

# How to setup the AAA function via FreeRadius on DGS-6600 and the Radius Server?

## [Target]

The user can (1) login the switch and (2) enter Enable Mode via the authentication of the Radius Server.

## [Part 1] For Radius Server- FreeRadius on Linux

- (1.1)** Refer to the example for the configuration file "users", we should create two users: one is for the switch login, and the other is for the enable mode login.

```
debian:/# vi /etc/freeradius/users
test1  Cleartext-Password := "test"
enable Cleartext-Password := "test"
```

- (1.2)** Then add the switch to the clients of the Radius Server and assign a key to the switch, refer to the example of the configuration file "clients.conf".

```
debian:/# vi /etc/freeradius/clients.conf
client 10.90.90.90 {
    secret          = testing123
    shortname       = dgs6600
}
```

- (1.3)** Start the Radius Server (IP: 10.90.90.99) to listen on port 1812.

```
debian:/# freeradius -i 10.90.90.99 -p 1812 -X
.....
radiusd: ##### Opening IP addresses and Ports #####
Listening on authentication address 10.90.90.99 port 1812
Listening on accounting address 10.90.90.99 port 1813
Listening on proxy address 10.90.90.99 port 1814
Ready to process requests.
```

## [Part 2] For DGS-6600 configuration

**(2.1)** Assign a IP address (10.90.90.90) to VLAN 1.

```
DGS-6600:15(config)#interface vlan1
```

```
DGS-6600:15(config-if)#ip address 10.90.90.90/24
```

**(2.2)** In order to start the authentication of DGS-6600, we should create a "**user account/password**" and "**the password of Enable Mode**" on the local first.

```
DGS-6600:15(config)#username abc privilege 15 password plain-text 123456
```

```
DGS-6600:15(config)#enable password privilege 15 password plain-text 123456
```

**(2.3)** Create a Radius Server information and then configure the AAA function for Console, SSH, HTTP, Telnet on DGS-6600.

For Radius Server info

```
DGS-6600:15(config)#aaa group server radius
```

```
DGS-6600:15(config-aaa-group-server)# server radius 10.90.90.99 key testing123
```

```
DGS-6600:15(config-aaa-group-server)#aaa authentication login console group radius
```

For Console

```
DGS-6600:15(config)#aaa authentication login console group radius
```

```
DGS-6600:15(config)#aaa authentication enable console group radius
```

For Telnet

```
DGS-6600:15(config)#aaa authentication login telnet group radius
```

```
DGS-6600:15(config)#aaa authentication enable telnet group radius
```

For SSH

```
DGS-6600:15(config)#aaa authentication login ssh group radius
```

```
DGS-6600:15(config)#aaa authentication enable ssh group radius
```

For HTTP

```
DGS-6600:15(config)#aaa authentication login http group radius
```

```
DGS-6600:15(config)#aaa authentication enable http group radius
```

## [Part 3] Login Test

### Topology

PC---- (eth 2.1) **DGS-6600** (eth2.2) ----- **Radius Sever**

### Configuration

Follow the above steps.

### Result

```
User Access Verification
Username: test1 (1) User account/password
Password:
DGS-6604 Chassis-based High-Speed Switch
Command Line Interface
Firmware: 2.10.B012
Copyright (c) 2012 D-Link Corporation. All rights reserved.
DGS-6600:2>enable
Input privileged level 15 password: (2) Enable Mode password
DGS-6600:15#
DGS-6600:15#
DGS-6600:15#
DGS-6600:15#
```