HP OpenView Storage Data Protector

Integration Guide
for
HP OpenView Service Desk

Version: A.02.00

HP-UX, Solaris and Windows

Legal Notices

Contents

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Printing History

The manual printing date and part number indicate its current edition. The printing date will change when a new edition is printed. Minor changes may be made at reprint without changing the printing date. The manual part number will change when extensive changes are made.

Manual updates may be issued between editions to correct errors or document product changes. To ensure that you receive the updated or new editions, you should subscribe to the appropriate product support service. See your HP sales representative for details.

Table 1   **Edition History**

Part Number	Manual Edition	Product
B6960-90069	August 2002	HP OpenView Storage Data Protector A.05.00
Not applicable	April 2003	HP OpenView Storage Data Protector A.05.10

Conventions

The following typographical conventions are used in this manual.

Table 2

Convention	Meaning	Example
Italic	Book or manual titles, and manual page names	Refer to the *HP OpenView Storage Data Protector Integration Guide* for more information.
	Provides emphasis	You *must* follow these steps.
	Specifies a variable that you must supply when entering a command	At the prompt type: `rlogin` *your_name* where you supply your login name.
Bold	New terms	The Data Protector **Cell Manager** is the main ...
`Computer`	Text and items on the computer screen	The system replies: `Press Enter`
	Command names	Use the `grep` command ...
	File and directory names	`/usr/bin/X11`
	Process names	Check to see if `Data Protector Inet` is running.
	Window/dialog box names	In the `Backup Options` dialog box...
`Computer Bold`	Text that you must enter	At the prompt, type: `ls -l`
Keycap	Keyboard keys	Press **Return**.

Contact Information

General Information

General information about Data Protector can be found at

http://www.hp.com/go/dataprotector

Technical Support

Technical support information can be found at the HP Electronic Support Centers at

http://support.openview.hp.com/support.jsp

Information about the latest Data Protector patches can be found at

http://support.openview.hp.com/patches/patch_index.jsp

For information on the Data Protector required patches, see the *HP OpenView Storage Data Protector Software Release Notes*

HP does not support third-party hardware and software. Contact the respective vendor for support.

Documentation Feedback

Your comments on the documentation help us to understand and meet your needs. You can provide feedback at

http://ovweb.external.hp.com/lpe/doc_serv/

Training Information

For information on currently available HP OpenView training, see the HP OpenView World Wide Web site at

http://www.openview.hp.com/training/

Follow the links to obtain information about scheduled classes, training at customer sites, and class registration.

Data Protector Documentation

Data Protector documentation comes in the form of manuals and online Help.

Manuals   Data Protector manuals are available in printed format and in PDF format. Install the PDF files during the Data Protector setup procedure by selecting the `User Interface` component on Windows or the `OB2-DOCS` component on UNIX. Once installed, the manuals reside in the `\<Data_Protector_home>docs` directory on Windows and on the `/docs/C/` directory on UNIX. You can also find the manuals in PDF format at http://ovweb.external.hp.com/lpe/doc_serv/

HP OpenView Storage Data Protector Administrator's Guide

This manual describes typical configuration and administration tasks performed by a backup administrator, such as device configuration, media management, configuring a backup, and restoring data.

HP OpenView Storage Data Protector Installation and Licensing Guide

This manual describes how to install the Data Protector software, taking into account the operating system and architecture of your environment. This manual also gives details on how to upgrade Data Protector, as well as how to obtain the proper licenses for your environment.

HP OpenView Storage Data Protector Integration Guide

This manual describes how to configure and use Data Protector to back up and restore various databases and applications.
There are two versions of this manual:

- *HP OpenView Storage Data Protector Windows Integration Guide*

  This manual describes integrations running the Windows operating systems, such as Microsoft Exchange, Microsoft SQL, Oracle, SAP R/3, Informix, Sybase, NetApp Filer, HP OpenView Network Node Manager and Lotus Domino R5 Server.

- *HP OpenView Storage Data Protector UNIX Integration Guide*

  This manual describes integrations running on the UNIX operating system, such as: Oracle, SAP R/3, Informix, Sybase, NetApp Filer, HP OpenView Network Node Manager and Lotus Domino R5 Server.

