Upgrade Checker Tool

Release Notes for Version 2.8

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VPLEX Upgrade Checker Tool v2.8 Release Notes

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STATUS		**REVISION**	**1.0**	**DATE**	February 5, 2021
VERSION		**DESCRIPTION**		**DATE**	
V1.0		Initial draft for review		January 25, 2021	

Product Description

The VPLEX Upgrade Checker tool allows Global Services to efficiently analyze whether a customers' VPLEX system meets the requirements of the VPLEX CCA process for a VS2 to VS6 GenU, or NDU.

As part of the VPLEX CCA process, a field (CE/ASR), Professional Services or Remote Proactive (RemPro/RCM) engineer will execute this tool on a customers' system(s) involved in the upgrade activity, collect the resulting .tar file, and attach it to the SolVe Engine Activity (CCA) ticket.

The tool will print an Issues Summary Report to the console and the end of the Cx_<last4TLA>.log (where Cx= cluster-1/cluster-2, and <last4TLA> = the last 4 digits of the clusters' TLA) produced by the tool (and included in the .tar).

Depending on the issues identified in the report the submitter of the SolVe Engine Activity ticket may also need to implement workarounds recommended by the tool, or work with the customer to further investigate issues found in order to resolve them prior to the scheduled activity date.

Installation

The VPLEX Upgrade Checker Tool is installed, and runs live on the VPLEX management-server or MMCS-A. Review the README for installation and use instructions.

Tool Options

The tool runs directly on the VS2 management-server or VS6 MMCS-A, and includes two options:

GenU

The GenU option performs various checks for a VS2 or VS6 and collects the VPlexcli command output required from these systems for the GenU CCA process.

NDU

The NDU option allows the user to perform NDU-related checks and/or collect the VPlexcli command output required for the NDU CCA process or the day of the upgrade. This can be run on any VS2 or VS6 platform running a supported GeoSynchrony version. Review the README for more details on the command options and examples.

NOTES:

1. The tool will only run the GenU option with 'Version mismatch' detected in the VPlexcli 'version -a' command output as long as the directors are running a supported version. The NDU option is also only supported with 'Version mismatch' if the directors are running a supported version, and the management-server is running a higher version than the directors.

2. Only the genu option on the VS6 platform is supported on un-configured systems.

3. It's expected that the tool will be run individually on each cluster in a VPLEX Metro.

4. The NDU option (with CCA option 'SolVeCCAReview'), and the GenU option (when run on a VS2) automatically call the FLAT tool, which analyzes the firmware events from the last 3 days and produces a FirmwareReportSummary.txt file (included in the resulting .tar file) containing a report of any concerning events found. FLAT is not called for a VS6 with the GenU option (as it is un-configured and therefore has no event history).

GeoSynchrony Version Support

New GeoSynchrony Versions Supported in this Release:

Version	Description
6.2.0.04.00.07	6.2 Patch 4

All GeoSynchrony Versions Supported in this Release:

genu option:

Version	Description
6.0.1.04.00.09	6.0 SP1 Patch 4
6.0.1.05.00.09	6.0 SP1 Patch 5
6.0.1.06.00.03	6.0 SP1 Patch 6
6.0.1.07.00.04	6.0 SP1 Patch 7
6.1.0.00.00.17	6.1 DA
6.1.0.00.00.23	6.1 GA
6.1.0.01.00.13	6.1 Patch 1

6.1.0.02.00.04	6.1 Patch 2
6.2.0.00.00.32	6.2 GA
6.2.0.02.00.04	6.2 Patch 2
6.2.0.03.00.02	6.2 Patch 3
6.2.0.04.00.07	6.2 Patch 4

ndu option:

Version	Description
6.0.0.01.00.07	6.0 Patch 1
6.0.0.02.00.07	6.0 Patch 2
6.0.1.00.00.08	6.0 SP1
6.0.1.01.00.04	6.0 SP1 Patch 1
6.0.1.02.00.03	6.0 SP1 Patch 2
6.0.1.04.00.09	6.0 SP1 Patch 4
6.0.1.05.00.09	6.0 SP1 Patch 5
6.0.1.06.00.03	6.0 SP1 Patch 6
6.0.1.07.00.04	6.0 SP1 Patch 7
6.1.0.00.00.17	6.1 DA
6.1.0.00.00.23	6.1 GA
6.1.0.01.00.13	6.1 Patch 1
6.1.0.02.00.04	6.1 Patch 2
6.2.0.00.00.32	6.2 GA
6.2.0.02.00.04	6.2 Patch 2
6.2.0.03.00.02	6.2 Patch 3
6.2.0.04.00.07	6.2 Patch 4

Features in this Release

The ‘ndu’ option of the tool was enhanced to give the user more options and flexibility. The user can now specify the ndu checks to run, and which list of VPlexcli commands to execute. Reference the README for more details.

