vDCM Splicer Seamless Splicing Platform for Pay TV Products

Carry Out High-Performance, Reliable Splicing for Ad/Local Program Insertion

Synamedia

Synamedia's vDCM Splicer is a software solution designed for high-reliability, high-performance splicing of live digital signals. The platform covers myriad applications, including insertion of local commercials and switching to a linear channel's regional version. Equipped with unique back-to-back splicing capabilities to/from multiple sources, vDCM Splicer is ideal for advanced dynamic replacement of commercials in a row with ads from different sources. The solution's low latency, frame accuracy, and exceptional splicing success rate, together with ease of configuration and high availability, enable swift deployment, giving you peace of mind for mission-critical operations and revenue-boosting opportunities.

Leveraging cloud ad servers and ad servers in the ABR domain, vDCM Splicer enables the convergence of splicing in the streaming world.

Key Functionalities

Endless capabilities for new revenue streams

- Maintains back-to-back splicing to/from multiple sources
- Supports splicing between different video resolutions
- Conducts next-generation ad insertion (NGI) to enable convergence with ABR ad servers
- Manually and automatically triggers events through SCTE-35 markers
- Inserts SCTE-35 markers in the output stream for downstream splicing
- Complies with CableLabs Event Signaling and Management API (ESAM) for stream conditioning
- Enables defining of advanced component tracking rules for automatic matching of video, audio or data PIDs
- Comes pre-integrated with all leading ad servers

Unmatched performance

- Supports up to 300 simultaneous splices
- Carries out low-delay and frame-accurate splicing
- Enjoys unparalleled splicing success rate

Operational efficiency and flexibility

- Delivers splicing success rate reports
- Ensures high availability for mission-critical service delivery thanks to multiple redundancy option support
- Integrates with Synamedia's vDCM Multiplexer and vDCM Encoder to enable splicing within statmux pools
- Flexibly deploys as a software appliance or in the cloud

Technical Advantages

- Low delay and frame-accurate seamless splicing
- Support of MPEG-2 and H.264 video formats
- Back-to-back multiple ad splicing
- SCTE-30 splicing API support
- SCTE-35 marker insertion capabilities
- Splicing success rate reporting
- High availability
- Flexible deployment model

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Product Specifications

I/O Interfaces	
Ethernet	• RJ-45, 100BASE-T Ethernet and 1000BASE-T Ethernet
Input Protocols	• ASI • MPEG-2 TS (MPTS or SPTS) over IP/UDP, and IP/UDP/RTP up to 10 GigE
Output Protocols	• ASI • MPEG-2 TS (MPTS or SPTS) over IP/UDP, and IP/UDP/RTP up to 10 GigE
Supported Video Formats	• H264 • MPEG-2
Supported Audio Formats	• MPEG-1 Layer II • AC-3 • AAC

Capabilities	
Triggering	• SCTE-30 splicing API • SCTE-35 marker insertion • CableLabs Event Signaling and Management API (ESAM)
Marker Insertion	• Insertion of SCTE-35 markers in output stream for downstream splicing
Stream Conditioning	• Conditioning of Adaptive Transport Stream (EBP insertion) for streaming applications
Other Features	• Back-to-back splicing • Frame-accurate splicing • Low delay • Advanced component matching rules for automatic matching of video, audio or data PIDs • Splicing between different video resolutions • Integration with Synamedia's vDCM Encoder and Multiplexer to enable splicing within statmux pools • Advanced splicing success rate reporting dashboards

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Operations	
Redundancy	• 1:1 IP interface backup • IP port mirroring • Input service and transport stream redundancy • Hitless merge for MPEG-2 transport stream input and for SMPTE2022-6 input (SMPTE-2022-7) • User-configurable triggers • 1:1 and N:M node redundancy
Monitoring	• Integrated Grafana dashboards • Elasticsearch, Logstash and Kibana (ELK) stack support • Alarm notifications including SNMP traps • Syslog • Easily controlled local web GUI • VSM support for line-up configuration, resource pool redundancy for hybrid setups (mix of hardware DCM and software Synamedia DCM), capacity modeling, and centralized monitoring • Fully documented open API enabling third-party component integration
Configuration GUI	• Drag-and-drop interface for defining • Alternate services to be spliced • Triggering rules • Component tracking rules • Component merging rules • Triggers and switch-over rules configuration for service redundancy • Optional centralized management with Synamedia's Video Service Manager (VSM)

Platform Support and Compatibility

Deployment	
Appliance	• Multiple VN appliances available
Private Cloud	• Virtual machine, Docker container
Public Cloud	• Multi-cloud supporting all major cloud providers