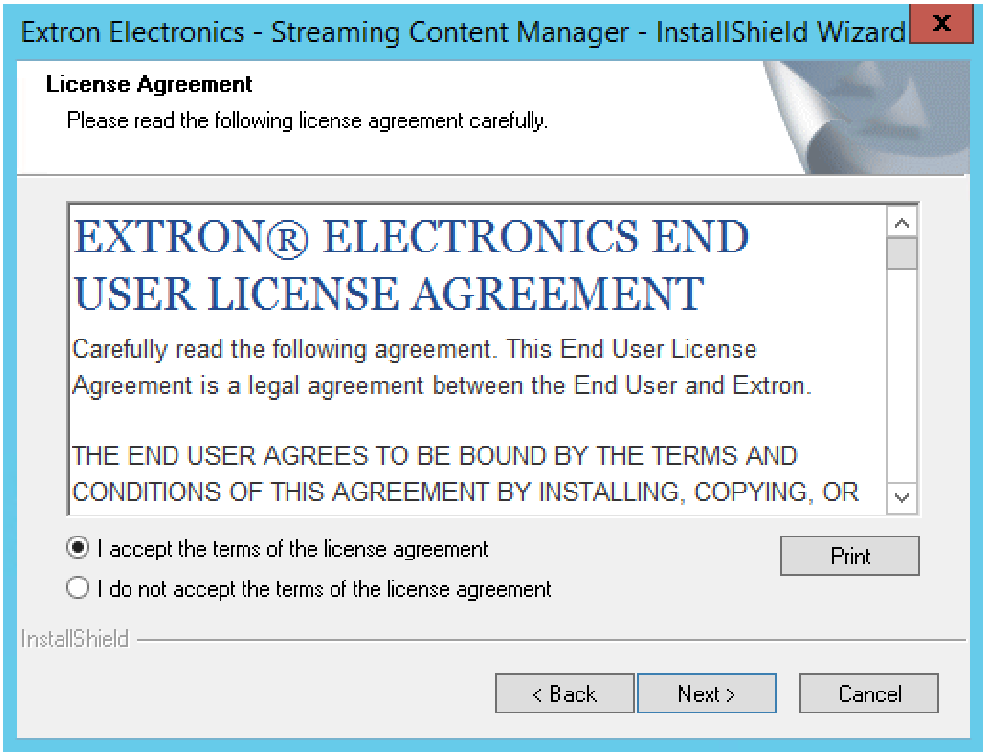
Updates your currently installed version.

○ Remove

Remove all installed features.

3. Select the **`Update`** radio button.

4. Click **Next**. The license agreement is displayed in the window.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

License Agreement

Please read the following license agreement carefully.

EXTRON® ELECTRONICS END USER LICENSE AGREEMENT

Carefully read the following agreement. This End User License Agreement is a legal agreement between the End User and Extron.

THE END USER AGREES TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS AGREEMENT BY INSTALLING, COPYING, OR

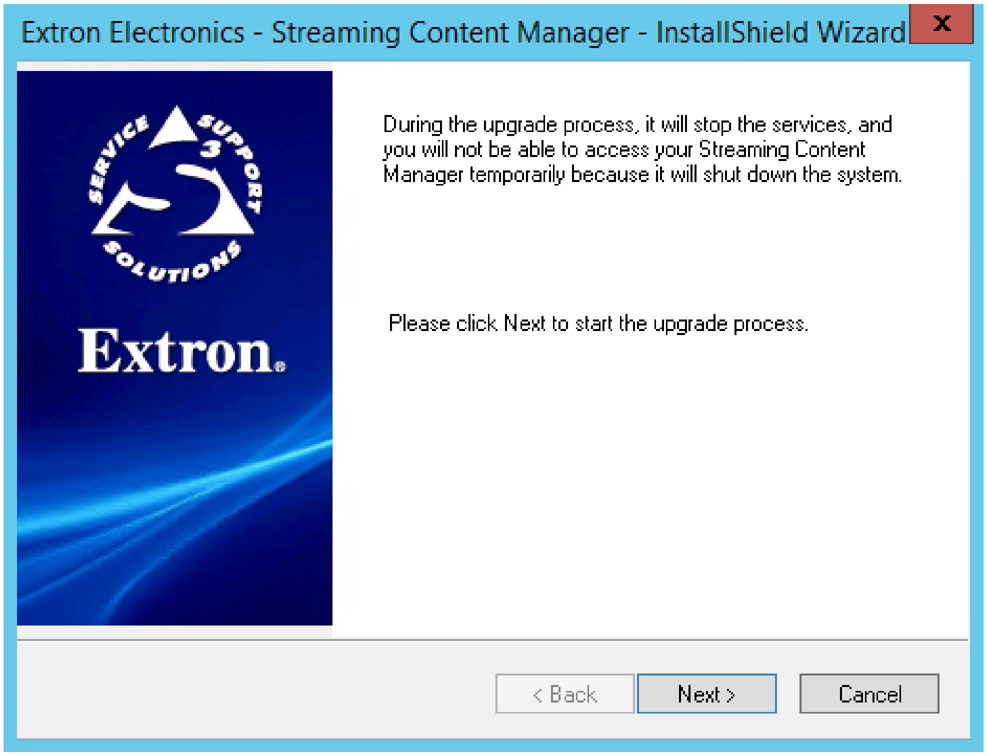
● I accept the terms of the license agreement

○ I do not accept the terms of the license agreement

5. Read the license agreement.
6. If you want to save and print a copy of the agreement for your records, click the **Print** button. The text of the agreement is sent to your default printer for printing.

7. In the installation wizard window, select **I accept the terms of the license agreement** and click **Next**. The installer alerts you that SCM services will be stopped during the upgrade process.

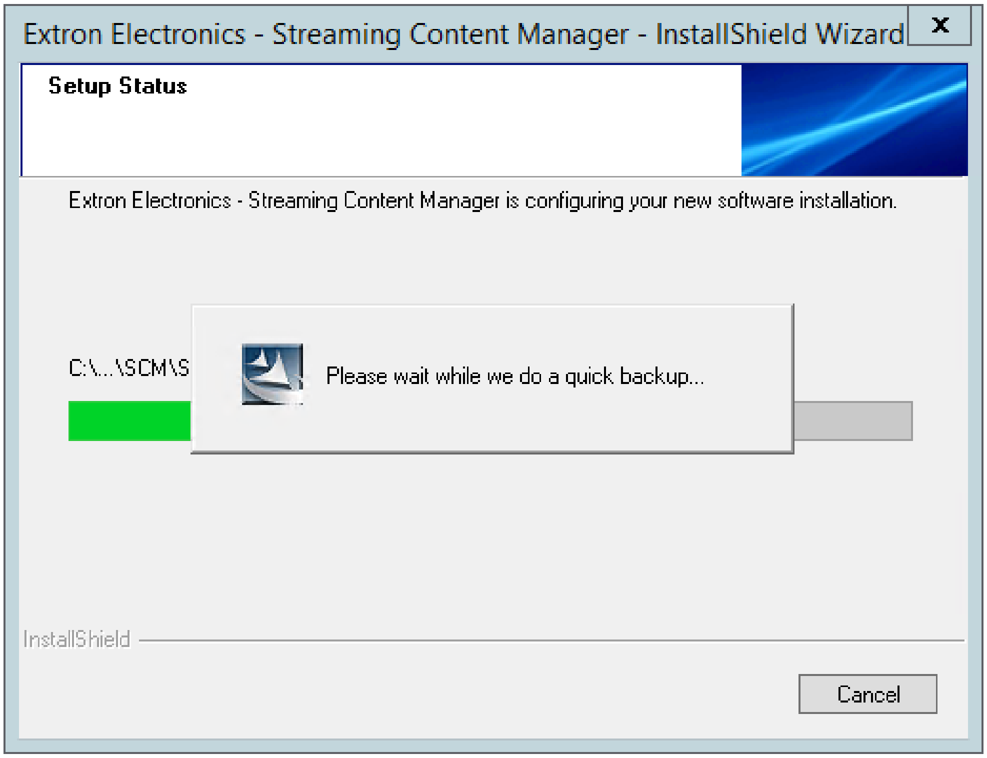
TIP: Before proceeding with the installation, notify any SCM users who might be affected by service interruptions that the SCM system will be shut down during the upgrade.


Extron Electronics - Streaming Content Manager - InstallShield Wizard
x
SERVICE SUPPORT SOLUTIONS
Extron.
< Back
Next >
Cancel

During the upgrade process, it will stop the services, and you will not be able to access your Streaming Content Manager temporarily because it will shut down the system.

Please click Next to start the upgrade process.

8. Click **Next** to begin installing the upgrade. The installer program stops all SCM-related services, backs up the SCM web service settings, and displays the setup status and a notice asking you to wait while it performs a backup.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

Setup Status

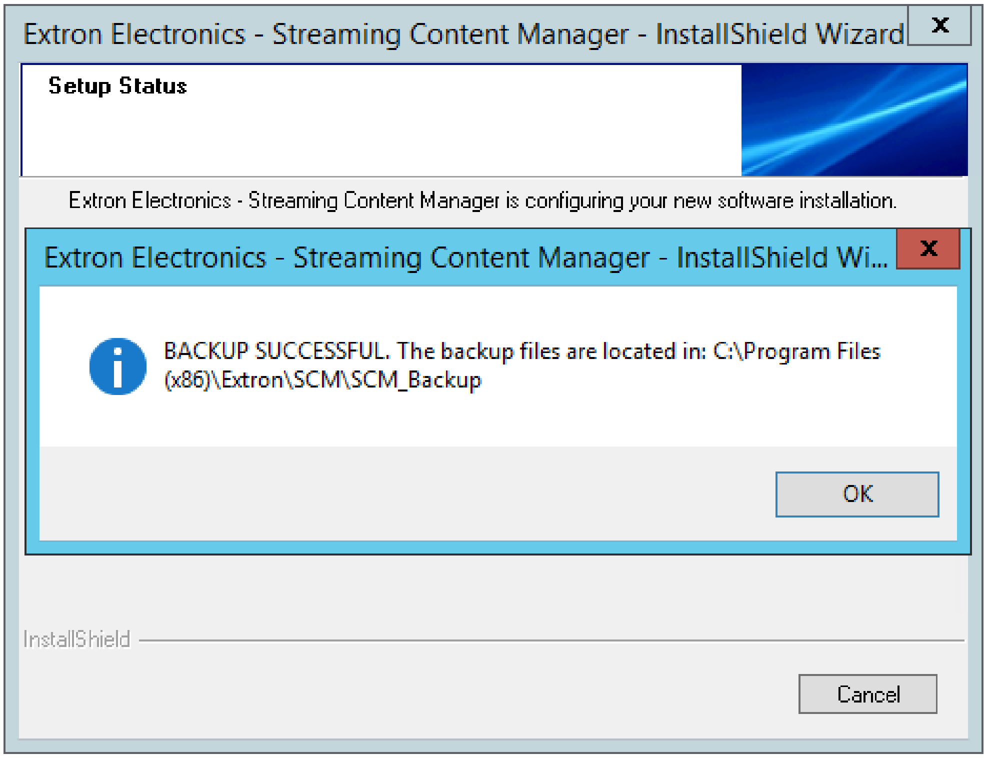
Extron Electronics - Streaming Content Manager is configuring your new software installation.

C:\...\SCM\S

Please wait while we do a quick backup...

NOTE: Because all SCM services are stopped, anyone who tries to access an SCM Web page from this point until the time when the upgrade is completed receives an error message.

Once the system and Web service settings have been backed up, the installer displays a notice that the SCM system backup was successful, showing the path of the folder to which files were backed up.



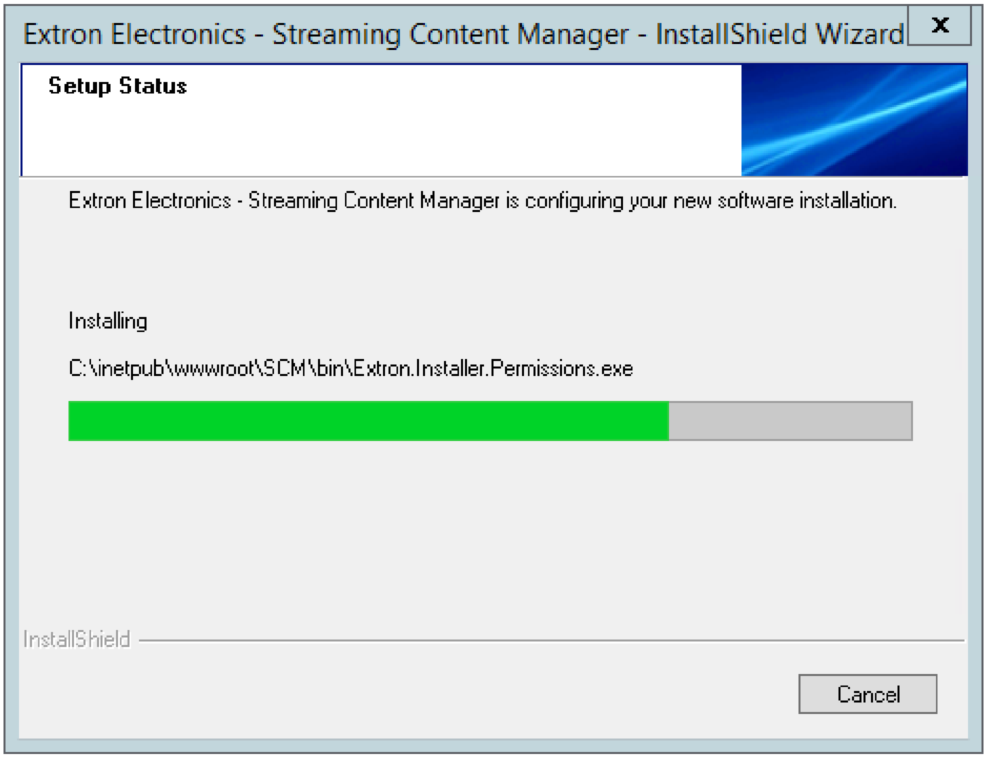
Extron Electronics - Streaming Content Manager - InstallShield Wizard
X
Setup Status

Extron Electronics - Streaming Content Manager is configuring your new software installation.

Extron Electronics - Streaming Content Manager - InstallShield Wi...
X

BACKUP SUCCESSFUL. The backup files are located in: C:\Program Files (x86)\Extron\SCM\SCM_Backup

9. Click **OK**. The notification dialog box closes, the upgrade installation continues, and the InstallShield Wizard displays the progress.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

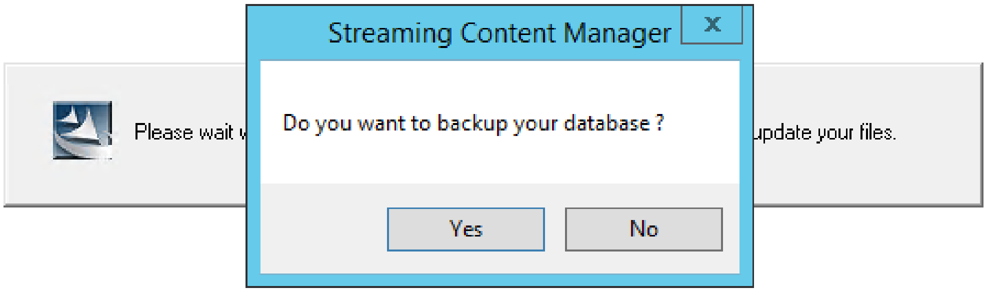
Setup Status

Extron Electronics - Streaming Content Manager is configuring your new software installation.

Installing

C:\inetpub\wwwroot\SCM\bin\Extron.Installer.Permissions.exe

After the upgraded SCM components for web services and for the FileWatcher and DistributionManager services are installed, a dialog box opens asking whether you want to backup the database.



Streaming Content Manager

Do you want to backup your database ?

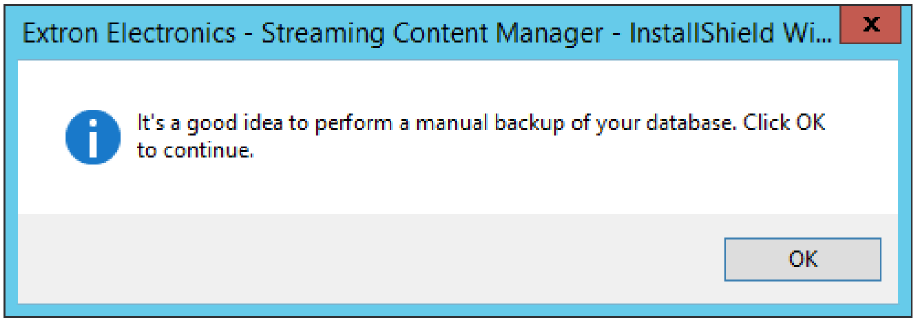
Please wait ... update your files.

10. Select an option:

    - Click **Yes** to have the installer back up the database for you before installing the database upgrade. The `SCM Database Backup` dialog box opens, showing a field where you can enter the path for the location of the database backup file. Proceed to step 11.

    Or

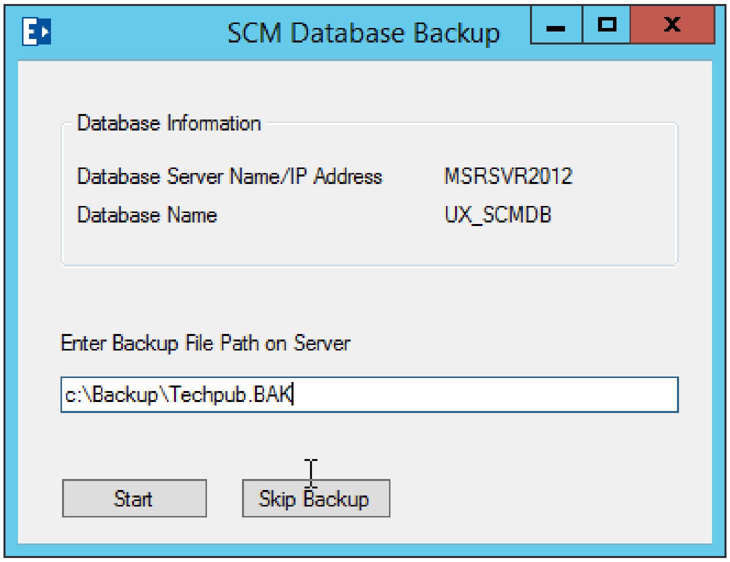
    - Click **No** to bypass the automated backup. A dialog box opens to alert you to manually back up the database.


Extron Electronics - Streaming Content Manager - InstallShield Wi...
X
OK

It's a good idea to perform a manual backup of your database. Click OK to continue.

Click **OK** to close the dialog box. Proceed to database installation (step 14).

11. In the `SCM Database Backup` dialog box, enter the full path and file name for the database backup file.



Database Server Name/IP Address MSRSVR2012

Database Name UX_SCMDB

Enter Backup File Path on Server

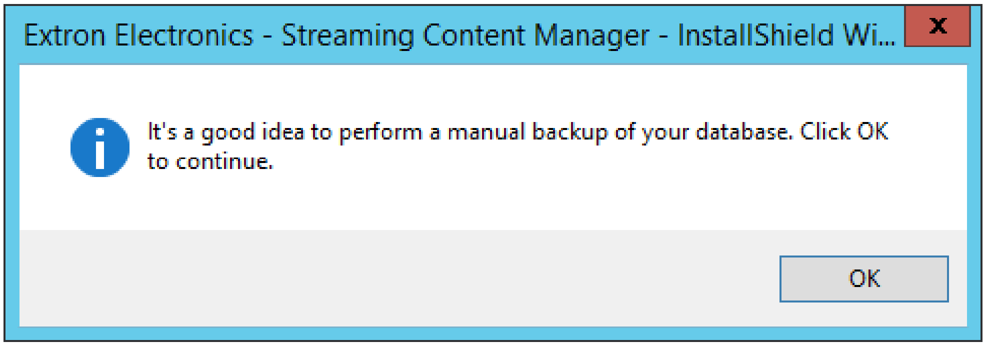
c:\Backup\Techpub.BAK

- The database backup path must be located on the same server as the SCM database installation. The backup will fail if the path points to another server or drive.
- The file name extension must be "`.bak`".

12. Select an option:
    - Click **`Start`** to begin backing up the database to the path and file name you specified in step 11, then proceed to step 13.

    Or

    - Click **`Skip Backup`** to abort the backup process. The InstallShield wizard opens a dialog box to notify you that it is a good idea to manually back up the database before proceeding.



Extron Electronics - Streaming Content Manager - InstallShield Wi...

It's a good idea to perform a manual backup of your database. Click OK to continue.

Click **OK** to close the dialog box and proceed directly to database installation (step 14).

13. If you clicked **`Start`** in step 12, the SCM database backup process begins.

    - **If you entered an invalid file name** (such as `XYZ.`*doc* instead of `XYZ.`*bak*) in the path, **or if you did not enter a file name**, the **`Enter Backup File Path on Server`** field is cleared and an alert icon appears next to the field.

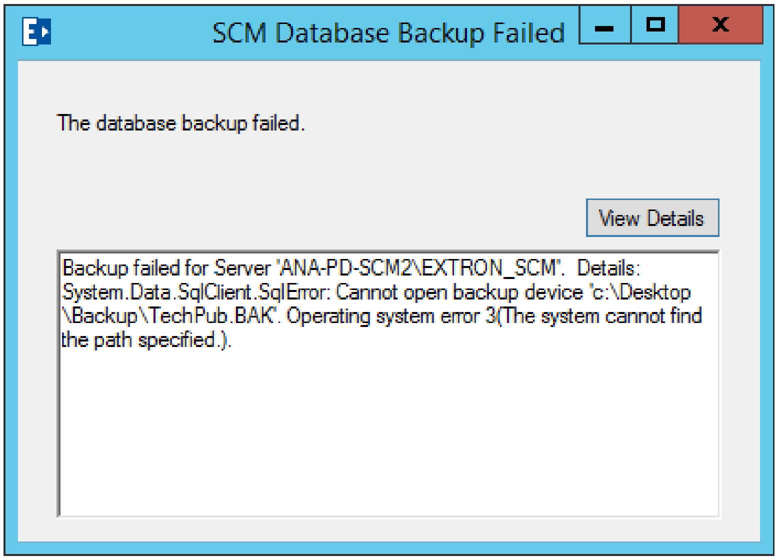
        a. If an alert dialog box opens to describe the error, make note of the type of error and click **`OK`** to close the error dialog box.

        b. In the `SCM Database Backup` dialog box, enter the full path, including a file name with a correct (.bak) extension.

        c. Click **`Start`**. The backup process validates the path and file type and restarts the backup. The program backs up the database and displays the backup status. When the backup is completed, a dialog box opens stating that the database backup was successfully created at the path you specified.

        d. Click **`OK`** to close the dialog box. The installer program begins to upgrade the database.

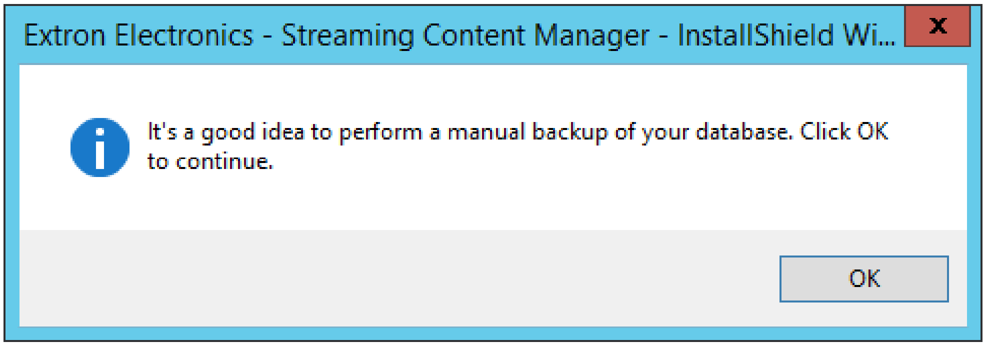
- **If the backup fails**, the program displays a failure message that indicates the nature of the failure. A backup can fail if the specified path does not exist or is not on the same server as the database, if the file name is invalid, or if the connection to the database or the server fails.



The database backup failed.

Backup failed for Server 'ANA-PD-SCM2\EXTRON_SCM'. Details: System.Data.SqlClient.SqlError: Cannot open backup device 'c:\Desktop \Backup\TechPub.BAK'. Operating system error 3(The system cannot find the path specified.).

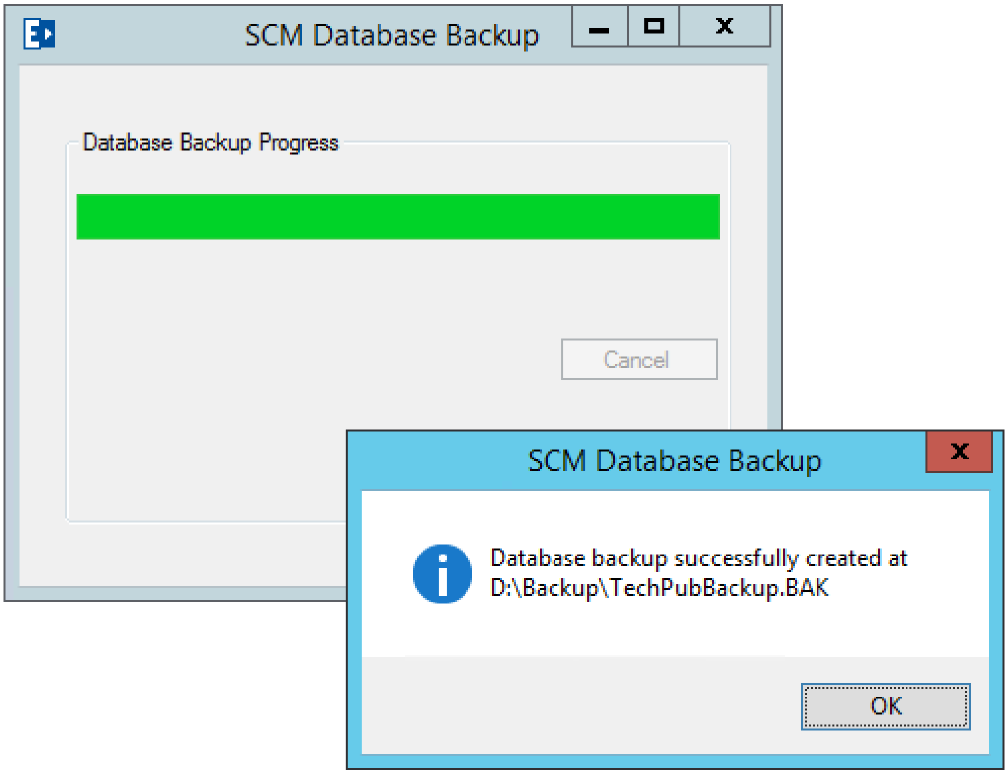
a. Close the `SCM Database Backup Failed` dialog box. The InstallShield wizard opens a dialog box to notify you that it is a good idea to manually back up the database before proceeding.


Extron Electronics - Streaming Content Manager - InstallShield Wi...
OK

It's a good idea to perform a manual backup of your database. Click OK to continue.

b. Click **OK** to close the dialog box. The installer program begins to upgrade the database.

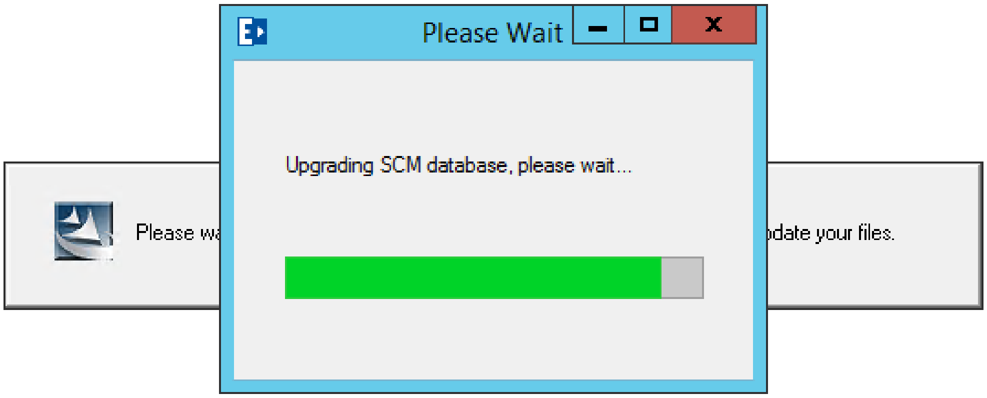
- **If there are no errors**, the program backs up the database and displays the backup status. When the backup is completed, a dialog box opens stating that the database backup was successfully created at the path you specified.



Database backup successfully created at D:\Backup\TechPubBackup.BAK

Click **OK** to close the dialog box. The installer program begins to upgrade the database.

14. The program installs the database upgrade and displays the progress in a dialog box.



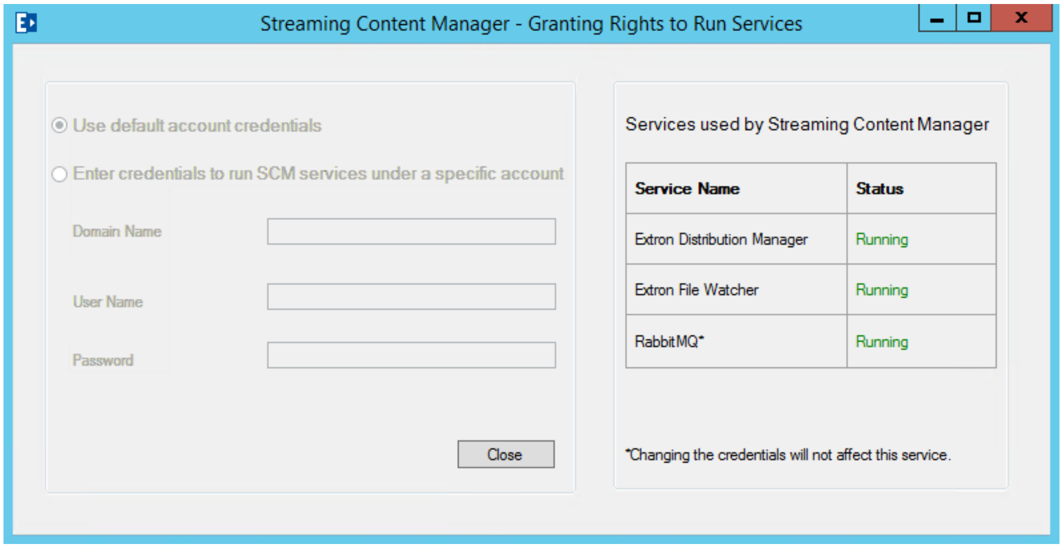
Please Wait

Upgrading SCM database, please wait...

Please wa

pdate your files.

When file installation is complete, the progress dialog box closes and the `SCM Granting Rights to Run Services` window opens, showing the status of each of the main SCM services.



Streaming Content Manager - Granting Rights to Run Services

● Use default account credentials

○ Enter credentials to run SCM services under a specific account

Domain Name

User Name

Password

Close

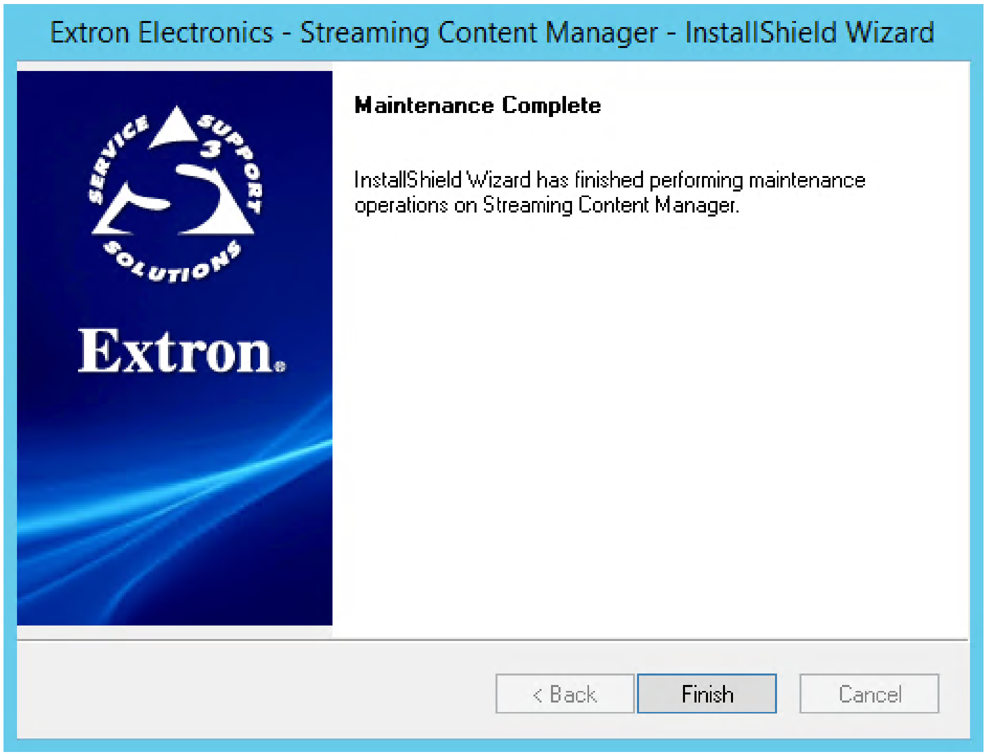
Services used by Streaming Content Manager

Service Name	Status
Extron Distribution Manager	Running
Extron File Watcher	Running
RabbitMQ*	Running

*Changing the credentials will not affect this service.

NOTE: Because the upgrade uses the same credentials as the original installation, there is no option to enter or change credentials in this window at this time.

Click the **`Close`** button. The SCM InstallShield wizard displays a "Maintenance Complete" message confirming that the upgrade was successful.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

Maintenance Complete

InstallShield Wizard has finished performing maintenance operations on Streaming Content Manager.

15. Click **Finish**. The installation wizard closes.
16. Restart the server.
17. After the server restarts, start a browser program and open and log into SCM as an administrator or system administrator.
18. Click the **Settings** tab.
19. In the Recording Package Settings section, click the **Start** button to restart SCM services. The upgraded SCM system is ready for use.

Uninstalling Streaming Content Manager

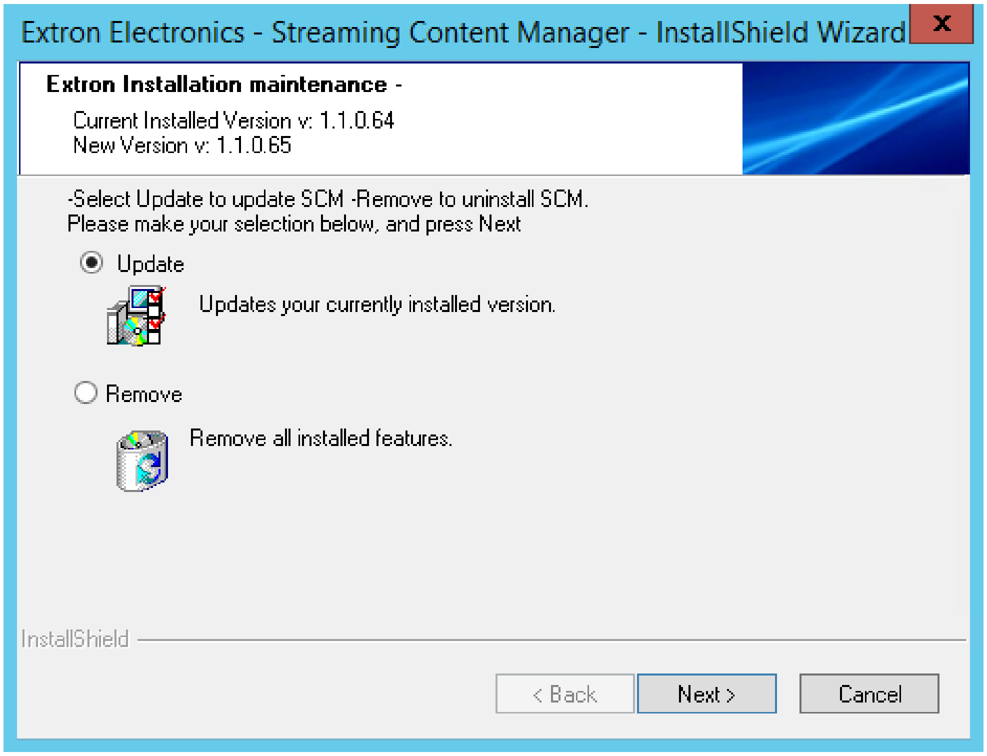
This section provides instructions on how to uninstall the SCM system.

Procedure for Uninstalling SCM

To uninstall SCM:

1. Copy the SCM installer package to the server where SCM is installed if it has not already been copied there.

2. Start the installer by double-clicking on the file . The program detects the existing installation, gathers information about it, then opens the `Extron Electronics Streaming Content Manager - InstallShield Wizard Installation Maintenance` window.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

Extron Installation maintenance -

Current Installed Version v: 1.1.0.64
New Version v: 1.1.0.65

-Select Update to update SCM -Remove to uninstall SCM.
Please make your selection below, and press Next

● Update

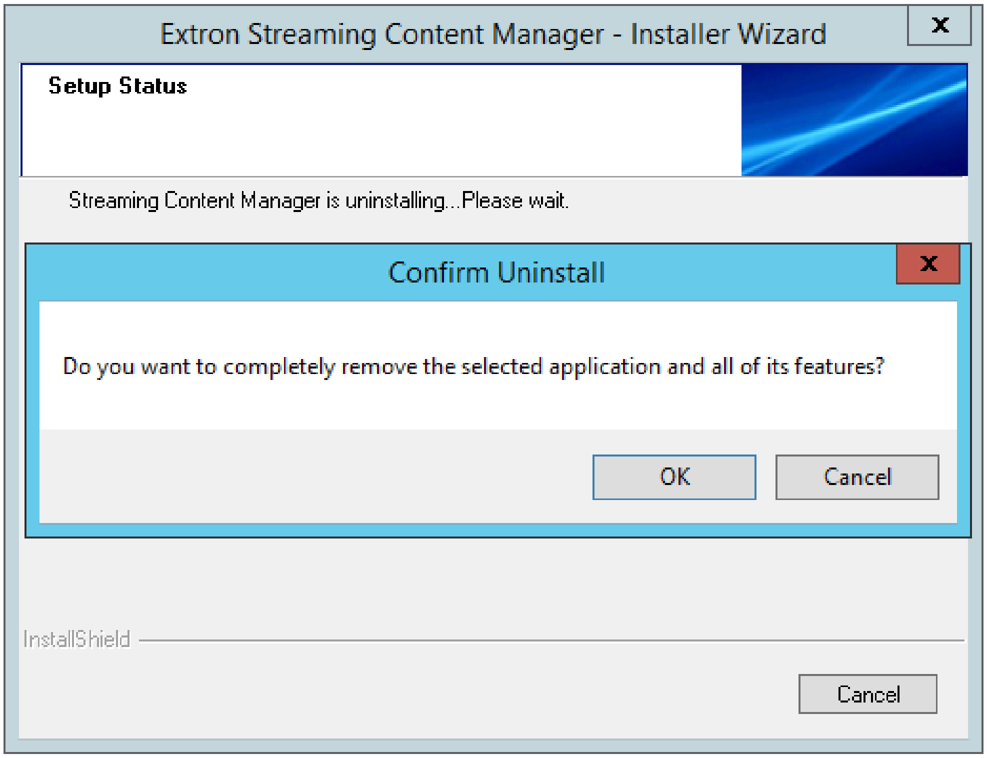
Updates your currently installed version.

○ Remove

Remove all installed features.

3. Select the **`Remove`** radio button.

4. Click **Next**. The uninstallation process begins and the installer wizard opens a dialog box asking you to confirm that you want to uninstall SCM and its components.



Extron Streaming Content Manager - Installer Wizard

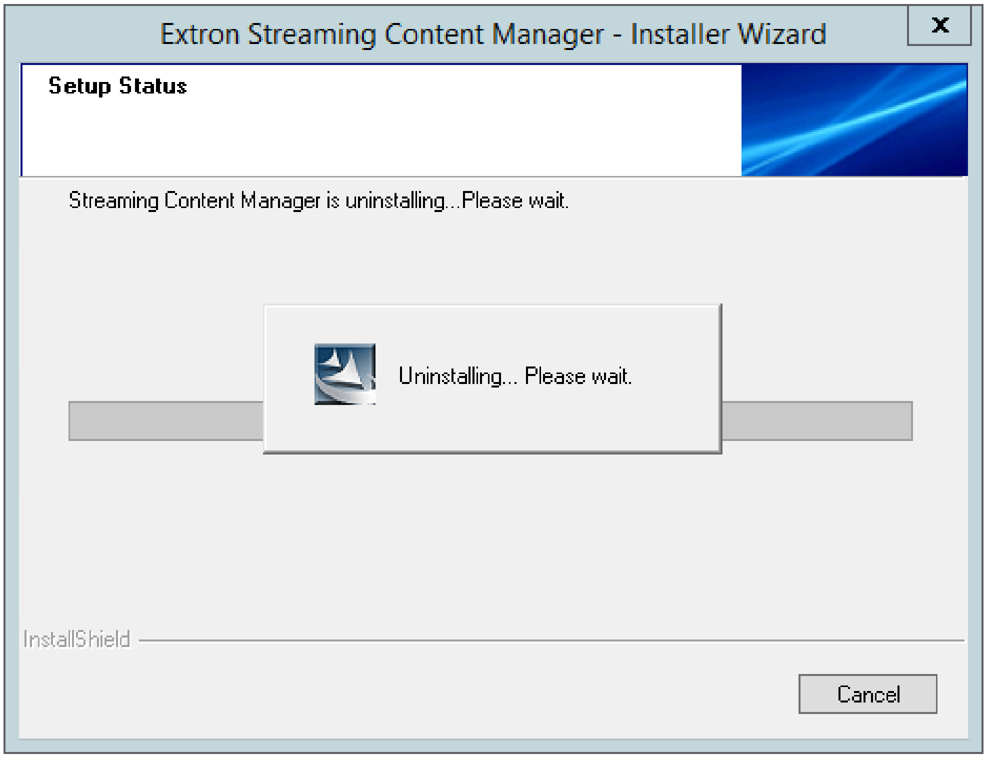
Setup Status

Streaming Content Manager is uninstalling...Please wait.

Confirm Uninstall

Do you want to completely remove the selected application and all of its features?

5. Click **OK**. The program stops the SCM services and begins the uninstallation process.



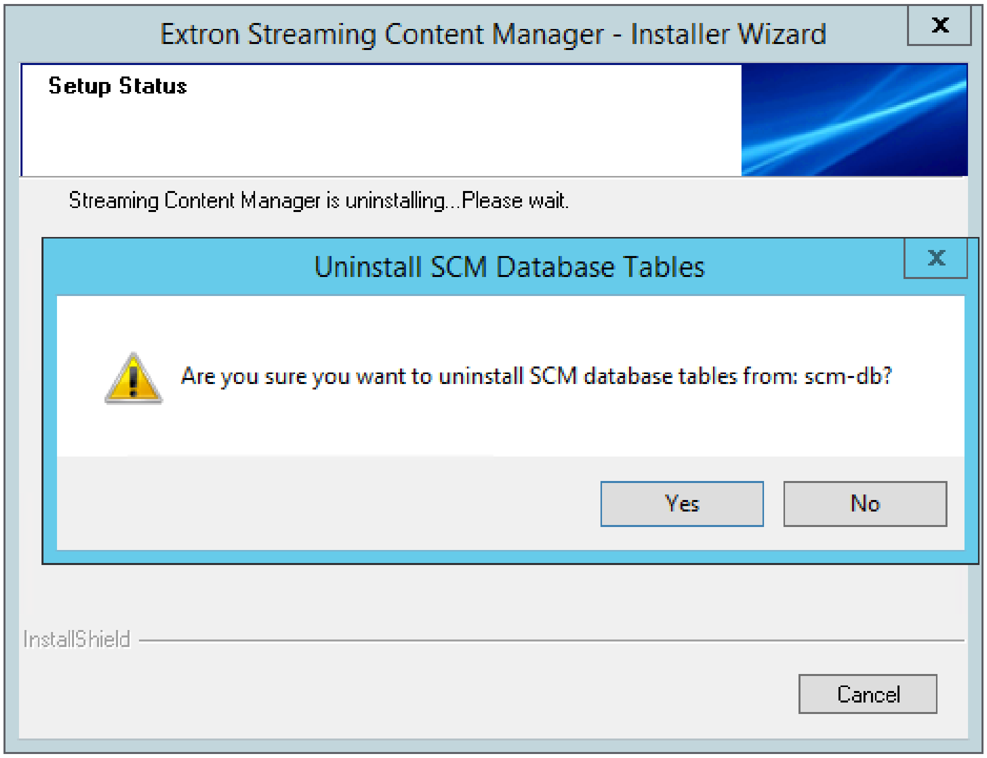
Extron Streaming Content Manager - Installer Wizard

Setup Status

Streaming Content Manager is uninstalling...Please wait.

Uninstalling... Please wait.

The `Uninstall SCM Database Tables` dialog box opens.



Extron Streaming Content Manager - Installer Wizard

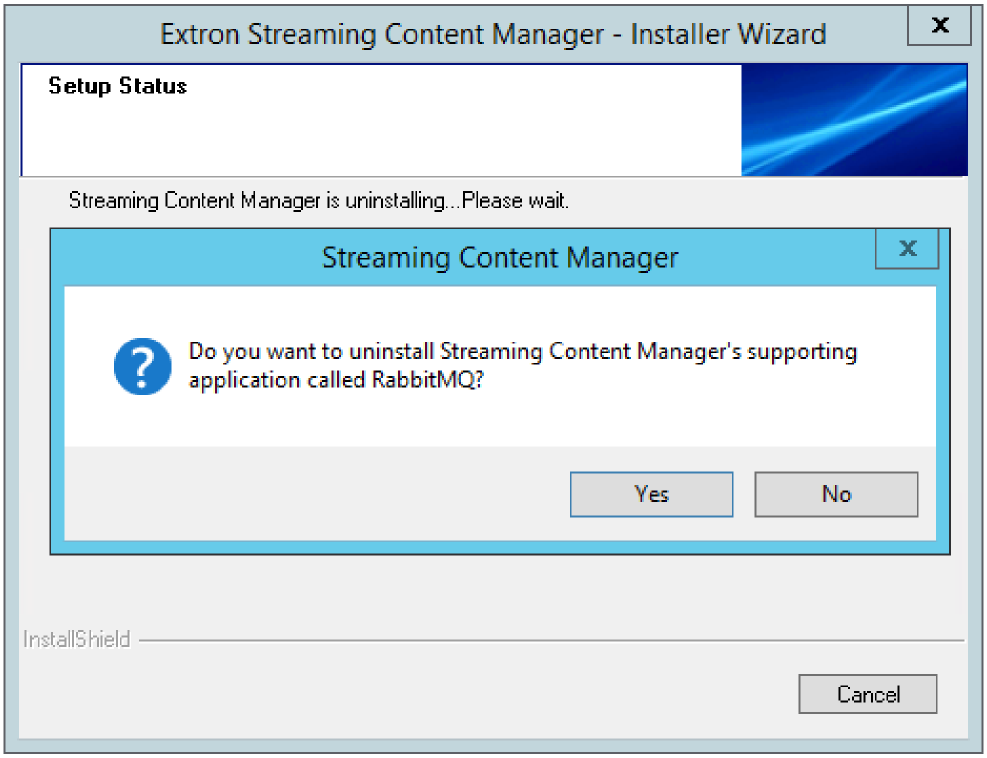
Setup Status

Streaming Content Manager is uninstalling...Please wait.

