Cisco Prime Provisioning 6.8 Release Notes

July 14, 2016

All documentation, including this Cisco Prime Provisioning 6.8 Release Notes document and any or all parts of the Cisco Prime Provisioning 6.8 documentation set, might be upgraded over time. Therefore, we recommend you to access the Prime Provisioning 6.8 documentation set online at:

http://www.cisco.com/go/provisioning

You can also navigate to this documentation set by clicking **Help** on the Home Page of the Prime Provisioning 6.8 product.

The information in this release notes provides an overview of this release and helps you understand it at a high level. After reading the *Cisco Prime Provisioning 6.8 Documentation Overview*, please read this release note prior to reading any other documentation for Prime Provisioning 6.8.

URL's for base information about Prime Provisioning 6.8, a product overview, and suggested reading order of these documents is given in Related Documentation, page 16.

Contents

This document includes the following sections:

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Introduction

Prime Provisioning is a management solution for network provisioning that enables the automation and scaling of complex, policy-driven network provisioning tasks to produce consistent and reliable service deployments. Prime Provisioning does this by planning, provisioning, and auditing services across core, aggregation, access, and consumer premises equipment devices.

Cisco Prime Provisioning enables fast deployment and time-to-market of Multiprotocol Label Switching (MPLS) and Carrier Ethernet technologies. In addition, the Prime Provisioning Traffic Engineering Management (TEM) module is Cisco's exclusive planning and provisioning tool for Cisco MPLS Traffic Engineering-enabled routers. MPLS Transport Profile (TP) provides service providers with a reliable packet-based technology that is based upon circuit-based transport networking, and hence is expected to align with current organizational processes and large-scale work procedures similar to other packet transport technologies.

The Cisco Prime Provisioning solution has management capabilities for MPLS VPN, L2VPN and Carrier Ethernet, MPLS TP, and MPLS Traffic Engineering. These capabilities that comprise Cisco Prime Provisioning can be used in a stand-alone manner or can be integrated with the Prime Carrier Management April 2016 suite.

Cisco Prime Provisioning 6.8 includes many new features whose highlights are listed below:

- Provides support to append the IP Address to the existing hostname of the router.
- Generic Resource Pool handling across all service blades.
- Conversion of special characters associated with VPN name, during VFI name auto generation.
- Support extended to reflect manually assigned values of VCID/ VLAN ID/ SEC VLAN ID/ OUTER VLANID/ INNER VLANID in a pool as an allocated value.
- Supporting ASR-90X Serial Interface Pseudowire for EVC TDM-CEM services.
- Supports auto-update of interfaces and description of interfaces in device inventory on successful SR Deployment.
- GRE Tunnel interface support for IOS-XR devices.
- IPv6 Address Pool support for MPLS services.
- Trunk EFP support for ASR920 device.

Installing Prime Provisioning 6.8

When purchasing Prime Provisioning you will be prompted to select either delivery by

- eDelivery, in which case you will receive an email with a download link, or
- physical DVD media

If the version is not the latest, you are advised to upgrade. The latest Prime Provisioning 6.x version can be ordered for download by eDelivery (or DVD shipment) free of charge, provided that you have a Software and Services (SAS) contract. The minor upgrade can be ordered through the Product Upgrade Tool (PUT):
http://tools.cisco.com/gct/Upgrade/jsp/productUpgrade.jsp

Additionally, you are strongly advised to apply the latest available service patch. Prime Provisioning patches are available at
http://software.cisco.com/download/navigator.html?mdfid=284127465&flowid=37682

For information about the installation process, see the *Cisco Prime Provisioning Installation Guide 6.8.*

Installation Notes

After the Patch upgrade, certain host configuration properties are not retained. So, it is advisable to create a backup of all the DCPL settings, by running the following script.

$PRIMEF_HOME/bin/extractproperties.sh

Once you upgrade, run the following script to restore the DCPL settings.

$PRIMEF_HOME/bin/extractproperties.sh -replace

New Features and Enhancements in Prime Provisioning 6.8

This section describes features and enhancements added or modified in Prime Provisioning 6.8.