New VS2 GenU Checks Implemented:

Check Name	Issue Description

New VS6 GenU Checks Implemented:

Check Name	Issue Description

New NDU Checks Implemented:

Check Name	Issue Description

Defect/Errors Fixed in this Release:

Check/Tracking Defect	Issue Description
VPLEX-33931	Due to the issue found with the bepm/7 event (VPLEX-31211) it has been removed from the FLAT Tool.

Features for Next Release:

Checks Identified but not Implemented in this Release:

Check/Tracking Defect	Issue Description

Defect/Errors to be fixed:

Check/Tracking CQ	Issue Description
VPLEX-20077	The FLAT version integrated with the FMAR Automation Tool does not display the volume ID for the amf/249 firmware event in the FLAT report summary when the tool is run on a system running GeoSynchrony 6.2 or higher. If the amf/249 event is reported as having been found by FLAT the user needs to manually grep the firmware.log to determine the volume IDs for which the event has logged.

Known Issues:

Known problems and expected behaviors:

1. Issues with FLAT
   See the Master Document for more details.

2. Lock files
   If the tool hangs/fails due to an uncaught exception the lock file(s) will still be present and must be manually cleared. There are two separate lock files that could be present in the /home/service directory:
   lock_upgrade_linux
   lock_upgrade

   To check which lock file(s) is present first run:

   service@ManagementServer:~> pwd
   /home/service
   service@ManagementServer:~> ls -l lock*

   Then to clear the lock file remove it from the /home/service directory, eg.:

   service@ManagementServer:~> rm /home/service/lock_upgrade*

3. Stopping the script

If a user needs to stop the tool while it is running, Ctrl+c will not achieve a keyboard interrupt. In order to stop the tool, the following needs to be done:

a. Open another session to the management-server where the tool is running, and find the PID for "VPlexUpgradeChecker.py", using the 'ps -ef' command. Eg.:

```
service@ManagementServer:> ps -ef | grep VPlexU | grep -v grep
service   9332  8981 40 17:50 pts/0    00:09:48 /usr/bin/python ./VPlexUpgradeChecker.py -u
genu
```

NOTE: The PID is in the 2nd column.

b. Kill the process for VPlexUpgradeChecker.py using the 'kill -9' command.
This will stop the tool. Eg.:

```
service@ManagementServer:> kill -9 9332
service@ManagementServer:>
```

c. Use the instructions above in Known Issue #1 to check for any lock files that are present and remove any that are found.

4. Broken pipe error
   Under certain circumstances (eg. recent director crash) the script may fail with an exception "socket.error: [Errno 32] Broken pipe". If this occurs it is recommended to wait (a minute or longer) and then re-try the script. If it continues to fail with this error then check the connectivity to the directors and verify access to VPlexcli manually before re-trying.

5. Storage-view find command
   The 'export storage-view find' command output is captured for the NDU option with the cca switch 'SolVeCCAReview', and has been implemented to handle cluster names that have been changed from the default values, cluster-1 & cluster-2 (note the command does not accept wildcards). However, if the clusters are renamed such that cluster-2 is alphabetically ordered before cluster-1, the tool will incorrectly execute the command with the remote clusters' name. The tool should be run separately on both clusters in a Metro, so the output from each cluster will still be captured as long as this is done.

6. Tool exits due to unreachable directors
   The tool will not run the genu option if there are any unreachable directors detected (VPlexcli 'version -a' command output will display a 'mixed' product version and unreachable directors will be detected with 'n/a') in the VPlexcli. This occurs if a director is down, or if the VPN is down between clusters in a Metro. If the issue causing the unreachable director(s) can’t be resolved

prior to needing to run the tool then the unreachable directors must be disconnected from VPlexcli in order for the tool to proceed.
Reference the Upgrade Checker Tool Master Document for information on how to address this.

7. The Upgrade Checker Tool will not support GeoSynchrony 5.x releases, and the ndu option does not function properly on these releases.

Documentation:

Master Document	This document contains additional information for each of the known issues this tool checks for.
README.txt	Refer to this file from the Upgrade Checker Tool package for install & execution instructions, the lists of CCA commands for the ndu option, and example commands.