Uninstall SCM Database Tables

Are you sure you want to uninstall SCM database tables from: scm-db?

6. Click **Yes** to remove the SCM database tables from the server. The installer wizard displays a notice that it is uninstalling, then opens a dialog box that asks whether you want to uninstall the RabbitMQ supporting application.



Extron Streaming Content Manager - Installer Wizard
Setup Status

Streaming Content Manager is uninstalling...Please wait.

Streaming Content Manager

Do you want to uninstall Streaming Content Manager's supporting application called RabbitMQ?

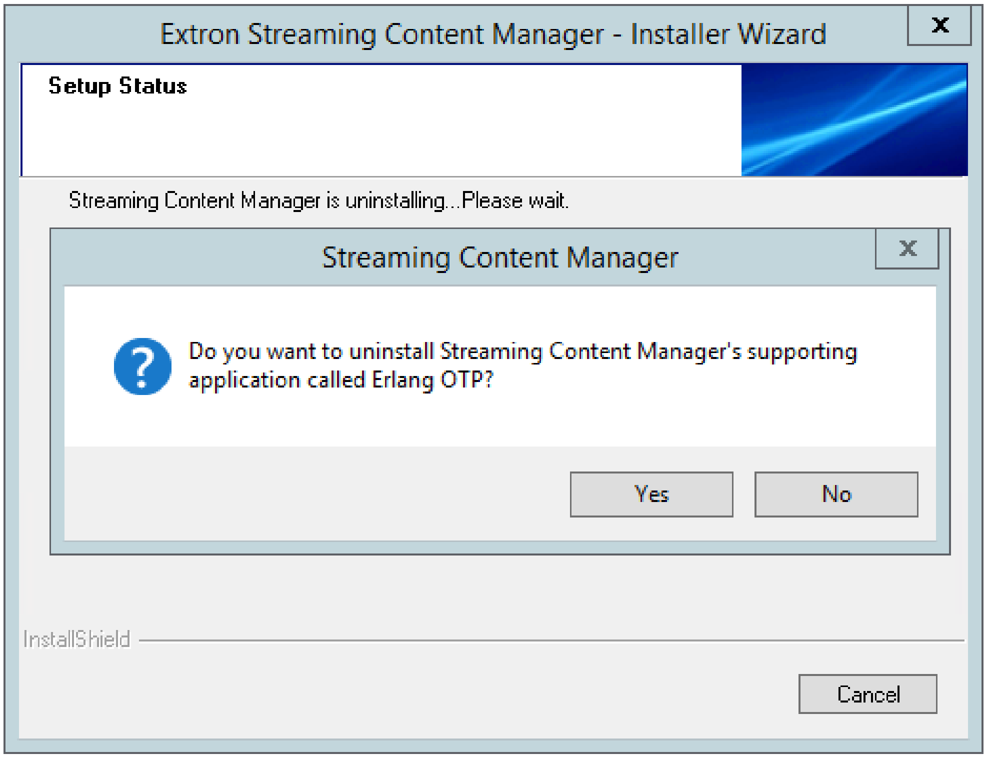
Yes
No
InstallShield
Cancel

7. Click **Yes** to uninstall RabbitMQ.

   Or

   Click **No** to let RabbitMQ remain installed, if programs and services other than SCM also use RabbitMQ.

   If you clicked **Yes**, the installer wizard removes the RabbitMQ program. Whether you clicked **Yes** or **No**, a dialog box opens asking whether you want to uninstall Erlang OTP, which is another supporting application.



Extron Streaming Content Manager - Installer Wizard
X
Setup Status

Streaming Content Manager is uninstalling...Please wait.

Streaming Content Manager
X

Do you want to uninstall Streaming Content Manager's supporting application called Erlang OTP?

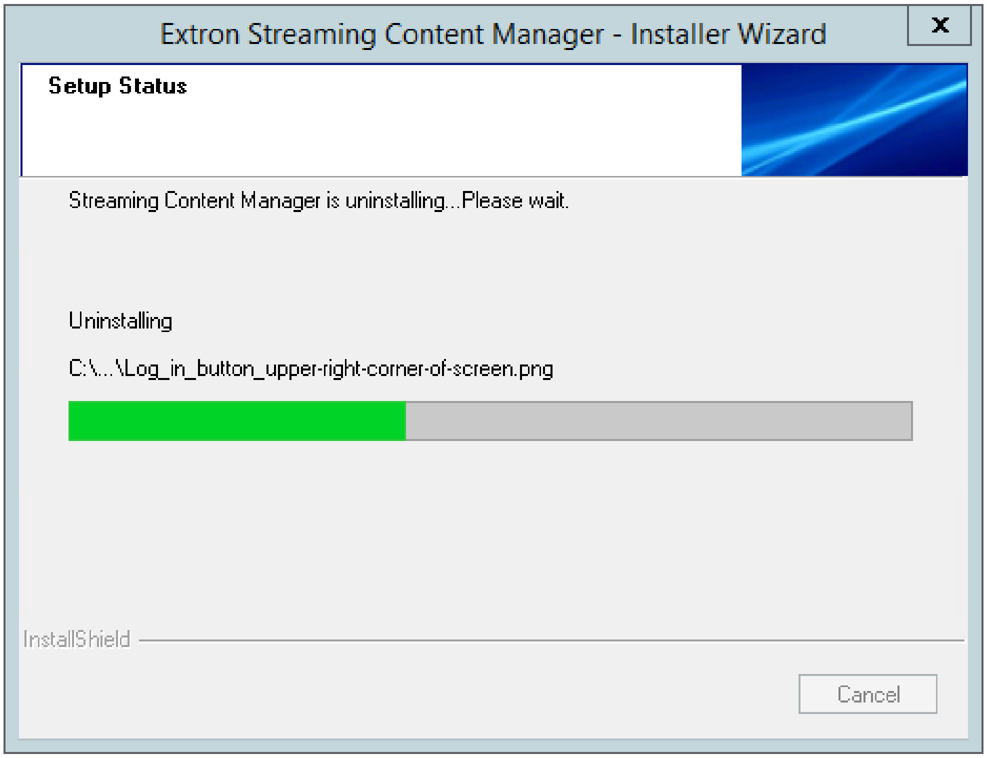
Yes
No
InstallShield
Cancel

8. Click **Yes** to uninstall Erlang OTP. The installer wizard removes Erlang OTP.

   Or

   If programs and services other than SCM also use Erlang OTP, click **No** to let Erlang OTP remain installed.

   The installer program removes the SCM software components and services, and indicates the uninstallation progress:



Extron Streaming Content Manager - Installer Wizard

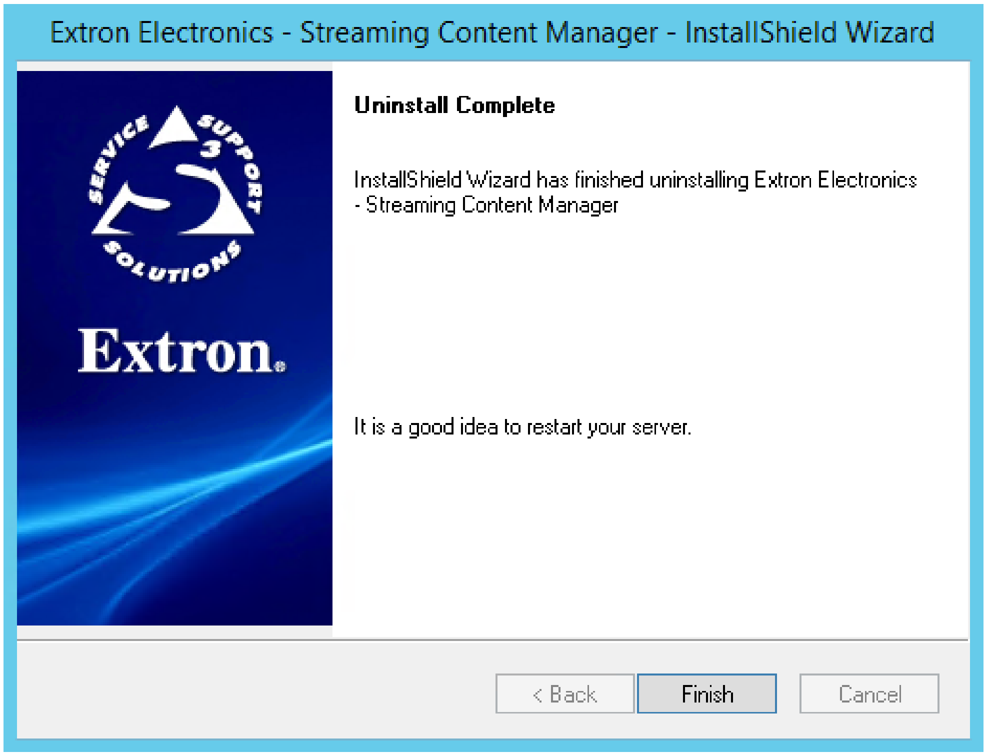
Setup Status

Streaming Content Manager is uninstalling...Please wait.

Uninstalling

C:\...\Log_in_button_upper-right-corner-of-screen.png

   When the uninstallation is complete, the `InstallShield Wizard` window displays an "Uninstall Complete" message and recommends restarting the server.



Extron Electronics - Streaming Content Manager - InstallShield Wizard

Uninstall Complete

InstallShield Wizard has finished uninstalling Extron Electronics - Streaming Content Manager

It is a good idea to restart your server.

9. Restart the server. You have successfully uninstalled SCM.

Database Setup and Administration

Setting Up, Resetting, and Migrating the Database

Database Setup

Initial database setup for the Streaming Content Manager is performed during the installation process, within the installation wizard program.

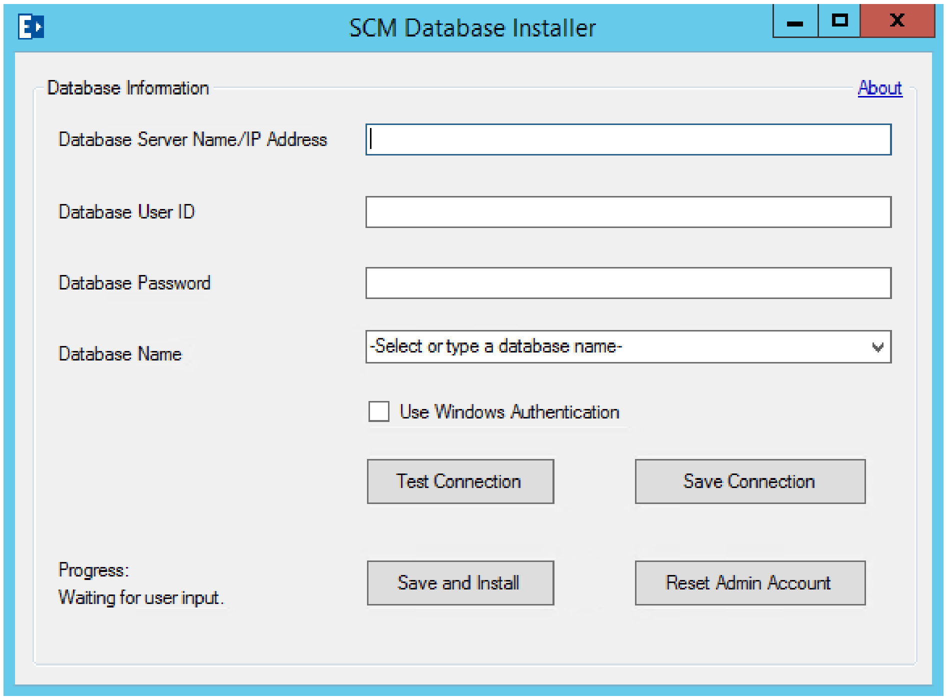
You will need the following information during installation:

- The server name, IP address, or connection path of the database installation
- Permission settings for SCM to access the database (the user ID and password for the SCM account)
- The name of the SCM database

To configure the database:

1. Open and run the SCM installation program. The installer checks to ensure that a Microsoft IIS extensible web server, ASP.net, and Microsoft .Net version 4.5 or higher are installed on the system. If any component is not installed:
   a. Download and install the missing item.
   b. In the SCM installer window, click the **Back** button.
   c. Click the **Next** button to restart the component check and then proceed to installation.
2. Read and accept the end user license agreement.
3. Set up the SCM server connection. When server setup is complete and the connection has been made, a new window opens for database configuration.

4. Enter the database settings into the fields in the `SCM Database Installer` window. You will need the following information to do this:
   - Database server name or IP address
   - Database user ID
   - Database password
   - Database name to use for the SCM installation

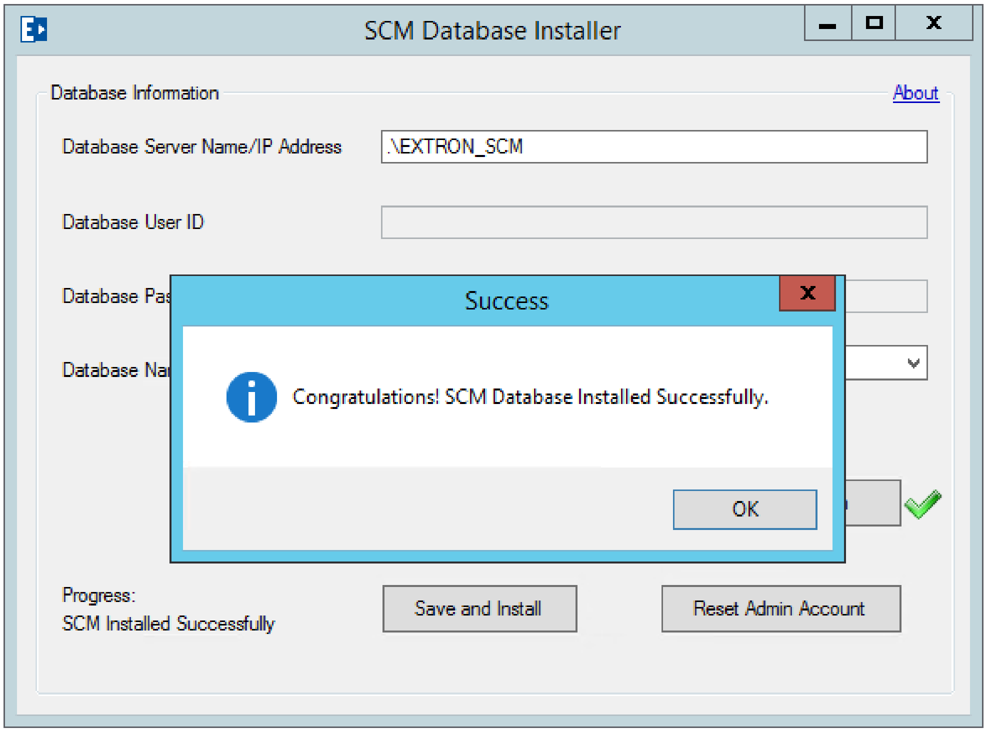


Progress:
Waiting for user input.

5. If desired, select (check) **`Use Windows Authentication`** to use Windows Authentication on the database entries. If this check box is not selected, SQL server authentication will be used.
6. Click **`Test Connection`** to test the database connection based on the information entered in step 5, or click **`Save Connection`** to save the information first and then test the connection.
7. If necessary, correct errors and click **`Save Connection`**, then click **`Test Connection`**. Repeat as needed until the database connection can be made successfully.

8. Once the settings have been tested successfully and saved, click **`Save and Install`** to begin database installation.

   - **If an SCM database has not been previously installed** on that server, the installer displays a success message when database installation is successfully completed. You can then proceed to step 9.

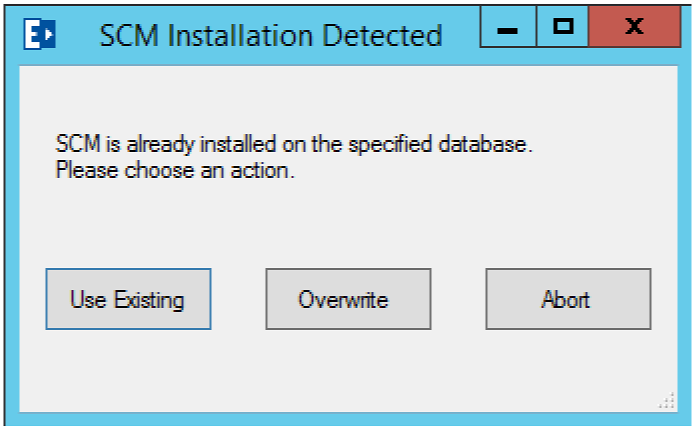


Database Server Name/IP Address: .\EXTRON_SCM

Congratulations! SCM Database Installed Successfully.

Progress:
SCM Installed Successfully

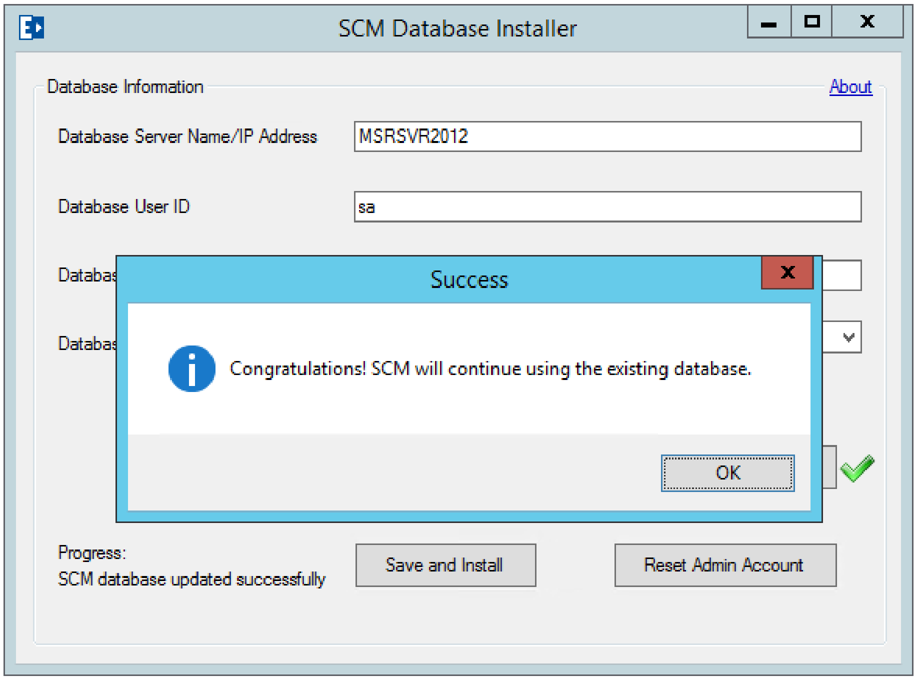
- **If an SCM database has previously been installed** on that server, a message appears stating that SCM is installed at that location already and asking you to choose how to proceed.



SCM Installation Detected

SCM is already installed on the specified database.
Please choose an action.

- If you click **`Use Existing`**, the installer will not replace the existing SCM database. You can continue to use the previously-installed database. The following image is an example of a success message that appears after testing and saving a connection to an existing database.



SCM Database Installer

Database Information

Database Server Name/IP Address: MSRSVR2012

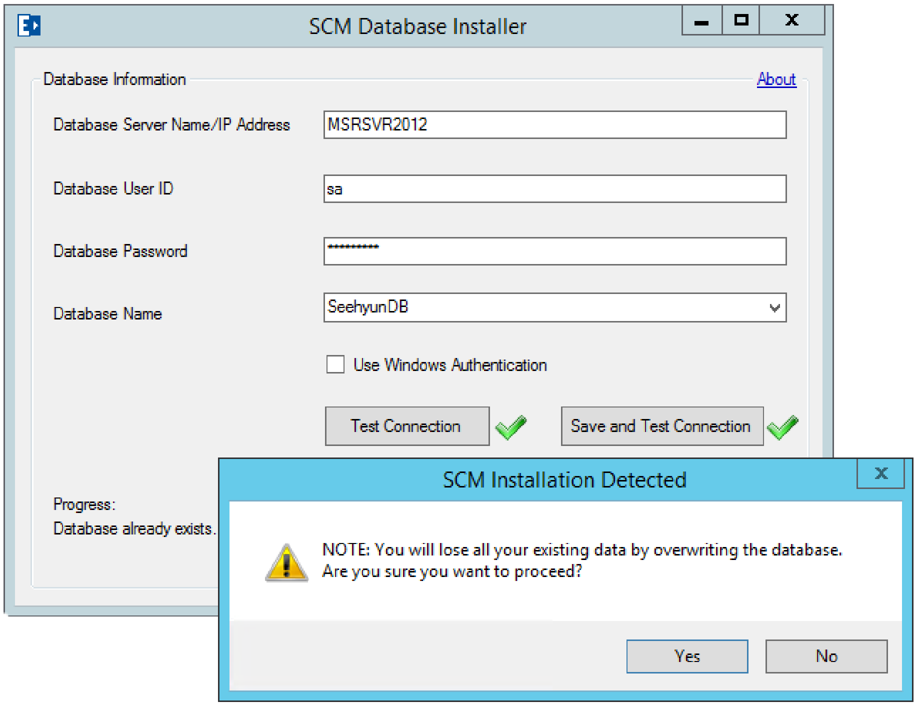
Database User ID: sa

Success

Congratulations! SCM will continue using the existing database.

Progress:
SCM database updated successfully

- If you click **Overwrite**, the existing database will be erased and replaced by a new SCM database installation. A message similar to the following example appears asking you to confirm that you wish to overwrite the database. Click **Yes** to close that message and to overwrite the data and database.



SCM Database Installer

Database Information

Database Server Name/IP Address: MSRSVR2012

Database User ID: sa

Database Password: **********

Database Name: SeehyunDB

□ Use Windows Authentication

Progress:
Database already exists.

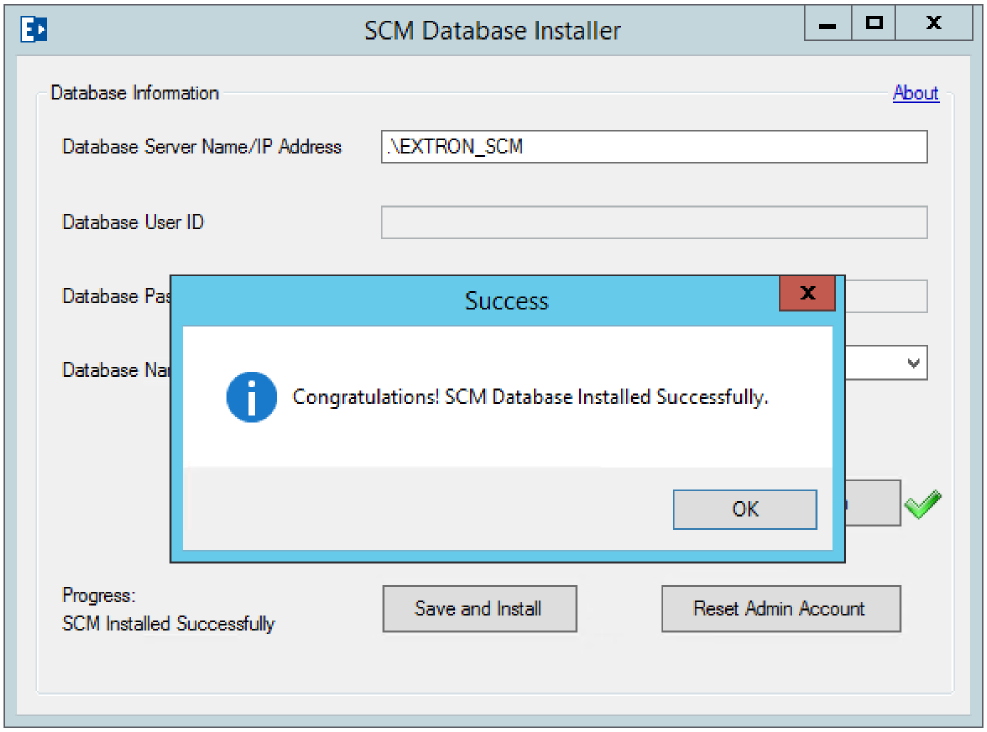
SCM Installation Detected

NOTE: You will lose all your existing data by overwriting the database.
Are you sure you want to proceed?

The reinstallation progress is indicated by the text in the lower left corner of the window.

- If you click **Abort**, the database installer closes without changing the existing database or installing a new one.

The installer displays a success message when database installation is successfully completed.



SCM Database Installer

Database Information

Database Server Name/IP Address: .\EXTRON_SCM

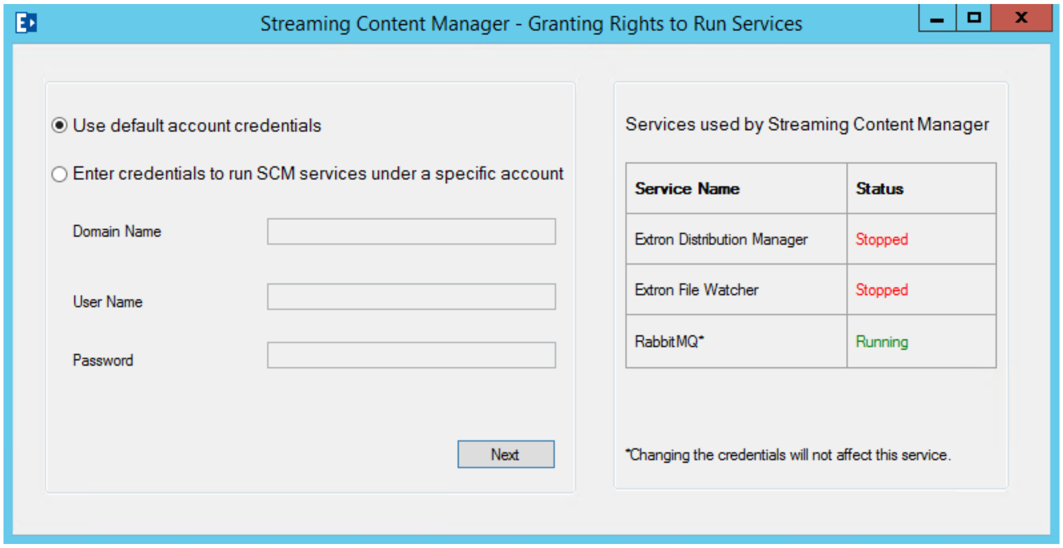
Database User ID

Success

Congratulations! SCM Database Installed Successfully.

Progress:
SCM Installed Successfully

9. Click **OK**. The success message closes, and the installer performs various tasks and installs files for other services. When those files are installed, an `SCM Granting Rights to Run Services` window opens to allow you to either use the default credentials on the server or to enter credentials for a specific account that will be used to run the SCM services.



Streaming Content Manager - Granting Rights to Run Services

● Use default account credentials

○ Enter credentials to run SCM services under a specific account

Domain Name

User Name

Password

Services used by Streaming Content Manager

Service Name	Status
Extron Distribution Manager	Stopped
Extron File Watcher	Stopped
RabbitMQ*	Running

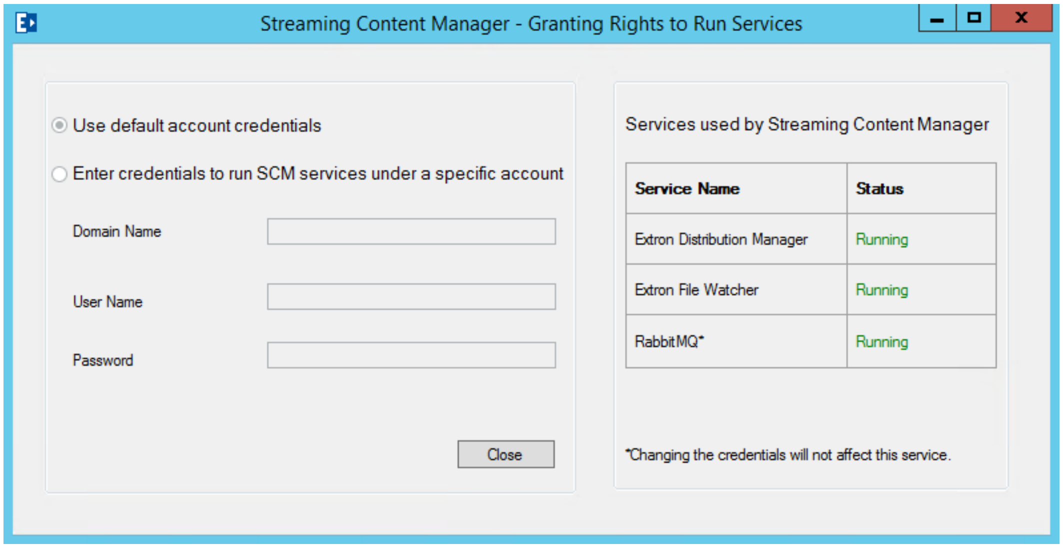
*Changing the credentials will not affect this service.

10. Select the appropriate radio button to either use the default account credentials for the web server or to provide the credentials for a specific account on the SCM server.

    - If you choose to enter credentials, enter the domain name, username, and password that will be used for the SCM server installation. The username and password are required.
    - If you do not enter a domain name, it is automatically set to the localhost. The user account specified during installation is used by the SCM web application and Windows services.

    NOTE: If the domain name is not entered at this time, it can be manually changed outside the installation program (using other tools) after installation.

11. Click the **Next** button. The installer verifies the password, domain, and username, and grants access. The the **Next** button becomes a **Close** button.



Streaming Content Manager - Granting Rights to Run Services

● Use default account credentials

○ Enter credentials to run SCM services under a specific account

Domain Name

User Name

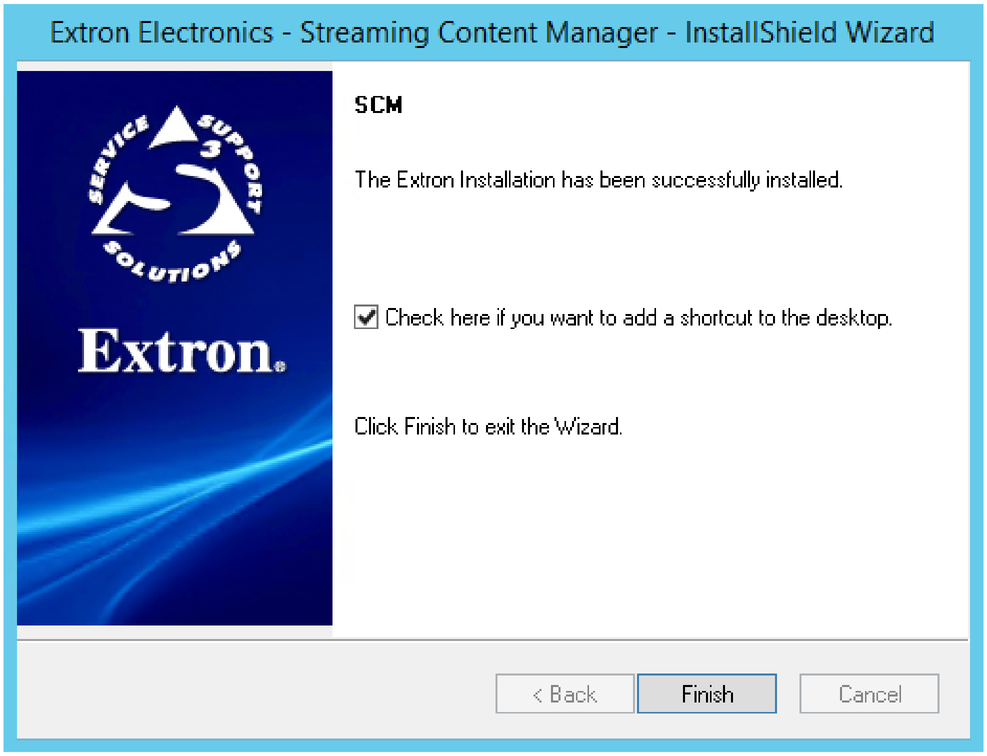
Password

Services used by Streaming Content Manager

Service Name	Status
Extron Distribution Manager	Running
Extron File Watcher	Running
RabbitMQ*	Running

*Changing the credentials will not affect this service.

12. Click the **Close** button. The SCM Granting Rights to Run Services window closes. The Streaming Content Manager – InstallShield Wizard window opens, confirming that the installation was successful.



Extron Electronics - Streaming Content Manager - InstallShield Wizard
SERVICE SUPPORT SOLUTIONS
Extron.

SCM

The Extron Installation has been successfully installed.

☑ Check here if you want to add a shortcut to the desktop.

Click Finish to exit the Wizard.

13. If desired, select **Check here if you want to add a shortcut to the desktop.**
14. Click **Finish**. The installation wizard closes. SCM has been installed and is now ready for configuration. SCM opens in your default web browser.
15. Log in (see **Logging In and Logging Out**) using the system administrator credentials (see **Step 4: Configure the Streaming Content Manager.**) and configure the system (see **System Configuration and Management**).

Resetting the Database

To reset the database to its pre-installation state:

After installation if the database must be cleared of data for any reason, run the database installer program and select the **Overwrite** option (as detailed in step 8 in the preceding instructions). The database will be cleared (emptied) of users and recordings.

Migrating the Database

The database can be migrated to a new location using standard tools in SQL Server®. After the database is moved to the new server, re-run the SCM Database Installer program (as described above) and enter the new database address for the new location .

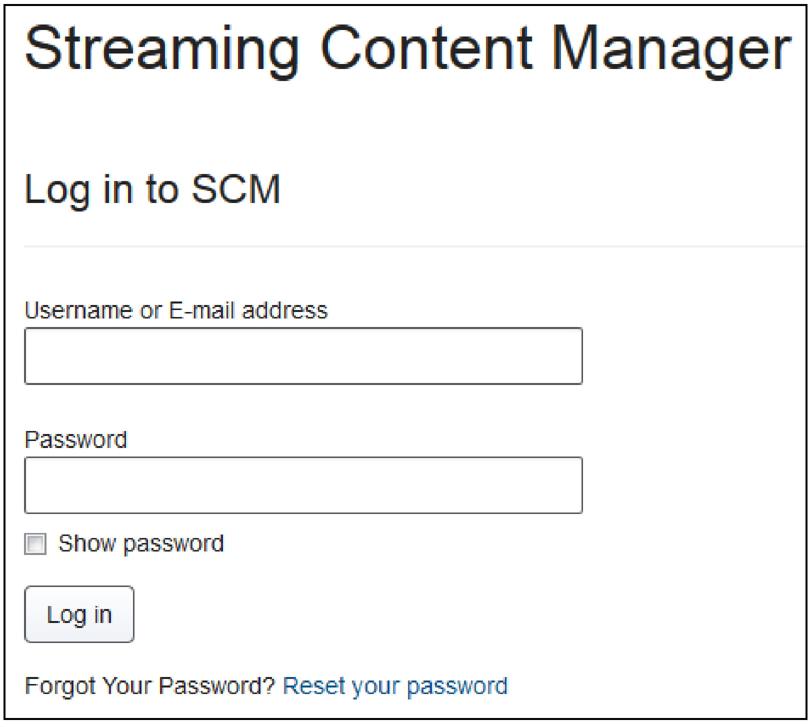
Getting Started

Opening Streaming Content Manager

After Streaming Content Manager (SCM) has been installed and configured, you can open the web pages that comprise its user interface. See **Installing Streaming Content Manager** for full details about installation.

To open Streaming Content Manager:

1. Open a web browser.
2. Enter the IP address or URL of SCM into the address field and navigate to the site. SCM opens to the `Log in` page.



Streaming Content Manager

Log in to SCM

Username or E-mail address

Password

□ Show password

3. Enter your username and password (see **Logging In and Logging Out** on the next page).
4. Click **`Log In`**. SCM opens to the **`My Recordings`** tab within the `Recordings` page.

Logging In and Logging Out

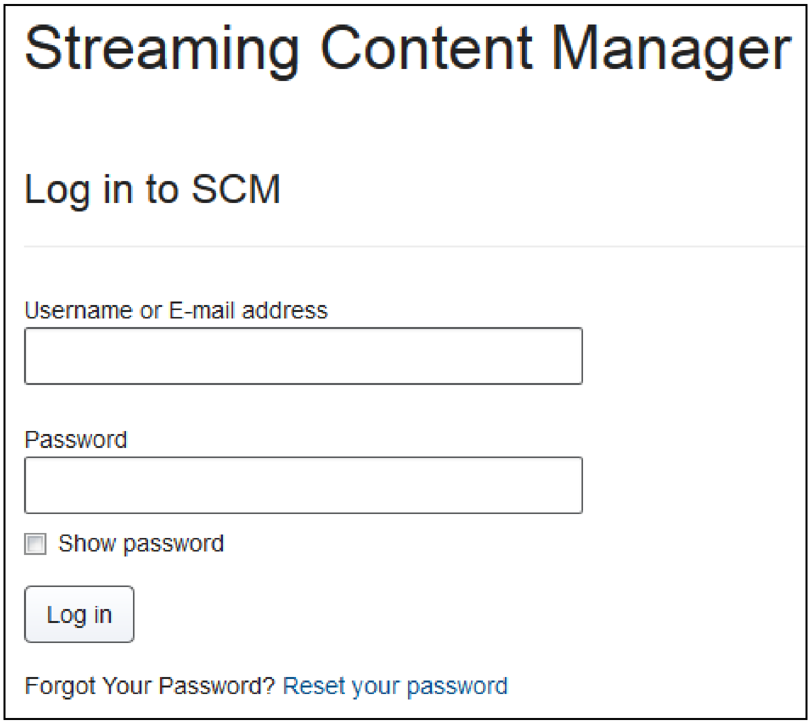
In order to use the Streaming Content Manager, unless you are an unregistered guest with permission to access public recordings, you must log in to SCM. Also, before you can change roles (from administrator to user or user to administrator) or change user accounts (from your personal account to the system administrator account, for example), you must log out of SCM.

To log in:

NOTES:

- If you are a new user added to SCM with a local account, you will receive an e-mail with a link to the `Log in` page and instructions to set or change your password. Passwords must be at least 10 characters in length and may not start with a space character.
- If you are a new user added to SCM from an Active Directory® (AD) system, you will receive an e-mail with a link to the `Log in` page, but you cannot change your credentials (username and password) in SCM. Your credentials are maintained in the AD system. Contact an IT system administrator for information on changing credentials.

1. Open a Web browser.
2. Enter the IP address or URL of the Streaming Content Manager into the address field and navigate to the SCM page. The `Log in` page opens.



Streaming Content Manager

Log in to SCM

Username or E-mail address

Password

□ Show password

Log in

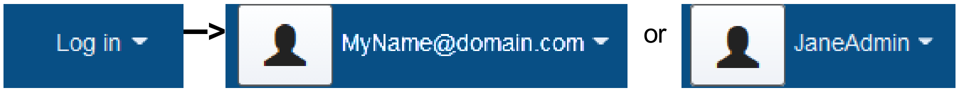
Forgot Your Password? Reset your password

3. Enter your e-mail address (for local accounts) or username (for a remote [LDAP/AD] account) and password into the corresponding fields.
   - To log in to SCM if your account was added locally (rather than via an LDAP/AD system), enter the password you set up upon first access. It must be at least 10 characters in length and may not start with a space character.
   - To log in to SCM if it is integrated with an LDAP/AD system, enter the same password you use for other network access within your organization.
   - If desired, select the **Show password** check box to display the actual characters in the **Password** field as you enter them instead of displaying bullet characters.
4. Click the **Log in** button. The Streaming Content Manager Recordings page opens.

> **NOTE:** When you receive a link to a shared recording and access the recording via that link, once you log in to SCM the detail view page for that recording opens (rather than the My Recordings page).

After logging in:

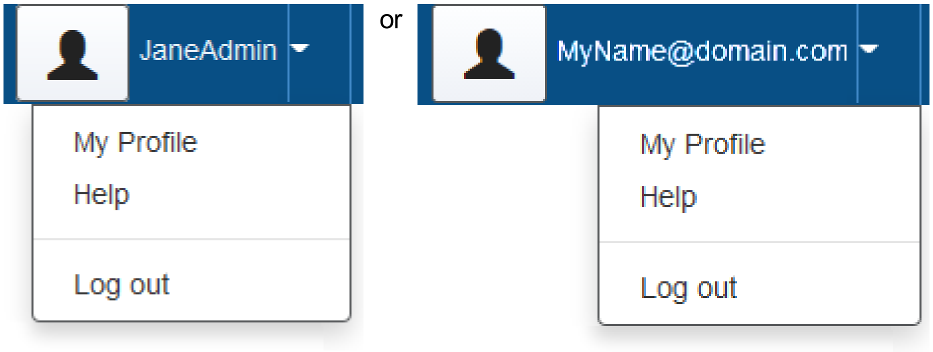
Once you have logged in to the Streaming Content Manager, the **Log in** button in the upper right corner of the screen (shown below, left) is replaced by an icon and button labeled by your username (e-mail address or AD username).



If desired, click on your username or the arrow adjacent to it to open a user options drop-down menu, from which you can access the page to manage your user profile, or you can open the help file or log out.

To log out:

1. From any page within SCM, click on your username or the arrow adjacent to it in the upper right corner of the screen. A drop-down menu opens.



2. Select **Log out** from the drop-down menu. The SCM system logs you out and returns to the Log in page.

Overview of the SCM Software Interface

The Streaming Content Manager web pages provide the following features:

- Access to lists of recordings, the ability to edit information about recordings, download recordings, play streamed recordings, and share links to them
- A way to manage your account preferences (see **Editing My Profile**)
- Tools for administrators to configure the SCM system settings once the initial installation and database connection setup have been completed (see **System Configuration and Management**)
- Tools for administrators to set up, create, and manage user accounts
- Information about the SCM software and its licenses (see **How to Find Information About SCM**)

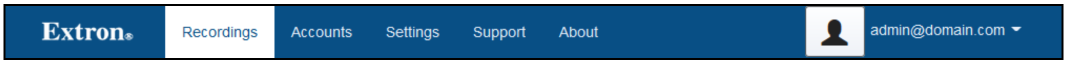
Access the Streaming Content Manager by using a web browser on computer or mobile device (see **Opening Streaming Content Manager** and **Logging In and Logging Out** for details).

How the SCM Web Pages Are Organized

The SCM interface contains tabs at the top of the page that provide access to the pages for major functions, subtabs for the Recordings page that allow you to access different sets of recordings within SCM, and a button and drop-down menu for logging in and out and accessing your account settings or the help file. These elements are detailed below.

Tabs

The web pages in SCM are organized by functions grouped within four tabs at the top of the screen:



`Recordings` — The `Recordings` page opens once you log in to the system or if you click this tab. Here you can view a list of all your recordings or reach a list of all publicly available recordings in the system (see **Managing Recordings**). From the recordings lists you can download a recording to view or obtain a link to share a recording with someone else. From each list you can access a detailed view of each recording and its properties. For your own recordings, from the detailed view you can edit information such as the title, location name, and recording time, and set the privacy level. You can also delete your own recordings. Administrators can additionally access a complete list of all recordings in the system, edit information about them or delete any recording.

`Accounts` — Clicking this tab opens the `Accounts Management` page (see **Managing User Accounts**) where an administrator can perform the following tasks:

- Add users (either locally authenticated users or those from an LDAP system) to the SCM system
- Delete users

- Access a user profile page for any user from which the administrator can see and change various settings and view when the user last logged in, when they last added a recording, and how many recordings (total, private, public, and unlisted) the user has in the system. The user profile page also provides a way to send the user a request to reset their password.

Settings — The panels in this page allow a user logged in as an administrator to configure key settings for the SCM and the servers and services with which SCM interacts. Here you can do the following:

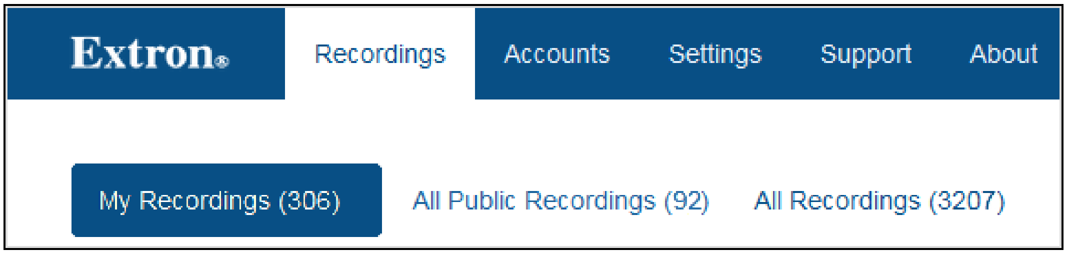
- Specify the server location the SCM monitors for new recordings, specify where to store ingested and processed recordings and related settings (see **Setting Up Recording Package Settings**)
- Set up connections and credentials to use an LDAP/Active Directory system to add and validate user accounts (see **Setting Up LDAP/AD Connections**)
- Set the default time zone for the system (see **Setting General System Settings**)
- Set up and test the connection to the e-mail server (see **Configuring E-mail Notification Settings**)

Support — The Support page contains a link to the SCM installation log file and also lists of and links to all of the current and past log files (listed from most recent to oldest) for the three main services: FileWatcher, DistributionManager, and WebService. Click on any listed file to open or save it to aid in system troubleshooting.

About — Version, part number, and copyright information for the SCM software is displayed on this page. The end user license agreement and a list of third party software licensed for use as part of SCM are also available on the About page (see **How to Find Information About SCM**).

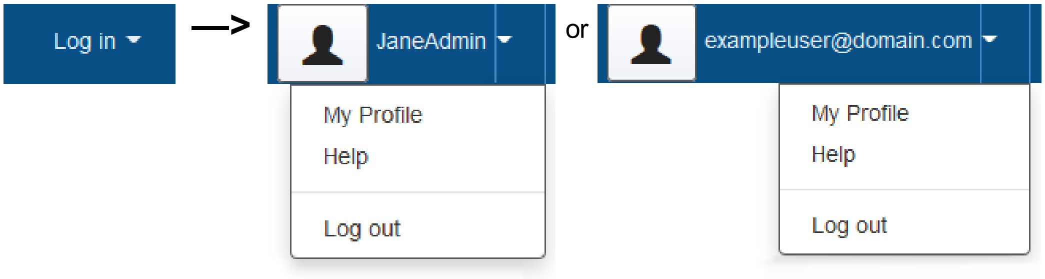
Pages Within Tabs

The **Recordings** tab includes several pages. To access each page, click the corresponding sub-tabs within the second tier of tabs located below the main tabs near the top of the screen. The **Recordings** tab includes sub-tabs for **My Recordings**, **All Public Recordings**, and **All Recordings**.



