# Test Plan for Qlogic NIC SRIOV 3.0.3 Fuel Plugin

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# Revision history

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Revision date** | **Editor** | **Comment** |
| 1.0.0 | 4/30/2016 |  | Initial draft |
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# Qlogic NIC Adapter SRIOV Plugin

## Developer’s specification



## Limitations.

CQ 86393 : Issue w.r.t SRIOV with VLAN configuration when adapter is in NPAR mode.

CQ 86282 : Issue w.r.t E3-Adapter (578xx) not able to set QOS/BW limit on SRIOV VFs

CQ 81380 : Issue w.r.t attaching Vxlan interface created on SRIOV-VF with VM in Openstack env and OVS

# System testing

## Install plugin and deploy environment and check if it works fine.

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| Test Case ID | install\_plugin\_deploy\_env |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin is installed successfully using cli 2. Create environment with enabled plugin in fuel GUI, launch the fuel site and check setting section to make sure the Qlogic NIC SRIOV plugin exists and able to configure SRIOV with Number of VFs. 3. Add 3 nodes with Controller role (Min 1 node for controller) and 1 node with Compute and storage. 4. Configure network Interfaces as require. 5. Apply network settings 6. Run network verification and make sure it shows Successful message. 7. Deploy the cluster 8. Once the deployment finished successfully open Horizon Portal 9. Run QLOGIC NIC SRIOV test and make sure it is successful 10. Run Health Check Test and make sure it is successful |
| Expected Result | *Plugin is installed successfully, cluster is created, network* verification and Test are passed, and all plugin services is enabled and worked as expected. |

## Install plugin and deploy environment with Min and Max Vfs value for SR-IOV

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| Test Case ID | install\_plugin\_deploy\_env\_with\_Min\_and\_Max\_Vfs |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin is installed successfully using cli 2. Create environment with enabled plugin in fuel GUI, launch the fuel site and check setting section to make sure the Qlogic NIC SRIOV plugin exists and able to configure SRIOV with Number of VFs. 3. Add 3 nodes with Controller role (Min 1 node for controller) and 1 node with Compute and storage. 4. Configure network Interfaces as require. 5. Apply network settings 6. Run network verification and make sure it shows Successful message. 7. Deploy the cluster 8. Once the deployment finished successfully open Horizon Portal 9. Run QLOGIC NIC SRIOV test with Min Vfs value and make sure it is successful 10. Run QLOGIC NIC SRIOV test with Max Vfs value and make sure it is successful 11. Run Health Check Test and make sure it is successful |
| Expected Result | *Plugin is installed successfully, cluster is created, network* verification and Test are passed, and all plugin services is enabled and worked as expected with Min and Max values of Vfs |

## Install plugin and deploy environment and check it shows correct link speed for SR-IOV VF

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| Test Case ID | install\_plugin\_deploy\_env\_and\_check\_it\_show\_correct\_link\_speed\_for\_SR-IOV\_VF |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin is installed successfully using cli 2. Create environment with enabled plugin in fuel GUI, launch the fuel site and check setting section to make sure the Qlogic NIC SRIOV plugin exists and able to configure SRIOV with Number of VFs. 3. Add 3 nodes with Controller role (Min 1 node for controller) and 1 node with Compute and storage. 4. Configure network Interfaces as require. 5. Apply network settings 6. Run network verification and make sure it shows Successful message. 7. Deploy the cluster 8. Once the deployment finished successfully open Horizon Portal 9. Run QLOGIC NIC SRIOV test and check it shows correct link speed for SR-IOV VF 10. Run Health Check Test and make sure it is successful |
| Expected Result | *Plugin is installed successfully, cluster is created, network* verification and Test are passed, and all plugin services is enabled and worked as expected and it should show correct Link speed (10Gbps) for QLE8442 |

## Install plugin and deploy environment and check it runs traffic correctly between VF to VF for SR-IOV

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| Test Case ID | install\_plugin\_deploy\_env\_and\_check\_traffic\_for\_SR-IOV\_VF |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin is installed successfully using cli 2. Create environment with enabled plugin in fuel GUI, launch the fuel site and check setting section to make sure the Qlogic NIC SRIOV plugin exists and able to configure SRIOV with Number of VFs. 3. Add 3 nodes with Controller role (Min 1 node for controller) and 1 node with Compute and storage. 4. Configure network Interfaces as require. 5. Apply network settings 6. Run network verification and make sure it shows Successful message. 7. Deploy the cluster 8. Once the deployment finished successfully open Horizon Portal 9. Run QLOGIC NIC SRIOV test and check it shows run traffic correctly between VF to VF 10. Run Health Check Test and make sure it is successful |
| Expected Result | *Plugin is installed successfully, cluster is created, network* verification and Test are passed, and all plugin services is enabled and worked as expected and shoul run traffic between two VFs attached with VMs |

## Install plugin and deploy environment and check traffic run with performance between VF to VF for SR-IOV

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| --- | --- |
| Test Case ID | install\_plugin\_deploy\_env\_and\_check\_traffic\_run\_with\_performance\_between\_SR-IOV\_VF |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin is installed successfully using cli 2. Create environment with enabled plugin in fuel GUI, launch the fuel site and check setting section to make sure the Qlogic NIC SRIOV plugin exists and able to configure SRIOV with Number of VFs. 3. Add 3 nodes with Controller role (Min 1 node for controller) and 1 node with Compute and storage. 4. Configure network Interfaces as require. 5. Apply network settings 6. Run network verification and make sure it shows Successful message. 7. Deploy the cluster 8. Once the deployment finished successfully open Horizon Portal 9. Run QLOGIC NIC SRIOV test and check it shows run traffic correctly between VF to VF with iperf tool and it should show max speed performance. 10. Run Health Check Test and make sure it is successful |
| Expected Result | *Plugin is installed successfully, cluster is created, network* verification and Test are passed, and all plugin services is enabled and worked as expected and it should run traffic with Link speed between two VFs of VMs. |

