

Branch Office Consolidation of Core Network Services

The trend toward network and server consolidation creates challenges for providing highly available, easily managed core network services—such as DNS, DHCP, and IPAM—to regional and branch office users. Centralizing core network services in the data center can create problems for end users in branch offices, compromising performance due to WAN latencies, and making remote networks completely unusable should WAN links fail. On the other hand, leaving core network services and the general-purpose servers that support them in the branch poses problems related to security, manageability, and cost.

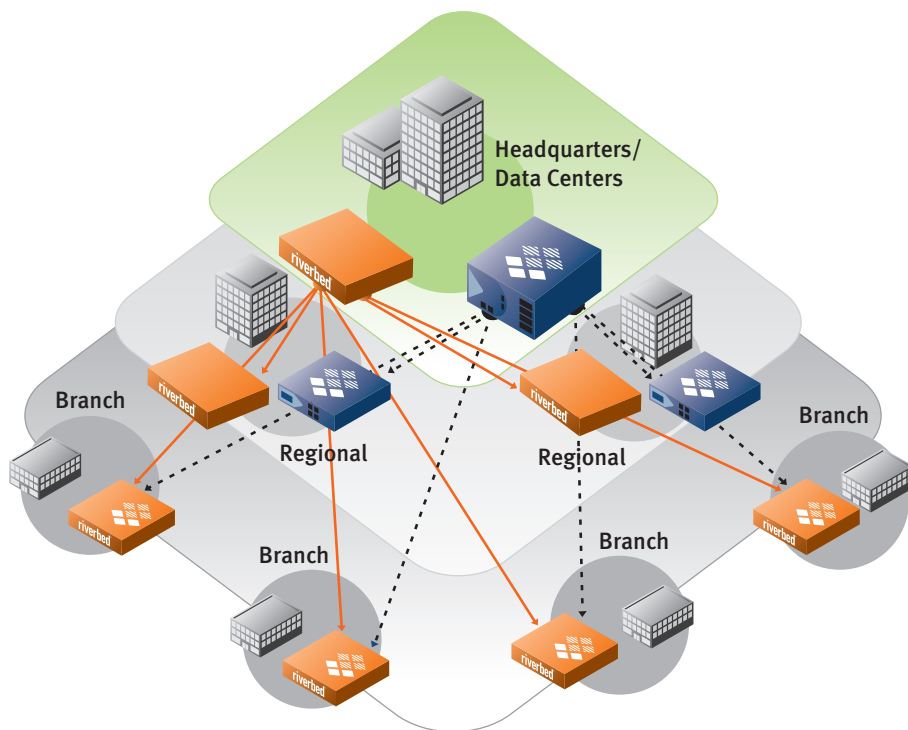
Together, Infoblox and Riverbed provide organizations with an integrated solution that consolidates core network services within a WAN optimization appliance to improve application performance and availability at the branch office while consolidating servers and lowering costs. The integrated solution delivers core network services locally at branch offices by running a virtualized instance of Infoblox NIOS™ Software inside the Riverbed Services Platform (RSP). This solution provides centralized management that automates repetitive tasks, which reduces labor costs and prevents errors and downtime. With the joint Riverbed and Infoblox solution, consolidating core network services as part of a branch office consolidation project is easier and less costly.

The powerful combination of Infoblox and Riverbed ‘best-of-breed’ solutions provides significant operational benefits and cost savings for organizations with large distributed network environments, including:

- **Infrastructure Consolidation:** Network administrators can deliver local core network services with centralized management while reducing server footprint at regional and branch offices.
- **Purpose-built Solution:** Infoblox NIOS and Riverbed Steelhead appliances are purpose-built solutions that deliver high performance, secure services with minimal footprint.
- **Centralized, Grid Management:** Centralized management of all core network services in the organization reduces overhead and increases performance and reliability.
- **Lower Costs:** Removing generic servers and consolidating delivery of DNS, DHCP, and other core network services on the Steelhead appliance reduces capital and administrative costs.
- **Local Survivability:** Local delivery of DHCP, and DNS services guarantee service availability during WAN outages or interruptions in data center services. In addition, DHCP failover and other features of the Infoblox Grid provide additional layers of reliability.
- **Application Performance:** Providing DNS services at remote offices (rather than at the data center) eliminates WAN latencies. Since nearly all applications—including Internet and intranet access, e-mail, VoIP and others—increasingly rely on DNS, application performance can be significantly affected if there are excess delays in DNS lookups.

Infoblox NIOS Virtual Appliance

The Infoblox NIOS Virtual Appliance is a software instance of the Infoblox core network services product that can be deployed on Riverbed Steelhead appliances running the Riverbed RiOS Services Platform (RSP) module in branch offices. The NIOS Virtual Appliance includes a full suite of core network services—including DNS, DHCP, IPAM, FTP, TFTP, HTTP, and NTP. This combined solution allows network administrators to architect a serverless branch office and, at the same time, deliver reliable local services to end users. Distributed organizations obtain the cost benefits of consolidation and the simplicity of centrally managed Infoblox NIOS virtual appliances.



Example of Infoblox and Steelhead appliances deployed in a multi-campus, multi-branch office environment.

The joint Infoblox-Riverbed solution supports hybrid environments that include a mix of physical Infoblox appliances and virtual appliances running on Steelhead platforms depending on branch office requirements. Each instance of NIOS Virtual Appliance software running on a Steelhead appliance appears to the Grid as any other Grid member, with all of the benefits of distributed services and centralized management. This includes centralized backup and restoration of user data, DHCP failover capabilities, one-touch software upgrades, DNS without latency, and many other benefits of the Infoblox solution.

Sizing Specification

Infoblox NIOS Appliance running in the Riverbed Services Platform (RSP) supports the following number of users for each platform type:

Riverbed Appliance	Number of Users Supported
Riverbed-520	60 users
Riverbed-550	120 users
Riverbed-1020	120 users
Riverbed-1520	200 users
Riverbed-1050	460 users
Riverbed-2020	400 users
Riverbed-2050	1200 users