Log In/Log Out and User Options Menu

Once you have logged in to the Streaming Content Manager, the **Log in** button in the upper right corner of the screen is replaced by a user options drop-down menu labeled by your e-mail address (if SCM is set up to for local user management) or username (if SCM is set up to use a managed directory). Click on the **down** arrow (▼) adjacent to your username to open the drop-down menu, from which you can access the page to manage your user profile (see **Editing My Profile**), open the help file, or log out.



System Configuration and Management

System Configuration and Management Overview

Once Streaming Content Manager is installed you must configure the following items related to system operation:

- **Recording package settings** — These make it possible for SCM to locate, process, and store recordings.
- **LDAP/AD connections** — Setting these up allows for optional integration with a Microsoft® Active Directory® (AD) system for user account setup and validation.
- **General system setting**s — These include setting the specific time zone and the Uniform Resource Locator (URL) for the SCM system
- **E-mail notification and connection settings** — These settings establish connection to a Microsoft Exchange Web server or unauthenticated SMTP server and allow e-mail notification to be enabled. If those are set up and if SCM has a valid e-mail account, SCM can send e-mail notices to users.

After the SCM system has been up and running for some time, you may need to address maintenance or system expansion needs. Procedures are available within the following topics:

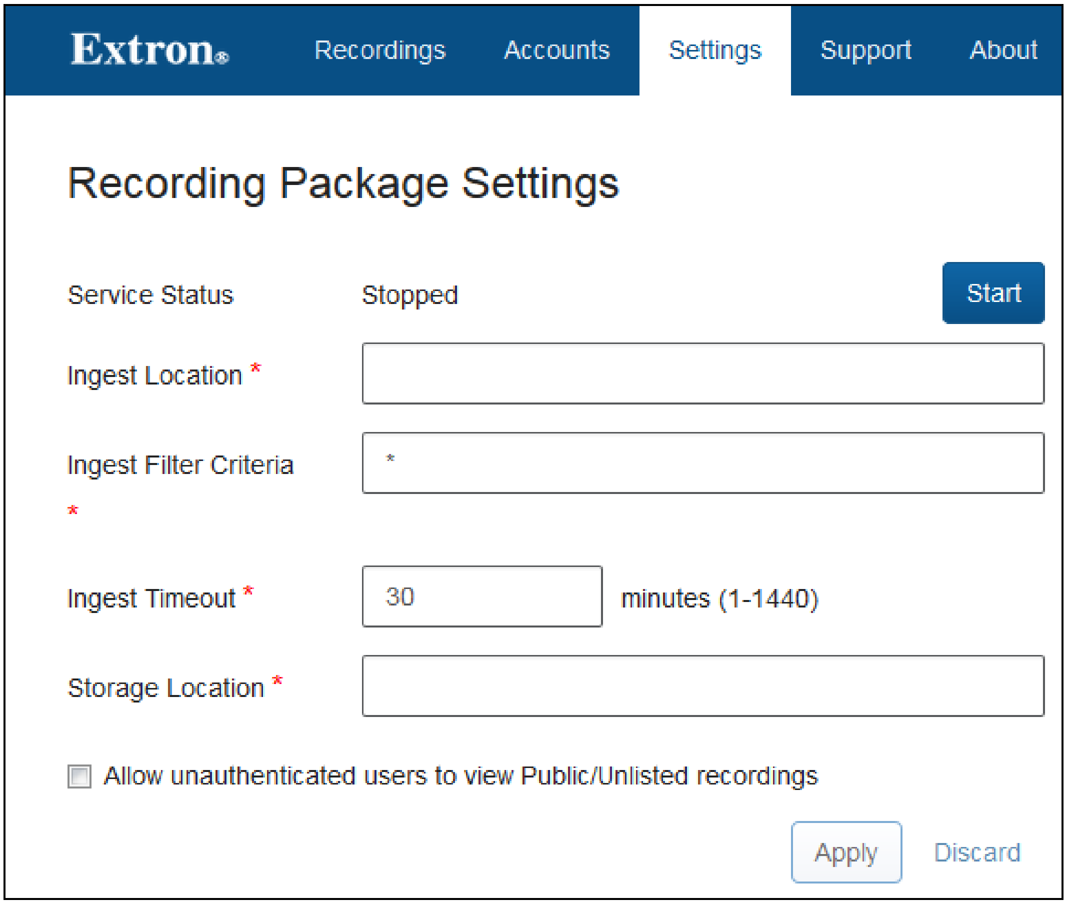
- **Changing Recording Storage Locations**
- **Migrating the SCM Web Service to a New Server**
- **Migrating the Database**

Setting Up Recording Package Settings

Recording package settings must be configured in order for Streaming Content Manager to locate, process, and store recordings. Administrators and the system administrator can configure these settings.

To configure recording package settings:

1. Log in to SCM as an administrator or system administrator.
2. Navigate to the `Settings` page by clicking the **Settings** tab at the top of the screen.



Recording Package Settings

Service Status Stopped

Ingest Location *

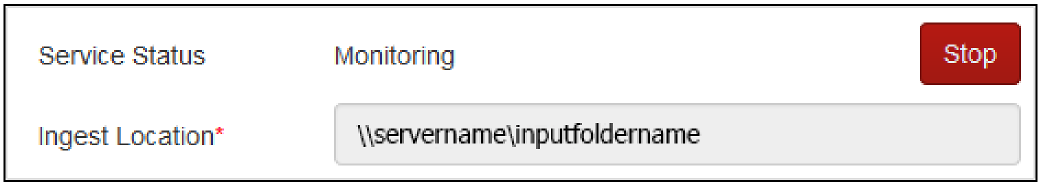
Ingest Filter Criteria * : *

Ingest Timeout * : 30 minutes (1-1440)

Storage Location *

□ Allow unauthenticated users to view Public/Unlisted recordings

3. In the `Recording Package Settings` section of the `Settings` page, if the settings have already been configured and SCM is currently monitoring a network location for new files, click the **`Stop`** button to stop file monitoring services and to make the configuration fields accessible. The **`Stop`** button changes from red to blue and becomes a **`Start`** button, and the settings fields become editable.



Service Status Monitoring

Ingest Location* \\servername\inputfoldername

NOTE: If recordings are being uploaded into the SCM system at the time recording monitoring services are stopped, those recordings continue to be processed, but no new recordings will be processed.

4. Indicate which network server location to monitor ("watch") for new recording files by typing the path into the **`Ingest Location`** field. This path is required.
   - SCM must have read/write access at this location.
   - The DistributionManager service must have read, write, and delete access to the ingest location.
   - The FileWatcher service must have permission to access the ingest location.
   - If you need to change the account under which SCM services are running (to specify an account that has the necessary permissions), run the Permissions utility in the SCM installer program (see **Changing Accounts and Permissions After Installation** for instructions).
5. In the **`Ingest Filter Criteria`** field, specify the file naming convention used by the recording devices that create recordings for SCM. This field cannot be blank. By default this field contains an asterisk (*), which is a "wildcard" character.
   - The wildcard '*' can be used to match any quantity of characters.
   - The wildcard '?' can be used to match one character.

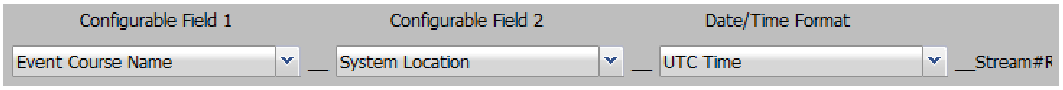
   TIP: To make SCM monitor for and import recordings from a series of rooms with similar recording location names, set the ingest filter to include the common portion of the location names and add asterisk (*) wildcards for the recording number and any other elements of the default file names. See the example that follows this procedure.
6. In the **`Ingest Timeout`** field, enter the maximum number of minutes SCM will wait to copy a new recording package from the ingest location into the SCM system. If during the file uploading (ingest) process no data is received for a period longer than the specified time, SCM stops monitoring that file ingestion and labels the recording as "failed". This value is required. The default setting is 30 minutes.

7. Specify the path of the root server folder where SCM will store processed recording packages by typing the path into the **Storage Location** field. This is a required field. Recordings that have been uploaded from the monitored ingest location, processed, and packaged with the EMP player will be stored here within subfolders for each recording.
    - SCM must have read/write access to this path.
    - The Distribution Manager service must have read, write, and delete access to the storage location.
    - If you need to change the account under which SCM services are running (to specify an account that has the necessary permissions), run the Permissions utility in the SCM installer program (see **Changing Accounts and Permissions After Installation** for instructions).
8. To allow people who do not have an account within SCM to access the list of all public recordings and to see detailed views of unlisted recordings, check the **Allow unauthenticated users to view Public/Unlisted recordings** check box. If that option is selected, a user without an SCM account can view and download recordings that are set for the public privacy level. She or he can also view and download any recording set as "unlisted" if a user with an SCM account has shared a link to that recording with them.
9. Click the **Apply** button. SCM attempts to verify that the SCM services have the correct access permissions on the ingest and storage locations. SCM displays error messages if any permissions or server paths need to be corrected.
10. Make corrections to server location paths (see steps 4 and 7) or to permissions (see **Server Account Permissions and SCM Installation**), if needed, then click the **Apply** button.
11. When you are ready for SCM to start monitoring the ingest location for new recordings, click the **Start** button.

Example: Setting Default Recording Names and Ingest Filter Criteria

In this example, the installation includes both meeting rooms and classrooms, but SCM will be used to manage recordings from classrooms only.

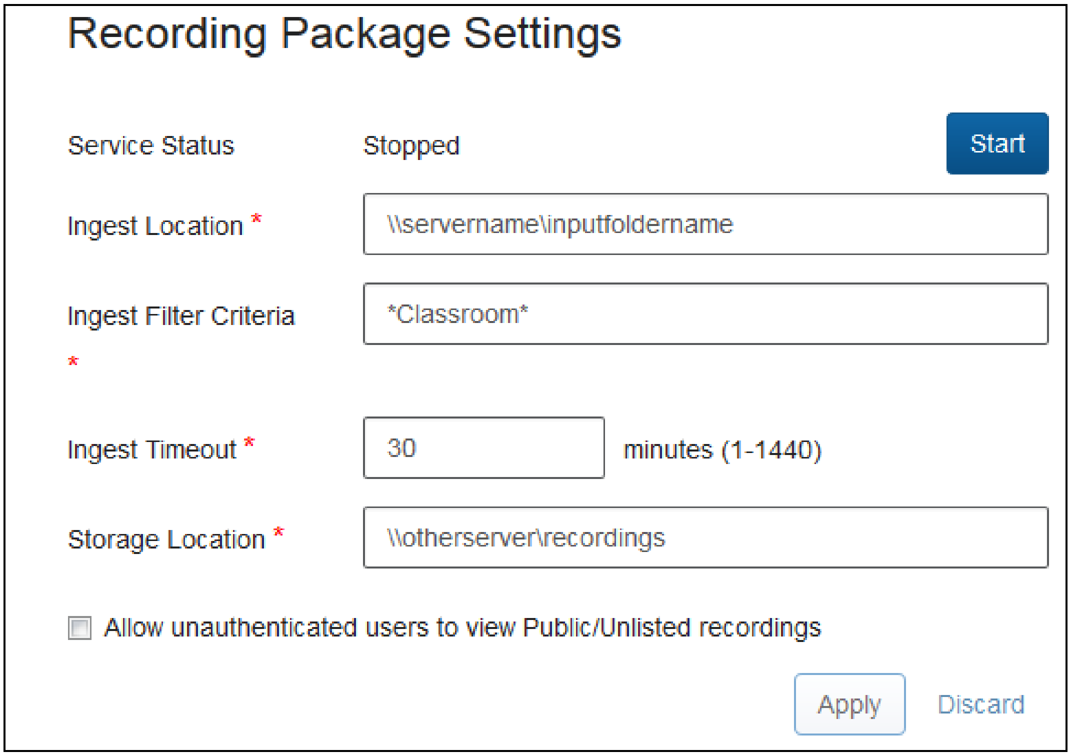
1. **At each recording device** set the unit or system location name MeetingRoom*N* or Classroom*N*, as appropriate.
2. **At each recording device** set the default location name as part of the default file names. In an Extron SMP 351 the default file name setting may be similar to *Event Course Name_System Location_UTC Time_Stream#Recording*, as shown here:



Configurable Field 1: Event Course Name __ Configurable Field 2: System Location __ Date/Time Format: UTC Time __Stream#R

3. **In SCM** navigate to the Settings page.
4. **In SCM** in the Recording Package Settings section, if the settings have already been configured and SCM is currently monitoring a network location for new files, click the **Stop** button to stop file monitoring services and to make the configuration fields accessible.

5. **In SCM** set the ingest filter to include the common part of the desired location name (`Classroom`) along with asterisk (*) wildcards for the recording number and any other elements of the default file name. For example, `*Classroom*`.



Recording Package Settings

Service Status: Stopped

Ingest Location *: \\servername\inputfoldername

Ingest Filter Criteria *: *Classroom*

Ingest Timeout *: 30 minutes (1-1440)

Storage Location *: \\otherserver\recordings

□ Allow unauthenticated users to view Public/Unlisted recordings

6. **In SCM** set the other recording package settings and click **`Apply`**.
7. **In SCM**, click **`Start`** to restart the file server monitoring service (the "file watcher").

NOTE: If recordings must be moved to a new server location in the future, see **Changing Recording Storage Locations** for factors to consider and for instructions on how to accomplish the server migration.

Setting Up LDAP/AD Connections

Users can be imported from and then validated/authenticated by a managed directory rather than solely within SCM. SCM supports Lightweight Directory Access Protocol (LDAP) and can be integrated with Microsoft® Active Directory® (AD) systems, if configured to do so. Once SCM is installed, an administrator or system administrator can configure an AD connection and enable or disable connection to it from within the Settings page of SCM.

If an Active Directory connection is configured and enabled within SCM, usernames and passwords are easily imported from the AD system into SCM. When users drawn from an AD system log in to SCM, their credentials are validated by the AD system, maintaining consistency with other applications used within the same organization. User accounts drawn from an AD system are validated with the AD system:

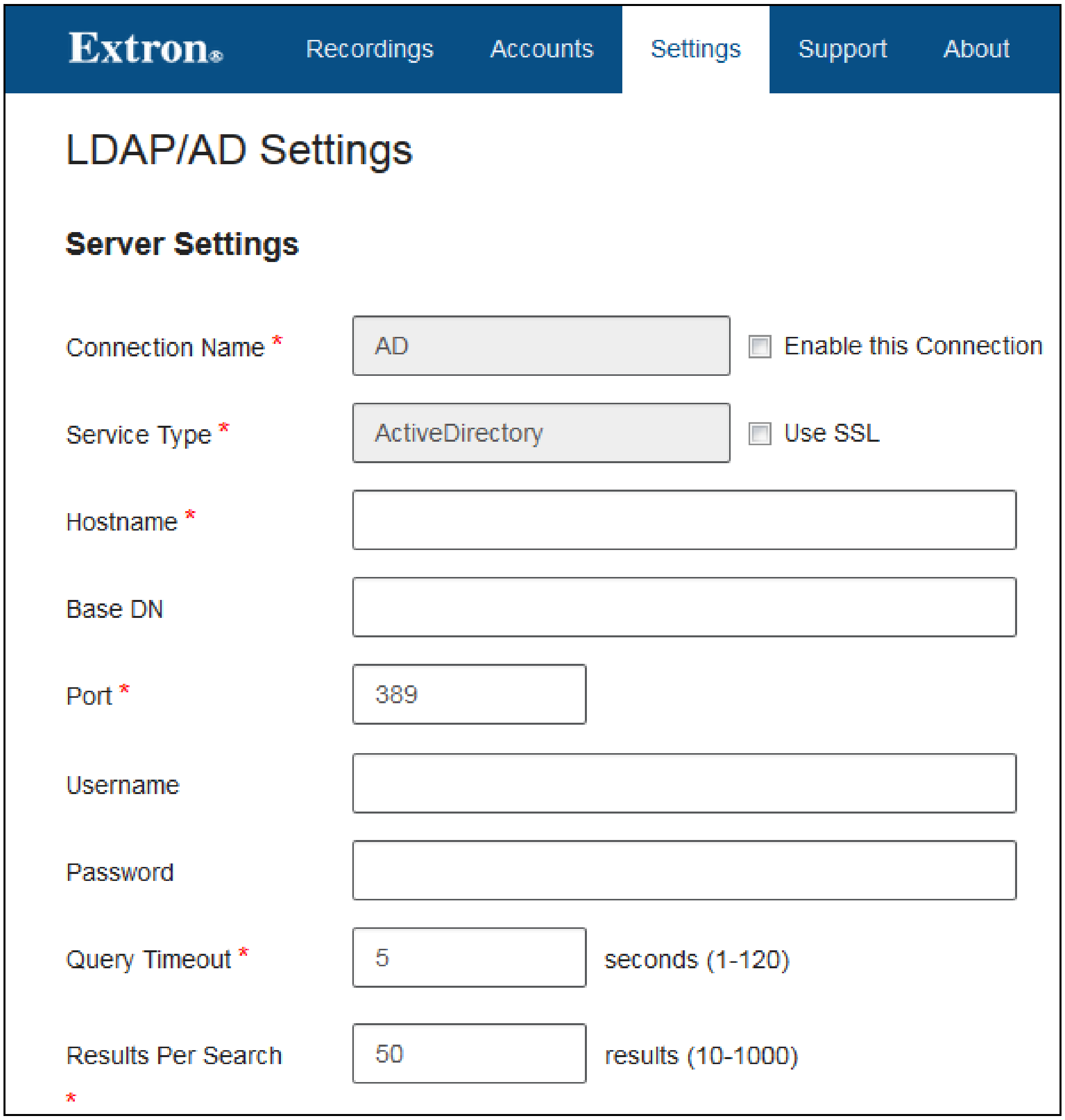
- When a query is sent to the AD system when users are being added to SCM.
- When a user logs into SCM.

This on-demand validation allows for a lower network and AD system traffic.

To configure LDAP/AD:

1. Log in to SCM as an administrator or system administrator.
2. Navigate to the `Settings` page by clicking the **Settings** tab.

3. Scroll down to the `LDAP/AD Settings` section, which is divided into two parts: `Server Settings` and `User Schema Settings`.



LDAP/AD Settings

Server Settings

Connection Name *	AD	□ Enable this Connection
Service Type *	ActiveDirectory	□ Use SSL
Hostname *		
Base DN		
Port *	389	
Username		
Password		
Query Timeout *	5	seconds (1-120)
Results Per Search *	50	results (10-1000)

The read-only **`Service Type`** field indicates **`ActiveDirectory`**. The label in the read-only **`Connection Name`** field at the top of the section displays the alias name for the connection.

> **NOTE:** The connection name is displayed in user profiles in the read-only **`Created From`** field. It is used to indicate the managed directory source for the user account.

4. To use Secure Socket Layer (SSL) protocol, select (check) the **`Use SSL`** check box. This option allows encrypted communication between client and server for greater security during user authentication. Contact your IT department to install an SSL certificate.

> **NOTE:** If SSL is selected, the default port number in the **`Port`** field changes from 389 (or any custom number) to 636 and the connection uses LDAPS rather than LDAP. Also, if SSL is selected and is then deselected, the port number changes to 389, even if a custom port number were previously entered.

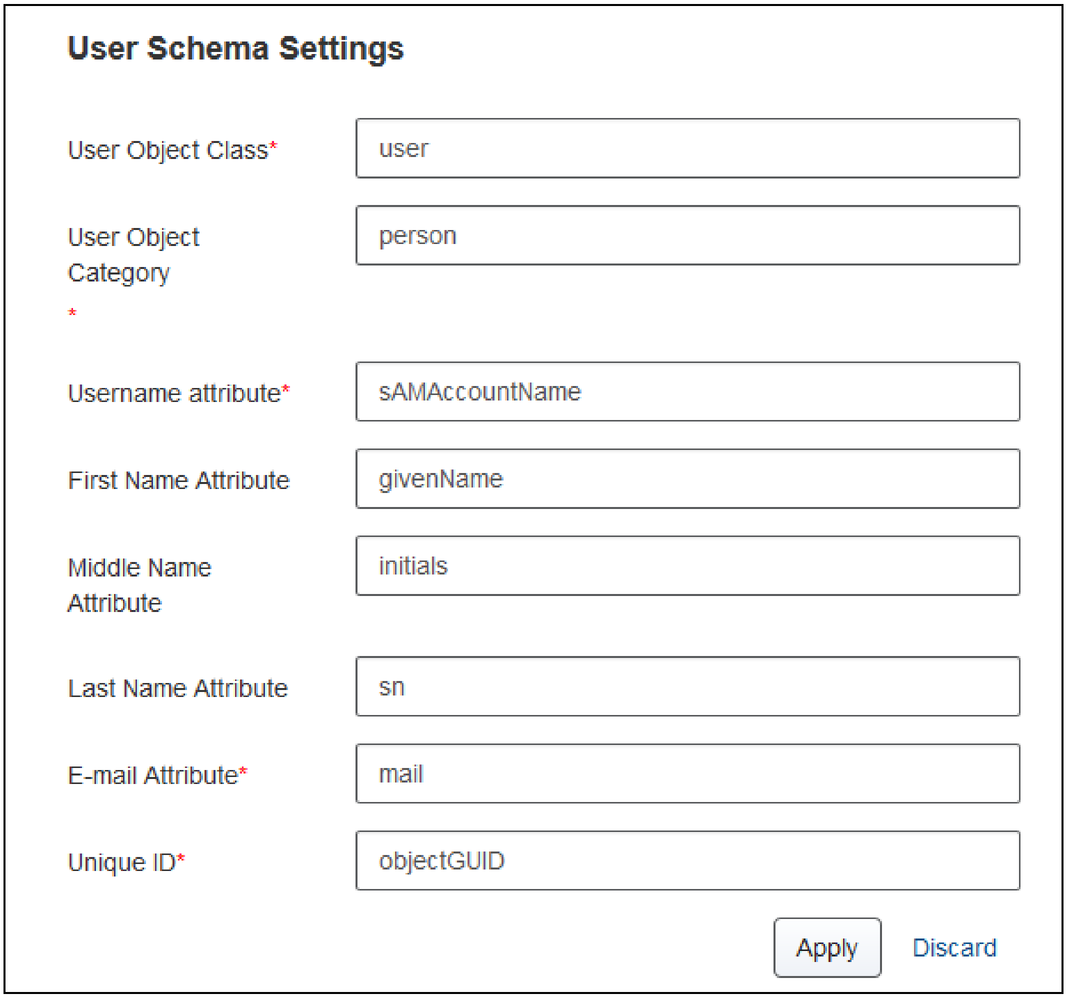
5. Enter the AD system host name in the **`Hostname`** field. Either a host name or an IP address is acceptable in this field. The host name is required for configuration.
6. Enter the base domain name into the **`Base DN`** field. This should be in the form of `DN=`*`xxxxxxx`*`,OU=`*`yyyyyyy`*.
7. If your directory system uses a port number for its connection that is different from the standard ports used for LDAP (389) or LDAPS (636), enter the number into the **`Port`** field. The port number is required.
8. If desired, enter the username that SCM will use to access the directory system into the **`Username`** field.
9. If desired, enter the corresponding password for accessing the directory system into the **`Password`** field. SCM displays dots or asterisks in this field rather than the actual characters that you enter.

   NOTE: If the username is edited or changed, the **`Password`** field is cleared, and you will need to enter the appropriate password.

10. Enter the query timeout period (in seconds) into the **`Query Timeout`** field. The timeout period is the maximum amount of time to wait when performing search queries to find users in the AD database. The query timeout period is a required setting, and it is five seconds by default.
11. Select how many user entries to return per search query by typing a number into the **`Results Per Search`** field. This will be the default quantity of user records shown in search results on the `Accounts` page when you add users from an AD system. This value is a required setting.

12. If desired, customize the user schema settings. The schema settings specify the fields in Active Directory from which SCM user fields will be imported.

    Most installations can use the default strings shown below. If your system uses custom values rather than standard defaults, enter the appropriate strings into the corresponding fields.



User Schema Settings

User Object Class*	user
User Object Category *	person
Username attribute*	sAMAccountName
First Name Attribute	givenName
Middle Name Attribute	initials
Last Name Attribute	sn
E-mail Attribute*	mail
Unique ID*	objectGUID

13. If the server and user schema settings are correct, click **Apply** to save the settings. Otherwise you can click **Discard** to clear the changes you made.

14. To allow SCM to use the LDAP/AD connection, select the **Enable this Connection** check box at the top of the LDAP/AD Settings section and click **Apply** again.

    - When the connection is enabled, user accounts can be added to SCM from an AD system or created locally, and users who have been added from the AD system can log in and access SCM.
    - When the connection is not enabled, user accounts cannot be added from an AD system and users who have been added from an AD system cannot log in to SCM.

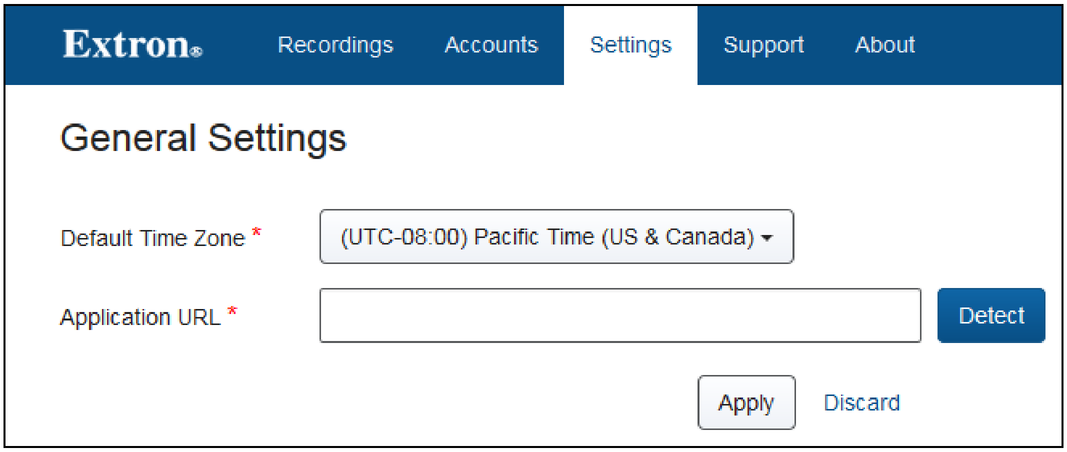
Setting General System Settings

In the `General Settings` section of the `Settings` page, Streaming Content Manager can be configured to use a specific time zone, and the Uniform Resource Locator (URL) can be specified for the SCM system. This is the URL to which users will be directed in order to access the system.

Setting the Time Zone

To set the time zone for the SCM system:

1. Log in to SCM as an administrator or system administrator.
2. Navigate to the `Settings` page by clicking the **Settings** tab at the top of the screen.
3. Scroll down to the `General Settings` section.



4. Select the desired time zone for SCM to use from the **`Default Time Zone`** drop-down list. By default the SCM system uses time zone of the server on which it is installed. The time zone is a required setting.
5. Click the **`Apply`** button to save the time zone selection, or click **`Discard`** to continue using the default server time zone or whichever zone was previously selected.

Setting the System URL

The application URL for the SCM system is required for generating and sending e-mails that contain links to pages within the SCM system. In most cases, the application URL is the base URL used to access SCM. An application URL is required, whether you use the detected base URL or specify a different one.

To define the URL for the SCM system:

1. Log in to SCM as an administrator or system administrator.
2. Navigate to the `Settings` page by clicking the **Settings** tab at the top of the screen.

3. Either:
   - Click **Detect**. SCM uses the base URL of the current page within SCM and populates the **Application URL** field with this value.

     or
   - Type the desired URL into the **Application URL** field. This is useful when SCM users will access the system through a different URL than is used for the current page.
4. Click the **Apply** button to save the URL setting, or click **Discard** to clear the URL from the field.

NOTE: The default URL is `https://<IP address>/SCM`.

Configuring E-mail Notification Settings

If an e-mail connection is configured, the Streaming Content Manager has a valid e-mail account, and if e-mail notification is enabled, SCM can send e-mail notices to users. SCM sends e-mails to do the following things:

- Notify a user that an account has been set up for them in SCM and provide the SCM system URL so they can access the `Log in` page
- Notify a local user to set or reset a password
- Notify any user when one of their recordings has been added to the SCM system

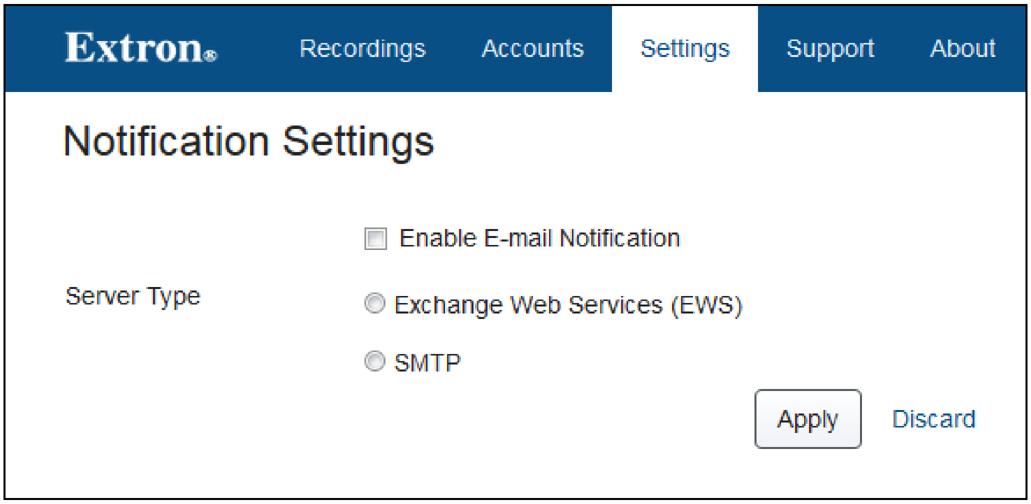
SCM supports Microsoft® Exchange and generic SMTP for e-mail. SCM can be configured to work with the following combinations of e-mail servers and services as follows:

- Microsoft Exchange Server + Exchange Web Services (complete the Exchange Web Services (EWS) Server Type section)
- Microsoft Exchange Server + SMTP protocol (complete the SMTP Server Type section)
- Generic SMTP server + SMTP protocol (complete the SMTP Server Type section)

Configuring and Enabling E-mail Notification

To configure the e-mail server connection in the SCM system and enable it:

1. Log in to SCM as an administrator or system administrator.
2. Navigate to the `Settings` page by clicking the **Settings** tab at the top of the screen.
3. Scroll down to the `Notification Settings` section.



Notification Settings

□ Enable E-mail Notification

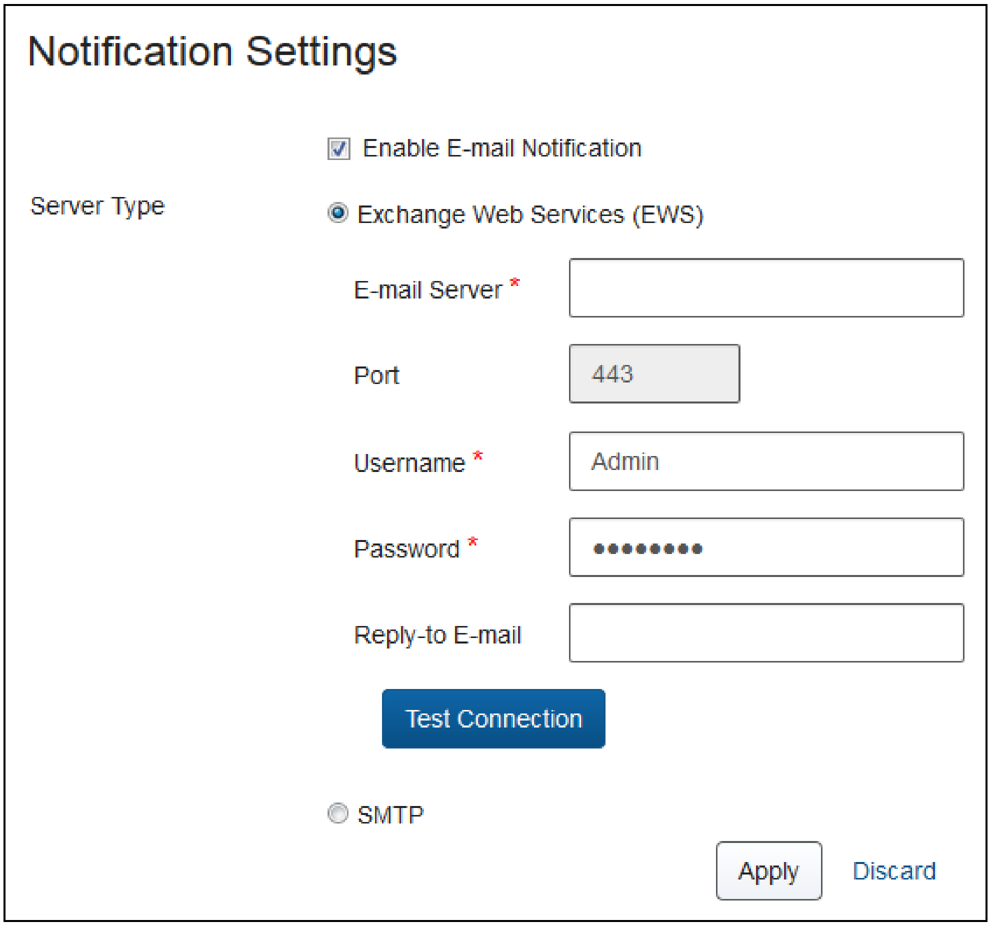
Server Type ○ Exchange Web Services (EWS)

○ SMTP

4. Select (check) the **`Enable E-mail Notification`** check box.
5. Select a server type by enabling either the **`Exchange Web Services (EWS)`** radio button or the **`SMTP`** radio button, as appropriate for the mail system to be used. Fields needed to configure the connection appear below the selected button.
   - If you select **`Exchange Web Services (EWS)`**, proceed to step 6 and skip step 7.
   - If you select **`SMTP`**, proceed to step 7.

6. **For connection to an Exchange server using Exchange Web Services:**

   a. Enter the path for the Exchange Web Services service into the **`E-mail Server`** field. This is a required field. In most cases this address is in the form `https://<`*`server`*`>.<`*`domain`*`>.com/ews/exchange.asmx`. If you do not know the full path of the EWS server, contact your IT administrator for details.



Notification Settings

☑ Enable E-mail Notification

Server Type ● Exchange Web Services (EWS)

E-mail Server *

Port 443

Username * Admin

Password * ●●●●●●●●●

Reply-to E-mail

○ SMTP

   Microsoft Exchange uses port 443 for Exchange Web Services, so that is automatically defined in this section, and the port number cannot be changed.

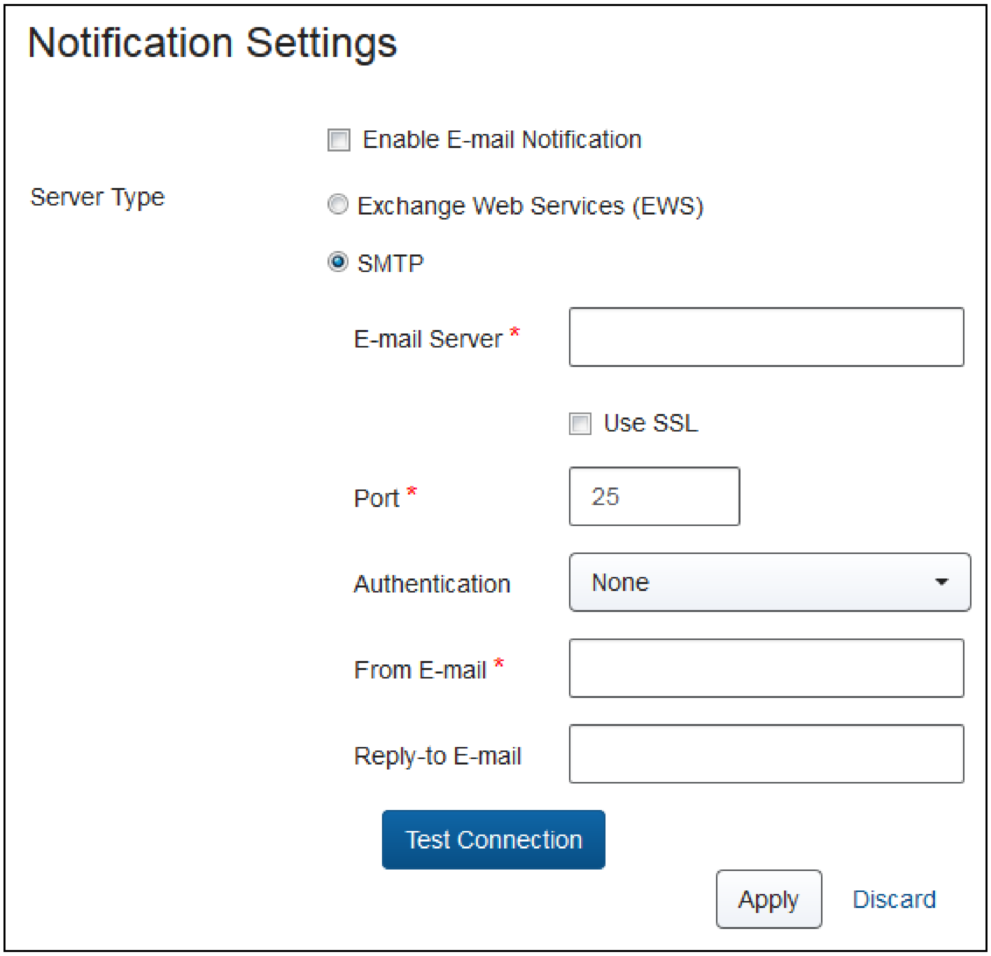
   b. Enter the username of the account that SCM will use to access the e-mail system into the **`Username`** field. The account must have a valid mailbox in Exchange.

   c. Enter the password for the e-mail account that SCM will use into the **`Password`** field. The account must have a valid mailbox in Exchange.

   d. Proceed to step 8.

7. **For connection to an SMTP server or an Exchange server using SMTP protocol:**

   a. Enter the path for the SMTP server into the **E-mail Server** field. This is a required field. In most cases this address is in the form https://<*server*>.<*domain*>.com/ or it is the server IP address. If you do not know the full path, contact your IT administrator for details.



Notification Settings

☐ Enable E-mail Notification

Server Type

○ Exchange Web Services (EWS)

● SMTP

E-mail Server *

☐ Use SSL

Port * 25

Authentication None

From E-mail *

Reply-to E-mail

   b. If desired, enable the **Use SSL** check box for a more secure connection to the server.

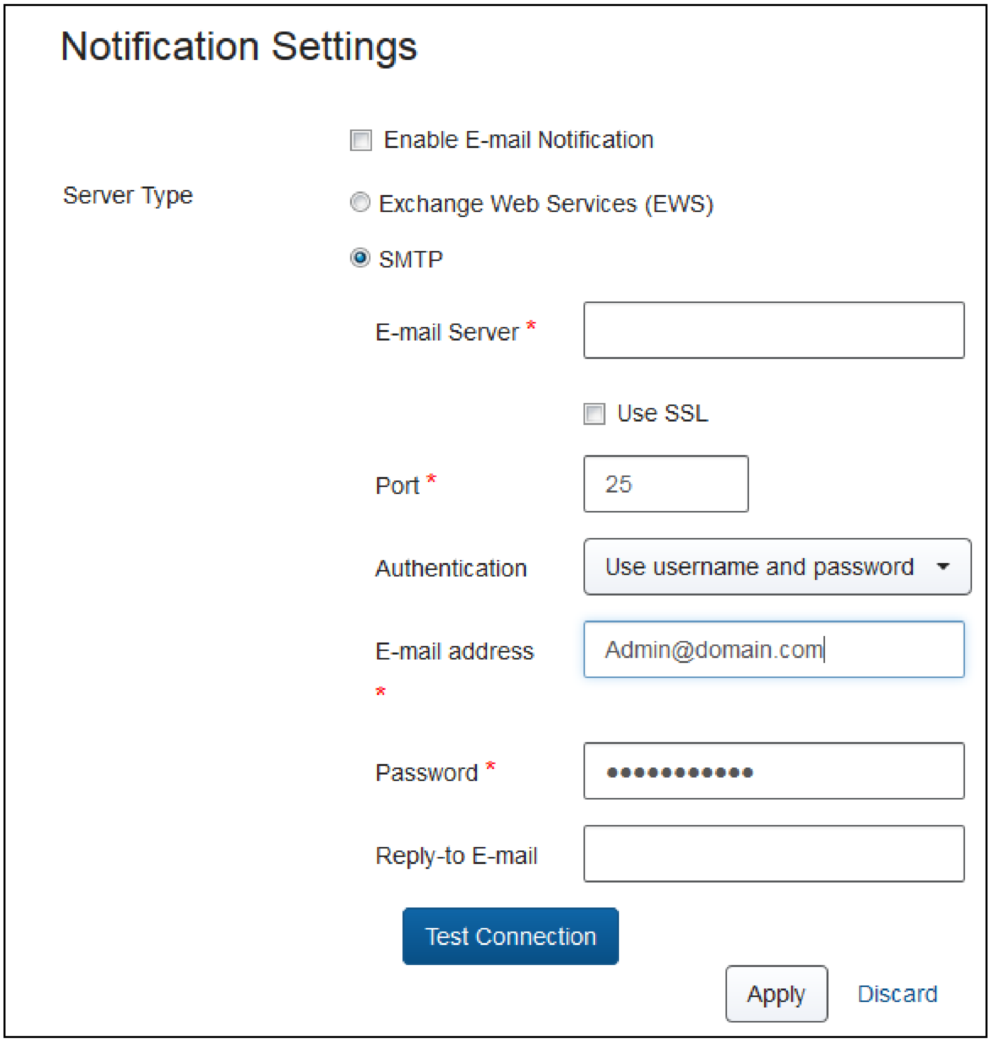
   c. Specify the port number to use for e-mail communication. For regular SMTP the default port number is 25. For SMTP with SSL the default port is 587. A port number is required.

   d. Select whether or not to require authentication by choosing an option (**None** or **Use username and password**) from the **Authentication** drop-down menu. The default selection is **None**, for unauthenticated SMTP.

   e. If you selected **None** from the **Authentication** drop-down menu in step 7d, in the **From E-mail** field , enter an e-mail address for the account that will be used by SCM to send notification e-mails. This is a required setting.

f. If you selected **Use username and password**) from the **Authentication** drop-down menu in step 7d:

- Enter the e-mail address that SCM will use to access the e-mail system into the **E-mail address** field.



Notification Settings

□ Enable E-mail Notification

Server Type ○ Exchange Web Services (EWS) ● SMTP

E-mail Server *

□ Use SSL

Port * 25

Authentication: Use username and password

E-mail address * Admin@domain.com

Password * ●●●●●●●●●●●●

Reply-to E-mail

- Enter the password for the e-mail account that SCM will use into the **Password** field.

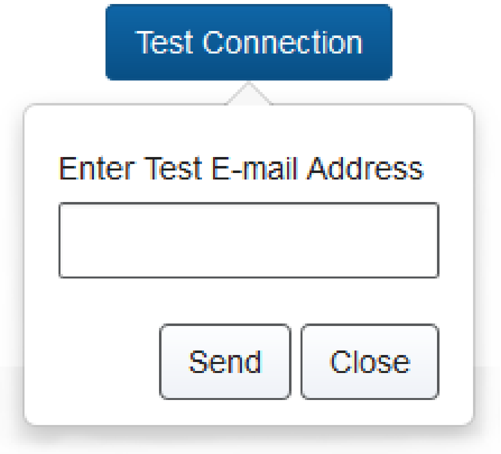
The account must have a valid mailbox in SMTP server.

8. If desired, in the **Reply-to E-mail field** enter in the e-mail address to be used if you want users to be able to reply to messages they receive from the SCM system. This can be an address for a content management administrator or an administrator, an e-mail account that differs from the SCM system account.

NOTE: If nothing is set in this field, when users reply to the e-mail received from SCM, the users will be replying to the actual sender (the e-mail account SCM uses to access the e-mail system).

9. Test the server settings entered in the previous steps by doing the following:

   a. Click **Test Connection**. A dialog box pops up.



   b. Enter the e-mail address of someone to whom to send a test e-mail into the **Enter Test E-mail Address** field.

   c. Click **Send**. SCM then uses the server path, username, and password entered in steps 6 through 8 to attempt to send an e-mail to the recipient specified in step 9b.

      - If the server path or credentials are invalid, an error message may be displayed near each field where settings require correction or near the **Test Connection** button. Correct the settings and retest the connection until the e-mail can be successfully sent.
      - If the path and credentials are valid, SCM sends the e-mail.

   d. Contact the test e-mail recipient to determine whether they received the e-mail successfully.

10. If the test e-mail recipient received the sample e-mail, proceed to step 11. If not, enter correct information for the server path, username, or password and retry the test before proceeding.

11. Click the **Apply** button to save the e-mail settings, or click **Discard** to clear the fields (clear the unsaved entries or changes) or, if applicable, to continue using a previously configured connection.

Disabling E-mail Notification

If the e-mail server requires maintenance or if SCM system e-mail notifications need to be stopped for any reason, the e-mail notification service can be disabled.

To disable e-mail notification from the SCM system:

1. Log in to SCM as an administrator or system administrator.
2. Navigate to the `Settings` page by clicking the **Settings** tab at the top of the screen.
3. Scroll down to the `Notification Settings` section.
4. Deselect (uncheck) the **`Enable E-mail Notification`** check box.
5. Click the **`Apply`** button to save the settings.

Changing Recording Storage Locations

Recordings may need to be moved to a new server location if more space is required or for other reasons. Prior to migrating files to a new server, take a few moments to consider the factors listed below so you can select the appropriate new server location and size and plan when to perform the migration. Instructions for changing recording locations are detailed after the factors to consider.

Factors to Consider Before Moving Recordings

Considerations include the following:

- **Location:** All recordings must reside within a **single storage location**. Therefore, when migrating recordings to a new location, ensure that the new location has enough capacity for both the existing recordings and any new recordings.
- **Server mapping:** File migration is easier if both the existing and new servers are mapped locations.
- **Server capacity:** How much **storage space** is needed?
  - Short-term
  - Long-term
  - See **Network Drives for Recording Ingest and Storage**.
- **Timing:** Recording storage migration should be done when no new recordings are being processed. Select a time when users are not likely to be making and uploading recordings to the system. Also, allow enough time to copy the files from one server to another, as copying may take a long time depending on the quantity and size of recordings.

Procedure

To replace an existing recording storage location with a new location:

1. **In SCM** navigate to the `Settings` page by clicking the **Settings** tab at the top of the screen.
2. In the `Recording Package Settings` section of the `Settings` page, click the **`Stop`** button to stop file monitoring services and to make the configuration fields accessible.

   Service Status
   Monitoring
   Stop

   The **`Stop`** button changes from red to blue and becomes a **`Start`** button, and the settings fields become editable.

