

DDN SFA ZenPack

Support

This ZenPack is developed by DDN for modelling and monitoring of DDN's SFA storage solution.

Releases

Version: 0.0.5

Summary of changes: First release

Released on:

Compatible with: Zenoss4 & Zenoss 5

Background

DDN SFA ZenPack will provide modelling and monitoring functionality for DDN's SFA storage solutions.

Prerequisites

This zenpack depends on library from DDN. Contact us for the lib files.

Installed Items

Installing the ZenPack will add the following items to your Zenoss system.

Device Classes

Following device classes will be created once this ZenPack is installed.

- /Storage
- /Storage/DDN
- /Storage/DDN/SFA

Configuration Properties

Following configuration properties to be added which is required for this ZenPack

- **zCommandUsername**
 - Name of the user through which Zenoss system communicates with the device (Ex: **root**).
- **zCommandPassword**
 - Password of that particular user through which Zenoss system communicates with the device (Ex: **root**).

- **ZKeyPath**
 - If passwordless SSH is configured provide the path of the private key file. (Ex: `~/.ssh/id_rsa`).
- **zSFASecondaryIp**
 - SecondaryIp to be monitored (Ex: **192.168.111.8,192.168.111.9**).

Modeler Plugins

List of modeler plugins for SFA

- `ddn.ModelSFAController`
- `ddn.ModelSFAHostChannel`
- `ddn.ModelSFAPhysicalDisk`
- `ddn.ModelSFAPool`
- `ddn.ModelSFAVirtualDisk`

Monitoring Templates

Provides device metrics for PhysicalDisk, HostChannel, VirtualDisk

Component Level

1. PhysicalDisk

- a. AverageReadIOLatency
- b. AverageWriteIOLatency
- c. KBytesTransferred
- d. ReadIOs
- e. TotalIOs
- f. WriteIOs

2. HostChannel

- a. AverageReadIOLatency
- b. AverageWriteIOLatency
- c. KBytesTransferred
- d. ReadIOs
- e. TotalErrorCounters
- f. TotalIOs
- g. WriteIOs

3. VirtualDisks

- a. AverageReadIOLatency
- b. AverageWriteIOLatency
- c. ForwardedIOs
- d. KBytesForwarded
- e. KBytesTransferred

- f. ReadIOs
- g. TotalIOs
- h. WriteIOs

Graphs

Component Level

1. HostChannels

- a. Aggregate
- b. Errors
- c. Latency

2. PhysicalDisks

- a. Aggregate
- b. IOTransferred
- c. Latency

3. VirtualDisks

- a. Aggregate
- b. IOTransferred
- c. Latency

Events

- /Perf

Event Classes

- /Perf

Thresholds

No Thresholds defined.

Detailed Overview

Device classes

Below screenshot give the list of device class available in this ZenPack.

The screenshot shows the Zenoss Core interface with the 'INFRASTRUCTURE' tab selected. The left sidebar lists various device classes under 'DEVICES (2)', including 'SFA (1)' which is highlighted. The main panel displays the details for the 'Storage/DDN/SFA' device class. A table lists the device 'SFA' with IP address '192.168.111.162' and production state 'Production'. The status bar at the bottom indicates 'DISPLAYING 1 - 1 of 1 ROWS' and '0 Jobs'.

Device	IP Address	Device Class	Production State	Events
SFA	192.168.111.162	/Storage/DDN/SFA	Production	7

Device Components

1. PhysicalDisks

Below screenshot give the list of SFA PhysicalDisks along with the graph available in this ZenPack.

The screenshot shows the Zenoss Core interface with the 'INFRASTRUCTURE' tab selected. The left sidebar lists various components under 'Components', including 'PhysicalDisks (60)' which is highlighted. The main panel displays the details for the 'PhysicalDisks' component of the 'SFA' device. A table lists the physical disks with columns: Name, id, SerialNumber, RotationSpeed, State, HealthState, Spare, and EnclosureIndex. Below the table, there is a graph showing the 'Total count of I/Os' over time. The status bar at the bottom indicates '0 Jobs'.

