ISSPI Support Note 0004

Subject: **Common ISSPI installation problems**

Severity: Important
Classification: Customer viewable
Audience: Customers, Software Support, Consultants

This support note replaces ISSPI Support notes 0002 and 0003.

ABSTRACT

This ISSPI support note consolidates information about the 7 most common ISSPI 11.1x installation problems:

1. Install fails with error "-spiconfig option should not be specified with patch media"
2. The installer does not install packages as specified in the spiconfig file
3. Install fails silently on OMW (OVCSL_USER_TMP issue)
4. Install fails on OMW 8.16 if it was updated from OMW 8.10
5. Install is very slow or appears to hang on OMW (vbs signature issue)
6. Install fails silently on OML 9.10 / RHEL 6.x (/usr/bin/ksh issue)
7. (De-)Install fails inconsistently on OMW (corrupt install)

Read the Foreword section for recommendations on how to use this document, and the Preliminary Information section for general information on the ISSPI release vehicles and installation process.

FOREWORD

It is not uncommon to run into several of the problems mentioned in this document. For instance, a typical sequence is to run into problem #5, kill the installer (rarely a good idea), restart it and run into problem #3, and then into problem #7.

Therefore, when using this document, I recommend to carefully match your current symptoms with the symptoms described in the problem statement of each of the 7 listed problems. Once the best match is found, apply the suggested solution. If the installation fails again, thoroughly check if the symptoms are still the same (they may be ever so slightly different), match them again with the symptoms described in the problem statement of each of the problems in this document for the best match, which may be a different problem at this stage.

PRELIMINARY INFORMATION

Since OA and ISSPI versions 11.10, the version of the two products have been aligned and the products release concurrently through the same media. Below table summarizes the content of the latest release vehicles:

File name	Release type	OA 11.11 (base)	OA 11.13 (patch)	ISSPI 11.11 (base)	ISSPI 11.13 (patch)
Software_HP_Operations_Agent_v11.13_-_ALL_Platform_ISO_TC097-15034.iso	Media	Yes	Yes	Yes	Yes
Software_HP_Operations_Agent_v11.13_-_AIX_ISO_TC097-15036.iso	Media	AIX	AIX	No	No
Software_HP_Operations_Agent_v11.13_-_Linux_ISO_TC097-15029.iso	Media	Linux	Linux	No	No
Software_HP_Operations_Agent_v11.13_-_HPUX_ISO_TC097-15031.iso	Media	HPUX	HPUX	No	No
Software_HP_Operations_Agent_v11.13_-_Solaris_ISO_TC097-15030.iso	Media	Solaris	Solaris	No	No
Software_HP_Operations_Agent_v11.13_-_Windows_ISO_TC097-15032.iso	Media	Windows	Windows	No	No
Software_HP_Operations_Agent_v11.13_-_Infra_SPI_Only_ISO_TC097-15033.iso	Media	No	No	Yes	Yes
OAAIX_00031.iso	Patch	No	AIX	No	No
OAHPUX_00031.iso	Patch	No	Linux	No	No
OALIN_00031.iso	Patch	No	HPUX	No	No
OASOL_00031.iso	Patch	No	Solaris	No	No
OAWIN_00031.iso	Patch	No	Windows	No	No
INFSPI_00002.iso (*)	Patch	No	No	No	Yes

(*) This file bundles the actual patches for each OM server flavor (PHSS_43614, INFSPILIN_00003, INFSPISOL_00003, INFSPIWIN_00005, INFSPIWIN_00006)

When installing ISSPI on your OM server, one should install the ISSPI base version 11.11 followed by the ISSPI patch version 11.13. This will require one of the two media highlighted in above table.

In order to install the ISSPI from one of these two media, first create a configuration file, say `/tmp/isspi_only.txt` or `C:\Temp\isspi_only.txt` that contains:

```
[agent.parameter]
REGISTER_AGENT=NO
[hpinfraspi.parameter]
InfraSPI=YES
InfraSPI_with_Graphs=YES
InfraSPI_with_Reports=YES
```

Then mount the media and change directory to the media root directory.
The below command will install ISSPI base version 11.11 followed by ISSPI patch version 11.13:

```
Unix:    # ./oainstall.sh -i -m –spiconfig /tmp/isspi_only.txt
Windows: > cscript oainstall.vbs -i -m –spiconfig C:\Temp\isspi_only.txt
```

The installation logs can be found at:

```
Unix/Linux:   /var/opt/OV/share/server/log/oainstall.log
Windows:      %OvShareDir%\server\log\oainstall.log
```

For more information, check the "HP Operations Agent and HP Smart Plug-Ins for Infrastructure Installation Guide".

