Installing/Upgrading Patch on NPS in HA Cluster (Linux OS):

This topic talks about the steps required to install/upgrade an NPS Patch when NPS is configured in HA. The steps here cover the scenarios for both NPS running on a dedicated server as well as NPS running co-located on the NNMi server. Commands given in the documentation below specify for which scenario they have to be used. This document will refer Primary HA node on which services are currently running as active node and the Standby node(s) will be referred to as passive nodes.

Patch installation should first happen on all passive node(s) and then on the active node.

Passive Node Patch installation:
==========

1. On each passive node, prior to the patch installation, temporarily move the HA cluster in maintenance mode.

   HA cluster on a node can be moved in maintenance mode by creating the following files on each passive NPS server.

   ```
   /var/opt/OV/hacluster/<resource_group>/maintenance
   /var/opt/OV/hacluster/<rsource_group>/maint_NNM
   ```

2. On each passive node in the cluster, Log on with administrative privileges, temporarily remove the node from the HA cluster. Before running the command for unconfigure, check the following.

   ```
   Go to the directory /var/opt/OV
   Check if "NNMPerformanceSPI_HA_Backupdir" is a link
   If yes, remove it. Move
   NNMPerformanceSPI_HA_Backupdir.<timestamp> which is a
   physical directory to NNMPerformanceSPI_HA_Backupdir.
   If it is not a link, leave as it is.
   ```

   To unconfigure, run the following command

   ```
   /opt/OV/misc/nnm/ha/nnmhaunconfigure.ovpl PerfSPIHA
   <resource_group> (for a dedicated NPS setup)
   /opt/OV/misc/nnm/ha/nnmhaunconfigure.ovpl NNM -addon
   PerfSPIHA (for a co-located NPS setup)
   ```

Info: For a co-located setup, make sure that the command '/opt/OV/misc/nnm/ha/nnmhaclusterinfo.ovpl -config NNM -get NNM_ADD_ON_PRODUCTS'
does not show a passive node in this list.

3. Install the NPS Patch. Follow documented steps appropriately to install the patch and ensure that patch is installed successfully.

   Caution: Do not reconfigure HA back on this node until the active node has patch installed.

4. Run the following command to stop the processes that were started during the patch install(in a new shell):

   /opt/OV/NNMPerformanceSPI/bin/stopALL.ovpl

Active Node Patch installation:
==========

1. On the active node, prior to the patch installation, temporarily move the HA cluster in maintenance mode.

   HA cluster on a node can be moved in maintenance mode by creating the following files on active NPS server.

   /var/opt/OV/hacluster/<resource_group>/maintenance
   /var/opt/OV/hacluster/<rsource_group>/maint_NNM

2. Install NPS Patch. Follow documented steps appropriately to install the patch and ensure that patch is installed successfully.
   Caution: Do NOT unconfigure HA on the active node at this point.

3. Once installation is done, stop all NPS processes by running stopALL.ovpl command:

   /opt/OV/NNMPerformanceSPI/bin/stopALL.ovpl

4. Open a new shell and run startALL.ovpl command to start all processes

   /opt/OV/NNMPerformanceSPI/bin/startALL.ovpl

5. Set the mount point using following command in active node.

   /opt/OV/misc/nnm/ha/nnmhaclusterinfo.ovpl -config PerfSPIHA -set <mount-point>

6. Re-enable perfspi integration by running the following script on NNMi system.

   $NnmInstallDir/bin/nnmenableperfspi.ovpl

   Info: Check section "Running the Enablement Script" in NPS installation guide. Provide Virtual FQDN of the NPS HA setup when prompted for the NPS hostname.

Now, one needs to reconfigure the passive node(s) back in HA cluster.

1. On each passive node, run the following command to reconfigure HA.

   /opt/OV/misc/nnm/ha/nnmhaconfigure.ovpl PerfSPIHA (for dedicated setup)

   /opt/OV/misc/nnm/ha/nnmhaconfigure.ovpl NNM -addon PerfSPIHA (for co-located setup)

   Info: For a co-located setup, make sure that the command '/opt/OV/misc/nnm/ha/nnmhaclusterinfo.ovpl -config NNM -get NNM_ADD_ON_PRODUCTS'
   does not show a passive node in this list.

