Summary

Today's enterprise infrastructure is dynamic, with new geographical locations and the networks associated with them being added or deleted on an ever-increasing basis. Microsoft represents network topology with directory objects called sites and subnets. The current state of the global network may not be reflected correctly within Microsoft Active Directory (AD). This causes an inefficient allocation of Windows services, or even outright outages of such basic services as user authentication and file availability. Microsoft does not offer tools to reveal and resolve such serious issues. Infoblox IP Address Management (IPAM) integration with Microsoft AD Sites and Services fills that gap.

Infoblox Authoritative IPAM Database Working with Microsoft AD Sites

Infoblox uses Microsoft's MS-RPC to communicate with Microsoft DNS and DHCP servers and leverages Microsoft's LDAP interface to communicate with AD, so no software agents are needed on Microsoft servers. When Infoblox IPAM is integrated with Microsoft AD, it also has the capability to integrate with Microsoft's DNS and DHCP services. The Infoblox solution can be fully authoritative or partially authoritative for DNS and/or DHCP services. It can be used to manage all or part of Microsoft's DNS and DHCP services or only used for monitoring and reporting on those services.

Infoblox and Microsoft AD integration provides:

- Bidirectional management of AD sites, network subnets, and AD site relationships
- Auto-population of subnets from Microsoft AD Sites and Services into Infoblox
- Ability to quickly move subnets between AD sites within Infoblox
- Ability to create new AD sites within Infoblox
- Ability to assign new network subnets created in Infoblox to a Microsoft AD site
- Visibility into the domain and AD site relationships
- Visibility into networks not assigned to an AD site
- Logging of AD site-specific data

Infoblox Facilitates the Process for Quick Integration

The initial configuration of Infoblox and Microsoft integration is simplified by an easy-to-follow wizard that helps quickly guide the administrative team through the process of establishing communication between the two systems. When integration is established, Infoblox provides additional logging and tests to monitor the synchronization processes and provide an audit of AD site activities.

An organization has the option to configure integration in read-only mode or read/write mode in order to actively manage and optimize AD sites. Infoblox uses role-based access controls based on Microsoft AD groups to determine which administrative teams are authorized to make changes within the Infoblox tool set.

When Infoblox first communicates with Microsoft AD Sites and Services, it imports the current AD site configuration. From then on, any changes that are configured from within Microsoft Management Console will be continuously synchronized within Infoblox as incremental updates. Likewise, any networks created within Infoblox and assigned to an AD site will be synchronized within Microsoft AD Sites and Services. Figure 1 shows AD sites presented within Infoblox.
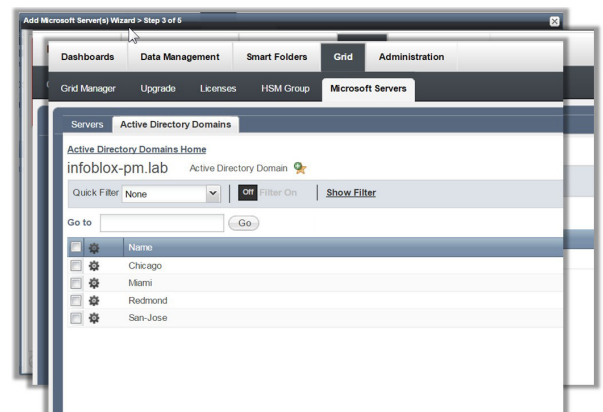

Figure 1: Microsoft AD Sites Presented in Infoblox

When a new network needs to be created or a new network subnet is detected, Infoblox uses wizards to help quickly guide the administrative team through the process of assigning the subnet to an AD site. Figure 2 shows the easy-to-understand wizard for quickly assigning networks to AD sites.

If a subnet is not assigned to the correct AD site, Infoblox provides another wizard to quickly move network subnets between AD sites.

Some networks by design should not be assigned to an AD site. For example, enterprise security may designate networks with public access, such as subnets intended for public wireless networks that should not have any association with AD sites.

The inherent risk to the enterprise is the Microsoft administrative team may not know which networks should be associated with an AD site and which should not. When a network subnet is created within the Infoblox IPAM tool, it asks the administrator where to assign it.

When a network subnet is created by an IT team or process outside of the Infoblox IPAM solution, the Infoblox real-time topological view of the enterprise network infrastructure enables the administrative team to discover it. When a network subnet is discovered, and it is not associated with an AD site, Infoblox uses a tool called Smart Folders to immediately present all unassigned networks as shown in Figure 3.

The enterprise network team or Microsoft team can quickly assign the new network subnet to an AD site, or any other category network such as demilitarized zone (DMZ) or public wireless as required. In this manner, Infoblox ensures that no network subnet is accidently forgotten and left unassigned.
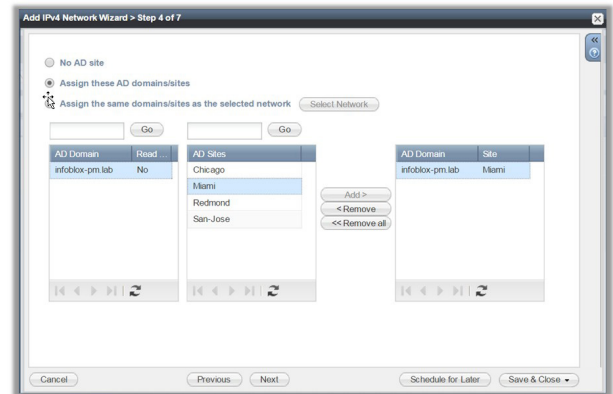

Figure 2: Infoblox Add Network Wizard

Figure 3: Infoblox Smart Folders

Conclusion

The Infoblox Authoritative IPAM Database, integrated with Microsoft Active Directory and Microsoft AD Sites and Services, can deliver bidirectional management of AD sites, network subnets, and site relationships. It can simplify and accelerate the creation and movement of subnets, and it can deliver visibility into domain and site relationships and identify unassigned networks. The results are better control of your Microsoft AD networks and subnets, simplified management, reduced staff effort, and faster and more efficient delivery of client services.

If you'd like to improve the contribution your network makes to your business, visit our website at http://www.infoblox.com and learn more about integrating Infoblox Authoritative IPAM solution in support of Microsoft environments.

About Infoblox

Infoblox enables next-level network experiences with its Secure Cloud-Managed Network Services. As the pioneer in providing the world's most reliable, secure and automated networks, we are relentless in our pursuit of network simplicity. A recognized industry leader, Infoblox has 50 percent market share comprised of 8,000 customers, including 350 of the Fortune 500.

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