

Espoo City Embraces Fixed/Mobile Convergence: Optimizes Costs and Enhances Services

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Finland has long been a pioneer in both mobility and digital literacy. The Nordic country of 5 million citizens has perhaps the highest penetration of both mobile phones and Internet access. So it should not be surprising that municipalities in the country are held to high standards in how technology is harnessed to reduce cost structures and optimize the productivity of the employees who serve our citizens.

Espoo City is a suburb of Helsinki (which, with 235,000 residents, is the second largest municipality in the country) that can trace its history as a community back 550 years. This is a milestone that has been recently celebrated, and a reminder to all city employees of how important it is to provide the tools and support our residents need to meet the dynamic requirements of a vibrant community. Espoo, after all, serves as the headquarters for many of the country's leading corporations.

Meeting High Citizen Expectations

As the CIO of Espoo, I am acutely aware of just how high public expectations are for performing effectively. Finnish people are among the most connected and available people in the world; they have come to expect all aspects of their communications (personal, professional, and public) to be seamless, effective and clean.

For that reason, the city has made a strategic commitment to remain at the forefront of key Internet and mobile technologies. We are early adopters, and we have been able to gain many benefits from pursuing this strategy.

We were among the earliest municipalities to roll out a major implementation of a Multi-Protocol Label Switching (MPLS)-based Voice over IP (VoIP) network when we replaced our legacy PBX systems in 2005. It was a project that was built on the OmniPCX Enterprise technology offered by Alcatel-Lucent. The implementation was facilitated by TDC Oy, a service provider and systems integrator who designed and delivered the MPLS IP-VPN network and the IP communication solution with mobility features. We rapidly moved 8,300 telephone subscriptions to the new system to gain the cost benefits of operating an IP network, while enhancing our ability to provision different types of telecommunications resources – both shared and individual – to those of our 14,500 city employees who need a phone for their work.

Flexibility and Availability an Imperative in Espoo

Flexibility is particularly important for us in Espoo, because we have an unusual geographical layout. Rather than having a central downtown area, Espoo has a decentralized suburban structure. There are five different 'boroughs' in Espoo, and our city services are delivered to residents from a variety of offices, centers and clinics throughout the city. Moreover, to serve the needs of our residents, a high percentage of our employees must be extremely mobile.

Indeed, one of the main reasons we were interested in moving to the MPLS/VoIP network was that the city was absorbing high costs associated with employees forwarding their office calls to their mobile devices. Another challenge faced by our employees was that they often had to keep track of multiple phone numbers (office, mobile, etc.), which delayed the ability of citizens and colleagues to establish contact quickly with the appropriate city official.

The network infrastructure was also complex. We had separate campus networks, wide-area networks and mobile networks that needed to be maintained in a highly siloed manner. The complexity contributed to an overhead cost structure that we felt was unnecessary given the promise of the emerging information and communications technologies (ICT).

Consolidating Infrastructure

We made it a strategic priority to consolidate our infrastructure from separate data, phone and mobile networks into a single, robust, integrated ICT environment. We moved our voice service operations under the authority of our Data Administration Services, and installed security measures that are stringent, yet easy to use for our mobile employees. The mission objective, of course, was to directly connect these investments in technology resources with our ability to deliver cost-efficient, high-quality services to our citizens.

Espoo city has some 10,000 employees using our PBX services, 4,000-5,000 of whom use Alcatel-Lucent's Advanced Cellular Extension solution. Each employee has only a single mobile phone with a single number. The mobile phone is regarded by the system as an extension, so an employee can easily make an internal call just by dialing an extension number. When the employee places an external call from his mobile, the person receiving the call sees the caller's fixed-line number (the office number), rather than a mobile number. This is a good example of how fixed/mobile integration is helping us maximize efficiency and flexibility across a significant mobile workforce, while reducing costs.

Just as importantly, the city is gaining significant financial returns on its investment in next-generation networking technologies. We are projecting 15-25 percent savings per year from both voice and data networking operations. And our employees are indeed more available to their constituents.

Our "reachability" targets (the time and effort it takes to connect with an employee) have also been achieved. We have been able to reduce the number of telephone calls it takes to reach any given employee. As a result, whether or not an Espoo official is in the office or on the road is completely transparent to the caller; they just have one number to call, and it follows any given employee wherever he or she goes.

Concluding Thoughts

Technology is a critical element in the City of Espoo's commitment to delivering excellent levels of service to our constituents. The infrastructure we have deployed has extended our abilities and introduced new levels of flexibility that allow us to address emerging needs, without making corresponding increases in our budgets. Our mobility strategies – and the IP network infrastructure over which they run – have served as a force multiplier in our efforts to meet the high performance our sophisticated constituents expect. ●

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