Addendum: Additional VNE Driver Support for Cisco Prime Network 4.0

Revised: February 3, 2014

This document contains information about new or enhanced Virtual Network Elements (VNE) drivers that became available after Cisco Prime Network 4.0 was released. It also contains device support documentation addenda for information that is currently missing from *Cisco Prime Network 4.0 Supported VNEs*.

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Obtaining the New and Enhanced Device Drivers

New and enhanced VNE support is be provided through Device Packages (DPs) and service or point patches, as they become available. To obtain this additional support, do the following:

- For Device Packages (DPs), log into Cisco.com and go to the <u>Cisco Prime Network Software Download site.</u>
- For Point Patches and Service Patches, contact your Cisco representative.

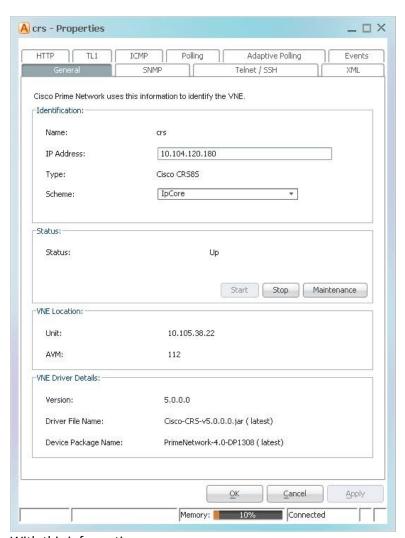
Once you download the new support, it can be installed on Cisco Prime Network 4.0 the downloadable package provides new and enhanced device support for multiple device families (as described in this document or in the release note or readme that accompanies the download).

Note: To get the IOS XE to IOS equivalent software version mapping, please refer to Appendix A.

Which Jar File is a Device Using?

To identify the jar file that is being used by any devices that are managed by Prime Network, open the Administration GUI client and check the properties of the VNE. In the General tab, the driver file name is displayed.

The following example shows the CRS is using the driver file Cisco-CRS-v5.0.0.0.jar that was provided in the base release of Prime Network 4.0 ("DP 0").



With this information, you can:

- Check if a newer version is available and what new support it provides (see the "New Support" sections in this document).
- Check which Device Package provides a specific jar version (see "Driver Files Provided per DP Release" in this document).

New Support for Cisco Optical Transport Devices

The following new support is available for Cisco Optical Transport devices.

Cisco Carrier Packet Transport Series (CPT)—Additional Support

• Cisco CPT—Supported Software Versions

Software Version	Added in:
ONS 9.5.3	DP 1310
ONS 9.5.2.3	DP 1401

• Cisco CPT —Supported Technologies

Technology	Added in:
SyncE	DP 1308

New Support for Cisco Routers

The following new support is available for Cisco routers.

Cisco IOS 12000 Series Routers—Additional Support

• Cisco IOS 12000—Supported Modules

Module Name Module Description		Added in:
12416E-SFC	Cisco 12010/12410 Enhanced Switch Fabric Card	DP 1308
12416E-CSC	Cisco 12016/12416 Enhanced Clock Scheduler Card	DP 1308

Cisco IOS 12000—Supported Events and Miscellaneous Support

Support for:	Raw Format	Added in:
(, , , , ,	%MBUS-6-OIR: Clock Scheduler Card(10) OC-192 Removed from Slot 2 %MBUS-6-OIR: Clock Scheduler Card(10) OC-192 Inserted into Slot 2	DP 1308

Cisco XR 12000 Series Routers—Additional Support

Cisco XR 12000—Supported Software Versions

Software Version	Added in:
XR 4.3.1	DP 1308

• Cisco XR 12000—Supported Events and Miscellaneous Support

Support for:	Added in:
Events: (Syslog) L2-SPA-5-STATE_CHANGE	DP 1308

Cisco CRS Carrier Routing System—Additional Support

• Cisco CRS—Supported Software Versions

Software Version	Added in:
XR 4.3.1	DP 1308

• Cisco CRS—Supported Modules

Module Name	Module Description	Added in:
SPA-4XOC3-POS	Cisco 4-Port OC-3c/STM-1c POS Shared Port Adapter	DP 1308
SPA-4XOC12-POS	Cisco 4-Port OC-12c/STM-4 POS SPA	DP 1308
SPA-8XOC3-POS	8-Port OC-3c/STM-1 POS SPA	DP 1308
SPA-8XOC12-POS	Cisco 8-Port OC-12c/STM-4 POS SPA	DP 1308
2-40GE-L/OTN	Cisco CRS 2-Port 40 Gigabit Ethernet LAN/OTN Interface Module	DP 1308
CRS-8-FC140/M	Cisco CRS Series 8 Slots Fabric Card / Multi (140G)	DP 1308

• Cisco CRS—Supported Events and Miscellaneous Support

Support for:	Added in:
Events: (Syslog) L2-SPA-5-STATE_CHANGE	DP 1308

Cisco ASR 9000 Series Routers —Additional Support

Cisco ASR 9000—Supported Network Elements

NE Type	Product Name	SysOID	Added in:
ciscoASR9904	Cisco ASR 9904 chassis	1.3.6.1.4.1.9.1.1762	DP 1401
ciscoASR9912	Cisco ASR 9912 Chassis	1.3.6.1.4.1.9.1.1709	DP 1401

• Cisco ASR 9000—Supported Software Versions

Software Version	Added in:
XR 4.3.1	DP 1308
XR 4.3.2	DP 1401
XR 4.3.4	DP 1401
XR 5.1.0	DP 1401

• Cisco ASR 9000—Supported Modules

Module Name	Module Description	Added in:
A9K-MPA-8X10GE	ASR 9000 8-port 10-Gigabit Ethernet Modular Port Adapter, requires SFP+ optics	DP 1308
ASR-9010-FAN-V2	ASR 9010 Version 2 fan tray for high-power optics	DP 1308
A9K-SIP-700-8G	Session Initiation Protocol (SIP)-700 line card for the Cisco ASR 9000 Series has 8-GB memory	DP 1308
SPA-OC192POS-XFP	1-port OC192/STM64 POS/RPR XFP Optics	DP 1401
CFP-100G-SR10	Cisco 100GBASE-SR10 CFP transceiver module for MMF	DP 1401

