# InfoSphere VDP Tech Brief

# Daily Tasks for Administrators

This tech brief describes the daily tasks that should be performed by an InfoSphere VDP Appliance administrator. Tasks include:

## Reviewing Daily Report Manager Reports

The optional Report Manager can generate detailed reports on your InfoSphere VDP Appliance and the applications and data it manages.

For details on how to configure the Report Manager to automatically generate and deliver daily email reports, see *Using the Report Manager*.

At a minimum, IBM InfoSphere recommends that you review the following reports:

**Overall Appliance Summary**

The following is an example of an Overall Appliance Summary report.

**Overall Appliance Summary Report**

## Failed Jobs By Application Report

In the Failed Jobs By Application report, review the messages associated with the application. This is a report on the failure status of different types of jobs that are run by InfoSphere VDP Appliance to execute the protection policies set for each protected applications. By exception, the details of only the failed jobs are reported.

The following is an example of a Failed Jobs By Application Report.



**Failed Jobs By Application Report**

A few causes for job failure can include:

- Host(s) down due to maintenance or other issues
- VMware host migrated to another vCenter
- InfoSphere VDP Connector not running

## SLA Violations Details Report

In the SLA Violations Details report, review the SLA Violations Reason column.

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*Note:* *To ensure reports show the most up-to-date information, schedule the Report Manager to collect data approximately 30 minutes after the SLA violation analysis is scheduled.*

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The following is an example of an SLA Violations Details report.

### SLA VIOLATION DETAILS

**START TIME:** 2016-01-19 02:10        **END TIME:** 2016-01-20 02:10

| APPLIANCE: Sky6250TB | | | | | | APPLICATION: / ( NSTLPAR20 ) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| APPLIANCE | HOST NAME | APPLICATION NAME | APPLICATION TYPE | SLA | POLICY NAME | JOB TYPE | VIOLATION TIME | VIOLATION TYPE | REASON |
| Sky6250TB | NSTLPAR20 | / | FileSystem | SnapDedup20min | Production to Snap 1 | snapshot | 2016-01-19 10:29 | scheduler off | unknown reason |
| Sky6250TB | NSTLPAR20 | / | FileSystem | SnapDedup20min | Snapshot to Dedup 1 | dedup | 2016-01-19 10:29 | scheduler off | unknown reason |

| APPLIANCE: Sky6250TB | | | | | | APPLICATION: / ( rhel7 ) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| APPLIANCE | HOST NAME | APPLICATION NAME | APPLICATION TYPE | SLA | POLICY NAME | JOB TYPE | VIOLATION TIME | VIOLATION TYPE | REASON |
| Sky6250TB | rhel7 | / | FileSystem | SnapDedup20min | Production to Snap 1 | snapshot | 2016-01-19 10:29 | not run | unknown reason |
| Sky6250TB | rhel7 | / | FileSystem | SnapDedup20min | Snapshot to Dedup 1 | dedup | 2016-01-19 10:29 | not run | unknown reason |

**SLA Violations Details Report**

SLA violations caused by failed jobs will list the specific problem in the Reason column.

SLA violations can also be caused by an overloaded InfoSphere VDP Appliance where some jobs are not run due to a lack of resources. For example:

- New applications were added and ingestion of new data is overloading the appliance.
- The rate of change on hosts/applications is very large and cause snapshot jobs to take longer than expected.
- The SLA window for Snapshot and Dedup (local/remote) jobs are too small.
- Dedup pool Garbage Collection job is running and competing with other jobs for system resources.

## Job History Summary by Job Type

These reports detail historical information on job success and failure, sorted by application and job type. Every application is protected by executing a set of jobs (such as snapshot, Dedup, Dedup-Async, StreamSnap, expiration, and so on) depending on the protection policy set for the application. Depending on the execution frequency set in the protection policy, each type of job may run multiple times during a specified period of time. This report provides a success and failure summary for each job type for each application.

Compare the total number of successful jobs with the total number of jobs you expected to complete. A job that is hung in the running state will not be reported as an SLA violation.

The following is an example of a Job History Summary by Job Type report.

Review this report to ensure:

- The expected number of jobs have completed successfully
- No jobs have failed

### JOB HISTORY SUMMARY BY JOB TYPE

| START TIME: 2015-09-10 19:20 | | | END TIME: 2015-09-11 19:20 | | |
|---|---|---|---|---|---|
| **APPLIANCE:** clusterh7 | | | **ORGANIZATION:** Unassigned | | |
| **APPLICATION TYPE:** FileSystem | | | **APPLICATION:** / (suse 12) | | |
| JOB TYPE | TOTAL JOBS (#) | SUCCESS JOBS (#) | JOBS SUCCEEDED (%) | FAILED JOBS (#) | JOBS FAILED (%) |
| dedup | 2 | 2 | 100 | 0 | 0 |
| snapshot | 2 | 2 | 100 | 0 | 0 |

