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NetBackup 7 Feature Briefing

OpsCenter and OpsCenter Analytics

If you have any questions regarding the information in this document please contact your Symantec account team or reseller for more information.

Feature Description

OpsCenter is a web based monitoring, alerting, and reporting application which is capable of providing these services for the NetBackup platform as well as BackupExec, Enterprise Vault and (through the optional OpsCenter Analytics component) other third party data protection products.

OpsCenter 7 is a new product which replaces NOM and VBR, combining the features and capabilities both products into a single product together with significant performance and usability improvements.

OpsCenter 7 comes in two options - OpsCenter and OpsCenter Analytics.

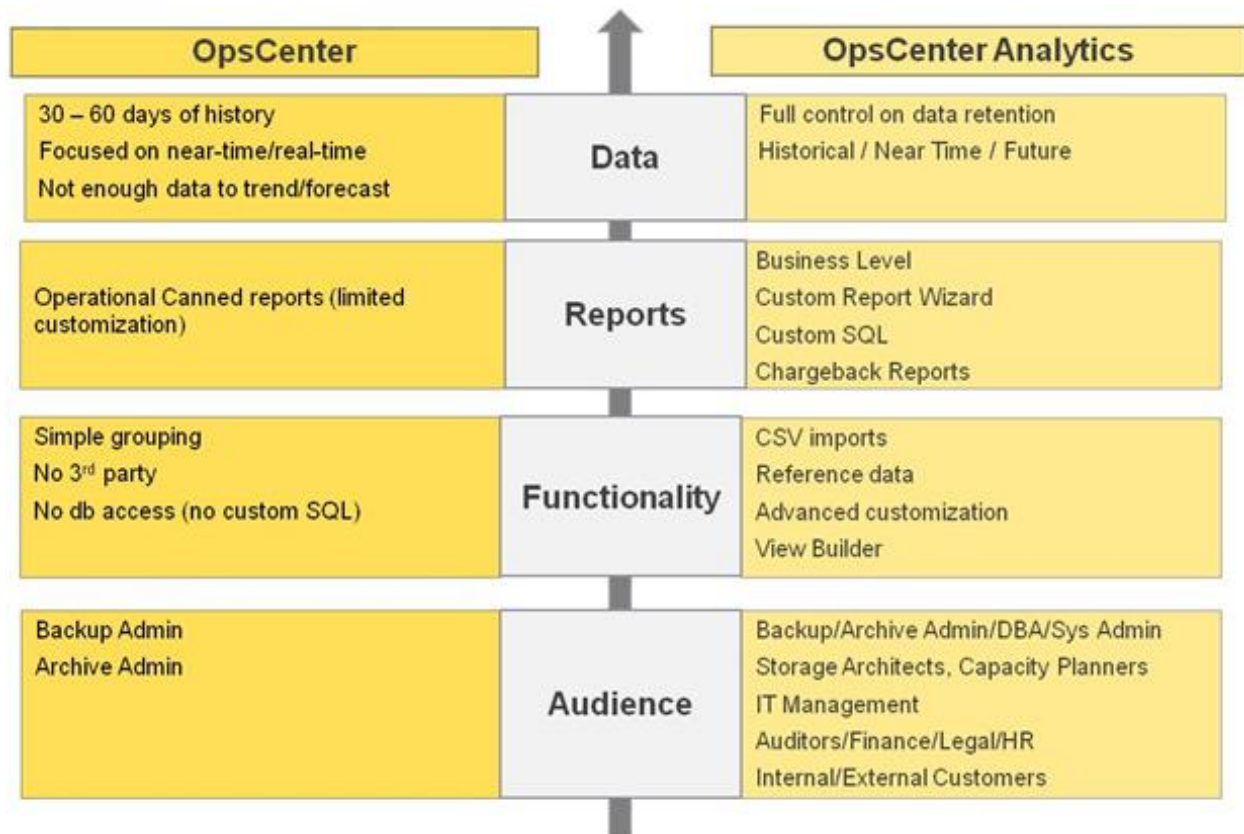


Figure 1 - Feature Comparison

OpsCenter is a free product which gives you the ability to monitor, alert and do operational reporting on NetBackup, Enterprise Vault, Backup Exec and PureDisk. OpsCenter server is part of NetBackup and can be deployed on master server for managing a single domain, or independently for managing multiple NetBackup Domains. It also allows you to do minor management tasks such as “upping” tape drives, restarting failed jobs, freezing/unfreezing and other tape functions, restarting services/daemons on Masters etc. The free version limits historical reporting.

OpsCenter Analytics is a licensed option that is unlocked with a key. This gives the customer the ability to display customizable, multi-level views of backup and archive resources and customizable reports for tracking service usage and expenditures. It also contains tools for defining cost metrics and chargeback formulas or handling alerts as well as allowing reporting beyond 60 days.

OpsCenter Analytics can also provide reports on the following third part products in addition to those covered by OpsCenter:

- EMC Legato Networker
- IBM Tivoli Storage Manager

For information on licensing, platform support and deployment considerations for this feature please contact your Symantec account team or Symantec reseller.

Business Value

OpsCenter brings together the capabilities of NOM and VBR and provides a centralized view / single pane of glass and provides:

- Platform Unification, which brings together the NetBackup and EV platforms from a reporting perspective
- Centralized Management, which gives a single window into cross domain, and multi version deployment, including 3rd party products
- Single Interface, which provides consistency across all the monitoring, reporting, and management functions
- Enhancements in Usability, which in turn drives efficiency in tasks

OpsCenter significantly helps in making business decisions by enabling the customer to track the effectiveness of data backup and archive operations by providing comprehensive reports.