• Cisco ASR 9000—Supported Technologies

Technology	Added in:
Megatron Satellite Support	DP 1308
1588v2	DP 1308

• Cisco ASR 9000—Supported Events and Miscellaneous Support

Support for:	Added in:
Events: (Trap)OS-DUMPER-5-CORE_FILE_NAME, OS-DUMPER-5-DUMP_FAILURE, cmplsTeP2mpTunnelDestDown, cmplsTeP2mpTunnelDestUp	DP 1308
Events: (Trap) PLATFORM-CCTL-6-TEMP_ALARM	DP 1401

Cisco NCS Network Convergence System Routers - Additional Support

• Cisco NCS 6000—Supported Network Elements

NE Type	Product Name	SysOID	Added in:
ciscoNCS6008	Cisco NCS 6008 - 8-Slot Chassis	1.3.6.1.4.1.9.1.1851	DP 1310

• Cisco NCS 6000—Supported Software Versions

Software Version	Added in:
XR 5.0.0	DP 1310

• Cisco NCS 6000—Supported Modules

Module Name	Module Description	Added in:
NCS-6008	NCS 6008 – 8 – Slot Chassis	DP 1310
NC6-FC	NCS 6008 Fabric Card	DP 1310
NC6-RP	NCS 6008 Route Processor	DP 1310
NC6-FANTRAY	NCS 6008 Chassis Fan Tray	DP 1310
NCS-AC-PWRTRAY	NCS AC Power Tray	DP 1310
NC6-10X100G-M-P	NCS 6000 10X100G Multi-Service CXP	DP 1310
NC6-10X100G-L-P	NCS 6000 10X100G LSR CXP	DP 1310

• Cisco NCS 6000—Supported Technologies

Technology	Added in:
Routing Entity	DP 1310
ARP Entity	DP 1310
IP Interfaces	DP 1310
VRRP	DP 1310

Technology	Added in:	
OSPF	DP 1310	
BGP	DP 1310	
ISIS	DP 1310	
LAG	DP 1310	
MPLS	DP 1310	
LSE	DP 1310	
LDP	DP 1310	
MPLS-TE	DP 1310	
BFD	DP 1310	
CDP	DP 1310	
IP Multicast	DP 1310	
Access List	DP 1310	
Ethernet	DP 1310	
Physical Inventory	DP 1310	

Cisco ASR 1000 Series Routers —Additional Support

• Cisco ASR 1000—Supported Software Versions

Software Version	Added in:
XE 3.8.2	DP 1310

Cisco ASR 901 Routers —Additional Support

• Cisco ASR 901—Supported Software Versions

Software Version	Added in:
15.3(2)S	DP 1308
15.3(2)S2	DP 1308
15.3(3)S	DP 1310
15.4(1)S	DP 1401

Cisco ASR 903 Routers —Additional Support

• Cisco ASR 903—Supported Software Versions

<u> </u>	
Software Version	Added in:
IOS 15.2(4)S3	DP 1308
IOS 15.3(2)S	DP 1308
IOS 15.3(3)S	DP 1308
IOS XE 3.7.3 ES	DP 1401
IOS XE 3.7.4 ES	DP 1401
IOS 15.4(1)S	DP 1401

Cisco ASR 5000 Series Routers —Additional Support

• Cisco ASR 5000—Supported Software Versions

Software Version	Added in:
StarOS 14.1 MR	DP 1308
StarOS 15.0	DP 1310

• Cisco ASR 5000—Supported Events and Miscellaneous Support

Support for:	Added in:
Events: (Traps)starAAAAuthServerMisconfigured, starSubscriberLimit, starSessionRejectNoResource, starManagerFailure, starPCFUnreachable, starNwReachServerDead, starSRPAAAUnreachable, starGESwitchFailure, starSessMgrRecoveryComplete, starBSUnreachable, starLicenseAboutToExpire starLAGGroupDown	DP 1308

Cisco 7600 Series Routers —Additional Support

• Cisco 7600—Supported Software Versions

Software Version	Added in:
15.3(1)S1	DP 1308

Cisco 7600—Supported Modules

Module Name	Module Description	Added in:
ES+XT-8TG3CXLQ	7600 ES+T High queue 8x 10GE, DFC3CXL	DP 1310

New Support for Cisco Switches

The following new support is available for Cisco switches.

Cisco ME 3600X Series Ethernet Access Switches—Additional Support

Cisco ME 3600X—Supported Software Versions

Software Version	Added in:
15.3(2)S	DP 1308

Cisco ME 3800X Series Carrier Ethernet Switches—Additional Support

• Cisco ME 3800X—Supported Software Versions

Software Version	Added in:
15.3(2)S	DP 1308
15.3(3)S	DP 1401

Cisco ME 2600X Series Ethernet Access Switches—Additional Support

Cisco ME 2600X —Supported Software Versions

Software Version	Added in:
15.2(2)SA1	DP 1308

Cisco ME 2600X —Supported Technologies

Technology	Added in:
EFP	DP 1308
LAG	DP 1308
REP	DP 1308
OSPF	DP 1308

Cisco Nexus 7000 Series Switches—Additional Support

Cisco Nexus 7000—Supported Modules

Module Name	Module Description	Added in:
N7K-M202CF-22L	Cisco Nexus 7000 M2-Series 2 Port 100 GbE with XL Option (req. CFP)	DP 1308
N7K-M206FQ-23L	Cisco Nexus 7000 M2-Series 6 Port 40 GbE with XL Option (req. QSFP+)	DP 1308

New Support for Cisco Adaptive Security Appliances

The following new support is available for Cisco Adaptive Security Appliances (ASA).

Cisco ASA 1000V Cloud Firewall - Additional Support

• Cisco ASA 1000V Series Cloud Firewall —Supported Network Elements

NE Type	Product Name	SysOID	Added in:
ciscoASA1000v	Cisco ASA 1000 Virtual Cloud Firewall	1.3.6.1.4.1.9.1.1614	DP 1308

Cisco ASA 1000V Series Cloud Firewall —Supported Software Versions

Software Version	Added in:
8.7(1)1	DP 1308

New Support for Cisco RF Gateway Series

The following new support is available for Cisco RF Gateway Series.