HP OpenView Storage Data Protector Concepts Guide

This manual describes Data Protector concepts and provides background information on how Data Protector works. It is intended to be used with the task-oriented *HP OpenView Storage Data Protector Administrator's Guide*.

HP OpenView Storage Data Protector EMC Symmetrix Integration Guide

This manual describes how to install, configure, and use the EMC Symmetrix and EMC Fastrax integrations. It is intended for backup administrators or operators.

- The first part describes the integration of Data Protector with the EMC Symmetrix Remote Data Facility and TimeFinder features for Symmetrix Integrated Cached Disk Arrays. It covers the backup and restore of filesystems and disk images as well as online databases, such as Oracle and SAP R/3.

- The second part describes the integration of Data Protector with the EMC Fastrax. It covers the backup and restore of disk images as well as Oracle8i and SAP R/3 systems, using direct disk to tape technology.

HP OpenView Storage Data Protector HP StorageWorks Disk Array XP Integration Guide

This manual describes how to install, configure, and use the integration of Data Protector with HP StorageWorks Disk Array XP. It is intended for backup administrators or operators. It covers the backup and restore of Oracle, SAP R/3, Microsoft Exchange, and Microsoft SQL.

HP OpenView Storage Data Protector HP StorageWorks Virtual Array Integration Guide

This manual describes how to install, configure, and use the integration of Data Protector with HP StorageWorks Virtual Array. It is intended for backup administrators or operators. It covers the backup and restore of Oracle, SAP R/3 and Microsoft Exchange.

HP OpenView Storage Data Protector Integration Guide for HP OpenView Service Information Portal

This manual describes how to install, configure, and use the integration of Data Protector with HP OpenView Service Information Portal. It is intended for backup administrators. It discusses how to use the application for Data Protector service management.

HP OpenView Storage Data Protector Integration Guide for HP OpenView Reporter

This manual describes how to install, configure, and use the integration of Data Protector with HP OpenView Reporter. It is intended for backup administrators. It discusses how to use the application for Data Protector service management.

HP OpenView Storage Data Protector Integration Guide for HP OpenView Service Desk

This manual describes how to install, configure, and use the integration of Data Protector with HP OpenView Service Desk. It is intended for backup administrators. It discusses how to use the application for Data Protector service management.

HP OpenView Storage Data Protector Software Release Notes

This document gives a description of new features of HP OpenView Storage Data Protector A.05.10. It also provides information on supported configurations (devices, platforms and online database integrations, SAN configurations, EMC split mirror configurations, and HP StorageWorks XP configurations), required patches, limitations, as well as known problems and workarounds. An updated version of the supported configurations is available at http://www.openview.hp.com/products/dataprotector/specifications/index.asp.

Online Help   Data Protector provides online Help for Windows and UNIX platforms.

In This Book

The *HP OpenView Storage Data Protector Integration Guide for HP OpenView Service Desk* describes how to install, configure, and use the integration of Data Protector with HP OpenView Service Desk.

NOTE   This manual describes Data Protector functionality without specific information on particular licensing requirements. Some Data Protector functionality is subject to specific licenses. The related information is covered in the *HP OpenView Storage Data Protector Installation and Licensing Guide*.

Audience

This manual is intended for backup administrators or operators who plan to install and configure the integration of Data Protector with HP OpenView Service Desk.

Conceptual information can be found in the *HP OpenView Storage Data Protector Concepts Guide,* which is recommended in order to fully understand the fundamentals and the model of Data Protector.

Organization

The manual is organized as follows:

Chapter 1   "Introduction" on page 19.

Chapter 2   "Data Protector-OVO-OVSD Integration" on page 23.

The integrations of Data Protector with the following database applications are described in the *HP OpenView Storage Data Protector Integration Guide*:

- Microsoft SQL Server 7.0/2000

- Microsoft Exchange

- Microsoft Exchange 2000

The integrations of Data Protector with the following applications is described in the *HP OpenView Storage Data Protector Administrator's Guide*:

- OmniStorage
- Microsoft Cluster Server
- MC/ServiceGuard
- Data Source Integration
- Application Response Measurement
- ManageX

1   Introduction

Overview

This chapter provides a brief overview of Data Protector, the HP OpenView product integrated with it to create an enterprise-wide solution that provides service level management, and the integration itself.

