Case Study

Mosaic Technology

Town of Hudson
NEW HAMPSHIRE 03051

Customer Profile

U.S. Region: New England

Industry: Government

Web Address: http://www.hudsonnh.gov/

Background:

Located on the east bank of the Merrimack River, the Town of Hudson is one of New Hampshire's ten largest municipalities. The information technology (IT) department, however, is not quite as large, consisting of only three employees. This dynamic team is able to manage the entire town's networking needs, which includes everything from selecting the right hardware and software to installation and maintenance. For a town of this size, that is no easy task with a Town Hall, Fire, Police, Highway and Recreation Department all requiring the ability to support and interact with residents through today's communications standards.

The Opportunity:

Grappling with the same economic challenges as many communities throughout the country, the Town of Hudson consolidated its IT department. The new team, of only three employees, inherited a legacy network infrastructure that had not been modernized in more than a decade. The network architecture was based on equipment from Digital Equipment Corporation, which was acquired by Compaq Corporation in 1998. The town offices and connection to the broader State systems was based on a 10-megabit Ethernet network, as well as slower building-to-building interconnectivity. The town struggled to keep pace with growing demand for file sharing and online services.

Their first challenge was to bring the network infrastructure into the new millennium. They initiated a program to dramatically increase the connectivity between the police department and town hall by deploying a fibre network

to replace the legacy 10-megabit Ethernet connection. The legacy 10mbs Ethernet was internal to each building, the buildings were connected by 1.5mbs and slower connections. The fiber replaced the T1's at Ethernet LAN speeds (1gsb).

The new network infrastructure dramatically improved the town's ability to respond to the needs of its residents. With more services being moved online, it became clear they needed to

find ways to reduce their ongoing IT operational costs. With the new network infrastructure in place, the IT department could clearly identify the drain on resources from the legacy systems. The energy costs alone stuck out as an area the team could address – the Town Hall alone had 10 physical servers. Virtualization was the

obvious choice, but the team needed a phased approach and a partner that could work within their tight budget constraints.

The economic climate in the United States also had a significant impact on local municipalities. The Town of Hudson had implemented a strict budget ahead of the downturn. For the past seven years, the town has not increased the budget. The IT director, Lisa Nute, had to work very hard to modernize the network and stay within the annual budget – even though the modern network meant future cost savings. This was not an easy feat.

Nute reached out to a few vendors including Mosaic Technology to review the latest virtualization solutions. Mosaic Technology hosted virtualization demonstrations to show what was possible and the path forward. The focus on customer service, working within the budget constraints, and expertise in virtualization set Mosaic above the rest.

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Municipalities need to be online 24 hours a day, seven days a week and 365 days a year – with no exceptions. First responders including the police, fire, and ambulance are always on call. Network downtime for these critical services can cost lives. With this in mind, disaster recovery was a top priority for the Town of Hudson. First responders are highly dependent on being able to communicate with dispatch and other agencies, which means access to the servers is a must.

Mosaic Technology harnessed their years of experience to recommend a solution that would meet the critical needs of the Town of Hudson. They proposed a solution that included VMware's vMotion, along with the virtualization of the two sites to help the town get through these types of situations in case of an emergency. VMware vMotion enables the live migration of running virtual machines from one physical server to another with zero time – the perfect solution for an office that needs to be running 24 hours a day, seven days a week and 365 days a year.

Maximizing the network's utilization was another force driving for the Town of Hudson to go virtual. With the two sites now consolidated and all of the old hardware gone, their virtual environment

made everything more affordable.

Mosaic implemented Dell EqualLogic storage, VMware server virtualization and Pano Logic Desktop virtualization. With Mosaic, the Town of Hudson has now deployed 35-40 virtual desktops, a VMware Server Virtual Cluster and 2 EqualLogic arrays, replicating over 1 gigabit of fibre.

"I really appreciate how reachable Mosaic is, no matter when it is," said Guarino. "I once had a problem with one of our virtual servers and needed some assistance – it was a holiday weekend and I didn't know if I'd be able to reach anyone. Mosaic was constantly in contact with me, and that made me much more comfortable with the situation. Eventually we got it sorted out,

but they were a real lifesaver – I couldn't have done it without them."

Looking to the future, the Town of Hudson plans to continue their desktop virtualization project with Mosaic. The Town is slowly expanding its virtualization footprint a little at a time, and hopes to continue this in the years to come. They are also challenged by the growing need for storage and are expanding in that arena as well.

"When we do have needs, Mosaic is there for us," Nute said. "Whether it's a quote or some additional training or advice, they always get right back to us with an immediate response and the information that we need to continue on. And all of this applies over the last three years – not just at the beginning. Their level of service has stayed consistent the whole time, and that is something that we can really appreciate."

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