Cisco RF Gateway Series - Additional Support

Cisco RF Gateway Series —Supported Technologies

Technology	Added in:
QAM Channels	DP 1308

New Support for Citrix NetScaler VPX Virtual Appliances

The following new support is available for Citrix NetScaler VPX Virtual Appliances.

• Citrix NetScaler VPX —Supported Network Elements

NE Type	Product Name	SysOID	Added in:
citrixNetscalerVPX	Citrix NetScaler VPX Virtual Appliances	1.3.6.1.4.1.5951.1	DP 1308

Citrix NetScaler VPX —Supported Software Versions

Software Version	Added in:
8.7(1)1	DP 1308

• Citrix NetScaler VPX—Supported Technologies

Technology	Added in:
IP	DP 1308
IP Routing	DP 1308
ARP	DP 1308
Physical Inventory	DP 1308

Support for Change and Configuration Management in 4.0

The following devices support Change and Configuration Management in Prime Network 4.0.

Device Series	Software Version	Provided/Added in:
Cisco Nexus 1000v Series Switches	4.2(1)SV2(1.1	PN 4.0
Cisco Cloud Services Router (CSR) 1000V	3.9.0aS	PN 4.0
Cisco Nexus 3000 Series Switches	5.0 (U5)	PN 4.0
Cisco ASA 5500 Series Firewall	5.0 (U5)	PN 4.0
Cisco Catalyst 6500 Virtual Switching System (VSS)	12.2.33-SXI2a	PN 4.0
Cisco Universal Broadband Router 10000 (uBR10k)	12.2(33)	PN 4.0
Cisco RF Gateway	IOS: 12.50(SQ) IOSXE:3.2.0	PN 4.0
Cisco Carrier Packet Transport (CPT) 600 Series (supported in	CPT Platform System Software 9.5.1	PN 4.0
IOS mode)	ONS 15454: 9.5.3	PN 4.0 DP 1310
Cisco ASR 9000 Series Aggregation Services Routers	Cisco IOS XR 4.2.1	PN 4.0
	Cisco IOS XR 4.3.1	PN 4.0 DP 1308
Cisco ASR 5000 Series Mobile Gateway	Star OS 12.3	PN 4.0
	Star OS 12.2	PN 4.0
	Star OS 14.1 MR	PN 4.0 DP 1308
	Star OS 15.0	PN 4.0 DP 1310
Cisco ASR 901 Series Aggregation Services Routers	Cisco IOS 15.1(2), Cisco IOS 15.1(2)SNG, Cisco IOS 15.1(2)SNH	PN 4.0
	Cisco IOS 15.3(2)S	PN 4.0 DP 1308
	Cisco IOS 15.3(2)S2	PN 4.0 DP 1308
Cisco ASR 903 Series Aggregation Services Routers5	Cisco IOS 15.2(1)S, Cisco IOS 15.2(1)S1, Cisco IOS 15.2(2)S	PN 4.0
	Cisco IOS 15.3(3)S	PN 4.0 DP 1308
	Cisco IOS 15.2(4)S3	PN 4.0 DP 1308
	Cisco IOS 15.3(2)S	PN 4.0 DP 1308
Cisco 7600 Series Routers with Application Control Engine ACE) ACE10-6500-K9 and ACE30-MOD-K9)	A2(3.4)	PN 4.0
Cisco Nexus 5000 Series Switches	Cisco NX-OS 5.0(2)N2(1)	PN 4.0
Cisco Nexus 7000 Series Switches	Cisco NX-OS 5.0(3)	PN 4.0
Cisco Adaptive Security Appliance (ASA) 5550 Series	Cisco Adaptive Security Appliance Software 8.4.1	PN 4.0

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Device Series	Software Version	Provided/Added in:
Cisco ASA 5580 Series	Cisco Adaptive Security Appliance Software 8.4.1	PN 4.0
Cisco 800 Series Routers	Cisco IOS 12.3.2-XA7, Cisco IOS 15.1.3-T	PN 4.0
Cisco 1700 Series Routers	Cisco IOS 12.3.14-T7, Cisco IOS 12.4.25-d	PN 4.0
Cisco 1800 Series Routers	Cisco IOS 12.4.9-T, Cisco IOS 15.1.1-T1	PN 4.0
Cisco 2500 device series	Cisco IOS 12.3.26	PN 4.0
Cisco 7300 device series	Cisco IOS 12.2.33-SB8a	PN 4.0
Cisco 2600 Series Multiservice Platform Routers	Cisco IOS 12.3-16a, Cisco IOS 12.3.26	PN 4.0
Cisco 2800 Series Integrated Services Routers	Cisco IOS 12.3.14-YT1, Cisco IOS 15.1.2_T1	PN 4.0
Cisco 2900 Series Integrated Services Routers	Cisco IOS 15.1(3)T	PN 4.0
Cisco 3900 Series Integrated Services Routers	Cisco IOS 15.1(3)T	PN 4.0
Cisco 3700 Series Multiservice Access Routers	Cisco IOS 12.4.9-T7	PN 4.0
Cisco Catalyst 2900 Series Switches	Cisco IOS 12.1.22-EA6, Cisco IOS 15.1.3-T	PN 4.0
Cisco Catalyst 3500XL Series Switches	Cisco IOS 12.0.5-WC17	PN 4.0
Cisco Catalyst 3550 Series Switches	Cisco IOS 12.2.44-SE6, Cisco IOS 12.2.53-SE2	PN 4.0
Cisco Catalyst 3560 Series Switches	Cisco IOS 12.2.53-SE2, Cisco IOS 12.2.44-SE6	PN 4.0
Cisco Catalyst 3750 Series Switches	Cisco IOS 12.2.55-SE	PN 4.0
Cisco CRS Carrier Routing System	Cisco IOS XR 4.0.0	PN 4.0
	Cisco IOS XR 4.3.1	PN 4.0 DP 1308
Cisco 10000 Series Routers	Cisco IOS 12.2.33-SB8a, Cisco IOS 12.2.31-SB9, Cisco IOS 15.0(1)S	PN 4.0
Cisco 12000 Series Routers (IOS)	Cisco IOS 12.0.32-SY4	PN 4.0
Cisco Catalyst 4900 Series Ethernet Switch	Cisco IOS 12.2.(50)SG6, Cisco IOS 12.2(53)SG, Cisco IOS 12.2(54)SG	PN 4.0
Cisco Catalyst 6500 Series Switches (IOS)	Cisco IOS 12.2.33-SX14	PN 4.0
	Cisco IOS 12.2(33)SXI3	PN 4.0
Cisco ME 3600X Ethernet Access Switches	Cisco IOS12.2(52)EY	PN 4.0
	Cisco IOS 15.3(2)S	PN 4.0 DP 1308
Cisco ME 3800X Carrier Ethernet Switches	Cisco IOS12.2(52)EY	PN 4.0