2. Remove the passive node(s) out of maintenance mode

   HA Cluster node can be moved out of maintenance by deleting the following files on all passive NPS nodes:

   /var/opt/OV/hacluster/<resource_group>/maintenance
   /var/opt/OV/hacluster/<rsource_group>/maint_NNM

3. Remove the active node out of maintenance mode

   HA cluster node can be moved out of maintenance mode by deleting the following files on active NPS server.

   /var/opt/OV/hacluster/<resource_group>/maintenance

/var/opt/OV/hacluster/<rsource_group>/maint_NNM

Uninstalling Patch on NPS in HA Cluster (Linux OS):

This topic talks about the steps required to uninstall an NPS Patch when NPS is configured in HA. The steps here cover the scenarios for both NPS running on a dedicated server as well as NPS running co-located on the NNMi server. Commands given in the documentation below specify for which scenario they have to be used. This document will refer Primary HA node on which services are currently running as active node and the Standby node(s) will be referred to as passive nodes.

Patch uninstallation should first happen on all passive node(s) and then on the active node.

Passive Node Patch uninstallation:

1. On each passive node, prior to the patch uninstallation, temporarily move the HA cluster in maintenance mode.

   HA cluster on a node can be moved in maintenance mode by creating the following files on each passive NPS server.

   /var/opt/OV/hacluster/<resource_group>/maintenance
   /var/opt/OV/hacluster/<rsource_group>/maint_NNM

2. On each passive node in the cluster, Log on with administrative privileges, temporarily remove the node from the HA cluster by running the following command:

   /opt/OV/misc/nnm/ha/nnmhaunconfigure.ovpl PerfSPIHA <resource_group> (for a dedicated NPS setup)

   /opt/OV/misc/nnm/ha/nnmhaunconfigure.ovpl NNM -addon PerfSPIHA (for a co-located NPS setup)

   Info: For a co-located setup, make sure that the command '/opt/OV/misc/nnm/ha/nnmhaclusterinfo.ovpl -config NNM -get NNM_ADD_ON_PRODUCTS'
   does not show a passive node in this list.

3. Uninstall the NPS Patch. Follow documented steps appropriately to uninstall the patch and ensure that patch is uninstalled successfully.

   Caution: Do not reconfigure HA back on this node until the active node has patch uninstalled.

4. Run the following command to stop the processes that were started during the patch uninstall(in a new shell):

   /opt/OV/NNMPerformanceSPI/bin/stopALL.ovpl

Active Node Patch uninstallation:
==========

1. On the active node, prior to the patch uninstallation, temporarily move the HA cluster in maintenance mode.

   HA cluster on a node can be moved in maintenance mode by creating the following files on active NPS server.

   /var/opt/OV/hacluster/<resource_group>/maintenance
   /var/opt/OV/hacluster/<rsource_group>/maint_NNM

2. Uninstall NPS Patch. Follow documented steps appropriately to uninstall the patch and ensure that patch is uninstalled successfully.
   Caution: DO not unconfigure HA on the active node at this point.

3. Once uninstallation is done, stop all NPS processes by running stopALL.ovpl command:

   /opt/OV/NNMPerformanceSPI/bin/stopALL.ovpl

4. Open a new shell and run startALL.ovpl command to start all processes

   /opt/OV/NNMPerformanceSPI/bin/startALL.ovpl

5. Re-enable perfspi integration by running the following script on NNMi system.

   $NnmInstallDir/bin/nnmenableperfspi.ovpl

Info: Check section "Running the Enablement Script" in NPS installation guide. Provide Virtual FQDN of the NPS HA setup when prompted for the NPS hostname.

Now, one needs to reconfigure the passive node(s) back in HA cluster.

1. On each passive node, run the following command to reconfigure HA.

   /opt/OV/misc/nnm/ha/nnmhaconfigure.ovpl PerfSPIHA (for dedicated setup)

   /opt/OV/misc/nnm/ha/nnmhaconfigure.ovpl NNM -addon PerfSPIHA (for co-located setup)

   Info: For a co-located setup, make sure that the command '/opt/OV/misc/nnm/ha/nnmhaclusterinfo.ovpl -config NNM -get NNM_ADD_ON_PRODUCTS'
   does not show a passive node in this list.

2. Remove the passive node(s) out of maintenance mode

   HA Cluster node can be moved out of maintenance by deleting the following files on all passive NPS nodes:

   /var/opt/OV/hacluster/<resource_group>/maintenance
   /var/opt/OV/hacluster/<rsource_group>/maint_NNM

3. Remove the active node out of maintenance mode

   HA cluster node can be moved out of maintenance mode by deleting the following files on active NPS server.

