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Virtana Storage Observability for Infinidat InfiniBox Storage

Virtana's InfiniBox integration extends Virtana storage observability to InfiniBox storage. InfiniBox is Infinidat's enterprise solution for high availability storage on a multi-petabyte scale.

The integration captures capacity, usage, performance, and health information from the InfiniBox storage array. It is also intended to correlate data to interrelated, but external components in the shared infrastructure, and to the applications that use them.

Use Cases

Our InfiniBox integration supports a wide range of storage monitoring use cases across health, utilization, performance, capacity, and other domains:

- View which InfiniBox resources an application consumes.

- See which initiator consumes the most resources on an array.

- Forecast short- and long-term capacity trends.

- View latency metrics at the host, LUN, and application level.

- See if a LUN has associated snapshots, how many, what their retention policy is, and if they are secure.

- Show the entire data path from host, through the switch to an InfiniBox port, to the consistency group, and to the LUNs associated with the host.

- Determine if a host's volumes are replicated to another storage array.

- Determine whether a host has multiple paths to its disks.

- See when storage capacity will run out.

- View firmware versions on arrays and array components.

- Tag arrays with custom properties.

- Receive an alert if a replication session breaches an RPO.

- Integrate and correlate metrics from the InfiniBox domain with metrics from related, interconnected infrastructure to gain a complete understanding of Application Service Delivery.

Value of the Integration

- Ensures optimal performance and availability of InfiniBox storage for business-critical applications and workloads.

- Provides predictive capacity forecasting to forecast time to needed expansion or refresh.

- Optimizes InfiniBox resources by monitoring workload metrics and resource usage to arrive at the ideal configuration for your workloads.

Discovery and Data Collection

The integration connects to the InfiniBox storage array using read only access. Data is collected from the InfiniBox array at specified polling intervals and is imported into the Virtana Platform for use in inventory, dependency mapping, event intelligence, analytics, and reports.

Virtana discovers InfiniBox arrays, enclosures, nodes, ethernet ports, FC adapters, pools, filesystems, volumes, hosts, and clusters.

Over 280 metrics related to InfiniBox health, utilization, performance, and capacity are collected, including the following: Avg, min, and max read and write byte rates.

- Avg FC, iSCSI, and NFSv3 read and write IOPS.

- FC, iSCSI, and NFSv3 read and write avg byte rate.

- Avg FC, iSCSI, and NFSv3 read and write IO size.

- Avg FC and iSCSI read and write ECT.

- FC, iSCSI, and NFSv3 total read and write bytes transferred.

- Avg, min, and max % utilized and free capacity.

- Avg, min, max, and total used and free usable and effective capacity.

- Provisioned capacity.

Capabilities Powered by the InfiniBox Integration

See InfiniBox storage in the context of its relationships to business-critical applications and other infrastructure components. You can view relationships and easily traverse hierarchies to expose active alarms in a data path. Understand application health by filtering the infrastructure view to show applications using InfiniBox storage and compare trends in InfiniBox resource utilization and performance.

Our rich event correlation capabilities let you monitor InfiniBox storage infrastructure and reveal deviations from cyclical workload trends, using data captured and retained over weeks and months.

Our Capacity Forecast alerting warns you when InfiniBox arrays, pools, filesystems, and volumes are approaching 100% capacity utilization so you can avoid the availability and performance impact that comes from running out of capacity unexpectedly.

Our flexible event intelligence lets you create alerts on any monitored InfiniBox component and metric.

By using the Capacity Forecast analytic, you can predict time-to-zero for capacity based on historical capacity data. Embedded correlation analytics can be used to identify and troubleshoot anomalous events that occur in InfiniBox storage infrastructure.

Quickly start tracking InfiniBox health, utilization, performance, and capacity through standard report templates that are included with your InfiniBox integration.