Device Series	Software Version	Provided/Added in:
	Cisco IOS 15.3(2)S	PN 4.0 DP 1308
Cisco ME 6500 Series Ethernet Switches (cisco6524)	Cisco IOS 12.2.33-SX13	PN 4.0
Cisco 3800 Series Integrated Services Routers	Cisco IOS 12.4(24)T1	PN 4.0
Cisco 7200 Series Routers	Cisco IOS 12.4(24)T	PN 4.0
Cisco 7600 Series Routers	Cisco IOS 12.2(18)SXF16, Cisco IOS 12.2(33)SRD4	PN 4.0
	Cisco IOS 15.0(1)S1	PN 4.0
	Cisco IOS 15.3(1)S1	PN 4.0 DP 1308
Cisco ASR 1000 Series Aggregation Services Routers	Cisco IOS XE 2.6.2, Cisco IOS XE 3.2, Cisco IOS XE 3.1.0S	PN 4.0
Cisco ASR 9000 Series Aggregation Services Routers	Cisco IOS XR 3.9.1, Cisco IOS XR 3.9.0	PN 4.0
Cisco Catalyst 3750 Metro Series Switches	Cisco IOS 12.2(52)SE	PN 4.0
Cisco Catalyst 4500 Series Switches	Cisco IOS 12.2(53)SG, Cisco IOS 12.2(54)SG194	PN 4.0
Cisco CRS-1 Carrier Routing System	Cisco IOS XR 3.6.0	PN 4.0
Cisco ME 3400 Series Ethernet Access Switches	Cisco IOS 12.2(25)SEG3, Cisco IOS 12.2(53)SE	PN 4.0
Cisco MWR 2900 Series Mobile Wireless Routers	Cisco IOS 12.2(33)MRA	PN 4.0
Cisco XR 12000 Series Routers	Cisco IOS XR 3.7.0	PN 4.0
	Cisco IOS XR 4.3.1	PN 4.0 DP 1308

Support for Reduced Polling in 4.0

Prime Network 4.0 includes all of the reduced polling support that was provided in previous releases, which is listed below.

Device Series	Added in:
Cisco 10000 Series	PN 4.0
Cisco 1900 Series ISR	PN 4.0
Cisco 2000 Series CGR	PN 4.0
Cisco 2900 Series ISR	PN 4.0
Cisco 3900 Series ISR	PN 4.0
Cisco 7200 Series	PN 4.0
Cisco 7600 Series	PN 4.0

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Device Series	Added in:
Cisco ASR 1000 Series	PN 4.0
Cisco ASR 5000 Series	PN 4.0
Cisco ASR 9000 Series	PN 4.0
Cisco ASR 901 Series	PN 4.0
Cisco ASR 903 Series	PN 4.0
Cisco CPT Series	PN 4.0
Cisco CSR 1000v Series	PN 4.0
CRS	PN 4.0
Cisco Catalyst 3750 Metro Series	PN 4.0
Cisco Catalyst 4500 Series	PN 4.0
Cisco Catalyst 4900 Series	PN 4.0
Cisco Connected Grid Switch 2500 Series	PN 4.0
Cisco MDS 9000 Series	PN 4.0
Cisco ME 26xx Series	PN 4.0
Cisco ME 3400 Series	PN 4.0
Cisco ME 3600X Series	PN 4.0
Cisco ME 3800X Series	PN 4.0
Cisco ME 4900 Series	PN 4.0
Cisco MWR 2900 Series	PN 4.0
Cisco Nexus 10xx Series	PN 4.0
Cisco Nexus 3000 Series	PN 4.0
Cisco Nexus 5000 Series	PN 4.0
Cisco Nexus 7000 Series	PN 4.0
Cisco XR 12000 Series	PN 4.0
Cisco uBR10000 Series	PN 4.0
Cisco NCS 6000 Series	PN 4.0 DP 1310

Support for Command Scripts in 4.0

Prime Network 4.0 provides new support for command scripts as shown in the following table.

New Command Script Support in 4.0

New Command Support in 4.0	Supported on:
Basic Operations	·
Basic Device Settings	Cisco NX OS and Cisco IOS XE
Add Host Name	
Remove Host name	Note: SNMP Configuration not supported on Cisco
Add DNS server	Universal Broadband Router 10000 (uBR10k) and Cisco
Remove DNS server	RF Gateway 10 devices that run on IOS and IOS XE
Add NTP server	
Remove NTP server	
Add Radius server	
Remove Radius server	
Add Tacacs server	
Add Tacacs+ server	
Remove Tacacs server	
Remove Tacacs+ server	
Syslog Host Logging	
Add SNMP Configuration	
Remove SNMP Configuration	
Update SNMP Configuration	
Add Traps	
Enable Traps	
Remove Traps	
Device Ports	
Add port description	
Remove port description	
Update port description	
Change port status	
Assign to port Vlan	
Deassign port to Vlan	
Device Configuration Files and Memory	
Write Memory	
Running Config	
Running Config from File	
Startup Config	
Copy Files	
From FTP	
From TFTP	
To FTP	
To TFTP	
View users (Telnet Sessions) on device	
Users (Telnet session)	

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New Command Support in 4.0	Supported on:
Systems Architecture Evolution Gateway (SAE-GW)	Cisco ASR 5000 Series Mobile Gateway
Create SAE GW	
Modify SAE GW	
Delete SAE GW	
Show SAE GW	
Configure QAM	Cisco RF Gateway 10
Create RF Profile	
Modify RF Profile	
Delete RF Profile	
Create Frequency Profile	
Delete Frequency Profile	
Create Lane	
Create Block	
Modify QAM Port	
Modify QAM Channel	
View QAM Configuration	
Show RF Profile	
Show Frequency Profile	
Show QAM Port	
Show QAM Channel	
Configure DEPI and L2TP	
Modify Port	Cisco RF Gateway 10
Modify Cable Port	Cisco Universal Broadband Router 10000 (uBR10k)
Configure Downstream Port	
Create Upstream Port	
Modify Upstream Port	
Create IP Interface	Cisco Universal Broadband Router 10000 (uBR10k)
Modify IP Interface	Cisco RF Gateway 10
Delete IP Interface	
View Upstream and Downstream Cable Configuration	Cisco Universal Broadband Router 10000 (uBR10k)
Show Upstream	
Show Downstream	

