

Brocade provides advanced management for the SAN with its introduction of Brocade Zoning. This optional licensed software allows finer segmentation of SANs.

## BROCADE ZONING

### Highlights

- Increased environmental security applied where and when needed
- Optimization of Information Technology (IT) resources in response to user demand and changing user profiles
- Versatility to customize environments
- Flexibility to manage a Storage Area Network (SAN) to meet the objectives of different closed-user groups

## A service for extra control of the SAN

One or more Brocade® switches create the Brocade Fibre Channel fabric. This intelligent infrastructure is the backbone for deploying and managing enterprise resources in a network. Using Brocade Zoning™, fabric-connected devices are arranged into logical groups over the physical configuration of the fabric. Zoning is one of the Brocade fabric services that provide management for the SAN both automatically and transparently.

#### INCREASED CONTROL OF A SAN

The Brocade fabric provides fast, reliable, seamless information access within the SAN for anyone, anywhere, at anytime. Zoning enables an administrator to create segmentation—or zones—within a fabric, comprised of selected storage, servers, or even workstations. It also enforces access of information to only the devices in the defined zone. Zones may be configured dynamically. The number of zones and zone membership are effectively unlimited. Zones

vary in size and shape, depending on the number of fabric-connected devices included and device locations. Devices may be members of more than one zone. In addition, temporary zones can be created, as an example, for enterprise backup.

Zone members “see” only members in their zones and, therefore, access only one another. A device not included in any zone is not available to the devices in the zones.

#### THE SIMPLICITY OF BROCADE ZONING

Brocade Zoning involves:

- **Zone Specification:** A set of Telnet commands are used to create, delete, and display zones, to add or remove zone members, and to configure a set of zones.
- **Zone Enforcement:** The Brocade fabric automatically and transparently restricts access to only the devices that are members of the defined zone(s).
- **Zone Management:** The administrator creates and controls the zones.

## CUSTOMIZATION OF THE SAN

Uses for Brocade Zoning include:

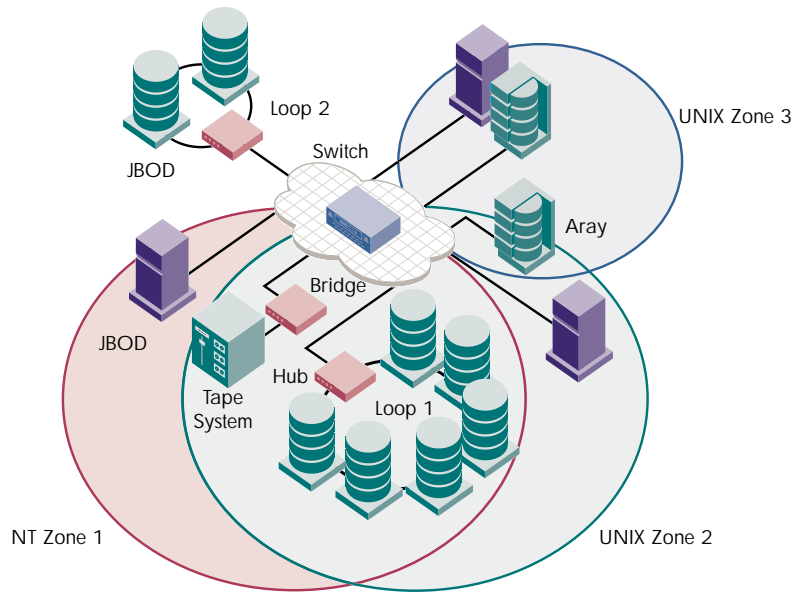
- **Integrated support for heterogeneous environments:** By isolating systems that have different operating environments or uses
- **Creating functional areas in the fabric:** For example, by separating test or maintenance areas from production areas
- **Designating closed user groups:** By including certain devices in a zone for exclusive use by zone members
- **Simplifying resource utilization:** For instance, by consolidating equipment logically for IT convenience
- **Facilitating time-sensitive functions:** For example, by creating a temporary zone used to back up a set of devices that are members of other zones
- **Securing fabric areas:** By providing another level of software-managed security to control access

## EASY SETUP AND ADMINISTRATION OF ZONING

A zone is specified by a zone name. A zone member is specified by a physical fabric port number, a node worldwide name, or a port worldwide name. Aliases (symbolic names) may be used for easy administration of zones or members. A set of zones is configured during Zone Specification.

The administrator selects which Zone Configuration is currently in effect. At any one time, an administrator might decide that zoning is disabled or one configuration of zones is in effect, such as for backup. Zone Management is performed using the Telnet interface via either out-of-band or in-band communication.

Figure 1.  
A Brocade fabric with three zones



## THE BROCADE VALUE-ADD

Services in the Brocade fabric help IT to manage the Fibre Channel fabric. The same fabric advantages apply regardless of the type of switch in the SilkWorm® switch family. Brocade Zoning fabric characteristics are the same as other Brocade fabric services:

- **Administration from any switch in the fabric:** A single failure cannot interrupt zoning enforcement to other SAN connections
- **Automatic scaling of the service with fabric size:** No requirement to upgrade systems as switches are added and connectivity increases
- **Automatic, transparent deployment:** No requirement for human intervention unless the Zone Specification must change

## BROCADE ZONING SPECIFICATIONS

Features	Description
Zoning Specification	Creation, deletion, and display of zones
<i>Information persists until deleted/changed by an administrator</i>	Addition and deletion of zone members
	Display of zone members for all zones, or by individual zone or configuration
	Creation of aliases
	Configuration of a set of zones
	Creation of temporary zones
Zoning Enforcement	Simple Name Server
Zoning Management	Telnet
Zoning backup	Zone configuration recorded in switch flash memory
System requirements	SilkWorm firmware, Version 1.4 and above



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