

Signal Distribution and Monitoring

IP-based broadcast with Cinegy Gateway, Cinegy Route and Cinegy Monitor



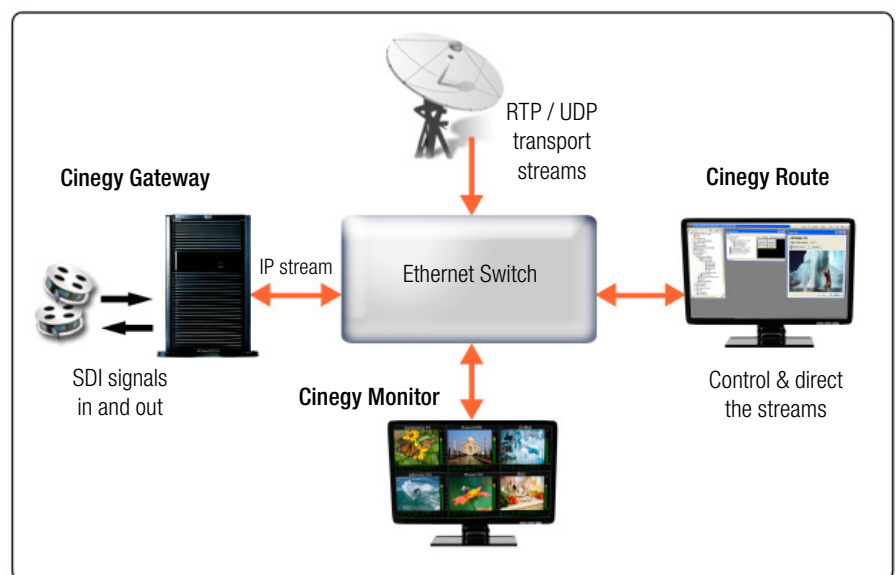
Replacing legacy SDI-based infrastructures with IP-based Ethernet infrastructure has become an increasingly popular choice among broadcasters seeking to improve workflow efficiency and cut costs. IP infrastructures permit video data to be transported over Ethernet networks, rather than via SDI switches and cables, and offer numerous advantages to broadcasters. IP infrastructures are more scalable and far less costly to build and maintain. They also provide greater signal capacity and enhanced flexibility, allowing broadcast operations to grow more quickly and run more smoothly with fewer problems.

SDI replacement

Cinegy's suite of IP infrastructure products consists of a group of modular tools designed to replace outdated SDI architecture and manage every aspect of a broadcast production environment encompassing potentially hundreds of channels.

Cinegy software provides tools for managing HD and SD network streams and satellite feeds while preserving maximum signal quality. It can manage multiple RTP signals from a single station while keeping each registered stream under control.

The Cinegy IP infrastructure suite includes Cinegy Gateway, Cinegy Monitor and Cinegy Route, each of which can function as a standalone solution or as a component of a comprehensive Cinegy Workflow installation.



Cinegy Gateway convert SDI to IP / IP to SDI

Cinegy Gateway is a bridge device that allows broadcasters to migrate from an SDI- to an IP-based infrastructure in a gradual, step-by-step manner. It has the ability to convert SD or HD SDI streams into broadcast-quality, SMPTE-compliant RTP/UDP streams or vice versa. Cinegy Gateway can convert multiple streams simultaneously with user-definable quality settings that meet the most demanding broadcast requirements.

Register multiple streams - Cinegy Gateway is ideal for broadcast operations that receive a large number of satellite feeds. Incoming SD and HD RTP streams from satellites, playout devices and network sources are registered using the registry server and are converted to broadcast-quality IP video streams in real-time.

Once incoming streams are transferred to the Ethernet network, they are available for logging, editing and other activities, as well as immediate playout, in real-time and without additional transcoding. Two hundred or more streams can be captured, managed and routed simultaneously. Individual streams can be accessed from any point in the network, without generation loss.

Broadcast quality - Registered RTP streams can be captured from the Ethernet networks via Cinegy Ingest in the same way as other live sources. Cinegy Gateway has the ability to ingest SD and HD SDI streams from any standard playback device and encode them as RTP streams at speeds up to 200 mbps.

Cinegy Route control and manage

Cinegy Route provides an essential building block for IP-based infrastructures by allowing broadcasters to efficiently manage high volumes of programming streams. Cinegy Route makes it easy to organize incoming and outgoing streams by routing physical sources to virtual sources. Dozens or even hundreds of registered IP streams and channels can be managed in this way to conform to broadcast requirements.

Virtual source groups - In managing multicast IP streams, it is often useful to group physical sources. Virtual sources can be created from dynamic physical sources via an IP streams switch. This allows an operator to make changes to physical IP sources at any time without reconfiguring clients. When a virtual source is changed, clients receive updated information within seconds without interrupting playback.

Cinegy Route uses virtual source groups to organize incoming IP streams into logical groups. Virtual source groups are shown as separate tabs in the application interface for easy access.

Flexible -Physical IP stream source can be changed on-the-fly for all clients simultaneously simply by reconfiguring the virtual source via drag-and-drop. The router interface supports viewing of incoming video from the current virtual source in real time for precise control over virtual source switching.