Existing Command Support Prior To 4.0

Existing Command Support Prior to 4.0	Supported on:
Connectivity Fault Management (CFM)	
Configure CFM Maintenance Domain	Cisco 7600 Series Routers
Configure CFM Global Parameters	Cisco ME 3400 Series Ethernet Access Switches
Configure CFM Maintenance Intermediate Point (MIP)	Cisco ME 3750 Series Ethernet Access Switches
Configure CFM Continuity Check	Cisco ASR 9000 Series Aggregation Services Routers
Configure CFM Service ID	(CFM IEEE 802.1ag (draft 8.1))
Configure CFM Maintenance endpoints (MEP)	Cisco Mobile Wireless Router 2941 (CFM Cisco draft
Enable CFM Continuity Check	mode)
Enable CFM SNMP Server Traps	Catalyst 6500 Series (IOS) Switches
Diagnose CFM with Show MEP Status	Cisco 3900 Series Integrated Services Routers
Diagnose CFM with Show MEP Crosscheck Status	ASR 1000 (CFM 802.1ag/EFM 802.3ah)
Diagnose CFM with Ping Remote MEP with MAC	Cisco XR 12000
Diagnose CFM with Ping Remote MEP with MPID	Cisco CRS Series Routers
Diagnose CFM with Ping Remote MEP with Multicast	Cisco ME 3600X Carrier Ethernet Switches
Diagnose CFM with Traceroute Remote MEP with MAC	Cisco ME 3800X Carrier Ethernet Switches
Diagnose CFM with Traceroute Remote MEP with MPID	Cisco 3900 Series Integrated Service Routers (ISR)
	Cisco MWR 2900 Series Mobile Wireless Routers
	Cisco Carrier Series Aggregation Services Routers
Resilient Ethernet Protocol (REP)	
Show REP segment information	Cisco 7600 Series Routers
	Cisco MWR 2941 Mobile Wireless Routers 2941
	Cisco Catalyst 3750 Metro Series Switches
	Cisco ME 6524 Ethernet Switch
	All Cisco Catalyst Switches
	Cisco ME 3600X and Cisco ME 3800X Carrier Ethernet
	Switches
	Cisco Carrier Packet Transport (CPT) System
Carrier Grade – Network Address Translation (CG-NAT)	
Add Static Port Forwarding	Cisco CRS Series Routers
Add NAT 64 Forwarding	
Add 6rd Forwarding	
Delete Static Port Forwarding	
Show Pool Utilization	
Ethernet LMI (E-LMI)	
Global E-LMI	Cisco 7600 Series Routers
Enable On Interface	Cisco Catalyst 3750 Metro Series Switches
Configure to Multipoint To Multipoint or Point To Point	Cisco Catalyst 6500 Series (IOS) Switches
EVC	Cisco ME 3400 Series Ethernet Access Switches
Configure UNI in an Interface	Cisco MWR 2941 Mobile Wireless Routers
Configure Service Instance Vlan Id on Interface	Cisco ME3600X and Cisco ME3800X Carrier Ethernet
	Switches
	Cisco ASR9000 Series Routers
Pseudowire ping and show commands	
Ping Pseudowire	Cisco IOS and Cisco IOS XR devices supporting
Display Pseudowire	pseudowire technology

Existing Command Support Prior to 4.0	Supported on:
Link OAM	
Assign template on interface	Cisco 7600 Series Routers
Configure multipoint to multipoint or point to point EVC	Cisco Catalyst 3750 Metro Series Switches
Enable OAM on interface	Cisco Catalyst 6500 Series (IOS) Switches
Disable OAM on interface	Cisco ME 3400 Series Ethernet Access Switches
Enable E-LMI on interface	Cisco MWR 2941 Mobile Wireless Routers
Configure OAM parameter on interface	Cisco ASR 9000 Series Aggregation Services Routers
Start Remote Loopback	Cisco 2900 Series Integrated Services Routers
Stop Remote Loopback	Cisco 3900 Series Integrated Services Routers
	Cisco ME 3600X Ethernet Access Switches
	Cisco ME 3800X Carrier Ethernet Switch Routers
	Cisco 1900 Series Integrated Services Routers
	Cisco ASR 903 Series Aggregation Services Routers
	Cisco Carrier packet Transport (CPT) System
MPLS-TP	
Tunnel Ping	Cisco 7600 Series Routers
Tunnel Trace	Cisco Carrier Packet Transport (CPT) system
LSP path Lockout	
LSP Ping	Cisco 7600 Series Routers
LSP Trace	Cisco Carrier Packet Transport (CPT) system
LSP Lockout	Cisco ASR 9000 Series Aggregation Services Routers
LSP path No Lockout	Cisco ASR 903 Series Aggregation Services Routers
Add Global Configuration	
Update Global configuration	
Remove Global Configuration	
Add Link Configuration Remove Link Configuration	
Add BFD Template Configuration	Cisco ASR 903 Series Aggregation Services Routers
Remove BFD Template Configuration	Cisco 7600 Series Routers
Show BFD Template	
Show BFD Template at Tunnel	Note: Add Label Range Configuration and Remove Label
Add Label Range Configuration	Range Configuration not supported on Cisco IOS
Remove Label Range Configuration	
BFD Global Configuration	Cisco ASR 9000 Series Aggregation Services Routers
mLACP	Te: ======
Show Group	Cisco 7600 Series Devices
Show MPLS LDP	Cisco 6509 NEB-A Series Devices
Show Channel	Cisco ASR 9000 Series Routers
Show LACP internal	
Session Border Controller (SBC)	G: ACD 4000 C : A : C : C : C : C
SIP Adjancies	Cisco ASR 1000 Series Aggregation Services Router
Add SIP Adjacency	
Update SIP Adjacency	
Delete SIP Adjacency	
Add SIP Adjacency Outbound AuthRealm	
Update SIP Adjacency Outbound AuthRealm	
Delete SIP Adjacency Outbound AuthRealm	

