

# City of Silverton – Case Study



OREGON COMMUNITY EXPANDS TELECOM NETWORK CAPABILITIES AND COVERAGE

**Upgrades Improve City Services; Aid Economic Development** Communities across the nation recognize an upgraded telecommunications network infrastructure as an essential component for economic growth in today's digitally connected business environment. For areas where upgrades are not yet in place, solutions from Frontier Business Edge offer improved connectivity to streamline service operations and deliver next-generation bandwidth to meet the demand for increased speed and capacity of Internet traffic.

Silverton, Ore., a city of about 10,000 residents near the state capital of Salem, sought an improved communications network – one that not only would strengthen delivery of municipal services but also provide widely available increased bandwidth to position the community for future economic development.

## Challenge

The city needed improved connectivity for its 50 employees housed in city hall and five remote locations – from the basics

of improving telephone linkage to strengthening network coverage and performance. Facilities were being served by an aging phone system that did not allow incoming calls to be transferred among locations – or intercom-based interoffice communication in lieu of dialing. And half of all employees were not accessible through the existing network, which was limited to a single connection at city hall, served by a T1 line offering 1.5 megabits per second connectivity.

Silverton officials wanted a flexible long-term solution – a phone system and network designed to grow along with the city. Greater bandwidth capability to connect all municipal locations could also be leveraged citywide and provide access to full network coverage for its industrial park and other business and residential locations in town.



## Solution

Silverton selected Frontier Business Edge to implement a new IP network-based Mitel phone system and install an all-Ethernet network to connect its five service facilities. "Frontier's locally based personnel, support for the community, and commitment to invest in network upgrades in Silverton and Marion County were important considerations in the decision process," said Bob Willoughby, Silverton's city manager.

The city also benefited directly from Frontier network planner – and Silverton resident – Neil Hollanshead's innovative design of a 100-percent Ethernet network for the Oregon Lottery's large point-of-sale network. Frontier since has adopted his design for use across Oregon and the rest of its cross-country operations.



## Oregon Community Expands Telecom Network Capabilities and Coverage

“I was able to apply this same model, using a central data point tied to remote locations, in a scaled-down version that met Silverton’s requirements. It’s a very adaptable and deployable network set-up.” said Hollanshead.

The solution uses five Ethernet-over-copper connections to the remote locations and an Ethernet-over-fiber connection to city hall. All merge together on Frontier’s Ethernet network and converge at Frontier’s office. The result: greater bandwidth to meet both current and future needs – at affordable rates.

Silverton officials credit Frontier for close collaboration during the implementation phase – communication that included weekly phone briefings, regular consultations with the overall project managers and managers for the phone system and network portions, and on-site training for all city employees prior to launch.

### Results

With Frontier’s new Ethernet network overlay in place, Silverton’s city hall has a 50 Mbps fiber connection (expandable to 1Gbps), with 30 Mbps dedicated to the Internet and the remaining 20 Mbps allocated for private, secure traffic between buildings. Remote locations requiring less bandwidth are set for up to 10 Mbps. And the solution is easily scalable over time, with the benefits expandable beyond municipal operations to include connections for area businesses and residents – with enough extra capacity to serve a major metropolitan area.

“Our infrastructure upgrade now connects all municipal locations seamlessly, and with integrated operations we are able to share data and collaborate on process improvements to better serve city residents,” said Willoughby. Applications

previously housed on a server at the public works department – and which were accessible previously only through a cumbersome process – are now available directly to all city facilities.

More importantly, emergency communications have been upgraded for all locations. “In the event that city hall is damaged by flood, strong winds or earthquake, our public works department has been established as an alternate emergency operations center with the same network capability. This redundancy will be important in a crisis situation,” he said. Additionally, new network capabilities allow real-time monitoring and translation of data connected with an early warning system for a nearby dam that backs up a major water reservoir.

Silverton employees have embraced the new phone system as well, noting the ability to handle calls from residents more easily and efficiently, communicate directly with intercoms and twin with cell phones to avoid missed calls.

The Frontier-installed solution, implemented in less than a year, not only has allowed Silverton to upgrade its network bandwidth and telephone system but also has created the prospect of increased citywide connectivity that can be used to promote economic development. The city is working with local economic development agencies to use greater bandwidth availability and full network coverage as a tool in recruiting new business to the area.

In the larger picture, the Silverton model and its Ethernet-based networks are transferable to any governmental or business organization with branch-style offices that require access to a central database. It needs no special equipment, tailors bandwidth to specific needs, adds additional remote sites easily, and uses any router to connect.

**“It’s the next generation of services,” said Hollanshead, “with Internet traffic transmitted in its purest, fastest form.”**

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