Data Protector

HP OpenView Storage Data Protector is a backup and recovery solution that provides reliability and protection for your fast growing business data. Data Protector offers comprehensive backup and restore functionality designed specifically for enterprise wide and distributed environments.

Data Protector also provides information that can be used, through reports and messaging tools, to help you monitor the status of your processes, in addition to providing backup and recovery functionality.

OpenView Products Integrated with Data Protector

Data Protector is designed to allow the integration of other HP OpenView products, in order to provide you with an enterprise-wide solution for your IT environment. Integrations with HP OpenView Service Desk is described in this manual.

OpenView Service Desk

OpenView Service Desk is a central problem management point for systems, applications, and services (which are defined as *configuration items* by OVSD). OVSD registers incidents and monitors their resolution for its configuration items. OVSD manages problem resolution to ensure compliance with a configuration item specific SLA.

OpenView Operations

OpenView Operations is a central management point for various remote OpenView applications. Collects and analyzes data, automates critical response, as well as message forwarding to other services.

Service Level Management Integrations

Data Protector and the HP OpenView products listed above are integrated to create an enterprise-wide solution that provides service level management. The integrations are introduced below:

Data Protector-OVO-OVSD

This integration provides support and network-wide availability for Data Protector's backup and recovery tools.

2 Data Protector-OVO-OVSD Integration

Introduction

Data backup and recovery are critical elements in Information Technology Service Delivery and Management. Proactive management and monitoring of service quality and continuity is fundamental to any successful IT business.

HP OpenView Storage Data Protector automates the backup and recovery process for all your enterprise systems. This integration maximizes the potential of the Service Desk and OpenView Operations applications by adding seamless backup and recovery to their capabilities.

This chapter describes how OpenView Service Desk and OpenView Operations integrate with Data Protector to provide support and network-wide availability for Data Protector's backup and recovery tools.

Prerequisites

The integration requires the following licensed components:

- Data Protector
- OpenView Operations
- OpenView Service Desk
- Supported Oracle Database (third party software)

Product Capabilities and Integration Benefits

The integration of Data Protector, OpenView Operations (OVO), and OpenView Service Desk (Service Desk) lets you use Service Desk as a trouble ticket interface for Data Protector, and enables Service Level Management (SLM) to help you achieve a specific, consistent, measurable level of service. In short, this integration helps you achieve maximum service availability by providing a simple, effective way to do all of the following:

- Manage backup operations across geographical boundaries.
- Diagnose problems across firewall.

- Extend management perspectives beyond standard operational events and up to a business service level.

- Provide Service Level Management (SLM) to help you ensure that services are up and running. Also returns information you can use to monitor services, to react to outages, and to document conformance to SLAs.

Component List

OpenView Operations A central data collection and management point for various remote OpenView applications. Collects and analyzes data, automates critical response, as well as message forwarding to other services.

OpenView Service Desk A central problem management point for systems, applications, and services. Systems, applications, and services are defined as "configuration items" by OVSD. OVSD registers incidents and monitors their resolution for its configuration items. OVSD manages problem resolution to ensure compliance with a configuration item specific SLA.

Import Mapping and Data Exchange
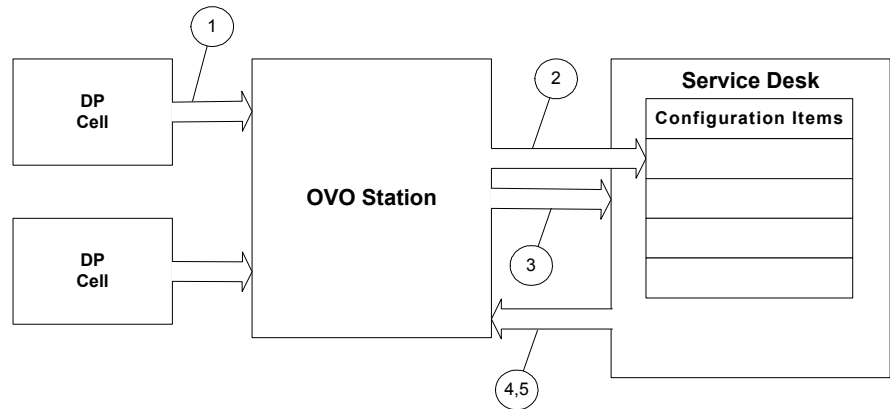
1. The administrator imports/maps Data Protector nodes managed by OVO into Service Desk as configuration items.