   > **NOTE:** If recordings are being uploaded into the SCM system at the time recording monitoring services are stopped, those recordings will continue to be processed, but no new recordings will be processed.

3. Replace the existing storage server location with the new location by typing the path for the new server into the **`Storage Location`** field.
4. Click the **`Apply`** button.

5. **In Windows Explorer or another file management utility,** copy the contents of the existing storage location to the new storage location.

   NOTE: Recording packages are very large files. It may take a long time to copy them from the old location to the new one depending on the number and length of recordings within SCM.

6. When copying is complete, **in SCM** in the `Recording Package Settings` section of the `Settings` page, click the **`Start`** button to restart the file monitoring service.
7. **In SCM** click the **Recordings** tab at the top of the screen to open the `Recordings` page.
8. Verify that recordings appear in the recordings list and verify that you can download recordings and navigate to recording detail view pages.

Migrating the SCM Web Service to a New Server

When the need arises, the Streaming Content Manager Web service can be moved to a new server.

To migrate the web service to a new server:

1. Run the SCM Installer program on (from) the new server location. Follow the instructions in **Installing Streaming Content Manager** and be sure to specify the path to the existing database.
2. Open SCM from the new location.
3. On the SCM `Settings` page in the `Recording Package Settings` section, update the ingest location and storage location, especially if the locations are set to folders on the local system.
4. On the `Settings` page, enter the necessary passwords in the `LDAP/AD Settings` section and in the `Notification Settings` section. These values need to be set each time you install SCM on a new server because the values are encrypted by the Web service prior to being saved in the database, and that encryption is specific to the host machine. The values do not need to be changed, they simply need to be re-entered and then the changes applied.
5. On the `Settings` page in the `General Settings` section, you may need to update the application URL. This update is required only if the URL used to access the SCM page has changed.

Logging

About the System Logs

SCM uses system logs to aid in troubleshooting, debugging, and auditing the system. By default, SCM is configured to log only error, audit, and informational messages. If desired, an administrator can enable additional debugging messages to provide more information about SCM operations.

SCM generates three log files, located within the installation path of the web service (typically `C:\inetpub\wwwroot\SCM\Log`). Each file stores log messages pertaining to one of the SCM core services.

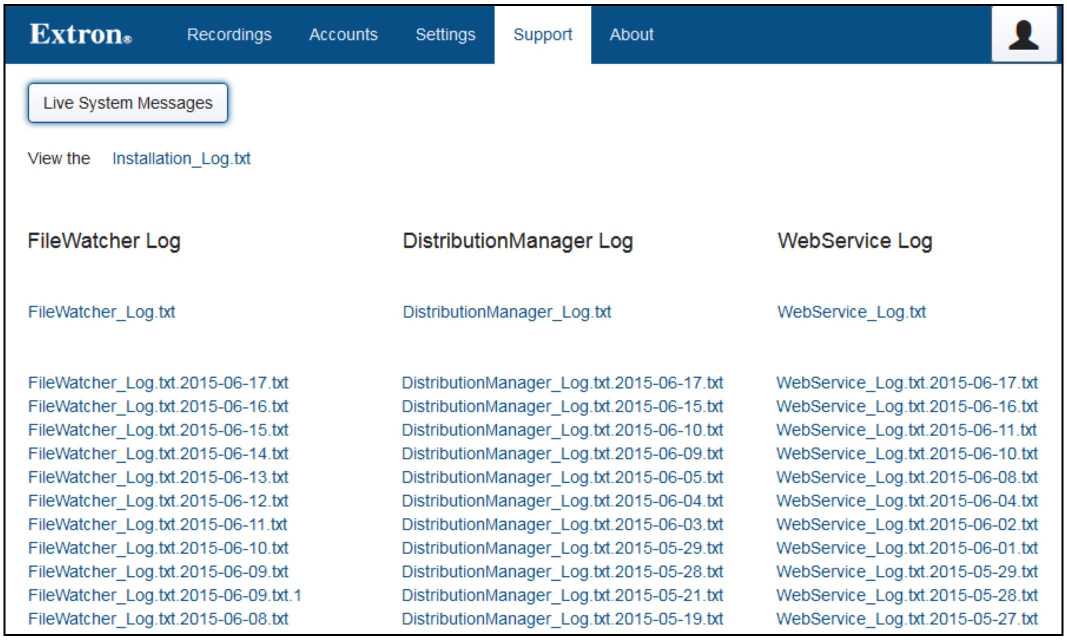
- `WebService_Log.txt` — Contains log messages from the web service, which serves the web page.
- `FileWatcher_Log.txt` — Contains log messages from the file watcher Windows service, which monitors the ingest location and generates a notification when new recordings have been created.
- `DistributionManager_Log.txt` — Contains log messages from the distribution manager Windows service, which ingests and packages the recording and copies them to the storage location.
- `Installation_Log.txt` — Contains log messages from the database installer tool, which is the part of the SCM installation package. The tool is used to establish and test the connection to a database server and to install the SCM database.

The most recent version of each log file is named as specified above. Older log files are named with a date extension, such as `WebService_Log.txt.2015-06-18`. If the log file for a particular day reaches a certain size limit, additional log files are automatically created and named with a sequential number appended to the basic file name (such as `WebService_Log.txt.2015-06-18.1` and `WebService_Log.txt.2015-06-18.2`).

Viewing Log Files

To view the log files from a web browser:

1. While logged in to SCM as an administrator or system administrator, click the **`Support`** tab. The `Support` page opens, displaying lists of the available log files:



View the Installation_Log.txt

FileWatcher Log	DistributionManager Log	WebService Log
FileWatcher_Log.txt	DistributionManager_Log.txt	WebService_Log.txt
FileWatcher_Log.txt.2015-06-17.txt	DistributionManager_Log.txt.2015-06-17.txt	WebService_Log.txt.2015-06-17.txt
FileWatcher_Log.txt.2015-06-16.txt	DistributionManager_Log.txt.2015-06-15.txt	WebService_Log.txt.2015-06-16.txt
FileWatcher_Log.txt.2015-06-15.txt	DistributionManager_Log.txt.2015-06-10.txt	WebService_Log.txt.2015-06-11.txt
FileWatcher_Log.txt.2015-06-14.txt	DistributionManager_Log.txt.2015-06-09.txt	WebService_Log.txt.2015-06-10.txt
FileWatcher_Log.txt.2015-06-13.txt	DistributionManager_Log.txt.2015-06-05.txt	WebService_Log.txt.2015-06-08.txt
FileWatcher_Log.txt.2015-06-12.txt	DistributionManager_Log.txt.2015-06-04.txt	WebService_Log.txt.2015-06-04.txt
FileWatcher_Log.txt.2015-06-11.txt	DistributionManager_Log.txt.2015-06-03.txt	WebService_Log.txt.2015-06-02.txt
FileWatcher_Log.txt.2015-06-10.txt	DistributionManager_Log.txt.2015-05-29.txt	WebService_Log.txt.2015-06-01.txt
FileWatcher_Log.txt.2015-06-09.txt	DistributionManager_Log.txt.2015-05-28.txt	WebService_Log.txt.2015-05-29.txt
FileWatcher_Log.txt.2015-06-09.txt.1	DistributionManager_Log.txt.2015-05-21.txt	WebService_Log.txt.2015-05-28.txt
FileWatcher_Log.txt.2015-06-08.txt	DistributionManager_Log.txt.2015-05-19.txt	WebService_Log.txt.2015-05-27.txt

2. Click on the name of any listed log file to select and download it. Follow any on-screen prompts.
3. Open the file with any text editor program.

To view the log files on the local drive of the SCM web server using a file explorer program:

Navigate to `C:\inetpub\wwwroot\SCM\Log`. There you can select and open the appropriate log file.

Modifying Logging Levels

Instructions for modifying the logging levels for each of these services are as detailed below.

To modify logging levels for the web service (`WebService_Log.txt`):

1. Stop the application pool for the web service in IIS.
2. Edit the configuration file `C:\inetpub\wwwroot\SCM\Web.config`, according to the instructions below.
3. Restart the application pool for the web service.

To modify logging levels for the file watcher Windows service (`FileWatcher_Log.txt`):

1. Stop the Windows service from the Services application of your server. The service is named "Extron File Watcher.”

2. Edit the configuration file `C:\inetpub\wwwroot\SCM\WindowsServices\FileWatcher\Extron.MR.FileWatcherWindowsService.exe.config`, according to the instructions below.
3. Restart the Windows service.

To modify logging levels for the distribution manager Windows service (`DistributionManager_Log.txt`):

1. Stop the Windows service from the Services application of your server. The service is named “Extron Distribution Manager.”
2. Edit the configuration file `C:\inetpub\wwwroot\SCM\WindowsServices\DistributionManager\Extron.MR.DistributionManagerWindowsService.exe.config`, according to the instructions below.
3. Restart the Windows service.

Modifying the Configuration File

The configuration file for each service may be modified in order to change the amount of logging information that is generated in the corresponding log file for each service. Each configuration file contains the following section:

```
<log4net debug="true">
   <!--
   Set the logging level.
```

> **NOTE:** Other configuration options such as the path to the log file are specified in code.

```
   -->
   <root>
      <level value="INFO" />
   </root>
</log4net>
```

1. Set the “level value” parameter to your desired level (within <level value="______" />). Valid values are:
   - `FATAL`
   - `ERROR`
   - `AUDIT`
   - `INFO`
   - `DEBUG`
   - `ALL`

   Note that when a level is selected, all logging statements at that level or above are generated. For example, if the level is set to `FATAL` then only fatal messages are logged. If the value is set to `ERROR` then both error and fatal messages are logged. If the level is set to `ALL`, then everything is logged.

By default, SCM is installed with the level set to `INFO` for all services. To enable additional logging statements for the purpose of debugging the system, it is recommended to set the level to `DEBUG`.

NOTES:

- Setting the logging level to `DEBUG` dramatically increases the amount of data logging. Only change to this level of logging if you are working with Extron support staff to resolve an issue.
- Setting the level to `ALL` results in the identical behavior as setting it to `DEBUG`.

2. Save the configuration file.
3. Restart the affected service.

Managing User Accounts

Managing User Accounts

Within Streaming Content Manager administrators and the system administrator define the user accounts and the roles of users. After an AD connection is set up (see **Setting Up LDAP/AD Connections**), users can be added and access to SCM can be managed using standard network directory services (Microsoft Active Directory® (AD)), or users and passwords can be locally defined within SCM.

Once user accounts are established, SCM (for local accounts), or an AD system via SCM (for accounts drawn externally from an AD system), authenticates users and provides them access to download or share their recording packages.

Administrators and the system administrator can access summary data about users such as the date and time of last login, the date and time of the last uploaded recording, and the total number of recordings made by that user, broken out by privacy status (private, public, and unlisted). They can also manage and update user profiles.

Recordings that cannot be authenticated by SCM are saved to a local guest account that is controlled by the SCM administrators.

There are several aspects to managing user accounts in Streaming Content Manager.

Understanding User Account Roles and Types

To understand the different user roles (system administrator, administrator, user, guest) within SCM, what they can do, and who can change them, see **User Roles**.

To compare characteristics of user account types based on origin (local or AD), see **Comparing User Types Based on Origin (Local or AD Accounts)**.

Creating and Managing Accounts

Adding, viewing, editing, and deleting user accounts

- To add users, see **Adding Users**.
- To view a list of user accounts,see **Viewing, Locating, and Accessing User Accounts**.
- To delete a user, see **Deleting a User Account**.

- To edit and update a user profile (name, e-mail, role, local time zone, and other settings), see one of the following topics:
  - **Editing My Profile**
  - **Editing a User Profile**
  - **Editing the System Administrator Profile**
- To have a local user change their password, go to their `User Profile` page, click the **`Reset Password`** button, and send a link to the user (see **Editing a User Profile**).

Best Practices Recommendations

Determining what to do with an existing user's recordings before replacing or deleting their account

If a user account must be changed from a local SCM account to one drawn from an Active Directory system or vice versa), the existing account must be deleted before the AD (or local) version of the account can be established. Also, accounts of any origin may need to be deleted when a user leaves the organization.

If a user account is deleted, all the recordings "owned" by that account are also deleted. If any recordings should be saved for later use (transferred to a replacement account for the user, archived, or made available to other users in the organization), you must do one of the following **before** deleting the account:

- Reassign them to another user account (by changing the owner within the recording details, see **Tips on editing specific fields** within "Editing Recording Details").
- Download them one at a time from within the SCM interface (see **Downloading a Recording Package**) and save them to another location.
- Manually copy the recording files outside SCM (at the server level).

Adding Users

Administrators and the system administrator define user accounts and the roles of users. Once an Microsoft Active Directory® (AD) connection is set up (see **Setting Up LDAP/AD Connections**), users can be added and access to Streaming Content Manager can be managed using standard network directory services (AD), or users and passwords can be locally defined within SCM.

Generally, if a company or organization has an existing AD system in place, it is preferable to add users from AD. With an LDAP/AD system, usernames, e-mail addresses, and permissions already reside in a database and can be quickly added to SCM and because it allows consistent login and user management consistency across many applications.

- When a user is added to SCM, their account origin (local or LDAP/AD) is saved in their record.
- If a user account has been added to SCM already, that user cannot be added again even if the origin (LDAP/AD or local entry) is different. For example, if a user was added locally, the same user (or any user with the same e-mail address) cannot be added from an LDAP/AD system. The existing account is retained. To change the account from local to AD or vice versa, the existing account must be deleted* and then the replacement account must be added.

  NOTE: *Recordings associated with an account are deleted when the account is deleted. If the user has recordings stored in SCM that must be saved, an administrator or system administrator must first temporarily reassign any recordings from that user to another account or ask the user to download the recording packages before their original account is deleted.

- An e-mail address is required for all accounts in the system except the system administrator (which can add an e-mail address, if desired) and the guest account (which can never have an e-mail address).

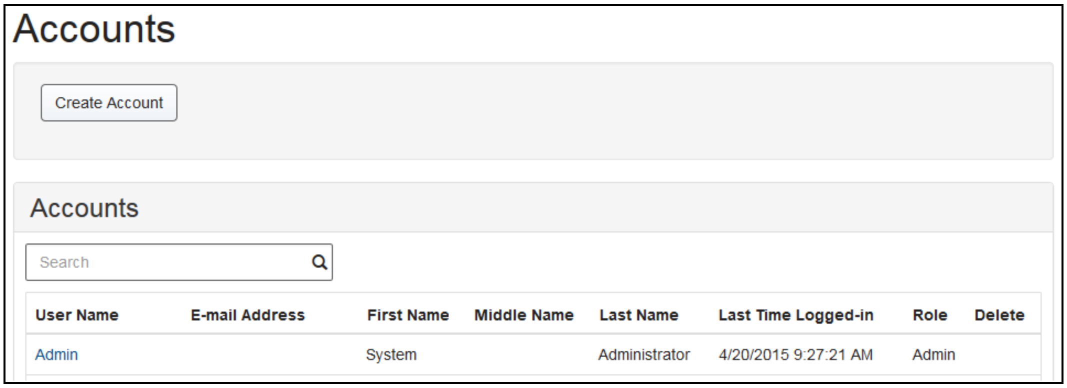
The following procedures describe how to add users to the SCM system.

Adding a User Locally (Creating a Local SCM User Account)

Users can be added to SCM as local accounts that are created and validated entirely within SCM only.

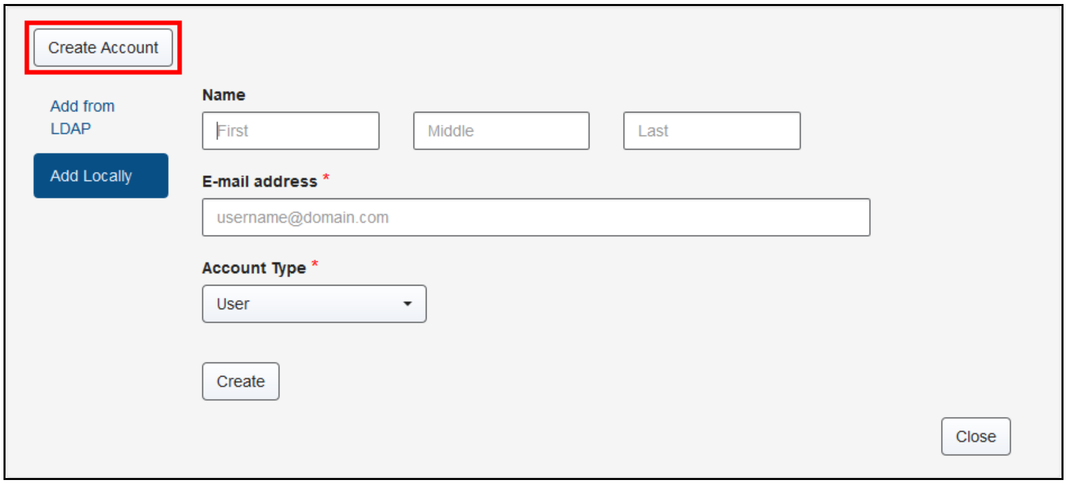
To add a local user account:

1. Once logged in to SCM as an administrator or system administrator, click on the **`Accounts`** tab at the top of the window. The `Accounts` page opens.



User Name	E-mail Address	First Name	Middle Name	Last Name	Last Time Logged-in	Role	Delete
Admin		System		Administrator	4/20/2015 9:27:21 AM	Admin	

2. Click on the **`Create Account`** button in the upper portion of the screen. The account creation panel opens. If an LDAP/AD connection is active, it opens with the **`Add from LDAP`** button selected. Otherwise it opens with the **`Add Locally`** button selected. If needed, click the **`Add Locally`** button.

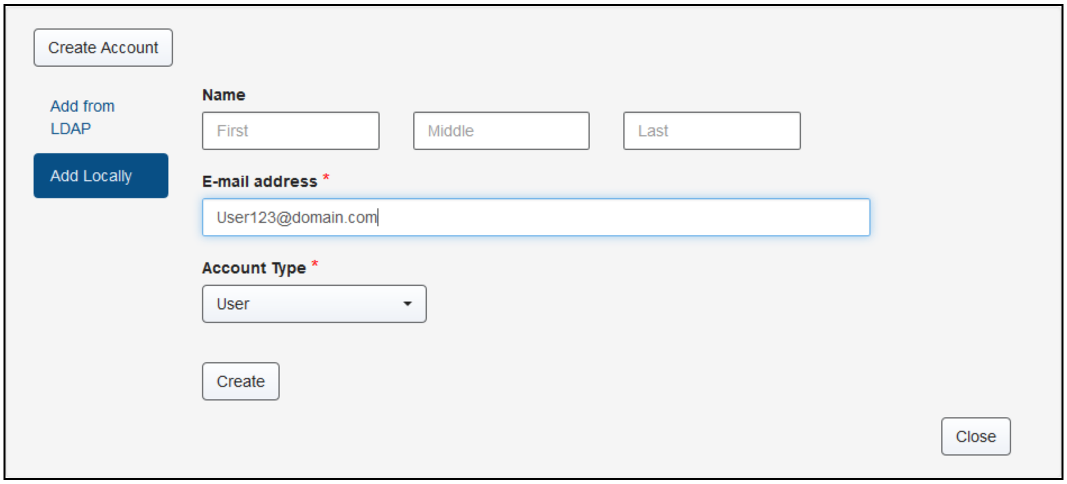


Name: First | Middle | Last

E-mail address *: username@domain.com

Account Type *: User

3. If desired, enter text for the name of the user into the **First**, **Middle**, and **Last Name** fields. The name is optional, but, if entered, it will be displayed as the recording owner name in recording lists and recording detail views, and displayed in user account list and user profile page.



E-mail address *: User123@domain.com

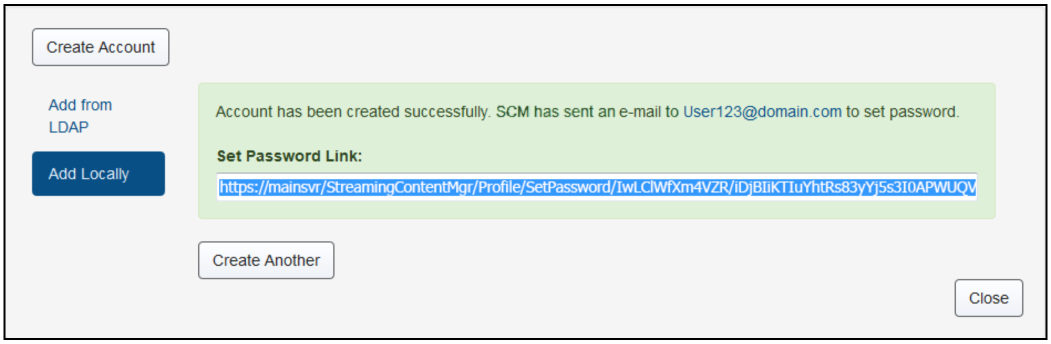
Account Type *: User

4. Enter the e-mail address of the user into the **E-mail address** field. An e-mail address is required. The e-mail address is used as the username for each local user. Also, if no personal name is entered in step 3 above, the email address will be displayed as the name in recording lists, recording detail views, and in the user account list and user profile page view.

5. Select the account type (user role) (**User** or **Administrator**) from the **Account Type** drop-down list. The default role is **User**.

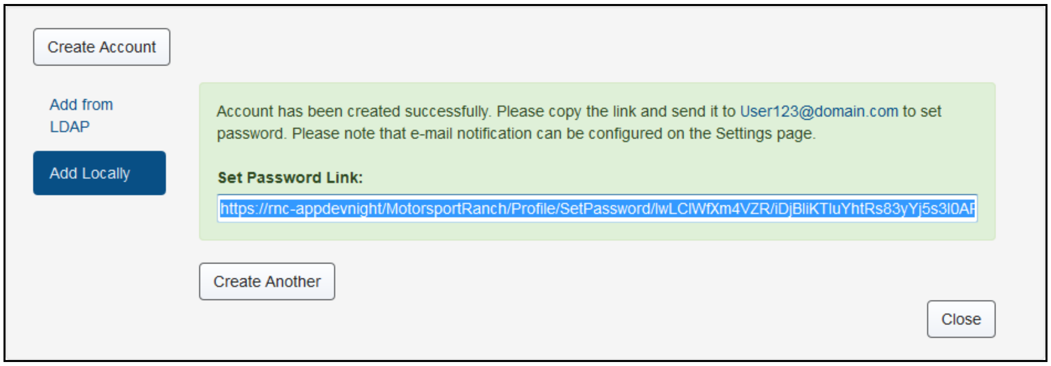
6. Click **Create**.

   - A account creation success message appears in the account creation panel. Within the notification is a hyperlink to the password setup page for that user. The hyperlink can be copied and sent to the user. However, that is not necessary if SCM has been configured to connect with an e-mail server.



Account has been created successfully. SCM has sent an e-mail to User123@domain.com to set password.

Set Password Link: https://mainsvr/StreamingContentMgr/Profile/SetPassword/IwLClWfXm4VZR/iDjBIiKTIuYhtRs83yYj5s3I0APWUQV



Account has been created successfully. Please copy the link and send it to User123@domain.com to set password. Please note that e-mail notification can be configured on the Settings page.

Set Password Link: https://rnc-appdevnight/MotorsportRanch/Profile/SetPassword/lwLClWfXm4VZR/iDjBliKTluYhtRs83yYj5s3l0AF

NOTE: The success message and hyperlink is retained on screen only until you create another user account or until you leave the Accounts page.

   - If the e-mail connection is set up, SCM automatically sends the user an e-mail notifying them that their SCM user account has been set up and that they can now set their password.
   - The user is added to the Accounts list in the lower portion of the Accounts page.
   - The **Create** button becomes the **Create Another** button.

NOTE: If a user with the same e-mail address has already been added to the SCM system, SCM displays an error message. That user cannot be added again, regardless of the account origin. To check the origin of the account, locate the user in the Accounts list and click on their e-mail address to open a user profile page. The origin (local or remote [AD]) is indicated in the read-only **Created From** field.

To change an account from a local account to an AD-based account, the local account must be deleted, and then the user must be added from AD. Any recordings connected with the account will be deleted during account deletion, so recordings should be downloaded and saved or reassigned to another user before the local account is deleted.

7. Add additional user accounts as desired by clicking the **Create Another** button and repeating steps 3 through 6.
8. Click **Close** to collapse the account creation panel, if desired.

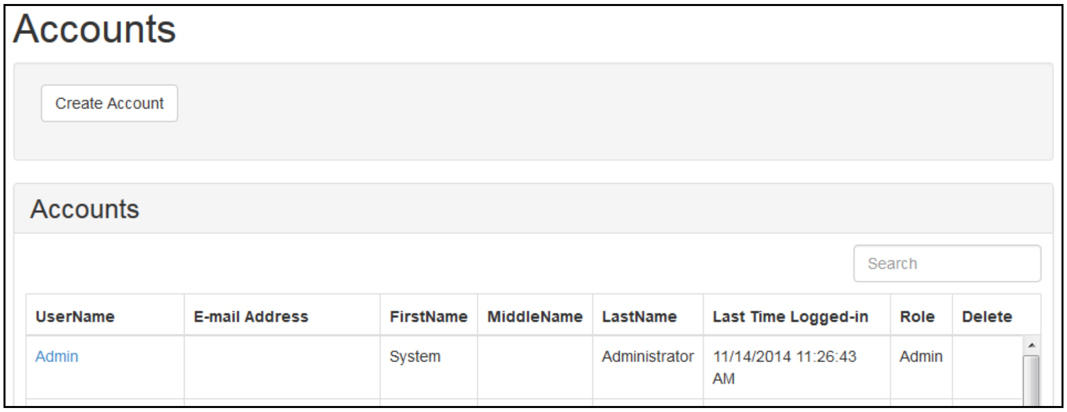
Adding Users From an LDAP/AD System

Users can be added to SCM from an existing Active Directory system. The names, e-mail addresses, and usernames of these users are drawn from and validated by the Active Directory system specified in the `LDAP/AD Settings` section of the `Settings` page. See **Setting Up LDAP/AD Connections** to set up and enable the server connection prior to adding LDAP/AD users.

NOTE: SCM accesses the AD server when queries are sent to add users and again when a user logs in. SCM does not perform bulk updates or validations of all users at once. This method keeps network traffic to a minimum while ensuring user validation.

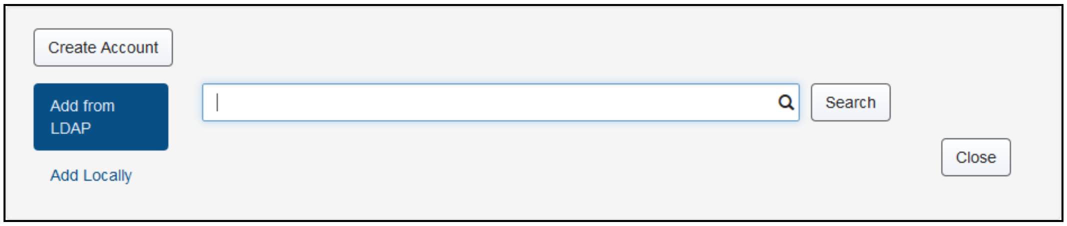
To add an LDAP/AD account:

1. Once logged in to SCM as an administrator or system administrator, click on the **`Accounts`** tab at the top of the window. The `Accounts` page opens.

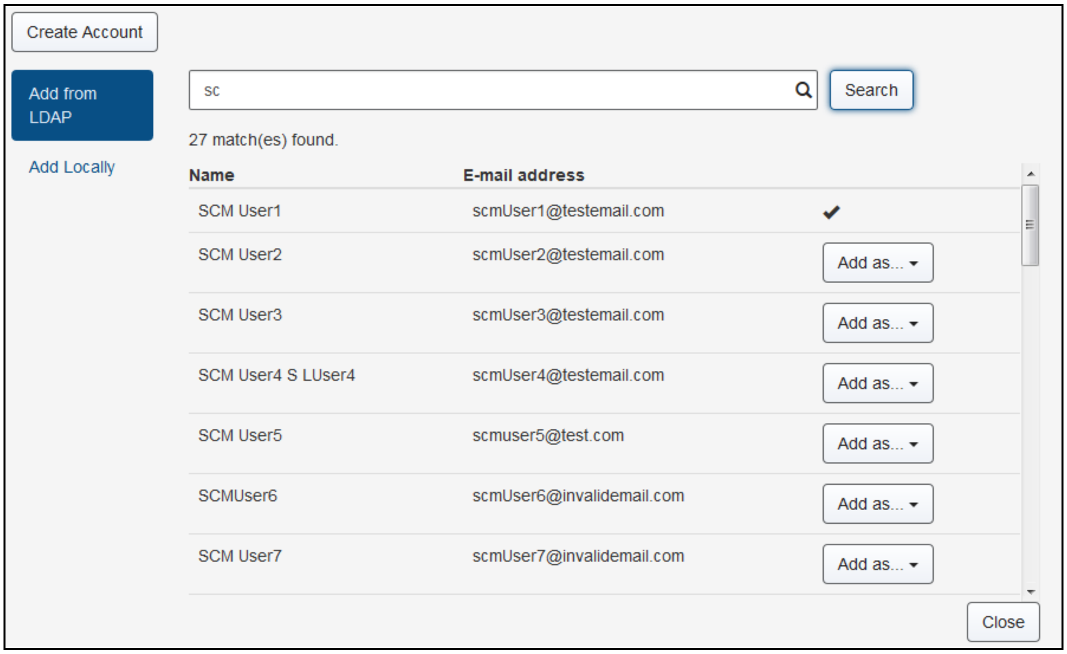


UserName	E-mail Address	FirstName	MiddleName	LastName	Last Time Logged-in	Role	Delete
Admin		System		Administrator	11/14/2014 11:26:43 AM	Admin	

2. Click on the **`Create Account`** button in the upper portion of the screen. The account creation panel opens. If an AD connection is active, it opens with the **`Add from LDAP`** button selected. Otherwise it opens with the **`Add Locally`** button selected.
3. If needed, click on **`Add from LDAP`**. The panel changes to show a search field.



4. Search for a user in the AD system by typing text such as a username, name, or e-mail address into the search field and click **Search**. Results of the search appear in the list directly below the search field. The quantity of results shown in the list is limited by the LDAP/AD **Results per Search** setting (see **Setting Up LDAP/AD Connections**).



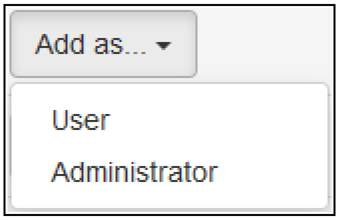
27 match(es) found.

Name	E-mail address	
SCM User1	scmUser1@testemail.com	✓
SCM User2	scmUser2@testemail.com	Add as... ▾
SCM User3	scmUser3@testemail.com	Add as... ▾
SCM User4 S LUser4	scmUser4@testemail.com	Add as... ▾
SCM User5	scmuser5@test.com	Add as... ▾
SCMUser6	scmUser6@invalidemail.com	Add as... ▾
SCM User7	scmUser7@invalidemail.com	Add as... ▾

5. Locate the user in the search results list and click the **Add As** button to right of their e-mail address. The button changes to a drop-down list.

> **NOTE:** If a user with the same e-mail address has already been added to the SCM system, the user appears in the search results list with a check mark in place of the **Add As** button. That user cannot be added again, regardless of the account origin. To determine the origin of the account, locate the user in the Accounts list and click on their e-mail address to open a user profile page. The origin (local or remote [AD]) is indicated in the read-only **Created From** field.
>
> To change an account from a local account to an AD-based account, the local account must be deleted, and then the user must be added from AD. Any recordings connected with the account will be deleted during account deletion, so recordings should be downloaded and saved or reassigned to another user before the local account is deleted.

6. Select **User** or **Administrator**, as appropriate, from the drop-down list to add that user to SCM with the corresponding role (user or administrator).



- Successful addition of the user to SCM is indicated by a check mark (✓) in place of the **Add As** button.

- The user is added to the Accounts list in the lower portion of the `Accounts` page.
- If the e-mail server connection is set up, SCM automatically sends the user an e-mail notifying them that their SCM user account has been set up. They will not be given an option to change passwords because the AD system (not SCM) maintains and validates all passwords.

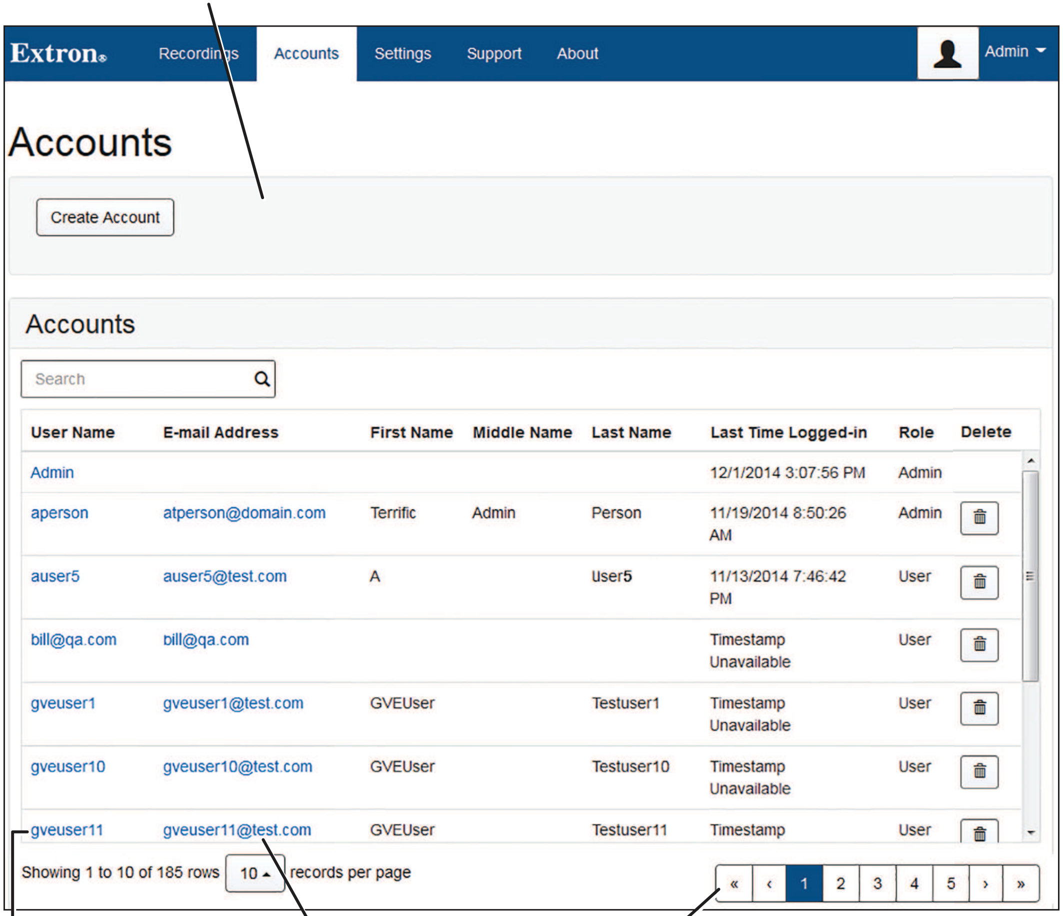
7. Add other users from the displayed search results (repeat steps 5 and 6) or start a new search and add users as desired from the new results (repeat steps 4 through 6).
8. Click **Close** to collapse the account creation panel, if desired.

Viewing, Locating, and Accessing User Accounts

The `Accounts` page of Streaming Content Manager provides a way to not only create accounts but also to see a list of existing accounts (the Accounts list), from which you can access a user profile page for any account other than the guest account.

Once logged in to SCM as an administrator or system administrator, click on the **`Accounts`** tab at the top of the window. The `Accounts` page opens, showing the Accounts list below the account creation panel.

Account creation panel



Accounts

Accounts

User Name	E-mail Address	First Name	Middle Name	Last Name	Last Time Logged-in	Role	Delete
Admin					12/1/2014 3:07:56 PM	Admin	
aperson	atperson@domain.com	Terrific	Admin	Person	11/19/2014 8:50:26 AM	Admin	🗑
auser5	auser5@test.com	A		User5	11/13/2014 7:46:42 PM	User	🗑
bill@qa.com	bill@qa.com				Timestamp Unavailable	User	🗑
gveuser1	gveuser1@test.com	GVEUser		Testuser1	Timestamp Unavailable	User	🗑
gveuser10	gveuser10@test.com	GVEUser		Testuser10	Timestamp Unavailable	User	🗑
gveuser11	gveuser11@test.com	GVEUser		Testuser11	Timestamp	User	🗑

Showing 1 to 10 of 185 rows 10 ▴ records per page

Click to access the user profile page.

Click to send the user an e-mail.

Page controls

For each account the Accounts list displays the username, e-mail address, the names (first, middle, and last [surname], if available), the time that user last logged into SCM, their user role, and a button for deleting the account. A scroll bar at the right side of the list makes it possible to view more entries in the list. A scroll bar along the bottom of the list makes it possible to access the **`Delete`** buttons on the right side of the list if the other columns are wide.

Accounts can be deleted from this view, but any other properties of an account must be changed via the `User Profile` pages (see **Editing a User Profile** or **Editing My Profile**).

If desired, you can send an e-mail to a user via a link from this list. Clicking the blue e-mail address link in the **E-mail Address** column opens an e-mail populated with the user's e-mail address.

Locating a User Account: How to Work With the Accounts List

Sorting the list and searching for users

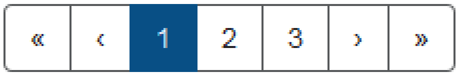
By default users are listed in ascending alphabetical order by e-mail address.

- You can sort the list (in ascending or descending order) by clicking on a column heading (**User Name**, **Email Address**, **First Name**, and the like).
- The list can be narrowed down by entering text into the **Search** field. The list automatically is reduced to entries that contain the entered text string in any field.

Maneuvering through the list

Scroll bars along the side and bottom of the Accounts list allow you to display items within a page.

- The quantity of records shown per page (within the Accounts list area) can be changed by selecting a value (**10**, **25**, **50**, or **100**) from the **Show *n* records per page** pop-up menu.
- Access additional pages by clicking on the page control buttons along the lower right of the screen.



The **<<** and **>>** buttons link to the first and last pages in the list, respectively.

The **<** and **>** buttons open the previous or next page in the list.

Numbered buttons link to the like numbered page in the accounts list.

Accessing a User Profile (Detail View) Page

To view the details about a user account and to be able to edit account properties (see **Editing a User Profile**), locate the account name in the list, then click on the blue username text in the **UserName** column. The `User Profile` page for that account opens.

Deleting a User Account

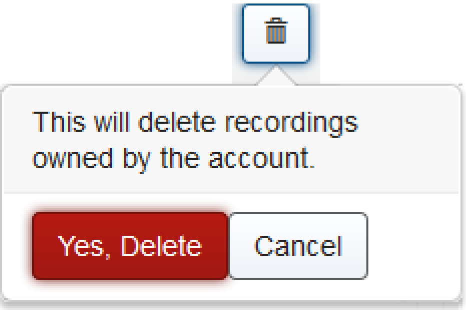
An administrator or system administrator can delete an account for any user or administrator other than the following:

- the system administrator account
- themselves (their own account)
- the guest account

NOTE: Recordings associated with an account are deleted when the account is deleted. If the user has recordings stored in SCM that must be saved, an administrator or system administrator must reassign any recordings from that user to another account (owner) or download the recording packages before the account is deleted.

To delete an account:

1. Log into SCM as an administrator or system administrator.
2. Click on the **`Accounts`** tab.
3. Scroll through the Accounts list to locate the user account you wish to delete. If necessary you can sort the list by clicking on the column headings or search for a user by entering text into the **`Search`** field at the top of the list.
4. In the row for the user to be deleted, click on the trashcan button (🗑) in the **`Delete`** column on the right side of the list. A dialog box appears below the button:



This will delete recordings owned by the account.

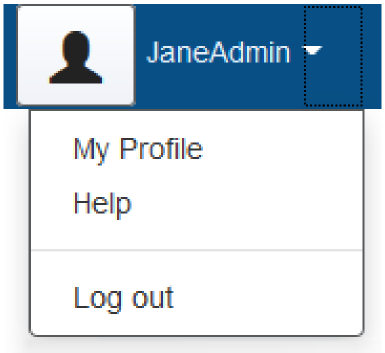
5. Click **`Yes, Delete`** to delete both the account and the recordings that are owned by the account.
   Alternatively, click **`Cancel`** to cancel the account deletion and retain the user.

Editing My Profile

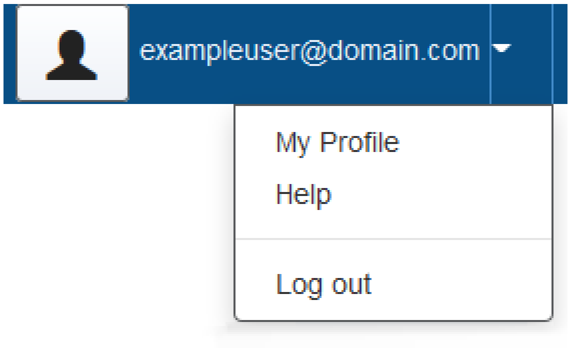
Everyone with an account in Streaming Content Manager can view and edit their own profile. Which elements are editable vary depending on your user role (user, administrator, system administrator) and the account type and origin (local or remote [AD]).

To change user profile settings (edit a user profile):

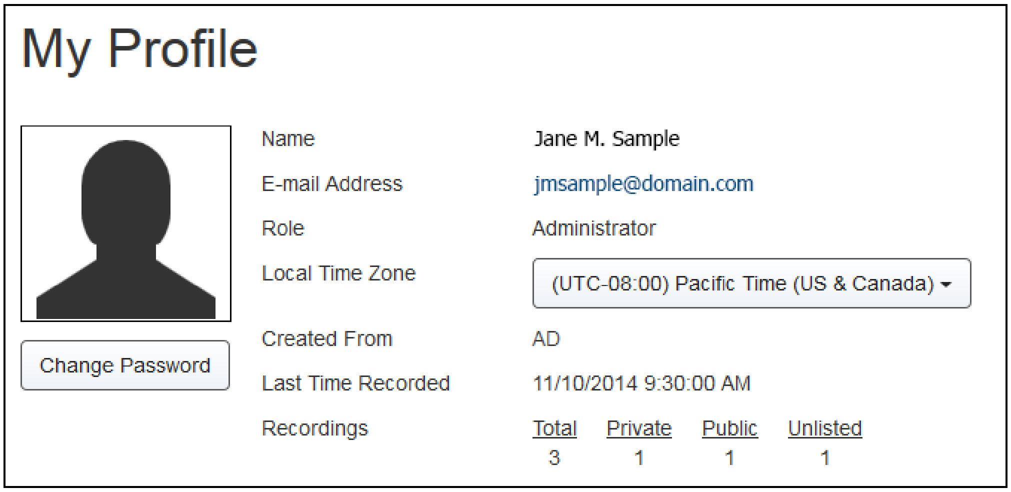
1. From any page within SCM, click on your user icon, username, or click on the arrow adjacent to it in the upper right corner of the screen.
2. If you click on the arrow, a drop-down menu opens, as shown below. Select **`My Profile`** from the drop-down menu.



or

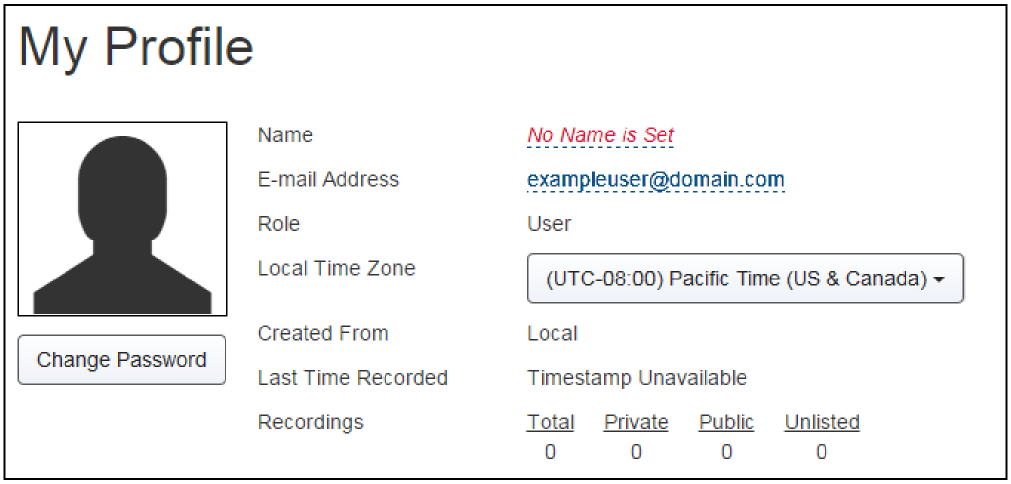


Whether you clicked on the icon, clicked on your username, or selected **`My Profile`** from the drop-down menu, the `My Profile` page opens. Examples of pages for an account with an Active Directory origin and an account with a local origin are shown below, as is an example of the page for the system administrator account.



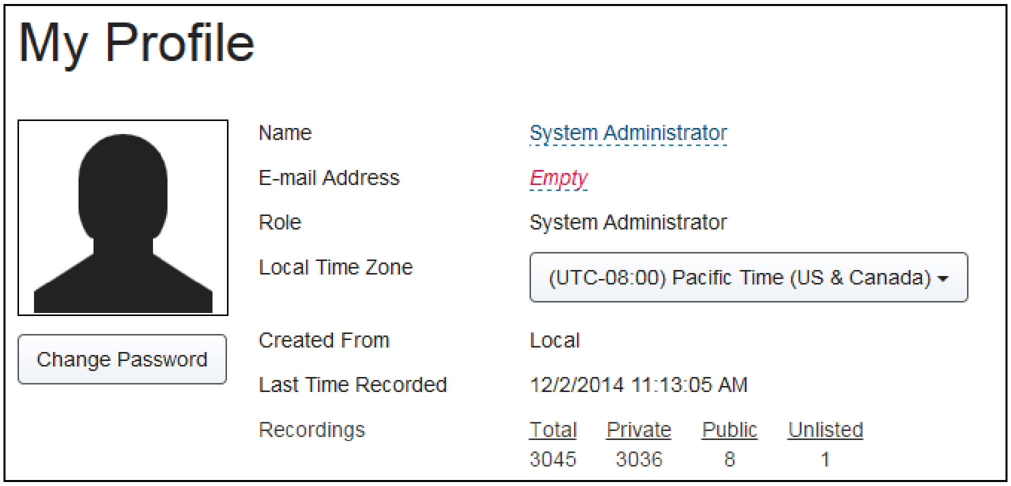
My Profile

Name	Jane M. Sample			
E-mail Address	jmsample@domain.com			
Role	Administrator			
Local Time Zone	(UTC-08:00) Pacific Time (US & Canada) ▾			
Created From	AD			
Last Time Recorded	11/10/2014 9:30:00 AM			
Recordings	Total	Private	Public	Unlisted
	3	1	1	1



My Profile

Name	*No Name is Set*			
E-mail Address	exampleuser@domain.com			
Role	User			
Local Time Zone	(UTC-08:00) Pacific Time (US & Canada) ▾			
Created From	Local			
Last Time Recorded	Timestamp Unavailable			
Recordings	Total	Private	Public	Unlisted
	0	0	0	0



My Profile

Name	System Administrator			
E-mail Address	*Empty*			
Role	System Administrator			
Local Time Zone	(UTC-08:00) Pacific Time (US & Canada) ▾			
Created From	Local			
Last Time Recorded	12/2/2014 11:13:05 AM			
Recordings	Total	Private	Public	Unlisted
	3045	3036	8	1

Items that can be changed (editable elements):

- For the **system administrator** account, the name, local time zone, and password can be changed. An e-mail address can be added, and once added it can be changed.

