Agentless Security Accelerates Merging of Municipal Infrastructures

Oulu, Finland secures VDI with Trend Micro™ Deep Security™ to deliver IT services to other municipalities.

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— Marko Niskala, Infrastructure Manager, City of Oulu, Finland

EXECUTIVE SUMMARY

Customer Name: City of Oulu
Industry: Municipal Government
Location: Oulu, Finland
Web site: www.ouluntietotekniikka.fi
Number of Employees: 10,000

CHALLENGE:
• Merge infrastructures of four surrounding cities in less than one year
• Extend the lives of existing PCs that cannot be upgraded to Windows 7
• Minimize the start-up efforts for the infrastructure merger
• Avoid the introduction of complexity that would slow systems or increase the workload on the IT organization

SOLUTION:
• Trend Micro Deep Security, for agentless protection of virtual desktop infrastructure (VDI)

BUSINESS RESULTS:
• Protection that is easy to deploy, administer, and scale
• Agentless security that is more resource efficient (I/O, CPU, memory) in a virtualized environment, compared to “traditional” security, and enables increased consolidation ratios
• Instant protection of new VMs at time of spin-up

Challenge
In the far northern region of Finland, the City of Oulu has become a technology leader for other municipalities. The IT department is not a particularly large organization, but has consistently made cost-efficient choices that give City employees and constituents the best overall value.

Last year, Oulu’s IT organization was given the challenge of extending infrastructure services to support the merger of the City with four surrounding municipalities.

“We were given one year to scale up IT services including applications and computing capacity for all of our new ‘customers,’ and also support their old infrastructure,” said Jussi Tarkkonen, system specialist for the City of Oulu.

Planning efforts determined that virtualized desktop infrastructure (VDI) would be an essential enabler for creating one big new City of Oulu. The City needed the flexibility and time savings offered by virtualization, as well as the ability to rapidly migrate older PCs to Windows 7. To complete the migration, and minimize complexity, they also needed a security solution that could protect both servers and desktops.

Solution
Prior to the merge, Oulu had been using a solution from another leading security vendor. However, the previously deployed antivirus solution was too resource-intensive to be used in the VDI environment. When asked by Oulu for advice, the city’s technology reseller brought in Trend Micro to tell them about Deep Security. An on-site demonstration and comparison with the existing security solution convinced Oulu’s technology team to make the switch to Deep Security.

“Trend Micro provided the easiest and best-performing VDI antivirus/antimalware solution,” said Marko Niskala, infrastructure manager for the City of Oulu. “Deep Security is ‘VMware Ready’ and gives us a solution that leverages VMware vShield APIs.”

The IT team also cited other key reasons for selecting Deep Security, including:
• Agentless protection, for lower memory impact and improved consolidation ratios
• Instant protection for new VMs
• Intelligent scheduling of scans, to prevent resource contention (AV storms) and the potentially disastrous conflict with desktop ‘boot storms’
• Simplified management, since Deep Security integrates with vCenter and also offers patch management capabilities

• Strong working relationships between VMware and Trend Micro, for simplified issue resolution

The City of Oulu took advantage of Trend Micro installation and consultancy services to accelerate the schedule and minimize the risks associated with the large-scale deployment and merging of user bases. “With help from Trend Micro Technical Account Management Services, we set up a proof of concept,” said Mr. Tarkkonen.

“The services engagement helped us with planning, sizing, and applying real-world experience to get it right the first time. The training we received allowed us to roll out Deep Security to the first 300 VDI desktops ourselves. Since then, we have successfully expanded to 1,000 virtual desktops. Trend Micro services helped us meet our aggressive deadlines.”

Results

The introduction of a secure VDI model has been well received by management and the infrastructure administrators for the City of Oulu.

“VDI is protected—with good performance and minimal administration effort—thanks to Deep Security,” said Mr. Tarkkonen. “It is helping us keep our data center modern and cost-effective.”

By protecting the VDI environment, Deep Security has let the City fully leverage virtualization for the merging of the City and the four surrounding municipalities. The successful introduction of Deep Security has generated interest in extending it to protect all of the servers that make up the expanded City’s private compute cloud.

“Agentless security has been key,” said Mr. Tarkkonen. “We know we cannot proceed with ‘traditional’ antivirus products, since the impact on performance is too much in terms of I/O, CPU, and memory.

“In our VDI security proof of concept, we learned that Deep Security can increase our consolidation ratios—we have configured 128 desktops on each ESX host that is protected by a Trend Micro virtual appliance, and also reduced power usage and administration costs with the virtualized desktop model. VMware and Deep Security is a winning combination for us.”

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— Jussi Tarkkonen, System Specialist, City of Oulu, Finland

**DEPLOYMENT ENVIRONMENT**

- 14 ESX hosts for 1,000 VDI desktops;
- 3 ESX hosts for servers
- VMware ESX 4.1
- VMware View 4.5 or 4.6
- Trend Micro Deep Security 7.5

**Company Profile**

Oulu is the one of the largest cities in Finland, and one of the cities located the farthest north on the globe. The local economy was originally based on the country’s natural resources—wood, tar, and salmon. Today, Oulu is home to a major technology center with areas of emphasis that include information technology and solutions aimed at the wellness industry. Oulu is also home to the University of Oulu and the second busiest airport in Finland.

**Trend Micro Security**

- Trend Micro Deep Security

**Trend Micro Enabling Technology**

- Trend Micro Smart Protection Network

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