## Modifying env with enabled plugin (removing/adding controller nodes)

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| Test Case ID | modify\_env\_with\_plugin\_remove\_add\_controller |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin is installed successfully using cli 2. Create environment with enabled plugin in fuel GUI, launch the fuel site and check setting section to make sure the Qlogic NIC SRIOV plugin exists and able to configure SRIOV with Number of VFs. 3. Add 3 nodes with Controller role (HA Mode) and 1 node with Compute and Storage mode 4. Configure network Interfaces as require. 5. Apply network settings 6. Run network verification and make sure it shows successful message. 7. Deploy the cluster 8. Once the deployment finished successfully open Horizon Portal 9. Run QLOGIC NIC SRIOV test and make sure it is successful 10. Run Health Check test and Make sure it is successful. 11. Remove 1 nodes with Controller role   /\*remove node, where plugin’s services available, to ensure that according to ha mode all plugins resources will be replaced and available on another live node and continue to work as expected\*/   1. Re-deploy cluster 2. Once the deployment finished successfully open Horizon Portal 3. Check plugin services using cli 4. Run Qlogic SRIOV vi plugin test and health status test and make sure it is successful 5. Add 1 new node with Controller role 6. Re-deploy cluster. 7. Check plugin services using cli 8. Run Qlogic SRIOV vi plugin test and health status test and make sure it is successful |
| Expected Result | *Plugin is installed successfully, cluster is created, network verification and Health check tests are passed, and all plugin services is enabled after migration in ha mode and worked as expected after modifying of environment.* |

## Modifying env with enabled plugin (removing/adding compute node)

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| Test Case ID | modify\_env\_with\_plugin\_remove\_add\_compute |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin is installed successfully using cli 2. Create environment with enabled plugin in fuel GUI, launch the fuel site and check setting section to make sure the Qlogic NIC SRIOV plugin exists and able to configure SRIOV with Number of VFs. 3. Add 3 nodes with Controller role (HA Mode) and 2 node with Compute and Storage mode 4. Configure network Interfaces as require. 5. Apply network settings 6. Run network verification and make sure it shows successful message. 7. Deploy the cluster 8. Once the deployment finished successfully open Horizon Portal 9. Run QLOGIC NIC SRIOV test and make sure it is successful 10. Run Health Check test and Make sure it is successful. 11. Remove 1 nodes with Compute role 12. Re-deploy cluster 13. Once the deployment finished successfully open Horizon Portal 14. Check plugin services using cli 15. Run Qlogic SRIOV vi plugin test and health status test and make sure it is successful 16. Add 1 new node with Compute role 17. Re-deploy cluster. 18. Check plugin services using cli 19. Run Qlogic SRIOV vi plugin test and health status test and make sure it is successful |
| Expected Result | *Plugin is installed successfully, cluster is created, network verification and Health check tests are passed, and all plugin services is enabled after migration in ha mode and worked as expected after modifying of environment.* |

## Uninstall of plugin with deployed environment

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| Test Case ID | uninstall\_plugin\_with\_deployed\_env |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin is installed successfully using cli 2. Create environment with enabled plugin in fuel GUI, launch the fuel site and check setting section to make sure the Qlogic NIC SRIOV plugin exists and able to configure SRIOV with Number of VFs. 3. Add 3 nodes with Controller role (Min 1 node for controller) and 1 node with Compute and storage. 4. Configure network Interfaces as require. 5. Apply network settings 6. Run network verification and make sure it shows Successful message. 7. Deploy the cluster 8. Once the deployment finished successfully open Horizon Portal 9. Run QLOGIC NIC SRIOV test and make sure it is successful 10. Run Health Check Test and make sure it is successful 11. Try to Remove Qlogic NIC SRIOV Plugin, it should give error 12. Remove/Un deploy Cluster Environment 13. Try to Remove Qlogic NIC SRIOV Plugin, it should give successful message.   fuel plugins --remove fuel-plugin-qlogic-sriov==3.0.0 |
| Expected Result | *Plugin was installed successfully. Alert is present when we trying to delete plugin which is attached to enabled environment. When environment was removed, plugin is removed successfully too.* |

## Uninstall of plugin

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| Test Case ID | uninstall\_plugin |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin is installed successfully using cli 2. remove plugin   fuel plugins --remove fuel-plugin-qlogic-sriov==3.0.0   1. check that it was successfully removed |
| Expected Result | *Plugin was installed and then removed successfully* |

## Installation of Qlogic NIC SR-IOV plugin on Older version of Fuel (less than Fuel 7.0)

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| Test Case ID | Installtion\_of\_Qlogic\_NIC\_SR-IOV\_plugin\_on\_older\_version\_of\_fuel |
| Steps | 1. Copy Qlogic NIC SRIOV plugin on Fuel Master Node with version 6.1 2. Install Qlogic NIC plugin using fuel plugins –install command   fuel plugins --install fuel-plugin-qlogic-sriov-3.0-3.0.0-1.noarch.rpm   1. Ensure that plugin should not allow to install successfully and give proper error message |
| Expected Result | *Plugin should not allow to install successfully* |