2. The administrator imports/maps selected OVO services, dependencies, and relations into Service Desk as configuration items.

3. OVO forwards selected events to Service Desk as incidents for the associated configuration items.

4. Service Desk sends an annotation to OVO when an incident is created for an OVO event.

5. Service Desk sends an acknowledgement to OVO when an incident associated with an OVO event is closed.

Integration feature for backup operations

Data Protector normally generates two Simple Network Management Protocol (SNMP) traps for each backup session; the two traps correspond to StartOfSession and EndOfSession events in OVO. In the default configuration Data Protector forwards these event pairs to Service Desk as independent incidents, requiring operator intervention and activity to correlate the StartOfSession and EndOfSession incidents.

The following remedy not only automatically correlates the two incidents for each session, it also enables proactive management of the backup operations:

- Forward the StartOfSession event to Service Desk.

- Do not forward any EndOfSession event (completed successfully, completed with failure, session aborted, etc.); instead configure them to invoke a post-event script.

This post-event script takes four parameters: session id, backup specification, completion time, and completion status. It searches the sd_event log file for a matching StartOfSession event, retrieves its message id, and sends a request to Service Desk to update the incident associated with the StartOfSession event.

The update includes modification of:

- status (from registered to completed)

- actual finish (completion time)

- actual duration (automatically calculated based on actual start/finish)

- closure code (successful, failed, aborted)

Dependencies

Table 2-1   **Software Dependencies**

Application	Version	Platform
OVO	7.1	HP-UX 11.0 Solaris 8
Data Protector	5.1	HP-UX 11.0, 11.11 Solaris 8 Windows NT 4.0, Windows 2000
OVO Agent	6.05, 7.0, 7.10	HP-UX 11.0, 11.11
OVO Database	Oracle 9i	HP-UX 11.0
OVSD Agent	4.5	HP-UX 11.0, 11.11 Solaris 8 Windows NT 4.0, Windows 2000
OVSD (client and server)	4.5	HP-UX 11.0 Solaris 8 Windows 2000

Setup Process

The setup process for this integration consists of two main procedures:

- Installation and configuration for general integration

- Installation and configuration of backup specific integration

Installation and Configuration for General Integration

NOTE For more configuration and troubleshooting information concerning Data Protector and OpenView Operations integrations, please refer to Chapter 2, "Data Protector-OVR Integration," on page 23.

Before installing components specific to this integration, you must have the following installed:

- Data Protector. See the Data Protector Installation and Configuration Guide for detailed instructions.

- OpenView Operations. See the OpenView Operations Installation and Configuration Guide for detailed instructions.

- OpenView Operations - Service Desk Integration. This section is pertinent to general OVO and Service Desk integration, which should be in place prior to the specific integration for backup operations depicted in next section. See the *HP OpenView Service Desk 4.5 OpenView Operations Integration Administrator's Guide* for detailed instructions.

Installation The OVO and Service Desk Integration includes a number of files and tools that need to be installed on the Service Desk and the OVO servers. The following checklist shows the recommended order of installation:

1. OVO application (refer to the OVO documentation).

2. Service Desk server application (refer to the Service Desk documentation).

3. Service Desk database.

4. Integrations with Data Exchange and HP OpenView Integration Option (Service Desk part) options selected.

5. sdagent, sdevent and sdovointegration depot files on the OVO for UNIX server. These files are on the Service Desk CD-ROM.

Configuration

On the Service Desk application server:

1. Create an OVO server account starting with the letters: ovu.

2. Set the environment variable for Service Desk.

3. Import managed nodes as configuration items.

4. Import services as configuration items.

5. Modify the import mapping for events (vpunix events) to ensure backup properties to be imported are mapped to type incident.