   /var/opt/OV/hacluster/<resource_group>/maintenance
   /var/opt/OV/hacluster/<rsource_group>/maint_NNM

Installing/Upgrading Patch on NPS in HA Cluster (Windows OS):

This topic talks about the steps required to install/upgrade a NPS Patch when NPS is configured in HA. The steps here cover the scenarios for both NPS running on a dedicated server as well as NPS running co-located on the NNMi server. Commands given in the documentation below specify for which scenario they have to be

used. This document will refer Primary HA node on which services are currently running as active node and the Standby node(s) will be referred to as passive nodes.

Patch installation should first happen on all passive node(s) and then on the active node.

Passive Node Patch installation:

1. On each passive node, prior to the patch installation, temporarily move the HA cluster in maintenance mode.

   HA cluster on a node can be moved in maintenance mode by creating the following files on each passive NPS server.

   ```
   %NPSDataDir%/../hacluster/<resource_group>/maintenance
   %NPSDataDir%/../hacluster/<rsource_group>/maint_NNM
   ```

2. On each passive node in the cluster, Log on with administrative privileges, temporarily remove the node from the HA cluster by running the following command:

   ```
   %NPSInstallDir%/../misc/nnm/ha/nnmhaunconfigure.ovpl
   PerfSPIHA <resource_group> (for a dedicated NPS setup)

   %NnmInstallDir%/misc/nnm/ha/nnmhaunconfigure.ovpl NNM
   -addon PerfSPIHA (for a co-located NPS setup)
   ```

   Info: For a co-located setup, make sure that the command '%NnmInstallDir%/misc/nnm/ha/nnmhaclusterinfo.ovpl -config NNM -get NNM_ADD_ON_PRODUCTS'
   does not show a passive node in this list.

3. Install the NPS Patch. Follow documented steps appropriately to install the patch and ensure that patch is installed successfully.

   Caution: Do not reconfigure HA back on this node until the active node has patch installed.

4. Run the following command to stop the processes that were started during the patch install by running the following command (in a new shell):

   ```
   %NPSInstallDir%/bin/stopALL.ovpl
   ```

Active Node Patch installation:
==========

1. On the active node, prior to the patch installation, temporarily move the HA cluster in maintenance mode.

   HA cluster on a node can be moved in maintenance mode by creating the following files on active NPS server.

   %NPSDataDir%/../hacluster/<resource_group>/maintenance
   %NPSDataDir%/../hacluster/<rsource_group>/maint_NNM

2. Install NPS Patch. Follow documented steps appropriately to uninstall the patch and ensure that patch is uninstalled successfully.

   Caution: Do NOT unconfigure HA on the active node at this point.

3. Once installation is done, stop all NPS processes by running stopALL.ovpl command:

   %NPSInstallDir%/bin/stopALL.ovpl

4. Open a new shell and run startALL.ovpl command to start all processes

   %NPSInstallDir%/bin/startALL.ovpl

5. Re-enable perfspi integration by running the following script on NNMi system.

   %NnmInstallDir%/bin/nnmenableperfspi.ovpl

   Info: Check section “Running the Enablement Script” in NPS installation guide. Provide Virtual FQDN of the NPS HA setup when prompted for the NPS hostname.

Now, one needs to reconfigure the passive node(s) back in HA cluster.

1. On each passive node, run the following command to reconfigure HA.

%NPSInstallDir%/../misc/nnm/ha/nnmhaconfigure.ovpl PerfSPIHA (for dedicated setup)

%NnmInstallDir%/misc/nnm/ha/nnmhaconfigure.ovpl NNM -addon PerfSPIHA (for co-located setup)

Info: For a co-located setup, make sure that the command '%NnmInstallDir%/misc/nnm/ha/nnmhaclusterinfo.ovpl -config NNM -get NNM_ADD_ON_PRODUCTS'
does not show a passive node in this list.

2. Remove the passive node(s) out of maintenance mode

   HA Cluster node can be moved out of maintenance by deleting the following files on all passive NPS nodes:

   %NPSDataDir%/../hacluster/<resource_group>/maintenance
   %NPSDataDir%/../hacluster/<rsource_group>/maint_NNM

3. Remove the active node out of maintenance mode

   HA cluster node can be moved out of maintenance mode by deleting the following files on active NPS server.