OpsCenter Analytics displays customizable, multi-level views of backup and archive resources and customizable reports for tracking service usage and expenditures. It also contains tools for defining cost metrics and chargeback formulas or handling alerts. A wide range of audiences can benefit from the reporting and management capabilities of OpsCenter. The audiences include IT (Information Technology) managers, application owners, IT finance teams, external compliance auditors, legal teams, line-of-business managers, external customers, IT architects, and capacity planning teams.

The primary objectives of OpsCenter Analytics are:

To help organizations assess their compliance with business standards by allowing them to accomplish the following:

- Manage service level agreements
- Report to legal department, auditors, IT managers, and administrator.
- Verify compliance with internal as well as external business-level regulations
- Identify risks in terms of shortfall of backup resources
- Assess recovery of clients and applications

To assist organizations in effective business planning by enabling them to do the following:

- Estimate backup resources required in the future, with the help of backup trend analysis.
- Calculate the cost of data protection management and chargeback to customers and business units

Note: In the 7.0 release cost reports are only available for backup data. Cost reports for archive data are planned but are not available in this release.

The three high level features of OpsCenter Analytics that can help effectively run backup operations are as follows

Monitoring and Managing – OpsCenter can manage and monitor NetBackup master and media servers, clients, and policies. It can manage up to 100 NetBackup master servers distributed across multiple locations. It does not require the administrator to separately log-on to each NetBackup master or media server once the initial security connection has been negotiated.

OpsCenter lets you view the operational status and health of your distributed data protection environment. OpsCenter focuses on how to maintain the backup environment after the NetBackup configuration has been completed.

Alerting – OpsCenter provides a policy-based alert system, which monitors and notifies you before serious problems happen to your backup environment. You can use predefined alert conditions to create alert policies to monitor typical issues or thresholds within NetBackup or other products. You can send an email or SNMP notification in response to an actual alert, which lets administrators focus on other job responsibilities. They no longer need to be logged in to a terminal to monitor systems continuously.

Reporting – OpsCenter excels at reporting and offers a number of configurable options including:

- **Compliance Reporting** – OpsCenter Analytics helps organizations evaluate their compliance with internal and external business standards by providing accurate and customizable reports.