On the next pages, we will describe the 7 most common ISSPI installation problems and how to resolve these problems.

PROBLEM #1 – Install fails with "-spiconfig option should not be specified with patch media"

PROBLEM STATEMENT

You may see the following error when installing ISSPI 11.11:

<u>On OMU/S/L</u>

```
# ./oainstall.sh -i -m /tmp/isspi_only.txt
INFO:    Unsupported option /tmp/isspi_only.txt
...etc...
```

<u>On OMW</u>

```
D:\>cscript oainstall.vbs -i -m -spiconfig C:\Temp\ispi_only.txt
Microsoft (R) Windows Script Host Version 5.8
Copyright (C) Microsoft Corporation. All rights reserved.

INFO: Incorrect arguments passed.  -spiconfig option should not be specified with
patch media
ERROR: Invalid arguments selected
...etc...
```

This error indicates that you have mounted an ISO file that does not contain the ISSPI installation bits.

SOLUTION

Download one of these 2 files from Software Updates:

> Software_HP_Operations_Agent_v11.13_-_ALL_Platform_ISO_TC097-15034.iso
> Software_HP_Operations_Agent_v11.13_-_Infra_SPI_Only_ISO_TC097-15033.iso

Mount the file and repeat the installation.

<u>Note</u>
If you are unsure which ISO file you mounted, check the content of the mount point of your ISO. It should contain the following directory structure (among others):

```
<mount_point>/integration/infraspi
<mount_point>/integration/infraspipatch
```

If you do not see this directory structure, you did not mount one of the 2 ISOs highlighted in the table above (see the section <u>Preliminary Information</u>).

PROBLEM #2 – The installer does not install packages as specified in the spiconfig file

PROBLEM STATEMENT

You may experience that the installer behaves differently from what you specified in the spiconfig file, e.g.:

- It registers OA 11.1x packages although the spiconfig file specifies "REGISTER_AGENT=NO"
- it installs the ISSPI graphs although the spiconfig file specifies "InfraSPI_with_Graphs=NO"

No error message is produced.

Note that this problem can be easily mixed up with problem #3.

SOLUTION

The most common causes for these problems are:

- The installer was called with a typo in the name of the spiconfig file
- The spiconfig file was not specified with the full path
- The spiconfig file contains a syntax error

If the installer cannot find the file specified with the $-spiconfig$ option, or if this file contains syntax errors, it will use default options specified in the file $default\_config$ in the ISO root directory. No error message is produced. In the install logs, you can verify which file was specified:

```
1/9/2014 3:47:22 PM: INFO: The parameters are:  -i -m -spiconfig C:\Temp\bad.txt
1/9/2014 3:47:22 PM: INFO: Successfully validated the input
```

But the logs will not tell if the file could not be found, and it will produce the message "Successfully validated the input" even if the file contains syntax errors.

The solution is to verify the syntax of the file (see the section Preliminary Information above) and provide the correct full path with the $-spiconfig$ option.

PROBLEM #3 - Install fails silently on OMW (OVCSL_USER_TMP issue)

PROBLEM STATEMENT

When installing the ISSPI 11.1x on the OMW management server, the installation script may terminate with no explicit error. For instance, if using a spiconfig file that specifies to install only the ISSPI:

```
D:\>cscript oainstall.vbs -i -m -spiconfig C:\temp\isspi_only.txt
Microsoft (R) Windows Script Host Version 5.8
Copyright (C) Microsoft Corporation. All rights reserved.

INFO: Skipping the registration of the HP Operations agent deployment packages on the
management server
```