Events	Name	id	SerialNumber	RotationSpeed	State	HealthState	Spare	EnclosureIndex
✓	1	1	MK0310YHG0...	7200RPM	READY	OK	False	1
✓	10	10	JK11A4YAKEP...	7200RPM	READY	OK	False	1
✓	100	100	JK1101YAJHS...	7200RPM	READY	OK	False	1

Display: Graphs Range: Hourly Reset Link Graphs? Refresh

Aggregate

Total count of I/Os

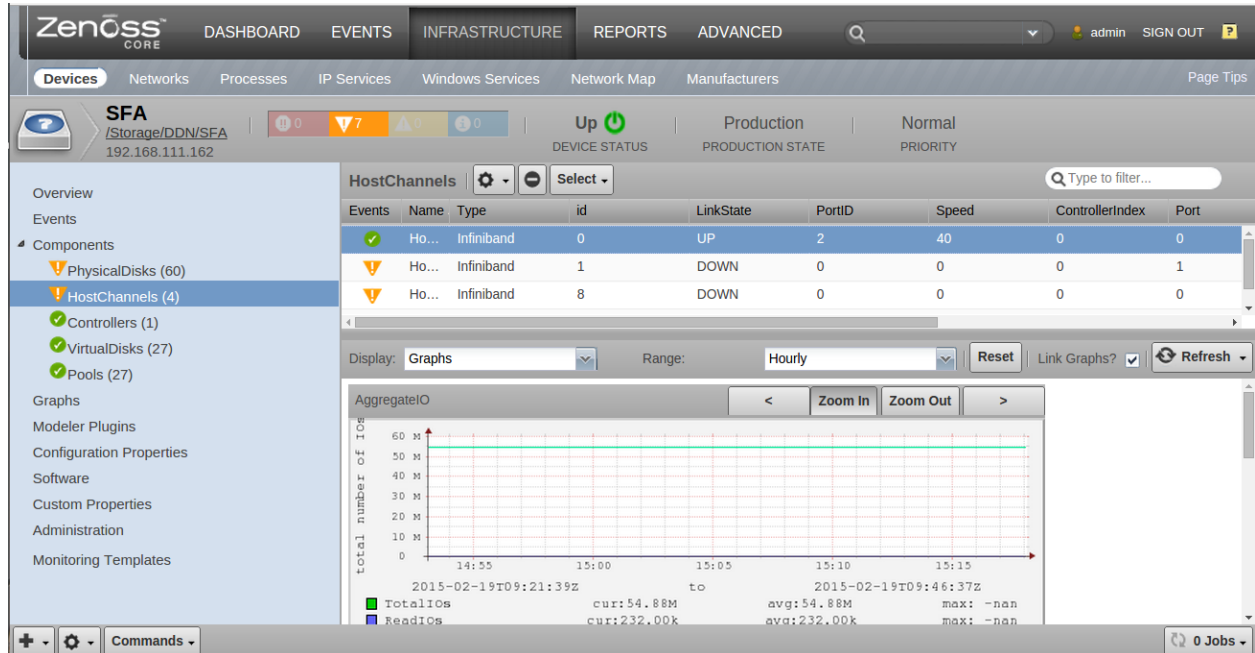
2015-02-19T09:13:01Z to 2015-02-19T09:50:28Z