By using internal compliance reports, you can measure performance of the system against service level agreements, and optimize data protection management.

External compliance reports help you follow the policies laid down by various regulatory bodies that are related to federal, healthcare, internal processes, and others. These policies include Sarbanes-Oxley act (SOX) and Health Insurance Portability and Accountability Act (HIPAA).

- **Business Planning** – OpsCenter's ability to forecast backup resource requirements helps data center executives to decide whether to maintain the existing resources or add new capacity. OpsCenter Analytics offers you a set of chargeback reports that detail backup services expenditures. By using these reports, you can track the backup and recovery usage and the associated cost. By using the chargeback function, you can define pricing models for backup service delivery and allocate costs to customers based on these models
- **Reporting on Archive Data** – Archives report category contains a number of reports that are generated based on the archive data collected from Enterprise Vault. You can report on the number of messages that are archived across mailboxes, and the size of these messages before and after the archive operation.

Underlying Principles

The components of OpsCenter are the OpsCenter Server, OpsCenter Agent and OpsCenter Java View Builder

OpsCenter Server

The OpsCenter Server can be installed on the master server if this master is the only one being reported on. In multiple master domains where OpsCenter will be reporting on more than one master, it should be installed on a dedicated server. It should be noted that if the "single" master is already at CPU/RAM capacity, OpsCenter should use a dedicated server so that additional load is not added to the master. OpsCenter uses a Sybase ASA (SQL Anywhere) database which contains data related to backup /archive service usage and expenditure, cost metrics and chargeback formulas, and alerts. Authentication is handled using Symantec Product Authentication Service (AT) which is a set of common authentication runtime libraries and processes that enable users to log on once to access multiple products such as:

- Alert Manager
- Symantec Web Server and Java Runtime Environment
- Veritas Licensing Manager
- Symantec Private Branch Exchange

OpsCenter Agent

The OpsCenter Agent collects data from various Symantec and third-party backup/ archiving products. These products can reside on the OpsCenter Agent host or on remote hosts. The OpsCenter Agent relies on the Java Runtime Environment (JRE) to perform its functions. The OpsCenter Agent also requires embedded AT (Symantec Product Authentication Service) to authenticate itself with the OpsCenter Server. Both JRE and AT libraries are installed automatically with the Agent installation. OpsCenter Agent is supported on Windows and Solaris platforms.

OpsCenter formats the information collected by the OpsCenter Agent from the following target products and displays it through the OpsCenter console

- Symantec NetBackup (versions prior to 7)
- Symantec Backup Exec (Windows only)
- Symantec Enterprise Vault (Windows only)
- EMC Legato Networker
- IBM Tivoli Storage Manager

OpsCenter Java View Builder

The OpsCenter Java View Builder is an application in which an administrator creates, modifies, and manages access to the OpsCenter views that users see in the console. To use the Java View Builder, you need to provide login credentials as you do while logging onto the OpsCenter console. When you run the Java View Builder exe, it is directly connected to the OpsCenter Server. The View Builder fetches the existing object view definitions from OpsCenter database and displays them in the OpsCenter console. Actions performed using the View Builder console are then stored in the OpsCenter database.

OpsCenter Console

OpsCenter Console is accessed using a web browser and logging in to the OpsCenter Web Server. The following figure shows elements of the console.