When omitting the `-spiconfig` option, or when using a configuration file that specifies to register the agent depots, the installation script will generate a lot of output, making it feel like the installation succeeded. For instance:

```
D:\>cscript oainstall.vbs -i -m
Microsoft (R) Windows Script Host Version 5.8
Copyright (C) Microsoft Corporation. All rights reserved.

INFO: Registering the HP Operations agent deployment packages on the management server
INFO: Same version of HP Operations agent [11.11.025] is already installed for OS AIX.
Skipping registration.
...etc...
INFO: Staging the HP Operations agent [11.13.007] packages of HP-UX_PA32 platform for
deployment
INFO: Successfully staged the HP Operations agent packages for the HP-UX_PA32 platform
...etc...
INFO: Registering the HP Operations agent [11.13.007] packages of Windows_X64 platform
for deployment
INFO: Successfully registered the HP Operations agent packages for the Windows_X64
platform
INFO: Registry Entry added for patch OAWIN_00031
```

However, the output misses any information about the installation of ISSPI packages. In the OMW console, the ISSPI policies will be either missing (if this is a first install of ISSPI) or the versions will not be updated (if this is an ISSPI upgrade).

In order to distinguish this problem from the [problem #2](#) which may exhibit similar symptoms, check the installation logs at %OvShareDir%\server\log\oainstall.log. Near the end of the file, you should see a VBScript runtime error mentioning "Path not found":

```
INFO: Operations-agent ConfigFile policies uploaded successfully to the server
D:\scripts\oaproductinstall_Windows_X64.vbs(2929, 18) Microsoft VBScript runtime
error: Path not found
```

SOLUTION

This problem occurs because the environment variable OVCSL_USER_TMP points to a directory where the installer cannot create and update files. This could happen for instance if the directory does not exist or if access to this directory is restricted by UAC (User Access Control). For instance:

```
C:\Users\Administrator> set | findstr OVCSL_USER_TMP
OVCSL_USER_TMP=C:/Users/ADMINI~1/AppData/Local/Temp/2/

C:\Users\Administrator> dir C:\Users\ADMINI~1\AppData\Local\Temp
 Volume in drive C has no label.
 Volume Serial Number is 98BF-5063

 Directory of C:\Users\ADMINI~1\AppData\Local\Temp

05/11/2013  20:00    <DIR>          .
05/11/2013  20:00    <DIR>          ..
05/11/2013  19:57    <DIR>          1
05/11/2013  14:58             5.654 ASPNETSetup_00000.log
05/11/2013  14:58             3.920 ASPNETSetup_00001.log
...etc...
```

The above example shows that OVCSL_USER_TMP points to a non-existing directory.

To fix the problem, proceed as follows:

- Run "SystemPropertiesAdvanced" and click on "Environment Variables…"
- In the box 'SystemVariables', locate and select "OVCSL_USER_TMP" and click on "Edit…"
- Change the value to a directory where the Administrator has full access and click on "OK"
- Open a new CMD terminal
- Check that the variable setting is correct:

  ```
  C:\Users\Administrator> set | findstr OVCSL_USER_TMP
  ```

- Launch the installation again from this CMD terminal

PROBLEM #4 – Install fails on OMW 8.16 if it was updated from OMW 8.10

PROBLEM STATEMENT

The installation fails on a Windows server with OMW 8.16. The installation logs contain below errors (%OvShareDir%\server\log\oainstall.log):

```
ERROR: Minimum supported OM server version for the integrated product installation
       is A.08.16
INFO:  Found the available space in OvInstallDir to be compatible for installation
ERROR: Product HPInfraSPI precheck failed.
ERROR: Product HPInfraSPI precheck failed.
```

SOLUTION

This will happen on a server that was originally installed with the OMW 8.10 media and later updated to OMW 8.16 with patches OMW_00090 and OMW_00149 or higher.

To resolve the problem, temporarily change the value of the registry key HKLM\SOFTWARE\Hewlett-Packard\OVEnterprise\Management Server\Version to 8.16, rerun the installation, then change the registry key back to the original value 8.10.

PROBLEM #5 - Install is very slow or appears to hang on OMW (vbs signature issue)

PROBLEM STATEMENT

The installer may appear to progress very slowly or to hang. No progress is shown on the command output and in the installer logs for very long periods. During this time, the system shows most of the time no CPU activity from any installer related processes.

