

# The Universität Salzburg Implements a Comprehensive DNS, DHCP and IP Address Management (DDI) Solution with BlueCat



With 16,500 students and around 2,700 employees in research, teaching and administration, the Paris Lodron Universität, founded in 1662, is the largest educational establishment in the city and state of Salzburg. In 2004, the new organisational structure was implemented at the Universität Salzburg in accordance with the Universities Act 2002 — the Federal Act on University Organisation and Studies. This act ensured greater autonomy, self-determination and focus on performance for all Austrian universities.

This also posed a substantial challenge to IT managers. The first issue to be dealt with was the routine replacement of the hardware for the existing DNS server infrastructure. The Universität Salzburg's Project Manager, Mr. Thomas Wenniger Dipl. Ing. (FH), approached schoeller network control (<http://www.schoeller.at>), a technology distributor with expertise in networking and infrastructure and experience working with clients in telecom, government, industry, banking and higher education.

The options for a comprehensive DNS, DHCP and IP address management (DDI) solution were presented in the discussions that followed. BlueCat, a leading provider of DNS, DHCP and IP Address Management (IPAM) solutions, was recommended for evaluation.

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– Thomas Wenniger, Dipl. Ing. (FH)  
Universität Salzburg

At the concept development stage, doubts were repeatedly expressed with regards to replacing Microsoft DNS. However, interest in BlueCat’s DDI products increased due to the solution’s extensive workflow opportunities for allocation and management of IP addresses by the IT helpdesk as well as network administrators.

Up until now, the successful implementation of an IP plan relied on up-to-date documentation of the IP addresses and manual configuration on the Microsoft DNS server. As in many other networks, this also led from time to time to manual configuration errors and faults, which in turn would lead to costly and time-consuming troubleshooting.

With support from schoeller network control, the university proceeded with a test installation of the BlueCat solution, which was completed entirely in virtual environment. Both BlueCat DNS/DHCP Server (formerly Adonis) and the BlueCat Address Manager (formerly Proteus) were put into operation on the basis of VMware images. They were put through their paces and found to be extremely suitable.

The misgivings expressed at the start with regard to replacing Microsoft DNS proved to be completely unfounded over the course of the tests. Furthermore, the BlueCat solution provided better suited administration provisions and high availability using clustering technologies.

The integrated workflow provided by the BlueCat solution means that the IT Helpdesk and Network Administrators are able to work together perfectly. The unified allocation of names for a wide variety of end devices and address reservation for gateways, servers and DHCP ranges can also be managed easily.

BlueCat Address Manager is a secure and highly scalable management solution with the proven ability to support 600 or more DNS/DHCP instances in a single system. The product also has the ability to inspect used IP address within the network by means of network discovery and reconciliation. If any errors or deviations are found due to manually issued addresses, this can be resolved simply using a relevant entry in the system.

All this didn’t just save time, but also potentially tedious error troubleshooting, as the documentation was presented at the same time as the configuration of the IP addresses. In the university sector there is an increasing demand for IPv6 networks. With the IPv6-ready solutions from BlueCat, organizations are well-prepared for gradual migrations to IPv6, as well as parallel operation of IPv4 and IPv6-based networks.

“We went from initially only being interested in DNS hardware to very quickly being convinced of the full possibilities offered by the comprehensive BlueCat solution,” says Mr. Thomas Wenniger, Dipl. Ing. (FH), Universität Salzburg. “We were very impressed by BlueCat’s workflow and automation, which goes well beyond Microsoft’s native capabilities, and will save us time and effort. The deployment was completed in just a matter of weeks from the initial demo installation to implementation, and all of our original expectations were met and exceeded.”

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