TECHNOLOGY BRIEF

AVOID THE DANGERS OF A SINGLE POINT OF FAILURE

IntellaView Optical Bypass Tap

Protect your network and avoid a single point of failure with APCON's portfolio of passive optical network TAPs.

APCON simplifies network monitoring and security efforts by providing failsafe redundancy through TAPs designed to fit in the same data center rack near any APCON intelligent network monitoring switch.

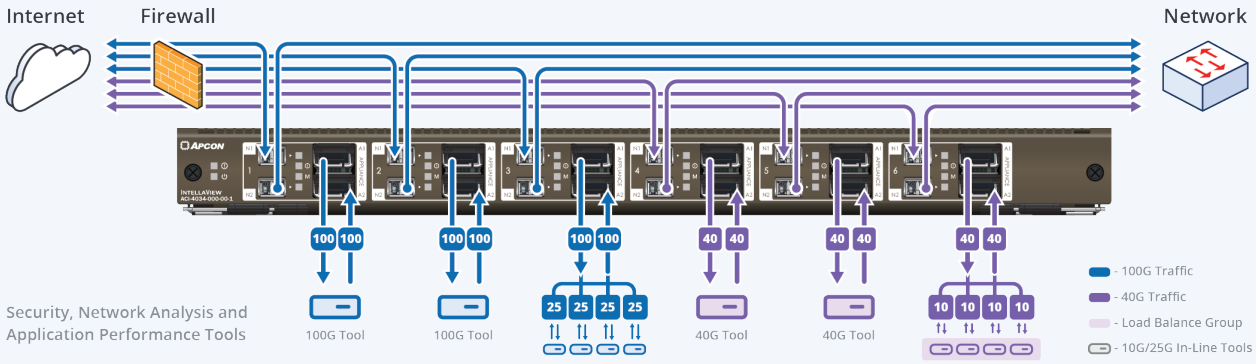
CHALLENGES

ARCHITECTURE THAT PROTECTS AGAINST A SINGLE POINT OF FAILURE

When deploying inline tools like Intrusion Prevention Systems, there's a possibility of that appliance going down and causing a production network breakdown. Companies that rely on internet communication or customers' access to websites cannot afford downtime due to inline tool failure. The results are the inability to take orders, inevitably leading to service issues and revenue losses.

THE SMART SOLUTION

APCON'S INTELLAVIEW OPTICAL BYPASS TAPS

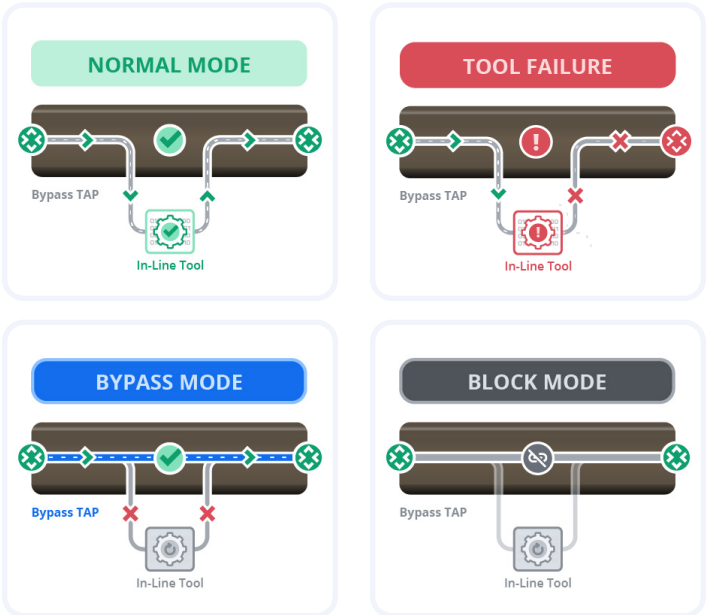


APCON works with companies to avoid single point of failure scenarios by providing an Inline Bypass TAP. In the example above, the APCON Inline Bypass TAP works by taking your network links into the network ports, which in this case are inline between the firewall and the network device. We then take the inline tools and place them in the appliance ports shown above. These tools may have interface speeds anywhere from 10G, 25G, 40G, or 100G, all of which are supported by APCON.

By placing the tools into the appliance ports, APCON customers can preconfigure the appropriate action if the tool goes offline, has a power failure, stops functioning, or the interface stops communicating. APCON uses a variety of different methods to identify if the tool is offline—called failover triggers—which include:

- Power loss in the Bypass TAP
- Loss of signal on an appliance port
- Loss of heartbeat
- Internal, External, or Negative Heartbeat anomalies supported
- Loss of a member of a Load Balance Group

If the tool goes offline, the user can configure the TAP to bypass the tool and continue moving the traffic along the network architecture, or simply block the traffic altogether.

