

# Virtana Data Fabric Observability for SAN

## Data Fabric Observability for Fibre Channel Storage Area Networks (SAN)

Data Fabric Observability for SAN is part of the Virtana full-stack hybrid infrastructure observability platform.

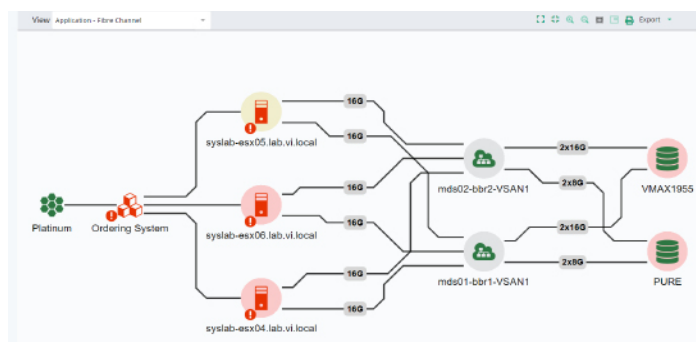


Figure 1: Data fabric relationships including Cisco Fibre Channel switches

### Data Fabric Observability for SAN

- Agentless discovery and monitoring of Brocade and Cisco SAN fabrics
- Visualization using dashboards specific to SAN performance, availability and capacity
- Proactive investigations help you find problems with physical layer connectivity, high utilization and flow control issues before applications are impacted

#### Brocade SAN Integration

The Brocade SAN integration provides agentless discovery and monitoring of SAN fabrics without dependencies on third party tools like Brocade SANnav.

#### Cisco SAN Integration

The Cisco SAN integration provides agentless discovery and monitoring of SAN fabrics without dependencies on third party tools like Cisco Nexus Dashboard Fabric Controller (NDFC).

The Brocade and Cisco SAN integration are ideally suited to find the “needle in the haystack” of many thousands of ports in a Fibre Channel SAN environment.

Virtana Data Fabric Observability for SAN provides:

#### Discovery

- Discovers Host Bus Adapter (HBA) ports, storage ports and everything connected to the Fibre Channel switch
- Automatically associates every port on the fabric with the applications that run across them

#### Health Monitoring

- Automatically applies application service level alarms based on business criticality
- Balances host application traffic over the Fibre Channel fabrics
- Monitors for transport layer errors that might contribute to application latency
- Pinpoints the cause of slow drain devices which can cause congestion in the SAN

#### Capacity Monitoring

- Identifies over-subscribed or underutilized resources on a per-switch-port basis
- Forecasts bandwidth saturation on the switch ports



Figure 2: Insights from Virtana Observability for a SAN fabric

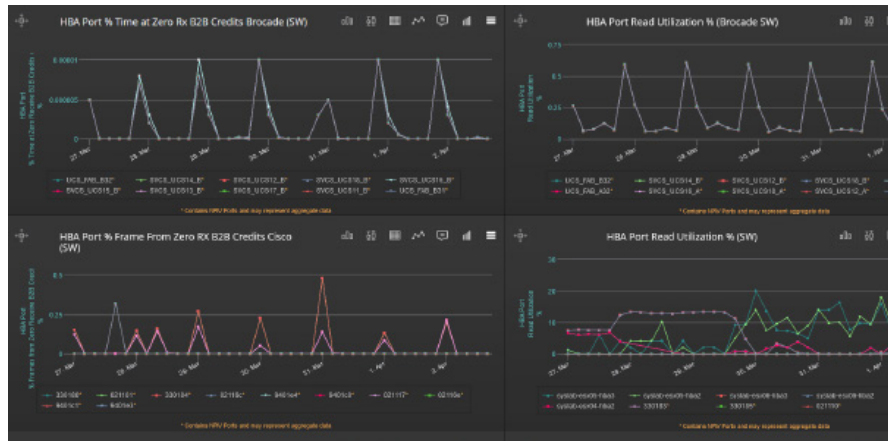


Figure 3: Insights from Virtana Observability for a SAN data fabric

## Virtana provides value to IT Operations Teams across SAN environments by delivering:

### Application Service Assurance

- A single observability platform that proactively manages and assures application service levels across physical, virtual and cloud-based hosts

### Predictive Capacity Management

- The ability to analyze capacity trends and automatically forecast capacity requirements over years for shared infrastructure like HBAs, switches or shared storage

### Workload Infrastructure Balancing

- Load balance across multiple fabrics to ensure optimal storage load distribution

### Problem Resolution & Avoidance

- Identify root-cause before business impact using machine learning and crossdomain correlation
- Remediate problems faster using guided and automated investigations built from years of customer facing field service experience

## Data Fabric Observability for SAN

### KEY FEATURES

|  | Brocade SAN Integration | Cisco SAN Integration |
|--|-------------------------|-----------------------|
| Infrastructure Discovery & Application Mapping | Automatic               | Automatic             |
| Agentless Software-only                        | ✓                       | ✓                     |
| Access Method                                  | SMI-S                   | SNMP                  |
|  | SSH, SNMP               |                       |
| Health Metrics                                 | ✓                       | ✓                     |
| Capacity Metrics                               | ✓                       | ✓                     |
| Best-practice Alerting                         | ✓                       | ✓                     |
| Intelligent Problem Resolution                 | Guided Investigations   | Guided Investigations |

|                         | AIOps-Driven Analytics        |                                |                                   |                                |
|-------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|
|                         | Application Service Assurance | Predictive Capacity Management | Workload Infrastructure Balancing | Problem Resolution & Avoidance |
| Brocade SAN Integration | ✓                             | ✓                              | ✓                                 | ✓                              |
| Cisco SAN Integration   | ✓                             | ✓                              | ✓                                 | ✓                              |