High Availability, Massive Scalability

The explosion of IP addresses from the increase in applications, IP-based personal devices and virtualizations has introduced added complexity to most networks, and has made uninterrupted availability of network services a critical goal and a competitive advantage. Loss of network operations and denial of access to network services can have tremendous impact on an organization's bottomline.

For medium and large organizations that want to scale, secure and make their network services highly available, the Infoblox Grid™ is an elegant yet powerful solution that ensures network reliability through unique, patented technology. The Infoblox Grid provides resilient network services, failover, recovery and seamless maintenance for an Infoblox deployment inside a single building, across a networked campus or between remote locations near and far. By establishing a distributed relationship between individual or paired appliances, the Infoblox Grid removes single points of failure and other operational risks inherent in legacy DNS, DHCP and IP Address Management infrastructure.

Additionally, with optional Multi-Grid Management architecture, a technology that can be added to the base Infoblox Grid, organizations can deploy an even larger solution that supports thousands of hosts, centralized management of IPv4 and IPv6 networks, data partition by geography or department, as well as single sign-on and other advanced capabilities.

Key Benefits

Infoblox Grid™
- Provides “always on” network services through scalable, redundant, reliable and fault-tolerant architecture
- Guarantees data integrity and availability through a distributed database
- Enables easy administration with centralized management of Grid members
- Saves time with simple and efficient software upgrades and patch distribution
- Ensures reliability via secure network communication among Grid members

Infoblox Multi-Grid Management
- Enables massive scalability and even higher Grid performance
- Partitions data for security, regional, business line or multi-tenancy purposes
- Centralizes administration and visualization of both IPv4 and IPv6 networks
- Simplifies Grid administration through single sign-on capabilities
- Delivers advanced monitoring of all Infoblox Grids under management

Infoblox Grid™

Provides “Always On” Network Services through Scalable, Redundant, Reliable and Fault-tolerant Architecture

The Infoblox Grid provides a modular, layered architecture that enables a collection of appliances to perform and be managed as a single, unified system. At the heart of the Grid architecture is the Grid Master, an Infoblox appliance that holds and maintains the central database of the Grid.

The Grid Master pushes global configuration data and needed information out to Grid Members, monitors member operations, synchronizes member changes back into the central database and distributes updates. A key function of the Grid Master is the prevention of a single point of failure through an interconnected chain of failovers. If a Grid Master fails, an on-deck Grid Master Candidate is promoted to replace it. If a Grid Member fails, a new on-deck Grid Member replaces it and syncs-up with the Grid Master to get the needed data. If a link between a Grid Member and a Grid Master fails, all the data at the Grid Member are queued until the connection is restored, and then the data are synced to the Grid Master. The Grid architecture provides a highly scalable, reliable and fault-tolerant solution, unique to Infoblox.
Guarantees Data Integrity and Availability through a Distributed Database

The Grid uses a zero-admin, distributed database. The Grid's real-time distributed database technologies guarantee data integrity, making possible trusted, up-to-the-moment audits — including records of administrative changes — for any part of the network domain. The data integrity mechanisms also ensure that any required recovery is complete, accurate and up-to-date.

Saves Time with Simple & Efficient Software Upgrades & Patch Distribution

With the “Auto-sync” functionality, when a Grid Member joins a Grid and establishes a connection with the Grid Master, the Grid Master runs a series of checks to make sure that the Grid Member includes the latest software. If not, the Grid Master automatically pushes the software and enables the Grid Member to perform the required upgrade. This elegant solution reduces the amount of time to deploy or re-deploy a Grid Member ensuring services are up and running as quickly as possible. It also decreases the amount of time required to perform manual software upgrades, reduces the chance of errors occurring and ensures the appropriate software versions are installed.
Ensures Reliability via Secure Network Communication Among Grid Members

All communications between the Grid Master and its Grid Members are encrypted through a VPN tunnel, which reduces the Grid's vulnerability to network attacks and leads to higher availability, reliability and a better overall deployment.