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Cinegy Monitor multi-view monitoring solution

Cinegy Monitor enables you to monitor streams from satellites, camera feeds, playout devices and other sources simultaneously. It features a robust alert system for signal problems as well as meters for audio and VU analysis. Cinegy Monitor works using ordinary Ethernet and does not need any special hardware to run - a standard PC or workstation will do.

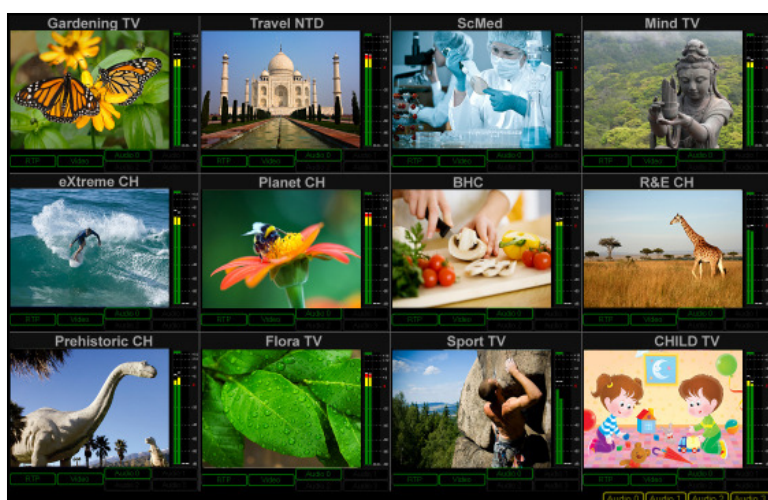
Easy-to-use - The Cinegy Monitor is easy to manage, due to its fully customizable interface. Multiple SD and HD sources can be displayed in windows, adjustable for size, position and resolution, on a single display - or multiple displays, allowing you to monitor as many channels as you need.

All streams and channels can be simultaneously monitored from any station in the network, with indicators displaying the current status of each channel in real-time mode. Each channel preview is equipped with this set of preview components and indicators which make it a software analog of expensive hardware multi-channel video monitoring solutions.

SDI & IP simultaneously - When combined with Cinegy Gateway it is possible to monitor both SDI and IP streams simultaneously, achieving the same results as hardware multi-monitor solutions but with greater functionality and far less cost. This software solution offers a number of advantages over hardware devices that monitor SDI feeds.

Cinegy Monitor can display a multiplexed feed from a single, standard satellite receiver, and therefore receive 16 or more channels simultaneously rather than just one. Cinegy Monitor can then be run on any standard PC, to monitor any incoming or outgoing signal wherever and however it is required. This works perfectly in a control room and can now be deployed more widely across a facility as the costs for wiring and hardware are no longer an obstacle.

Channel previews - The multi-monitor display shows the channel name, the audio level indicators and the real time video preview playing the incoming video in the real-time. In addition the signal availability indicators ("alarm indicators") check for signal presence of the RTP signal, the video stream and the audio channels. If any signal is lost, the corresponding indicator starts blinking and an alert is sent.



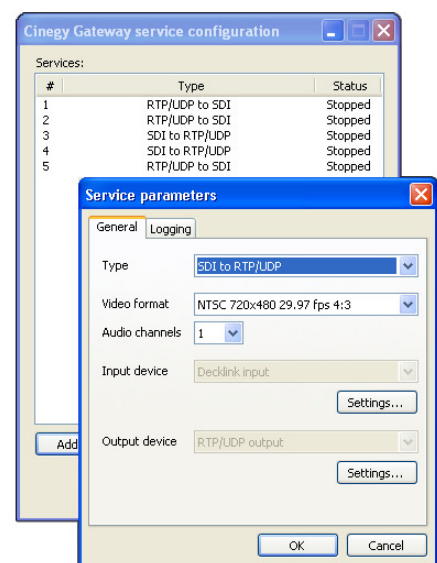
Cinegy Monitor with twelve monitored IP streams

Features of Cinegy IP based infrastructure

- Register and manage incoming IP streams
- Browse registered streams and insert them as live items to Cinegy Air playlists
- Organize incoming IP streams by routing them to virtual IP stream sources
- Control multiple IP streams in realtime
- Use IP streams as live video input
- Convert incoming SDI signals to IP streams in real-time
- Ingest IP streams (including support for direct transcoding)
- Make changes on-the-fly

Advantages of an IP based infrastructure

- Scalability - go from hundreds to thousands of signals without SDI router limitations
- SMTPE standards-based technology, providing compatibility with third-party systems and products
- Hardware independent. Simple to install, manage and maintain
- Reduce overhead costs. Less hardware and expensive cabling to purchase
- Reduce operational costs. System tools are accessible from any PC connected to the network
- Availability - streams are available everywhere they are needed, no SDI cabling is required
- Highly flexible and scalable, facilitating growth and change
- No more peer-to-peer technology. Signals can be picked up at any point in the network
- No special expertise required. Can be serviced by existing IT personnel



Cinegy Gateway service configurator