

Community Improves Residence Connectivity with Upgrade



City of Melrose installs UCS and blade servers to maximize performance and increase memory.

Executive Summary

City of Melrose

- **Industry:** SLG
- **Location:** Melrose, Massachusetts

CHALLENGE

- Remain self-sufficient, green community while supporting residential needs
- Cut cooling and maintenance costs
- Create sustainable model of technology and provide IT services to nearby municipalities

SOLUTION

- Deploy scalable solution to consolidate data centers
- Standardize IT process through UCS
- Install flexible cloud platform to help provide IT services beyond city

RESULTS

- 40 percent de-duplication rate on production data
- Reduced maintenance costs and increased space
- Consolidated data center for all city's schools

Challenge

Melrose is a small city north of Boston that boasts a population of over 28,000 and a long-standing tradition of being self-sufficient. Melrose supports residents housing, education, employment, health, shopping, recreation, and leisure needs.

Due to this, Melrose faced the challenge of keeping the citywide technology up-to-date and functioning at full capacity. The Melrose school district has about 1300 computers spread across seven buildings, which requires a lot of networking infrastructure and the capability to meet a lot of demands. The city also wanted to maintain an active, innovative network that was both efficient and made sense from a financial standpoint.

"We had a hard time meeting constituent and customer expectations," says Jorge Pazos, chief information officer, City of Melrose. "Melrose residents go home, and on the train they can open up their iPad, they can program what's going to be on their DVR that night, they can rearrange their Netflix queue, do banking, and pay bills, and then they come to municipal government, and it was like going back to the 1970s."

In addition to helping ensure that the city had enough bandwidth to support its own infrastructure, Melrose had a vision to offer other cities and towns IT services via a private cloud. But Melrose faced a challenge when it was trying to provide infrastructure-as-a-service to Essex, a neighboring town, and realized that providing this service as on-demand access to computing processing, storage and network resources was unsustainable.

After the City's IT team evaluated their technologies and identified areas to improve, Melrose decided it was time to revamp its IT infrastructure to generate revenue and create a sustainable model. Melrose began looking into different solutions to optimize its data center, but one of the main issues that they needed to address was the amount of power consumption. Melrose is designated as a green community in Massachusetts, which means it receives grants as long as it stays within certain metrics on power consumption. This requirement meant that Melrose needed to find a solution that was both cost-effective and sustainable, but would not affect their green community status.

Solution

The City of Melrose wanted a system that could be expanded later, but it was not sure how many servers, how much memory, or how much storage it would need in the future. While exploring various vendors, Melrose was impressed with what Cisco had to offer. The Cisco Unified Computing System™ (UCS®), including blade servers, provided a completely scalable solution that allowed Melrose to consolidate its data centers and provide flexible, accessible technology to its residents. Melrose also invested in FlexPod, a Cisco and NetApp validated data center platform that helps Melrose provide and streamline IT services across the city.

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Jorge Pazos, Chief Information Officer,
City of Melrose

Product List

DATA CENTER

- Unified Computing System

The Cisco® UCS solution standardizes the IT process and combines blade and rack servers, networking, and management all into a single system. The configuration on the system is completely programmable, which was great for the City of Melrose, and the UCS servers helped facilitate the consolidation of Melrose's data centers in a simplified manner. Melrose has also been able to have a solid, flexible cloud platform that helps provide secure IT services to internal agencies and other municipalities.

This flexibility and expanded memory of the servers were selling points for the city. In the future, the design of the system will allow the city to scale out the system as new needs arise. Cisco was also able to provide the City of Melrose with an efficient IT system that met their needs to be sustainable and to optimize their space.

Results

Immediately after upgrading to Cisco technology, the City of Melrose began to see improvements with application deployment. The time required to deploy applications has gone from several weeks to a few hours. “Due to the new system, the City of Melrose is looking at a 40 percent de-duplication rate on their production data, which translates into 40 percent less disk to be bought and 40 percent less data to be managed and archived,” says Pazos.

Besides the data space, the physical space now available in the data center also increased due to the virtualizing under the blade system. Melrose has been able to consolidate the infrastructure of all the City's schools into a single data center and has the space of 100 servers in one rack. “We did the math just the other day actually,” says Pazos, “and we figured out that if we were to rack all of that stuff in the old-fashioned way, it wouldn't fit in the room, but now space is not an issue.” The lower physical footprint has also resulted in less air-conditioning being used because of the four-hour supplies in the server system.

Cisco has given the City of Melrose the ability to scale its own environment, and to be very flexible and innovative within the city. Even more so, the costs that have been cut with the new system can now be redirected to other resources. The system has set Melrose apart, IT wise, from other cities and towns in Massachusetts, and they have positioned themselves in such a way that they can partner with other communities to provide services at a cost savings.

For More Information

To find out more about the Cisco Unified Computing and server options, go to:
<http://www.cisco.com/en/US/products/ps10265/index.html>.