Infoblox Multi-Grid Management

Enables Massive Scalability and Even Higher Grid Performance

The Infoblox Multi-Grid Management solution gives you control over Grid Masters, each of which can control Grid members and virtual environments with individual policies and configurations. The Multi-Grid Master affords you complete visibility into each of the individual Grid Masters and their components and devices, real and virtual, and allows you to access and control any part of any Grid member or environment. Through its capability of managing a large number of Grids and thousands of members, a Multi-Grid Management solution provides massive scalability, high performance and high availability.
Grid™ and Multi-Grid Management

Partitions Data for Security, Regional, Business Line or Multi-tenancy Purpose

Multi-Grid Management gives an organization the flexibility to build a sophisticated Grid topology to meet specific requirements. For example, an organization can employ the capabilities of Multi-Grid Management to segment its network by region (e.g., North America, Asia, and Europe) or by business line (e.g., different corporate divisions and various branch locations) and still be able to update all segments at one time. Or for security reasons, such as internal/external environments or internal security silos, an organization might use Multi-Grid Management to partition its data on a corporate network and still make it accessible to all who need it. Multi-Grid Management can also be used by a Managed Service Provider (MSP) to manage multiple customers.

Centralizes Administration and Visualization of Both IPv4 and IPv6 Networks

Multi-Grid Management provides a single global view of IPv4 and IPv6 data across multiple Grids, an insightful tool essential during cutover deployment and when employing dual-stack systems. Multi-Grid Management lets you visualize network overlaps and gaps in address space, as well as additional network information which simplifies IP address administration and reduces potential errors. Multi-Grid Management also enables block allocation, such as delegating address blocks to sub-Grids and limiting expanding of sub-Grids which provides more flexibility and easier administration.

Simplifies Grid Administration Through Single Sign-on Capabilities

Single sign-on capabilities enable a system administrator to move from the Multi-Grid Manager to Grid Manager without re-authentication. Single sign-on reduces the amount of username and password information that a system administrator needs to deal with and speeds up the administration process, thereby allowing the system administrator to focus on more critical tasks. Once an administrator logs on to a sub-Grid, he or she can then manage DNS, DHCP and other protocols/services.

Delivers Advanced Monitoring Of All Infoblox Grids Under Management

Multi-Grid Management includes extensive monitoring capabilities which features a sophisticated level of monitoring across all Grids, including a dashboard view of the status of all Grids, the number of members in a Grid, protocol levels and much more. This enables a system administrator to easily spot a problem that might occur on the Grid and take the corrective action.
Additional features provided by Multi-Grid Management:

- User and Group management to provide granular level of access control and permission management
- Delegated Administration and Permission for making sure that only users that are assigned to a specific group(s) and have a specific permission(s) can access a particular resource(s) or view a sub-Grid(s)
- The ability to upgrade, backup and restore software releases

Summary of features and benefits

Infoblox Grid™

- Improves network reliability through a high availability architecture and real-time distributed database
- Consolidates and centralizes management control across network subnets, zones and sites
- Enables scalability and improves IT staff efficiency through automation
- Reduces vulnerability to network attacks through secure connections among Grid members
- Offers remote administration through an efficient and elegant web interface

Infoblox Multi-Grid Management

- Massive scalability, high performance, fault-tolerant architecture
- Flexible deployment options from a small network topology to a global geographic partitioning of data
- Centralized administration, visualization, and monitoring
- Delegated administration and permission for improved security
- Multi-version and upgrade management offers a range of easy deployment options

Infoblox Product Warranty and Services

The standard hardware warranty is for a period of one year. The system software has a 90-day warranty that will meet published specifications. Optional service products are also available that extend the hardware and software warranty. These products are recommended to ensure the appliance is kept updated with the latest software enhancements and to ensure the security and availability of the system. Professional services and training courses are also available from Infoblox. Information in this document is subject to change without notice. Infoblox Inc. assumes no responsibility for errors that appear in this document.