IntellaFlex
Packet Aggregation Switching Solutions

APCON’s scalable, high availability, network monitoring solutions increase tool efficiency for complete visibility of enterprise network traffic.

Enterprise-Class Network Monitoring Switches Provide:

- Reduced capital equipment and operational costs
- End-to-end network visibility
- Monitor 10G links with existing 1G tools
- Share monitoring and security tools

Complete packet manipulation and modification – including aggregation, filtering, time stamping, packet slicing and deduplication, port tagging, protocol stripping, load balancing and data rate conversion.

High port density up to 504 ports of non-blocking 1G or 10G. 5TB of capacity, with trunking capability up to 100G.

Convenient single-seat management for your entire network monitoring systems.
INTELLAFLEX—Packet Aggregation Technology for 100% Network Visibility

Features

- High density 504 ports of non-blocking 10G in 14RU
- Most scalable solution—five chassis sizes ranging from 1RU to 14RU
- 40G or 100G trunking between switches allows scalability to thousands of ports
- Interchangeable family of blades that work across chassis
- Enterprise-class architecture and security
- Data rate conversion to all speeds: 1G, 10G, 40G, 100G

Visibility at Every Layer of the Network

With APCON’s packet aggregation switching technology, network managers can share an inventory of expensive monitoring devices—often distributed across multiple locations—while preventing oversubscription and data loss.

Data from multiple sources is aggregated, filtered and directed to data mining and forensic devices instantly and electronically, while a secure web interface provides a centralized method of controlling network monitoring activity.

WHY CHOOSE INTELLAFLEX?

Four strategic advantages separate the enterprise-class INTELLAFLEX solution from the competition:

Scalable Integrated Chassis
INTELLAFLEX offers the most scalable architecture available on the market, eliminating the need to daisy-chain multiple devices together.

High Availability
The integrated INTELLAFLEX and INTELLAPATCH® system features an independent data plane and control plane—resulting in the ability to maintain traffic in the event of component failure.

Greater Connectivity
Any ports on the switch not being used for aggregation can still be used for one-to-one and one-to-many connections.

Software Flexibility
APCON offers a standard graphical interface for all products. The web-based management software is intuitive by design, enabling fast and accurate connections across the network from a single seat.

100G Ethernet Migration

The INTELLAFLEX XR system architecture is designed for 100G Ethernet migration, protecting your investment for future 100G enterprise monitoring and backhaul applications.

Contact APCON for more information.
Monitor 10G and 40G Network Segments with 1G Tools

Data center managers face a growing set of challenges—including the need to effectively monitor 1G, 10G, and 40G network segments. This trend is driving the need for organizations to invest in more expensive monitoring devices, however, the reality is that engineers often have to rely on 1G monitoring tools due to budget constraints and existing investments. Given this reality, many organizations are seeking ways to use the existing array of 1G tools to monitor both the 1G network infrastructure as well as the 10G and 40G links.

APCON has created the INTELLAFLEX product family to facilitate scalable network monitoring of mixed 40G, 10G and 1G networks using 1G devices. This solution offers up to 504 ports of configurable 1G or 10G Ethernet in a single chassis—the highest port count available in 14RU.

**Eliminate SPAN Port Contention**

One-to-many connectivity - Multicast data from a SPAN to multiple tools, allowing different stakeholders to view the same data with different sets of tools.

**Total Network Visibility**

Many-to-one and many-to-many connectivity - Aggregate a series of SPAN or Tap links, filter the traffic for specific criteria such as the IP or MAC address, and output to a designated analysis device. Take those same links, adjust the filters as desired and send them to multiple analysis devices at the same time to achieve many-to-many connectivity.
Benefits

- Reduce capital equipment and operational costs
- Assure the same instant device access as a one-to-one deployment
- Eliminate the manual labor of patching and repatching connections
- Connect remotely for secure access 24×7×365

Features

- High-availability controllers with automatic failover
- Independent data plane and control plane
- Maintains connections, aggregations, and configured INTELLAFLEX features even if both controllers are removed
- High-density blades—up to 36 ports each in 1RU
- Programmable front panel LCD for switch set-up and diagnostics
- Hot-swappable power supplies, blades, transceivers

APCON Series 3000
Family of Chassis and Blades

A key feature in APCON’s enterprise architecture is fault-tolerant dual controller cards. Unlike single controller switches that can halt network operations during a failure, the Series 3000 has high availability failover, enabling continuous monitoring of enterprise class production networks.

Series 3000 switches are modular, offering redundant hot-swappable power supplies and field-replaceable fans. They also provide remote access for multiple users through an embedded web interface.

Scalability and Capacity

Series 3000 switches support up to eight INTELLAFLEX Packet Aggregator blades, offering a total of 288 ports of configurable 1G/10G Ethernet in a single 8RU chassis.

Series 3000 also offers up to 64 ports of 40G Ethernet for inter-switch trunking—designed to achieve the scalability required for larger network infrastructures.

Not only is the entire Series 3000 product line designed specifically to work together, but the product line offers data center managers the most scalable platform available on the market.