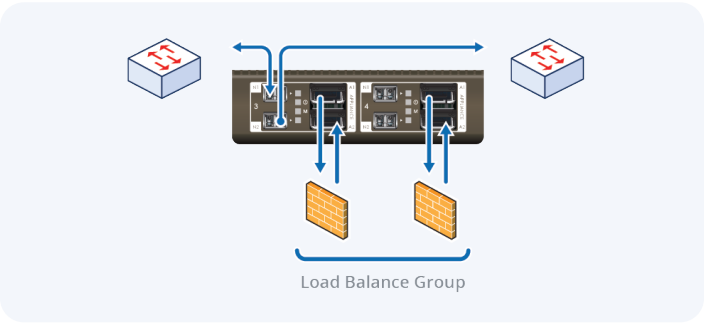


EXAMPLES

SINGLE POINT OF FAILURE

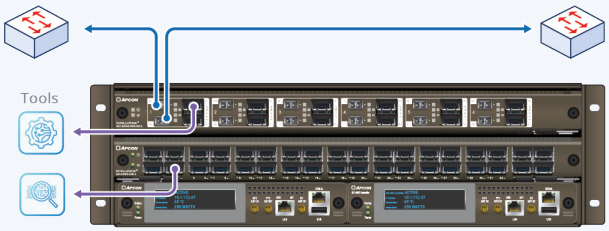
Offline Firewall

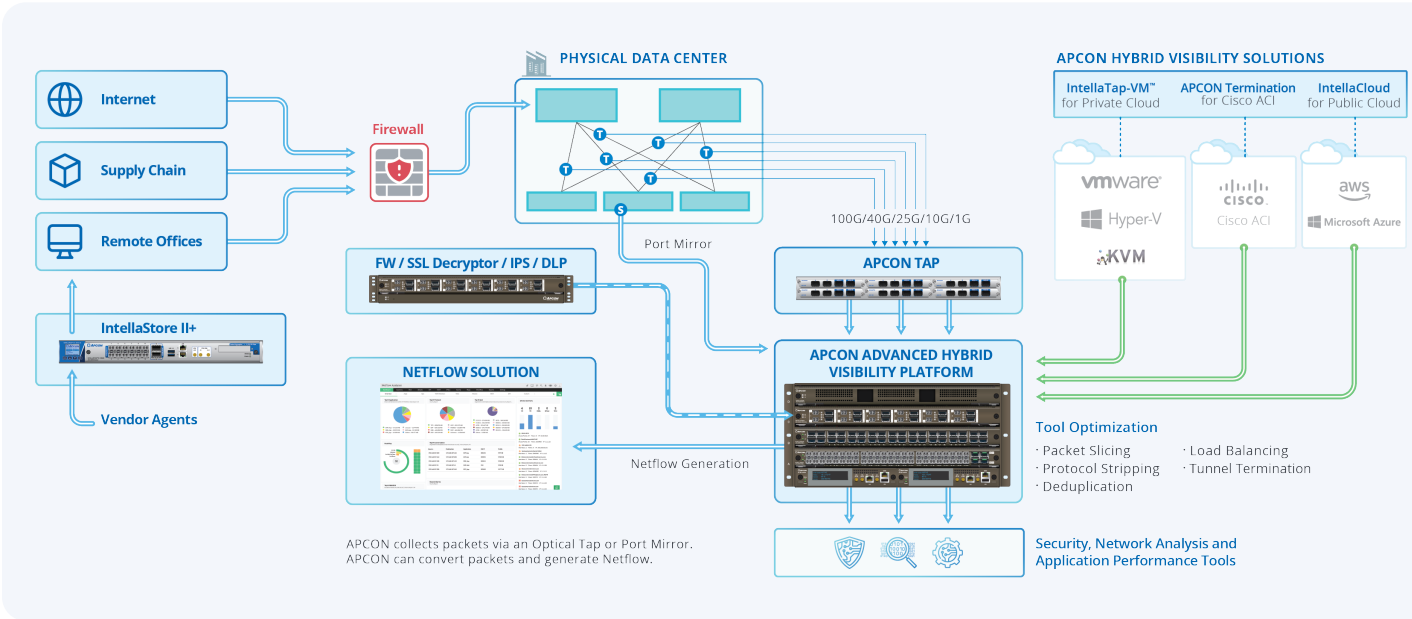
There are a variety of use cases for which companies work with APCON to solve. One of those use cases is to provide resiliency for multiple firewalls that are operational or in active/standby mode. Some companies will run multiple firewalls and load balance the traffic across all of them. When the user has to take a firewall offline, they disconnect the firewall and perform maintenance. APCON will recognize the device is no longer online and ensures the other firewalls still in operation receive the traffic that is no longer going to the out-of-service firewall.



Inline Tools

We also have use cases where the customer would like to have their inline tools connected to the APCON Inline Bypass TAP and also be able to mirror the traffic to other out of band tools connected to another blade in the APCON chassis (shown on the right). This type of use case saves companies time and money while allowing aggregation data from the inline TAP to be sent to other network or security tools.





Multiple Architectures

The diagrams above are made to look easy for reading purposes, but the configurations of data networks are much more complex. The key value that APCON brings to your business is the ability to prevent a single point of failure for your inline devices on your production network and be able to take that data, optimize it, and send it to the inline and out of band tools. APCON further provides a return on investment as we extend visibility to provide the ability to centrally manage tools as shown below where traffic is coming into your network from various locations—whether it be virtual, physical, cloud, or hybrid—so that you get the fullest visibility and save money architecting your monitoring solution for both the network and security teams.

The APCON Difference

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.

Service and Support

APCON's professional services team of certified engineers has many 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.

About APCON

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 multiple geographical or cloud locations.

APCON Solutions for Networks

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