

# EMR4.0

## Elastic Multimedia Router – Stream Processor and Router



Sumavision **EMR4.0 – Elastic Multimedia Router** is the latest generation of Sumavision EMR series media integrated processing platform. It is leverage as the radio and television core processing platform + video computing platform + data communication platform, integrating communication network and broadcasting network technology, perfect for high-speed exchange application and video big data processing business. The platform has a unique video control system to meet 10 Gigabit video processing and switching requirements. It supports multiple scrambling systems such as DVB and DRM, and powerful computing capabilities to support business virtualization deployment. FPGA + DDR4 design speed up the processing performance, 8 SPF+ high-throughput on front panel, and additional 10-GbE modules gives users massive data-exchanging options. Over thousands of programs multiplexing, encryption, and switching under layer-3 protocol.



### Technical highlight:

#### Multiplexing & Re-multiplexing:

With standard IP and DVB input and output interfaces, the EMR4.0 is easily incorporated into existing head-end systems and supports multiple digital TV applications. The platform's extensible and highly scalable design supports MPEG re-multiplexing, including PID remapping, prioritizing and filtering, insertion and generation of PSI/SI tables, and PID multicast. Device, port, UDP and service redundancy are supported, as well as multiple IP sockets for MPTS and SPTS applications. It simplifies network infrastructure while delivering a high-availability solution.

### Contact Us

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#### **High –throughput Video and data processing:**

EMR4.0 offers the choice of 8 x 10-GbE on front panel or 4 modules on back rear panel. The high-throughput 10-GbE option supports up to 1,000 transport streams and 2,000 simultaneous multiplexing and scrambling services. Video gateway capabilities include socket address flipping and IP mirroring. The 8 x 10-GbE interfaces also reduce the number of required router ports and enable a simplified IP addressing scheme

#### **Scrambling:**

EMR integrates with major conditional access systems (CAS), BISS security system, State standard (China), and also DRM security protection mode. Including DVB-CSA1/2/3\*, BISS-1/BISS-E, AES-ECB, AES-CBC, SM4-ECB, SM4-CBC encryption, making it the most secure stream processing solution for distributing broadcast services, as well as for IP-based network.

The platform can scramble any format of video, audio and data elementary stream (e.g., MPEG-2, MPEG-4 AVC, HEVC, AC-3, AAC, HE-AAC), as well as multiplex MPEG TS. The solution easily integrates into existing architectures, and reduces cost and complexity by eliminating the need for multiple devices in distributed cable, satellite or telecom networks.

#### **Switching:**

EMR4.0 platform 10-Gbps switches bring integrated line-rate Layer 2 and 3 capabilities with true 216 Gigabit Ethernet support (on uplink and network-facing ports).

Support MAC and ARP hardware carving, IP source guard, MAC addresses, IGMPv1/v2/v3 etc.

#### **High Reliability:**

Access control of IP media source, static specified IP routing forward, Network isolation function prevents from ARP attacks, network storm attacks, and support HTTP secure access protocol.

Maintenance on the EMR4.0 platform is simplified with hot-swappable dual redundant power supplies. 1+1, 1+N, N+M programs, ports, and equipment's backup redundancy, and also support management control 1+1 backup.

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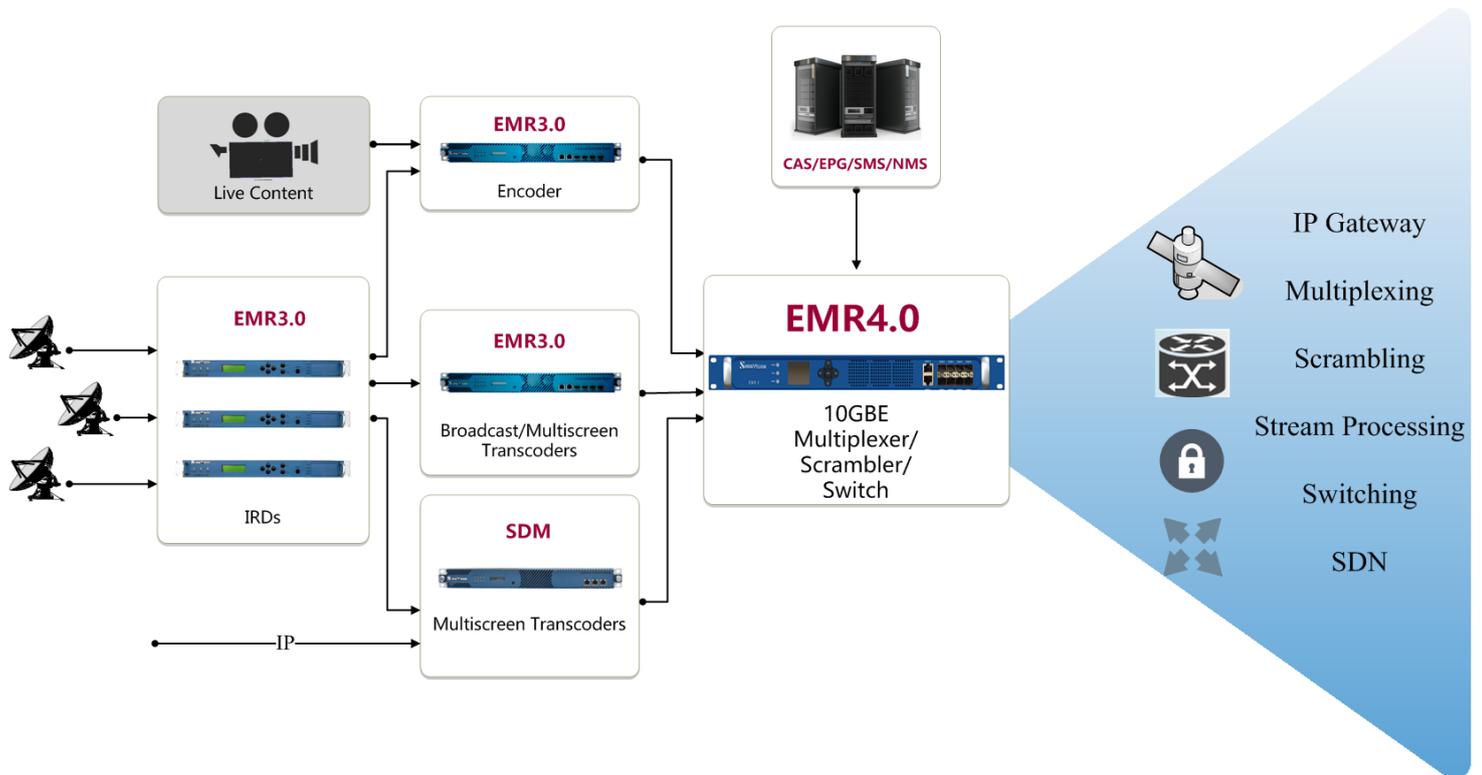
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## EMR4.0 - The Core of the Head-end



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