NetQuest
Monitoring Access Solutions

DATA CENTER ACCESS CONSOLIDATION

OVERVIEW

Today, corporate data centers face a number of challenges as internal departments compete to mine data from the backbone network. Driven by the multitude of services being transported on a common infrastructure combined with increasingly complex security and regulatory compliance issues, IT organizations are quickly exhausting costly resources to gain access to corporate data. This application note identifies the access challenges facing data centers today, discusses solutions that have been implemented in the past, and presents a new, innovative approach to data access.

DATA CENTER ACCESS CHALLENGES:

- Access traffic at the most convenient/economic point in the network
- Interface to existing test and monitoring port types
- Ensure no dropped packets to comply with regulations
- Reduce port counts and wiring
- Simplify data access management

PREVIOUS SOLUTIONS: SPAN PORTS AND TAPS

Historically, data has been accessed either by leveraging SPAN ports in switch/router platforms or by employing optical TAPs (see Figure 1 for a typical access configuration in a corporate data center.) Both of these data access methods have their advantages and disadvantages, but their underlying common issue is that there is never enough access to go around.

SPAN ports provide a fairly straight forward approach to providing access and can even provide some level of aggregation, assuming the switch/router platform is lightly utilized. The problem with this method of data access is that switch/router platforms are expensive resources and burning SPAN ports on these platforms can quickly become cost-prohibitive. This problem is only aggravated by high bandwidth links. Additionally, in a heavily-used platform where some form of aggregation is being employed, packet loss becomes an issue. In the case of regulatory compliance, this packet loss is likely considered unacceptable because it leaves the corporation at risk.

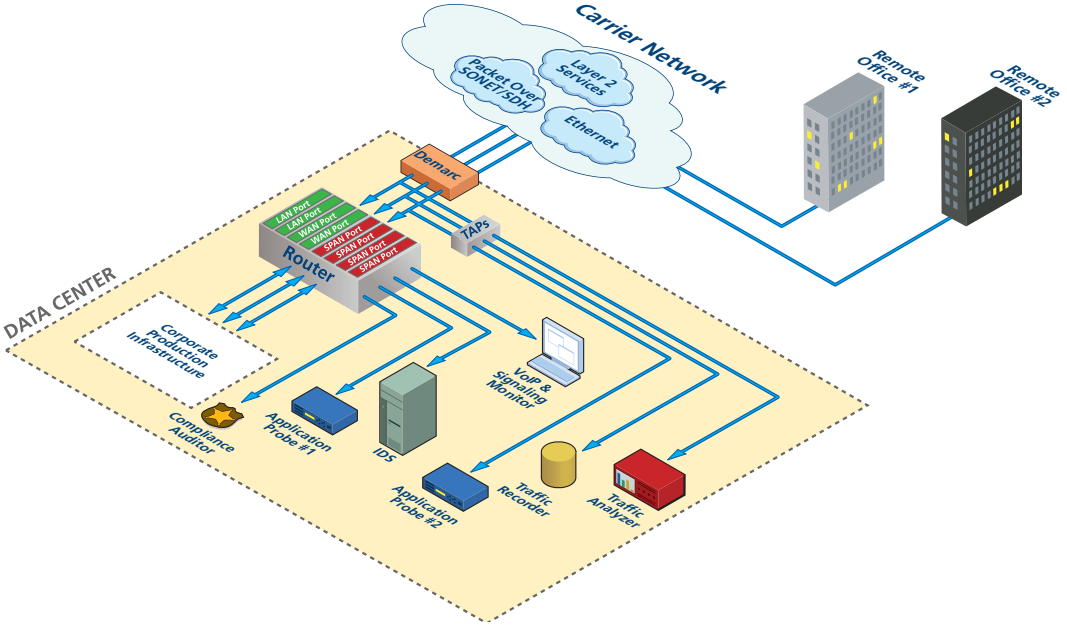

Figure 1: Data access BEFORE scenario, using resources in the switch/router platform

Optical TAPs eliminate the issues caused by SPAN ports, but are restricted by the fact that they drain power from the network. This, in turn, limits the distance between network devices. Further, they do not have the higher level capabilities such as aggregation and filtering.

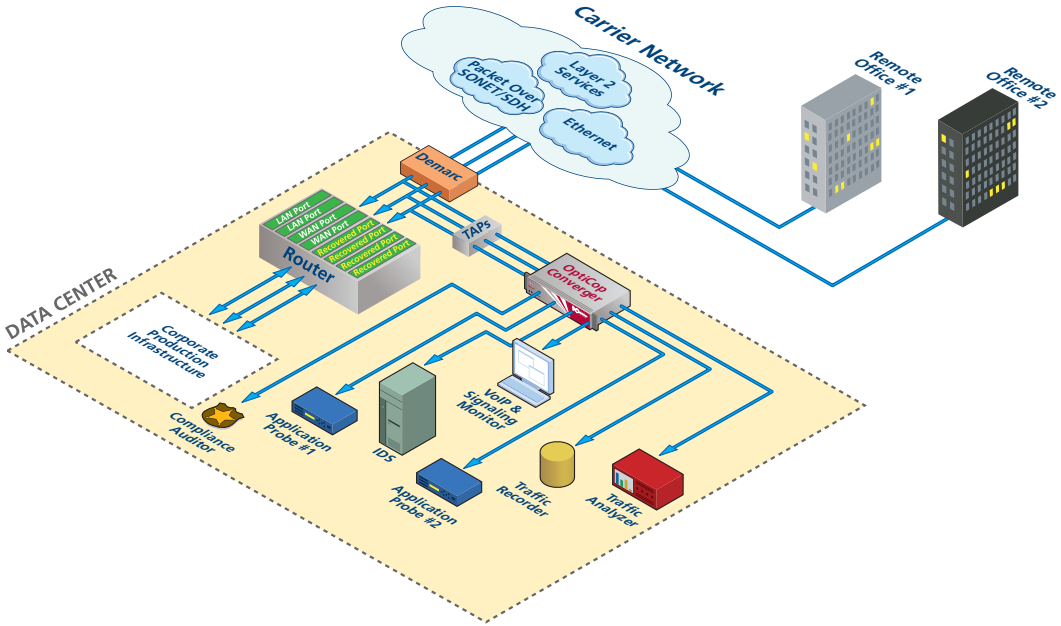

Figure 2: Data access AFTER scenario, using OptiCop Converger

NEW APPROACH: MONITORING ACCESS OPTIMIZATION

A new breed of devices, monitoring access optimizers, address the most challenging corporate requirements for continuous network monitoring, increased security, and regulatory compliance while avoiding the pitfalls of SPAN ports or TAPs.

OptiCop Converger, NetQuest's monitoring access optimizer, accesses, filters, and directs traffic of interest to the appropriate monitoring platform (see Figure 2 for a data access scenario using OptiCop Converger). It performs these functions at wire-speed without experiencing any packet loss and at only a fraction of the cost of burning SPAN ports in a switch/router platform.

Additionally, because of its interface conversion capabilities, OptiCop Converger supports a wide range of speeds and access technologies. This, in turn, allows for the utilization of existing monitoring equipment and the realization of even greater cost savings as Ethernet/IP-centric tools gain monitoring access to legacy network technologies.

BENEFITS OF OPTICOP CONVERGER:

- Recover routing and switch platform resources
- Lossless packet and voice recordings
- Extend the useable life of current monitoring platform
- Support the monitoring of different technologies from one platform

For more detailed technical specifications, please email NetQuest at info@netquestcorp.com

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