The installation will complete eventually, but it may take several hours.

SOLUTION

This problem usually happens on an OMW server that is not connected to the internet.

VBS scripts provided with HP Software contain signatures that protect their integrity. With the default settings on Windows 2008 servers, the VBS engine will try to access a certificate revocation list on internet in order to validate these signatures. This internet access times out and repeats for every script started during the installation.

Check the document http://support.openview.hp.com/selfsolve/document/KM00377257 for ways to reconfigure your Windows server to avoid this problem. It is recommended to apply one of the solutions from this document and to keep it even after the ISSPI installation completed, as this problem may affect the ISSPI during runtime, and also other HP and non-HP software. You may also apply one of these solutions while the ISSPI installer is already running.

Note that the problem #7 listed in this document often occurs after interrupting the installer. If the installer appears to hang, give it several hours (if possible, let it run through the night) before considering to interrupt it.

PROBLEM #6 - Install fails silently on OML 9.10 / RHEL 6.x (/usr/bin/ksh issue)

PROBLEM STATEMENT

When installing the ISSPI 11.11 on the OML management server on RHEL 6.x, the installation script appears to succeed:

```
# ./oainstall.sh -i -m
INFO: Registering the HP Operations agent packages on the management server
INFO: Backing up the older version of the HP Operations agent packages for the
AIX_powerpc32 platform
INFO: Backup of the older version of the HP Operations agent packages for the
AIX_powerpc32 platform is successful
...
INFO: Registering the HP Operations agent packages for the OS WIN
INFO: Registration of the HP Operations agent packages for WIN patch is successful
INFO: Installing product HPInfraSPI
INFO: Installing package HPSpiSysI ....
INFO: Installing package HPSpiClI ....
INFO: Installing package HPSpiVmI ....
INFO: Installing package HPSpiInfG ....
INFO: Registering the HP Operations agent packages on the management server is
successful
```

However, upon verification, only one package has been installed:

```
# rpm -qa | grep HPSpi
HPSpiInfG-11.11.025-1
```

ISSPI policies will be missing in the AdminUI console.

The installation logs `/var/opt/OV/shared/server/log/oainstall.log` will show generic errors:

```
[01/25/13 16:17:43] [OAInstall] [INFO] Invoking command :
./scripts/oaproductinstall.pl -i -spiconfig ./scripts/../default_config
INFO:  Adding bundle path =
.//integration/infraspi/LIN/Linux2.6_X64/infraspibundle.xml to the product list
INFO:  Installing product HPInfraSPI
INFO:  Found the OM server version to be compatible for integrated product
installation
INFO:  Disk space check not yet implemented
INFO:  Copied /media/HPOvOpsAgt-
11.00/integration/infraspi/LIN/Linux2.6_X64/HPSpiSysI.xml/HPSpiSysI.rpm.gz to
/var/tmp/HPSpiSysI.rpm.gz
INFO:  The component package HPSpiSysI extracted successfully.
INFO:  Installing package HPSpiSysI ....
INFO:  Installing package through command rpm -i --force /var/tmp/HPSpiSysI.rpm >
/dev/null 2>&1
ERROR: The component package HPSpiSysI installation failed.
INFO:  Removing copied file /var/tmp/HPSpiSysI.rpm
INFO:  Copied /media/HPOvOpsAgt-
11.00/integration/infraspi/LIN/Linux2.6_X64/HPSpiClI.xml/HPSpiClI.rpm.gz to
/var/tmp/HPSpiClI.rpm.gz
INFO:  The component package HPSpiClI extracted successfully.
INFO:  Installing package HPSpiClI ....
INFO:  Installing package through command rpm -i --force /var/tmp/HPSpiClI.rpm >
/dev/null 2>&1
```

```
ERROR: The component package HPSpiClI installation failed.
INFO:  Removing copied file /var/tmp/HPSpiClI.rpm
INFO:  Copied /media/HPOvOpsAgt-
11.00/integration/infraspi/LIN/Linux2.6_X64/HPSpiVmI.xml/HPSpiVmI.rpm.gz to
/var/tmp/HPSpiVmI.rpm.gz
INFO:  The component package HPSpiVmI extracted successfully.
INFO:  Installing package HPSpiVmI ....
INFO:  Installing package through command rpm -i --force /var/tmp/HPSpiVmI.rpm >
/dev/null 2>&1
ERROR: The component package HPSpiVmI installation failed.
INFO:  Removing copied file /var/tmp/HPSpiVmI.rpm
INFO:  Copied /media/HPOvOpsAgt-
11.00/integration/infraspi/LIN/Linux2.6_X64/HPSpiInfG.xml/HPSpiInfG.rpm.gz to
/var/tmp/HPSpiInfG.rpm.gz
INFO:  The component package HPSpiInfG extracted successfully.
INFO:  Installing package HPSpiInfG ....
INFO:  Installing package through command rpm -i --force /var/tmp/HPSpiInfG.rpm >
/dev/null 2>&1
INFO:  The component package HPSpiInfG installed successfully.
INFO:  Removing copied file /var/tmp/HPSpiInfG.rpm
INFO:  Copying .//integration/infraspi/LIN/Linux2.6_X64/infraspibundle.xml to
/opt/OV//bin/OpC/agtinstall/infraspibundle.xml
INFO:  Copying /media/HPOvOpsAgt-11.00/scripts/oaproductinstall.pl to
/opt/OV//bin/OpC/agtinstall/oaproductinstall.pl
[01/25/13 16:17:56] [OAInstall] [INFO] Registering the HP Operations agent packages on
the management server is successful
```

