



IPAM: Support for IPv6

.SE's DNSSEC and IPv6 Workshop

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Nixu Software in Nutshell

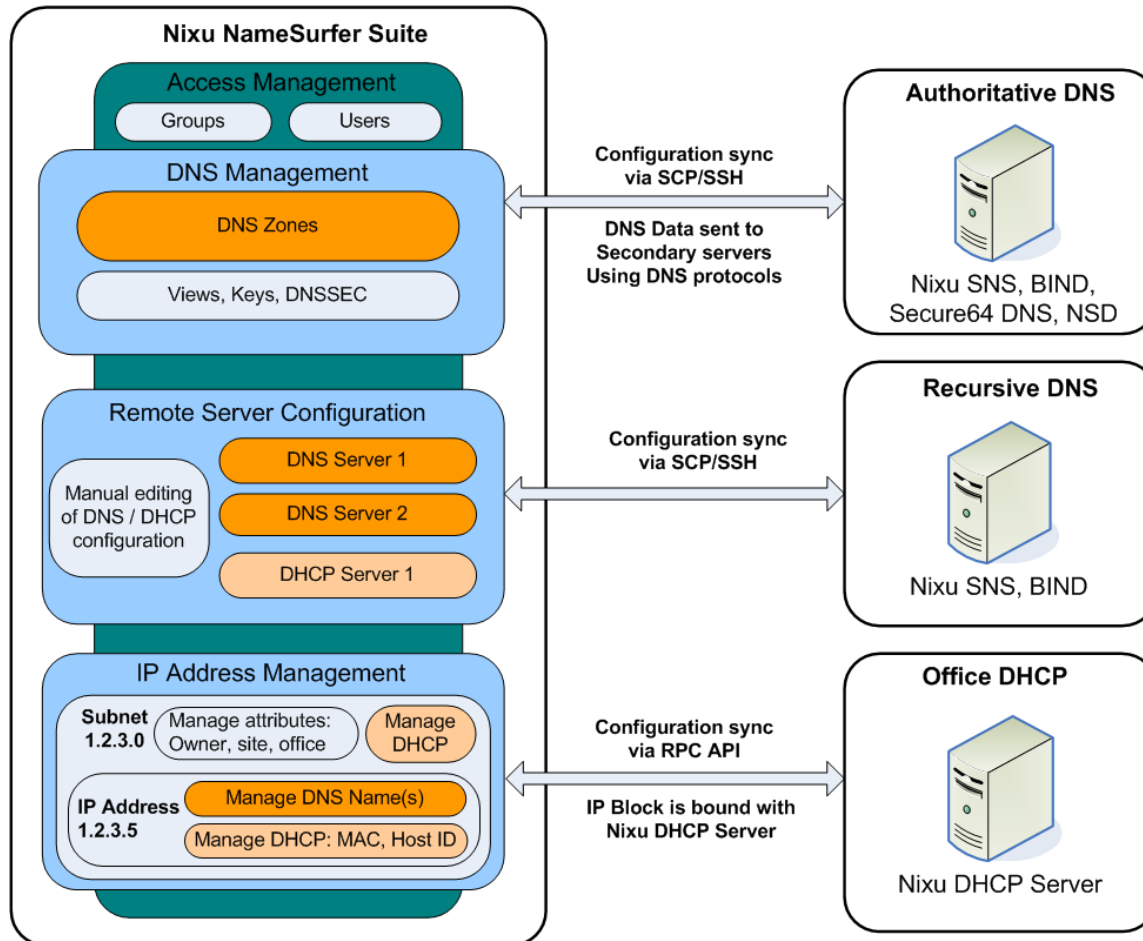
- Nixu Software is part of Nixu Group:
 - Founded in 1988
 - Working on TCP/IP since day one
- Specializes in software-based DNS, DHCP and IP address management solutions
- Customers include hundreds of service providers, TLDs, and LIRs around the world
- Solutions include:
 - Nixu NameSurfer Suite: centralized and automated IPAM
 - Nixu Secure Name Server: x86-grade DNS server
 - Nixu DHCP Server: DHCP server for enterprises
 - Secure64 DNS Product Line: extreme performance and security
- Products run in production dual-stack networks

What is IPAM, Really?

- Two IPAM categories
- Enterprise environments:
 - Managing static (DNS) and dynamic (DHCP) hosts in subnets is the key
 - Most IPAM solutions have been designed with enterprise IPAM in mind
- Service provisioning environments:
 - Managing the distribution and allocation of name and address space
 - Efficient and automated DNS management processes important
 - Integration with provisioning, service activation and other similar systems
 - Dynamic hosts not added manually: IPAM not used to manage DHCP
- Many service providers, TLDs, LIRs continue to run homegrown IPAM
- Emerging technologies and standards (IPv6, DNSSEC, IMS/ENUM) require new solutions

Overview of Nixu IPAM

Centralized IP Address Management: DNS, DHCP, IP Space & Inventory



IPAM in IPv6 Networks

- During transition period from IPv4 to IPv6, dual-stack networks increase DNS management load
- Management processes should be identical for both IPv4 and IPv6 addresses
- Managing distribution and allocation of address space requires more scalability and performance
- IPv6-ready IPAM for ISPs, TLDs and LIRs require:
 - Automated DNS management processes to streamline and simplify naming, supporting both IPv4 and IPv6
 - Interfaces (CLIs, nw-based APIs, dynamic DNS) providing equal support for both IPv4 and IPv6 protocols
 - Scalability up to tens of millions of resource record entries

Dual-Stack IPAM Solutions

- Nixu NameSurfer Suite is an ideal IPAM solution for dual-stack production environments:
 - IPv4 and IPv6 managed in the same way, using process automation
 - Scales up to tens of millions of RRs, depends on RAM and CPU
 - Number of interfaces supporting integration with other systems
- Nixu IPAM has been run in dual-stack production networks offering IPv6 connectivity since 2004
- Customers running dual-stack networks include:
 - FUNet (Finnish University Network)
 - Energy Sciences Network (ES.net) at Lawrence Berkeley National Laboratory
- Nixu IPAM run alongside Secure64 offers highest level of security, scalability and performance

Thank you!