NETWORK CONNECTION OPTIONS

USING YOUR STORCENTER™ px12-350r NETWORK STORAGE ARRAY IN DIFFERENT BUSINESS ENVIRONMENTS

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The Iomega® StorCenter px12-350r network storage array is a high-performance, easy-to-use and highly reliable storage device that is specifically designed to meet the storage challenges of small- and medium-sized businesses. The StorCenter px12-350r offers multiple configuration options, including network interface card (NIC) bonding, virtual LAN (VLAN) tagging and Jumbo Frames, making it the ideal solution for a variety of demanding business environments.

NIC BONDING: STRENGTH IN NUMBERS

NIC bonding uses multiple network cables and ports in parallel to increase the link speed beyond the limits of any one single cable or port. By creating a single logical link from many physical links, NIC bonding eases bandwidth limitations and increases redundancy by eliminating any single point of failure.

The StorCenter px12-350r supports NIC bonding in three modes: NIC failover, adaptive load balancing and IEEE 802.3ad link aggregation.

- **NIC failover** provides adapter fault tolerance through automatic failovers from an active NIC to a standby NIC in the case of switch port, cable, or NIC failure. No switch configuration is required.
- **Adaptive load balancing** provides both transmit and receive traffic load balancing and fault tolerance. Both transmit and receive loads are balanced across member NICs. No switch configuration is required.
- **IEEE 802.3ad dynamic link aggregation** dynamically bundles NIC ports together using the Link Aggregation Control Protocol (LACP), increasing total bandwidth and providing fault tolerance in the event of switch port, cable, or NIC failure. This mode requires that the switch fully supports the 802.3ad standard.

VLAN TAGGING

A VLAN is a group of hosts that communicate as if they were attached to the same network switch regardless of their physical location. Like routers in LAN configurations, VLANs are created to provide segmentation services to address issues such as scalability, security, and network management.

The StorCenter px12-350r implements IEEE 802.1Q, or VLAN Tagging, to provide the best interoperability. The benefits of using VLAN Tagging in a business environment include:

- **Increased performance and decreased latency** — Grouping users into logical networks reduces switched and broadcast network traffic, which decreases latency.
- **Improved manageability** — It's easier and more affordable to modify a logical network than a physical network. In addition, large VLANs can be managed centrally regardless of physical locations of devices.
- **Easier troubleshooting**—When network issues arise, administrators can quickly isolate the problematic network to identify the root cause.
- **Enhanced security**—Segmenting users into separate VLANs helps restrict user access to sensitive information at the network layer, providing an extra layer of data security.

JUMBO FRAMES: THE BIG PICTURE

Jumbo Frames carry more bytes of maximum transmission units (MTUs), also known as payload, than the standard 1518 bytes carried by a standard Ethernet frame. By packing more payload into every frame, Jumbo Frames can transfer the same amount of data with fewer frames. As a result, Jumbo Frames reduce CPU utilization and increase network throughput by reducing network overhead.

The StorCenter px12-350r supports Jumbo Frames of sizes 4000 and 9000 bytes. Jumbo Frames can be configured on individual interfaces and bonded interfaces.

The StorCenter px12-350r Network Storage array delivers affordable, rock-solid storage with multiple configuration options to meet a variety of business challenges for small- and medium-sized businesses and the distributed enterprise. Learn more at www.iomega.com/NAS.

EMC LifeLine™

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