ULTRA HIGH-SPEED PACKET PROCESSING
FOR ADVANCED NETWORK MONITORING

IntellaView HyperEngine Packet Processor

FEATURES

Advanced packet processing solutions

High-performance 600Gbps:
- Six configurable service engines
- Real-time processing across 1G/10G/40G/100G feeds

Select a feature per service engine:
- Duplicate packet removal
- NetFlow generation
- Deep Packet Inspection*
- Advanced Packet Slicing*
- GTP Correlation*

The HyperEngine Packet Processor enables the IntellaView platform to deliver advanced features for ultra-high-speed network infrastructures. It adds superior, industry-leading processing power to the IntellaView for real-time packet processing and delivery of streamlined packet traffic to various network monitoring and security tools. This enhanced network visibility significantly increases the efficiency and effectiveness of the network security, analytics and performance monitoring solutions.

Each HyperEngine blade adds 600Gbps of high-performance processing service to IntellaView network visibility systems. Traffic sources can be aggregated to the HyperEngine Packet Processor to perform advanced processing.

The IntellaView HyperEngine offers six high-performance, multi-threaded network processors with flexible user-selectable service options. These service engines provide convenient configuration of advanced packet processing features including deduplication and NetFlow generation for network monitoring.

HyperEngine packet processor includes six multithreaded network processors each supporting up to 100Gbps capacity. Easily aggregate traffic from other blades for service processing.
Complete visibility of large data center networks involves viewing traffic at several monitoring points. While this increases overall visibility, some packets will be monitored at multiple points creating duplicate packets that can overload network monitoring tools and affect reporting. Removing duplicate packets improves monitoring tool efficiency, accuracy, and data storage optimization. This enables monitoring tools to provide greater visibility while lowering overall costs.

The HyperEngine, with 600Gbps of processing capability, monitors every packet in the high-speed data stream to remove duplicates and improve tool efficiency. The HyperEngine enables duplicate matching across layers 2, 3, and 4 headers, and supports a large, configurable window size of up to 500ms. Configurable options also include fields for a deduplication algorithm and inclusion/exclusion options for common encapsulations used in data centers. Another option allows the configuration to ignore particular Layer 4 TCP and/or UDP header fields. These configuration options provide additional flexibility to the user to customize what is actually considered a duplicate packet.

NetFlow V5, V9 and IPFIX

The HyperEngine monitors network traffic and is an ideal source for generating NetFlow records. It can off-load processing from routers and other production equipment to increase efficiency and save costs; plus, consolidating NetFlow sources reduces network traffic and simplifies the monitoring architecture.

Connect any system traffic to the six service engines for NetFlow source processing of unsampled or sampled traffic flow records. The unsampled flow records contain data of every packet in the data stream for a complete representation of the traffic.

Packet Deduplication

Select any service engine to view configuration. Shown here is the deduplication screen that provides full customization of duplicate match conditions and time window size.

NetFlow Generation

Process packets from multiple ports to remove duplicates or generate NetFlow records, directing traffic of interest to security and performance tools.
The packet slicing feature removes packet payload that is not necessary for certain network performance analysis and analytic tools, thus increasing the efficiency and effectiveness of these tools. It also ensures data privacy for compliance with regulations such as HIPAA and PCI.

The HyperEngine advanced packet slicing feature provides customers the ability to specify the packet slice length based on the type of packet as well as with configuration flexibility based on their network infrastructure and requirements.

The HyperEngine’s Deep Packet Inspection feature enables data privacy and compliance for regulations such as HIPAA and PCI by identifying and masking sensitive data.

This feature performs deep packet inspection, looking inside the data packet and searching for specific data patterns, such as social security numbers or credit card numbers. Once identified, the matched data can be masked and the packet forwarded, or the packet can be dropped or forwarded unchanged.

Another use of Deep Packet Inspection is the ability to search for known virus threats, and forward any identified packets directly to a security tool. The Deep Packet Inspection feature also allows for importing a regular expression signature file to simplify configuration.

The HyperEngine is part of APCON’s IntellaView network visibility solution and is compatible with all systems from 3RU to 9RU. Enhance multi-site management with Titan centralized management to get 24/7 visibility.

Each of the ACI-4020-C, ACI-4040-C and the ACI-4080-C can be configured with up to six next-generation switch fabric cards, providing full mesh connectivity with the blades through the backplane, and offering a dramatic increase in bandwidth potential, up to five times over that achieved in previous generation products. The more fabric cards you install, the higher the blade-to-blade traffic bandwidth.

The APCON IntellaView Chassis consist of the ACI-4020-C 3RU, ACI-4040-C 5RU and the ACI-4080-C 9RU chassis, the next generation of APCON network visibility appliances.

Up to two front-facing controller cards with a touchscreen can be installed to provide failover operation for uninterrupted continuity.
IntellaView HyperEngine Packet Processor Blade | ACI-4033-E00-1

<table>
<thead>
<tr>
<th>Performance</th>
<th>6 service engines; total 600Gbps**</th>
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</thead>
<tbody>
<tr>
<td>Memory</td>
<td>64GB of DDR4 per service engine</td>
</tr>
<tr>
<td>Deduplication</td>
<td>ACI-9330-002</td>
</tr>
<tr>
<td>NetFlow Generation</td>
<td>ACI-9330-004</td>
</tr>
<tr>
<td>Deep Packet Inspection*</td>
<td>ACI-9330-006</td>
</tr>
<tr>
<td>Advance Protocol Stripping*</td>
<td>ACI-9330-010</td>
</tr>
<tr>
<td>GTP Correlation*</td>
<td>ACI-9330-012</td>
</tr>
<tr>
<td>Weight</td>
<td>16.5 lbs (7.5 kg)***</td>
</tr>
<tr>
<td>Power</td>
<td>750-900 Watts / 2560-3072 BTU***</td>
</tr>
<tr>
<td>Size</td>
<td>17.24” W × 17.46” D × 1.63” H (43.78 W × 44.32 D × 4.11 H cm)</td>
</tr>
<tr>
<td>Operating Temp</td>
<td>32 to 113 °F (0 to 45 °C)</td>
</tr>
<tr>
<td>Storage Temp</td>
<td>-40 to 158 °F (-40 to 70 °C)</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>Operating: 10-85%; Storage: 0-95% noncondensing</td>
</tr>
</tbody>
</table>

*Planned for future release and subject to change.
**Performance indicates the network processor capacity. Actual performance varies by the selected feature and packet size.
***Weight and power estimates are preliminary and subject to change.

APCON leverages its proprietary IP and deep expertise to provide flexible, focused solutions across

- Government
- Healthcare
- Higher Education
- Financial Services
- Manufacturing
- Telecommunications

APCON solutions provide the flexibility and means to gain visibility to data more efficiently, resulting in savings across the board, including time, resources, and maintenance.

APCON's professional services team of certified engineers has years of experience optimizing network visibility strategies for businesses across the globe. In addition to providing installation assistance of existing analysis tools, this team proudly provides around-the-clock troubleshooting services and support.

A privately held corporation, APCON is headquartered near Portland, Oregon, where it has operated since 1993. APCON's in-house staff manages product design and development, manufacturing, quality assurance and final testing, customer training and long-term servicing of its solutions — whether for a system with a single switch or a global installation that spans across multiple geographical or cloud locations.