SOLUTION

This problem occurs because the package HPSpiSysI.rpm has a dependency on /usr/bin/ksh, although
the file is actually not required for this package. On a RHEL 6.x, the file /usr/bin/ksh is no longer
available. Even if you create the file as a symbolic link to /bin/ksh, it will not resolve the dependency,
because RPM expects to find that the file was installed by an RPM package:

```
# rpm -q -f /usr/bin/ksh
file /usr/bin/ksh is not owned by any package
```

To resolve the problem, proceed as follows:

NOTE: These steps can be used before or after a failed installation attempt. They are also valid for an
       upgrade from an older version.

1. Copy the ISSPI packages from the depot to a temporary directory

```
# mkdir /tmp/isspi1111
# cd/media/HPOvOpsAgt-11.00/integration/infraspi/LIN/Linux2.6_X64
# cp HPSpi*.rpm.gz /tmp/isspi1111
# cd /tmp/isspi1111
# gunzip HPSpi*.rpm.gz
# ls -l
total 2964
-r--r--r-- 1 root root  584115 Jan 25 16:22 HPSpiClI.rpm
-r--r--r-- 1 root root   35677 Jan 25 16:22 HPSpiInfG.rpm
-r--r--r-- 1 root root 1241555 Jan 25 16:22 HPSpiSysI.rpm
-r--r--r-- 1 root root 1153267 Jan 25 16:22 HPSpiVmI.rpm
```

2. Confirm the dependency problem

```
# rpm -i --test --force HPSpiSysI.rpm
warning: HPSpiSysI.rpm: Header V3 DSA signature: NOKEY, key ID 2689b887
error: Failed dependencies:
        /usr/bin/ksh is needed by HPSpiSysI-11.11.025-1.x86_64
```

There should be a dependency error about /usr/bin/ksh and only /usr/bin/ksh.
If there is no dependency error, you are facing a different problem.
If there are more dependency errors, you need to resolve all other dependencies first.

3. Install the packages manually

```
# rpm -i --force --nodeps HPSpiSysI.rpm
warning: HPSpiSysI.rpm: Header V3 DSA signature: NOKEY, key ID 2689b887
# rpm -i --force HPSpiClI.rpm
warning: HPSpiClI.rpm: Header V3 DSA signature: NOKEY, key ID 2689b887
# rpm -i --force HPSpiVmI.rpm
warning: HPSpiVmI.rpm: Header V3 DSA signature: NOKEY, key ID 2689b887
# rpm -qa | grep HPSpi
HPSpiSysI-11.11.025-1
HPSpiVmI-11.11.025-1
HPSpiClI-11.11.025-1
HPSpiInfG-11.11.025-1
```

Note that you need the `--nodeps` option only for the package HPSpiSysI.rpm.
If you have dependency errors for the other packages, you need to resolve these.

