NetQuest
Monitoring Access Solutions

OPTIMIZATION, NETQUEST STYLE

Redefining how out-of-band security and network monitoring devices get access to data with our family of Monitoring Access Optimizers called OptiCop Convergers.

As network topology continues to grow, converge, and increase in speed, existing monitoring equipment is often rendered obsolete since it can no longer attach to the network. Even for tools that can still attach to the network, monitoring can fast become cost-prohibitive since the individual service or bundle of services to be accessed and monitored typically comprise only a fraction of the transport bandwidth. Network operators have to make a choice: refit the network with new monitoring equipment, distribute the traffic, or eliminate the traffic that is not of interest. OptiCop Convergers

provide a solution to these issues using aggregation, filtering, interface translations, and other tactics to form a generic access solution.

At NetQuest, we use the term "Optimization" in an effort to describe the value that our products provide any network operator's security or monitoring strategy. To succinctly describe the many forms of optimization OptiCop can perform, this application note uses a problem-solution format to illustrate some common deployment scenarios and the benefits of optimization.

PROBLEM #1: Too Many Networks

I have many network connections that I need to attach my performance monitoring equipment to. The tools have ample processing power to monitor the services, yet I have exceeded the number of access connections the tool can be equipped with.

SOLUTION: Port Optimization

Use OptiCop in a Many-to-One or Many-to-Few configuration to aggregate traffic from multiple networks and present it to the tool.

BENEFITS:

- In a growing network, this enables existing tool investments to be leveraged while maintaining all of the tools capabilities.

- In a greenfield network, build-out capital expenditure related to tool investments can be reduced. The total number of network elements can also be decreased, which, in turn, also lowers operating cost associated with maintenance contracts, rack space, and power.
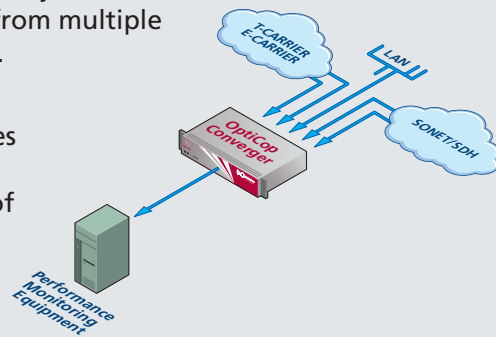

PROBLEM #2: Too Fast

The transport speed of my network has increased beyond the capabilities of the access interfaces available on my tool. The tool has the capability to be equipped with additional interfaces and has the processing power to monitor the service, but it can't attach it to the network.

SOLUTION: Bandwidth Optimization

Use the OptiCop in a One-to-Many configuration, where traffic presented on the input or network interface is load balanced on multiple tool-facing interfaces. The traffic can be distributed from the high-speed interface to any number of lower speed interfaces using user defined criteria.

BENEFITS:

- In addition to load balancing traffic, the user can logically partition the network traffic in an effort to better manage geographical, departmental, or application usage.
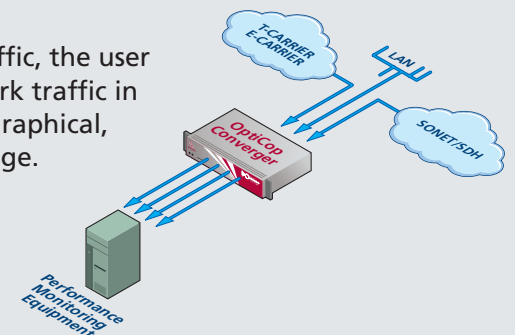
PROBLEM #3: Too Many Protocols

I have multiple networks each carrying essentially the same services, yet the access network technologies (physical media) are different. The security and monitoring tools I have selected are most economical when equipped with Ethernet access ports.

SOLUTION: Topology Optimization

Use OptiCop to provide interface translation (SONET/SDH/PDH to Ethernet) to create a common network monitoring topology which enables tool investments to be made in a uniform manner while focusing on next generation network topologies.

BENEFITS:

- Choosing the most cost-effective network service available at the time can reduce the operating cost of the network.
- Investment in tools in anticipation of service pricing changes.
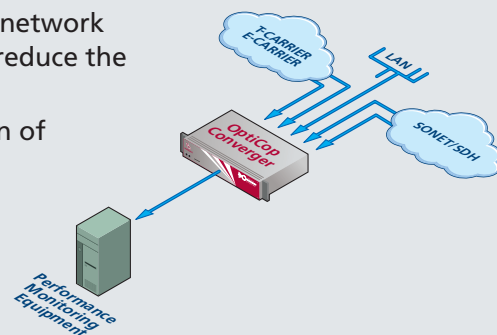
PROBLEM #4: Too Many Tools

I need to attach multiple tools at the network core, each of which is a best in class solution that monitors specific services that are being transported.

SOLUTION: Application Optimization

Use OptiCop in a One-to-Many or Many-to-Many configuration in conjunction with the traffic filtering capabilities available to direct specific applications to the appropriate tool.

BENEFITS:

- Tools are only presented with relevant traffic, greatly reducing the bandwidth requirements of the tool. Subsequently, tool-related CAPEX can be reduced while the usable life of the tool can be extended.
- Multiple tools can gain access to the network from a single network tap or span port, reducing points of failure and tap expenditures.
- Using a single network tap preserves optical power, which can increase distance and/or reduce laser expenditure.
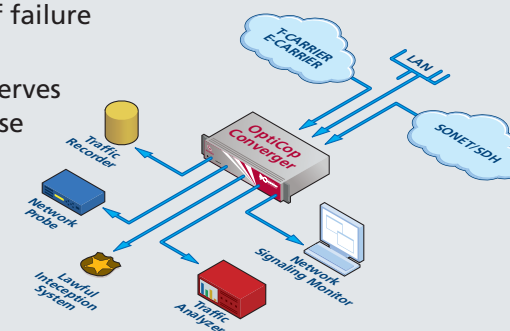
For more detailed technical specifications, please email NetQuest at info@netquestcorp.com

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