6. Configure the database rules.

On your OVO Server running on UNIX:

1. Modify the sd_event.ini file.

2. Make Service Desk an OVO user.

3. Move the Service Desk application to the Application Bank.

4. Modify the message source templates.

5. Deploy the monitoring policies.

6. Configure the Service Desk agent.

Exporting OVO Services as Services into Service Desk

To export OVO services as services into Service Desk:

1. On the OVO for Unix server, run:

   /opt/OV/bin/OpC/extern_intf/sd_addservice.sh <SD_Server>

   SD account name: system

   SD account passwd:

2. On the Service Desk server, manually execute the following steps for each exported service:

- Set the SN socket address.
- Set the Service Manager Person.
- Set the associated Managed CIs.
- Set the associated SLAs.

Installation and Configuration for a Backup-Specific Integration

This section describes the installation and configuration steps necessary for a backup-specific integration.

On your OVO Management Server running on UNIX

1. Insert the Data Protector CD-ROM.

2. Use swinstall to install:

   HP-UX   `OV_INTEGRATIONS/DP-OVO-HPUX-INTEGRATION.depot`

   Solaris   `OV_INTEGRATIONS/DP-OVO-SUN-INTEGRATION.depot`

   Follow the on-screen instructions.

3. Modify the message source templates.

   a. Open `Message Source Templates`.

   b. Select `Data Protector SPI`.

   c. Double click `Group DP-SPI Unix Templates`.

   d. Select `OB_SNMP trap` and click on `Conditions`.

   e. Select `Start Of Session` notification and click on `Modify`.

   f. Select `Forward to Trouble Ticket`, and click OK.

   g. Select `Session Completed` notification and click on Modify.

   h. Go to the `Variable Bindings` section and modify `$6` to:

   ```
   <*.text1><S><*.endtime><S>BSM<S>EndOfSession<*>
   [138:701]<*><>Session<S><@.sessionid><*>backup<S>
   specification<S><*.bckupspec>,<S> backup<S>group
   <S>"<*.bckupgrp>"<*.text3>Completed<*.text4>
   ```

i.   Go to the `Actions` section, `Automatic` row.

j.   Enter the following in the text box under `Node`:

```
<$OPC_MGMTSV>
```

k.   Enter the following in the text box under `Command`.

```
/opt/OV/bin/OpC/extern_intf/informSD.sh
-t "<endtime>" -s <sessionid> -n "<bckupspec>"
-u Completed
```

l.   Select `Session Aborted` notification and click on Modify.

m.   Go to the `Variable Bindings` section and modify `$6` to:

```
<*.text1><S><*.endtime><S>BSM<S>EndOfSession<*>
[138:701]<*>Session<S><@.sessionid><*>backup<S>
specification<S><*.bckupspec>,<S> backup<S>group
<S>"<*.bckupgrp>"<*.text3>Aborted<*.text4>
```

n.   Go to the `Actions` section, `Automatic` row.

o.   Enter the following in the text box under `Node`:

```
<$OPC_MGMTSV>
```

p.   Enter the following in the text box under `Command`.

```
/opt/OV/bin/OpC/extern_intf/informSD.sh
-t "<endtime>" -s <sessionid> -n "<bckupspec>"
-u Aborted
```

q.   Select `Session Failed` notification and click on Modify.

r.   Go to the `Variable Bindings` section and modify `$6` to:

```
<*.text1><S><*.endtime><S>BSM<S>EndOfSession<*>
[138:701]<*>Session<S><@.sessionid><*>backup<S>
specification<S><*.bckupspec>,<S> backup<S>group
<S>"<*.bckupgrp>"<*.text3>Failed<*.text4>
```

s.   Go to the `Actions` section, `Automatic` row.

t.   Enter the following in the text box under `Node`:

```
<$OPC_MGMTSV>
```

u.   Enter the following in the text box under `Command`.

```
/opt/OV/bin/OpC/extern_intf/informSD.sh
-t "<endtime>" -s <sessionid> -n "<bckupspec>"
-u Failed
```

v. Repeat steps *d* and *e* for additional notifications that you want to be monitored. Examples of notifications are:

- DB Corrupted

- DB Purge Needed

- DB Space Low

- License Expires

- Mount Request

- Device Error

On the Service Desk application server

1. Import nodes for Data Protector as configuration items, if not already done.

   You may create or modify vpunixci.ini file to export managed nodes from OVO to an xml file; then use vpunixci import mapping to import the xml file to Service Desk as configuration items. You can also create them manually through Service Desk Client Console.