Existing Command Support Prior to 4.0	Supported on:
Session Border Control (SBC) (continued)	
SIP Header Profiles	Cisco ASR 1000 Series Aggregation Services Router
Add SIP Header Profile	
Update SIP Header Profile	
Delete SIP Header Profile	
Add SIP Header Profile Header	
Update SIP Header Profile Header	
Add SIP Header Profile Entry	
Update SIP Header Profile Entry	
Delete SIP Header Profile Entry	
Add SIP Header Profile Condition	
SIP Option Profiles	
Add SIP option Profile	
Update SIP option Profile	
Delete SIP option Profile	
Add SIP Parameter Profile	
Delete SIP parameter Profile	
Add SIP Parameter Profile Parameter	
Update SIP Parameter Profile Parameter	
Delete SIP Parameter Profile Parameter	
Blacklists	
Add Blacklist	
Delete Blacklist	
Add Blacklist Reason	
Update Blacklist Reason	
Delete Blacklist Reason	
Call Admission Control (CAC) Policies	
Add CAC Policy Set	
Update CAC Policy Set	
Delete CAC Policy Set	
Add CAC Policy Table	
Update CAC Policy Table	
Delete CAC Policy Table	
Add CAC Rule Entry	
Update CAC Rule Entry	
Delete CAC Rule Entry	
Add Call Policy Set	
Update Call Policy Set	
Delete Call Policy Set	
Add Call Policy Table	
Update Call Policy Table	
Delete Call Policy Table	
Add Call Rule Entry	
Update Call Rule Entry	
Delete Call Rule entry	

Existing Command Support Prior to 4.0	Supported on:	
Session Border Control (SBC) (continued)		
Codec Lists	Cisco ASR 1000 Series Aggregation Services Router	
Add Codec List		
Delete Codec List		
Add Codec List Entry		
Update Codec List Entry		
Delete Codec List Entry		
Media Addresses		
Add Media Address		
Add Media Address Dbe		
Delete Media Address		
QoS Profiles		
Add QoS Profile		
Update QoS Profile		
Delete QoS Profile		
Viewing SBC Statistics		
Current 15 Min Statistics		
Current 5 Min Statistics		
Current Day Statistics		
Current Hour Statistics		
H.248 Statistics		
Previous 15 Min Statistics		
Previous 5 Min Statistics		
Previous Day Statistics		
Previous Hour Statistics		
CPS Data		
Media Statistics		
Components		
SONET		
Show BER Threshold	Cisco 7600 Series Routers	
	Cisco CRS Series Routers	
	Cisco IOS 12000 Series GSR	
Configure Clock Source	Cisco 7600 Series Routers	
	Cisco CRS Series Routers	
Show Controller data	Cisco CRS Series Routers	
Show TCA Threshold		
Show Line Counters		
Show Medium Counters		
Show Path Counters		
Show Section Counters		
Show Trace Details		
Clear SONET SDH Counters		

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Existing Command Support Prior to 4.0	Supported on:	
Cisco IP over dense wavelength division multiplexing (IPoDWDM)		
Show controller Data	Cisco 7600 Series Routers	
Show Device Log	Cisco CRS Series Routers	
Show PM History data		
Show RTPM counters		
Show RTPM threshold		
Configure G.709 ODU		
Configure G.709 OTU		
Configure G.709 TTI		
Configure G.709 Wrapper	Cisco CRS Series Routers	
Configure Loopback		
Show Wavelength Map	Cisco 7600 Series Routers	
Clear counters	Cisco CRS Series Routers	
Configure Channel	Cisco IOS 12000 Series Gigabit Switch Router (GSR)	
Configure FEC Mode		
Configure PM FEC data	Cisco 7600 Series Routers	
Configure PM Optics data	Cisco CRS Series Routers	
Configure PM OTN data		
Configure Laser State	Cisco CRS Series Routers	
Show IM trace details		
Configure Transmit data		
Configure Rx LOS threshold		
Basic Operations Commands		
Interface Commands	Cisco IOS and Cisco IOS XR devices	
Add Interface Configuration		
Update Interface Configuration	Note: Remove rate limit is not supported on Cisco IOS	
Remove Interface Configuration	XR software	
Enable Interface		
Disable Interface		
Add Loopback Interface		
Remove rate limit		
Access Control Lists (ACLs)	Cisco ASR 5000 Series Mobile Gateway	
Create Access list	Cisco ASR 5500	
Modify Access List		
Delete Access List		
Show Access List		
Remove Access List		
Remove Access List Entry		

Existing Command Support Prior to 4.0	Supported on:	
Basic Operations Commands (continued)		
Basic Device Settings	Cisco IOS and Cisco IOS XR devices	
Add Host Name		
Remove Host name		
Add DNS server		
Remove DNS server		
Add NTP server		
Remove NTP server		
Add Radius server		
Remove Radius server		
Add Tacacs server		
Add Tacacs+ server		
Remove Tacacs server		
Remove Tacacs+ server		
Syslog Host Logging		
Add SNMP Configuration		
Remove SNMP Configuration		
Update SNMP Configuration		
Add Traps		
Enable Traps		
Remove Traps		
Device Ports	Cisco IOS and Cisco IOS XR devices	
Add port description	Note: Not supported on Cisco Carrier Packet Transpor	
Remove port description	(CPT) system	
Jpdate port description		
Change port status		
Assign to port Vlan		
Deassign port to Vlan		
Device Configuration Files and Memory	Cisco IOS and Cisco IOS XR devices	
Write Memory		
Running Config		
Running Config from File		
Startup Config		
Copy Files	Cisco IOS and Cisco IOS XR devices	
From FTP	Note: Not supported on Cisco Carrier Packet Transpor	
From TFTP	(CPT) system	
TO FTP	, , , , , , , , , , , , , , , , , , , ,	
TO TFTP		
View users (Telnet Sessions) on device	Cisco IOS and Cisco IOS XR devices	
Users (Telnet session)		
Ping destination and VRFs and view Trace Route from		
device		
Destination from device		
Trace Route from device		
Traceroute VRF		
Ping VRF		

