

Director 128

Primary Distribution

Cygnus Director 128 by MediaKind offers service providers powerful and effective end to end management of their contribution/distribution networks.

Utilising MediaKind's full range of video headend systems and broadcast products, Cygnus Director 128 provides the very best in security and control.

It is a 21st century solution using 128-bit encryption technology, tightly integrated to provide a easy to use, and highly efficient method to control and distribute your content via satellite, and IP.

nCompass will meet the management and control requirements of the full spectrum of headend configurations – from smaller edge sites to complex satellite, cable, terrestrial and IPTV super headends across a wide area network or local area network.

Cost-effective Security

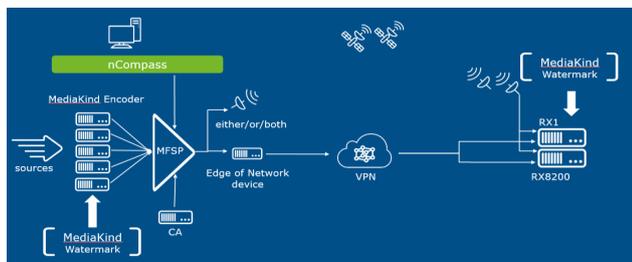
Director 128 is more cost effective than traditional DTH CA systems and was designed as a next generation CA system, with specific capabilities for contribution and distribution. Maintaining the highest possible security using the latest technology to ensure content remains secure.

MediaKind and Nexguard have joined forces to offer a Forensic Watermarking security solution for live video Content Distribution applications. This option brings the next level of security under the control of Director 128 together with the RX8200 receiver platform.

Key Features

- Upgrade path of existing Director v5 customers
- Easy operational workflow to minimise training and reduce complexities
- 128-bit encryption to ensure your content remains safe
- Over-air download for feature updates and fixes
- Over-air control to ensure you remain in control of your system
- Watermarking for the ultimate in end to end protection
- Satellite transmission
- IP transmission

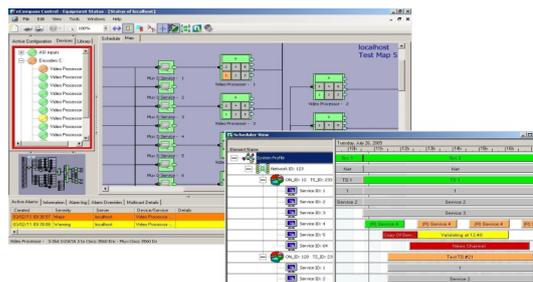
Example Cygnus Director 128 system



nCompass Control

Delivering valuable professional broadcast video content over satellite, cable and telco networks requires the highest level of security in order to protect against theft and unauthorized viewing. nCompass offers an advanced software-based solution that authorizes individual and groups of receivers across sites under maximum security. Watermarking technology is available to further protect content and detect unauthorised use.

nCompass also manages, controls and enables over air upgrade for MediaKind's market leading receivers designed for high-quality contribution and distribution services, including the RX8000 series, and the new UHD/ Multi-channel HD RX9400.



Built for mission-critical, real-time SD, HD, and UHD content delivery, nCompass' GUI enables a single system view of the entire receiver population enabling operators to schedule or make changes on the fly to protect and secure their video content.

nCompass is now available for deployment on your own hardware, with the option of purchasing as software only.

Stream Processing / Multiplexing



MediaKind Stream Processing forms part of the Cygnus Director 128 solution, and provides transport stream processing capabilities .

- IP (UDP or RTP) input and output of MPEG Transport Streams
- RTP re-ordering
- IGMP V3 redundancy
- Input bit-rate monitoring and CC error detection
- Full re-multiplexing support including real-time PSI regeneration, and dynamic rules-based pass-through of descriptors
- PID re-mapping
- SI/PSI generation/re-generation and insertion from external source.
- Statistical multiplexing bit-rate allocation for MediaKind Encoding Live
- SMPTE 2022-1 FEC on input and output
- 128-bit scrambling

Video/Audio Encoding Encoding Live

MediaKind Encoding Live brings together 25 years of video compression experience to deliver the highest quality, any screen software applications for live video encoding and transcoding. MediaKind's continued investment and focus on the latest compression technologies ensures that the Encoding Live capabilities will efficiently deliver the best picture quality over bandwidth in all encoding environments and networks.

AVP 4000



The MediaKind AVP 4000 system encoder answers all those needs, delivering high quality system encoding for IPTV, Cable, Satellite and Broadcast. Part of the multiple award winning MediaKind AVP encoder range, the AVP 4000 also incorporates the rich toolset of MediaKind's market leading VPC system encoder.

Service providers with 1+1 or N+M redundancy requirements will benefit from the ability to rapidly and automatically reconfigure systems on the fly in the event of a device or system failure. Cygnus Director 128 is also ideally suited for digital turn-around applications which can utilize the management system's powerful re-multiplexing capabilities including real-time PSI regeneration, remapping channel number and PID information.

Professional Receivers

RX8200



The RX8200 Advanced Modular Receiver is the world's bestselling IRD. Now with DVB-S2X and HEVC upgradeability it is also the most future-proof.

Broadcasters need to deploy receivers for many different tasks in many different operational circumstances. MediaKind's RX8200 receiver offers ultimate operational flexibility by providing capability for decoding of all video formats, all video compression formats and total connectivity for all transmission mediums via a comprehensive choice of options.

The RX8200 offers the ultimate in compression efficiency. RX8200 provides HEVC decode capability. And for satellite operators RX8200 offers up to 20% bandwidth efficiency gains through full support of the new DVB-S2X international open standard. Combined, these two new technologies offer a step-change in transmission efficiency enabling Operators to dramatically reduce operational costs or free-up bandwidth to launch new revenue generating services.

RX1

The RX1 Receiver is a multi-Codec multi-channel professional receiver specifically designed to meet the



needs of the contribution and distribution market.

Though a fully flexible Platform, RX1 supports up to 4 x HD decodes in MPEG-2, MPEG-4, and HEVC, or can decode high bandwidth UHD HEVC.

A broad range of inputs are supported, including IP, multi-input satellite demodulation, and ASI to ensure meeting the needs of a modern flexible IRD.

In addition to Cygnus Director 128 support, BISS, and CAM slots can be fitted to ensure every type of content is decrypted.

Specifications

- Flexible user-access control to prevent unauthorized access
- User configurable e-mail notification of monitored alarms
- Encryption of MPEG-2 transport stream content
- Receivers can be entitled and de-entitled to prevent unauthorized viewing of content
- Receivers can be addressed and controlled individually or by groups
- Groups of receivers can be nested together
- Customers have the flexibility to combine Director 128 with any other Simulcrypt CA vendor
- Support for NexGuard Forensic Watermarking (via RX8200)
- There is an extensive range of over-air receiver control options, including force service and carrier tuning, relay control and local lock-out
- Ability to clone a receiver's configuration and download over air
- Software updates can be downloaded over-air, without the need to visit the site. This can be achieved with a single receiver, a specific group or the whole receiver population

Minimum Equipment

- Enhanced nCompass server running MediaKind nCompass control, and key management software (1+1)
- Security hardened key management server (1+1)
- MediaKind Stream Processing software
- MediaKind professional IRD (e.g. RX8200, RX1)