2. Import Data Protector-specific services as configuration items, if not already done.

   You must create or modify `ovounixservices.txt`, `ovounixservices.ini`, and schema.ini to import services listed in the text file as configuration items to Service Desk. You can also create them manually through Service Desk Client Console.

3. Modify the import mapping for events as shown below to ensure backup properties to be imported are mapped to type incident.
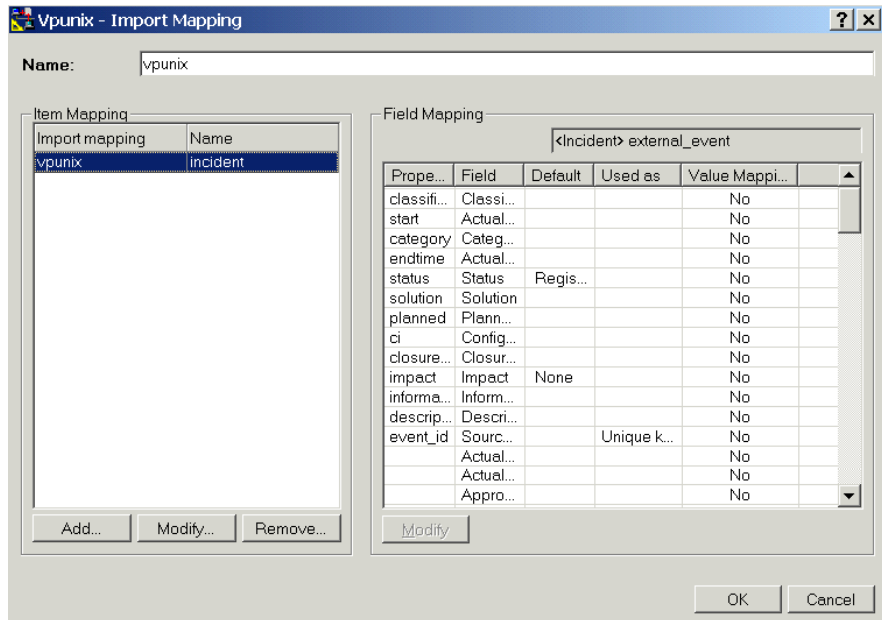
Customization

Every customer has unique needs in IT Service Management functions. You should customize the configuration to suit your needs. Before starting, you need to have a clear understanding of your IT infrastructure and the dependency relations between the various services involved.

This section shows how to customize the configuration through a simple example.

Example

Example:

- The managed nodes include a Data Protector server named DP001 and an OVO server named OV001.

- There are three backup specifications defined in Data Protector server:

    — backTop: highest importance (within 1 hour)

    — backHigh: high importance (within 4 hours)

    — backLow:low importance (within 16 hours)

- These backup sessions are to receive a Gold level (24x7) service.

On the Service Desk Application Server

1. Create a service:

    - name = Backup Service

    - status = supported

    Relate all three backup sessions (backupTo, backupHigh, backLow) as its related configuration items.

2. Create the following configuration items:

Table 2-2   Configuration items

Search code	status	Name 1	Name 2	Category
DP001	installed	Data Protector node	DP001	server
OV001	installed	OVO node	OV001	server
DATAPROTECT OR	installed	DP Mgmt Server	DATAPROTECT OR	Operational level service
OVOSERVER	installed	OVO Mgmt Server	OVOSERVER	Operational level service
backTop	installed	Top impact backup	backTop	Operational level service
backHigh	installed	High impact backup	backHigh	Operational level service
backLow	installed	Low impact backup	backLow	Operational level service

NOTE   You should define the dependency among these configuration items based on your IT infrastructure.

3. Create an SLA:

- name = Backup SLA
- status = active
- service = Backup Service
- Service Level = Gold

4. Add the following closure codes for incidents:

- Successful
- Failed
- Aborted

On your OVO Server running on UNIX:

An event forwarding script, `sd_eventins.pl`, with default attributes/values is provided for the OVO integration. You may need to modify the attribute/value mapping to better match your infrastructure.

