

# AsterNOS for Campus

## Release Note

Version V6.1R006

FACTOR GROUP

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# 1. Preface

The purpose of this document is to provide important information about the released software version, including but not limited to the following information: running platform, important components, main features, key updates.

## Target Audience

This manual is primarily intended for following engineers.

- Software Developers
- Software Testers
- Customer Site Implementers

## 2. Modification of Records

Date	Versions	Modify Remarks
2026-04-01	V1.0	AsterNOS version-V6.1R006 released

## 3. Description

AsterNOS is a SONiC-based network operating system. The release version is **AsterNOS-V6.1R006**, the specific information are as following:

- AsterNOS-Campus-V6.1R006-arm64.bin
  - Md5sum: df6880b7ad2cfe800f56a0f6567f8f58
  - Supported models: All device models of CX102S, CX204Y, CX206Y, CX202P, CX206P series
- AsterNOS-Campus-V6.1R006-amd64.bin
  - Md5sum: c9b5aec99a8bfe1fd0bc546db83e866b
  - Supported models: CX308P, CX532P series
- Supporting user manual
  - AsterNOS-Command\_Line\_Manual
  - AsterNOS-Configuration\_Guide

- AsterNOS-Netconf\_User\_Manual
- AsterNOS-Restapi\_User\_Manual

FACTOR  GROUP

The logo for Factor Group is a circular emblem with a stylized, multi-colored design (purple, blue, red, and white) resembling a network or a molecular structure.

## 4. Dependent Components

Components	Versions
Linux kernel	6.1.123
SAI	1.16.1
FRR	10.4.1
lldpd	1.0.16
libteam	1.31
snmpd	5.9.3
redis	5.0.3
isc-dhcp	4.4.3
radvd	2.19
mstp	0.0.9
parpd	1.0.0
ndppd	1.0.0
docker-engine	24.0.2



## 5. Update Records

### 5.1. New Feature

1. Supports 2.5G Interface rate;
2. Supports Interface Splitting;
3. Supports PoE PD Alive Check;
4. Supports interface status flapping detection;
5. Supports Policy-Based Routing;
6. Supports OSPFv2/OSPFv3 routing protocols;
7. Supports BGP routing protocol;
8. Supports IS-IS routing protocol;
9. Supports Routing Policy configuration;
10. Supports BFD/HW BFD;
11. Supports ECMP/UCMP routing;
12. Supports ARP-to-host route conversion;
13. Supports uRPF;
14. Supports MAC Trigger;
15. Supports SRv6 BE/TE;
16. Supports MACsec;
17. Supports three-level permission settings for local\_user;
18. Supports configuration of automatic logout timer for idle users;
19. Supports DHCPv4 Failover;
20. Supports MACScan;
21. Supports Monitor Link;
22. Supports ERSPAN;
23. Supports PTP;
24. Supports SyncE.
25. Prohibited to automatically reboot the device when the Syncd container quit;
26. Add more display of GNSS-related information in show ptp clock, and create a new gnss.log to store GNSS-related logs;
27. Restrict access to the SDK lua\_cli to only 127.0.0.1;

## 5.2 Major Bug Fix

1. Resolved the issue of occasional device restarts when PTP message interactions are too frequent;
2. Repeatedly adding DHCP snooping entries may cause the snooping container to exit;
3. Deleting the lag interface results in an exception that causes the ndppd process to exit;
4. Saving loopback interface configuration and restarting the device results in BGP neighbor establishment failure;
5. When batching OSPF configuration, the ospfd process may fail to start and fail to send hello packets;
6. Mismatch between the nexthop and dst\_ip address families in PBR can cause the PBR process to hang;
7. Installation failure during an upgrade and subsequent reinstallation results in errors;

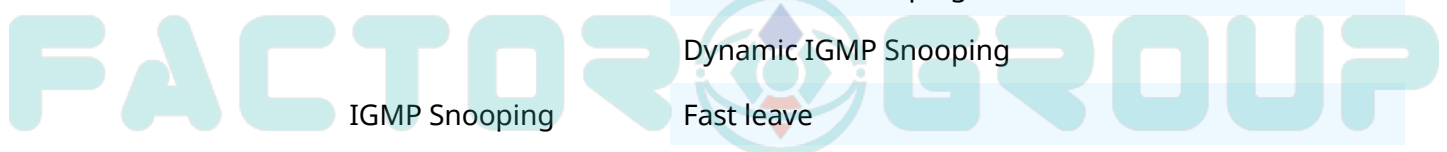
## 6. List of Features

Level1	Level2	Level3
		RJ45
	Speed	SFP/SFP+/SFP28 QSFP28
	Shutdown	no shutdown shutdown
<b>Interface</b>	Interface statistics	Packet & Byte Counters
		Error Counters
		IPv4/IPv6 Counters
		Rate Statistics
	Startup delay	
	Optical module information	
	Port group	
	PoE	
<b>Layer 2</b>	MAC	Static MAC
		Dynamic MAC learning
		MAC Aging