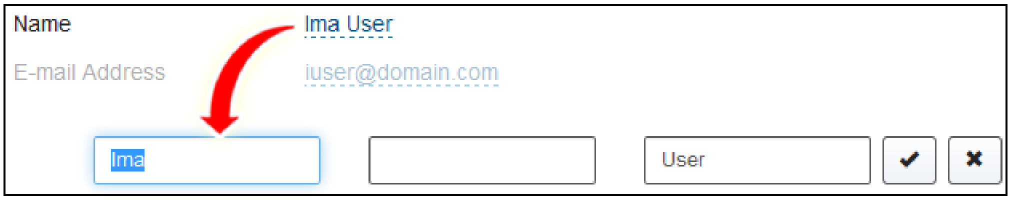
> **NOTE:** To reset the system administrator settings to the factory defaults (including removing the e-mail address), an administrator must run a component of the SCM installation utility. The system administrator account reset and removal of the e-mail address cannot be performed within SCM.

- For **local users** (users or administrators), the name, e-mail address, local time zone, and password can be changed.
- For **remote (AD) users**, only the local time zone can be changed. The name, e-mail address, and password are all managed by the Active Directory system.

Items for information only (read-only elements):

- **Created From** indicates whether your account was created locally (solely within SCM) or added from an AD management system. For non-local users, the text comes from the read-only **`Connection Name`** field at the top of the LDAP/AD configuration section on the `Settings` page. It is the alias name for the connection.
- **Last Time Recorded** indicates the last date and time (displayed in the viewer's local time) when you uploaded a recording into SCM. If you have no recordings, this field displays "`Timestamp Unavailable`"
- The **Recording**s information shows how many recordings of yours are stored in SCM and how many are assigned each privacy setting (private, public, or unlisted).

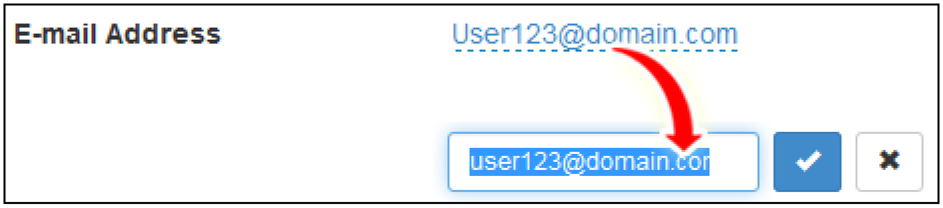
3. To change the name if you are a local user (user, administrator, or system administrator):
   a. Click on the name link (displayed in blue text) or the words **`No Name is Set`** or **`Empty`** (displayed in red text, only if a name has not been added previously). Three fields appear (one for the first name, one for the middle name, one for the last name [surname]), replacing the name link.



   b. Enter the new or corrected name into each field as desired. Names are optional: any or all of these fields can be left empty.
   c. Click the check mark button to accept the changes or click the **X** button to discard changes.

4. To change the e-mail address if you are a local user (user, administrator, or system administrator):

   a. Click on the e-mail address link (displayed in blue text) or the word **Empty** (displayed in red text, only for the system administrator account prior to adding an e-mail address).

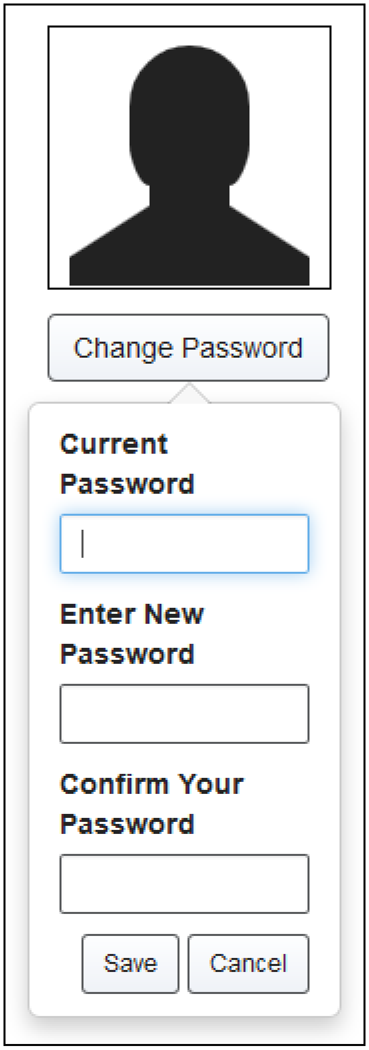
   b. Enter the new or corrected e-mail address into the field as desired.

   c. Click the check mark button to accept the changes or click the **X** button to discard changes.

5. To select a local time zone that is different from the SCM default time zone, click the **Local Time Zone** drop-down list and select an option. This setting controls what time zone is used to display recording and log-in times to you, as well as for information in error messages that are e-mailed to you. To learn more about which time zones are used by which parts of the SCM system, see **Understanding Time Zone Settings**.

6. To change the password if you are a local user or administrator:

   a. Click the **Change Password** button below the user icon. A panel opens with fields where you can reset your password.



   b. Enter your current password into the **Current Password** field.

   c. Enter your new password into the **Enter New Password** and **Confirm Your Password** fields. For the minimum number of characters and details about acceptable characters, see **Guidelines for Passwords**.

   d. Click **Save** to save the new password or click **Cancel** to discard changes and keep your old password.

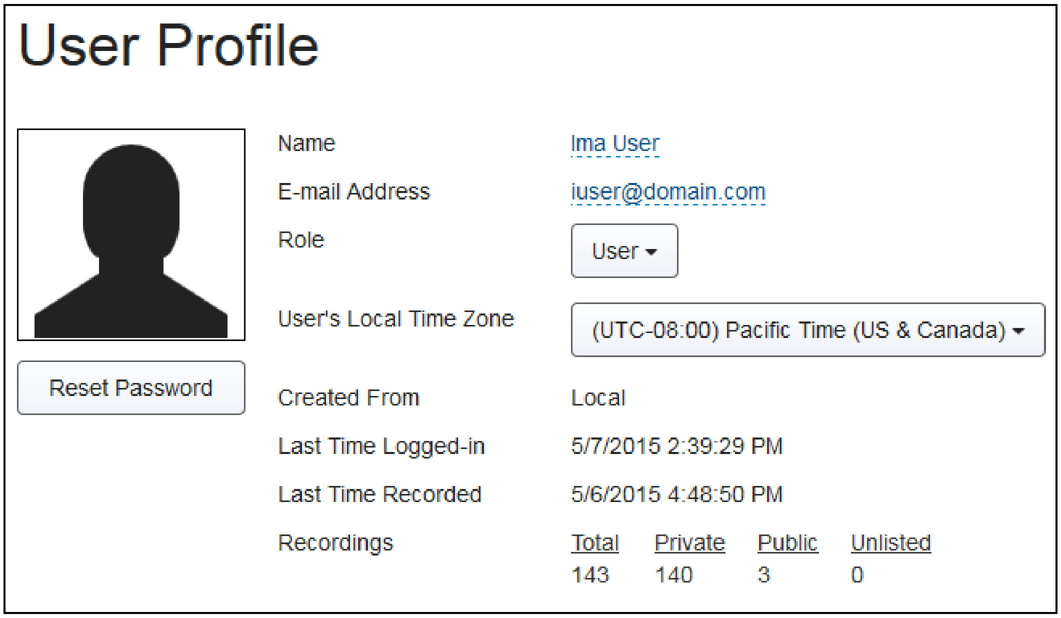
Editing a User Profile

An administrator or system administrator can edit the profile and settings for any user within SCM. Which elements are editable vary depending on user role (user, administrator, system administrator) and the account type or origin (local or remote [AD]).

To change user profile settings (edit a user profile):

1. Once logged in to SCM as an administrator or system administrator, click on the **Accounts** tab at the top of the window. The Accounts page opens.
2. In the Accounts list locate the user profile to be edited.
   - By default users are listed in ascending alphabetical order by e-mail address. You can sort the list (in ascending or descending order) by clicking on a column heading (**User Name**, **E-mail Address**, **First Name**, and the like).
   - The list can be narrowed down by entering text into the **Search** field.

3. Click on the username for the desired profile. The `User Profile` page opens for that specific user profile.



User Profile

Name	Ima User
E-mail Address	iuser@domain.com
Role	User ▾
User's Local Time Zone	(UTC-08:00) Pacific Time (US & Canada) ▾
Created From	Local
Last Time Logged-in	5/7/2015 2:39:29 PM
Last Time Recorded	5/6/2015 4:48:50 PM

Recordings	Total	Private	Public	Unlisted
	143	140	3	0

Items that can be changed (editable elements):

- For the **system administrator** account, the name, local time zone, and password can be changed. An e-mail address can be added, and once added it can be changed.

  NOTE: To reset the system administrator settings to the factory defaults (including removing the e-mail address), an administrator must run a component of the SCM installation utility. The system administrator account reset and removal of the e-mail address cannot be performed within SCM.

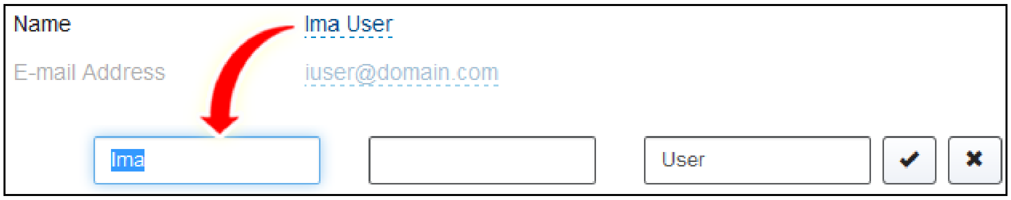
- For **local users** (users or administrators), the name, e-mail address, role, local time zone, and password can be changed.
- For **AD users**, only the role and local time zone can be changed. The name, e-mail address, and password are all managed by the Active Directory system.

Items for information only (read-only elements):

- **Created From** indicates whether the user account was created locally (solely within SCM) or added from an AD management system. For non-local users, the text comes from the read-only **`Connection Name`** field at the top of the LDAP/AD configuration section on the `Settings` page. It is the alias name for the connection.
- **Last Time Logged-in** indicates the date and time (displayed in the viewer's local time) when this user last accessed SCM.
- **Last Time Recorded** indicates the last date and time (displayed in the viewer's local time) when the user created and uploaded a recording into SCM. If the user has no recordings, this field displays "`Timestamp Unavailable`"
- The Recordings information shows how many recordings by that user are stored in SCM and indicates how many are assigned each privacy setting (private, public, or unlisted).

4. To change the name for a local user (user, administrator, or system administrator):

   a. Click on the name link (displayed in blue text) or the word **`Empty`** (displayed in red text, only if a name has not been added previously). Three fields appear (one for the first name, one for the middle name, one for the last name [surname]), replacing the name link.



Name Ima User

E-mail Address iuser@domain.com

Ima

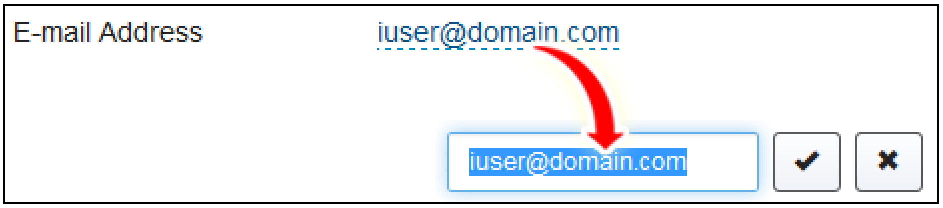
User

   b. Enter the new or corrected name into each field as desired.

   c. Click the check mark button to accept the changes or click the **X** button to discard changes.

5. To change the e-mail address for a local user (user, administrator, or system administrator):

   a. Click on the e-mail address link (displayed in blue text) or the word **`Empty`** (displayed in red text, only for the system administrator account prior to adding an e-mail address).



E-mail Address iuser@domain.com

iuser@domain.com

   b. Enter the new or corrected name into each field as desired.

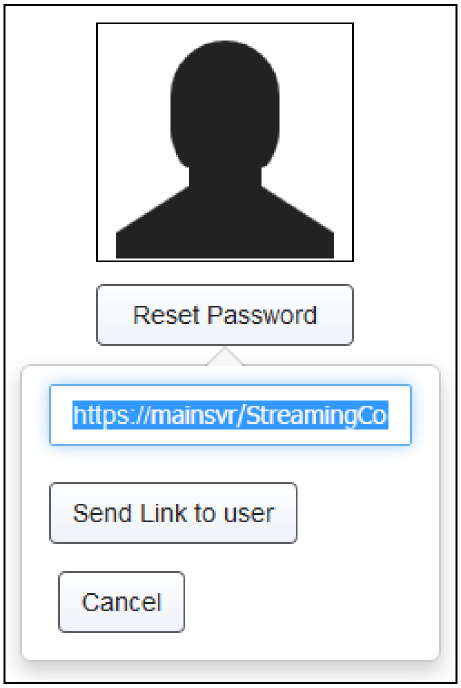
   c. Click the check mark button (✓) to accept the changes or click the **X** button to discard changes.

6. To change the role from user to administrator or from administrator to user, click on the **`Role`** drop-down list and select the desired role.

7. To select a different local time zone, click the **`User's Local Time Zone`** drop-down list and select an option. This setting controls what time zone is used to display recording and log-in times to that user, as well as for information in error messages that are e-mailed to the user. To learn more about which time zones are used by which parts of the SCM system, see **Understanding Time Zone Settings**.

8. To change the password for a local user or administrator:

   a. Click the **`Reset Password`** button below the user icon. A panel opens that provides the URL link to a page where the user can reset their password.



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   b. You can copy and send the link to the user manually or click the **`Send Link to user`** button to allow SCM to send the link to the user if SCM has already been configured for e-mail notifications (see **Configuring E-mail Notification Settings**). Alternatively, to cancel sending the user a link to reset their password, click **`Cancel`**.

> **NOTE:** If the user receives the e-mail, clicks on the link, opens the password reset page, and completes and submits the form, the password is reset. However, if the user first logs in to SCM using their old password and later tries to access the password reset page, then the link for resetting the password expires, no new password is set, and the old password continues to be valid.

Editing the System Administrator Profile

An administrator or the system administrator can change the name of the system administrator account, add an e-mail address to the account (which becomes the username), edit the e-mail address once it has been added, or change the local time zone setting.

> **NOTE:** The only way to remove an e-mail address from this account once it has been added is to exit SCM and use the SCM installer utility to reset the system administrator account to factory default settings.

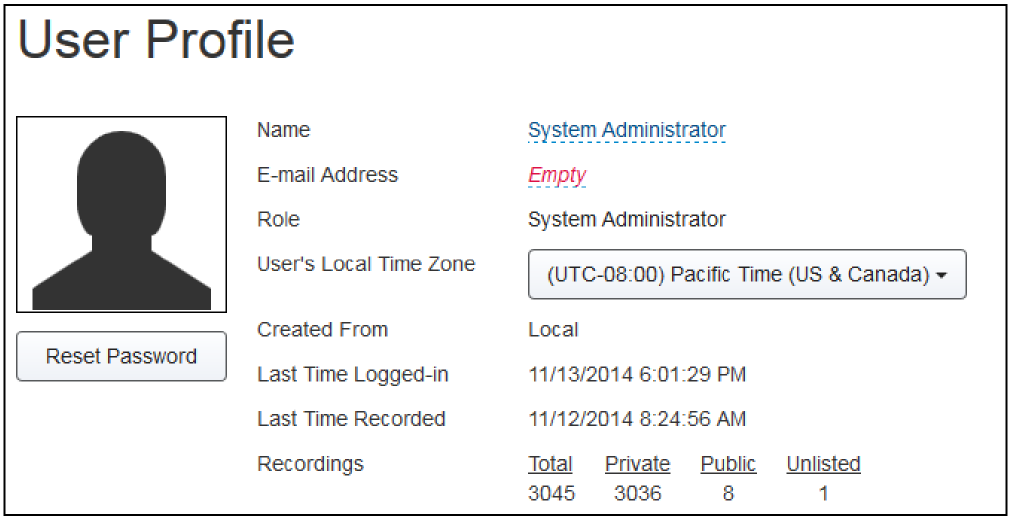
Only the system administrator can change the system administrator password, though an administrator can send a link to the system administrator so they can change the password.

To edit the system administrator profile if you are the system administrator:

See **Editing My Profile** or follow the instructions below but realize that you will reach your `My Profile` page instead of a `User Profile` page. Also, the system administrator can change the system administrator password directly within the `My Profile` page instead of sending and accessing a reset password e-mail message.

To edit the system administrator profile if you are an administrator:

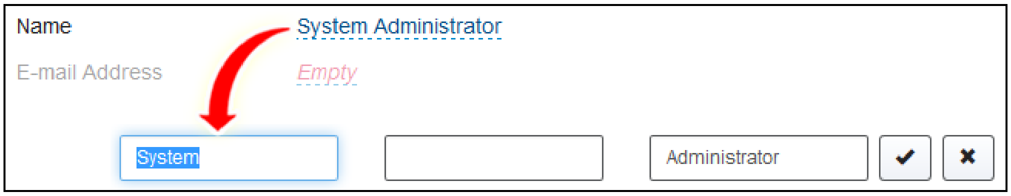
1. Once logged in to SCM as an administrator or system administrator, click on the **`Accounts`** tab at the top of the window. The `Accounts` page opens.
2. In the accounts list locate the system administrator profile. The list can be sorted (by clicking on the column headings) or searched to make it easier to find the account. By default, the username is "Admin," the first name is "System," and the last name is "Administrator."
3. Click on the username (**`Admin`**, by default) for the system administrator. The profile page (titled "User Profile" if logged in as administrator or titled "My Profile" if logged in as the system administrator) opens.



User Profile

Name	System Administrator
E-mail Address	Empty
Role	System Administrator
User's Local Time Zone	(UTC-08:00) Pacific Time (US & Canada)
Created From	Local
Last Time Logged-in	11/13/2014 6:01:29 PM
Last Time Recorded	11/12/2014 8:24:56 AM
Recordings	Total 3045 · Private 3036 · Public 8 · Unlisted 1

4. To edit the name of the system administrator account:
   a. Click on the name link (**`System Administrator`**, by default, displayed in blue text). Three fields appear (one for the first name, one for the middle name, one for the last name [surname]), replacing the name link.



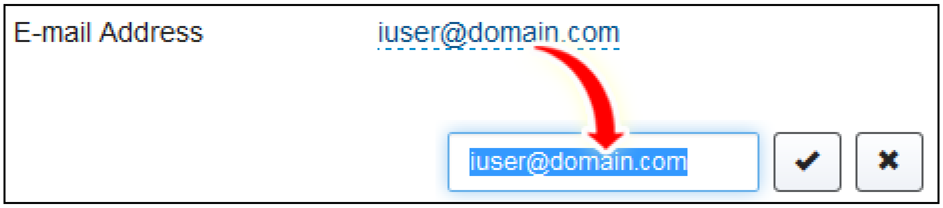
Name	System Administrator
E-mail Address	Empty

System | | Administrator

   b. Enter the new or corrected name into each field as desired.
   c. Click the check mark button (✓) to accept the changes or click the **X** button to discard changes.

5. To add or change the e-mail address:

   a. Click on the word **`Empty`** (displayed in red text, prior to adding an e-mail address) or on the e-mail address link (displayed in blue text, if an e-mail address was added previously).



E-mail Address iuser@domain.com

iuser@domain.com

   b. Enter the new or corrected name into each field as desired.

   c. Click the check mark button to accept the changes or click the **X** button to discard changes.

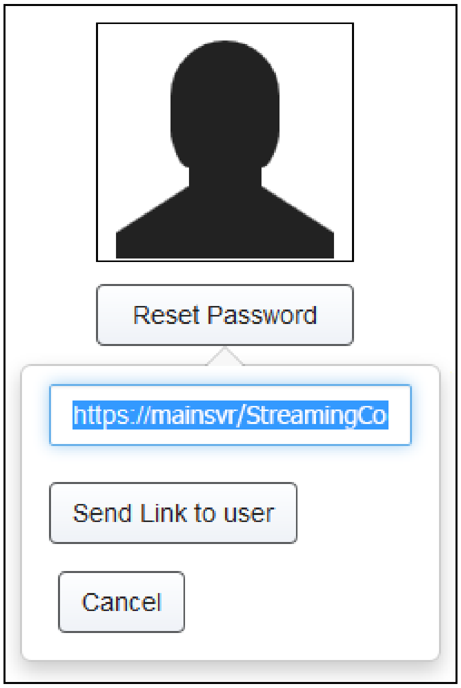
NOTES:

- Be aware that adding or **changing the e-mail address** of the system administrator account automatically **changes the login credentials** (specifically the username) of the system administrator from the default ("admin") or the previous e-mail address to the new e-mail address.
- Once an e-mail address is added for the system administrator account, the only way to remove it is to use the SCM installation program to reset the system administrator account to the factory defaults (clear the e-mail address and reset name to `admin` and password to `extron1111@`).

6. To select a different local time zone, click the **`User's Local Time Zone`** drop-down list and select an option. This setting controls what time zone is used to display recording and log-in times to the system administrator, as well as for information in error messages that are e-mailed to that account. To learn more about which time zones are used by which parts of the SCM system, see **Understanding Time Zone Settings**.

7. To change the password:

   a. Click the **Reset Password** button below the user icon. A panel opens that provides the URL link to a page where the system administrator can reset their password.



https://mainsvr/StreamingCo

   b. You can copy and send the link to the system administrator account e-mail manually. Or click the **Send Link to user** button to allow SCM to send the link if SCM has already been configured for e-mail notifications (see **Configuring E-mail Notification Settings**) and an e-mail address has already been configured and saved for the system administrator account. Alternatively, to cancel sending the system administrator a link to reset their password, click **Cancel**.

Resetting or Changing Your Password

If you have a **local** account in SCM and want to change your password or you forgot your password, SCM provides a way to replace your existing password with a new one. This section discusses how to accomplish that.

If you have an account established via an Active Directory (AD) management system, contact your IT department for assistance replacing your password.

For a comparison of local and AD accounts, see **Comparing User Types Based on Origin (Local or AD Accounts)**.

Guidelines for Passwords

For accounts managed through an Active Directory system

Passwords are set through and follow the requirements of the Active Directory system for your organization. The IT department should be able to provide you with guidelines.

For local accounts

- Each password must consist of at least 10 characters.
- Passwords for SCM local accounts can include ASCII characters (hexadecimal 20 to hexadecimal 7E). Those characters include all upper and lower case English letters, numbers, and the special characters found on a standard English keyboard. For your reference, the following table lists the allowed characters. When entering passwords, use ASCII characters, not hex values.

ASCII Characters Allowed for Passwords
(Listed According to Their Corresponding Hex Values)

Hex	ASCII	Hex	ASCII	Hex	ASCII	Hex	ASCII	Hex	ASCII	Hex	ASCII
20	(space)	30	0	40	@	50	P	60	`	70	p
21	!	31	1	41	A	51	Q	61	a	71	q
22	"	32	2	42	B	52	R	62	b	72	r
23	#	33	3	43	C	53	S	63	c	73	s
24	$	34	4	44	D	54	T	64	d	74	t
25	%	35	5	45	E	55	U	65	e	75	u
26	&	36	6	46	F	56	V	66	f	76	v
27	'	37	7	47	G	57	W	67	g	77	w
28	(	38	8	48	H	58	X	68	h	78	x
29	)	39	9	49	I	59	Y	69	i	79	y
2A	*	3A	:	4A	J	5A	Z	6A	j	7A	z
2B	+	3B	;	4B	K	5B	[	6B	k	7B	{
2C	,	3C	<	4C	L	5C	\	6C	l	7C	|
2D	-	3D	+	4D	M	5D	]	6D	m	7D	}

ASCII Characters Allowed for Passwords
(Listed According to Their Corresponding Hex Values)

Hex	ASCII	Hex	ASCII	Hex	ASCII	Hex	ASCII	Hex	ASCII	Hex	ASCII
2E	.	3E	>	4E	N	5E	^	6E	n	7E	~
2F	/	3F	?	4F	O	5F	_	6F	o		

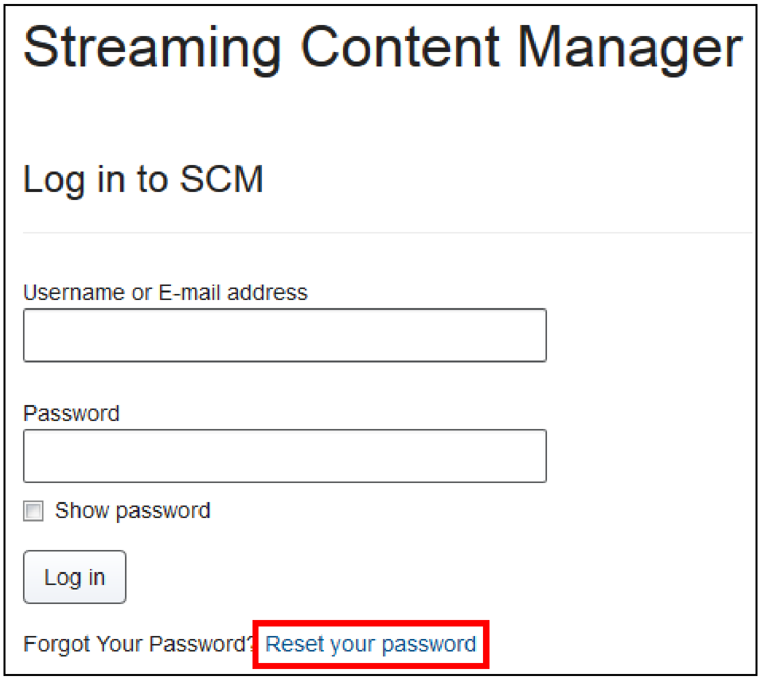
Resetting a Forgotten Password

NOTE: This procedure is for users with local SCM accounts. Users with local accounts log in using an e-mail address.

If you log in to SCM using the same username and password that you use for other applications and services in your organization, you probably have an account managed through an Active Directory system. You need to contact your IT department for assistance.

To reset (replace) your password if you forgot it and cannot log in:

1. In the `Log in` page of SCM click the **`Reset your password`** link.



Streaming Content Manager

Log in to SCM

Username or E-mail address

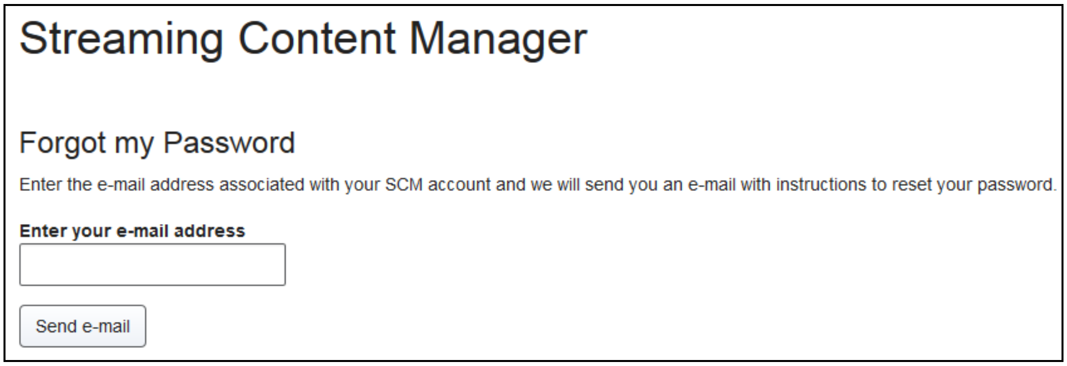
Password

□ Show password

Forgot Your Password? Reset your password

The `Forgot my Password` page opens.

2. Enter the e-mail address you used for your SCM account into the **Enter your e-mail address** field.



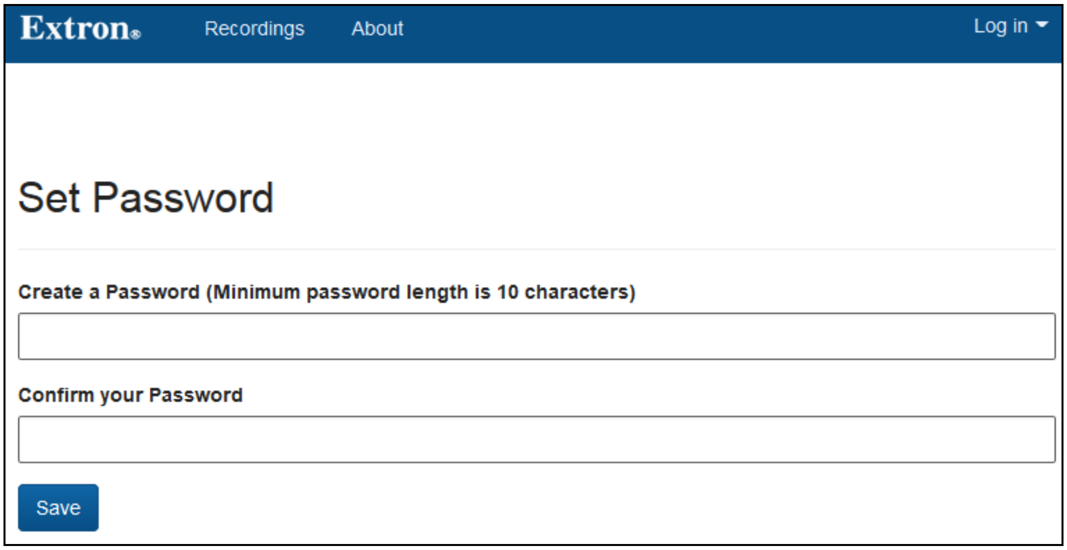
Streaming Content Manager

Forgot my Password

Enter the e-mail address associated with your SCM account and we will send you an e-mail with instructions to reset your password.

Enter your e-mail address

3. Click **Send e-mail**. A notification appears briefly at the top of the screen to let you know an e-mail will be sent to you with instructions for resetting your password. SCM sends an e-mail to the address you entered in step 2.
4. Open your e-mail application and check for an e-mail from the SCM system or system administrator.
5. Open the SCM password reset e-mail and click the link for resetting your password. A web page opens in your default browser where you can replace your password.



Set Password

Create a Password (Minimum password length is 10 characters)

Confirm your Password

6. Enter your new password into the **Create a Password** and **Confirm your Password** fields.
7. Click **Save** to save the new password.

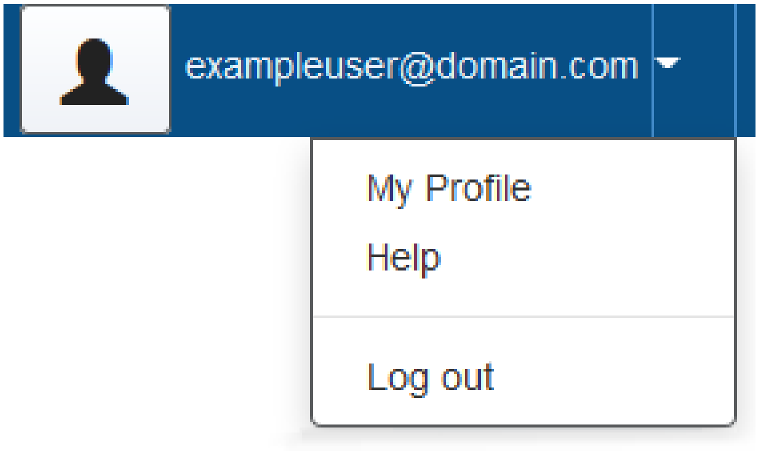
Changing an Existing Password

NOTE: This procedure is for users with local SCM accounts. Users with local accounts log in using an e-mail address.

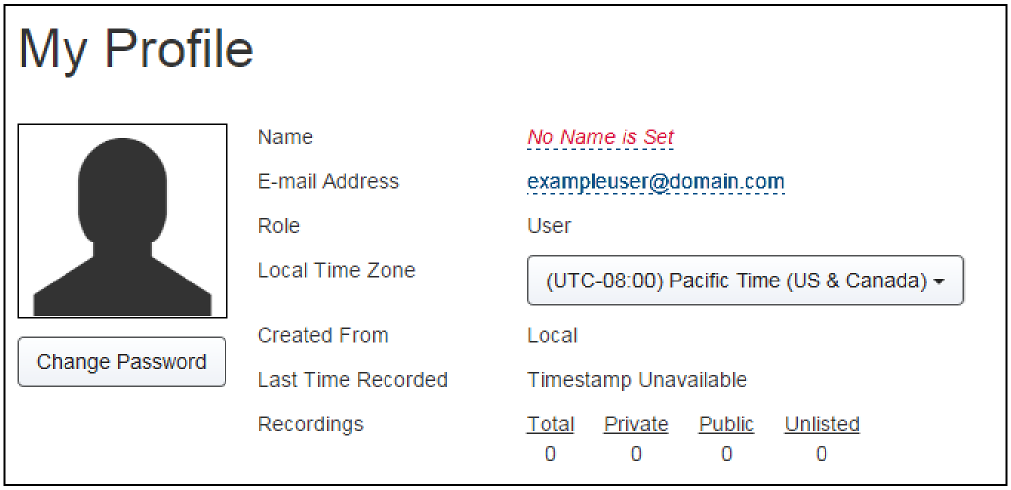
If you log in to SCM using the same username and password that you use for other applications and services in your organization, you probably have an account managed through an Active Directory system. You need to contact your IT department for assistance.

To change your password from within SCM:

1. From any page within SCM, click on your user icon, username, or click on the arrow adjacent to it in the upper right corner of the screen.
2. If you click on the arrow, a drop-down menu opens, as shown below. Select **My Profile** from the drop-down menu.



Whether you clicked on the icon, clicked on your username, or selected **My Profile** from the drop-down menu, the My Profile page opens. An example is shown below.

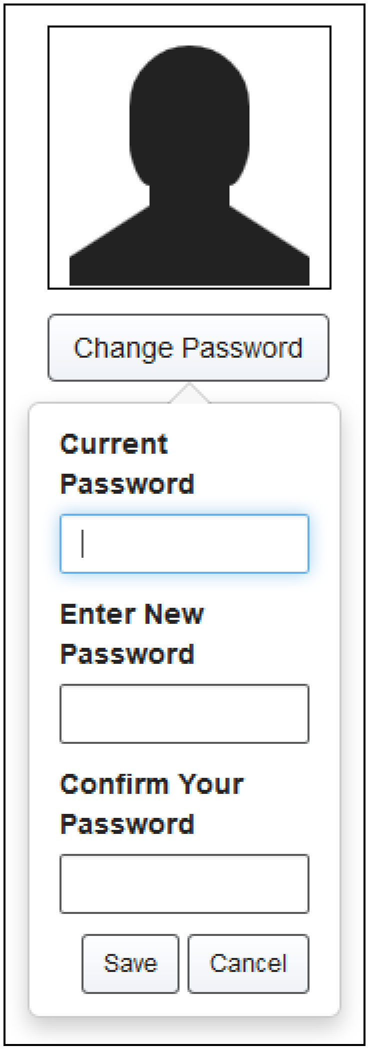


My Profile

Name	No Name is Set
E-mail Address	exampleuser@domain.com
Role	User
Local Time Zone	(UTC-08:00) Pacific Time (US & Canada)
Created From	Local
Last Time Recorded	Timestamp Unavailable
Recordings	Total 0 · Private 0 · Public 0 · Unlisted 0

Change Password

3. Click the **Change Password** button below the user icon. A panel opens with fields where you can change your password.



4. Enter your current password into the **Current Password** field.
5. Enter your new password into the **Enter New Password** and **Confirm Your Password** fields.
6. Click **Save** to save the new password or click **Cancel** to discard changes and keep your old password.

Managing Recordings

Managing Recordings: an Overview

Once Streaming Content Manager (SCM) has uploaded, processed, packaged, and stored recordings, it provides access to the recordings. You can view, download, and edit settings of your own recordings and view and download public recordings and unlisted recordings for which you have received an access invitation. Additionally, administrators and the system administrator can view and edit settings of all recordings in the system. Content owners or administrators can set each recording to allow it to be downloaded, played as streaming video, or both.

If SCM is configured to use e-mail, for each recording that is ingested into SCM with an identifiable owner, SCM sends the recording owner an e-mail to notify them that the recording is now available in the system.

This section on managing recordings covers the following topics:

- **Locating and Accessing Recordings**
- **Elements of Recording Entries**: an explanation, including what time zone is shown, where elements come from (such as recording naming, location name)
- **Recording Privacy Settings**
- **Downloading a Recording Package**
- **Sharing a Recording**
- **Editing Recording Details**
- **Playing a Recording**
- **Deleting a Recording**

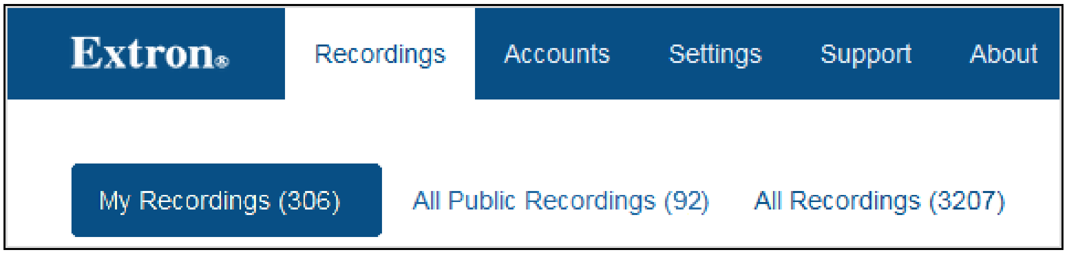
> **NOTE:** If you access SCM via a link to a recording (when you have received a link to a shared recording), the player view page for that recording opens (rather than the `My Recordings` page) once you log in to SCM.

Locating and Accessing Recordings

About The Recordings Pages

To access the recordings pages, log in to Streaming Content Manager (SCM), or from any other page click the **Recordings** tab at the top of the screen. The My Recordings page opens.

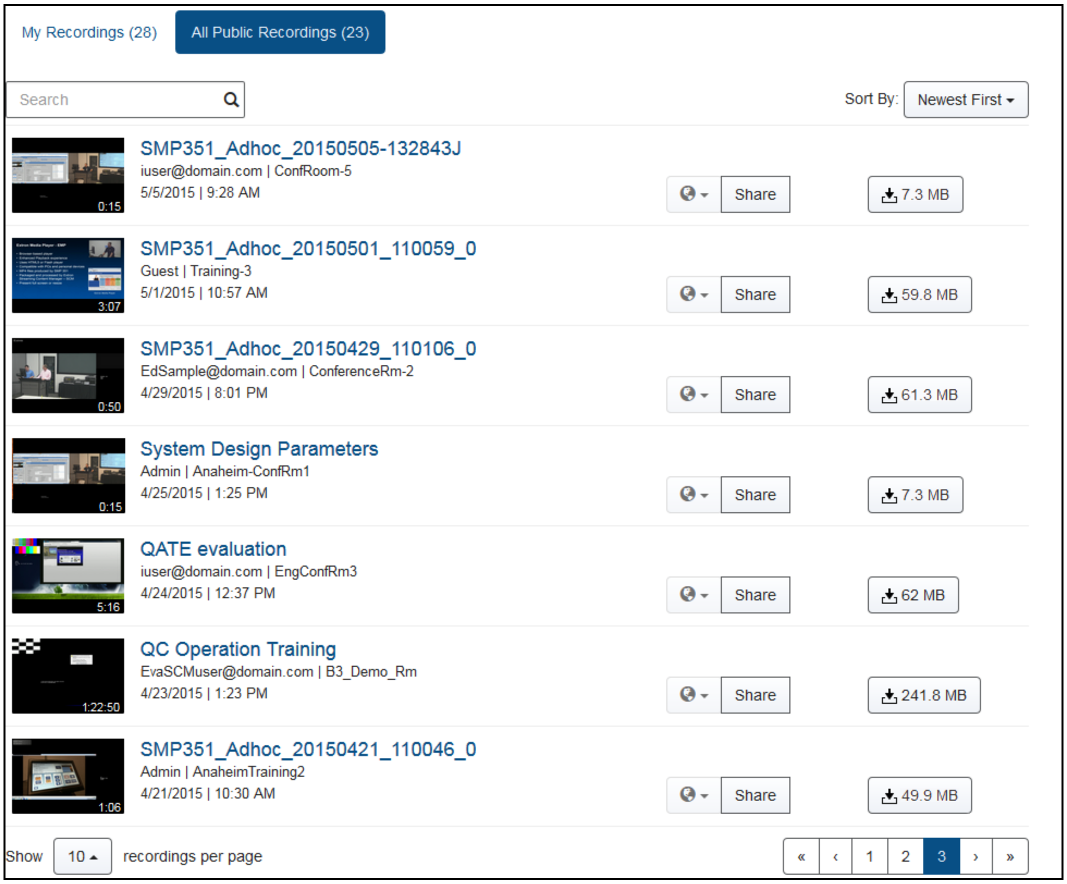
The **Recordings** tab includes several pages. Each page features a different list view of recordings in the SCM system. To access each page, click the corresponding sub-tabs within the second tier of tabs located below the main tabs near the top of the screen. The **Recordings** tab includes sub-tabs for **My Recordings**,**All Public Recordings**, and **All Recordings**.



From within any list view page you can click on the thumbnail view of a recording or click on its title to open the player page for that particular recording.

List View Pages and Their Corresponding Tabs: What Content Appears on Which Page

- **My Recordings** — The `My Recordings` page lists only your recordings (recordings that list you as the owner). All of your recordings are listed here, regardless of privacy setting (private, 🚫; unlisted, 👁; public, 🌐) . This page includes buttons (🗑) that allow you to delete your recordings, if desired, and buttons (✎) that let you access a detail view page to edit information and settings for a recording.
- **All Public Recordings** — The `All Public Recordings` page lists recordings made by every SCM account holder as long as each recording has been set to the **`Public`** (🌐) privacy setting. No recordings can be deleted from this page. An example of an All Public Recordings list is shown below.



My Recordings (28) | All Public Recordings (23)

Search 🔍 Sort By: Newest First ▾

0:15 **SMP351_Adhoc_20150505-132843J**
iuser@domain.com | ConfRoom-5
5/5/2015 | 9:28 AM
🌐 ▾ Share ⤓ 7.3 MB

3:07 **SMP351_Adhoc_20150501_110059_0**
Guest | Training-3
5/1/2015 | 10:57 AM
🌐 ▾ Share ⤓ 59.8 MB

0:50 **SMP351_Adhoc_20150429_110106_0**
EdSample@domain.com | ConferenceRm-2
4/29/2015 | 8:01 PM
🌐 ▾ Share ⤓ 61.3 MB

0:15 **System Design Parameters**
Admin | Anaheim-ConfRm1
4/25/2015 | 1:25 PM
🌐 ▾ Share ⤓ 7.3 MB

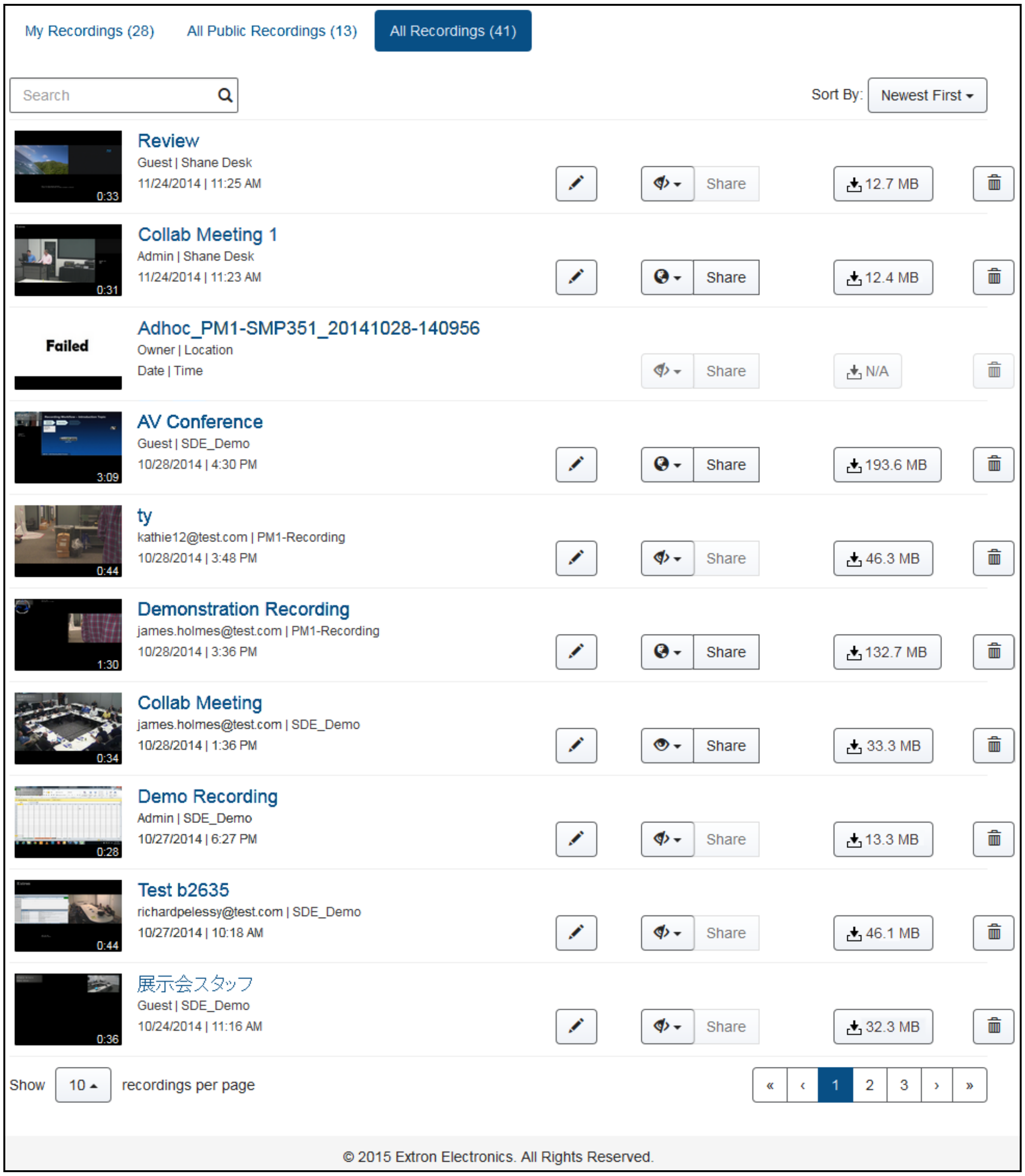
5:16 **QATE evaluation**
iuser@domain.com | EngConfRm3
4/24/2015 | 12:37 PM
🌐 ▾ Share ⤓ 62 MB

1:22:50 **QC Operation Training**
EvaSCMuser@domain.com | B3_Demo_Rm
4/23/2015 | 1:23 PM
🌐 ▾ Share ⤓ 241.8 MB

1:06 **SMP351_Adhoc_20150421_110046_0**
Admin | AnaheimTraining2
4/21/2015 | 10:30 AM
🌐 ▾ Share ⤓ 49.9 MB

Show 10 ▴ recordings per page « ‹ 1 2 3 › »

- **All Recordings** — The `All Recordings` page lists every recording made by every SCM account holder, regardless of privacy setting, as shown in the following example. This page can be accessed only by administrators and the system administrator. Recordings can be deleted via this page, and each recording has a link to the recording detail view page where you can edit labels and settings for that recording.



