Synamedia's vDCM Multiplexer is a virtualised software-based platform for carrying out high-performance multiplexing, remultiplexing, and advanced stream processing operations. Supporting IP and ASI (appliance version) input and output formats, the platform easily integrates with existing architecture and new future-proof setups. Part of Synamedia’s market-leading vDCM, the platform is designed to run either on-premises as a software-defined appliance or on a public or private cloud to give you deployment flexibility.

**Key Functionalities**

Unparalleled mix of stream processing and transport gateway functions
- Supports all input-to-output routing combinations, including ASI-to-IP conversion
- Delivers wide range of multiplexing capabilities at PID and service levels
- Works with all stream manipulation functions, including PSI/SI/PSIP table acquisition, generation, insertion and playout

Advanced features for increasing operational efficiency
- Optimises bandwidth usage with advanced statistical multiplexing for precise cross-channel bandwidth allocation over time
- Maintains an achievable end-to-end service availability of 99.999%
- Provides built-in, stand-alone redundancy support at transport and service levels with configurable triggers and switch-over rules
- Offers rich set of configurable alarms at input, bit rate and data levels

Flexible and adaptable offering covering all deployment models and requirements
- Runs as a software-defined appliance or in public/private cloud environments
- Employs licenced-based model to scale easily and activate new functions

**Technical Advantages**

- IP and ASI input and output support, including ASI-to-IP conversion
- Ultra-high throughput up to 20Gbps
- IP delivery support via Zixi, SRT and RIST
- Statistical multiplexing and smart rate control functions
- Forward error correction (FEC) and hitless merge capabilities
- Redundancy management at transport and service levels
Product Specifications

**I/O Interfaces**

<table>
<thead>
<tr>
<th>Ethernet</th>
<th>• RJ-45, 100BASE-T Ethernet, and 1000BASE-T Ethernet (2 ports for SS, 4 standard ports for MS)</th>
</tr>
</thead>
</table>

**Input Protocols**

|               | • ASI  
|               | • MPEG-2 TS over IP/UDP and IP/UDP/RTP up to 10 Gig-E  
|               | • MPEG-2 TS from file (disk)  
|               | • SRT  
|               | • RIST  
|               | • Zixi  
|               | • RF input (ATSC1.0, iSDB-T, DVB-T/T2, ITU J.83 A/B/C)  |

**Output Protocols**

|               | • ASI  
|               | • MPEG-2 TS (MPTS or SPTS) over IP/UDP and IP/UDP/RTP up to 10 Gig-E  
|               | • SRT  
|               | • RTMP(S)  
|               | • Zixi  
|               | • DEPI (Aux Video Core)  |

**Input Processing**

|               | • Input bit-rate monitoring  
|               | • Continuity counter-error detection  
|               | • Forward error correction and hitless merge according to SMPTE 2022-1, 2022-2, 2022-6 and 2022-7 |

**Output Processing**

|               | • De-jittering with short-/long-term regulation  |

**Specific Features**

**Gateway**

|               | • ASI-to-IP conversion  
|               | • Address flipping  
|               | • Maximum throughput of 25GBps  |

**Multiplexing and Remultiplexing**

|               | • PID filtering and remapping  
|               | • Fixed output PID remapping  
|               | • PSI/SI/PSIP acquisition, generation and insertion  
|               | • Dynamic PSI/SI/PSIP regeneration with advanced descriptor handling support  
|               | • Service and component merging  
|               | • PID tracking  
|               | • Aux PID synchronisation with video  
|               | • Content routing from any input to any output port  
|               | • Output mirroring  |
Platform Support and Compatibility

Physical and Power

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>SFF chassis: 1.69 x 17.11 x 27.83 in, 4.29 x 43.46 x 70.7 cm</td>
</tr>
<tr>
<td>Weight</td>
<td>28.74 lb/13.04 kg minimum, 35.86 lb/16.78 kg maximum</td>
</tr>
<tr>
<td>Power Supply</td>
<td>AC input 100-240 VAC</td>
</tr>
<tr>
<td>Consumption</td>
<td>800W (power supply) – 500W (for VN-Node XS)</td>
</tr>
</tbody>
</table>

Environmental

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>50-95°F (10-35°C)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40-140°F (-40-60°C)</td>
</tr>
<tr>
<td>Cooling</td>
<td>Smart array controller and seven fans</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>8-90% (non-condensing)</td>
</tr>
<tr>
<td>Operating Altitude</td>
<td>0-3,050 m (0-10,000 ft)</td>
</tr>
</tbody>
</table>
Ordering Information
For ordering information, please contact your sales representative.

Services & Support
Synamedia provides a broad portfolio of services and support to increase your network’s business value and return on investment. We take a customer-centric approach, aligning our level of support to your technological requirements and network complexity. That way, you can successfully operate our products and solutions to ensure that you achieve optimal performance throughout your network’s life cycle.

Warranty & Contact Information
Read our detailed warranty information.

Learn more about Synamedia’s video network distribution solutions.
For more information, contact your account manager or visit our site.