

DB2SPI

SMART Plug-In for managing IBM's DB2 Universal Database with HP OpenView Operations

Version A.03.20
November 2006

Release Notes



i n v e n t

What is new with this Release?

Version 03.20 of the DB2SPI, available today for OVO/UNIX has been expanded in many functional areas. The key improvements are:

- Full support of DB2 version 8.x ESE environments (database partitioning)
- Same functionality is also supported on DB2 version 9.1 (Viper) servers
- New process monitoring throughout ESE domains
- Extended service tree representation (down to bufferpools and tablespaces)
- Powerful new definition tool for the objects to be monitored
- Portable graphs for OVPM (Windows and Unix based OVPM)
- Space limitation for the graphing and drill down data store
- New tablespace and bufferpool metrics
- New metrics for the data base growth

Platform Support

OVO Management Server

We are supporting OVO/UNIX versions 7.10, 8.10 and 8.20 with this release, on all hardware platforms supported by HP, with all patches currently available.

OVO Managed Nodes

DB2SPI 03.20 requires either HTTPS agents or the latest DCE agents (Version 7.25 at least) to operate.

DB2 Servers

The latest version currently available from IBM, i.e, DB2 version 9.1, and the former DB2 8.x versions are supported.

Functionality Extensions

Full Database Partitioning Support

With this release we can monitor databases set up in a database partitioning environment (DPF) with all their local and remote properties.

This includes tablespaces, processes etc. that need not to be on the local system, but may reside remotely.

Automatic Discovery in DPF Environments

A new automatic discovery tool has been added that executes every hour to search for new objects that need to be monitored. This is a real thorough search, drilling down deeply into all partitions of the databases etc.

Note that all databases and subordinate objects discovered newly are being monitored automatically, but freshly discovered instances are not.

Completely new Service Tree

In conjunction with the extension of the monitoring capabilities “beyond the edge” of the current system in DPF environments, we re-organized the presentation of the service tree.

Now the service tree is organized in a “DB2 instance” oriented fashion, with branches going deeper into the databases, showing partition, tablespace and bufferpool status, too.

With each change detected by the automatic discovery (new or removed elements) or initiated by the new filter tool that service tree gets updated.

New Filter Tool for monitored Objects

With the new granularity in the service tree the former “Database Filter” did not make much sense any longer. It has been replaced by a more generic “Entity Filter” tool, which can be used to define the monitoring of each individual element down to the tablespace and bufferpool level.

As a special convenience we also added the possibility to influence the monitoring of individual processes, as this has been requested by customers.

More Performance Metrics

The list of performance metrics has been extended to provide new metrics in the bufferpool and tablespace area. These metrics are also available for OVPM graphing.

Less Space needed for Metric Stores

Standard metrics that are transferred to OVR have been restricted to a few days in the OVPA data store, assuming that the OV Reporter will pick them up daily anyway, and duplicate storage does not make sense.

Support of OVPM on Windows and UNIX

The predefined graphs can now be viewed with OVPM installed on either Windows or UNIX systems.

Platforms and Internals

Supported Platforms

The platform matrix for the management servers and managed nodes (DB2 servers) has been updated / extended and is provided as a separate document.

Languages Used by the DB2SPI

Perl and more

All primary processing scripts are written in Perl. This makes it necessary to have Perl available on the managed nodes as a prerequisite. The only supported version is Perl 5.6.1, as provided with the OVO 7.x agent and later.

Please note that the OVO agent Perl for AIX is not functional.

A working copy (original IBM Perl 5.6.1) can be downloaded from the NiCE Customer Portal at <https://portal.nice.de/Portal/login.jsp>

Note that other versions of Perl will not work!

Other requirements

On the management stations CGI (OVO/Unix) and ASP (OVOWindows) scripts are used to execute the UDM editor, which is web-based.

Manual Changes

The DB2SPI User's Guide has been updated to include the new or changed features.

The DB2SPI Reference Guide has been revised to cover the new metrics we are providing with this release.

Installation of DB2SPI 03.20

The installation of DB2SPI 03.20 on a system where no DB2SPI had been installed previously is a straight forward process described in the DB2SPI User's Guide.

If there had been an older package installed and deployed already, please refer to the section "Upgrade from earlier Versions" below.

Installation of the Package

Install the new package as described in the DB2SPI 03.20 User's Guide

Reapply changes made to templates via the OVO admin GUI or upload those saved formerly with `opccfgupld(1m)`.

Deploy new Instrumentation and Templates

From the OVO admin GUI, distribute "commands", "monitors" and "templates" to the managed DB2 nodes.

Installation of the OVPM Integration

OVPM on UNIX Servers

The installation of the `VPI_GraphsDB2SPI.txt` must be copied from the OVO management server, directory `/opt/OV/db2spi/bin/addon`, to the proper place on the OVPM management server.

OVPM on Windows

Please refer to the respective chapter in the DB2SPI User's Guide.

Upgrade from earlier Versions

Before doing anything – save your old data!

In the OVO Administrator create a configuration backup using "Node Bank > Server > Download Configuration" and save the "Templates" that you had modified.

It is recommended to drop the old package entirely by executing an "swremove DB2SPI" on the management server.

The new package can then be installed as usual.

After that, re-apply changes made to templates via the OVO admin GUI or upload those saved formerly with `opccfgupld(1m)`.

Some Windows specific Information

The upgrade procedure is available for UNIX managed nodes only. For Windows platforms the recommended procedure is a “Config Delete / Config Setup” cycle.