For system recommendations, refer to the *Cisco Prime Provisioning Installation Guide 6.8,* and for device and platform support, refer to Cisco Prime Provisioning Supported Devices. It includes the network devices and related software supported with Prime Provisioning 6.8. We recommend that you thoroughly review this list before even planning your installation, to be sure you have all the hardware and software needed for a successful installation.

Prime Provisioning 6.8 is based on Cisco Prime Provisioning 6.7.1 and 6.7.2.

Prime Provisioning 6.8 includes problems fixed since Cisco Prime Provisioning 6.7.1. See Prime Provisioning 6.8 Resolved and Open Bugs, page 13.

Note Cisco Prime Provisioning 6.8 is only compatible with Cisco Prime Central 1.5.1. Make sure you upgrade Cisco Prime Central to version 1.4 before upgrading and integrating the current version of Prime Provisioning.

Note

- Prime Provisioning can be used as a standalone product or as a part of Prime Carrier Management April 2016. When installed as part of the suite, you can launch Prime Provisioning from the Prime Central portal. For more information about Prime Central, see the documentation for Cisco Prime Central.
- Cisco Prime for IP Next Generation Networks (IP NGN) has been renamed as Cisco Prime for Evolved Programmable Networks (EPN). Please keep this in mind when viewing the suite and application documentation for the upcoming Cisco Prime Carrier Management release.

Items specific to Prime Provisioning 6.8 include the new and changed information as documented in the following sections:

- Features introduced in Prime Provisioning 6.7.1
  - General New Features, page 4
  - L2EVC/VPN/ATM New Features, page 4
- Features introduced in Prime Provisioning 6.7.2
  - General Features, page 4
  - L2EVC/ATM New Features, page 6
  - MPLS New Features, page 8

Features introduced in Prime Provisioning 6.7.1

General New Features

All the new features introduced in 6.7.1 release are explained below.

L2EVC/VPN/ATM New Features

This section summarizes features that were added to enhance EVC services in Prime Provisioning 6.7.1.

Supporting Hundred Gigabit Ethernet in L2 EVC Services

From Prime Provisioning 6.7.1, Hundred Gigabit Ethernet support is provided for all L2 EVC services. Currently this support is extended only for IOS XR devices and not for IOS devices. This feature is supported through both GUI and NBI.

Extending ATM Inter-networking Functionality

From Prime Provisioning 6.7.1, ATM Inter-networking Functionality has been extended to support all new IOS/IOS-XR platforms that were added to EVC provisioning. There is no dependency factor on the platforms so all the devices with the ATM card can be provisioned using the EVC service blade for ATM Ethernet internetwork.

In accordance with this functionality, two new fields have been added in the GUI for IOS-XR platform devices:

- L2VPN Group name
- E-Line name

This functionality is also supported through NBI.

Features introduced in Prime Provisioning 6.7.2

General Features

This section summarizes the general features that were added in Prime Provisioning 6.7.2.

Introducing /31 in IPV4 Resource Pool

From this release, Prime Provisioning provides support for the new pool mask /31 along with the other options /30 and /32 in the IPV4 resource pool. /31 is used for creating IP numbered address pools similar to /30. It is applied to the links that have point-to-point protocol enabled in Cisco routers. It supports only Region and Customer based pool creation similar to /30 support.

/31 has additional advantage over /30, as it preserves more IP addresses than /30 pools. /30 comprises four IP addresses, Network address, Broadcast address and two host addresses that are applied to two links, whereas /31 comprises two IP addresses which are used as host addresses for point-to-point links.

This feature is supported through both GUI and NBI.

Below is a sample NBI XML snippet highlighting the tags, attributes and values required to introduce /31 in IPV4 resource pool. New changes are highlighted in **BOLD** text in the NBI XML snippet.