My Recordings (28) | All Public Recordings (13) | All Recordings (41)

Search

Sort By: Newest First

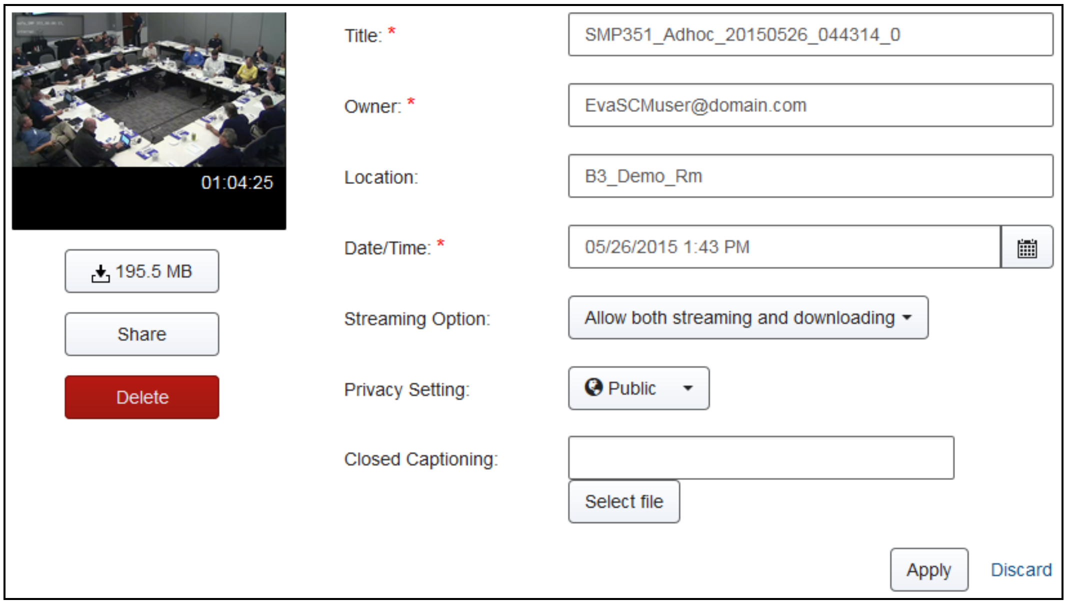
0:33	Review	Guest | Shane Desk	11/24/2014 | 11:25 AM	Share	12.7 MB
0:31	Collab Meeting 1	Admin | Shane Desk	11/24/2014 | 11:23 AM	Share	12.4 MB
Failed	Adhoc_PM1-SMP351_20141028-140956	Owner | Location	Date | Time	Share	N/A
3:09	AV Conference	Guest | SDE_Demo	10/28/2014 | 4:30 PM	Share	193.6 MB
0:44	ty	kathie12@test.com | PM1-Recording	10/28/2014 | 3:48 PM	Share	46.3 MB
1:30	Demonstration Recording	james.holmes@test.com | PM1-Recording	10/28/2014 | 3:36 PM	Share	132.7 MB
0:34	Collab Meeting	james.holmes@test.com | SDE_Demo	10/28/2014 | 1:36 PM	Share	33.3 MB
0:28	Demo Recording	Admin | SDE_Demo	10/27/2014 | 6:27 PM	Share	13.3 MB
0:44	Test b2635	richardpelessy@test.com | SDE_Demo	10/27/2014 | 10:18 AM	Share	46.1 MB
0:36	展示会スタッフ	Guest | SDE_Demo	10/24/2014 | 11:16 AM	Share	32.3 MB

Show 10 recordings per page

« ‹ 1 2 3 › »

Detail View Pages

If the recording is your own recording, or if you are an administrator or system administrator, you can access the detail view page for a recording. From within the `My Recordings` page or the `All Recordings` page, click on the **`Edit`** button (✎) to open the detail view page, where you can edit information and settings for that recording. The following image is an example excerpt of a detail view page.



Title: * SMP351_Adhoc_20150526_044314_0

Owner: * EvaSCMuser@domain.com

Location: B3_Demo_Rm

Date/Time: * 05/26/2015 1:43 PM

Streaming Option: Allow both streaming and downloading

Privacy Setting: Public

Closed Captioning:

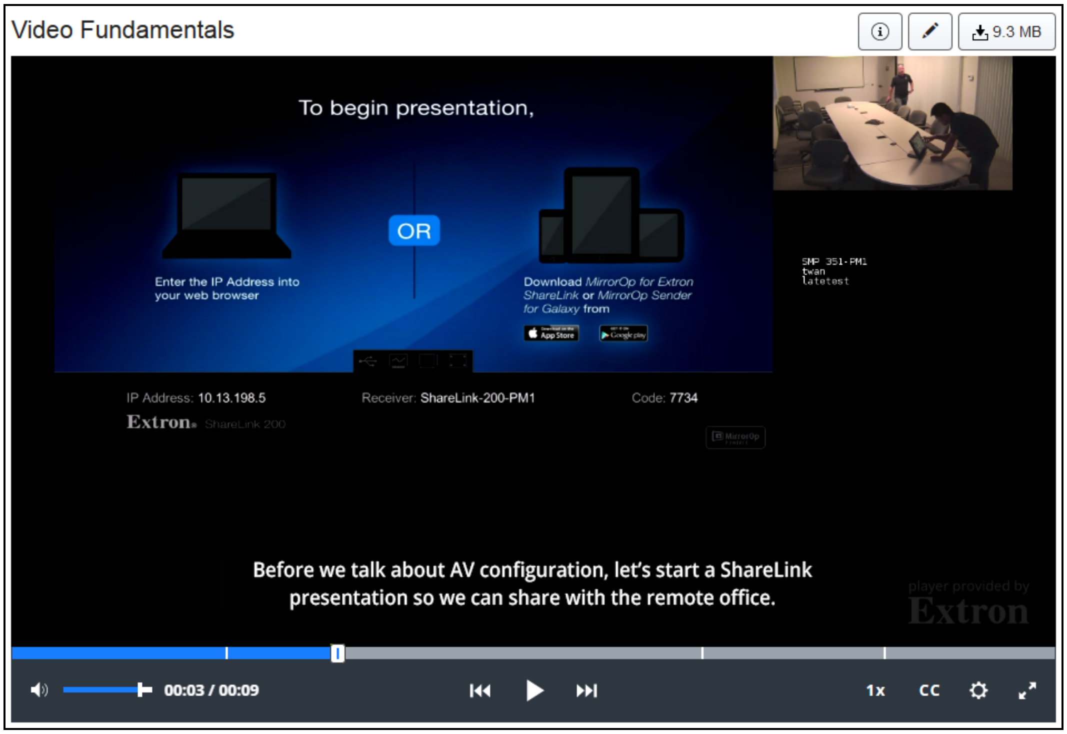
- All labels can be edited in this view and ownership can be assigned to another SCM user.
- You can change the streaming and downloading setting.
- You can change the privacy setting.
- You can upload a closed captioning file (in .json format) for the recording.
- You can delete the recording.
- As in the list view pages, you can download the recording (if the streaming option is set to allow downloads) or share a link to it.

Clicking on the thumbnail image opens the player page, where you can play the recording.

Player Pages

From within any list view page you can click on the thumbnail view of a recording or click on its title to open the player page for that particular recording. You can also click on the recording thumbnail in a detail view page to open the player page.

In the player page you can play the recording using video streaming within SCM. The following image is an example of a player page.



Before we talk about AV configuration, let's start a ShareLink presentation so we can share with the remote office.

For full details about each element, see **Playing a Recording**.

The **top of the page** features:

- The recording title
- A button to display recording information in a pop-up window
- An `Edit` button link to the detail view page (if you are the recording owner or an administrator)
- A `Download` button.

The **central pane** displays the video, a plain background (if the video does not completely fill the area), any closed captions that have been uploaded with the recording, and an Extron watermark.

The **bottom of the screen** includes:

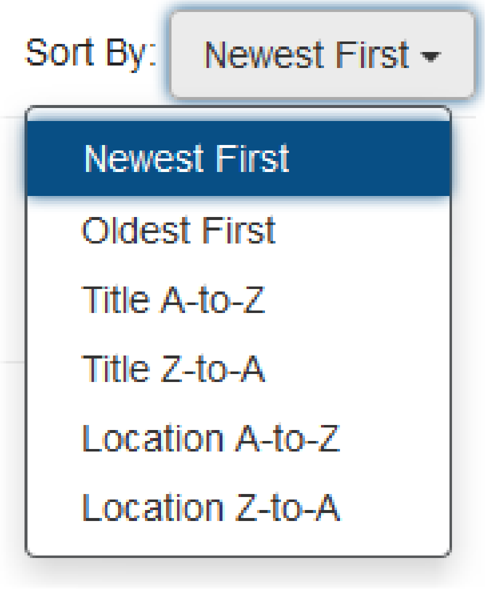
- A progress indicator bar with thumbnail images, chapter marker lines, and a selectable slider control that allows you to navigate backwards or forwards to any point in the recording
- Time played and total duration for the recording

- Player controls
  - **Previous Chapter**, **Play/Pause**, and **Next Chapter** buttons
  - **Playback speed** adjustment button (which opens a pop-up menu from which you can select speeds from 0.5x to 2x the actual speed of the video)
  - Closed captioning (**CC**) button (to toggle the display of closed captioning text on or off)
  - **Settings** button (to select display options for the font and background of any closed captions that have been uploaded for the recording)
  - A **Mute** button and **Volume** adjustment slider control)

Locating Recordings in a List

Each of the Recordings pages features the same controls for locating recordings:

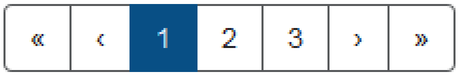
- A **Search** field at the top of the list where you can enter text to narrow down the recordings list to those entries containing that text. The recordings list is refreshed each time you enter a character in the field.
- A **Sort by:** drop-down menu (shown below) to allow you to sort the list in ascending or descending order by the age of the recording, the recording title, or recording location. Location is usually defined within the recording device and typically indicates a room or facility name.



Maneuvering through the list

- Scroll bars along the side of the list allow you to display items within a page.
- The quantity of recordings shown per page can be changed by selecting a value (**10**, **25**, **50**, **100**, or **All**) from the **Show *n* recordings per page** drop-down list at the bottom of the page.

- Access additional pages by clicking on the page control buttons along the lower right of the screen.

  The **<<** and **>>** buttons link to the first and last pages in the list, respectively.

  The **<** and **>** buttons open the previous or next page in the list.

  Numbered buttons link to the like numbered page in the recordings list.

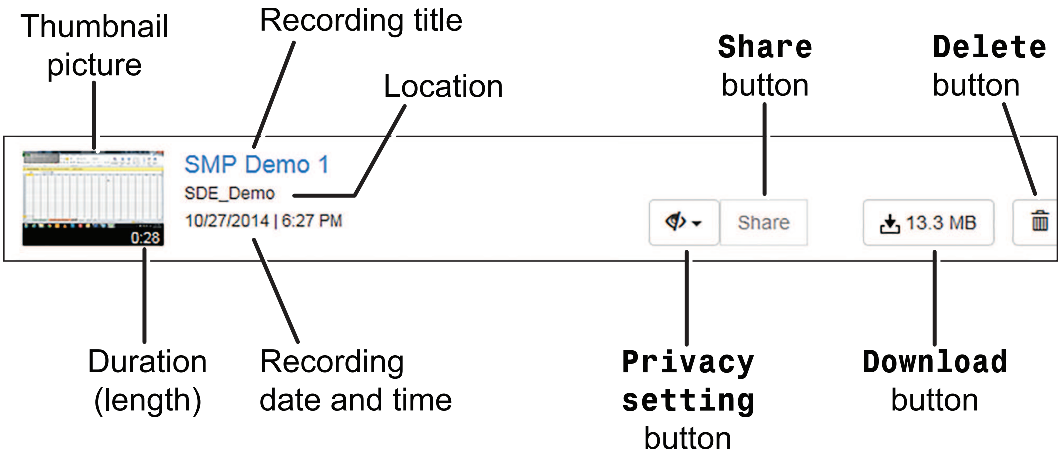
Elements of Recording Entries

The recordings list views and detail views contain many of the same elements, but what you can do in each view differs. This section shows what each element is, which elements are editable, and explains each item.

Elements of a Recording Entry in a List View

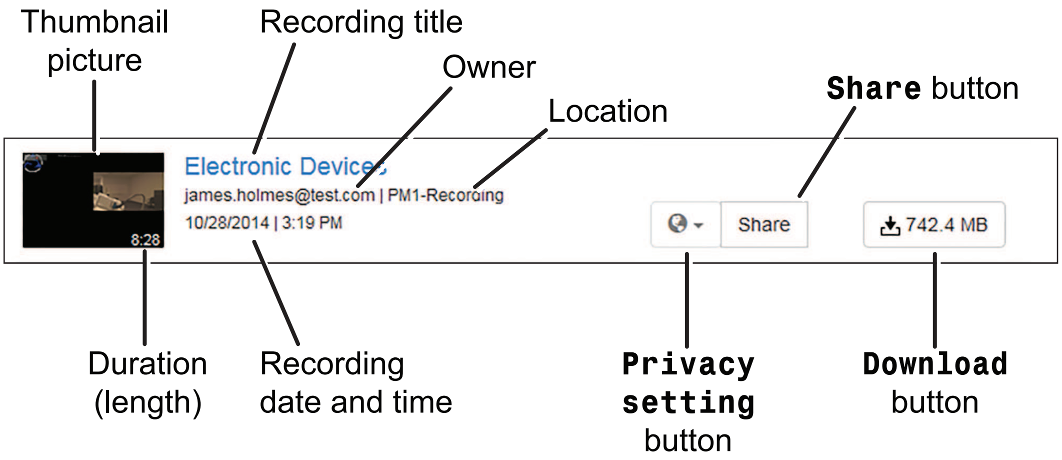
In the recordings list views no labels can be changed. The only setting that can be changed in a list view is the privacy setting.

My Recordings list view:



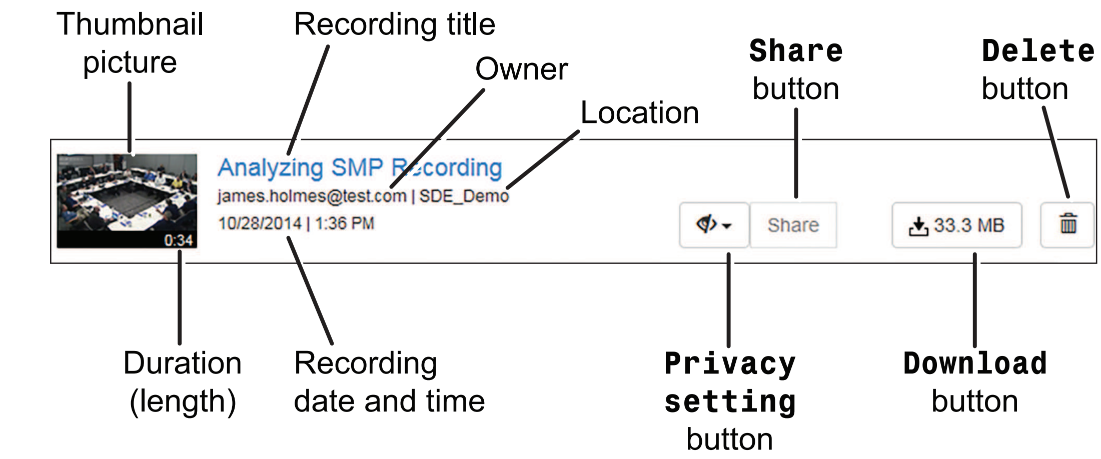
SMP Demo 1
SDE_Demo
10/27/2014 | 6:27 PM

All Public Recordings list view:



Electronic Devices
james.holmes@test.com | PM1-Recording
10/28/2014 | 3:19 PM

All Recordings list view:



Analyzing SMP Recording
james.holmes@test.com | SDE_Demo
10/28/2014 | 1:36 PM

Recording thumbnail picture — This image is a still snapshot representing the recording. If the recording was created by an SMP 351, this image is captured 15 seconds from the beginning of the video.

- Clicking on the thumbnail picture opens the streaming view page for that recording.
- For recordings that fail to be properly ingested into SCM, the picture thumbnail is replaced by a "Failed" thumbnail:

  Failed

  See the **Recordings** section in **Troubleshooting** for more information about what to do if your recording failed to be ingested into SCM.
- For recordings that are in the process of being ingested into SCM and packaged, picture thumbnail is replaced by a "Processing" thumbnail:

  Processing

Recording title — By default, the title of each recording is set in the scheduling system (such as an Opencast system) or iCal calendar file for a recording, or input at the recorder or touchpanel for an *ad-hoc* recording. Clicking on the title of a recording opens its streaming view page.

Owner name — By default, the owner (in the form of a username or e-mail address) of each recording is set in the scheduling system or iCal calendar file for a recording, or input at the recorder or touchpanel for an *ad-hoc* recording.

Location name — The location name is set in the recording device, itself, as the default location name.

Recording date and time — The time the recording was created in the recording device is displayed in the viewer's time zone. SCM stores the UTC time for each recording as well as the time zone in which it was created, but the time is displayed in the time zone for whoever is viewing the recording. To set the time zone for your account, see **Editing My Profile**.

`Edit` button — This button appears only for the recording owner or for administrators and only in the My Recordings page and the All Recordings page. Clicking this button opens the detail view page for the corresponding recording. The detail view page is where labels and settings can be edited for the recording.

Privacy setting button — Indicates the privacy level (private, 👁; unlisted, 👁; public, 🌐). More information on these options is available in **Recording Privacy Settings**.

`Share` button — For recordings with a public or unlisted privacy setting, clicking this button opens a pop-up window containing a URL link that you can copy and paste into an e-mail or text message to share the video with another user.

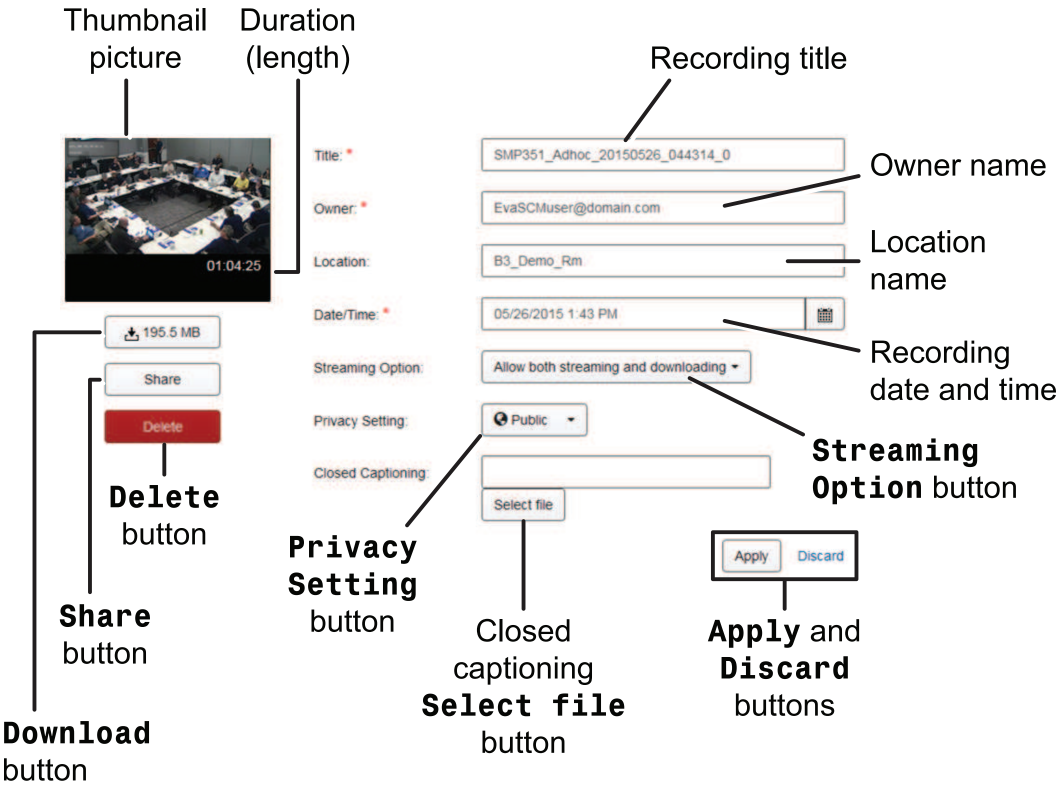
`Download` button (📥) — Click this button to download a zipped file of the recording package to your computer. The button indicates the size of the recording package.

`Delete` button (🗑) — This button appears on the `My Recordings` page and on the All Recordings page but not on the `All Public Recordings` page. It allows you to delete the corresponding recording.

Elements of a Recording Entry in a Detail View

Detail view pages are accessible only to the recording owner and to administrators, not to guests or to other viewers. Detail view pages contain all the same elements found in the recordings list views described above, but with the following differences:

- The thumbnail image is larger.
- There is no **`Edit`** button.
- You can edit the labels for title, owner, location, and date and time (see **Editing Recording Details**).
- You can change streaming and privacy settings.
- You can select and upload a closed caption file (in .json format) for the recording.



Title: * SMP351_Adhoc_20150526_044314_0

Owner: * EvaSCMuser@domain.com

Location: B3_Demo_Rm

Date/Time: * 05/26/2015 1:43 PM

Streaming Option: Allow both streaming and downloading

Privacy Setting: Public

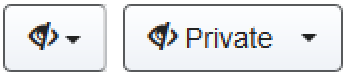
Closed Captioning:

Recording Privacy Settings

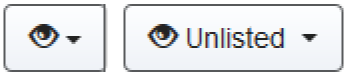
Privacy Settings Defined

Each recording in Streaming Content Manager (SCM) can be set to one of three privacy settings:

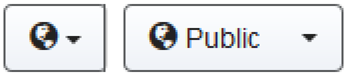
- **Private** — The owner of the recording, an administrator, or the system administrator can view and edit private recordings. Other non-administrator SCM users and unauthenticated users cannot see recordings that are designated as private.
  - Private recordings do not appear in the All Public Recordings list.
  - Private recordings are indicated on the privacy settings button by the symbol of a stylized eye with a line across it :



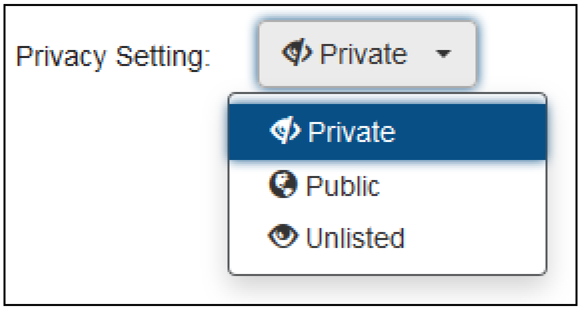
- **Unlisted** — The owner of the recording, an administrator, or the system administrator can view and edit unlisted recordings. Other non-administrator SCM users and unauthenticated users (if SCM is configured to allow them access to recordings) can see unlisted recordings. However, because these recordings do not appear in the All Public Recordings list, most users do not know an unlisted recording exists until they are invited to view it. Invitees are sent an e-mail containing a link that opens directly to the unlisted recording.
  - Unlisted recordings do not appear in the All Public Recordings list.
  - Unlisted recordings are indicated by a stylized eye symbol:



- **Public** — All SCM users and administrators can see and download public recordings. If SCM is configured to allow unauthenticated users to access recordings, they may also see and download (if the recording is set to allow downloading) public recordings.
  - Public recordings appear in the All Public Recordings list.
  - Public recordings are indicated by a globe symbol:



In a detail view page, the Privacy Setting drop-down menu appears as follows:



Privacy Setting: Private

Default Privacy Setting

By default, all recordings are set to `Private` when they are ingested into SCM. Users can change this setting for any of their own recordings, and administrators can change the setting for any recording in the SCM system.

Privacy Settings and Unauthenticated Users

If SCM is set up to allow unauthenticated users to view recordings in SCM (see **Setting Up Recording Package Settings**), then people who do not have an account in SCM can view any recordings designated as public, and they can view unlisted recordings if they are sent an invitation to do so. The e-mailed invitation contains a link directly to the player view page for that recording.

Downloading a Recording Package

Why Download a Recording?

You may want to download a recording for a variety of reasons, including the following:

- **To watch the recording at a later time or on another device.** — To watch or review a meeting, presentation, or lecture during your commute or at another time when you do not have access to the internet or the SCM system, download the recording package and copy it to your laptop computer.
- **To save an archive copy locally.**
- **To share the recording with someone who does not have an account in SCM** if SCM is not configured to allow unauthenticated users to access recordings.

What Is In The Recording Package?

When you download a recording from SCM, you are downloading the Extron Media Player (EMP) as well as the recording. The EMP package contains more than just an MP4 video file. When you download a recording it includes a folder of compressed (zipped) files that must be "unzipped" before playing the recording.

The package includes:

- An HTML file (`Play_Video.html`) — Open this file to play the recording.
- A `VideoPlayer` folder containing the following files and elements:
  - The `.mp4` file for the video, itself
  - Thumbnail images for the video as captured by the recording device
  - Any chapter markers (images and timing information to sync with the video) created during recording
  - The EMP
  - The themes, graphics, and style sheets used by the EMP
  - Metadata for the recording (including but not limited to the recording title, owner/creator, location, recording date and time)
  - Timing synchronization information for the video, thumbnails, closed captions, and chapter markers
  - A closed caption file, if it was uploaded for use with the recording.

How to Download a Recording

To download a recording package:

1. From any recordings list (such as My Recordings or All Public Recordings) or from a recording detail view page, click on the download button (see the example below) for the desired recording.

   A dialog box may open in which you can select whether to open the zipped file (and choose a program with which to do that) or save the file.
2. If applicable, choose to save the file to your computer and click **OK**. The zipped file of the recordings package downloads to your computer.
3. Locate the file in the `Downloads` folder of your computer and extract or unzip it to a location of your choice. The recording can be played from that location (by opening the `Play_Video.html` file and using the EMP player controls within the browser window that opens).

Sharing a Recording

If a recording is set as public or as unlisted, a link to its player view page can be copied and shared with others. Sharing can be done from either the recordings lists or from the detail view page for each recording.

The following table details who can share recordings made by whom.

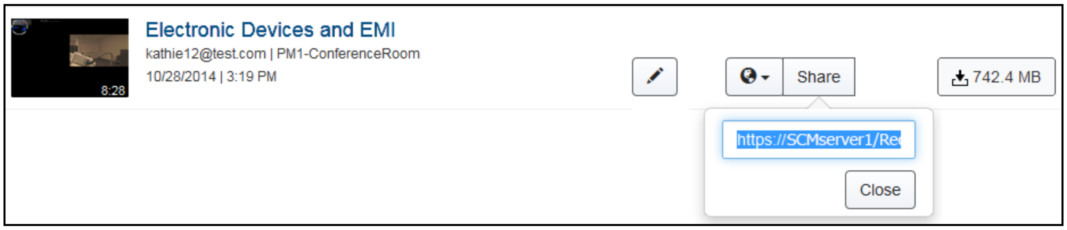
	Role			
Action	**System Administrator**	**Admin-istrator**	**User**	**Unauthenticated User**
May share own public or unlisted recordings	X	X	X	—
May share public recordings made by other users or share unlisted recordings made by other users if those recordings are made accessible to them	X	X	X*	X* **
May share public or unlisted recordings made by any user	X	X	—	—

NOTES:

- *Users and unauthenticated users can view an unlisted recording (other than their own recordings) only if they have received a link to that recording from another user.
- **Unauthenticated users may view public or unlisted recordings only if the SCM system is configured (**System Settings** > Recording Package Settings) to allow them to do so.

To share a recording from within a recordings list:

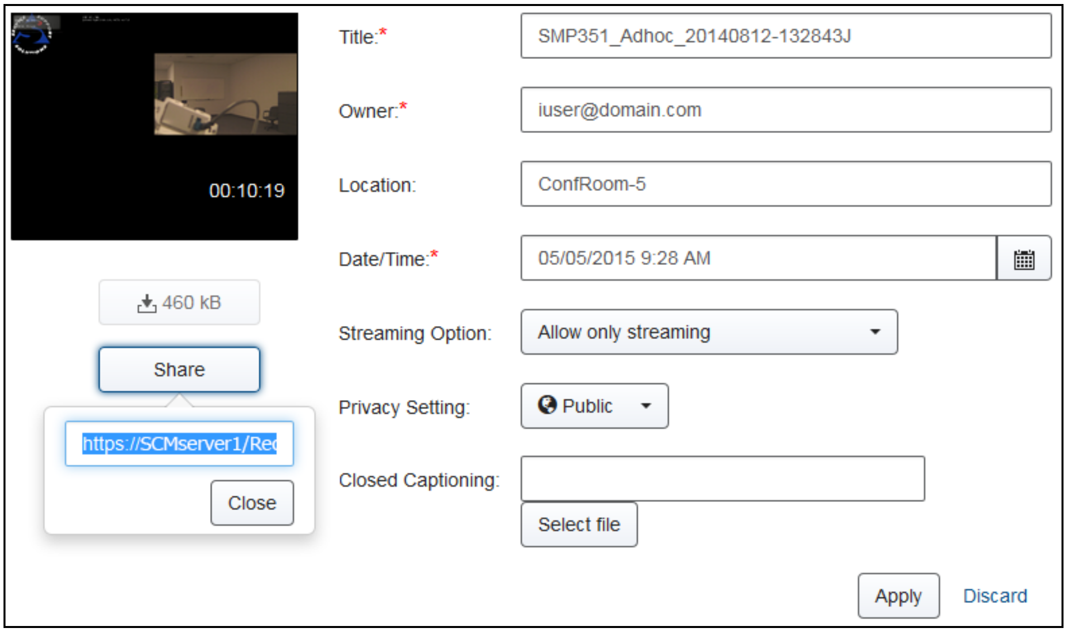
1. Within SCM click the **Recordings** tab. The My Recordings page opens.
2. If you want to share a recording made by another user, click the **All Public Recordings** or the **All Recordings** sub-tab. The All Public Recordings or All Recordings page opens.
3. Navigate to and locate the desired recording as described in **Locating Recordings in a List**.
4. Click on the **Share** button in the row for that recording. A Share Link dialog box pops up, with the hyperlink for the recording selected (highlighted).


Electronic Devices and EMI
kathie12@test.com | PM1-ConferenceRoom
10/28/2014 | 3:19 PM
8:28
Share
742.4 MB
https://SCMserver1/Re
Close

5. Copy the link and paste it into an e-mail or text message.
6. Send the e-mail or text message to the desired recipient.
7. To close the Share dialog box, click anywhere outside the box in the SCM web page .

To share a recording from a recording detail view page:

1. Perform steps 1 through 3 in the above instructions for sharing a recording from a list.
2. Click on the **`Edit`** button for the desired recording. The detail view page for that recording opens.
3. Click on the **`Share`** button. A `Share` dialog box pops up, with the hyperlink for the recording selected (highlighted).



Title:* SMP351_Adhoc_20140812-132843J

Owner:* iuser@domain.com

Location: ConfRoom-5

Date/Time:* 05/05/2015 9:28 AM

Streaming Option: Allow only streaming

Privacy Setting: Public

Closed Captioning:

https://SCMserver1/Rec

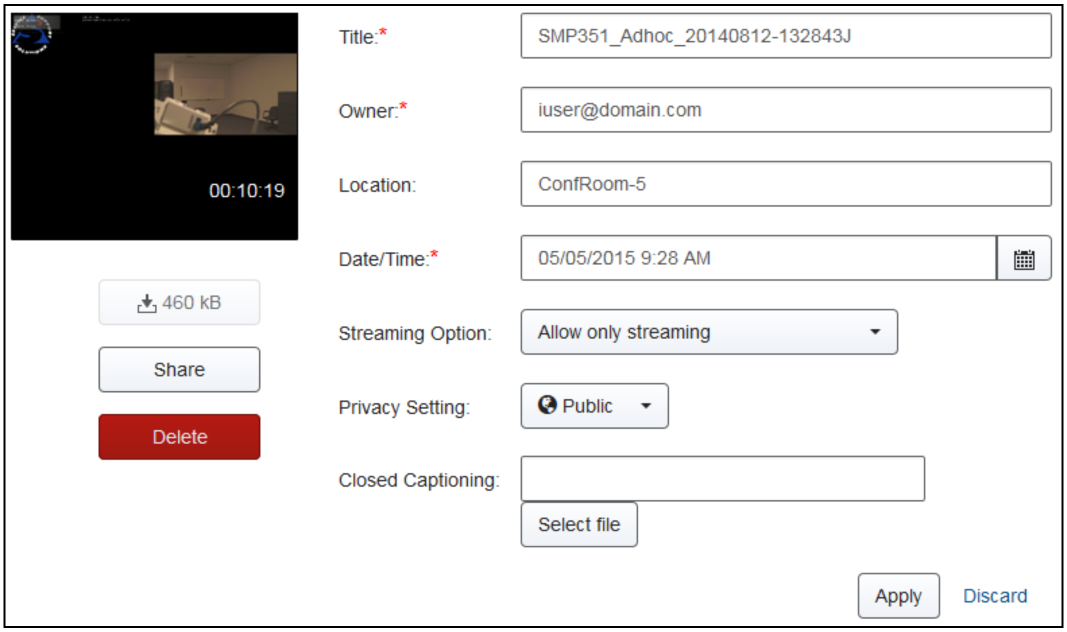
4. Copy the link and paste it into an e-mail or text message.
5. Send the e-mail or text message to the desired recipient.
6. To close the `Share` dialog box, click anywhere outside the box in the SCM web page .

Editing Recording Details

You can edit settings of your own recordings from the detail view page for each recording. Additionally, administrators and the system administrator can view and edit settings of all recording in the system via the detail view for each recording.

To edit details of a recording:

1. Within SCM click the **`Recordings`** tab. The `My Recordings` page opens.
2. If you want to edit a recording made by another user, click the **`All Recordings`** sub-tab. The `All Recordings` page opens.
3. Navigate to and locate the desired recording as described in **Locating Recordings in a List**.
4. Click on the **`Edit`** button (✎) for the desired recording. The detail view page for that recording opens (see the example below).

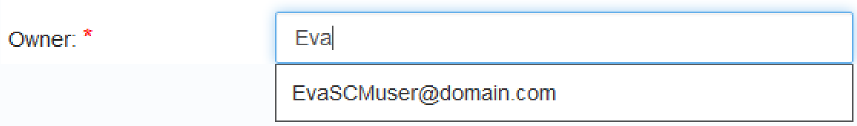


Title:*	SMP351_Adhoc_20140812-132843J
Owner:*	iuser@domain.com
Location:	ConfRoom-5
Date/Time:*	05/05/2015 9:28 AM
Streaming Option:	Allow only streaming
Privacy Setting:	Public
Closed Captioning:	

5. Edit labels and settings shown to the right of the thumbnail picture.
   - For labels, click in the field (**`Title`**, **`Owner`**, **`Location`**, or **`Date/Time`**) that you want to edit and use standard keyboard controls to edit or replace text in the field as needed.

     NOTES:

     - Required fields (**`Title`**, **`Owner`**, and **`Date/Time`**) are indicated by an asterisk after the name of the field. Those fields cannot be left blank.
     - The owner name must be the name of a user who is part of the SCM system. Names entered here are verified within the SCM accounts list. As you enter characters, the SCM system opens a list of suggested user names below the **`Owner`** field. Click on a name in that list to select it.

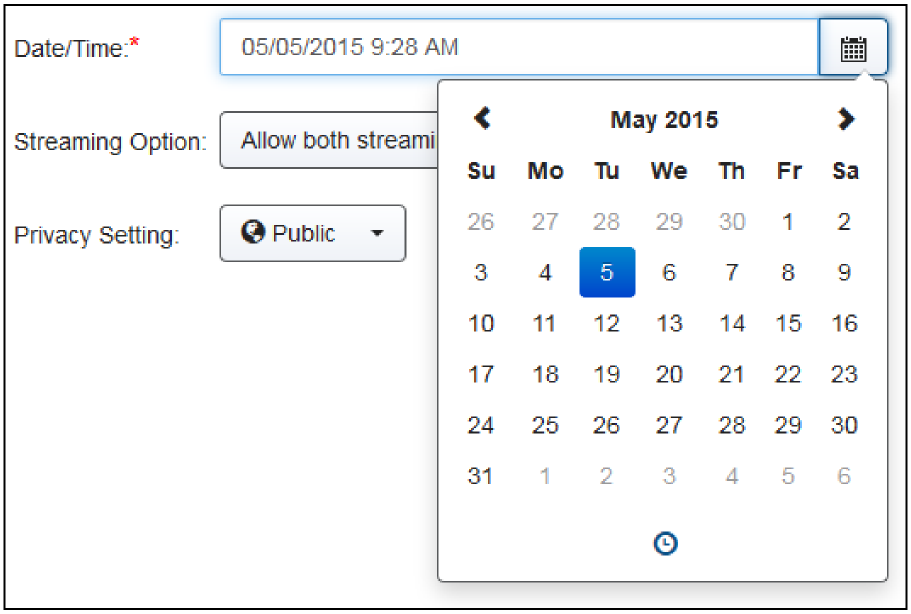
       

       Owner: * Eva

       EvaSCMuser@domain.com

     - When you change the owner name, the ownership of the recording changes once the new owner name is saved. If this is your recording and you change this text to the user name of someone else, the recording will no longer appear in your My Recordings list. You will not be able to edit properties of the recording once it is reassigned to another user, unless you are an administrator. See **Tips on editing specific fields** later in this topic for more details on the **`Owner`** field.

     For the **`Date/Time`** field you can also click on the calendar icon on the right side of the field to open a date/time tool (shown below) where you can click on a date in the calendar or click the clock icon at the bottom of the tool to shown and use the time selector.

     Date/Time:* 05/05/2015 9:28 AM

     Streaming Option: Allow both streami

     Privacy Setting: Public

     May 2015

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

- For settings, click on the button (**Streaming Option** or **Privacy Setting**) for that setting to open a drop-down menu and select an option from the menu.

  Streaming options include:

  - **Allow only downloading** — If only downloading is allowed, no one will be able to view the recording as a streaming video within SCM. In the recording player page, the video streaming area will display a message indicating that streaming is disabled. To view a video, you and all other users or guests must download the recording package and play the video on your local device (computer).
  - **Allow only streaming** — If only streaming is allowed, the only way you and others can view the recording is by streaming it within SCM. Downloads are not allowed, and the download button is disabled for this recording in lists and in detail view pages.
  - **Allow both streaming and downloading** (default) — If this option is selected, the recording can be viewed as streaming video within SCM and it can also be downloaded for offline viewing.

  Privacy settings include: **Private**, **Public** (default), and **Unlisted**. These settings are described in **Recording Privacy Settings**.

6. If closed captioning is available for the recording, select and upload it to the recording package as follows:

   a. Click the **Select file** button. The File Upload dialog box opens.

   b. Navigate to and select the desired closed caption file (which must be in .json format).

   > **NOTE:** Information on what is required to create the closed captioning file will be available on the Extron website.

   c. Click **Open**. The dialog box closes, the name of the file appears in the Closed Captioning read-only field within SCM, and the **Select file** button is replaced by two buttons: **Change** and **Remove**. The selected closed captioning file is now applied to the recording.

   d. If the correct .json file is listed in the Closed Captioning field and if you made changes to other fields and settings in the page, proceed to step 7. If the correct .json file is not shown in the field, click the **Remove** to remove it from the recording or click **Change** to reopen the File Upload dialog box to select a different file (see steps 6b and 6c).

   Once uploaded, the closed caption file becomes part of the recording package. The captioning can then be displayed in the streamed or downloaded video if the CC feature is turned on within the recording player.

7. Click the **Apply** button to confirm and save the changes, or click the **Discard** button to discard the changes and cancel editing.

> **NOTE:** Closed captioning file selection or removal is applied immediately when the file is opened or removed. Those changes are unaffected by the **Apply** and **Discard** buttons.

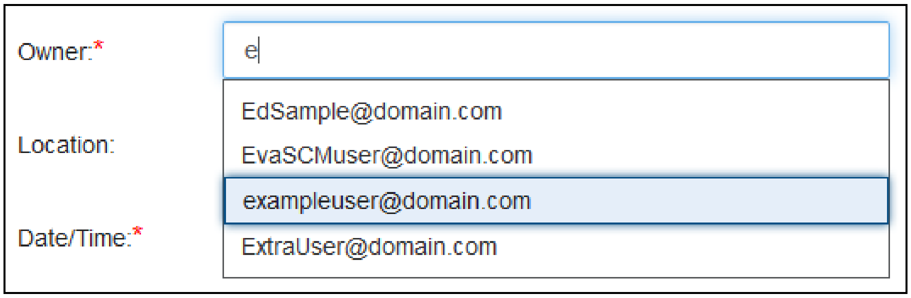
Tips on editing specific fields

See **Elements of Recording Entries** for an explanation of what each field is and from what or where the information in each field is derived.

Title — The recording title can be edited or changed to a text string containing any ASCII characters.

Owner — You can change the owner in order to reassign a recording to someone else.

- Once the owner of a recording is changed, that recording appears in the My Recordings list for that user and is removed from the My Recordings list of the previous owner.
- As you enter a new e-mail address or username, a pop-up list opens below the field displaying any matching or partially matching e-mail address or username that already exists within the SCM accounts list. Click on the desired entry to select it.



Owner:* e

EdSample@domain.com
EvaSCMuser@domain.com
exampleuser@domain.com
ExtraUser@domain.com

NOTES:

- The owner name must be the name of a user who is part of the SCM system. Names entered here are verified within the SCM accounts list.
- When you change the owner name, the ownership of the recording changes once the new owner name is saved. If this is your recording and you change this text to the user name of someone else, the recording will no longer appear in your My Recordings list. You will not be able to edit properties of the recording once it is reassigned to another user, unless you are an administrator.

Location — The location name is set in the recording device, itself, as the default location name. This can be changed to correct the name or to provide a more descriptive location name.

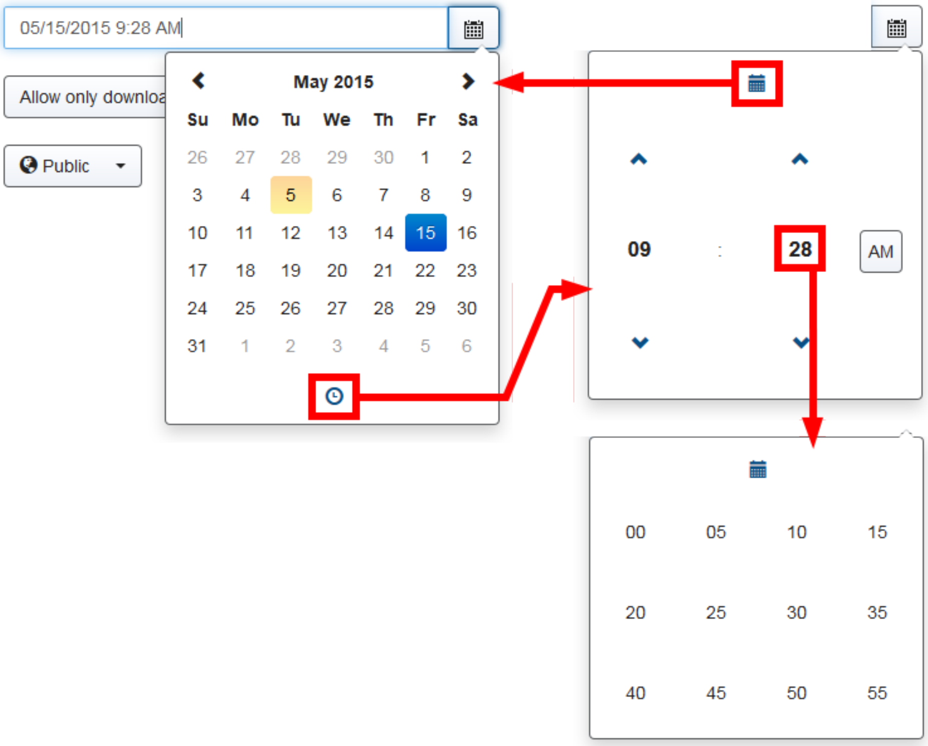
Date/Time — If the time or date of recording were set incorrectly in the recording device, the resulting recording files list the incorrect date or time.

- You can correct the date, the time, or both.
- You can enter a value into the field (in the form of MM/DD YYYY HH:MM AM or PM) or you can click on the calendar icon and select date and time values from the pop-up tool.

> **NOTE:** The pop-up date and time selector tool is not accessible using keyboard controls. The date and time can be entered or edited by typing directly in the `Date/Time` field.

Within the pop-up tool:

- In calendar mode, click on the **<** and **>** arrows adjacent to the month and year to scroll backward or forward through months, if needed. Click on the desired date in the calendar to select it. Click on the small clock icon at the bottom to change from the calendar to the time selector.
- In clock mode, click on the **up** and **down** arrows to adjust the time settings and click on the **AM** or **PM** button to toggle between those options. If you click on the hour or minutes, the tool changes to a grid of selectable options (seconds incremented by 5-second intervals, for example). Clicking an option returns the pop-up tool to the regular clock view. To return from the clock to the calendar, click the small calendar icon at the top of the tool.



05/15/2015 9:28 AM

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

00	05	10	15
20	25	30	35
40	45	50	55

- Click anywhere outside the pop-up tool to exit date and time selection.

Playing a Recording

You can play streaming video of any recording within SCM that you have access to view that is also set to allow streaming or streaming and downloading. For information on streaming and downloading options, see **Editing Recording Details**).

To play a recording in SCM:

1. Locate the desired recording in a recordings list (see **Locating Recordings in a List**). The recording must be set to allow streaming.
2. Open the player page for the desired recording (see **Accessing a Player Page**).
3. Use the player controls at the bottom of the page (see **Playing a Recording**) to change playback settings as desired and click the **Play/Pause** button to start and stop playing the video stream. Alternatively, you can use keyboard controls to control video playback and audio volume (see **Using Keyboard Controls**).