For detailed information on modifying or creating a new import mapping, refer to the *HP OpenView Service Desk: Data Exchange Administrator's Guide*. In general, the interface for forwarding event messages to Service Desk uses the OVO API to get message details. This provides access to 48 message attributes in OVO, such as (on UNIX) message ID, message text, instructions, and annotations. To view all attributes for a message, type:

`/opt/OV/sd/ovo/get_ovo_attributes SD sd`

`/opt/OV/bin/OpC/extern_intf/get_vp_attributes SD sd`
`3f99cf84-3066-71d6-1b41-0f005d9b0000`

(Replace 3f99cf84-3066-71d6-1b41-0f005d9b0000 with your OVO event id.)

The output of this command lists all available attributes in square brackets ([ ]) followed by their respective values. The output looks like this:

Table 2-3   Message Attribute Example

[SEVERITY]	[AACTION_STATUS]
critical	undefined
[CREATION_DATE]	[OPACTION_ACK]
03/05/2002	No
[CREATION_TIME]	[OPACTION_ANNOTATE]
10:24:36	No
[RECEIVE_DATE]	[OPACTION_STATUS]
03/05/2002	undefined
[RECEIVE_TIME]	[NOTIFICATION]
10:24:36	No

Table 2-3   **Message Attribute Example (Continued)**

[AACTION_ACK]	....
No	
[AACTION_ANNOTATE]	....
No	

You decide which OVO message attributes should be inserted into which fields of an incident in Service Desk, then modify the sd_eventins.pl accordingly. For example:

```perl
#!/usr/bin/perl
#-- sd_eventins.pl
#------------------
#  Use a structure script DP_conf.pl to define mapping between OVO
# backup event and Service Desk incident.
#------------------
require "/opt/OV/bin/OpC/extern_intf/DP_conf.pl";
$previous_keyword = '';
while ($input = <STDIN>) {
  if ($input =~ /^\[/ && $input =~ /\]$/) {
    ($keyword) = ($input =~ /\[(.*)\]/);
    if ($previous_keyword ne '') {
      chop $value;
      $value =~ s/\\/\\\\\\\\/g;
      $value =~ s/\n/\\\\n/g;
      $value =~ s/"/\\"/g;
      $vp_params{$previous_keyword}=$value;
    }
    $previous_keyword = $keyword;
    $value = "";
  }
  else {
    $value = $value . $input;
  }
}
#..........................................................
# node is equal to the message service if not empty and otherwise the
# node name service information is stored in the MAP_COLORING field
$node=$vp_params{MAP_COLORING};
if ($node eq '') {
  $node=$vp_params{NODENAME};
}
#------------------
# Retrieve variable $6 string from original OVO message [ORIGMSGEXT];
# will be part of the information field for Service Desk's incident.
#------------------
$info = substr($vp_params{ORIGMSGTEXT}, rindex
($vp_params{ORIGMSGTEXT}, "[6]"));
$exec_string = "perl /opt/OV/SD/bin/sd_event -f
/opt/OV/SD/bin/sd_event.ini -v ";
$exec_string .= "event_id=$vp_params{MSGID} ";
$exec_string .= "start=\"$vp_params{CREATION_DATE}
$vp_params{CREATION_TIME}\" ";
$exec_string .= "solution=\"$vp_params{INSTRUCTIONS}\" ";
```

```perl
#--- information section
$exec_string .= "information=\"Original message: $info\\n";
$exec_string .= "Detected by application: $vp_params{APPLICATION}\\n";
$exec_string .= "Object in question: $vp_params{OBJECT}\\n";
$exec_string .= "Annotations: $vp_params{ANNOTATIONS}\" ";
#--- information section
#-----
#-- Special handling for backup session
#-----
#------------------
# Set default description to the first 19 characters of OVO message
# text
[MSGTEXT].
#------------------
$desc = substr($vp_params{MSGTEXT}, 0, 19);
#------------------
# For each monitored event defined in the structure script DP_conf.pl,
# get its description and impact mappings.
# More mappings can be defined and retrieved.
#------------------
foreach $name (@process) {
    if ($node =~ /$name/) {
        $desc = "$node_info->{$name}->{'description'}";
        $severity = "$node_info->{$name}->{'impact'}->{'default'}";
        foreach $code (@impact_codes) {
            $lookup = "$node_info->{$name}->{'impact'}->{$code}";
            if ($lookup ne "") {
                if ($vp_params{ORIGMSGTEXT} =~ /$lookup/) {
                    $severity = $code;
                    last;
                }
            }
        }
        last;
    }
}
$exec_string .= "ci=\"$node\" ";
$exec_string .= "description=\"$desc\" ";
# supposed to flush output, because "exec" does not
$| = 1;
exec "$exec_string";
```

