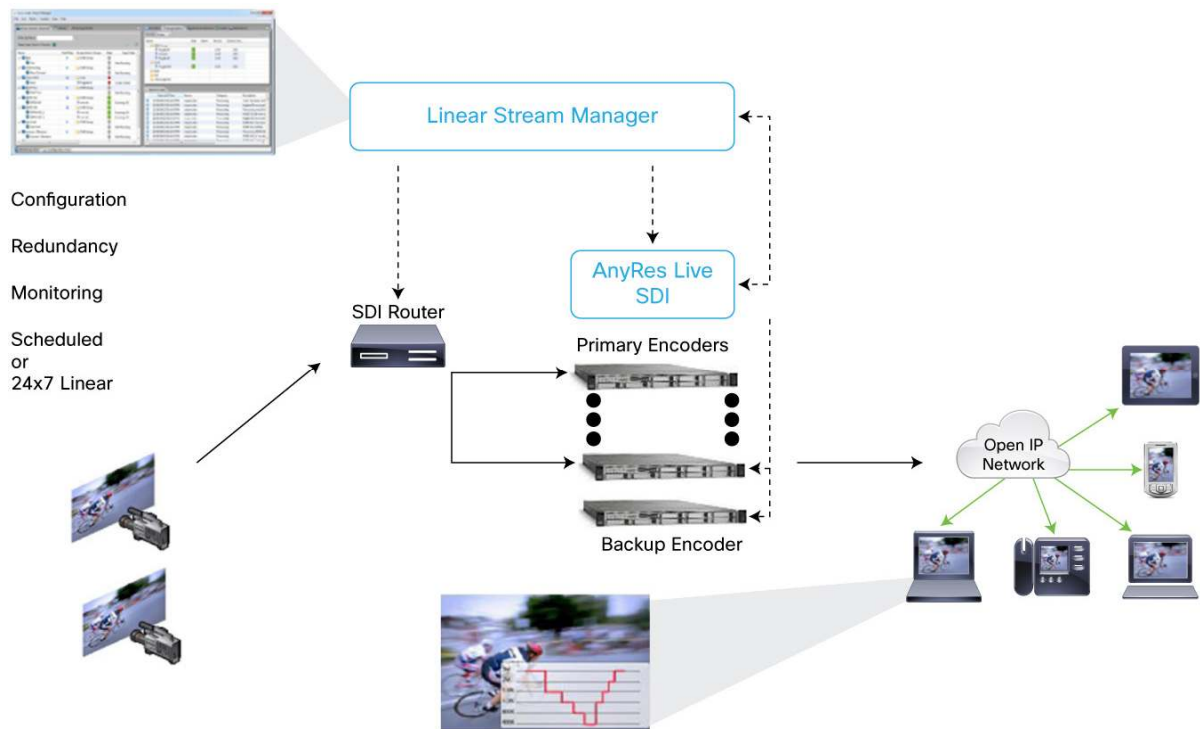


# Cisco Linear Stream Manager

Building on the success of the Cisco<sup>®</sup> AnyRes family of streaming solutions, Cisco offers a comprehensive management platform for multi-encoder and multi-packager streaming operation: Cisco Linear Stream Manager (Figure 1). This software helps simplify the management, configuration, and monitoring of live adaptive bitrate services.

**Figure 1.** Example of a Linear Stream Manager N:1 Deployment



## Product Overview

Cisco Linear Stream Manager (LSM) provides a consolidated management, configuration, and monitoring platform for both multi-encoder and multi-packager deployments. Cisco LSM is a scalable solution that can meet demands for large deployments while providing additional value for installations of any size. LSM automates standard tasks and makes it easy to monitor multiple devices at a glance. In addition, features like global scheduling, multiple levels of redundancy, and live monitoring make Cisco LSM an indispensable ally in any installation.

## Features and Benefits

Table 1 summarizes Cisco LSM features.

**Table 1.** Cisco Linear Stream Manager Features

Feature	Description
<b>Configuration</b>	<ul style="list-style-type: none"><li>• Encoder preset templates with overrides</li><li>• Packager channel templates</li><li>• Linear service templates</li><li>• 24-hour linear service channels</li><li>• Global calendar to optimize resource allocation</li><li>• Scheduled streaming events</li><li>• Scheduled mid-events for slates and Serial Digital Interface (SDI) router switching</li></ul>
<b>Redundancy</b>	<ul style="list-style-type: none"><li>• Encoder N:M, N:1, and 1:1 redundancy</li><li>• SDI router switching on failover</li><li>• Packager N:M hot-service redundancy</li></ul>
<b>Monitoring</b>	<ul style="list-style-type: none"><li>• Alarms, statistics, and resource utilization during live streaming</li><li>• Customized reports for events, alarming, and logging</li></ul>

## System Components

Cisco LSM consists of the following components:

- **Cisco Linear Stream Manager Server**

This application manages all of the communication to the Cisco encoders and packagers. It is normally installed on a dedicated server.