If the package HPSpiInfG-11.11.025-1 does not show up in the list, you need to install it manually too:

```
# rpm -i --force HPSpiInfG.rpm
warning: HPSpiInfG.rpm: Header V3 DSA signature: NOKEY, key ID 2689b887
```

Although you are installing the package manually with rpm, you will still find the installation logs updated in `/var/opt/OV/shared/server/log/oainstall.log`.

BACKGROUND INFORMATION

The dependency on /usr/bin/ksh is actually not required. It surfaced because RHEL 6 moved ksh out of /usr/bin. See the [RHEL 6 Migration Guide](#):

5.4. Shells

The location of the shell binary files has changed. For example, the `bash` and `ksh` binaries are no longer in `/usr/bin`. Both binaries are now found in `/bin`. Scripts will require updating to point to the new location of the binary.

PROBLEM #7 - (De-)Install fails inconsistently on OMW (corrupt install)

PROBLEM STATEMENT

Upon trying to install the ISSPI, you may see errors like below in the installation logs:

```
INFO: Same or higher version of HPSpiSysI is already installed. Skipping installation
INFO: Same or higher version of HPSpiSysI is already installed. Skipping installation
INFO: Component HPSpiSysI installed successfully
INFO: Installing package HPSpiClI ....
INFO: Executing command CMD /C "msiexec /i ...
ERROR: Package installation failed
ERROR: Package installation failed
ERROR: Installation of the component package failed
INFO: Installing package HPSpiVmI ....
INFO: Executing command CMD /C "msiexec /i ...
ERROR: Package installation failed
ERROR: Package installation failed
ERROR: Installation of the component package failed
INFO: Installing package HPSpiInfG ....
INFO: Executing command CMD /C "msiexec /i ...
INFO: Component HPSpiInfG installed successfully
WARNING: OVR is not installed. Package HPSpiInfR will not be installed
ERROR: Product HPInfraSPI installation failed. Aborting product installation
ERROR: Product HPInfraSPI installation failed. Aborting product installation
```

Upon trying to deinstall the ISSPI (cscript oainstall.vbs -r -m –spiconfig), the installation logs will show errors like:

```
INFO: Removing package HPSpiSysI ....
INFO: Executing command CMD /C "msiexec /x "{7A1E69A5-9160-457F-8120-0BF8D67697...
ERROR: Package removal failed
ERROR: Package removal failed
ERROR: Component HPSpiSysI removal failed
ERROR: Product HPInfraSPI removal failed. Aborting product removal
ERROR: Product HPInfraSPI removal failed. Aborting product removal
```

If you call msiexec manually to remove the package, you may receive a popup message like:
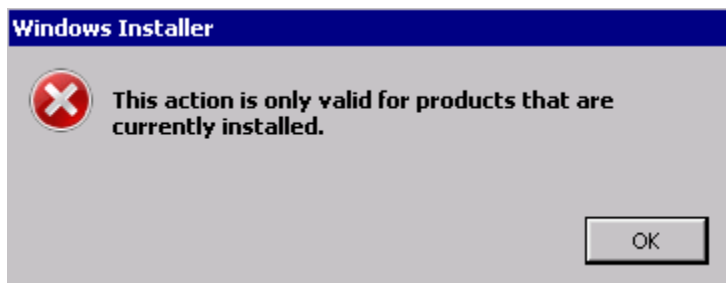
Other errors may occur, depending on the specific situation. Deeper investigations may show contradictions between what is shown or thought to be installed and what is effectively installed.

SOLUTION

Symptoms like these indicate a discrepancy between what is effectively installed from the Windows point of view, and what the installer thinks is installed. There are 2 places to look at, in order to understand the current situation.

1. Windows package inventory

```
# wmic product get PackageCode,PackageName,Version | findstr /I hpspi
```

The above tells us what is installed from the Windows point of view.
Note that is shows this will always show the base version, not the patch level.