DP_conf.pl

```perl
#!/usr/bin/perl
#------------------
# To enable Service Desk to determine the resolution
# deadline, the impact field has to be set.
# Impact codes can be customized thru Service Desk Admin
# Console. Make sure the codes specified here are
# defined in Service Desk.
#
# The time allowed to solve an incident, depends on the
# priority (impact) given to the incident. The default:
# Top (1 hr), High (4hrs), Medium (8 hrs), Low (16 hrs),
# None (1 day 16 hrs).
# To change the time allowed to solve incidents, you map
# a solution duration to a priority code in Service Desk
# thru Admin Console.
#------------------
@impact_codes = ( 'Top', 'High', 'Medium', 'Low' );
#------------------
# Define the events to be monitored.
#------------------
@process = (
        '.BackupSessions.Running',  #-- backup event
        '[138:704]',#-- DP space low event
        '[138:706]',#-- DP corrupted event
        '[138:712]',#-- DP purge needed event
        '[138:702]'#-- mount request event
);
#------------------
# For each monitored event, define its mapping of
# "description" and "impact"fields.
# More mappings can be defined.
#------------------
$node_info = {
 '.BackupSessions.Running' => {
'description' => 'Backup: ',
 'impact' => {
 'default' => 'Medium',#-- default impact
 'Top' => 'backTop',
 #-- backTop session has highest impact
'High' => 'backHigh',
```

```
                #-- backHigh session has high impact
        'Low' => 'backLow'
        #-- backLow session has low impact
                        }
                },
                '[138:704]' => {
                        'description' => 'DB Space Low',
                        'impact' => {
                                'default' => 'Medium'
                        }
                },
                '[138:706]' => {
                        'description' => 'DB Corrupted',
                        'impact' => {
                                'default' => 'Medium'
                        }
                },
                '[138:712]' => {
                        'description' => 'DB Purge Needed',
                        'impact' => {
                                'default' => 'Medium'
                        }
                },
                '[138:702]' => {
                        'description' => 'Mount Request',
                        'impact' => {
                                'default' => 'Medium'
                        }
                },
        };
```

sd_backupins.pl

This script, a variation of sd_eventins.pl, is invoked by EndOfSession
events to modify the original StartOfSession incident.

```perl
#!/usr/bin/perl
$numArgs = $#ARGV + 1;
$ovoEventID = $ARGV[0];
$ovoStatus = $ARGV[1];
$ovoTime = $ARGV[2];
#------------------
# Set closure code for backup session ended with status:
# Completed -> Successful
# Aborted -> Aborted
# Failed -> Failed
# The closure codes can be customized thru Service Desk
# Admin Console. Make sure the codes specified here are
# defined in Service Desk.
#------------------
if ($ovoStatus =~ /Completed/) {
   $closurecode = 'Successful';
} elsif ($ovoStatus =~ /Aborted/) {
   $closurecode = 'Aborted';
} else {
   $closurecode = 'Failed';
}
$exec_string = "perl /opt/OV/SD/bin/sd_event -f
/opt/OV/SD/bin/sd_event.ini -m update -v ";
$exec_string .= "event_id=$ovoEventID ";#--
StartOfSession event id
$exec_string .= "endtime=\"$ovoTime\" ";#-- mapped to
"actual finish" field
$exec_string .= "status=\"Completed\" ";#-- mapped to
"status" field
$exec_string .= "closurecode=\"$closurecode\" ";#--
mapped to "closure code" field
#--- print "$exec_string\n";
# supposed to flush output, because "exec" does not
$| = 1;
exec "$exec_string";
```

Testing

You can test the setup by starting (in Data Protector) a backup session for any of the three backup specifications defined above. You should see an incident (StartOfSession event) being created with the right deadline calculated and the right service (and so the right SLA) related. The same event is then modified (EndOfSession event) for the following fields:

- status (from registered to completed)
- actual finish (completion time)
- actual duration (automatically calculated based on actual start/finish)
- closure code (successful, failed, aborted)

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