

This document provides the user with 'need to know' insights on the design criteria of modern network taps.

Created to enable informed decision making on which taps serve as the better monitoring solution

this document highlights the criteria a user should look for before choosing a tap vendor.



## Design insights

### Designing for distance rating

The Ethernet standard requires that all 10/100 devices be adequately designed to transmit standard data packets over UTP cable for a distance of 100M. In most cases our competitor's rate their devices at 90M. VSS monitoring in every case meets the 100M standard and in most cases provides robust data integrity at distances up to 150M.

### Delivery of Power

Most users know that taps maintain network throughput during power loss. As power serves only to generate a monitoring signal additional supplies provide redundancy for the monitoring signal only. Given the power source in a data center is supported by an uninterrupted power supply (UPS) the value of multiple power packs is void. In fact they represent negative value to the user given the cost charged by vendors, the additional outlets usurped on the rack and the energy wasted. Taking a more sensible approach VSS monitoring ships taps with one power supply and makes additional available if requested.

### Electrical fans, choice of last resort

Electrical products designed with inadequate heat dissipation shorten a product's life. Fans are the least preferable means of heat dissipation as their mean time between failure (MTBF) is usually the lowest of all board components. Additionally fans draw dust which over time coats the components, increasing their operating temperatures and further diminishing the product's MTBF. Unlike our competitors VSS monitoring does not require fans in the 10/100/1000 line of products. Instead our designs are made robust and employ the industry's leading components ensuring superior heat dissipation and greater product reliability.

### Aggregator taps require Memory !

The primary problem most network monitoring specialists encountered with span port switches was data loss from buffer overflows. With the emergence of aggregator taps vendors are building these devices with insufficient memory to support traffic bursts beyond 0.08s (1MB). 0.08 seconds is simply not enough visibility to insure secure monitoring. VSS monitoring's aggregator taps have a minimum buffer size of 32MB thereby providing the user with an enhanced visibility factor of 32X over competing brands.



## Must have features

### Combined dual stream & aggregator monitoring ports

As aggregator taps have become more popular tap vendors have neglected the value that dual stream monitoring still has for the end user. VSS monitoring is presently the only vendor providing both dual stream and aggregation port monitoring as a standard feature in all our aggregation tap designs.

### VoIP and PoE

The VSS monitoring line of taps is designed for compatibility with the Voice over Internet Protocol and Power over Ethernet standards. As IP telephony and similar cost saving implementations surge in demand among the medical, financial and government verticals newly deployed network monitoring tools must be capable of preserving the system integrity. In this way non VoIP / PoE compatible taps represent either a present or potential future blockage to the designed functionality and ROI of the network.



### Remote & local management

In addition to providing aggregator ports with Tap switches VSS monitoring enables remote browser and console management as standard features on all network tap switches. Employing TCP/IP authorized users can control this device from any network location. Both the console and browser interfaces enable port switching in multiple management modes including a manual, random, sequential and programable option. An access management feature secures against unauthorized users and provides lock out from local or remote process interruption.

### Simple Network Management Protocol (SNMP)

VSS monitoring provides maximum flexibility and usability for network administrators / security engineers with our line of SNMP enabled taps and switches. Seamlessly integrating with infrastructure grade devices the management of this tap is made effortless by the automated recognition and control capability inherent in our SNMP design. As such this feature maximizes the user's ROI in terms of product cost, speed of adoption and performance quality.