All-in-one Visibility

INTELLASTORE II integrates traffic capture and storage on an embedded server to host market leading visibility and diagnostics applications, giving IT managers the advanced analysis tools needed to resolve complex network issues quickly.
INTELLAFLEX packet aggregator blades offer interconnectivity with other Series 3000 blades.

Family of Interchangeable Blades Delivers Flexibility

1-Blade XR Chassis
Up to 36 ports

2-Blade XR Chassis
Up to 72 ports

4-Blade XR Chassis
Up to 144 ports

8-Blade XR Chassis
Up to 288 ports

14-Blade XR Chassis
Up to 504 ports

The INTELLAFLEX 3504-XR 14RU chassis with 14 36-port INTELLAFLEX 10G blades offers the highest 10G density in a single chassis.

36 ports – 1G/10G Ethernet*

32 ports – 1G/10G and 40G Ethernet*

4 ports – 100G Ethernet*

36 ports – 1G/10G Fiber Ethernet with packet deduplication, packet slicing, time stamping, and protocol stripping*

14 ports – 1G/10G and 40G Ethernet appliance with traffic capture, storage and onboard visibility applications*

24 ports – 1G/10G Bypass Switch configured as 5 bypass switch groups and 4 monitoring ports*

36 ports – INTELLAPATCH any-to-any connection capability supporting 10M/100M/1G/10G Ethernet, FDDI, OC-3/OC-12/OC-48/OC-192, 1G/2G/4G/8G Fibre Channel protocols

*XR compatible
APCON’s Intuitive Graphical Interface for Switch Management

Industry-Unique Multi Stage Filtering

APCON Multi Stage Filtering (MSF) provides a more adaptable and precise method of specifying exactly which packets from an ingress stream should be transmitted to each egress port. This allows exact processing of aggregated or high capacity 10G and 40G streams for use with 1G monitoring tools.

APCON’s Multi Stage Filtering solution supports up to 3 stages of filtering through a Filter Stack. The Filter Stack makes use of your existing filter library and links selected filters together to provide more configurable filter programming. Multi Stage Filtering provides the ability to filter on over 35 predefined Layer 2, Layer 3 and Layer 4 parameters including IPv4/IPv6 addresses, application TCP or UDP port numbers, VLAN IDs, MAC addresses, and more.

Filter Stack results may be mapped directly to destination egress ports, or to egress filters and then to the destination egress ports, or to a different Filter Stack at the next stage of the Multi Stage Filter.

Single-Switch Management Software

APCON technology is the ideal solution for electronically sharing monitoring and security devices – reducing costs and enhancing total visibility.

An embedded web-based graphical interface is included on all switches. With no software to install, managers can immediately begin configuring port connections in an intuitive environment.

Port connections can be managed using point-and-click on the Ports screen or drag-and-drop on a Visio-style graphic view.

Identification of sources and destinations provides a simplified solution for electronically sharing network monitoring devices. A patching screen features ports divided into two logical groups to easily make connections between devices. A user-friendly GUI and filtering interface maximize the reach of limited data capture and security resources.
**Multi-Switch Management Software**

**TITANXR** delivers functionality long sought after in enterprise environments: the ability to manage the entire monitoring infrastructure remotely from a single screen and make device changes instantly. **TITANXR** enables network managers to control connectivity between monitoring devices and network analysis equipment more efficiently.

This intuitive software tool also offers a centralized point of control for performing critical switch-level maintenance. Routine tasks such as backing up and restoring switch settings, and pushing scheduled software upgrades to every APCON switch in the network can now be managed from a single screen.

**Monitor the status of every APCON switch and all active monitoring sessions with TITANXR.** Quickly access details such as device, location, user, filter, job ticket and duration as well as link status and bandwidth.

**Enterprise-Class Software Security**

APCON’s fifth-generation, web-accessible user interfaces have simplified the connectivity of SPANs, taps and other data sources to monitoring tools, while also offering a suite of advanced administrative features required in a secure environment. Those include:

- LDAP, TACACS+ and RADIUS support
- SNMP v1/2c/3 support
- SSL & SSH encryption
- Logic to prevent SPAN port loops
- Embedded software

**APCON Mobile Application**

The APCON Mobile app software for android tablets and smartphones complements TitanXR by providing real time status of the APCON monitoring network remotely. This helps reduce time-to-resolution by giving technical staff a complete bird’s eye view into the network at all times.
WHAT WE DO

APCON develops scalable network switching solutions for enterprise data centers worldwide. APCON intelligent network monitoring switches and taps provide complete network visibility, improve network security and optimize monitoring tool efficiency. APCON’s filtering and aggregation technology and multi-switch management software minimizes network downtime and maximizes monitoring tool investments.

Organizations in over 40 countries currently depend on APCON solutions in their network infrastructures. Customers include Fortune 500 companies, and networking and computer OEMs, as well as government and military organizations, telecommunication and service providers, financial services firms, and medical companies.

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 an installation of multiple switches.