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope …….
…….
      <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">SubnetMask</name>
        <value xsi:type="xsd:string">31</value>
      </item>
……
  </soapenv:Body>
</soapenv:Envelope>
```

Introducing EVC Inner VLAN Pool

From this release, a new pool type EVC Inner VLAN has been introduced in the Resource Pool. To create a new EVC Inner VLAN, you need to enter the following fields in the create New Inner VLAN window.

- Inner VLAN Pool Start
- Inner VLAN Pool Size
- Interface Access Domain

Synchronizing Device Credential from Prime Network to Prime Provisioning

From this release, Prime Provisioning provides support for synchronization of device credentials for the modified devices from Prime Network (PN) to Prime Provisioning (PP).

Whenever, a device is modified in Prime Network, a notification will be sent by Prime Central to Prime

Provisioning, and then Prime Provisioning will request for the details of the notified device to update them in inventory. With respect to this feature system will allow to update the below credentials:

- snmp v1
- snmp v2
- snmp v3
- telnet
- ssh

This functionality also supports port number update for CPT based devices

L2EVC/ATM New Features

This section summarizes features that were added to enhance EVC services in Prime Provisioning 6.7.2.

Supporting Pseudowire Redundancy for ATM-Ethernet Interworking Services

From Prime Provisioning 6.7.2, Pseudowire Redundancy support has been extended to ATM-Ethernet Interworking service type for both IOS and IOS-XR devices. In accordance with this functionality, **Enable Pseudowire redundancy** attribute is introduced for this service type in the Service Request editor screen. The editable and non-editable functionality as well as the enable and disable feature of this attribute has been linked from the policy screen to the Service Request editor screen.

This feature is supported through both GUI and NBI.

Below is a sample NBI XML snippet highlighting the tags, attributes and values required to support pseudowire redundancy for ATM-Ethernet interworking services. The existing NBI XML tags and attributes used for ETHERNET services have been reused under **ServiceRequestDetails** object.

```
<objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">ServiceRequestDetails</className>
        <properties xsi:type="ns1:CIMPropertyList"
                        soapenc:arrayType="ns1:CIMProperty[]">
            <item xsi:type="ns1:CIMProperty">
                  <name xsi:type="xsd:string">UseBackupVCID</name>
                  <value xsi:type="xsd:string">true</value>
                </item>
               <item xsi:type="ns1:CIMProperty">
                    <name xsi:type="xsd:string">BackupVCID</name>
                    <value xsi:type="xsd:string">5060</value>
               </item>
        </properties>
</objectPath>
```

Allocating and Releasing Auto Picked EVC Inner VLAN

From this release, a new pool type EVC Inner VLAN has been introduced in the Resource Pool. With respect to this pool type, a new attribute **AutoPick Inner VLAN** has been introduced in both Policy and Service Request screens. This attribute appears when Match Inner and Outer Tags check box is selected. The Match Inner and Outer Tags check box should be enabled in the policy to make use of AutoPick Inner VLAN feature during service request creation.

You have to check the AutoPick Inner VLAN check box to autopick the Inner VLAN ID from a previously created EVC Inner VLAN ID resource pool during service request creation. If this check box is unchecked you will be prompted to specify an Inner VLAN ID during service request creation.

This feature is supported through both GUI and NBI.

Below are the sample NBI XML snippets highlighting the tags, attributes and values required for inner VLAN resource pool creation and deletion, policy creation and SR creation

For Creating the Inner VLAN Resource Pool:

```
<objectPath xsi:type="ns1:CIMObjectPath">
     <className xsi:type="xsd:string">InnerVlanIdPool</className>
     <properties xsi:type="ns1:CIMPropertyList"
                    soapenc:arrayType="ns1:CIMProperty[]">
      <item xsi:type="ns1:CIMProperty">
       <name xsi:type="xsd:string">Start</name>
       <value xsi:type="xsd:string">7765</value>
      </item>
```

```
      <item xsi:type="ns1:CIMProperty">
       <name xsi:type="xsd:string">Size</name>
       <value xsi:type="xsd:string">14</value>
      </item>
      <item xsi:type="ns1:CIMProperty">
       <name xsi:type="xsd:string">InterfaceAccessDomain</name>
       <value xsi:type="xsd:string">interaccestest</value>
      </item>
    </properties>
   </objectPath>
```

For Deleting the Inner VLAN Resource Pool

```
<objectPath xsi:type="ns1:CIMObjectPath">
     <className xsi:type="xsd:string">InnerVlanIdPool</className>
     <keyProperties xsi:type="ns1:CIMKeyPropertyList"
                    soapenc:arrayType="ns1:CIMKeyProperty[]">
       <item xsi:type="ns1:CIMKeyProperty">
        <name xsi:type="xsd:string">LocatorId</name>
        <value xsi:type="xsd:string">51</value>
       </item>
      </keyProperties>
    </objectPath>
```

For Creating Policy:

```
                <objectPath xsi:type="ns1:CIMObjectPath">
                    <className xsi:type="xsd:string">ServiceDefinitionDetails</className>
                    <properties xsi:type="ns1:CIMPropertyList"
                                   soapenc:arrayType="ns1:CIMProperty[]">
                …….
                   <item xsi:type="ns1:CIMProperty">
                      <name xsi:type="xsd:string">AutoPickInnerVlan </name>
                      <value xsi:type="xsd:string">true</value>
                    </item>
                      </properties>
                  </objectPath>
```

For Creating SR:

```
<objectPath xsi:type="ns1:CIMObjectPath">
                    <className xsi:type="xsd:string">EvcServiceInstanceAttrs</className>
                    <properties xsi:type="ns1:CIMPropertyList"
                                   soapenc:arrayType="ns1:CIMProperty[]">
                …….
                   <item xsi:type="ns1:CIMProperty">
                      <name xsi:type="xsd:string"> AutoPickInnerVlan </name>
                      <value xsi:type="xsd:string">true</value>
                    </item>
                      </properties>
                  </objectPath>
```

Supporting DOT1AD Encapsulation Type

From this release, Prime Provisioning introduces a new encapsulation type DOT1AD along with others in the EVC policy and SR screens. It is supported in both IOS and IOS-XR devices. The supported IOS and IOS-XR devices are:

- ME3600
- ASR-9K

- ASR 901

DOT1AD is introduced as a drop down option in the Match attribute which is a flex and encapsulation type. The encapsulation type cannot be changed once the SR is created for the policy. It has been implemented with the ranges support for Outer VLAN and Inner VLAN ID. Prime Provisioning also provides DOT1AD support for Rewrite Type in EVC SR screen.

Note DOT1AD is only supported for N-PE devices.

This feature is supported through both GUI and NBI

Below is a sample NBI XML snippet highlighting the tags, attributes and values required for Policy and SR creation

For policy creation the below tag should come under **ServiceDefinitionDetails classname**,

```
<item xsi:type="ns1:CIMProperty">
                  <name xsi:type="xsd:string">FlexEncapsulationType</name>
                  <value xsi:type="xsd:string">DOT1AD</value>
            </item>
```

For SR creation the below tag should come under **EvcServiceInstanceAttrs classname**,

```
<item xsi:type="ns1:CIMProperty">
                  <name xsi:type="xsd:string">EncapsulationType</name>
                  <value xsi:type="xsd:string">DOT1AD</value>
            </item>
```

Supporting MTU Attribute for VPLS Service

From Prime Provisioning 6.7.2, **MTU size** attribute has been introduced for Direct Connect Links section in VPLS policy and SR screens. Earlier this attribute was present only in Links with L2 Access Nodes section. This attribute is applicable for both IOS and IOS-XR devices. MTU size varies for IOS and IOS-XR devices. A tool tip added to MTU attribute shows the size range for IOS devices as (64-9216) and for IOS-XR devices as (46-65535). The MTU size provided is provisioned under interface VLAN CLI for IOS devices and under bridge-domain CLI for XR devices.

This feature is supported through both GUI and NBI.

Below is a sample NBI XML snippet highlighting the tags, attributes and values required for MTU creation under **EvcETHLinkAttrs classname.** This is an existing attribute and reused for direct links.

```
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">SystemMTU</name>
  <value xsi:type="xsd:string">2590</value>
</item>
```

MPLS New Features

This section summarizes the new MPLS features that were added in Prime Provisioning 6.7.2

Allocating and Releasing Auto Picked EVC Inner VLAN

From this release, Prime Provisioning provides the auto pick option for second VLAN ID or EVC Inner VLAN while creating MPLS SR. The auto pick option for second VLAN ID appears in the MPLS SR screen only when **Use Virtual Interface** and **Use EVC Service** check boxes are selected. The auto pick

value is allocated from the previously created EVC Inner VLAN Resource Pool. This value gets released when the MPLS SR is decommissioned or when the SR is edited with the value that is not in the resource pool.

This feature is supported through both GUI and NBI.

Allocating and releasing Auto Assigned /31 IP address

From this release, Prime Provisioning provides options to select IP address Pool Type while creating MPLS SR. User can select either /30 or /31 pool type to allocate IPv4 Addresses from respective pools (/30 or /31 pool) created in IPv4 Resource Pools window. IP Addresses are allocated from the pools during SR deployment and released back to the respective pools when the MPLS SR is decommissioned or forced to delete.

This feature is supported through both GUI and NBI.

Below is a sample NBI XML snippet highlighting the tags, attributes and values required for allocating and releasing auto assigned /31 IP address. New changes are highlighted in BOLD text in the NBI XML snippet.