   %NPSDataDir%/../hacluster/<resource_group>/maintenance
   %NPSDataDir%/../hacluster/<rsource_group>/maint_NNM

Uninstalling Patch on NPS in HA Cluster(Windows):

This topic talks about the steps required to uninstall an NPS Patch when NPS is configured in HA. The steps here cover the scenarios for both NPS running on a dedicated server as well as NPS running co-located on the NNMi server. Commands given in the documentation below specify for which scenario they have to be used. This document will refer Primary HA node on which services are currently running as active node and the Standby node(s) will be referred to as passive nodes.

Patch uninstallation should first happen on all passive node(s) and then on the active node.

Passive Node Patch uninstallation:

1. On each passive node, prior to the patch uninstallation, temporarily move the HA cluster in maintenance mode.

HA cluster on a node can be moved in maintenance mode by creating the following files on each passive NPS server.

%NPSDataDir%/../hacluster/<resource_group>/maintenance
%NPSDataDir%/../hacluster/<rsource_group>/maint_NNM

2. On each passive node in the cluster, Log on with administrative privileges, temporarily remove the node from the HA cluster by running the following command:

   %NPSInstallDir%/../misc/nnm/ha/nnmhaunconfigure.ovpl PerfSPIHA <resource_group> (for a dedicated NPS setup)

   %NnmInstallDir%/misc/nnm/ha/nnmhaunconfigure.ovpl NNM -addon PerfSPIHA (for a co-located NPS setup)

   Info: For a co-located setup, make sure that the command '%NnmInstallDir%/misc/nnm/ha/nnmhaclusterinfo.ovpl -config NNM -get NNM_ADD_ON_PRODUCTS'
   does not show a passive node in this list.

3. Uninstall the NPS Patch. Follow documented steps appropriately to uninstall the patch and ensure that patch is uninstalled successfully.

   Caution: Do not reconfigure HA back on this node until the active node has patch installed.

4. Run the following command to stop the processes that were started during the patch uninstall (in a new shell):

   %NPSInstallDir%/bin/stopALL.ovpl

Active Node Patch uninstallation:
==========

1. On the active node, prior to the patch uninstallation, temporarily move the HA cluster in maintenance mode.

   HA cluster on a node can be moved in maintenance mode by creating the following files on active NPS server.

   %NPSDataDir%/../hacluster/<resource_group>/maintenance
   %NPSDataDir%/../hacluster/<rsource_group>/maint_NNM

2. Uninstall NPS Patch. Follow documented steps appropriately to uninstall the patch and ensure that patch is uninstalled successfully.
   Caution: DO not unconfigure HA on the active node at this point.

3. Once uninstallation is done, stop all NPS processes by running stopALL.ovpl command:

   %NPSInstallDir%/bin/stopALL.ovpl

4. Open a new shell and run startALL.ovpl command to start all processes

   %NPSInstallDir%/bin/startALL.ovpl

5. Re-enable perfspi integration by running the following script on NNMi system.

   %NnmInstallDir%/bin/nnmenableperfspi.ovpl

   Info: Check section "Running the Enablement Script" in NPS installation guide. Provide Virtual FQDN of the NPS HA setup when prompted for the NPS hostname.

Now, one needs to reconfigure the passive node(s) back in HA cluster.

1. On each passive node, run the following command to reconfigure HA.

   %NPSInstallDir%/../misc/nnm/ha/nnmhaconfigure.ovpl PerfSPIHA (for dedicated setup)

   %NnmInstallDir%/misc/nnm/ha/nnmhaconfigure.ovpl NNM -addon PerfSPIHA (for co-located setup)

   Info: For a co-located setup, make sure that the command '%NnmInstallDir%/misc/nnm/ha/nnmhaclusterinfo.ovpl -config NNM -get NNM_ADD_ON_PRODUCTS'
   does not show a passive node in this list.

2. Remove the passive node(s) out of maintenance mode

   HA Cluster node can be moved out of maintenance by deleting the following files on all passive NPS nodes:

%NPSDataDir%/../hacluster/<resource_group>/maintenance
%NPSDataDir%/../hacluster/<rsource_group>/maint_NNM

3. Remove the active node out of maintenance mode

   HA cluster node can be moved out of maintenance mode by deleting the following files on active NPS server.

%NPSDataDir%/../hacluster/<resource_group>/maintenance
%NPSDataDir%/../hacluster/<rsource_group>/maint_NNM