cur: 1.41k avg: 1.41k max: -nan

ReadI/Os cur: 122.00 avg: 122.00 max: -nan

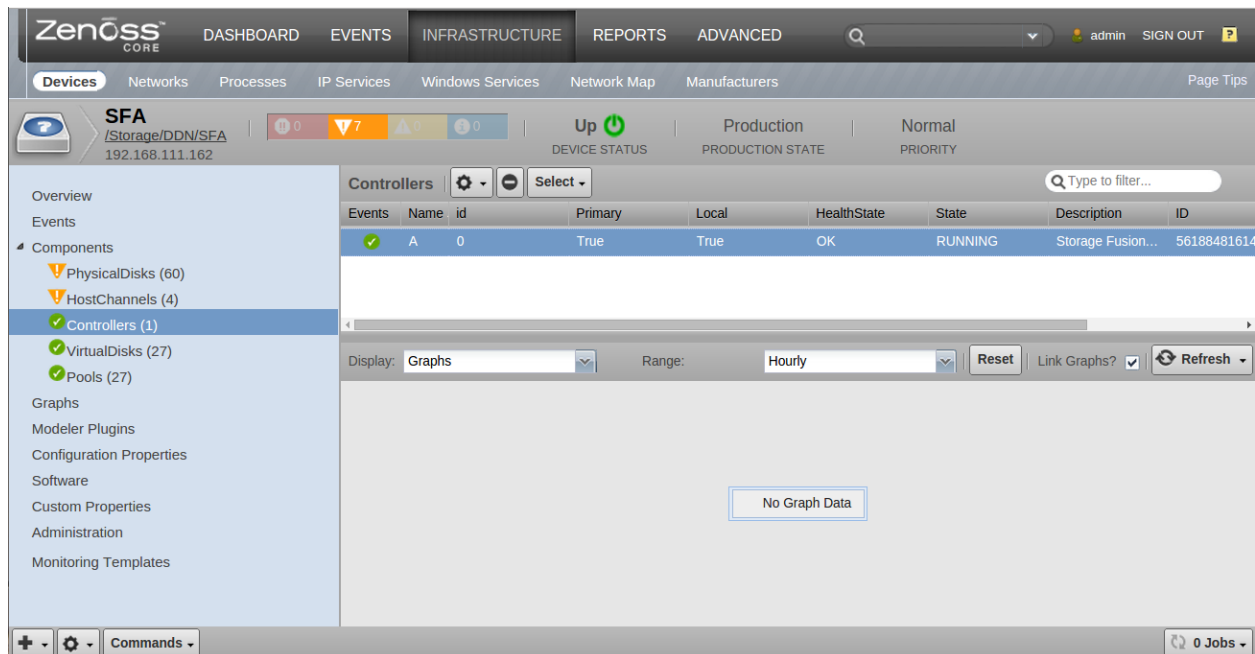
2. HostChannels

Below screenshot give the list of SFA HostChannels along with the graph available in this ZenPack.



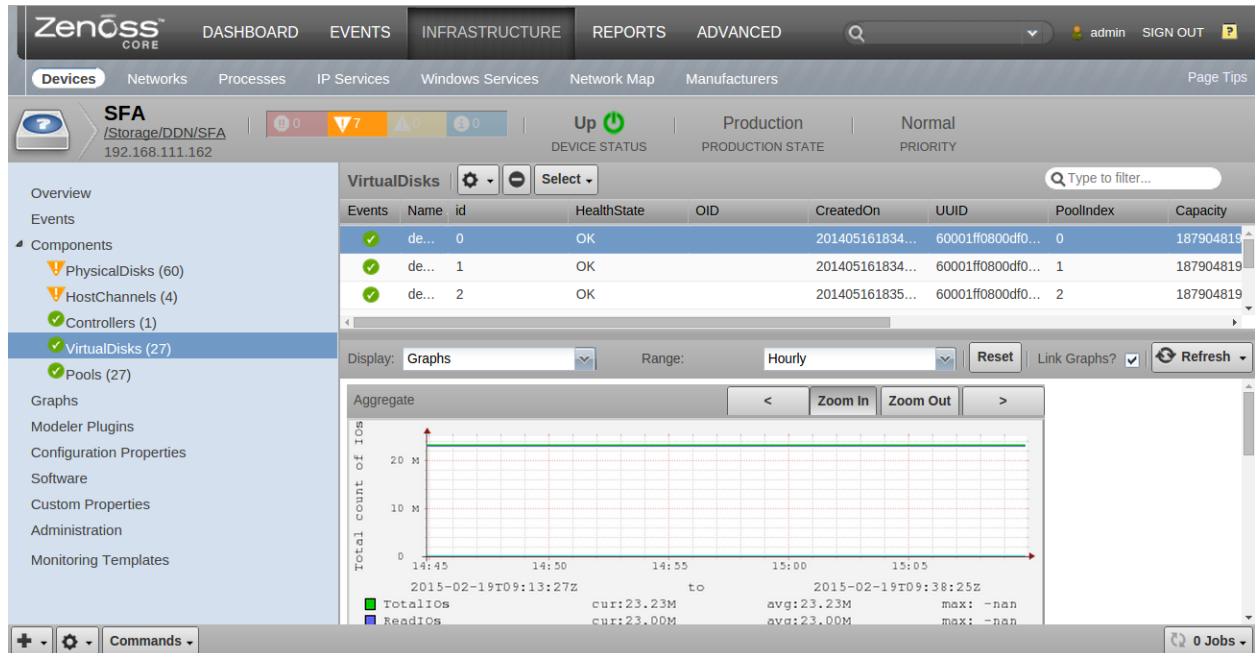
3. Controllers

Below screenshot give the list of SFA Controllers in this ZenPack.