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Existing Command Support Prior to 4.0	Supported on:
Basic Operations Commands (continued)	
View Interface Briefs and IP Routes	Cisco IOS and Cisco IOS XR devices
IP Route	
VRF IP route	
Interface Brief	
VRF	·
Modify VRF	Cisco ASR 5000 Series Mobile Gateway
Delete VRF	Cisco ASR 5500
IP Interface	·
Create Interface	Cisco ASR 5000 Series Mobile Gateway
Modify Interface	Cisco ASR 5500
Delete Interface	
Configure Secondary IP Address	
Delete Secondary IP Address	
MPLS	
Configure MPLS Discovery	Cisco ASR 9000 Series Routers
Configure MPLS Label Range	Cisco ASR 901 Series Routers
Enable MPLS on Interface	Cisco ASR 903 Series Routers
Disable MPLS on Interface	
RSVP	
Configure RSVP	Cisco ASR 9000 Series Routers
Enable RSVP on Interface	Cisco ASR 901 Series Routers
Disable RSVP on Interface	Cisco ASR 903 Series Routers
BGP	
Create BGP Router	Cisco ASR 5000 Series Mobile Gateway
Modify BGP Router	Cisco ASR 9000 Series Routers
Delete BGP Router	Cisco ASR 901 Series Routers
Create BGP Address Family	Cisco ASR 903 Series Routers
Modify BGP Address Family	
Delete BGP Address Family	
Create BGP Neighbor	
Modify BGP Neighbor	
Delete BGP Neighbor	
Virtual Router Redundancy Protocol (VRRP)	
Create VRRP Group	Cisco ASR 9000 Series Routers
Modify VRRP Group	
Delete VRRP Interface	
Bundle Ethernet	
Configure Bundle Ethernet	Cisco ASR 9000 Series Routers
	Cisco ASR 901 Series Routers
	Cisco ASR 903 Series Routers

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Existing Command Support Prior to 4.0	Supported on:
Y.1731 Probes	- Capported o
Configure Probe Endpoint Association	Cisco ASR 9000
Configure Profile	CISCO ASIN SOOO
Create on Demand Probe configuration	
Deassociate Profile	
Delete profile	
Show SLA operations detail	
Show SLA operations detail	
Configure IP SLA parameters	Cisco CPT device
Delete IP SLA parameters	Cisco CFT device
Show IP SLA	
MToP (Clock Commands)	Ciaca ACD 0000 Carias Davitara
Create PTP Clock Port	Cisco ASR 9000 Series Routers
Modify PTP Clock Port	Cisco ASR 901 Series Routers
Create SyncE Global	Cisco ASR 903 Series Routers
Modify SyncE Global	
Create SyncE Interface	
Modify SyncE Interface	
Delete PTP Clock Port	Cisco ASR 901 Series Routers
Show PTP Clock Port	Cisco ASR 903 Series Routers
Create PTP Clock Global	
Modify PTP Clock Global	
Configure ESMC Global	Cisco ASR 903 Series Routers
Modify ESMC Global	
Configure ESMC Interface	
Disable ESMC Interface	
Authentication, Authorization and Accounting (AAA)	
Create Diameter Accounting Server	Cisco ASR 9000 Devices
Create Diameter Authentication Server	
Delete AAA Group	
Modify AAA Group	
IP Pool	
Delete IP Pool	Cisco ASR 5000 Series Mobile Gateway
Modify IP Pool	
Diagnose Subscriber Access Points	
Show DHCP Binding	Cisco ASR 5000 Series Mobile Gateway
Show IP Subscriber Management Trace	Cisco ASR 5500
Show PPoE Trace	
Show Subscriber Dynamic Template Trace All	
Show Subscriber Manager Disconnect History	
Show Subscriber Manager Session History	
Show Subscriber Manager Trace	
Show Subscriber Session Details by Filter	

Existing Command Support Prior to 4.0	Supported on:
Mobile Technologies	
GGSN	Cisco ASR 5000 Series Mobile Gateway
Create PLMN Identifier	Cisco ASR 5500
Create SGSN	
Delete SGSN	
Modify SGSN	
GTPU	
Create GTPU Bind IP Address	
Modify GTPU Bind IP Address	
Delete GTPU Bind IP Address	
Delete GTPU	
Modify GTPU	
APN	
Create Qos to DSCP Mapping	
Create Virtual APN	
Delete APN	
Modify APN	
GTPP	
Create CGF	
Create Storage Server	
Modify Storage Server	
Delete Storage Server	
Delete CGF	
Delete GTPP	
Modify CGF	
Modify GTPP	
Show CGF	
EGTP	
Modify EGTP	
Delete EGTP	
PDN Gateway (P-GW)	
Create P-GW PLMN	
Delete P-GW	
Modify P-GW	
Serving Gateway (S-GW)	
Create S-GW PLMN	
Delete S-GW	
Modify S-GW	

Existing Command Support Prior to 4.0	Supported on:
Systems Architecture Evolution Gateway (SAE-GW)	
MAG Configuration Commands	Cisco ASR 5000 Series Mobile Gateway
Create MAG	Cisco ASR 5500
Modify MAG	
Delete MAG	
Show MAG	
Create Profile ID QCI Mapping	
Delete Profile ID QCI Mapping	
Create Profile	
Modify Profile	
Delete Profile	
Active Charging Services (ACS)	
Create Group of Ruledefs	
Create Rulebase	
Create Ruledef	
Delete Active Charging Service	
Modify Active Charging Service	
Create Access Ruledef	
Delete Access Ruledef	
Show Access Ruledef	
Create Host Pool	
Delete Host Pool	
Create Charging Action	
Delete Charging Action	
Show Charging Action	
Foreign Agent Configuration	Cisco ASR 5000 Series Mobile Gateway
Create FA	,
Modify FA	
Delete FA	
Show FA	
Create SPI	
Modify SPI	
Delete SPI	
Create IKE	
Modify IKE	
Delete IKE	
Modify Advertisement	
Modify Authentication	
Modify GRE	
Modify HA Configuration	
Modify Proxy Mobile IP	
Modify Registration Revocation	
ePDG Configuration	
Create ePDG service	
Modify ePDG Service	
Delete ePDG Service	
Show ePDG Service	