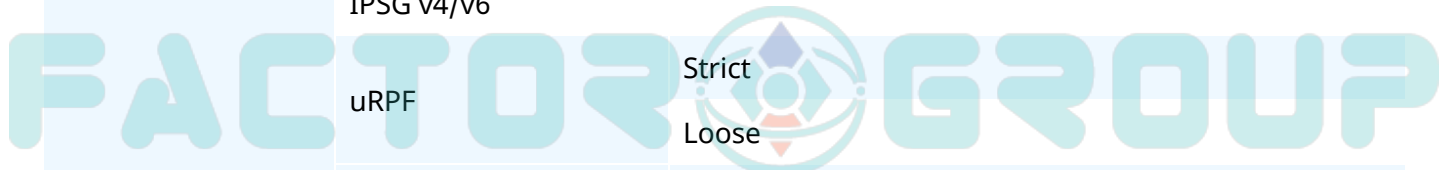
		MAC limit per port
		MAC Blacklist
		MAC Flapping
		MAC learning priority
	VLAN	VLAN mode
		VLAN group
	QinQ	Basic QinQ
		Flexible QinQ
	VLAN mapping	
	VoiceVLAN	
	LAG	Static LAG
		LACP
	MSTP	MSTP/RSTP/STP
		BPDU Filter
		BPDU Guard
	LLDP	
	Loopback Detection	
	Port isolation	
	L2TP (Layer 2 Tunneling Protocol)	Layer 2 protocols supported for transparent tunneling: STP, LACP, PVSTP, CDP
<b>Layer 3</b>		IPv4 interface
	IP Interface	IPv6 interface
		Sub-interface
	ARP	
	NDP	
	IPv6	SLAAC
	DHCP	DHCP Server v4/v6
		DHCP Relay v4/v6
	VRF	



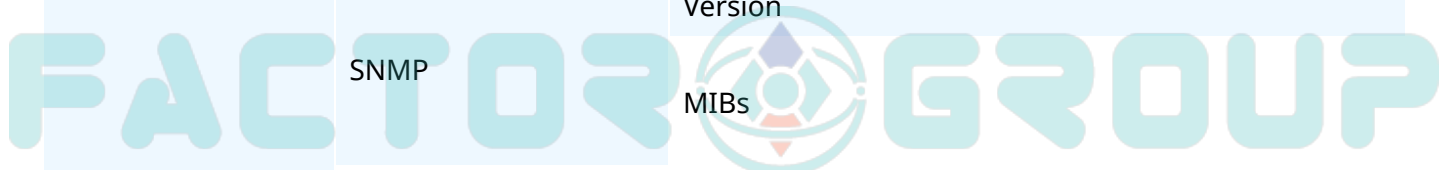
	ARPtoHost	
	MAC Trigger	
<b>IP Unicast Routing</b>	Static Route	IPv4 route
		IPv6 route
		Blackhole route
	Policy-based Routing	Route traffic based on source/destination IP, port, or protocol
		Setting nexthop
	Route protocol	BGP
		OSPFv2/3
		ISIS
		Route Policy
		version
<b>IP Multicast Routing</b>	IGMP Snooping	Static IGMP Snooping
		Dynamic IGMP Snooping
		Fast leave
		Snooping entry limit
		IGMP Snooping querier
		IGMP Snooping Porxy
	Multicast VLAN	
MLD Snooping	MLD Snooping version	
	Static IGMP Snooping	
	Dynamic IGMP Snooping	
	Fast leave	
	Snooping entry limit	
	MLD Snooping querier	
	MLD Snooping Porxy	
<b>Security</b>	Broadcast Suppression	Unknown unicast control
		Broadcast control
		Multicase control



		Unknown unicast control
	Storm Control	Broadcast control
		Multicast control
	CoPP	
		Standard ACL
	ACL	Extended ACL
		VLAN-based ACL
	DHCP Snooping v4/v6	
	ND Snooping	
	RA Guard	
	SAVI	
	DAI (Dynamic ARP Inspection)	
	IPSG v4/v6	
	uRPF	Strict Loose
	MACsec	
		Authentication
	AAA	Authorization
		Fail through
		Fail back
<b>Management</b>	Local user	
<b>Security</b>	TACACS	
	Radius	
	ACL for management plane	
		OSPF
<b>High Availability</b>	BFD	BGP
		Static Route
	HW BFD	BGP



<b>QoS</b>	MAC Scan		
	Monitor Link		
	Priority	Trust dscp	
		Trust CoS	
	Classification	L2-L4 classification	
		CoS/DSCP remarking	
	Policing&Shaping	Port-based rate limiting	
		ACL-based rate limiting	
	Scheduling	remark/fwd/drop	
		DWRR	
	SP		
<b>Management &amp; Monitoring</b>	Mirror	SPAN	
		RSPAN	
	SNMP	Version	
		MIBs	
	NTP		
	sFlow		
	PTP	Smpte-2059-2/1588v2/G.8275.1/G.8275.2	
		bc/octc/t-gm/t-bc/t-bc-p/t-tsc/t-tsc-p	
		one-step/two-step	
		E2E/P2P	
		BMCA	
	SyncE		
	sFlow		
	Syslog	Syslog	
		Rsyslog	
CLI	Console		
	Telnet		
	SSHv2		





ZTP	
License	
Netconf/YANG	
Restconf/YANG	
RestAPI	
TFTP/FTP	
Alarm	

