(intel)

Atea establishes new private cloud hosting service based on Intel® Xeon® processor-based servers

Intel® Xeon® processor E5 family enables Atea to offer customers a choice of hosted or on-site private cloud infrastructures

ATEA

"The Intel® Xeon® processor E5 family has great scalability and performance, both of which are very important to us. We offer our customers private cloud infrastructure on-site or hosted in our data center, and always recommend Intel® based servers for optimal uptime, performance and cost."

Erik Hjalmarsson,
Business Developer,
Atea

CHALLENGES

- **High performance.** To create its new hosted private cloud service, Atea sought servers that would offer the best performance to meet its needs
- **High availability.** Atea needed to offer its customers optimal uptime, and so needed servers with extremely robust and reliable processors
- **Optimal costs.** Atea needed to minimize the number of servers required and the resulting software licensing costs

SOLUTIONS

- **Cloud hosting.** Atea used three HP ProLiant* BL460c servers with the Intel® Xeon® processor E5 family to create a cloud reference architecture
- **Easily adaptable.** Support for the PCI Express* (PCIe*) high-speed serial expansion bus means Atea can easily add more capacity, storage and networking
- **Flexible response.** Intel® Turbo Boost Technology 2.0[1] enables the processor to speed up if there is a spike in demand

TECHNOLOGY RESULTS

- **Hardware savings.** The performance of the Intel Xeon processor E5 family enables Atea to use one-third fewer servers
- **Licensing savings.** Using fewer servers means Atea can eliminate some of the heavy licensing costs associated with each server and pass on those cost savings to end customers

BUSINESS VALUE

- **New market segment.** Atea has introduced a hosted private cloud service, so it can be more responsive to marketplace demands
- **Better responsiveness.** Atea's work on a private cloud infrastructure at a customer's site has shown virtual machine provisioning times can drop from weeks to an hour

Atea creates new private cloud service with Intel® based servers

Atea is the largest reseller in the Nordic market segment for IT infrastructure, with a presence in 82 cities in Norway, Sweden, Denmark, Finland, Lithuania, Latvia and Estonia. The company's 3,500 consultants have a strong track record in helping customers establish and manage new IT infrastructure projects, including private cloud implementations. Atea has extensive experience creating private cloud infrastructures on customer sites, and has recently extended its service offering with a private cloud solution hosted at Atea's own data center.

"When you look at the marketplace, it's clear that most people want the convenience and simplicity of self-service cloud solutions," said Erik Hjalmarsson, business developer at Atea. "In the future, companies like ours that do not have a private cloud solution may find their customers go elsewhere."

Atea was in a fortunate position. Although it was introducing hosted private cloud services for the first time, it was able to draw upon the technologies and experience that had proven successful in its work at client sites. For example, Atea has worked with a large oil company to set up and implement a private cloud for provisioning and managing virtual machines.
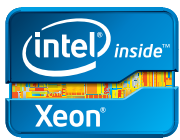
Intel® Xeon® processor E5 family powers cloud computing for Atea

"For the private cloud solution, the customer wanted the best performance possible for its virtual machines and SharePoint* server," said Hjalmarsson. "The customer was being challenged to be more agile without increasing its IT budget. Introducing self-service and automation based on the private cloud infrastructure has enabled us to cut the time for deploying a virtual machine from three or four weeks to an hour."

Whether customers prefer to use an on-site private cloud or Atea's new hosted option, Atea recommends servers based on the Intel Xeon processor E5 family. "We estimate a return on investment of less than a year for private cloud implementations like the one we did for the oil company, based on using automation software from Microsoft and the Intel Xeon processor E5 family," said Hjalmarsson.

Introducing the hosted private cloud

To enable the hosted version of its private cloud service, Atea built a new data center in Umeå, in Northern Sweden, with a capacity of 30 racks, and used servers based on the Intel Xeon processor E5 family. "To equip our data center, we went to the best-of-breed in the marketplace," said Hjalmarsson. "We wanted to make sure we had the best performance and availability for our server hardware, and the Intel Xeon processor E5 family had proven itself in our on-site cloud implementations."

Atea created a cloud reference architecture in the new data center, using three HP Pro-Liant BL460c servers. Each blade is powered by two processors from the Intel Xeon processor E5 family and has 256 GB of RAM. The solution is completed with HP* networking switches and storage devices (storage arrays and disk drives), and three Microsoft Hyper-V* Server hosts. Microsoft System Center* 2012 is used for management and automation, including its Virtual Machine Manager*, and the SharePoint server is used to enable the self-service portal. Atea tested this reference architecture for six months before commercially launching its new private cloud hosting solution.

Achieving optimal performance

"The Intel Xeon processor E5 family has great scalability and performance, both of which are very important to us," said Hjalmarsson. "The environment for a private cloud solution demands a lot of memory, and you get that with the Intel Xeon processors. It offers excellent availability, too. If you're running a hosted solution, you can't afford any downtime. We had to have a stable and solid solution for our data center, and that's why we choose to use and recommend the Intel Xeon processor E5 family."

The support for PCIe in the Intel Xeon processor E5 family ensures that the solution can be rapidly adapted to customer requirements or in response to changes in the business. "Using PCI Express, we can easily and quickly add more capacity, storage, and networking to our solution using the interconnection," said Hjalmarsson.

The Intel Xeon processor E5 family includes Intel Turbo Boost Technology 2.0. "The performance of the Intel Xeon processor E5 family is strong enough that we don't usually need the Intel Turbo Boost Technology 2.0, but it gives us the ability to automatically increase the processor speed if there is an unusual spike in demand," said Hjalmarsson.

Saving licensing costs

Atea chooses the Intel Xeon processor E5 family because of its performance and availability, but it also enables Atea to make significant financial savings. "Every new Intel® processor doubles the performance over the previous generation[2], which saves us money in power and cooling costs, as well as in licensing," said Hjalmarsson. "We can achieve the same great performance with fewer servers, which means we can save money on software licensing. We estimate that the licensing cost of a server is around USD16,000 (SEK100,000), which is more than the cost of the hardware. Using the Intel Xeon processor E5 family, we can eliminate a third of our servers and make substantial savings in software licensing."

By offering a hosted private cloud solution, Atea enables clients to more quickly establish cloud infrastructures without any of the risk or challenges of managing that infrastructure. Customers can be more agile, and can more quickly scale their operations or introduce new applications. For Atea, the hosted private cloud represents an opportunity to grow its client base by attracting new customers, and to increase sales by offering an additional deployment option to existing customers.

Hjalmarsson says: "We've made a strategic investment on our side, and we need to build our new service on the best technology. It's vital for us to make sure we are backed by one of the leading manufacturers. We have excellent support from the Intel team. They provided us with key learnings on what others have done, and have helped us to ensure security between the hypervisor and the processor, working with us here in Sweden."

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Lessons learned

"It's really important to be able to quickly adopt the latest technology advancements," said Hjalmarsson. "We recommend that our customers use the Intel Xeon processor E5 family in their blade servers, plan to upgrade to the latest technology as it becomes available, and make sure that they automate their data centers to achieve optimal savings."