```
<?xml version="1.0" encoding="UTF-8"?>
   <soapenv:Envelope……..
   ……..
            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">IP_Address_pool_type</name>
                <value xsi:type="xsd:string">Region Pool</value>
                <qualifier xsi:type="ns1:CIMQualifier">
                  <name xsi:type="xsd:string">editable</name>
                 <value xsi:type="xsd:string">true</value>
                </qualifier>
            </item>
            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">IP_Address_pool_mask</name>
                <value xsi:type="xsd:string">31</value>
                <qualifier xsi:type="ns1:CIMQualifier">
                  <name xsi:type="xsd:string">editable</name>
                  <value xsi:type="xsd:string">true</value>
                </qualifier>
            </item>
```

Creating route target objects at VPN Level

From Prime Provisioning 6.7.2, user can create any number of asymmetric route target (RT) objects while creating VPN. This feature is already available at the VRF level but as VRF cannot be added as HUB and Spoke the similar functionality has been implemented at the VPN level.

In accordance with this functionality, two new fields have been added in the GUI at the VPN level:

- Import RT List
- Export RT List

Multiple RT values can be entered for these attributes using a comma separator. From the multiple VPNs associated to a MPLS VPN link, Prime Provisioning allows only one VPN to have this RT list feature enabled. This functionality is also supported through NBI.

Below is a sample NBI XML snippet highlighting the tags, attributes and values required to add Import RT List and Export RT List to the VPN during VPN creation or modification, there are no changes in NBI XML for VPN deletion.

```
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">RtImportList</name>
  <value xsi:type="xsd:string">1:2</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">RtExportList</name>
  <value xsi:type="xsd:string">1:2</value>
</item>
```

MPLS Transport Profile New Features

This section summarizes the new MPLS-TP features that were added in Prime Provisioning 6.7.2.

Enabling Common Link Usage in Working Path and Protect Path

From this release, MPLS-TP path calculation allows the user to have common links in both working path and protect path. To enable this feature, an additional check box **Share common links between Working and Protect path** has been introduced in the MPLS-TP SR screen.

Along with this check box, you also need to add the common link as an include constraint for both working path and protect path to enable the common link usage. This feature is supported through both GUI and NBI.

Below is a sample NBI XML snippet highlighting the tags, attributes and values required to enable common link usage in working path and protect path. New changes are highlighted in BOLD text in the NBI XML snippet.

```
<?xml version="1.0" encoding="UTF-8"?>
……
  <soapenv:Body>
         <ns1:createInstance>
                <objectPath …….
    ……
    <objectPath xsi:type="ns1:CIMObjectPath">
     ……..
                        <item xsi:type="ns1:CIMProperty">
                            <name xsi:type="xsd:string">ShareCommonLinks</name>
                            <value xsi:type="xsd:string">true</value>
                        </item>

