

## GWN78xx Switch Firmware Release Notes

### IMPORTANT UPGRADING NOTE

1. Combined all GWN78xx switches model firmware release together since 1.0.13.6. For 1.0.9.15 and previous firmware release notes, please visit:  
<https://www.grandstream.com/support/firmware>

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## FIRMWARE FILE DOWNLOAD

Individual firmware files are available for downloading at URL below:

<https://www.grandstream.com/support/firmware>

## [11/20/2024] FIRMWARE VERSION 1.0.13.6

### PRODUCT NAME

GWN7821P, GWN7822P

### DATE

11/20/2024

### FIRMWARE FILE INFORMATION

- GWN7821P Firmware file name: gwn7821fw.bin  
MD5 checksum: c2fdc4d77dbeb700b617c7bce8dd406a
- GWN7822P Firmware file name: gwn7822fw.bin  
MD5 checksum: c2fdc4d77dbeb700b617c7bce8dd406a

This is the initial firmware version for GWN7821P/7822P.

## FIRMWARE VERSION 1.0.13.6

### PRODUCT NAME

GWN7801(P), GWN7802(P), GWN7803(P), GWN7806(P)  
GWN7811(P), GWN7812P, GWN7813(P), GWN7816(P)  
GWN7830, GWN7831, GWN7832

### DATE

10/21/2024

### FIRMWARE FILE INFORMATION

- GWN7801(P) / 7802(P) / 7803(P) Firmware file name: gwn780xfw.bin  
MD5 checksum: 3076343d9809e252a19f937ccfe5cf31
- GWN7806(P) Firmware file name: gwn7806fw.bin  
MD5 checksum: 0ddf14f3a340ed78609b4db6a784e465
- GWN7811(P) / 7812(P) / 7813(P) Firmware file name: gwn781xfw.bin  
MD5 checksum: c2fdc4d77dbeb700b617c7bce8dd406a
- GWN7816(P) Firmware file name: gwn7816fw.bin  
MD5 checksum: 0ddf14f3a340ed78609b4db6a784e465
- GWN7830 Firmware file name: gwn7830fw.bin  
MD5 checksum: c2fdc4d77dbeb700b617c7bce8dd406a
- GWN7831 Firmware file name: gwn7831fw.bin  
MD5 checksum: c2fdc4d77dbeb700b617c7bce8dd406a
- GWN7832 Firmware file name: gwn7832fw.bin  
MD5 checksum: 0ddf14f3a340ed78609b4db6a784e465

### CHANGES/ENHANCEMENT

- Added support for GWN7821P and GWN7822P model.
- Added support for BGP & Route Policy on L3 Switch.
- Added support for MVR(CLI).
- Added LED status change during the start-up process
- Removed PTP settings from Web UI.
- Optimized IPv6 OSPFv3 CLI command.
- Optimized GWN780x CPU usage.
- Fixed from GWN Cloud login the Web UI fails when HTTPS login authentication method is TACACS+.
- Fixed issue that unable to import configuration files from older versions.
- Fixed issue that user can still add a method successfully when the AAA name already exists.
- Fixed the IP Address will be set to 0.0.0.0 when enable Querier via GWN Cloud.

- Fixed Profile import fails after changing the profile name.

## NEW FEATURE OVERVIEW

- **BGP**

### Only L3 switches are supported.

BGP is a border gateway protocol that is used to transfer routing information between different AS. It provides following function:

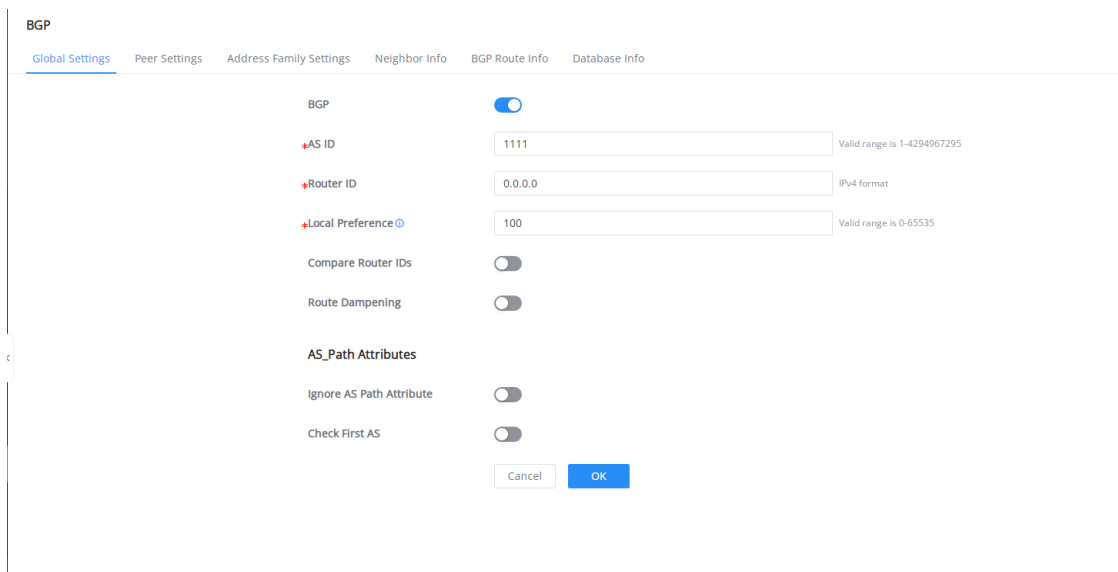
**Path selection:** Determine the best route by comparing the path attributes of different destinations.

**Routing Policies:** Select specific segments by defining routing policies.

**Aggregation:** By aggregating multiple route declarations, the number of routing information is reduced, the routing table is simplified, and the processing load is reduced.

**Loop avoidance:** Path vectors are used to prevent routing loops. Each BGP router knows the best path to each destination and uses this information to avoid loops.

**Security maintenance:** MD5 authentication is used to protect routing information from unauthorized access or tampering.



**BGP**

Global Settings | Peer Settings | Address Family Settings | Neighbor Info | BGP Route Info | Database Info

BGP

+AS ID  Valid range is 1-4294967295

+Router ID  IPv4 Format

+Local Preference  Valid range is 0-65535

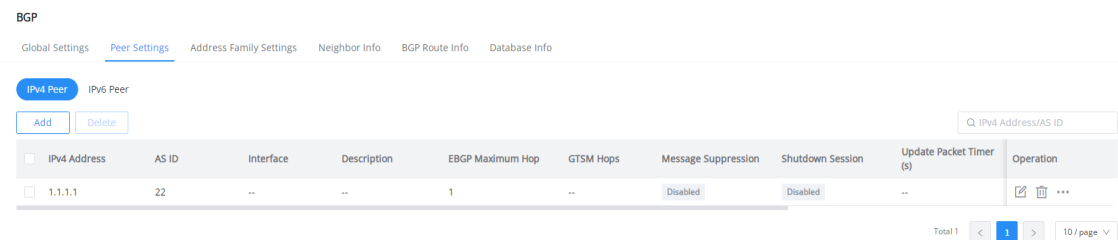
Compare Router IDs

Route Dampening

AS\_Path Attributes

Ignore AS Path Attribute

Check First AS



**BGP**

Global Settings | Peer Settings | Address Family Settings | Neighbor Info | BGP Route Info | Database Info

IPv4 Peer | IPv6 Peer

Q IPv4 Address/AS ID

IPv4 Address	AS ID	Interface	Description	EBGP Maximum Hop	GTSM Hops	Message Suppression	Shutdown Session	Update Packet Timer (s)	Operation
<input type="checkbox"/> 1.1.1.1	22	..	..	1	..	Disabled	Disabled	..	<input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="More"/>

Total 1 |    10/page

[IPv4 Peer](#) > [Edit IPv4 Peer](#)

IPv4 Address	<input type="text" value="1.1.1.1"/>	
AS ID	<input type="text" value="22"/>	
Interface	<input type="text"/>	
Description	<input type="text"/>	0-64 characters, including numbers, letters and special characters except "?/./_ and spaces
TTL Related	<input checked="" type="radio"/> EBGp Maximum Hop <input type="radio"/> GtSM Hops	
EBGP Maximum Hop	<input type="text" value="1"/>	Valid range is 1-255
Message Suppression	<input type="checkbox"/>	
Shutdown Session	<input type="checkbox"/>	
Update Packet Timer (s)	<input type="text"/>	Valid range is 0-600. 0 indicates disabled.
MDS	<input type="checkbox"/>	
<b>Timer Settings</b>		
Keepalive Interval (s)	<input type="text" value="60"/>	Valid range is 1-21845
Hold Interval (s)	<input type="text" value="180"/>	Valid range is 3-65535
Connect Retry Interval (s)	<input type="text" value="120"/>	Valid range is 1-65535
	<input type="button" value="Cancel"/>	<input type="button" value="OK"/>