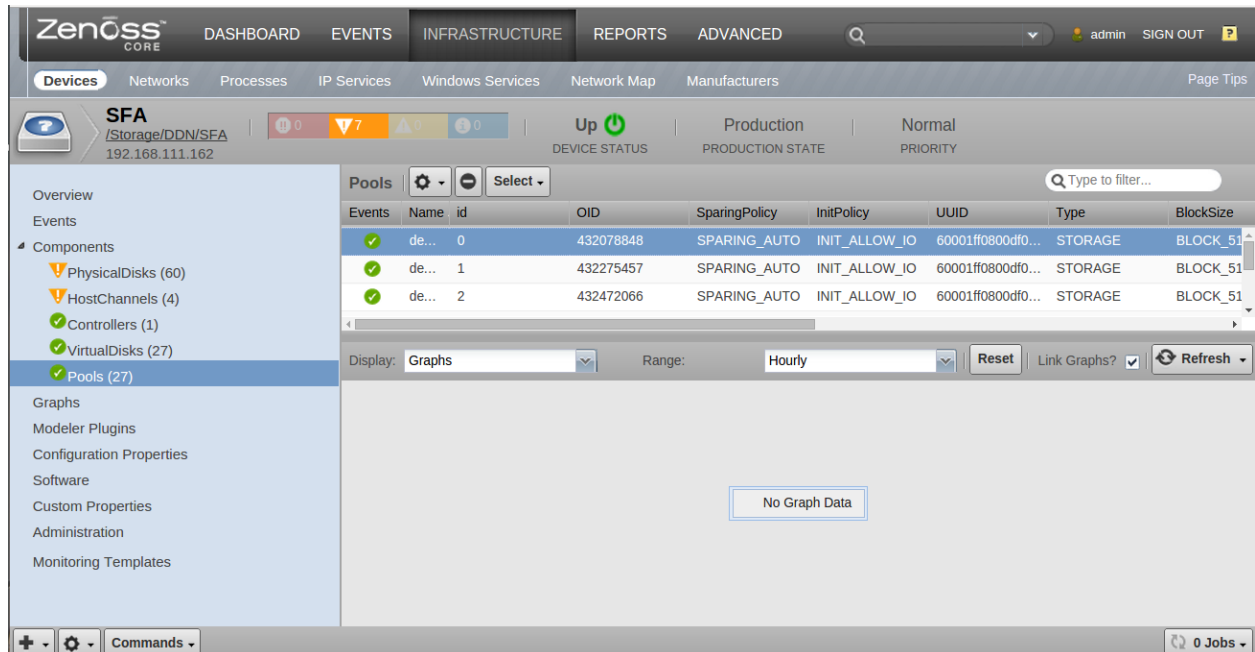
4.VirtualDisks

Below screenshot give the list of SFA VirtualDisks along with the graph available in this ZenPack



5.Pools

Below screenshot give the list of SFA Pools in this ZenPack.



ZenPack Installation

1. Download the appropriate egg file for the version of the Zenoss you are running.
2. Ensure you are logged in as Zenoss user.

```
>>> su - zenoss
```

3. Install ZenPack

a. Zenoss 4

```
>>> zenpack -- install ZenPacks.DDN.SFA2-*-py2.7.egg
```

b. Zenoss 5

```
>>> sudo serviced service run zenpack install ZenPacks.DDN.SFA2-*-py2.7.egg
```

4. Restart Zenoss

a. Zenoss 4

```
>>> zenoss restart
```

b. Zenoss 5

```
>>> sudo serviced service stop <service name>
```

[Get the service name by running command "sudo serviced service status"]

```
>>> sudo serviced service start <service name>
```

To list all installed ZenPacks

a. Zenoss 4

```
>>> zenpack -- list
```

b. Zenoss 5

```
>>> sudo serviced service run zope zenpack list
```

Steps to uninstall ZenPacks

a. Zenoss 4

```
>>> zenpack -- remove <zen pack>
```

b. Zenoss 5

```
>>> sudo serviced service run zope zenpack uninstall <zen pack>
```