                    </properties>
                </objectPath>
            </objectPath>
        </ns1:createInstance>
    </soapenv:Body>
</soapenv:Envelope>
```

Features introduced in Prime Provisioning 6.8

General New Features

All the new features introduced in Prime Provisioning 6.7.1, Prime Provisioning 6.7.2 and Prime Provisioning 6.8 release are explained in *Prime Provisioning User Guide 6.8.*

Appending IP address to the existing hostname

From this release, Prime Provisioning provides support to append the IP Address to the existing hostname. Now, User Access Log displays IP address along with the hostname of the router.

Generic Resource Pool handling

From this release, Prime Provisioning provides generic resource pool handling support for the pools associated with all service blades:

- All Pools such as IPv4 Address, Multicast, VLAN, EVC Inner VLAN, EVC Outer VLAN and VC ID are allocated during SR Save.
- Allocation and de-allocation of Site of Origin values from Pool is updated while creation and deletion of SOO.
- All auto-allocated Pool values return to respective Pools when SRs are successfully Decommissioned or Force Deleted.

Introducing IPv6 Address Pool

From this release, a new pool type **IPv6 Address** has been introduced in the Resource Pool. This IPv6 Address pool is used by MPLS services for automatically assigning the IPv6 Addresses. To create a new IPv6 Address pool, user must enter/select the following fields in the Create New IPv6 Address Resource Pool window.

- **IPv6 Address Pool** (required)—IPv6 Address/Mask in a:b:c:d:e:f:g:h/i format.
- **Pool Mask** (bits) (required)—Choices include: 64, 126, and127.
- **Pool Association** (required)—Choices only **Region**. Provides option to select a Region and associate IPv6 Pool to a particular Region.

This feature is supported only through GUI.

L2/EVC/VPN/TDM-CEM New Features

This section summarizes features that were added to enhance EVC services in Prime Provisioning 6.8.

Converting Special Character (&) into '_' during VFI Name Generation

From this release, Prime Provisioning provides support for conversion of special characters. During auto generation of the VFI name, all special characters associated with the VPN name, such as '**&**' '**,**' and '**.**', are converted into '_'.

Supporting ASR-90X Serial Interface Pseudowire

From this release, Prime Provisioning provides ASR-90X Serial Interface Pseudowire support for EVC TDM-CEM Services. In accordance with this functionality for CEM Container Type, a new value **SERIAL** controller is introduced for Direct Access Links section in both Policy editor screen and Service Request editor screen to provision serial interface.

Supported **Line Attributes**, such as Raw Socket Packet Length, Raw Socket Packet Timer, Number of Data Bits, Terminal Parity, Async line stop bits and Transmit and Receive Speeds are available in SR Link attribute at SR level.

Supporting Trunk EFP for ASR920 device

In Prime Provisioning 6.8, a new attribute **Enable Trunk EFP** has been introduced in both Policy and Service Request screens, which gives flexibility to make many Layer 2 flow points within one interface. One interface can have only one trunk support. Enable Trunk EFP attribute supports only flex, and it appears in the screen only when the EVC check box is checked in **Direct Connect Links** section. It provides support only for ASR920 IOS device.

If Enable Trunk EFP check box is enabled user will get "**service instance trunk <id> ethernet**" command. If this check box is checked, Inner VLAN, Autopick Outer VLAN and Autopic Inner VLAN are not supported. Outer VLAN, Outer VLAN with single value or with ranges (for example 23; 2-3; 2,2-4, 1140;1142, 1149-1150) are supported. For Rewrite Type only Pop is supported.

This feature is supported through GUI, NBI and Physical Rings.

```
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcServiceInstanceAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
…….
<item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">EnableTrunkEFP</name>
    <value xsi:type="xsd:string">true</value>
  </item>
    </properties>
</objectPath>
```

MPLS New Features

This section summarizes the new MPLS features that were added in Prime Provisioning 6.8.

Updating Interfaces and Description of Interfaces

From this release, Prime Provisioning provides support to auto-update the interfaces and description of interfaces in the device inventory.

The Interfaces and description of interfaces are automatically updated in the device inventory when SR is successfully deployed, and any virtual or logical interfaces, created during SR deployment are removed from the device inventory when the SR is successfully decommissioned.

The interfaces and description of interfaces updates are applicable only for N-PE devices.

Supporting GRE Tunnel for IOS-XR devices

From this release, Prime Provisioning provides support for the GRE Tunnel interface for IOS-XR devices. Earlier while deploying SR on IOS-XR devices, Prime Provisioning was generating invalid configlets and leading to SR deployment failed.

Below is a sample configlets:

```
interface tunnel-ip23
 description By VPNSC: JobId# = 91
```

```
vrf V2:rtvpn2
ipv4 address 22.22.11.3 255.255.255.0
tunnel mode gre ipv4
tunnel source 22.22.11.2
tunnel destination 90.43.44.4
```

This feature only supports PE devices and IPv4Address.

Automatically Assigning the IPv6 Addresses

From this release, Prime Provisioning provides support for automatically assigning the IPv6 Addresses from the pool.

IPv6 Address allocation is supported only for **Regular: PE-CE MPLS** policy and services. The **Automatically Assign IPv6 Addresses** check box appears in both MPLS Policy and MPLS Service Request screens when user selects **IPv6 Numbered** or "**IPv4 and IPv6 Numbered**" from IP Numbering Scheme drop-down list. If the Automatically Assign IPv6 Addresses check box is checked, user will have options to select **IPv6 Pool Mask Type** from /127 Pool, /126 Pool and /64 Pool. IPv6 addresses are successfully allocated from the pool when SR is saved successfully.

This feature is supported only through GUI.

API New Features

All Application Programming Interface (API) features are explained in detail in the *Cisco Prime Provisioning API Programmer Guide 6.8* and the accompanying *Cisco Prime Provisioning API Programmer Reference 6.8*.

New features added in Prime Provisioning are generally available via both the GUI and APIs. See the respective sections in this document for a description of new features under each service.

Deprecated and Removed Features

- The VPN topology tool has been removed as of Prime Provisioning 6.7. Please use Prime Network for VPN topology.
- Cisco Networking Services (CNS) has been removed as of Prime Provisioning 6.7.

Prime Provisioning 6.8 Resolved and Open Bugs

Resolved Bugs

The following bugs were resolved in Prime Provisioning 6.8:

Bug	Description
CSCuv95135	MPLS SR tunnel interface displaying autopick word without any attribute
CSCuv95282	MPLS SR tunnel interface source address accepting ipv6 address

Bug	Description
CSCuv96971	MPLS SR with tunnel interface goes to Failed_Audit when using IOS device
CSCuv97120	RT value edit doesnot release previously allocated RT back to pool
CSCuw02384	PP allows to create a new CERC using alrady allocated Route targets.
CSCuw02462	Modifying static route in MPLS SR resets VRF and RD overwrite value
CSCuw02853	PW Class created thru widget alows special characters in PW Class name
CSCuw08547	MPLS SR with tunnel interface deployment has errors in tasklog for XR
CSCuw10391	Deletion of User accounts,effects the SR in Service request manager page
CSCuw10485	L2 EVC VPLS SR when modified from FLEX to Non Flex SR remains unchanged
CSCuw10744	Bridge domain/Group name are not removing while decomm of HVPLS SR
CSCuw12273	Static labels missing in evc-pw static Sr configlets
CSCuw12532	Once RIP metric is configured,it cannot be deleted
CSCuw13931	Not allowing multiple modification in HVPLS SR
CSCuw14063	/parserOutput/Interface" error in preview configlet while rehoming HUB
CSCuw14135	HVPLS: Negate pw-cls cmd is not generated if spoke device is Me3600
CSCuw14326	Different pool value on modification of one interface in EVC_LOCAL SR
CSCuw15343	Neighbor command is generated twice in ASR903 device
CSCuw17168	PP 6.8 UI installer displays alert message
CSCuw19410	Autopick VPLS VPN ID name is expectd instead of Autopick VC-ID in policy
CSCux35084	Evaluation of isc for Java_December_2015
CSCuy19106	PPServer is getting hanged while saving modification of pool values
CSCuy23250	PP 6.8 Installation with Oracle DB is failing
CSCuy38666	Unable to delete the customer and customer site
CSCuy78995	PP is getting hanged while modifying Manually assigned Vlan pool value.
CSCuy80591	JMX Vulnerability Issue in PP
CSCuy94007	Error while Enabling Autopcik Inner Vlan check box in EVC SR.
CSCuz08731	Error during PN integration with PP
CSCuz24784	Time Delay in Task Log Creation
CSCuz28822	PP6.8 Integration with PC1.5.1 in UI Installer fails for iscadm
CSCuz29379	System testing not working in 6.8
CSCuz32557	SQL Exception null during modification of any EVC SR in both GUI and NBI

Bug	Description
CSCuz61652	PP 6.8 Upgrade Tool is not working
CSCuz62044	No validation on single outer vlan when Trunk EFP is enabled
CSCuz63649	No validation on inner vlan value when Trunk EFP is enabled
CSCuz65888	PP 6.8 Httpd process is not starting in Suite Mode