**BGP**
[Global Settings](#)   [Peer Settings](#)   [Address Family Settings](#)   [Neighbor Info](#)   [BGP Route Info](#)   [Database Info](#)
[IPv4 Unicast Routing](#)   [IPv6 Unicast Routing](#)
[Route Aggregation](#)   [Import Route](#)


Peer Address	Enable	Advertise All Paths	Advertise Best Path Per AS	Receive the Same AS Path as Itself	Advertise Default Path	Set Nexthop as Local Address	Delete AS	Operation
1.1.1.1	<span style="color: green;">Enabled</span>	<span style="color: gray;">Disabled</span>	<span style="color: gray;">Disabled</span>	Off	<span style="color: gray;">Disabled</span>	<span style="color: gray;">Disabled</span>	Off	

 Total 1            
**BGP**
[Global Settings](#)   [Peer Settings](#)   [Address Family Settings](#)   [Neighbor Info](#)   [BGP Route Info](#)   [Database Info](#)
[IPv4 Neighbor info](#)   [IPv6 Neighbor Info](#)


Neighbor IP	BGP Version	AS ID	Received Messages	Sent Messages	Messages to be sent	Received Prefix	Current Status Duration	Status	Operation
1.1.1.1	4	22	0	0	0	0	never	Active	

 Total 1

**BGP**

Global Settings Peer Settings Address Family Settings Neighbor Info BGP Route Info Database Info

IPv4 BGP Route Info IPv6 BGP Route Info

Refresh

No BGP prefixes displayed, 0 exist

**BGP**

Global Settings Peer Settings Address Family Settings Neighbor Info BGP Route Info Database Info

Type

Query

**Database Info**

```

Half-life time: 15 min
Reuse penalty: 750
Suppress penalty: 2000
Max suppress time: 60 min
Max suppress penalty: 12000
  
```

- **Routing policy**

Only supported by L3 switches and effective only when used with BGP, other dynamic routing protocols are currently not supported.

Route policies control route advertisement and reception, as well as manage route import and attribute settings by altering route attributes.

The steps for implementing a route policy are: (1) First, define the characteristics of the route



information to which the policy will be applied, i.e., define a set of matching rules. Various matching rules can be flexibly defined using filters; (2) Then, apply the matching rules to the route policy for processes such as route advertisement, reception, and import.

Supported route policy filters include Access Lists and prefix lists.

#### Route Policy

Based on IPv4 Access List   Based on IPv6 Access List   Based on IPv4 Prefix List   Based on IPv6 Prefix List

[Add](#)   [Delete](#)

<input type="checkbox"/>	Name	Match Pattern	IPv4 Address / Mask Length	Operation
<input type="checkbox"/>	test	Allow	192.168.10.0/24	<a href="#">✎</a> <a href="#">✖</a>

Total 1   [<](#) [1](#) [>](#)   10 / page ▾

#### Route Policy

Based on IPv4 Access List   Based on IPv6 Access List   **Based on IPv4 Prefix List**   Based on IPv6 Prefix List

[Add](#)   [Delete](#)

<input type="checkbox"/>	Name	Rule Number	Operation
<input type="checkbox"/>	see	2	<a href="#">✎</a>

Total 1   [<](#) [1](#) [>](#)   10 / page ▾

#### Based on IPv4 Prefix List > see Rule Details

[Add Rule](#)   [Delete](#)

<input type="checkbox"/>	Rule ID	Match Pattern	Address Prefix	Operation
<input type="checkbox"/>	1	Allow	192.168.122.0/24	<a href="#">✎</a> <a href="#">✖</a>
<input type="checkbox"/>	2	Allow	192.168.124.0/24	<a href="#">✎</a> <a href="#">✖</a>

Total 2   [<](#) [1](#) [>](#)   10 / page ▾

- **MVR [CLI only]**

The multicast VLAN registration function is used to optimize the transmission efficiency of multicast streams across different VLANs, reducing unnecessary traffic duplication and flooding, and effectively improving network performance.

```
GWN7813(config)# mvr
<cr>
group      MVR group address configuration
mode      MVR mode configuration
query-time MVR Query Response Time
vlan      MVR VLAN ID configuration
```