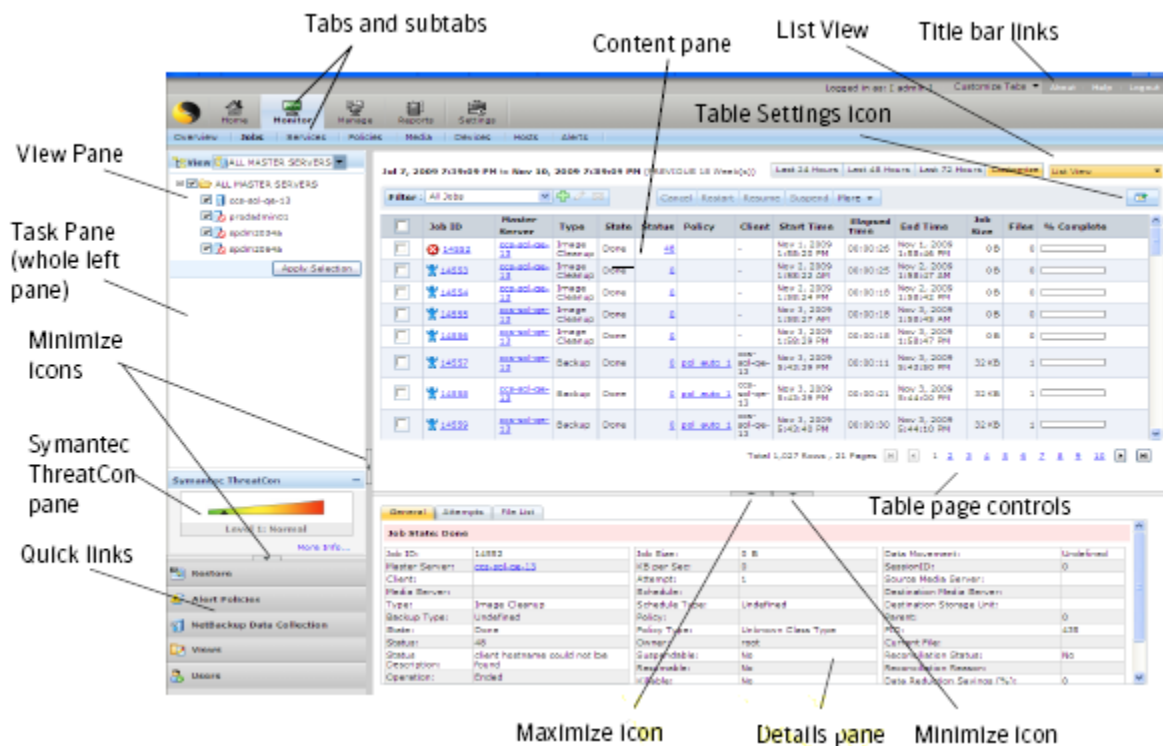


Figure 2 - OpsCenter reporting screen shot

Test Drive

Symantec OpsCenter is shipped with the NetBackup media kit and also as a separate OpsCenter DVD. The initial installation asks for a key; however this is only to unlock OpsCenter Analytics. If no key is entered, OpsCenter basic is installed.

If your customer would like to see the value of Analytics, a temporary key can be added that will allow access the licensed OpsCenter Analytics features for 60 days (starting from the day they install the demo key).

Some notes on installation:

- OpsCenter can be installed on Windows or Unix, check the OS Compatibility list to determine supported platforms.
- The windows installation is wizard based and can be started from the NetBackup 7 DVD by clicking on Installation, then OpsCenter Installation on the second screen, or by clicking on Browser.exe from the OpsCenter installation media. The installer wizards goes through License Agreement, host selection, installation method (typical/custom), License Keys screen, Authentication settings selection.
- On Unix the installation has to be launched using the command, “.installOpsCenterServer” from the OpsCenter product DVD. The installer lists the product components that will be installed, on pressing enter the choices for product path, database path, VxAT setup, upgrade, and licensing appear.
- On completing the installation the configure phase creates the database and starts the services.
- After the installation when you are ready to run OpsCenter, you can click on the WebUI link in Windows, or use a supported browser and go the URL <http://<hostname>/opscenter>. This will open OpsCenter and allow you to log in to the OpsCenter GUI. The following login screen will appear if demo key or an OpsCenter Analytics key has been used.