When migrating from an older DB2SPI to A.03.20 the file

C:\usr\OV\conf\db2spi_base.env (DCE nodes)

C:\Program Files\HP OpenView\Data\conf\db2spi_base.env (HTTPS nodes)

must be removed manually before doing the fresh configuration.

Old Version is A.03.0x

For the upgrade from DB2SPI A.03.0x to 03.20 the following points need to be observed:

- On the management server, the service tree changes entirely
- On the managed nodes, the instance configuration changes entirely

Upgrading a managed Node (DB2 Server)

After the installation of the package on the management server has been completed, the recommended steps are the following:

- Execute the “DB2SPI Disable” tool for the managed node. This will stop all activity to allow a replacement of the scripts and policies.
- Deploy policies and instrumentation (commands, monitor) to the managed node.
- Log on as “root” at the managed node. Make sure to have the proper paths for “commands” and “monitor” set in your environment, like this example (UNIX HTTPS agent):

```
cd /var/opt/OV/bin/instrumentation
export PATH=$PATH:$PWD
```

- Run the “Patch Apply” script on the managed node. This will automatically detect the old version installed and it will try to convert it to the new instance configuration, adding all detail entities from the new discovery tool. To execute it, enter (UNIX HTTPS agent example):

```
cd /var/opt/OV/bin/instrumentation
db2s_start db2s_applypatch.pl
```

- If no error has been reported, execute the “DB2SPI Enable” tool at the end.

Old Version is A.02.08

With A.03.00 we had introduced significant changes to the metric data stores (naming and contents). A direct upgrade from A.02.08 to DB2SPI 03.20 therefore requires the migration of those metric stores, too.

On the managed nodes you will have to run a "Config Delete" / "Config Setup" cycle in order to apply the new metric store scheme of the SPI.

By default this will drop all the data in your metric data stores, but it is possible to save the data before executing the "Config Delete" with the aid of a migration tool delivered with the DB2SPI. This tool must also be run from the command line as "root" or as an alternative user (see OVO Agents running under alternative users in the OVO Reference Guide).

Data Migration Procedure

Before "Config Delete" is executed the following command must be run (from the commands/instrumentation directory):

```
db2s_start db2s_ds_migrate.pl -e
```

This will create a file in /tmp. Please follow the instructions of the tool.

After you successfully ran the "Config Delete" / "Config Setup" cycle you can import the data again using the following command:

```
db2s_start db2s_ds_migrate.pl -i
```

You can use the "extract" command (see OVPA/MWA documentation) to verify the correct import.

Known Bugs and Problems

DB2 Paths

DB2 installation in non-standard paths (e.g alternative Fix Pack) installations. This is only supported if the Alternative Fixpack Path is the only one on the system and the primary product path (V8.1.0 / V8.2.0) has been removed.

DB2SPI related Issues

The following problems are known to us at the time of delivery of the DB2SPI 03.20.

- **\$AGENT_USER unknown on Windows DCE nodes (ID: none)**

Symptom:

Running any application or schedule template fails on Windows managed nodes with older DCE agent.

Reason:

There is a problem in the OVO DCE agent dealing with the new \$AGENT_USER.

Workaround:

You may upgrade your managed node to use the OVO HTTPS agent supplied with OVO/Unix 8.0.

A DCE agent patch will be available from HP in a few weeks, please check the HP support pages.

- **Instruction text window opened only after long delay (ID: 661)**

Symptom:

Requesting "Instructions ..." from the OVO/Unix message browser takes quite long sometimes.

Reason:

With a highly loaded OVO management server the processing of the instructions repository (an XML file on the management server) takes pretty long.

Workaround:

Be patient. We are looking for performance improvements with the next release by splitting up this information in various files.

- **Administrative log files are not monitored (ID: 878)**

Symptom:

The db2s_diag.pl creates error messages in db2spi.log about missing administrative log file information.

Reason:

In some environments, the DATABASE MANAGER CONFIGURATION does not provide information about the path for the administrative log files and no error is shown during "Config Setup".

Workaround:

Enter these names manually into the .../conf/db2s_admfiles.cfg. For each instance managed, the full path and name of the respective file must be given. An entry could look like this:

```
db2inst1|/home/db2inst1/sqlllib/db2dump/db2inst1.nfy
```

- **Metric directory does not get cleared after "Config Delete" on Windows nodes with OVPA 4.50 installed (ID: none)**

Symptom:

The ...\\db2spi\\metrics directory is retained after a "Config Delete" if OVPA 4.50 is installed.

Reason:

Unknown.

Workaround:

The directory must be deleted manually afterwards.

- **Metric collection stops without message on Windows nodes (ID: 1979)**

Symptom:

The metric collector terminates without any warning or error, but no data are collected.

Reason:

This can be observed if the OS-SPI for Windows is not installed on the managed node or the diagnostic program included in it has been deleted.

Workaround:

Make sure that the OS-SPI for Windows is installed with its full extent.

- **"Config Delete" hangs in non-root environments (ID: 1999)**

Symptom:

When running "Config Delete" in non-root environments, the script hangs when trying to delete the metric configuration.

Reason:

Permissions for DSI2DDF and metric directories require that this action is performed by the "root" user – like in the ""Config Setup" case.

Workaround:

Abort the script and delete the directories used and the data source definitions manually. However, there is no risk leaving these defined on the node and you may leave them all in place. Only if a re-configuration is desired, such a cleanup would be important to do. Please be aware that a manual restart of the OVP Agent is required in any case.