**Job History Summary by Job Type**

# Reviewing Job Failures Displayed on the IVGM Dashboard

The number of and information about job failures is displayed in the center of the IVGM Dashboard:
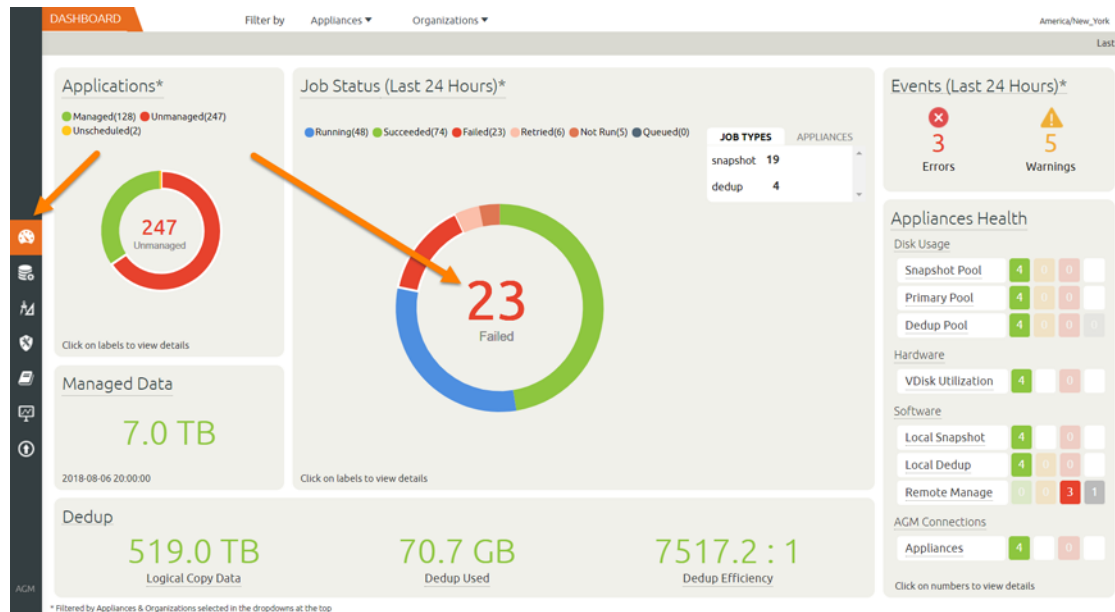


**Number of Job Failures Displayed on Dashboard**

Click on the number of job failures to display a list of failed jobs in the System Monitor service. For example:



**Job Failures Displayed in System Monitor Service**

Double-click on a job entry to display detailed information about the entry.

Review the details of the entry and:

- o  Ensure the application's host is running.
- o  For virtual machines, verify the VM has not been migrated to another vCenter.
- o  If applicable, verify that the InfoSphere VDP Connector service is running.

## Reviewing Errors and Warnings Displayed on the IVGM Dashboard

The number of errors and warnings encountered by an InfoSphere VDP Appliance are displayed in the upper right-hand corner of the Dashboard:



**Number of Errors and Warnings Displayed in IVGM Dashboard**

Click on the number of errors or warnings to display a list of the errors or warning in the System Monitor service. For example:



**Errors Displayed in System Monitor Service**

Double-click on an error entry to display detailed information about the error.

## Reviewing the Appliances Health Monitor in the IVGM Dashboard

The high-level status of your managed InfoSphere VDP Appliances is displayed in the Appliances Health Monitor on the right-hand side of the Dashboard:
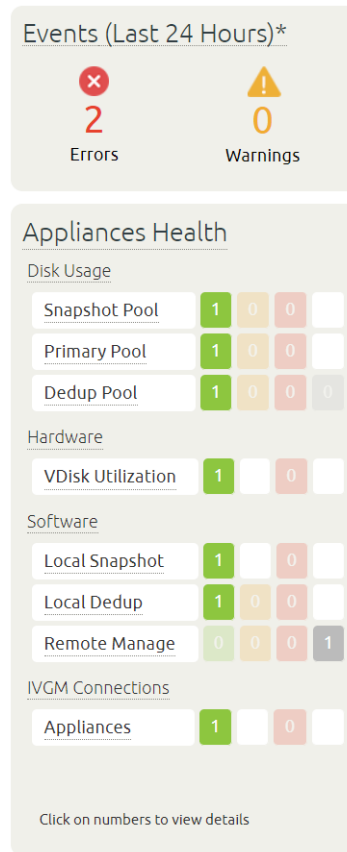


**Appliances Health Monitor in IVGM Dashboard**

The Appliances Health Monitor provides an overview of resource usage and system health.

- **Disk Usage**: Current percent utilization of the default pools (Snapshot, Primary, and Dedup pools). Clicking the Snapshot Pool, Primary Pool, or Dedup Pool label displays the associated pool window in the Domain Manager. If you do not have access to Snapshot Pool, Primary Pool, or Dedup Pool information, then you see no values in Disk Usage.

- **Hardware**: Status of storage resources and VDisk utilization.

- **Software**: Status of local snapshot, local dedup, and remote protection.

- **IVGM Connections**: Status of connections to each managed InfoSphere VDP Appliance.

If you mouse over an entry in the System Health Monitor, definitions for the various color coded status indicators are displayed. The following sections detail these components of the System Health Monitor:

Disk Usage

Hardware

Software

IVGM Connections

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**Disk Usage**

If the System Health Monitor shows a Disk Usage pool as YELLOW or RED:

1. Click on the pool and the Domain Manager's Storage Pools page is displayed.

2. If possible, add more disks to the pool. See IVGM Online Help for instructions.

3. Contact IBM InfoSphere Support if more disks cannot be added.



**Checking Disk Usage**

**Hardware**

- If the System Health Monitor Hardware Storage section displays YELLOW or RED, ensure storage is online.

- If VDisk utilization is RED, the VDisk count has exceeded its limit and corrective action is necessary: unmount unneeded active images and expire old images from snapshot pool. The IVGM online help has instructions.

**Software**

- If Local Snapshot or Dedup is RED, contact IBM InfoSphere Support.

- If Remote Manage is YELLOW or RED, determine if communication between InfoSphere VDP Appliances has been disrupted or changed.

**IVGM Connections**

If any IVGM connections are RED or YELLOW, then click on the red or yellow square to see in the Domain Manager which managed appliances have issues.



**Checking IVGM Connections**