A typical output would be:

```
# wmic product get PackageCode,PackageName,Version | findstr /I hpspi
{8CFC17D9-7757-42B9-A6CA-6E263FE840C2}  HPSpiInfG.msi  11.11.25
{93789E7A-564D-43A2-9355-A1853F26BA18}  HPSpiSysI.msi  11.11.25
{5404E4B5-E7F0-4CF3-9273-BBA8B9988B6C}  HPSpiClI.msi   11.11.25
{31988C94-064B-448C-909C-336D246936FD}  HPSpiInfR.msi  11.11.25
{8E54323B-ED76-4CE6-848B-168774A99989}  HPSpiVmI.msi   11.11.25
```

The package codes in above output differ for each installation.

2. Registry keys

Below registry keys are created by the installer during the installation of the ISSPI:

```
HPSpiSysI: HKLM\SOFTWARE\Hewlett-Packard\HP OpenView\{598DD156-98F7-4940-9925-71FFEF38A2CF}
HPSpiClI:  HKLM\SOFTWARE\Hewlett-Packard\HP OpenView\{A645490A-85BC-40BD-8A9A-084626D8FE94}
HPSpiVmI:  HKLM\SOFTWARE\Hewlett-Packard\HP OpenView\{25FB8AAA-A03B-4676-B6DF-FA2F593B2E8B}
HPSpiInfG: HKLM\SOFTWARE\Hewlett-Packard\HP OpenView\{3FBCD12C-7F50-4B5F-877B-A4275C81675C}
HPSpiInfR: HKLM\SOFTWARE\Hewlett-Packard\HP OpenView\{3649CFDF-B7E3-489F-BAEA-14B18881D487}
```

These registry keys tell us what is installed from oainstall's point of view. The UUID shown in these registry key names are the same on all installations (they are different from the PackageCode UUIDs).

The ISSPI installer checks the value of ProductVersion under these keys. ProductVersion contains the base version, not the patch level.

Let us assume for any one ISSPI package the following 2 scenarios:

<u>**SCENARIO 1**</u>

The registry key of this ISSPI package exists, but wmic doesn't show the package.

When trying to install ISSPI, the installer will report that this package is already installed.
When trying to de-install the ISSPI, the installer will attempt the deinstallation but MSI will error out.

This is a "false" installation (only the installer thinks that the package is installed). Note that sometimes the policies and instrumentation of this package are actually (partially) installed on the OMW server, but the package installation did not complete from the Windows point of view.

The solution is to delete the registry key of the specific package that is in trouble and reinstall ISSPI (the installer will skip the other packages, not to worry).

NOTE: if an ISSPI patch (11.12, 11.13) was installed, it should be removed before proceeding with the steps above, and then reinstalled when all base packages are consistently installed.

SCENARIO 2

The registry key of this package is missing, but wmic shows the package installed.

This is a theoretical scenario, as I have not faced it so far, but it indicates a corrupt installation. I believe that the solution would be to force the de-installation by calling msiexec directly for the package that is in trouble.

```
HPSpiSysI:  msiexec /x "{SysI_PACKAGECODE}" /L*vx+ "C:\infsi.log" REBOOT=ReallySuppress
HPSpiClI:   msiexec /x "{ClI_PACKAGECODE}" /L*vx+ "C:\infci.log" REBOOT=ReallySuppress
HPSpiVmI:   msiexec /x "{VmI_PACKAGECODE}" /L*vx+ "C:\infvi.log" REBOOT=ReallySuppress
HPSpiInfG:  msiexec /x "{InfG_PACKAGECODE}" /L*vx+ "C:\infgr.log" REBOOT=ReallySuppress
HPSpiInfR:  msiexec /x "{InfR_PACKAGECODE}" /L*vx+ "C:\infrep.log" REBOOT=ReallySuppress
```

Where *_PACKAGECODE is the value returned for the corresponding package by the command wmic that you ran earlier.

With these options, msiexec will generate debug information in the log file specified in the arguments (you may want to specify a different path). These logs may help if something fails during the de-installation of the package.

After the package is successfully de-installed, rerun the ISSPI installation (the installer will skip the packages that are correctly installed, not to worry).

NOTE1: if an ISSPI patch (11.12, 11.13) was installed, it should be removed before proceeding with the steps above, and then reinstalled when all base packages are consistently installed.

NOTE2: I have never been successful at de-installing the Graphs package, as msiexec would just error out, but then I never had a real need to de-install that package.

Please send feedback to thierry.ledent@hp.com