

APPLICATION NOTE

Transformation of Government Networks

Provincial, state, and municipal governments are scrambling to provide 'smarter' services to constituents on an 'anytime, anywhere, any device' basis. Many are finding that traditional network technologies cannot support the new on-demand, data-intensive environment.

Governments at all levels are faced with a host of challenges. Citizens and businesses expect flexible access to government services that adjust according to their preferences. Governors and mayors want to spur economic development and streamline operations. Corporations consider the availability of high-speed fiber networks a prerequisite to locating facilities in the area.

Public sector CIOs are deploying new digital technologies to meet these challenges. These include Artificial Intelligence (AI), sensor arrays, Mixed Reality, remote monitoring devices, drones, and driverless vehicles. They are also pushing basic analytics closer to the devices, while maintaining predictive and prescriptive analytic capabilities within the data center. CIOs are also faced with the challenge of maintaining the security and privacy of the increased flow of citizen data.

These changes are driving increased data volume, variety, and velocity, necessitating a network evolution to support increased bandwidth and variable traffic patterns. At the same time, capital spending is scrutinized for true need, citizen benefits, and operational efficiencies. Given the current climate of natural disasters, political uncertainty, and uneven finances, the economic path for most governments over the next several years is unclear. CIOs need to transform technology platforms to realize improved efficiency and yield new public benefits.

Fortunately, the evolution of technology is making network transformation possible while delivering rich dividends in operating efficiency and public benefit through a modernized networking infrastructure. As IT networks have evolved, the tendency has been for governments to build overlays for new applications. Initially, legacy voice networks were combined with data traffic through technologies such as ATM, while optical technologies such as SONET and DWDM provided bandwidth growth, high-

Benefits

- Eliminates inefficient parallel, application-specific networks
- Uses optical transport and deterministic switched Ethernet to provide flexible, agile agency operations
- Offers a universal architecture compatible with embedded optical, Ethernet, and IP/MPLS assets
- Features the industry's most efficient optical wavelength utilization and service convergence
- Improves network latency and efficiency through Layer 2 switching