The screenshot shows the Symantec OpsCenter Analytics Version 7.0 login interface. The header includes the Symantec logo and the product name. The main content area contains a login form with the following fields: Username (text input), Password (text input), and Domain (dropdown menu showing 'OpsCenterUsers(vx)') with a 'Log On' button below it. To the right of the login form is a 'Documentation' section with several links: Symantec OpsCenter Administrator's Guide, NetBackup Technical Support, NetBackup Support Forums, View White Papers, Search Knowledge Base, View Compatibility Lists, and Check NetBackup Web site for software alerts. At the bottom of the page, there is a copyright notice for 2009 Symantec Corporation and a disclaimer stating that the release is for feature review only and not for production use. There is also an RSS Feeds link and a link to see migration status.

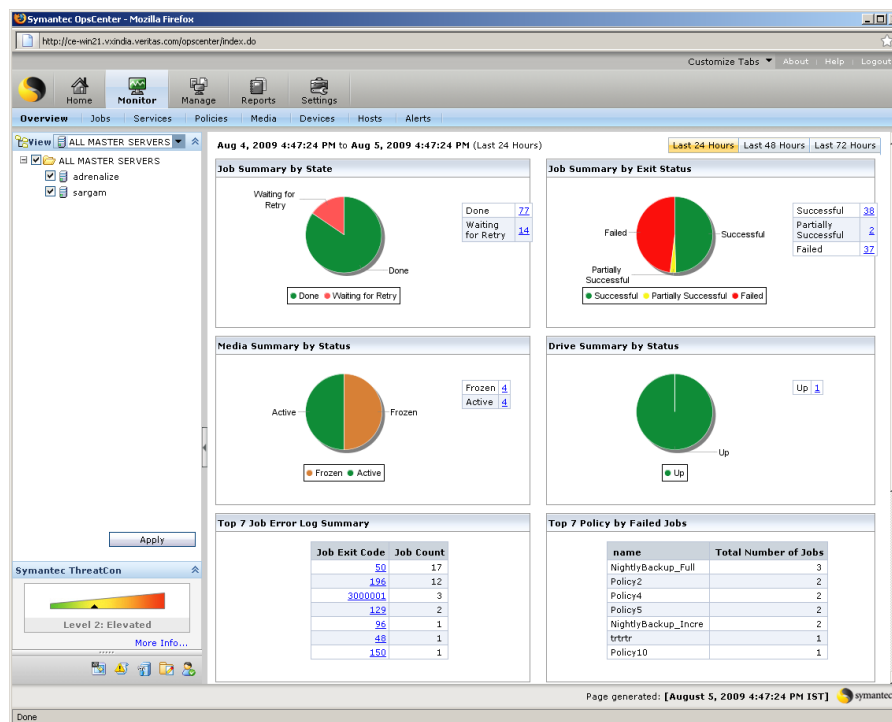
Figure 3 - OpsCenter Analytics entry screen

In order to report on a NetBackup 7 Master, you must install NetBackup 7 on a master server and register the master server with the OpsCenter Server. If, during installation of NetBackup, you specify the name of the OpsCenter server in the field provided, OpsCenter will automatically pick up the Master and start reporting once the installation completes.

For existing Master Servers that you want to add into a dedicated OpsCenter server, you can click on Settings > Configuration > NetBackup > Add and then type in the name of the Master. You will need to add the OpsCenter server as a server that is allowed access to the master by clicking on Host Properties > Master Servers > "Master Name" > Servers > Add on the Master server. Connectivity rules apply such as ensuring both servers are in DNS and can access each other across the LAN. This may require opening ports in the firewall. Please refer to the OpsCenter manual for a list of communication ports.

Next, create a few policies and run a few backup jobs on the master server to generate data for OpsCenter to report on. To view all possible reports and graphs the master server needs to have sufficient amount and variety of data available, which means that you need create storage units of various types, take backups over a period of time to be able to see different kinds of reports.

Once you have data, logging into the OpsCenter Console will show you the summary graphs shown on the landing page.



Then you can click on the Reports Tab and try out a few reports:

