BLUECAT™ *IP Address Management, DNS and DHCP Solutions*

ÅLESUND KOMMUNE

Alesund kommune Simplifies Network Management and Eliminates DHCP-Related Downtime with BlueCat

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– Øystein Gasdal
Network Administrator
Alesund kommune

Unhappy with its Windows 2000 server, which did not provide the DNS/DHCP high availability that would eliminate any potential DNS/DHCP-related network downtime, Alesund kommune (Alesund), a Norwegian municipality with a population of 42,982, began researching alternative DNS/DHCP solutions.

"We were using a combination of Windows 2000 server, Linux and BIND to manage our DNS and DHCP, but because there was no way to set up redundancy for DHCP it was impossible to ensure the robustness of the network," said Øystein Gasdal, Network Administrator, Alesund kommune.

Alesund occupies seven of the outer islands in the county of Møre og Romsdal: Heissa, Aspøya, Nørvøya, Oksnøya, Ellingsøya, Humla, and Tørla. Alesund town centre is located on the islands of Aspøya and Nørvøy, and further residential areas are located on the islands of Heissa and Oksnøya. With such a highly-dispersed environment, Alesund wanted to find a DNS/DHCP solution that would not only eliminate potential network downtime, but would also simplify network management and improve administrator and user productivity while simultaneously decreasing the associated costs of managing its distributed network.

"We have approximately 3,000 nodes in the network, spread over about 200 different subnets, with most of the clients being Windows and PXE (Pre-Boot Execution Environment) thin clients [which require an IP address from a DHCP server to begin the installation process from a Remote Installation Services (RIS) server]," explained Gasdal. "In addition to our 2,500 employees, we also provide nodes for several thousand students in the lower grade schools," Gasdal continued. "With Windows 2000 server, it was impossible to divide all the nodes up into different classes within subnets, which made the system extremely difficult to monitor and manage."

With the target of adding the DHCP redundancy required to increase the stability of the network and the DNS/DHCP capabilities needed to simplify network management, Alesund looked at all the recognized DNS/DHCP solution providers. Having completed its due diligence, Alesund selected BlueCat DNS/DHP Server (formerly Adonis).

"We researched many different [DNS/DHCP] solutions and went to several exhibits, such as Interop, to ensure we could make a fully-informed decision," noted Gasdal. "Having looked at all the options, we selected BlueCat's technology primarily because it provided the most user-friendly management system, and because we liked the thought of having the DNS, DHCP, and NTP (Network Time Protocol), which synchronizes the time of a computer client or server to another server or reference time source server all in one box," Gasdal continued. "We also found it very appealing that BlueCat allowed us to have all that in high availability mode, which would make it simple to set up a system backup to ensure the network could not crash."

"BlueCat is now our primary, and only, source for all three core network services. It has allowed us to build DHCP, DNS and NTP services into a single box, and made our network incredibly stable, much easier to manage very user friendly and more cost effective."

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Before installing BlueCat DNS/DHCP Server, Alesund undertook a thorough testing program. "We set up a pilot," said Gasdal, "first with unused subnets, and later with subnets that were already in use. There were as many as 50 nodes involved in the testing and the technology proved extremely stable and easy to install and manage."

With the pilot successfully completed, Alesund began the installation of the DNS/DHCP technology.

"DHCP and NTP were the easiest to install – it was quick and painless," commented Gasdal. "We had help from BlueCat all the way, including the last part; installing the DNS service."

Since installation, Gasdal has been extremely impressed with the performance of the BlueCat solution. In fact, the new DNS/DHCP solution has proved such a great fit that Alesund is now looking to expand its use of the technology to further simplify network management and usability and further increase network stability.

"We are presently using our BlueCat servers for internal views, but are now looking at using them for external views as well," explained Gasdal. "We also plan to use the technology for managing DHCP reservations."

BlueCat DNS/DHCP Server coupled with its excellent support staff have enabled Alesund to significantly simplify the management of its DNS/DHCP services and vastly improve the robustness of its network by adding capabilities that were not possible with Windows 2000 server. In fact, Alesund's DNS/DHCP now runs so smoothly that Gasdal can almost let it run itself.

"BlueCat's solutions are very stable, and backed by exceptional support," concluded Gasdal. "We have not had any problems with performance and all our redundancy and management requirements have been met. In fact, once it is set up, you can almost forget about it."