- **Cisco Linear Stream Manager Client**

This Java-based application is the user interface, which can be installed on multiple systems. It communicates with the LSM Server to display information about all connected encoders and packagers, and provides access to all of the features of the LSM Server.

## Platform Support and Compatibility

### Supported Elements

Table 2 lists supported elements for the Cisco LSM Server and Client.

**Table 2.** Cisco Linear Stream Manager Supported Elements

Cisco Linear Stream Manager Server	
<b>Maximum number of encoders supported</b>	100
<b>Supported elements</b>	<ul style="list-style-type: none"><li>• Cisco AnyRes Live 9300</li><li>• Cisco AnyRes Live 8300</li><li>• Cisco AnyRes Live 6300</li><li>• Cisco AnyRes Live 5300</li><li>• Cisco AnyRes Packager</li><li>• Cisco AS8100 Series Media Processor</li><li>• Cisco AS7100 Series Media Processor</li><li>• Cisco AS6000 Series Media Processor</li></ul>
<b>Operating system</b>	<ul style="list-style-type: none"><li>• Windows Server 2008 R2 64-bit</li></ul>

Cisco Linear Stream Manager Client	
<b>Minimum requirements</b>	<ul style="list-style-type: none"> <li>• Pentium 4</li> <li>• 2-GB RAM</li> <li>• 250-MB hard drive space</li> <li>• Windows XP SP2</li> </ul>
<b>Recommended</b>	<ul style="list-style-type: none"> <li>• Intel i7 or better</li> <li>• 4-GB RAM</li> <li>• Windows 7</li> </ul>
<b>Note:</b> LSM Server and Client applications can be run on the same server.	

Cisco Linear Stream Manager is a software solution optimized to run on Cisco Unified Computing System™ (Cisco UCS®) B200 and C200 series hardware. The LSM Server can be deployed in a bladed or a 1 rack unit (1RU) rack mount environment on Cisco UCS or comparable third-party hardware.

### Recommended Cisco UCS Hardware Configurations

Tables 3 and 4 list the parts required for installation on Cisco UCS Servers.

**Table 3.** Parts Required for LSM Server Installation on Cisco UCS B Series Blade Server

Product Part Number	Description	Recommended Quantity
UCSB-B200-M3-U	UCS B200 M3 Blade Server	1
UCS-CPU-E5-2620	2.00 GHz E5-2620/95W 6C/15MB Cache/DDR3 1333MHz	2
UCS-MR-1X082RY-A	8GB DDR3-1333-MHz RDIMM/PC3-10600/2R/1.35v	2
A03-D300GA2	300GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted	2
UCSB-MLOM-40G-01	VIC 1240 modular LOM for M3 blade servers	1

**Table 4.** Parts Required for LSM Server Installation on Cisco UCS C Series 1RU Server

Product Part Number	Description	Recommended Quantity
UCSC-C220-M3S	UCS C220 M3 Server	1
UCS-CPU-E5-2620	2.00 GHz E5-2620/95W 6C/15MB Cache/DDR3 1333MHz	2
UCS-MR-1X082RY-A	8GB DDR3-1600-MHz RDIMM/PC3-12800/dual rank/1.35v	2
A03-D300GA2	300GB 6Gb SAS 10K RPM SFF HDD/hot plug/drive sled mounted	2
UCSC-RAID-11-C220	LSI 2008 SAS RAID Mezzanine Card for UCS C220 server	1
N2XX-ABPCI03-M3	Broadcom 5709 Quad Port 1Gb w/TOE iSCSI for M3 Servers	1
UCSC-PSU-650W	650W power supply rack servers	2

### Warranty Information

Find warranty information on Cisco.com on the [Product Warranties](#) page.

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## Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#) or contact your Cisco representative, using the information in Table 5. To download software, visit the [Cisco Software Center](#).

**Table 5.** Ordering Information

Product Name	Description
SPN-SWK-LSssM0700	Linear Stream Manager Application Software
LSPN-SMC-HASP	Linear Stream Manager License Key

## Cisco Services

Cisco Services brings together the people, processes, tools, and partners to accelerate service providers' success by using their IP Next-Generation Network (IP NGN) architectural platforms. Cisco Services focuses on enhancing business outcomes through network, services, and operational transformation. Through a collaborative approach and tailored engagements, Cisco Services can help accelerate time to market, mitigate risk, reduce cost through improving operational efficiencies, and help assure the user experience.

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## For More Information

For more information about Cisco Linear Stream Manager, visit <http://www.cisco.com/en/US/products/ps11787/index.html> or contact your local representative.



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