Finding reliable IP checks and balances

New technology offers new solutions, but also poses fresh challenges. At Oesterreichische Nationalbank (OeNB), the Austrian central bank, systems engineers identified the advent of IPv6 as a new challenge best met by re-evaluating their system of IP network management as a whole.

As a well-established organization, OeNB’s IP network management had evolved to include a number of independent teams managing individual subnets, each with their own techniques – text files, Excel or other combinations.

During the process of building an IP database for more effective documentation of IP addresses, it became clear to network systems engineer Thomas Zenz and his colleagues that a commercial IPAM solution would help to improve their system’s scalability, adding much-needed search functions and automatic error checking. With a network consisting of BIND, ISC DHCP, and Windows, and having built considerable business logic into their network configurations, it was critical to OeNB networking teams that a commercial IPAM solution integrate with their server environment, as well as their system of IP management. The expense and disruption of a large-scale replacement of OeNB’s server infrastructure was not an option.

Banking on customizable change

While on the lookout for a suitable commercial solution, Thomas and members of the OeNB team made first contact with the highly flexible Men & Mice DNS, DHCP and IP Address Management (DDI) Suite solution at a Cisco Live trade show. The team was particularly taken by the Suite’s unique ability to integrate with existing network infrastructure, including BIND and ISC DHCP. This would enable OeNB to continue to build on the strengths of their customized infrastructure, yet gain the benefits of a wide range of DDI automation, tracking and management functionality, plus fine-grained, role-based access control - a must-have for a network managed by multiple teams.

Following their decision to invest in the Men & Mice DDI Suite, OeNB network systems engineers embarked on the virtually painless process of deploying and integrating the Suite with their existing infrastructure. The transition quickly delivered the desired results: automation and consolidation of teams’ IP documentation, tracking and managing techniques, while preserving the network environment and the OeNB system of management.

To Thomas, the Suite’s sensible access management permissions were exactly what their multiple teams needed. Instead of centralized delegation reducing team autonomy, the Suite increased it.

“The nice thing is that it integrates into the way we work. Teams have more freedom to get on with their daily tasks. They don’t have to ask for permission or wait for help to do what needs to be done, yet they can only work on the parts of the network they’ve been assigned to.”

- Thomas Zenz
OeNB, Network Systems Engineer
The ease of adding new zones, and adding servers to new IP ranges, also made a considerable difference to Thomas and the OeNB teams’ workload. “I don’t have to go to my servers and create the zone and do it on all the machines. I just right-click and it’s done.” Additionally, the simple agility of the Men & Mice Suite architecture turned the dread of the typical software version upgrade into a thing of the past. “We just did an upgrade to the latest version of the Men & Mice Suite and no one even recognized that something had happened.”

Stock up on secure network availability with Docker containers

With the Men & Mice Suite transforming time-consuming manual networking tasks to single-click affairs, OeNB systems engineers shifted their focus to the things that really matter: improving network security, availability and resilience through innovation. Though the OeNB teams banked on the Men & Mice Suite to be flexible, the Suite’s degree of extensibility was an unexpected bonus.

As part of the European System of Central Banks OeNB has to accommodate a diversity of external DNS views. Recognizing the power of the Men & Mice Suite’s real-time synchronization, combined with the ease of adding and updating zones and servers, Thomas and his colleagues used Men & Mice to install DNS servers in Docker containers. The Men & Mice Suite real-time synchronization always keeps systems up to date, and the same goes for slave DNS zones in a container. In case of a security breach, you can stop, and toss, the affected container and start up a new one, as Men & Mice has synchronized the configuration and zone files. This will have your system up and running again without missing a beat, preventing possible downtime caused by having to install a new server or having to resort to back-up to restore everything.

To OeNB teams, it helps to know that the ability to innovate with the Men & Mice Suite is well supported by the expertise of the Men & Mice Services Team. Working with experts allows OeNB to venture further and explore deeper to customize solutions and test new ways to improve and secure their systems.

Building network resilience for the future

Investing in the Men & Mice Suite has not only helped OeNB set the course towards adopting IPv6, but also helped to complement their existing system with the right checks and balances for an increasingly virtualized future.

In the ever-changing technological hothouse of networking, diversified network security threats will demand diversified safeguards. While the Men & Mice Suite effortlessly scales as a company’s IP infrastructure grows, to OeNB its small footprint and ease of use also make it the ideal tool for splitting parts of their network and building smaller subnets for security purposes. “With the Men & Mice Suite, you always find what you are looking for,” says Thomas. “It simply makes life more organized”.

“With the Men & Mice Suite, you always find what you are looking for,” says Thomas. “It simply makes life more organized”.

- Thomas Zenz
OeNB, Network Systems Engineer

KNOWLEDGE AND EXPERIENCE

Globally recognized as experts in the research, training, consulting and software development of DNS, DHCP and IP Address Management products, Men & Mice prides ourselves on offering solutions that adapt to our customers’ needs. We don’t expect our customers to adapt their needs to suit our solutions.

© Men & Mice. All rights reserved. This document is for informational purposes only. The information in the document is believed to be accurate at the time of publishing based on currently available information. Men & Mice does not make any warranty of any kind, either express or implied, in this document.