CSCuz69927	SHR/DHR: SR goes to invalid state when EFP trunk is enabled
CSCuz75434	SR goes to failed audit when vlan is modified via NBI and GUI
CSCuz87472	EVC HVPLS SR goes to deployed state after decommission
CSCuz97629	PP Documentation update required to run import export template script
CSCva07020	PP 6.8 - Unable to do crosslaunch in standalone to suite mode scenario
CSCva14684	SR edit:ipv6 addr change frm manual to autopick not updating ipv6 pool
CSCva14725	ipv6 addr autopick enabled at policy,stil allows manual entry during SR
CSCva20098	EVC TDM (Serial interface)SR goes to failed Auit due to Line card cmds
CSCva20122	EVC_TDM_Range values should be displayed for Link attributes
CSCuu27924	Documentation Defect.
CSCuv54395	Doc: If Install certificates is not visible, run IE as an administrator
CSCuv56483	Documentation_ How to configure/enable RAN backhaul services.
CSCuz96791	Prime Provisioning 6.7 MPLS-TP discovery documentation errors.
CSCus88348	Documentation_Decommission behaviour of MPLS SR when VRF is shared.

Open Bugs

The following open bugs apply to Prime Provisioning 6.8.

Bug	Description
CSCuw02855	RT pool not updated properly when 2 providers belong to same AS
CSCuw15648	Split horizon cmd is not generated when asr9k device set as spoke role
CSCuw19040	Unable to create /32 IPv4 Address Pool with Customer and Region.
CSCuy23563	Non-Flex SR : Wrong configlets are getting generated for IOS device.
CSCuy29908	Interface Vlan and BGN are not getting removed from device while decom.
CSCuy55175	MPLS SR with EVC using XR hangs in Sybase DB.
CSCuy74217	Following Issues observed while creating Multicast address pool.
CSCuy78851	Multiple issues with manually assigned INNER VLAN and VCID pool.
CSCuz11079	Use vrf object enabled:SR delete not releasing allocated RD back to pool.
CSCuz64099	PP getting hanged while rehoming dual home ring with multiple SR's.
CSCuz83619	Error while saving outer vlan resource pool

Bug	Description
CSCva10498	No validation on rewrite type when EFP Trunk enabled.
CSCva16213	NBI: EVC Local SR goes to failed audit when EFP trunk enabled.
CSCva24345	Not able to modify Serial interface in EVC_TDM SR.
CSCva27704	Not able to modify Autopick Innervlan & not releasing pool after decomm

Finding Known Problems in Prime Provisioning 6.8

To find known problems in Prime Provisioning 6.8, use the following URL:

https://tools.cisco.com/bugsearch/search

You must log into Cisco.com.

You can search for specific bugs or search for a range by product name. This tool enables you to query for keywords, severity, range, or version.

Use the following search criteria to locate bugs for Prime Provisioning 6.8:

- Product category: **Cloud and Systems Management > Routing and Switching Management > Fulfillment Products.**
- Product: **Cisco Prime Provisioning (6.3 to 6.8).**

The results display bug ID and title, found-in version, fixed-in version, and status. The bug ID is a hyper link to detailed information for the bug ID's product, component, severity, first found-in, and release notes. The results could be displayed in a feature matrix or spreadsheet.

Related Documentation

See the *Cisco Prime Provisioning 6.8 Documentation Overview* for a list of all Prime Provisioning guides.

We sometimes update the documentation after original publication. Therefore, you should also review the documentation on Cisco.com for any updates.

Other Cisco Prime Product Documentation

If you are deploying Prime Provisioning as part of the Prime Carrier Management suite, then see also the documentation for the other suite components:

- *Cisco Prime Central 1.5.1*
- *Cisco Prime Network 4.2.3*
- *Cisco Prime Optical 10.0*
- *Cisco Prime Performance Manager 1.6*

Accessibility Features in Prime Provisioning

For a list of accessibility features in Prime Provisioning, visit Cisco's Voluntary Product Accessibility Template (VPAT) website, or contact accessibility@cisco.com.

- All product documents are accessible except for images, graphics and some charts. If you would like to receive the product documentation in audio format, braille, or large print, contact accessibility@cisco.com.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation*.

To receive new and revised Cisco technical content directly to your desktop, you can subscribe to the What's New in Cisco Product Documentation RSS feed. The RSS feeds are a free service.