Existing Command Support Prior to 4.0	Supported on:	
Configuring and Viewing	Cisco ASR 5000 Series Mobile Gateway	
Configure BFD		
Create AAA Group		
Create APN		
Create Active Charging Service		
Create EGTP		
Create GGSN		
Create GTPP		
Create GTPU		
Create IP Pool		
Create P-GW		
Create QCI-QOS Mapping		
Create S-GW		
Create VRF		
Delete Context		
Modify License		
Create DHCP		
Delete DHCP		
Modify DHCP Create HA SPI List		
Delete HA SPI List		
Modify HA SPI List		
Create HA Service		
Delete HA Service		
Modify HA Service		
Create Network Requested PDP Context		
Delete Network Requested PDP Context		
Create Proxy DNS		
Delete Proxy DNS		
Modify Proxy DNS		
Create Route Access List		
Create Route Map		
Delete Route Access List		
Delete Route Map		
Modify Route Access List		
Modify Route Map		
Create Subscriber		
Delete Subscriber		
Modify Subscriber		
Show APN		
Shop DHCP		
Show EGTP		
Show HA SPI List		
Show HA Service		
Show IP Pool		
Show License		
Show Route Access List		
Show Route Map		
Show Subscriber		
Create Policy Accounting		
Modify Policy Accounting		
Delete Policy Accounting		
Delete Folicy Accounting	Addendum: Additional VNE Dr	iver

Existing Command Support Prior to 4.0	Supported on:
Data Center	•
Viewing vPC	Cisco Nexus 1000V Network Element
Show Port Channel Capacity	Cisco Nexus 2000 Network Element
Show vPC	Cisco Nexus 5000 Network Element
Show vPC Consistency Parameters	Cisco Nexus 7000 Network Element
Monitoring Cisco FabricPath Configuration	Cisco Unified Computing System (UCS)
FabricPath Conflict	
MAC Address-Table Learning Mode	
TDM	
Configure Card Type	Cisco ASR 9000 Series Routers
Modify E1 Controller	Cisco ASR 901 Series Routers
Modify T1 Controller	Cisco ASR 903 Series Routers
Channelization commands for SONT/SDH (check)	
Configure Framing	Cisco ASR 903 Series Routers
Configure AUG Mapping	
Configure AU4	
Delete AU4	
Configure TUG3	
Delete TUG3	
Configure STS	
Delete STS	
Configure AU3	Cisco ASR 9000 Series Routers
Delete AU3	
Configure Controller	Cisco ASR 9000 Series Routers
	Cisco ASR 903 Series Routers
Automatic Protection Switching (APS)	
Create APS	Cisco ASR 9000 Series Routers
Modify APS	Cisco ASR 903 Series Routers
PTP and SyncE	
Create PTP Clock Global	Cisco ASR 9000 Series Routers
Modify PTP Clock Global	Cisco ASR 901 Series Routers
Create PTP Clock Port	Cisco ASR 903 Series Routers
Modify PTP Clock Port	
Delete PTP Clock Port	Cisco ASR 901 Series Routers
Show PTP Clock Port	Cisco ASR 903 Series Routers
Create SyncE Global	Cisco ASR 9000 Series Routers
Modify SyncE Global	Cisco ASR 901 Series Routers
Create SyncE Interface	Cisco ASR 903 Series Routers
Modify SyncE Inerface	
Configure ESMC Global	Cisco ASR 903 Series Routers
Modify ESMC Global	
Configure ESMC Interface	
Disable ESMC Interface	
VLAN	
Create VLAN	Cisco ASR 5000 Series Mobile Gateway
Modify VLAN	
Delete VLAN	

Existing Command Support Prior to 4.0	Supported on:	
Configuring Intermediate System – to – Intermediate System (IS – IS) on Cisco Router		
Create ISI S Router	Cisco ASR 9000 Series Routers	
Modify ISIS Router	Cisco ASR 901 Series Routers	
Delete ISIS Router	Cisco ASR 903 Series Routers	
Create ISIS Interface		
Modify ISIS Interface		
Delete ISIS Interface		
Create ISIS Address Family		
Modify ISIS Address Family		
Delete ISIS Address Family		
Create ISIS Interface Address Family		
Modify ISIS Interface Address Family		
Delete ISIS Interface Address Family		
Show ISIS Configuration		

Appendix – IOS-XE to IOS Software Mapping

The following table maps the Cisco IOS XE software versions to the Cisco IOS software versions.

Cisco IOS XE Version	Cisco IOS version
3.1.0S	15.0(1)S
3.1.1\$	15.0(1)S1
3.1.2\$	15.0(1)S2
3.1.3\$	15.0(1)\$3
3.1.4\$	15.0(1)\$4
3.1.4aS	15.0(1)S4a
3.1.5\$	15.0(1)S5
3.1.6\$	15.0(1)S6
3.2.0S	15.1(1)S
3.2.1\$	15.1(1)S1
3.2.2\$	15.1(1)S2
3.3.0\$	15.1(2)S
3.3.1\$	15.1(2)S1
3.3.2S	15.1(2)S2
3.4.0\$	15.1(3)S
3.4.0aS	15.1(3)S0a
3.4.1\$	15.1(3)S1
3.4.2S	15.1(3)S2

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3.4.3\$	15.1(3)S3
3.4.4\$	15.1(3)\$4
3.4.5\$	15.1(3)\$5
3.4.6S	15.1(3)\$6
3.5.0S	15.2(1)S
3.5.1\$	15.2(1)\$1
3.5.2S	15.2(1)S2
3.6.0\$	15.2(2)S
3.6.1\$	15.2(2)S1
3.6.2\$	15.2(2)S1
3.7.0S	15.2(4)S
3.7.1S	15.2(4)S1
3.7.2S	15.2(4)S2
3.7.3\$	15.2(4)S3
3.7.4S	15.2(4)S4
3.7.5S	15.2(4)S5
3.7.6S	15.2(4)S6
3.8.0\$	15.3(1)S
3.8.1\$	15.3(1)S1
3.8.2S	15.3(1)S2
3.9.0S	15.3(2)S
3.9.1\$	15.3(2)S1
3.9.2S	15.3(2)S2
3.10.0S	15.3(3)S
3.10.1\$	15.3(3)S1
3.10.2S	15.3(3)S2
3.10.3\$	15.3(3)S3
3.10.4\$	15.3(3)\$4
3.10.5\$	15.3(3)\$5
3.10.6S	15.3(3)\$6
3.10.7S	15.3(3)\$7