To download a recording from SCM and play it offline using EMP:

1. Locate the desired recording in a recording list (see **Locating Recordings in a List**).
2. If the recording is set to allow downloading, click the **Download** button (⬇) for that recording.
3. If offered the choice between opening the package or saving it, select **Save**. The recording package downloads to your computer or other device in the form of a .zip file.
4. Locate the downloaded file and extract (unzip) the package to a folder of your choice.

   > **NOTE:** This step is important because you cannot play the recording without unzipping the files first. The player cannot read a zipped video file.

5. Open the folder for that recording and open the Play_Video.html file. The Extron Media Player (EMP) opens within a browser and loads the recording. The page looks very similar to the Player page within SCM (see **Player Page Features and How to Use Them**, below), with a few exceptions. It does not have any SCM tab controls at the top of the page, just a header displaying the logo (either the default Extron logo or the logo of your organization) on the left, the recording title, and an Information button. There are no **Edit** or **Download** buttons within the stand-alone EMP player window.
6. Use the player controls at the bottom of the window (see **Playing a Recording**) to change playback settings as desired and click the **Play/Pause** button to start and stop playing the video stream. Alternatively, you can use keyboard controls to control video playback and audio volume (see **Using Keyboard Controls**).

Accessing a Player Page

To open a player page:

- From within any list view page (such as the My Recordings list or All Public Recordings list), click on the thumbnail image of a recording or click on its title to open the player page for that particular recording.
- From a detail view page, click on the recording thumbnail image to open the player page.

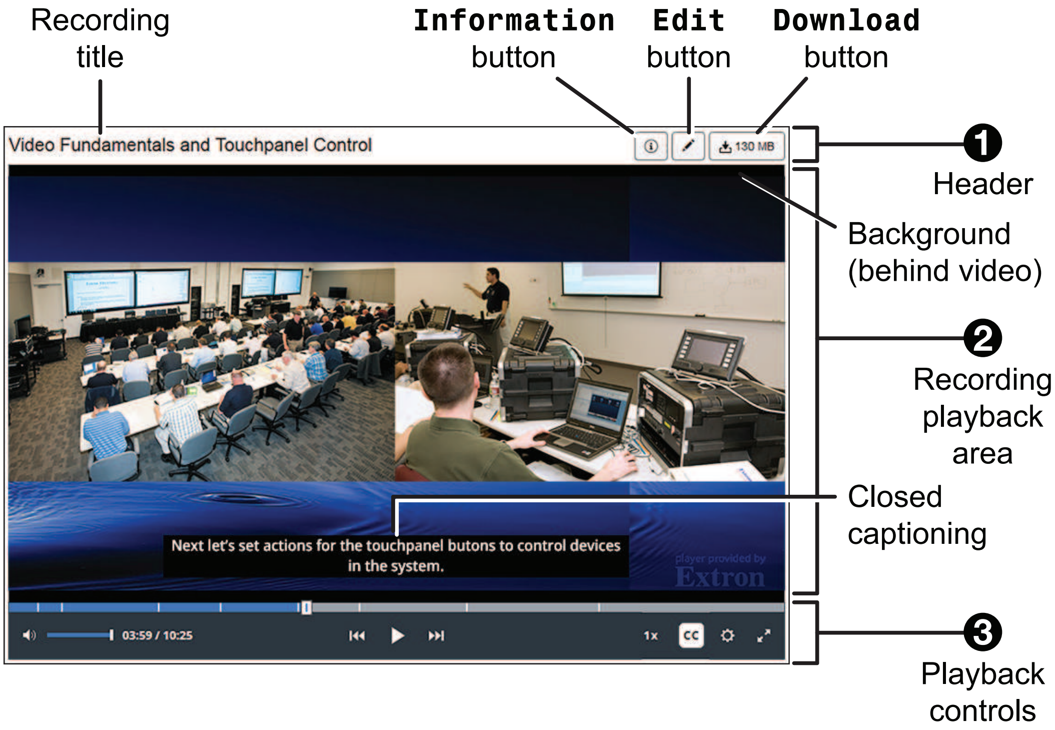
Player Page Features and How to Use Them

How the SCM `Player` page is organized

The `Player` page is organized into three main zones:

1. The **header** at the top of the window
2. The **recording playback area** in the center of the window
3. The **playback controls and indicators region** along the bottom of the window

The following image shows an example of a recording player page, showing the regions of the page and the main elements within the header.



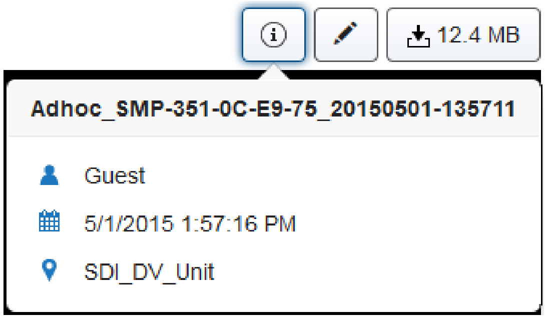
Video Fundamentals and Touchpanel Control

Next let's set actions for the touchpanel butons to control devices in the system.

Header features

The header region at the top of the page includes the following features:

- The recording title
- An **Information** button

Button Name	Button Icon	Description
Information	ⓘ within SCM	Click this button to display recording information in a pop-up window. The Information pop-up window overlays the video area and displays the following information: • The title of the recording • The name of the recording owner (or "Guest" if no owner is specified) • The date and time of the recording • The name of the recording location (recording device location name as specified in settings in the recording device, such as an Extron SMP 351)  ⓘ ✎ ⤓ 12.4 MB Adhoc_SMP-351-0C-E9-75_20150501-135711 Guest 5/1/2015 1:57:16 PM SDI_DV_Unit

NOTES:

- Once it is opened, the Information window remains open until you click the **Information** button again, or until you press the keyboard <Esc> key, or until you click outside the Information window.
- In SCM, the Information window includes only the recording title, owner name, recording date and time, and location.

- An **Edit** button (if you are the recording owner or an administrator)

Button Name	Button Icon	Description
Edit	✎	This button provides a link to the SCM detail view page for the recording owner or an administrator.

- A **Download** button (⤓) (if downloading is enabled for the recording).

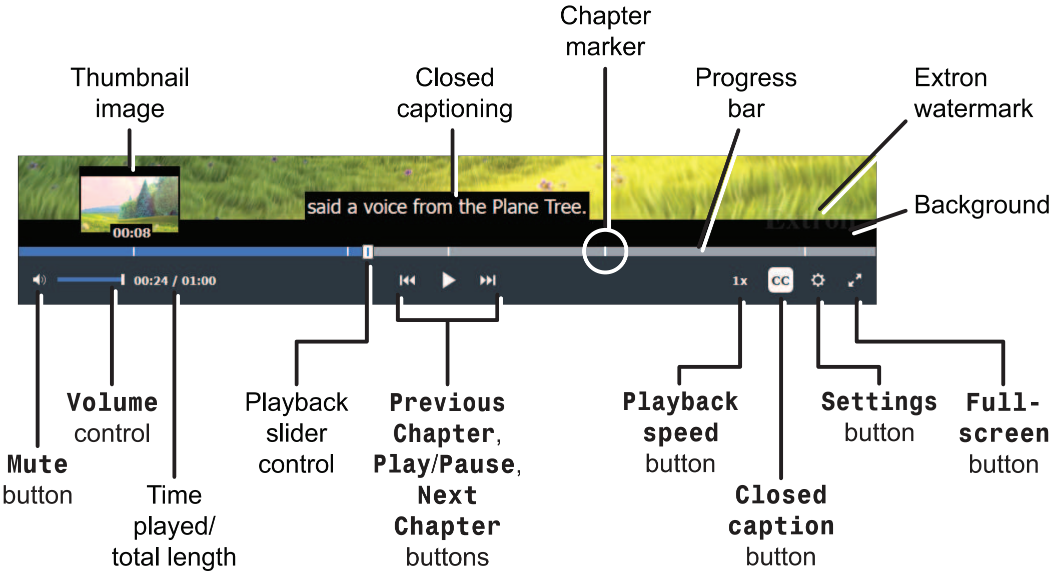
Recording playback area features

The recording playback area (center pane) displays the following:

- The recorded video
- A plain background, if the video does not completely fill the area
- Closed captions, if they have been uploaded in the form of a .json file with the recording. If closed captioning is turned on, captions are displayed in the bottom center of the video viewing area, overlaid over the video.
- An "Extron" watermark in the lower right corner.

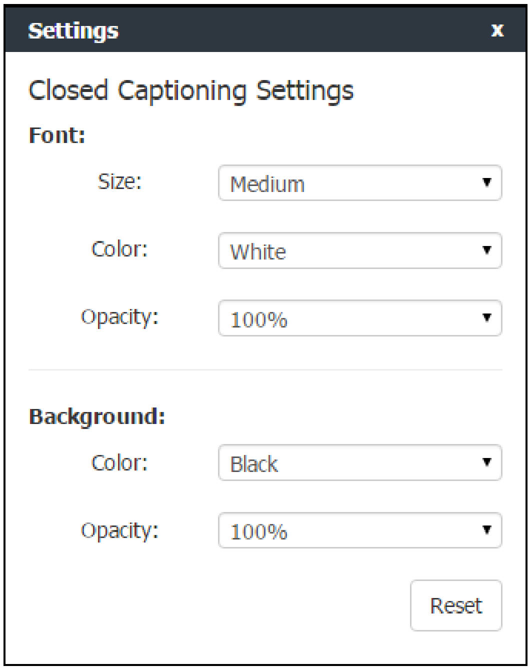
Playback controls region features

The playback control and settings region at the bottom of the page includes:



- A progress indicator bar with thumbnail images, chapter marker indicators, and a selectable slider that allows you to navigate backwards or forwards to any point in the recording
  - The standard **thumbnail images** are miniature images of the picture at a given point in the video. They appear when you hover your mouse or other pointing device over the progress bar. Thumbnails are automatically generated and saved by the recording device.
  - **Chapter markers**, indicated by narrow, vertical white lines within the progress bar, are manually entered by the presenter of the recording when they push a button on the recording device (the **Mark** button on an SMP 351). They are often used to indicate a change of topic. Chapter markers also include a small thumbnail image which appears if you hover a mouse or other pointing device over the marker or progress bar.
  - When you click and drag the **slider**, playback resumes from the newly-selected point in the recording, and the number for the time played changes to match where the new playback point.
- Time played and total duration for the recording
- Player controls

Button or Control Name	Button Icon or Control	Description
Mute button	🔊	Click this button to toggle the audio off (mute the audio) or on. When audio is muted, the button shows an "x" next to the speaker icon: 🔇
Volume adjustment slider	━━━━╋━	Click on and drag the volume adjustment slider right or left to raise or lower the audio volume or use the keyboard <Up arrow> and <Down arrow> keys to adjust the volume.
Previous Chapter button	⏮	Click **Previous Chapter** to move video playback to the previous chapter marker or to move to the beginning of the recording (if no chapter markers exist in the whole recording or if there are no chapter markers earlier than the current part of the recording).
Play or **Pause** button	▶ ⏸	Click **Play** to play or resume playback of the recording. While the recording is playing, the button becomes a **Pause** button. Click **Pause** to pause playback. While recording is paused, the button becomes a **Play** button.
Next Chapter button	⏭	Click **Next Chapter** to advance the recording to the location of the next chapter marker. If the recording has no chapter markers or there are no chapter markers after the currently selected part of the recording, then clicking the **Forward** button moves the video playback to the end of the recording.
Playback speed button	1.6x	Selecting this button opens a pop-up menu from which you can select playback speeds from 0.5x to 2x the normal speed.
CC (Closed captioning) button	CC	This button appears only if a closed caption file has been uploaded for the recording. Click the **CC** button to toggle display of closed captioning text on or off.

Button or Control Name	Button Icon or Control	Description
`Settings` button **NOTE:** These settings are saved in browser-specific cookies. You must enable cookies in your browser for the streaming player pages within SMP and for the EMP `Play_Video.html` pages, if you download and play the recordings offline. Also, note that Google Chrome does not support cookies for offline applications.	⚙	This button appears only if a closed caption file has been uploaded for the recording. Selecting this button opens a panel (shown below) along the right side of the recording area where you can change the appearance of the text and background for closed captioning (CC). If a closed caption file has been uploaded for the recording (via the SCM recording detail page), these settings control how the caption text looks when displayed over the video.  **Settings** x Closed Captioning Settings **Font:** Size: Medium Color: White Opacity: 100% **Background:** Color: Black Opacity: 100% Reset Click a drop-down menu to select the following: • Relative font size (small, medium, or large) • Font color or background color (Select one of eight options.) • Opacity percentage (0, 25, 50, 75, or 100%) for the font or for the closed captioning background The default appearance is a combination of medium size white font on a black background, all at 100 percent opacity. You can reset the closed captioning settings to those default values by clicking the **`Reset`** button within the `Settings` panel.
`Full-screen` button	⤢	Select this button to expand the player window to fill the screen. Once the screen is expanded, press the keyboard <Esc> key or click this button ⤡ again to restore the screen to the original, smaller size.

Using Keyboard Controls

The `Player` page supports basic keyboard controls (such as using the <Tab> key to move from one element to another or pressing <Esc> to exit a menu or pop-up window) that are supported by most programs and platforms. In addition, you can control media playback through EMP- and SCM-specific combinations of keyboard keystrokes (keyboard shortcuts, available at all times within the SCM `Player` page or when playing downloaded recordings using Extron Media Player), detailed in the following table.

NOTE: You may need to press the <F6> key to refresh the page and be able to access the URL field of the browser.

Control Category	Keyboard Shortcut	Command or Control
Recording playback and display	<Space bar>	Play or pause the presentation.
	<Shift+N>	Skip to the next chapter marker.
	<Shift+P>	Skip to the previous chapter marker.
	<Shift+C>	Toggle the closed caption overlay on or off.
	<Shift+left arrow>	Decrease playback speed.
	<Shift+right arrow>	Increase playback speed.
Audio adjustment	<Up arrow>	Increase program audio volume.
	<Down arrow>	Decrease program audio volume.
	<Shift+M>	Mute or unmute program audio.

NOTE: The <Up arrow> and <Down arrow> keys adjust the audio volume from anywhere in the playback window *except* when the control focus is within the **`Help`** drop-down menu or in either of the following two pop-up elements.

- Within the `Playback speed` pop-up control, use the <Up arrow> and <Down arrow> keys to select the playback speed.
- Within the `Settings` pop-up window, use the <Up arrow> and <Down arrow> keys to increase and decrease font and background opacity.

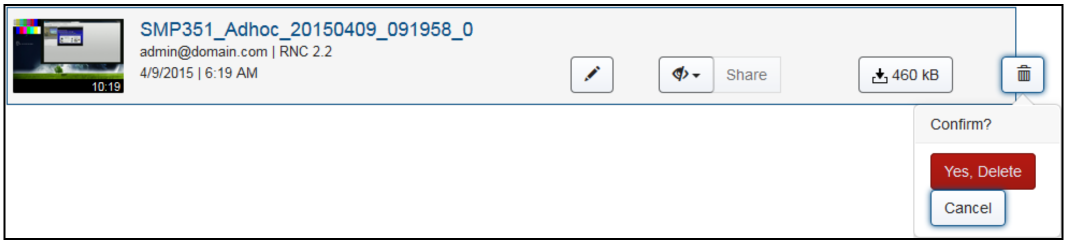
Deleting a Recording

A recording can be deleted from within the My Recordings list or the All Recordings list, or from the detail view page for that recording. You must be either the owner of the recording or an administrator to delete a recording.

How to Delete a Recording

To delete a recording from within a recordings list:

1. Within Streaming Content Manager (SCM) click the **`Recordings`** tab. The `My Recordings` page opens.
2. If you want to delete a recording made by another user, click the **`All Recordings`** sub-tab. The `All Recordings` page opens.
3. Navigate to and locate the desired recording as described in **Locating Recordings in a List**.
4. Click on the **`Delete`** button (🗑) in the row for that recording. A `Confirm?` dialog box pops up to allow you to confirm or cancel the deletion.



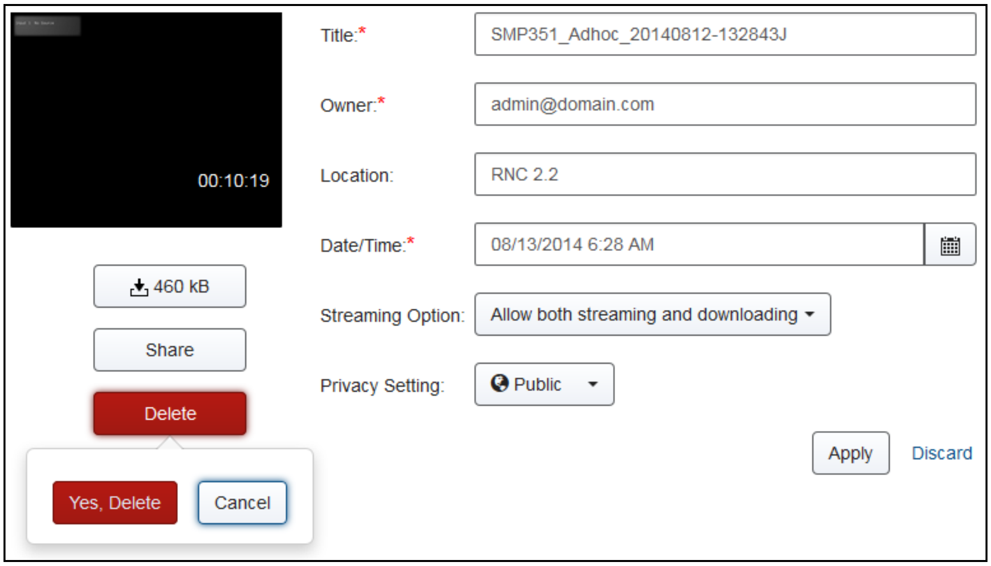
SMP351_Adhoc_20150409_091958_0
admin@domain.com | RNC 2.2
4/9/2015 | 6:19 AM

5. Click **`Yes, Delete`**. The recording package is deleted from the SCM system.

To delete a recording from a recording detail view page:

1. Perform steps 1 through 3 in the above instructions for deleting a recording from a list.
2. Click on the **`Edit`** button (✎) for the desired recording. The detail view page for that recording opens.

3. Click on the **Delete** button. A dialog box pops up to allow you to confirm or cancel the deletion.



Title:* SMP351_Adhoc_20140812-132843J

Owner:* admin@domain.com

Location: RNC 2.2

Date/Time:* 08/13/2014 6:28 AM

Streaming Option: Allow both streaming and downloading

Privacy Setting: Public

4. Click **Yes, Delete**. The recording package is deleted from the SCM system.

How to Recover an Accidentally Deleted Recording

When a recording is deleted within the SCM web interface, the recording package is deleted from the SCM recording storage server, as well. If a recording is deleted accidentally, you have the following options for file recovery:

- Contact the IT system administrator to see if a copy of the file package is available from a backup archive. How long or whether a backup file exists depends on the storage policy and backup period of your organization.
- If the recording was made recently, check the internal file storage of the recording device, such as an Extron SMP 351. If the original file has not been deleted to make room for new recordings, you may be able to re-upload the recording to the ingest server by using controls in the embedded web pages of the SMP. See the help file for the SMP 351 embedded web pages for instructions.

Working With the Extron Media Player

About the Extron Media Player (EMP)

The EMP is a browser-based media player for recordings that are produced by the Extron Streaming Media Processor (SMP) (for information on the SMP, visit **www.extron.com**). EMP provides an enhanced playback experience, incorporating metadata, time-synchronized thumbnail images, and advanced playback controls into the user interface. The data and controls provide the user with greater ability to efficiently navigate and play back the recorded material. EMP requires no software installation and can be operated from virtually any PC using a variety of browser applications.

How Streaming Content Manager Uses the EMP

- Some elements of EMP, such as logo graphics files, are selected within the Streaming Content Manager system before EMP is packaged with recordings.
- During file ingestion (when files are imported into the SCM system and database) and processing, Streaming Content Manager packages the recording and its thumbnails, chapter markers, logo file, and metadata with EMP. If a closed captioning .json file is available, it can be uploaded from within SCM and packaged with the recording.
- When a user downloads a recording to play using the stand-alone EMP player, everything needed to play and navigate through the recording is in the package.
- When someone plays a recording from within an SCM recording player page, EMP streams the recording from the SCM server. During online playback, the viewer has access to many of the controls available in the stand-alone EMP program.

Which EMP Features Can Be Customized

Features that can be customized within SCM

For recordings that are packaged by SCM, SCM administrators can customize the logo that appears in EMP. For instructions see **Configuring the EMP Player**. Also, closed captioning files in .json format can be uploaded in SCM and packaged with the recording.

NOTE: Information on what is required to create a closed captioning file will be available on the Extron website.

Features that can be customized within the EMP player

Closed captioning font color, size, and opacity and background color and opacity can be selected using controls within the EMP player.

Configuring the EMP Player

The SCM system administrator or other SCM administrators can change the logo image that appears in EMP. This can be accomplished by:

- Replacing the logo file directly from the SCM server folder.

> **NOTES:**
>
> - Files for these images must be in PNG format.
> - Within EMP the logo height is restricted to 80 pixels and the width is scaled according to the native aspect ratio of the file.

To replace a logo file via the SCM server:

1. Log in to the SCM server as an administrator with read/write privileges.
2. Using a file manager program, navigate to and open `\\<`*`servername`*`>\wwwroot\SCM\Windows Services\Distribution Manager\Resources\VideoPlayer\images\customer_images` where *`servername`* is the name and root path of the server where SCM is installed.
3. Copy the PNG file for the logo into that server location.

   > **NOTE:** The file for the logo must be named "`company_logo.png`" (without quotation marks).

   SCM and EMP automatically recognize the new file and will use the new file in recording packages created after they have been uploaded.

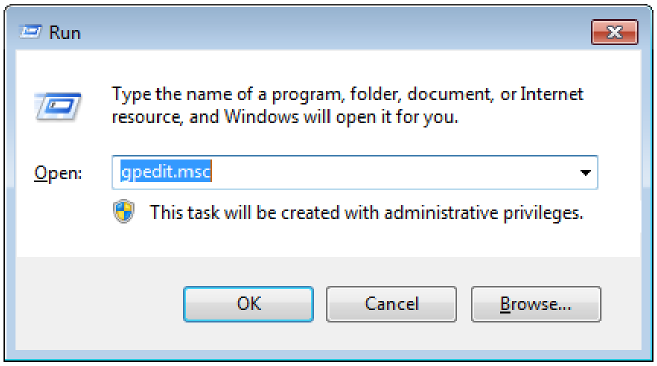
Troubleshooting

This section details various situations you may encounter when working with Streaming Content Manager and suggests possible causes and solutions. Issues are grouped by subject as follows:

- **SCM system access** issues
- **SCM user interface** issues
- **Installation or upgrade** issues
- **Recordings** issues
- **E-mail** issues
- **Database** issues
- **Account validation** issues
- Assorted **system and hardware** issues

Log files can aid in troubleshooting. To view the log files from a web browser: click the **`Support`** tab. The `Support` page opens, displaying links to all the available log files, which you can download and open in a text editing program. To view the log files on the local drive of the SCM Web server using a file explorer program, navigate to `C:\inetpub\wwwroot\SCM\Log`.

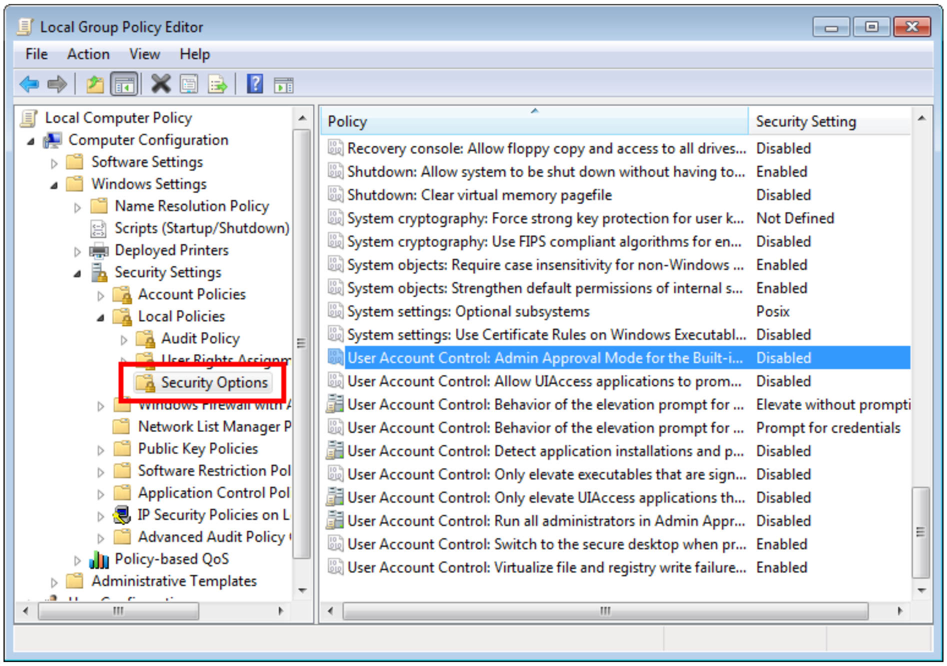
SCM System Access

Problem	Cause	Solution
SCM does not open when you attempt to load it from the "Metro" style start tile shortcut on a Windows Server 2012 R2 server. It displays an error message stating that the built-in administrator account cannot load SCM from the start tile. However you can load SCM from the regular desktop shortcut.	The Admin Approval Mode has not been enabled for the local administrator account.	Update the user account control group policy settings to enable Admin Approval Mode as follows: 1. On the Windows 2012 server, open the Run command program by pressing <Windows + R>. 2. Enter `gpedit.msc` into the Open field and click **OK**.  Type the name of a program, folder, document, or Internet resource, and Windows will open it for you. Open: gpedit.msc This task will be created with administrative privileges.

Problem	Cause	Solution

The `Run` window closes and the `Local Group Policy Editor` window opens.

3. In the `Local Computer Policy` panel on the left, navigate to and select **`Computer Configuration`** > **`Windows Settings`** > **`Security Settings`** > **`Local Policies`** > **`Security Options`**. The panel on the right displays a list of available security policies.



Policy	Security Setting
Recovery console: Allow floppy copy and access to all drives...	Disabled
Shutdown: Allow system to be shut down without having to...	Enabled
Shutdown: Clear virtual memory pagefile	Disabled
System cryptography: Force strong key protection for user k...	Not Defined
System cryptography: Use FIPS compliant algorithms for en...	Disabled
System objects: Require case insensitivity for non-Windows ...	Enabled
System objects: Strengthen default permissions of internal s...	Enabled
System settings: Optional subsystems	Posix
System settings: Use Certificate Rules on Windows Executabl...	Disabled
User Account Control: Admin Approval Mode for the Built-i...	Disabled
User Account Control: Allow UIAccess applications to prom...	Disabled
User Account Control: Behavior of the elevation prompt for ...	Elevate without prompti
User Account Control: Behavior of the elevation prompt for ...	Prompt for credentials
User Account Control: Detect application installations and p...	Disabled
User Account Control: Only elevate executables that are sign...	Disabled
User Account Control: Only elevate UIAccess applications th...	Disabled
User Account Control: Run all administrators in Admin Appr...	Disabled
User Account Control: Switch to the secure desktop when pr...	Enabled
User Account Control: Virtualize file and registry write failure...	Enabled

4. In the policies list, navigate to and double-click on **`Policy User Account Control: Admin Approval Mode for the Built-in Administrator Account`**. The `Policy User Account Control: Admin Approval Mode for the Built-in Administrator Account` window opens with the **`Local Security Setting`** tab selected.
5. Select the **`Enabled`** radio button, click **`Apply`**, and click **`OK`**. The window closes.
6. Close the `Local Group Policy Editor` window.
7. Restart the server.

The SCM web pages do not load. Instead the browser displays a "Page not found 404" error message.	IIS may not have been set for HTTPS binding. HTTPS binding is required for SCM.	Follow the instructions in **Adding HTTPS Binding**.

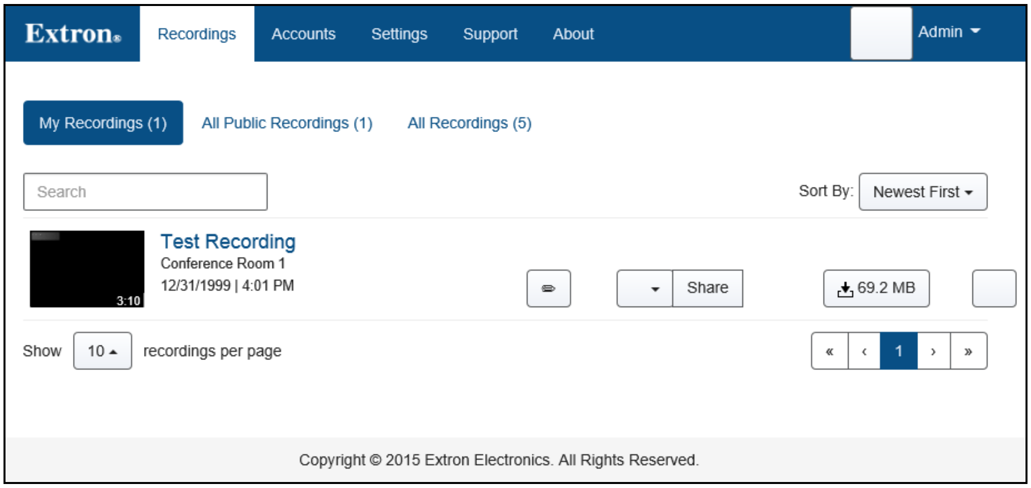
Problem	Cause	Solution
The SCM web pages do not load. The browser displays a "HTTP Error 403 - Forbidden" message.	The SCM applications may not have the correct permissions for accessing the SCM server folder.	Set up the server permissions manually: 1. Using a file explorer program, navigate to and start the IIS Manager from **`Administrative Tools`** on Windows Server 2008 or from **`Tools`** on Windows Server 2012 2. In IIS Manager, navigate to the application pools link and validate the user name of the app pool. 3. Add the SCM system user to SCM folder user list. If the installation uses the default user account, add the app pool to the user list. 4. Restart the Web server from IIS.

Problem	Cause	Solution
The SCM web pages do not load. The browser displays a "HTTP Error 500.19 - Internal Server Error" message.	Website permissions may not be set correctly.	Set up the server permissions manually: 1. Using a file explorer program, navigate to and start the IIS Manager from **`Administrative Tools`** on Windows Server 2008 or from **`Tools`** on Windows Server 2012 2. In IIS Manager, navigate to the application pools link and validate the user name of the app pool. 3. Add the SCM system user to SCM folder user list. If the installation uses the default user account, add the app pool to the user list. 4. Restart the Web server from IIS.
	Application development features may be missing for the Windows IIS role in Windows Server 2012.	Set up server roles and features manually: 1. Open the Windows Server 2012 server manager. 2. Select the **`Manage`** option. 3. Select **`Add roles and features`**. 4. Select server roles and under **`IIS - Add ASP.NET 4.5 / ASP.NET`**.
The SCM web pages do not load. The browser displays a "HTTP Error 500.21 - Internal Server Error" message.	If IIS was installed after the .NET framework, `ASP.NET` is not properly registered with IIS. This occurs mostly in Windows Server 2008 installations.	Register `ASP.NET` with IIS by running the following commands: 1. `1.C:\windows\Microsoft.NET\Framework\v4.0.30319\aspnet_regiis.exe -i` 2. `iisreset` When the reset is complete, reload SCM in the browser window.

Problem	Cause	Solution
I cannot log in.	I forgot my password.	• If you have a local SCM account, reset your password (see **Resetting or Changing Your Password**). • If you have an account with access managed by an Active Directory (AD) system, contact your IT system administrator for assistance with your password. For a comparison of local and AD accounts, see **Comparing User Types Based on Origin (Local or AD Accounts)**.
	The system fails to authenticate your credentials.	• If you have a local SCM account, ask an SCM administrator to create a link for you to reset your password. • If you have an account with access managed by an Active Directory (AD) system, AD connection may be temporarily disabled. An SCM administrator can enable the AD Connection (see **Setting Up LDAP/AD Connections**).

SCM User Interface

Problem	Cause	Solution
Button images (such as the Delete, Edit, and Privacy icons) are not displayed within the SCM site. See the image below.	The current URL is not set as a trusted site.	Add the current (SCM system) URL to the list of trusted sites. In Internet Explorer: 1. Select **`Tools`** > **`Internet options`**. The `Internet Options` dialog box opens. 2. Click the **`Security`** tab. 3. In the security page, click the **`Trusted sites`** icon. 4. Click the **`Sites`** button. The `Trusted sites` dialog box opens. The URL is listed in the `Add this website to the zone` field. 5. Click **`Add`** to add the URL to the trusted sites list. 6. Click **`Close`**. The `Trusted sites` dialog box closes. 7. In the `Internet Options` dialog box, click **`OK`**.



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Installation or Upgrade

NOTE: SQL Server supports all languages that are supported by Windows operating systems, but for SCM, only the English versions of Microsoft Windows Server are supported.

Problem	Cause	Solution
Installation of a SQL Express server instance fails, providing a "Restart computer" failure or error. The SCM software installation aborts as a result of the SQL installation error.	Prior to installation of the SQL Express server for SCM, some other application was uninstalled that required a server restart for the process to finish. The SQL Express installation cannot be completed until the server is restarted. Meanwhile it shows a "Restart computer" failure.	Fix the error (restart the server) and run the SCM Installer (version 1.1 or higher) again.

Recordings

Problem	Cause	Solution
No audio can be heard when playing a recording using Internet Explorer. However, the audio can be heard if it is played using Chrome or Firefox.	Internet Explorer does not have audio playback enabled.	Enable audio playback as follows: 1. In Internet Explorer, click on the **Tools** menu and select **Internet Options**. The Internet Options window opens. 2. Click the **Advanced** tab. 3. In the Settings panel, scroll down to the Multimedia section and check (select, enable) **Play sounds in webpages**. 4. Click **OK**. 5. Restart Internet Explorer.
I cannot access my recording. (A user cannot access their own recording but the administrator sees that it has been assigned to the SCM guest account.)	Metadata about the owner of the recording may have been lost or damaged during file ingest.	An administrator can edit the recording to change the owner from the guest account to the account of the appropriate user.

Problem	Cause	Solution
A recording is listed for a long time as being “in process” (indicated by a "Processing" thumbnail image). 	An error may have occurred while the recording was being ingested to SCM. **NOTE:** Before checking for a solution, reload the web page and recheck the status of the recording to refresh and obtain the current status of the recording. Some recordings may take a long time to ingest depending on server speed and network traffic.	1. In the SCM database locate the recording that is stuck "in process," delete the recording folder and contents, and delete the entry from the database table. 2. Delete the recording from the ingest folder. 3. Restart the file transfer from the recording device to the ingest server folder. See the instructions for removing and replacing a recording after this table. If this error occurs system-wide (not just for one recording, there may be a server permissions error. If SCM Windows services (Extron FileWatcher and Extron DistributionManager) are running under a Local Service account instead of a Local System account, SCM may not have read/write permissions in the ingest directory or the storage directory. Also, permissions might also not match those of the Web services. That may cause recordings to appear in the Recordings List but be stuck in the “processing" step. Correct the permissions for the server or the services.

Problem	Cause	Solution
Recording download fails, yielding a security alert error message stating "Your current security settings do not allow this file to be downloaded."	The current URL is not set as a trusted site.	Add the current URL (of the SCM system) to the list of trusted sites. In Internet Explorer: 1. Select **Tools** > **Internet options**. The Internet Options dialog box opens. 2. Click the **Security** tab. The view changes to the security page. 3. Click the **Trusted sites** icon. 4. Click the **Sites** button. The Trusted sites dialog box opens. The URL should be listed in the Add this website to the zone field. 5. Click **Add** to add the URL to the trusted sites list. 6. Click **Close**. The Trusted sites dialog box closes. 7. In the Internet Options dialog box, click **OK**.

Problem	Cause	Solution
Playback of an ingested recording fails in Mozilla® Firefox® on a PC with a Windows® operating system if Apple® QuickTime® has been installed.	When Firefox is initially installed, it is configured to be able to play the media files that Extron produces. However, when other programs are installed after Firefox (such as Apple QuickTime or VideoLan™ VLC™ programs), they change the settings for Firefox. The QuickTime installation has changed the settings for MIME (media) types. Firefox no longer recognizes the .m4v files in the recording package as files that can be played by the EMP player.	To fix the settings on the PC to return them to their original state, change a MIME type setting in the Windows registry. See the instructions below.

To change the MIME type setting:

1. Open Notepad or a similar simple text editor. Do not use Microsoft Word or another editor that adds hidden formatting.
2. Enter the following text, exactly as it appears here:

   ```
   Windows Registry Editor Version 5.00
   [HKEY_CLASSES_ROOT\.m4v]
   "Content Type"="video/mp4"
   ```

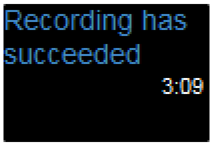
   This is the lowest impact fix that can be made, and it is not changing any program settings. It simply tells the computer to treat all files with an .m4v file extension as though they are an .mp4 file. Programs like QuickTime and VLC have their own settings that override this and provide their own special instructions.
3. Save the file as `moz-m4v-fix.reg`.

   NOTE: Be certain that your text editor is not automatically adding ".txt" for you, causing the file to be called `moz-m4v-fix.reg.txt`.

4. Find the recording file you just created and double-click on it to run the fix. The Registry Editor opens a notification that asks you to confirm the change.
5. Click **Yes** to continue.
6. If needed, restart Firefox to make the changes take effect.

If you have problems with this process, contact your support team to resolve the issue.

Problem	Cause	Solution
Recording playback fails when using Internet Explorer or Firefox browsers from within Windows Server 2012 or Windows Server 2008. This occurs after a new installation or upgrade.	The Windows Desktop Experience feature is not enabled.	Enable the Desktop Experience feature as follows: 1. On to the server where SCM is installed, start Windows Server Manager. 2. In Dashboard view in the screen center, select **2 Add Roles and Features**. The Add Roles and Features Wizard window opens. 3. Click **Server Selection** in the menu in the left panel. 4. Select the **Select a server from the server pool** radio button. 5. Select the appropriate server from the Server Pool list. 6. Click **Features** in the menu in the left panel. The wizard displays a list of available features. 7. In the Features list navigate to and expand **User Interfaces and Infrastructure** and select (enable) **Desktop Experience**. 8. If the wizard prompts you to install additional features or services, follow the on-screen instructions to add those. 9. Click **Next**. The wizard displays a confirmation page. 10. Select **Restart the destination server automatically if required**. 11. Click **Install**. The wizard installs the selected components and then restarts the server. The following Web page provides the procedure and screenshots for Windows Server 2012: 20112.how-to-enable-windows-8-features-in-windows-server-2012.aspx

Problem	Cause	Solution
Picture thumbnails for recordings are replaced by a black field with text stating "Recording has succeeded" or a broken link icon or an Extron logo.  Recording has succeeded 3:09	Recordings may have been migrated to a different storage location, but the settings have not been updated within SCM to specify the new storage location.	Update the path for the storage location to that of the new storage server (see **Setting Up Recording Package Settings**).

Problem	Cause	Solution
Recording ingest failed.	The file watcher (file monitoring) service may have stopped after a server restart or server maintenance.	1. Ensure that the recording ingest server is operational. 2. Ensure that the path of the ingest server is correct in the SCM recording package settings **`Ingest Location`** field. 3. Restart the file monitoring service by first stopping the service using the red **`Stop`** button (if necessary) and then starting the service by clicking the green **`Start`** button at the top of the Recording Package Settings section in the `Settings` page. See **Setting Up Recording Package Settings** for details.
	File monitoring criteria for recording package name may not match the file name structure used by the recording devices.	- In the SCM recording package settings, change the ingest filter criteria to just an asterisk (*). Or - Check the default recording file name settings for each recorder and ensure that the filter criteria in SCM will allow files with that naming structure to be ingested. See the details on ingest filter criteria and also the example within **Setting Up Recording Package Settings**.
	Network delays caused a timeout.	Address the network performance issues. You may also need to consider increasing the recording package ingest timeout period.

Problem	Cause	Solution
Recording ingest failed.	Server and service permissions may not be set up to allow read/write permissions for all required directories and services.	If SCM Windows services (Extron FileWatcher and Extron DistributionManager) are running under a Local Service account instead of a Local System account, SCM may not have read/write permissions in the ingest directory or the storage directory. Also, permissions might also not match those of the Web services. That may cause recordings to appear in the Recordings List but be stuck in the “processing" step. Correct the permissions for the server or the services. For details on permissions, see **Server Account Permissions and SCM Installation**. For instructions on how to add or change the ingest and storage locations, see **Setting Up Recording Package Settings**.
	The server has run out of space. All SCM services are running but recording ingestion stops, and SCM does not display any errors. Adding more space does not start the upload process automatically.	Add more space to the ingest or storage server, then restart services manually. Services must be in sync to bring the SCM system back to normal operation. To restart services: 1. Stop the service from the SCM `Settings` page by clicking the **`Stop`** button in the `Recording Package Settings` section. The **`Stop`** button becomes a **`Start`** button. 2. Restart the Extron FileWatcher Windows service and Extron DistributionManager Windows service from the Windows Services tool. 3. Within SCM, start the services by clicking the **`Start`** button in the `Settings` page.

Problem	Cause	Solution
Unauthenticated users cannot view public recordings.	Unauthenticated users do not have access to SCM. This is the default setting in SCM.	1. In the SCM recording package settings on the `Settings` page, click **`Stop`** to stop monitoring services. 2. Select (check, enable) the **`Allow unauthenticated users to view Public/Unlisted recordings`** check box. 3. Click **`Apply`**. 4. Click **`Start`** to restart monitoring.
Recording thumbnail links to the detail view page are broken or the recording cannot be downloaded.	The recording storage location was changed but the content was not physically copied to the new storage location.	Copy the files to the new recording storage server.
	The recordings were moved to a new storage location (and removed from the original server), but the old storage location is still specified in SCM.	1. In the SCM recording package settings, click **`Stop`** to stop monitoring services. 2. Replace the old server path in the **`Storage Location`** field with the new server path. 3. Click **`Apply`**. 4. Click **`Start`** to restart monitoring. See **Setting Up Recording Package Settings** for details.

Problem	Cause	Solution
Recordings uploaded to the ingest location are not ingested immediately and may remain there for a while (minutes or hours). As a result, users do not receive e-mail notifications of recordings added to SCM because the recordings have not been added to the system yet. Recording ingest resumes after someone accesses the SCM web pages.	The SCM web service is in idle mode because web services have timed out. The timeout period for the SCM application pool in IIS is too short. File watcher services (and, therefore, file ingest functions) are suspended until SCM web pages are accessed and web services resume.	Access the SCM web pages. File ingestion will restart automatically. **or...** Set the idle timeout period on the web services application pool to zero (to prevent idling) and change other settings as follows: 1. Using a file explorer program, navigate to and start the Internet Information Services (IIS) Manager from **`Administrative Tools`** on Windows Server 2008 or from **`Tools`** on Windows Server 2012 2. In IIS Manager, in the `Connections` panel, select **`Application Pools`**. The `Applications Pools` pane opens. 3. Right-click on the SCM app pool and select **`Advanced Settings`** from the pop-up menu. The `Advanced Settings` dialog box opens. 4. In the Process Model section, locate the **`Idle Time-out (minutes)`** setting and change the value to **`0`**. 5. Click **`OK`**. The `Advanced Settings` dialog box closes.
A recording named `test_dir` appears on the ingest server but is not ingested.	SCM is configured to ignore this particular recording folder name, which is used by the EMP for testing purposes.	Choose a different recording name.

Removing and Replacing a Recording That Does Not Complete Ingestion

If a recording is listed indefinitely as being "in process" and that status does not change after the recordings list has been reloaded within the SCM web page, you must manually remove it from SCM and retransfer the file to the ingest server.

To remove a recording that is stuck in the "in process" state:

1. Using SQL Server® Management Studio, open a connection to the database server and select the SCM database. For a typical installation, it is named “scm-db.”
2. Open the Recordings table for editing.

3. Locate the recording that did not advance beyond the in-process state. There are several ways to do this:
   - View the entries in the RecordingStatus column. A value between 0 and 4 indicates that the recording is in process.
   - The title of the recording as displayed in the SCM web page is equal to either the value in the **Title** column in the database, the child folder of the **RecordingPath** field in the database, or both.
   - Look in the **UploadStartDate** column, which indicates the date/time stamp of when the recording ingest began.
   - Open the system log for the SCM FileWatcher (see **Logging** for more details). Identify the start of ingest for the recording in question, and note the **RecordingId** for the recording that did not finish being ingested. This unique value can then be used to locate the recording within the database.
4. Once the recording has been identified within the Recordings database table, note the value of the **RecordingPath** column. This is the path in the ingest location to which the recording was written by the SMP 351 presentation recorder or other recording device. Delete this folder and all of its contents using Windows Explorer.
5. For the recording in question, note the value in the **PackagePath** column. This is the path in the storage location to which the packaged recording will be written. Browse to this location using Windows Explorer and delete the recording package if it exists.
6. Delete the recording entry, itself, from various database tables (ClosedCaptions, PackageFiles, RecordingChapters, RecordingThumbnails, RecordingsManifest) and then from the Recordings database table.

   Alternatively, you can set the value in the RecordingStatus column to the failed state (value = 5), and then delete the recording from within the SCM Web pages.
7. Restart the ingest process by re-transfering the recording from the SMP (or other recording device).

   To manually start uploading an event recording from an SMP 351 to the specified network server (ingest location:
   a. In the SMP 351 embedded web pages, click on the **Scheduled Events** tab to open the calendar.
   b. Click on the event to be re-uploaded. The Event Details dialog box opens.
   c. Click **Retransfer**. The status changes first to Admin Requested Reupload, then to Uploading to Server.
   d. If the process fails, the status is displayed as Upload Retries Failed. Click **Retransfer** again to retry uploading the files. Once the recording package has been uploaded to the server, the status changes to Upload to Server Complete.
   e. At any time after clicking **Retransfer** you can click **Close** to close the dialog box. If you do not click **Close**, the dialog box remains open indefinitely.
8. If the above steps fail, it may be necessary to repeat the entire process of removing the recording, then restart the FileWatcher and DistributionManager services. Note that any other recordings that are in process will be lost when the services are restarted.

E-mail

Problem	Cause	Solution
E-mails are not being sent.	E-mail connection settings may not be properly configured or the e-mail connection may be disabled.	1. Ensure that the SCM e-mail notification settings are properly configured with the correct Exchange server path and the username and password of the SCM e-mail account on that server (see **Configuring E-mail Notification Settings**). 2. Ensure that the `Enable E-mail Notification` check box is selected (checked). 3. Send a test e-mail to verify that the connection is working correctly. 4. Click `Apply`.
The system administrator is not receiving e-mail.	E-mail connection settings may not be properly configured or the e-mail connection may be disabled.	See above.
	The system administrator account does not yet have an email address.	Edit the system administrator account to add an e-mail address (see **Editing the System Administrator Profile**).

