Software Defined Storage Networks™

Jeda Networks
Fabric Network Controller (FNC) Software

Build High-Performance storage networks without all the cost and complexity

KEY BENEFITS

Maximize Performance
The Jeda FNC enables the most efficient path from servers to storage. Mission critical, media-based, VDI and Cloud Computing all perform faster with a Jeda enabled SDSN.

Cut Management Costs
Use standard networking tools to manage and troubleshoot your SDSN. Jeda simplifies management of SANs by mapping your SAN requirements to the physical Ethernet network

No Hardware Lock-In
The FNC works with multiple 10GB Ethernet switch platforms, so you can choose and grow with the switch and features that are right for you.

Enable the Future
The Virtual Enterprise demands solutions that expand, migrate, and scale dynamically. Only the Jeda FNC meets all these requirements. With Jeda, your networks are ready to grow to 40Gb and 100Gb Ethernet and beyond.

The Challenge
Connect servers to high- performance storage without breaking the bank.

It is estimated that the average corporation's data capacity is not doubling every 3 years. IT organizations are faced with the problem of balancing the need for fast, high performance storage networks to access this explosion of data with the realities of limited budgets and limited staff. High performance Fibre Channel based storage networks are expensive, require expensive management staff and beginning to fall behind in terms of performance.

Current Converged Fibre Channel over Ethernet (FCoE) networks have never lived up to the promises of lower complexity and lower cost. They are saddled with unnecessary complexity and proprietary implementations. And both SAN technologies, FCoE and FC, do not scale to today's virtualized infrastructure realities.

What is needed is scalable SDN per-formance, but with the simplicity and cost of an Ethernet network.

The Solution
The Jeda FNC creates a high performance "storage network overlay" on top of an Ethernet fabric. This Software Defined Storage Network (SDSN) transforms the Ethernet fabric into a powerful and agile storage networking fabric.

Jeda's FNC enables enterprises to create high performance storage networks by removing the need for proprietary and high cost SAN hardware and software.

Jeda decouples and extracts the storage networking control plane from the physical hardware, and encapsulates the functions in an easy to deploy virtual machine. The result is a Software Defined Storage Network (SDSN), an agile, dynamic and high performance storage network.

The FNC Software
The Jeda FNC Software loads onto any VMware ESX 5.x based server. Now, as a software appliance, the FNC easily integrates into existing environments. The FNC is completely independent of hardware and will integrate into many existing customer environments.

The FNC Software uses FCoE as the network overlay. FCoE is a lightweight and standard storage networking protocol, and once unencumbered by proprietary implementations, reduces the storage network into a simpler, more manageable network. Benefits include: 40Gbps+ ready today, network congestion control in hardware (verses TCP/IP), most efficient storage array protocol and configuration is performed from the network (versus the host, which is not scalable).

Reduced Complexity

Ethernet is known for its simplicity, flexibility, and ubiquity. That is why we designed our solution to maintain Ethernet's simplicity. Current SAN solutions are so complex that they require specialized training and tools. We decided to change the model.

With our FNC, Ethernet works like Ethernet. Traditional network administrators can use standard debugging tools and techniques to manage the SDSN.

And we did not stop there, we simplified the setup process too. In lab tests, a competitor's FCoE SAN switch required 70% more configuration steps to set up a single server to storage array network connection. Deploying the FNC will save network administrators countless hours managing SDSNs.

Future Proof

Because the FNC is independent of the network hardware, it is 10, 40 and 100Gb Ethernet ready today. Imagine, the SDSN you deploy today, is ready for the next generation Ethernet fabrics.

Jeda's FNC works with standard 10Gb/s Converged Network Adapters (CNA), FCoE based storage arrays and Jeda Networks qualified Ethernet switches. The resulting SDSNs closely adhere to both IETF and ANSI standards for FCoE devices.

The FNC is ready to scale to Data Center size environments to support the next generation of virtual infrastructures.

The Bottom Line

Purchase decisions often come down to equipment and operational costs, without compromising performance and scalability .

In the final analysis, the SDSN simplicity, flexibility and economics provide the best TCO in the market.

About Jeda Networks

Jeda Networks was founded to create software to simplify storage. Jeda's FNC is the first SDN based solution to target the emerging issues of storage networks.

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Specifications

Deployment Flexibility
- Packaged as a virtual machine
- Runs on any ESXi 5.x virtualized server
- Setup wizard

Reliability and Redundancy
- Hot code load
- Hot Standby (redundant FNCs)
- Stateless design with a distributed & replicated database

Network Services
- Network Device Discovery
- Network Switch SDSN Overlay Management
- Network Switch Reachability
- Network Device Reachability

SAN Services
- Zone Server
- Simple Name Server
- State Change Notification
- Fabric Management Services
- FIP/FCoE Protocol Management

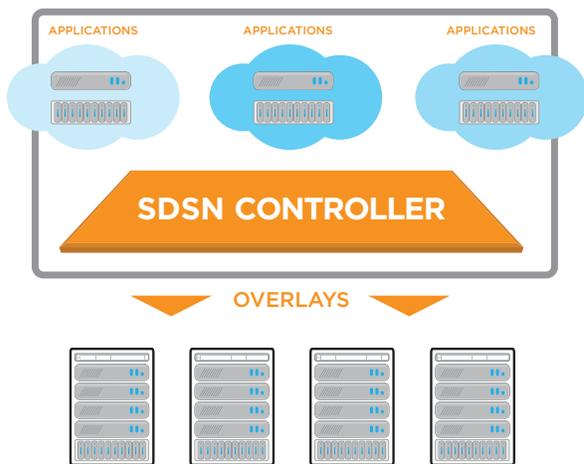**Management Standards**
- SSH, Telnet CLI
- SNMP

Figure 1—Jeda FNC Software storage network overlay lies on top of the Ethernet fabric.