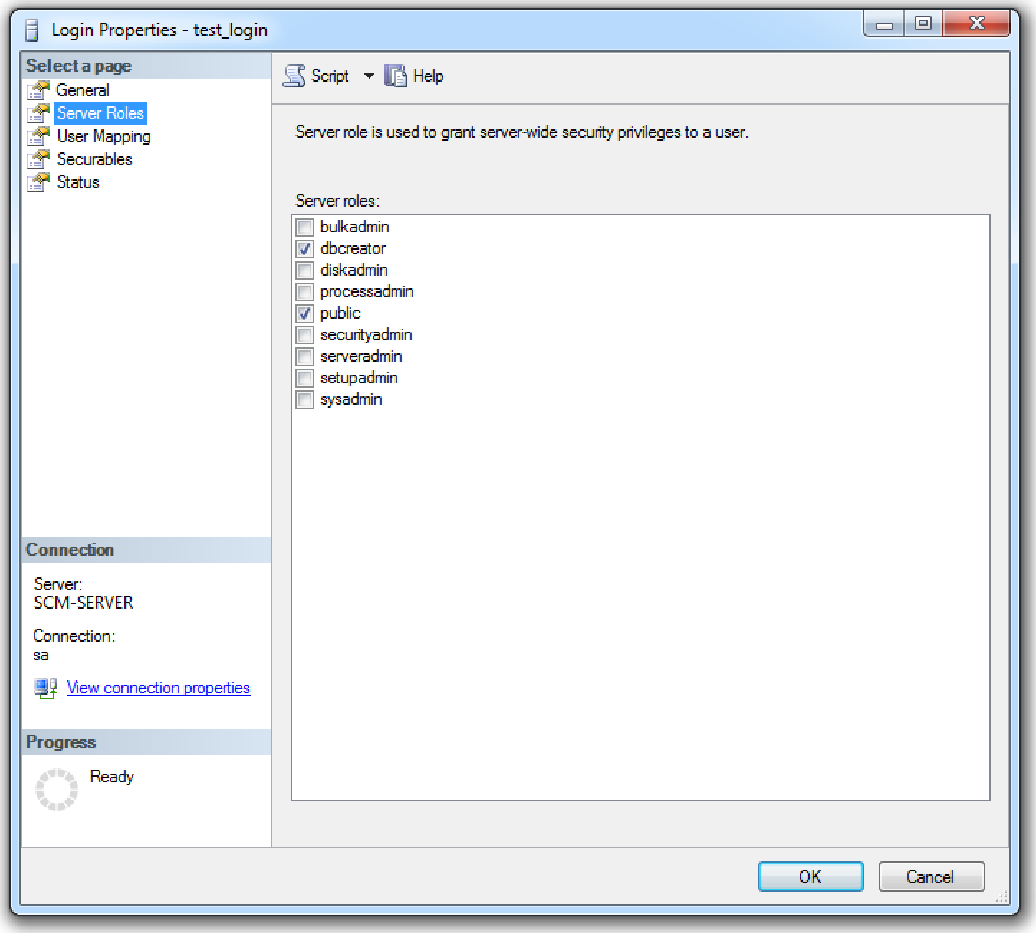
Database

Problem	Cause	Solution
After installation an administrator wishes to clear all data from the database.		Run the database installer program and select the `Overwrite` option (as detailed in step 8 in **Database Setup and Administration**). The database will be cleared (emptied) of users, recordings, and SCM system settings.
While connecting to a database using an account that is **not** the system administrator account, one of the following errors occurs: • Connection Failed! Be sure that you have the correct credentials and SQL server name. • Error while opening connection to SQL server: Login failed for user '<*username*>'.	SQL Login does not have required permissions to create a new database.	See the instructions for setting SQL log-in permissions immediately after this table.

To set the required SQL log-in permissions for the database:

1. Open Microsoft SQL Server Management Studio.
2. Connect to the SCM database server (as specified in the `Database Server Name/IP Address` field of the SCM Database Installer) using an account with administrator privileges, such as the system administrator account.
3. Expand the `Security` > `Logins` folder
4. Locate the login of the account that is failing.
5. Right-click on the login and select `Properties`.
6. Select the `Server Roles` page from the `Select a page` panel.

7. Verify that the following roles are selected: **dbcreator** and **public**.



Login Properties - test_login

Select a page
- General
- Server Roles
- User Mapping
- Securables
- Status

Script ▾ Help

Server role is used to grant server-wide security privileges to a user.

Server roles:

☐ bulkadmin
☑ dbcreator
☐ diskadmin
☐ processadmin
☑ public
☐ securityadmin
☐ serveradmin
☐ setupadmin
☐ sysadmin

Connection

Server:
SCM-SERVER

Connection:
sa

View connection properties

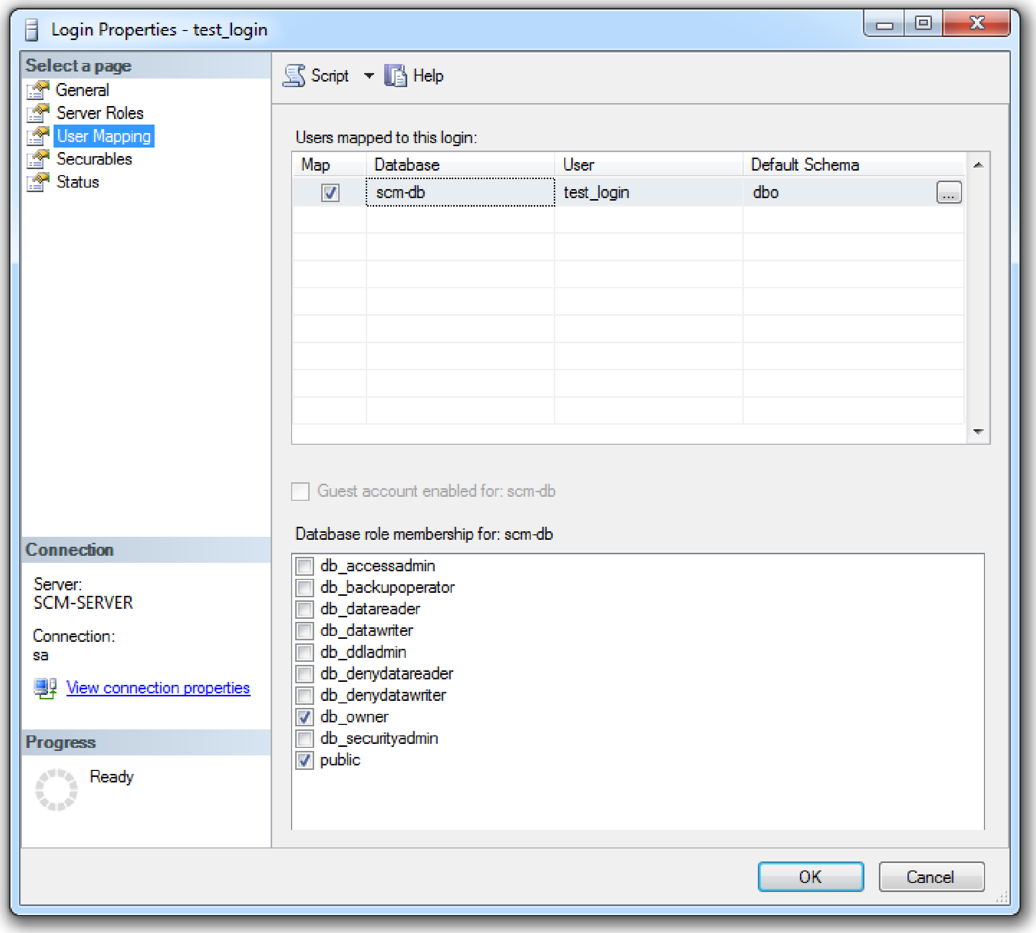
Progress

Ready

8. From the `Select a page` panel, select the **User Mapping** page.

9. Select the database used by SCM (as specified in the **Database Name** field of the SCM Database Installer).

10. In the“Database role membership for: <*database name*> area, verify that the following roles are selected: **db_owner** and **public**.



Users mapped to this login:

Map	Database	User	Default Schema
☑	scm-db	test_login	dbo

□ Guest account enabled for: scm-db

Database role membership for: scm-db

□ db_accessadmin
□ db_backupoperator
□ db_datareader
□ db_datawriter
□ db_ddladmin
□ db_denydatareader
□ db_denydatawriter
☑ db_owner
□ db_securityadmin
☑ public

Server:
SCM-SERVER

Connection:
sa

11. Click **OK**.

Account Validation

Problem	Cause	Solution
When adding user accounts I cannot access **Add from LDAP** because it is disabled.	The LDAP/AD connection is disabled.	In the LDAP/AD settings select (check) the **Enable this Connection** check box (see **Setting Up LDAP/AD Connections**).

System and Hardware

Problem	Cause	Solution
SCM stopped working	Lack of server space can cause SCM to stop working. When the system hard disk is full, the application stops working and doesn't throw an error.	1. Check the storage space and move the installation to a new server if needed. Update settings in SCM for server paths as appropriate in the SCM system settings. 2. Verify that the RabbitMQ service is running, as it can stop if the application crashes.

General Reference Information

Supported Database Types, E-mail Server Systems, Browsers, and File Types

System Installation Requirements

See **System Installation Requirements** in the Prerequisites help topic for full details.

Network Drives for Recording Ingest and Storage

How much storage space will be needed depends on the following factors:

- The encoding settings of the recording devices. The higher the resolution and the greater the motion content, the more space is needed per hour of recording. The settings for variable bit rates, compression, and the level of motion content all affect the recording size.
- How many hours per day recordings are made per room.
- How many rooms in the facility will be used for recording.
- The frequency with which recordings will be removed (deleted) from the server. The longer recordings are retained, the more space will be needed.

Minimum required space

For reference, using the default archive encoding settings for an Extron SMP 351 yields recordings of approximately 2.1 GB per hour.

See **How to Estimate Storage Requirements for Recordings** in the System Design and Planning section for a full explanation of how to estimate how much space will be needed.

Browsers

See **Web Browser Requirements** in the Prerequisites help topic for supported browsers. See **Turning Off Internet Explorer Compatibility Mode** in the Prerequisites section before using Internet Explorer.

NOTE: SCM is accessible to users with screen readers and those who use keyboard controls for navigation. The interface is accessible, and supports commonly available screen readers.

File Types

- Recordings are .mp4 (.m4v) files.
- Thumbnails are stored as .jpg files.
- Graphics for the EMP player logo are .png files.
- Closed captioning files must be .json files.
- Metadata manifest files for recordings are .json files.

Resources For Accessibility

Many people use screen reader programs to describe the elements and text on a screen. Even more people use keyboard controls (instead of a mouse or other pointing device) to navigate through, select, and interact with elements within software and on Web pages. The choice of a Web browser and adjustments to settings within browsers can make using screen readers and keyboard controls much easier. This section provides some recommendations that can help make SCM more accessible.

Choosing a Browser

- Chrome is the preferred browser for sighted users.
- Firefox is the preferred browser for screen reader users. SCM has been tested to work with Firefox and the NVDA (NonVisual Desktop Access) screen reader, which is available for free at **http://www.nvaccess.org/**.

For a list of system requirements and of browsers and file types supported by SCM, see **General Reference Information**.

Tips for Browser Configuration and Use

Mozilla Firefox

Some settings can be applied globally to facilitate keyboard use and prevent page redirection and reloading.

1. Open Firefox.
2. Click the **Menu** button (in the upper right corner of the currently open tab).
3. Click the **Options** button. The preferences window opens showing the **General** tab or button and General settings page.
4. Click the **Advanced** tab or button. The Advanced settings page opens.
5. If it is not already selected, click the **General** tab within the Advanced settings page.

6. Check (enable) or uncheck (disable) any of the following accessibility options as desired:
   - `Always use the cursor keys to navigate within pages` — When this option is enabled, Firefox displays a movable cursor in web pages, allowing you to select text with the keyboard. This mode is known as "caret browsing." You can toggle this mode by pressing <F7>.
   - `Search for text when I start typing` — When this option is enabled, Firefox finds within the current Web page what you type as you type it. While you are finding typed text in the page, the Find Toolbar automatically displays at the bottom of the window to show information about what you found.
   - `Warn me when websites try to redirect or reload the page` — When this option is enabled, Firefox prevents websites from redirecting you to another page or automatically reloading.

Additional tips for using Firefox (such as how to use page zoom controls, change font settings, browse with caret browsing, and more) are available at **http://www.accessfirefox.org/Firefox_Accessibility_Features.php** and at **https://support.mozilla.org/en-US/kb/accessibility-features-firefox-make-firefox-and-we**.

Google Chrome

Google provides information and instructions on how to change settings within Chrome and on how to use the accessibility features of Chrome. A few websites that may be helpful include the following:

- The low-vision accessibility support page at **https://sites.google.com/a/chromium.org/dev/user-experience/low-vision-support**.
- The keyboard access accessibility support page at **https://sites.google.com/a/chromium.org/dev/user-experience/keyboard-access**, which details several keyboard shortcuts and how to use them.
- The assistive technology accessibility support page at **https://sites.google.com/a/chromium.org/dev/user-experience/assistive-technology-support**. This page includes links to websites for five popular assistive technology or screen reader programs that have been tested to work with Chrome and two that do not work with Chrome.

Microsoft Internet Explorer

According to Microsoft, some Internet Explorer features can cause screen readers to give confusing or incorrect information. The Microsoft website (**http://windows.microsoft.com/en-US/internet-explorer/ie-accessibilty-options?ocid=IE10_ignore_fonts#ie=ie-10-win-7**) provides the following instructions on how to make Internet Explorer work better with screen readers.

To configure Internet Explorer version 10 to work with a screen reader or voice recognition software:

1. Open Internet Explorer.
2. Click the `Tools` button, and then tap or click `Internet options`.
3. Click the `Advanced` tab.

4. Make one or more of the following changes:
   - Set the cursor to determine where to read or magnify. Under Accessibility, select the **`Move system caret with focus/selection changes`** check box.
   - Display text in place of pictures. Under Accessibility, select the **`Always expand Alt text for images`** check box. Under Multimedia, clear the **`Show pictures`** check box.
   - Stop page transitions from causing problems with your screen reader or voice recognition software. Under Browsing, clear the **`Use smooth scrolling`** check box. Under Multimedia, clear the **`Show pictures and Play animations in webpages`** check boxes.
   - Help prevent webpage sounds from interfering with your screen reader. Under Multimedia, clear the **`Play sounds in webpages`** check box.
5. Click **`OK`**.

Licensed Software

The following software is licensed for use within Extron Streaming Content Manager.

Name	Version	License URL
Antlr	3.5.0	http://www.antlr3.org/license.html
Autofac	3.3.0	http://www.opensource.org/licenses/mit-license.php
Autofac.Mvc5	3.1.0	http://www.opensource.org/licenses/mit-license.php
AutoMapper	3.2.1	https://github.com/AutoMapper/AutoMapper/blob/master/LICENSE.txt
bootstrap	3.1.1	https://github.com/twbs/bootstrap/blob/master/LICENSE
bootstrap-accessibility	3.1.1	https://github.com/paypal/bootstrap-accessibility-plugin/blob/master/LICENSE.md
bootstrap-datetimepicker	4.0.0	https://github.com/Eonasdan/bootstrap-datetimepicker/blob/master/LICENSE
bootstrap-fileupload	N/A	http://www.apache.org/licenses/LICENSE-2.0.txt
bootstrap-table	1.3.0	https://github.com/Eonasdan/bootstrap-datetimepicker/blob/master/LICENSE
DotNetOpenAuth.AspNet	4.3.4	http://www.opensource.org/licenses/ms-pl.html
DotNetOpenAuth.Core	4.3.4	http://www.opensource.org/licenses/ms-pl.html
DotNetOpenAuth.OAuth.Consumer	4.3.4	http://www.opensource.org/licenses/ms-pl.html
DotNetOpenAuth.OAuth.Core	4.3.4	http://www.opensource.org/licenses/ms-pl.html
DotNetOpenAuth.OpenId.Core	4.3.4	http://www.opensource.org/licenses/ms-pl.html
DotNetOpenAuth.OpenId.Relying Party	4.3.4	http://www.opensource.org/licenses/ms-pl.html
EntityFramework	6.1.0	http://go.microsoft.com/fwlink/?LinkID=320539
Erlang	R16B01	http://www.erlang.org/EPLICENSE
EWS-Api-2.1	1.0.0	http://www.microsoft.com/en-us/download/details.aspx?id=42022
FakeItEasy	1.17.0	https://github.com/FakeItEasy/FakeItEasy/blob/master/License.txt

Name	Version	License URL
FluentValidation	5.4.0	http://fluentvalidation.codeplex.com/license
Glimpse	1.8.5	http://www.opensource.org/licenses/apache2.0
Glimpse.Ado	1.7.1	http://www.opensource.org/licenses/apache2.0
Glimpse.AspNet	1.9.0	http://www.opensource.org/licenses/apache2.0
Glimpse.EF6	1.6.2	http://www.opensource.org/licenses/apache2.0
Glimpse.Mvc5	1.5.3	http://www.opensource.org/licenses/apache2.0
HtmlAgilityPack	1.4.6	http://htmlagilitypack.codeplex.com/license
jQuery	2.1.0	http://jquery.org/license
jQuery-cookie	1.4.1	https://github.com/carhartl/jquery-cookie
jQuery-form	1.4.1	https://github.com/carhartl/jquery-cookie
jQuery.UI.Combined	1.10.4	http://jquery.org/license
jQuery-validate	1.10.0	https://github.com/jzaefferer/jquery-validation
jQuery-zclip	1.1.1	http://www.opensource.org/licenses/mit-license.php
knockoutjs	3.0.0	http://www.opensource.org/licenses/mit-license.php
log4net	2.0.3	http://logging.apache.org/log4net/license.html
Magnum	2.1.2	https://github.com/phatboyg/Magnum/blob/master/LICENSE
MassTransit	2.9.5	http://www.apache.org/licenses/LICENSE-2.0
MassTransit.Autofac	2.9.5	http://www.apache.org/licenses/LICENSE-2.0
MassTransit.RabbitMQ	2.9.5	http://www.apache.org/licenses/LICENSE-2.0
Microsoft.AspNet.Identity.Core	2.0.1	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
Microsoft.AspNet.Identity.EntityFramework	2.0.1	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
Microsoft.AspNet.Identity.Owin	2.0.1	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm

Name	Version	License URL
Microsoft.AspNet.Mvc	5.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.Mvc.FixedDisplayModes	5.0.0	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
Microsoft.AspNet.Razor	3.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.Razor	3.1.1	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
Microsoft.AspNet.SignalIR	2.0.2	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
Microsoft.AspNet.SignalIR.Core	2.0.2	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
Microsoft.AspNet.SignalIR.JS	2.0.2	http://www.microsoft.com/web/webpi/eula/signalr_client_ENU.htm
Microsoft.AspNet.SignalIR.SystemWeb	2.0.2	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
Microsoft.AspNet.Web.Optimization	1.1.2	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
Microsoft.AspNet.WebApi	5.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.WebApi.Client	5.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.WebApi.Core	5.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.WebApi.OData	5.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.WebApi.WebHost	5.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.WebApi.WebPages	3.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.WebApi.WebPages	3.1.1	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_ENU.htm
Microsoft.AspNet.WebApi.WebPages.Data	3.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.WebApi.WebPages.OAuth	3.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.AspNet.WebApi.WebPages.WebData	3.1.0	http://aspnetwebstack.codeplex.com/license

Name	Version	License URL
Microsoft.Bcl	1.1.6	http://go.microsoft.com/fwlink/?LinkId=329770
Microsoft.Bcl.Build	1.0.13	http://go.microsoft.com/fwlink/?LinkId=329770
Microsoft.Data.Edm	5.6.0	http://go.microsoft.com/?linkid=9809688
Microsoft.Data.OData	5.6.0	http://go.microsoft.com/?linkid=9809688
Microsoft.jQuery.Unobtrusive.Ajax	3.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.jQuery.Unobtrusive.Validation	3.1.0	http://aspnetwebstack.codeplex.com/license
Microsoft.Net.Http	2.2.18	http://go.microsoft.com/fwlink/?LinkId=329770
Microsoft.Owin	2.0.2	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_ENU.htm
Microsoft.Owin	2.1.0	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_ENU.htm
Microsoft.Owin.Host.SystemWeb	2.0.2	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_ENU.htm
Microsoft.Owin.Security	2.0.2	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
Microsoft.Owin.Security	2.1.0	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_ENU.htm
Microsoft.Owin.Security.Cookies	2.1.0	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_ENU.htm
Microsoft.Owin.Security.OAuth	2.1.0	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_ENU.htm
Microsoft.Web.Infrastructure	1.0.0	http://go.microsoft.com/fwlink/?LinkID=214339
Modernizr	2.7.1	http://www.modernizr.com/license/
Moq	4.2.1409.1722	https://code.google.com/p/moq/source/browse/trunk/License.txt
Newtonsoft.Json	5.0.6	http://json.codeplex.com/license
Newtonsoft.Json	5.0.8	https://raw.github.com/JamesNK/Newtonsoft.Json/master/LICENSE.md
Owin	1.0.0	https://github.com/owin-contrib/owin-hosting/blob/master/LICENSE.txt

Name	Version	License URL
RabbitMQ	3.1.3	https://www.rabbitmq.com/mpl.html
RabbitMQ.Client	3.2.1	http://www.rabbitmq.com/dotnet.html
System.IdentityModel.Tokens.Jwt	3.0.1	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_enu.htm
System.Spatial	5.6.0	http://go.microsoft.com/?linkid=9809688
ThinkTecture.IdentityModel	3.6.1.0	https://github.com/IdentityModel/Thinktecture.IdentityModel/blob/master/LICENSE
twbs-pagination	1.2.3	https://github.com/esimakin/twbs-pagination/ blob/master/LICENSE
Twitter.Bootstrap.MVC	2.1.6	http://www.apache.org/licenses/LICENSE-2.0
WebActivatorEx	2.0.4	http://www.opensource.org/licenses/ms-pl
WebGrease	1.6.0	http://www.microsoft.com/web/webpi/eula/msn_webgrease_eula.htm
WebMatrix.Data	3.0.0.0	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_ENU.htm
WebMatrix.WebData	3.0.0.0	http://www.microsoft.com/web/webpi/eula/aspnetcomponent_rtw_ENU.htm
X-Editable	1.5.1	https://github.com/vitalets/x-editable/blob/master/LICENSE-MIT

Glossary

Active Directory® (AD) Microsoft® Active Directory® (AD) is a directory service for WIndows-based networks that includes a hierarchical database along with services and processes that make use of LDAP protocol. Domain controllers running AD authenticate users and control user access to network services.

DNS Domain Name System (DNS): a database system that translates domain names (such as www.extron.com) into IP addresses.

Event ID Event ID is the database identification number of a scheduled recording event. The number may appear in the event details within the `Scheduled Events` page of an Extron SMP 351 streaming media recording processor.

Host name This is a unique name by which a device is known on a network. It identifies a particular host in electronic communication.

LDAP Lightweight Directory Access Protocol (LDAP) is an open source, standard application protocol for accessing and maintaining distributed directory information services over IP. It is a vendor-independent protocol that makes it possible to provide controlled access to a database of records, such as a structured list of users and their passwords. It allows for each user to use the same username and password for a variety of network services available throughout an organization. By default, LDAP uses network port 389.

LDAPS Lightweight Directory Access Protocol over Secure Sockets Layer (SSL). This is a variation of LDAP that uses encrypted communication between the client and server. By default, LDAPS uses network port 636.

SMTP Simple Mail Transfer Protocol. Internet standard for e-mail exchange across systems/networks on the Internet.

SSL Secure Sockets Layer (SSL) is a protocol used by Web servers and Web browsers that creates a uniquely encrypted channel for private communications over the public Internet.

Variable bit rate (VBR) This scheme adjusts the output bit rate around the specified target bit rate depending on image complexity. More bandwidth is used when the video frame is more complex and less bandwidth is used when the video frame is simple. Recordings containing more complexity and more motion content require more storage space than simpler recordings with more static content.

About Extron Media Player

About Extron Media Player (EMP)

The EMP is a browser-based media player for recordings that are produced by the Extron Streaming Media Processor (SMP) (for information on the SMP, visit **www.extron.com**). EMP provides an enhanced playback experience, incorporating metadata, time-synchronized thumbnail images, and advanced playback controls into the user interface. The data and controls provide the user with greater ability to efficiently navigate and play back the recorded material. EMP requires no software installation and can be operated from virtually any PC using a variety of browser applications.

NOTE: EMP is accessible to users with screen readers and those who use keyboard controls for navigation. The interface is accessible, and supports commonly available screen readers. For a list of EMP-specific keyboard controls, see **Using Keyboard Shortcuts**.

Extron Streaming Content Manager (SCM) is server-based software that processes the recording files from an SMP, packages them with the EMP player, and readies the recordings either for viewing via online streaming or for downloading to a device for later playback. For more information, visit the SCM product page on **www.extron.com** or see **About Streaming Content Manager** within this help file.

How Streaming Content Manager Uses the EMP

- Some elements of EMP, such as logo graphics files, are selected within the Streaming Content Manager system before EMP is packaged with recordings.
- During file ingestion and processing, Streaming Content Manager packages the recording and its thumbnails, chapter markers, logo file, and metadata with EMP. If a closed captioning .json file is available, it can be uploaded from within SCM and packaged with the recording.
- When a user downloads a recording to play using the stand-alone EMP player, everything needed to play and navigate through the recording is in the package.
- When a user plays a recording from within an SCM recording player page, EMP streams the recording from the SCM server. During online playback, the viewer has access to many of the controls available in the stand-alone EMP program.

Customization

Features that can be customized within SCM

For recordings that are packaged by SCM, SCM administrators can customize the logo that appears in EMP. For instructions see **Configuring the EMP Player Within Streaming Content Manager**. Also, closed captioning files in .json format can be uploaded in SCM and packaged with the recording.

> **NOTE:** Information on what is required to create a closed captioning file will be available on the Extron website.

Features that can be customized within the EMP player

Closed captioning font color, size, and opacity and background color and opacity can be selected using controls within the EMP player.

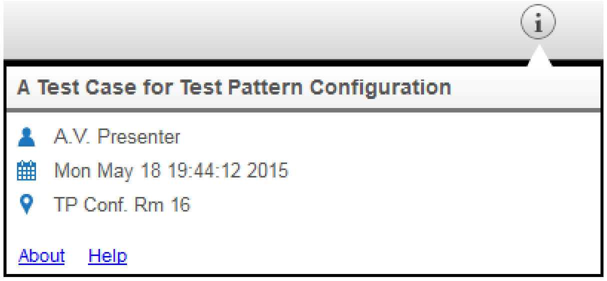
How to Find Information About EMP

For support and troubleshooting purposes you may wish to look up information about the Extron Media Player. This section provides instructions on how to find the following:

- EMP version, part number, and license
- A list of licensed third party technology used within EMP
- The EMP help file

To view the EMP version and part number information, license, and third party licenses:

1. Click the **Help** button ? ▾ in the upper right corner of the EMP screen. A menu opens, overlaying the video window. It displays the following information:



A Test Case for Test Pattern Configuration

A.V. Presenter

Mon May 18 19:44:12 2015

TP Conf. Rm 16

About Help

- An **About** link to open the version and license information for EMP in a separate window or tab
- A **Help** link to open the EMP help file in a separate window or tab.

2. Click the **`About`** link. The `About` page opens in a new browser window or tab (depending on your browser settings), displaying the following information:
   - The name of the software (Extron Media Player), its version number, build date, part number, and copyright statement.
   - The end user license agreement (EULA), which includes a link to a printable version of the agreement.
   - A table listing the licenses for third party technology used within EMP. The table includes the name, version, and the URL link for each license. You can click any link to open the website for information on the corresponding license.

To access the EMP help file:

1. Click the **`Help`** button ?▾ in the upper right corner of the EMP screen. The `Information` pop-up window opens, overlaying the video window.
2. Click the **`Help`** link. The EMP help file opens in a separate tab or window, depending on your browser settings.

Configuring the EMP Player Within Streaming Content Manager

The SCM system administrator or other SCM administrators can customize (change) the logo image that appears in EMP. This can be accomplished by:

- Replacing the logo file directly from the SCM server folder.

> **NOTES:**
>
> - Files for these images must be in PNG format.
> - Within EMP the logo height is restricted to 80 pixels and the width is scaled according to the native aspect ratio of the file.

To replace a logo file via the SCM server:

1. Log in to the SCM server as an administrator with read/write privileges.
2. Using a file manager program, navigate to and open `\\<`*`servername`*`>\wwwroot\SCM\Windows Services\Distribution Manager\Resources\VideoPlayer\images\customer_images`, where *`servername`* is the name and root path of the server where SCM is installed.
3. Copy the PNG file for the logo into that server location.

   > **NOTE:** The file for the logo must be named "`company_logo.png`" (without quotation marks).

   SCM and EMP automatically recognize the new file and will use the new file in recording packages created after they have been uploaded.

Using Extron Media Player

Playing a Recording

To play a recording offline (not streamed within Streaming Content Manager [SCM]), you must first download it from the SCM system and extract (unzip) the files. If you stream a recording from the SCM server, you can skip the downloading instructions.

To play a recording by streaming it in SCM:

> **NOTE:** The recording must be set to allow streaming in SCM (see the SCM streaming options settings in **Editing Recording Details**).

1. Locate the desired recording in a recordings list (see **Locating Recordings in a List**).
2. Open the player page for the desired recording (see **Accessing a Player Page**).
3. Use the player controls at the bottom of the SCM player page (see **Player Page Features and How to Use Them**) to change playback settings as desired and click the **`Play/Pause`** button to start and stop playing the video stream. Alternatively, you can use keyboard controls to control video playback and audio volume (see **Using Keyboard Controls**).

To download a recording from SCM and play it offline using EMP:

> **NOTE:** The recording must be set to allow downloading in SCM (see the SCM streaming and downloading options settings in **Editing Recording Details**).

1. In SCM, locate the desired recording in a recording list.
2. If the recording is set to allow downloading, click the **`Download`** button (⤓) for that recording.
3. Select **`Save`** if offered the choice to **`Open`** or to **`Save`** the package. The recording package downloads to your computer or other device in the form of a `.zip` file. This is typically saved to the default download location used by your browser.
4. Locate the downloaded file and extract the package to a folder of your choice.

   > **NOTE:** This step is important because you cannot play the recording without unzipping the files first. The player cannot read a zipped video file.

5. Open the folder for that recording and open the `Play_Video.html` file by double-clicking the file or right-clicking on the file and selecting **`Open`** from the pop-up menu. The Extron Media Player opens within a browser and loads the recording.

6. Use the player controls at the bottom of the window (see **Overview of the Extron Media Player Interface**) to change playback settings as desired and click the **`Play/Pause`** button to start and stop playing the video stream. Alternatively, you can use keyboard controls to control video playback and audio volume (see **Using Keyboard Shortcuts**).

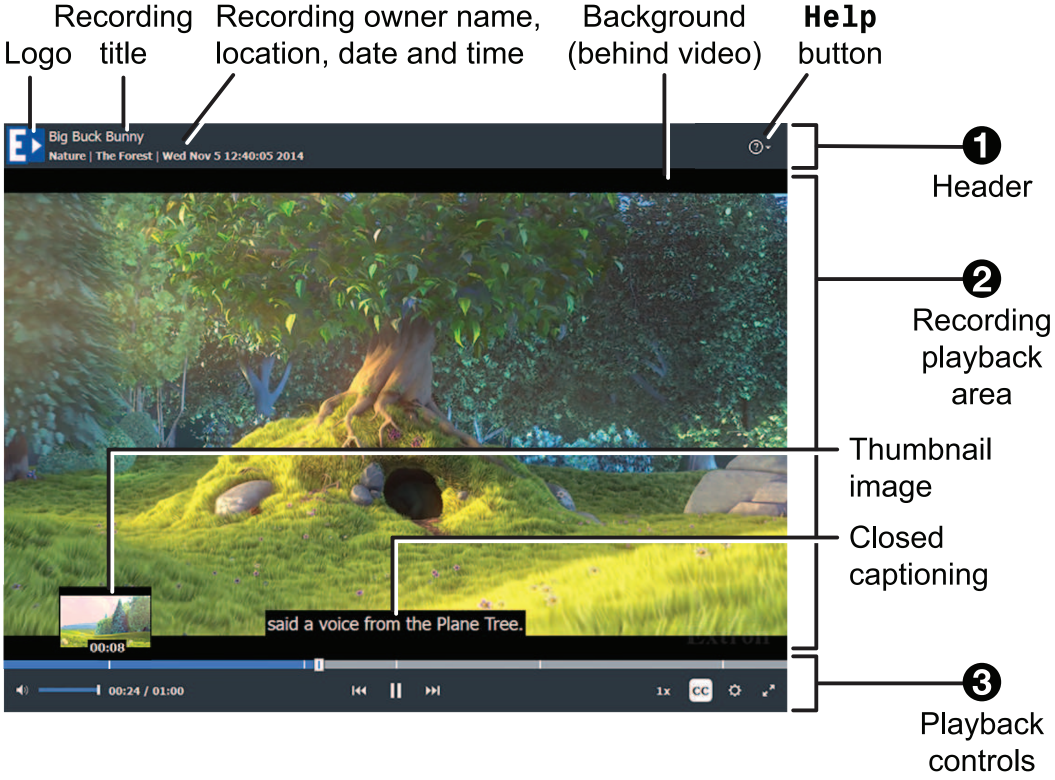
Overview of the Extron Media Player Interface

How the Extron Media Player is Organized

The Extron Media Player is organized into three main zones:

1. The **header** at the top of the window
2. The **recording playback area** in the center of the window
3. The **playback controls and indicators region** along the bottom of the window

The following image shows an example of an EMP window, showing the regions of the window and the main elements within the header.


Logo
Recording title
Recording owner name, location, date and time
Background (behind video)
Help button
Big Buck Bunny
Nature | The Forest | Wed Nov 5 12:40:05 2014
1 Header
2 Recording playback area
Thumbnail image
Closed captioning
00:08
said a voice from the Plane Tree.
00:24 / 01:00
1x
CC
3 Playback controls

EMP Features

Header features

The header region at the top of the window includes the following features (from left to right):

- A **logo** or other graphic — By default this is the Extron EMP icon E▶, but it can be replaced by something else by replacing a file in the folders containing the Extron Streaming Content Manager server software (see **Configuring the EMP Player Within Streaming Content Manager**).
- The **recording title**
- The **owner name, location, date and time** of the recording
- The `Help` button ?▾ — When this is clicked, a menu opens, overlaying the video, providing the following options:
  - A `Help` link to open the EMP help file in a separate window or tab.
  - An **About** link to open the version and license information for EMP in a separate window or tab

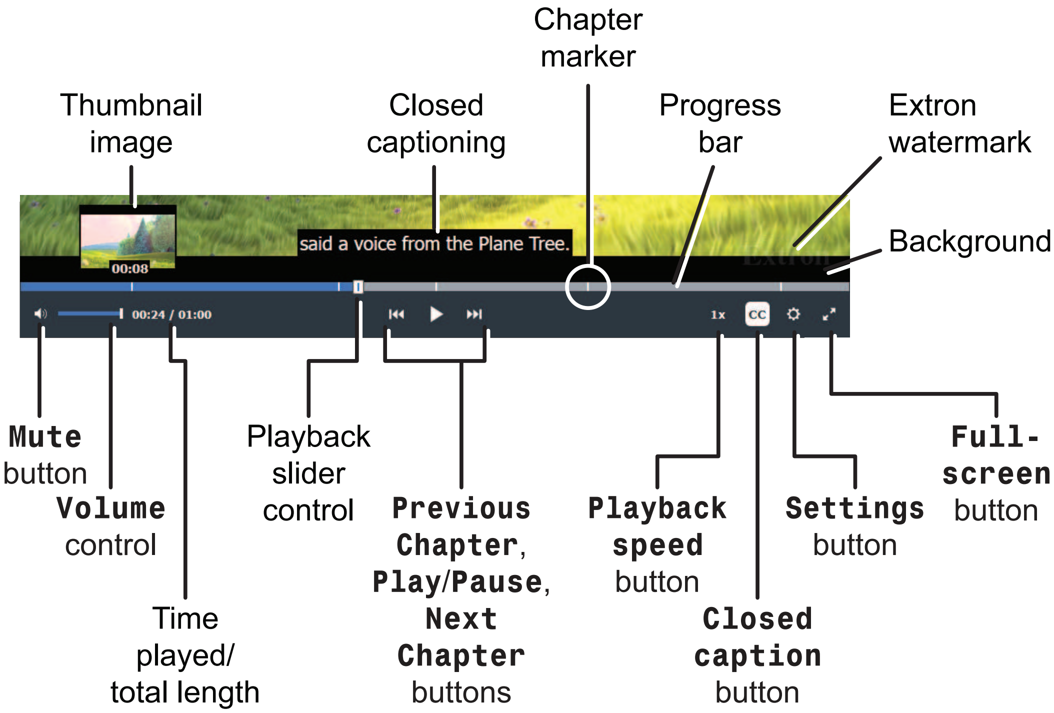
Recording playback area features

The recording playback area (center pane) displays the following:

- The recorded video
- A plain background, if the video does not completely fill the recording area
- Closed captions, if they have been uploaded in the form of a `.json` file with the recording. If closed captioning is turned on, captions are displayed in the bottom center of the video viewing area, overlaying the video.
- An "Extron" watermark in the lower right corner.

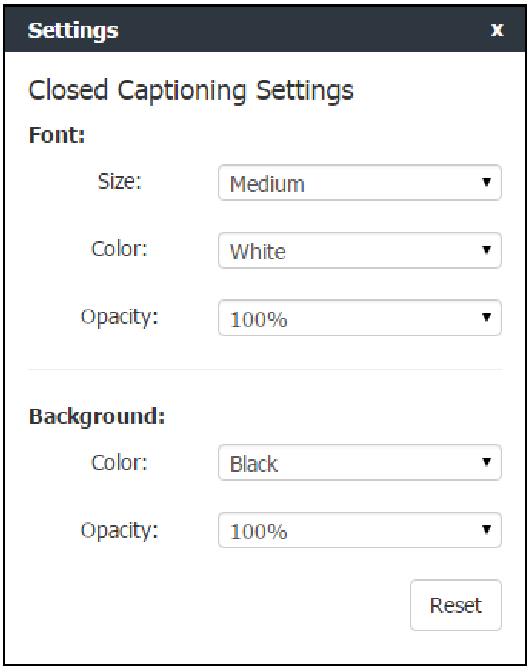
Playback controls region features

The playback control and settings region at the bottom of the window includes:



- A progress indicator bar with thumbnail images, chapter marker indicators, and a selectable slider that allows you to navigate backwards or forwards to any point in the recording
  - The standard **thumbnail images** are miniature images of the picture at a given point in the video. They appear when you hover your mouse or other pointing device over the progress bar. Thumbnails are automatically generated and saved by the recording device.
  - **Chapter markers**, indicated by narrow, vertical white lines within the progress bar, are manually entered by the presenter of the recording when they push a button on the recording device (the **Mark** button on an SMP 351). They are often used to indicate a change of topic. Chapter markers also include a small thumbnail image which appears if you hover a mouse or other pointing device over the marker or progress bar.
  - When you click and drag the **slider**, playback resumes from the newly-selected point in the recording, and the number for the time played changes to match the new playback point.
- Time played and total duration for the recording
- Player controls

Button or Control Name	Button Icon or Control	Description
Mute button	🔊	Click this button to toggle the audio off (mute the audio) or on. When audio is muted, the button shows an "x" next to the speaker icon: 🔇
Volume adjustment slider	━━━━━━╋	Click on and drag the volume adjustment slider right or left to raise or lower the audio volume or use the keyboard <Up arrow> and <Down arrow> keys to adjust the volume.
Previous Chapter button	⏮	Click **Previous Chapter** to move video playback to the previous chapter marker or to move to the beginning of the recording (if no chapter markers exist in the whole recording or if there are no chapter markers earlier than the current part of the recording).
Play or **Pause** button	▶ ⏸	Click **Play** to play or resume playback of the recording. While the recording is playing, the button becomes a **Pause** button. Click **Pause** to pause playback. While recording is paused, the button becomes a **Play** button.
Next Chapter button	⏭	Click **Next Chapter** to advance the recording to the location of the next chapter marker. If the recording has no chapter markers or there are no chapter markers after the currently selected part of the recording, then clicking the **Forward** button moves the video playback to the end of the recording.
Playback speed button	1.6x	Selecting this button opens a pop-up menu from which you can select playback speeds from 0.5x to 2x the normal speed.
CC (Closed captioning) button	CC	This button appears only if a closed caption file has been uploaded for the recording. Click the **CC** button to toggle display of closed captioning text on or off.

Button or Control Name	Button Icon or Control	Description
`Settings` button **NOTE:** These settings are saved in browser-specific cookies. You must enable cookies in your browser for the streaming player pages within SMP and for the EMP `Play_Video.html` pages, if you download and play the recordings offline. Also, note that Google Chrome does not support cookies for offline applications.	⚙	This button appears only if a closed caption file has been uploaded for the recording. Selecting this button opens a panel (shown below) along the right side of the recording area where you can change the appearance of the text and background for closed captioning (CC). If a closed caption file has been uploaded for the recording (via the SCM recording detail page), these settings control how the caption text looks when displayed over the video.  **Settings** x Closed Captioning Settings **Font:** Size: Medium ▾ Color: White ▾ Opacity: 100% ▾ **Background:** Color: Black ▾ Opacity: 100% ▾ Reset Click a drop-down menu to select the following: • Relative font size (small, medium, or large) • Font color or background color (Select one of eight options.) • Opacity percentage (0, 25, 50, 75, or 100%) for the font or for the closed captioning background The default appearance is a combination of medium size white font on a black background, all at 100 percent opacity. You can reset the closed captioning settings to those default values by clicking the **`Reset`** button within the `Settings` panel.
`Full-screen` button	⤢	Select this button to expand the player window to fill the screen. Once the screen is expanded, press the keyboard <Esc> key or click this button ⤡ again to restore the screen to the original, smaller size.

Using Keyboard Shortcuts

Extron Media Player supports basic keyboard controls (such as using the <Tab> key to move from one element to another or pressing <Esc> to exit a menu or pop-up window) that are supported by most programs and platforms. In addition, you can control media playback through EMP-specific combinations of keyboard keystrokes(keyboard shortcuts), detailed in the following table.

> **NOTE:** You may need to press the <F6> key to refresh the page and access the URL field of the browser.

Control Category	Keyboard Shortcut	Command or Control
Recording playback and display	<Space bar>	Play or pause the presentation.
	<Shift+N>	Skip to the next chapter marker.
	<Shift+P>	Skip to the previous chapter marker.
	<Shift+C>	Toggle the closed caption overlay on or off.
	<Shift+left arrow>	Decrease playback speed.
	<Shift+right arrow>	Increase playback speed.
Audio adjustment	<Up arrow>	Increase program audio volume.
	<Down arrow>	Decrease program audio volume.
	<Shift+M>	Mute or unmute program audio.

> **NOTE:** The <Up arrow> and <Down arrow> keys adjust the audio volume from anywhere in the playback window *except* when the control focus is within the **`Help`** drop-down menu or in either of the following two pop-up elements.
>
> - Within the `Playback speed` pop-up control, use the <Up arrow> and <Down arrow> keys to select the playback speed.
> - Within the `Settings` pop-up window, use the <Up arrow> and <Down arrow> keys to increase and decrease font and background opacity.

Troubleshooting for EMP

Working with Mozilla® Firefox®

When Firefox is initially installed, it is configured to be able to play the media files that Extron produces. However, when other programs (such as Apple® Quicktime® or VideoLan VLC) are installed after Firefox, they change the settings within Firefox.

To return the settings to their original state and make it possible to play the video files within Firefox, you must change a MIME type setting in the Windows registry. This method does not change any program settings. It tells the computer to treat all files with an .m4v file extension as though they are .mp4 files. Programs like Quicktime and VLC have their own settings that override this and provide their own special instructions.

To change the MIME type:

1. Open Notepad or a similar simple text editor. Do not use Microsoft Word® or another editor that will add hidden formatting.
2. Enter the following text, exactly as it appears here:

   ```
   Windows Registry Editor Version 5.00
   [HKEY_CLASSES_ROOT\.m4v]
   "Content Type"="video/mp4"
   ```

3. Save the file as `moz-m4v-fix.reg`.

   > **NOTE:** Verify that your text editor does not automatically add ".txt" to the file name, causing the file to be called `moz-m4v-fix.reg.txt`.

4. Find the file you just created, and double-click it to run the fix. The Registry Editor opens a dialog box asking you to confirm the change.
5. Click **Yes** to continue.
6. Restart Firefox, if needed, to make the changes take effect.

General Reference Information for EMP

Supported Browsers and File Types

Browsers

In order to use Extron Media Player, use one of the supported web browsers (and versions) listed in **Web Browser Requirements** in the SCM Prerequisites help topic. See **Turning Off Internet Explorer Compatibility Mode** in the Prerequisites section before using Internet Explorer.

> **NOTE:** The EMP interface is accessible to users with commonly available screen readers and those who use keyboard controls for navigation. See **Using Keyboard Shortcuts** for a table of keyboard controls that are specific to the Extron Media Player.

File Types

- Recordings are .mp4 (.m4v) files.
- Thumbnails are stored as .jpg files.
- Graphics for the EMP player logo are .png files.
- Closed captioning files must be .json files.
- Metadata manifest files are also .json files.

Licensed Software and Credits for EMP

Licensed Software

The following software is licensed for use within Extron Media Player.

Name	Version	License URL
Ext JS	4.1	**http://www.sencha.com/legal/sencha-sdk-software-license-agreement**
Video.js	4.1.0	**http://www.apache.org/licenses/LICENSE-2.0**
Video.js-thumbnail	4.1.0	**http://www.apache.org/licenses/LICENSE-2.0**
Video.js-watermark	4.1.0	**http://www.apache.org/licenses/LICENSE-2.0**

Credits

Some screenshots of the EMP player include views from *Big Buck Bunny*, a short film © copyright 2008, Blender Foundation, **www.bigbuckbunny.org**.

Extron Headquarters		Extron Europe	Extron Asia	Extron Japan	Extron China	Extron Middle East	Extron Korea	Extron India
+1.800.633.9876 (Inside USA/Canada Only)		+800.3987.6673 (Inside Europe Only) +31.33.453.4040 +31.33.453.4050 FAX	+65.6383.4400 +65.6383.4664 FAX	+81.3.3511.7655 +81.3.3511.7656 FAX	+86.21.3760.1568 +86.21.3760.1566 FAX	+971.4.299.1800 +971.4.299.1880 FAX	+82.2.3444.1571 +82.2.3444.1575 FAX	1800.3070.3777 (Inside India Only) +91.80.3055.3777 +91.80.3055.3737 FAX
Extron USA - West +1.714.491.1500 +1.714.491.1517 FAX	**Extron USA - East** +1.919.850.1000 +1.919.850.1001 FAX							