

# Configuration of TACACS+ Parameters on Sx500 Series Stackable Switches

## Objective

Terminal Access Controller Access Control System (TACACS+) is used to ensure security. It provides two types of features Authentication and Authorization. The protocol exchanges encrypted protocol exchanges between the switch and the TACACS+ server. The switch has to be a client of the TACACS+ server. TACACS+ supports only IPv4. The users who have the privilege level 15 on TACACS+ server can operate the switch.

The objective of this document is to explain the configuration of the TACACS+ parameters on the Sx500 switch. The TACACS+ servers cannot be used as 802.1x authentication servers to ensure network security.

## Applicable Devices

- Sx500 Series Stackable Switches

## Software Version

- v1.2.7.76

## Configuration of TACACS+ Parameters

Step 1. Log in to the web configuration utility, and choose **Security > TACACS+**. Click **Add**.

**TACACS+**

**Use Default Parameters**

IP Version: Version 4

Key String: ☒ Encrypted  ☐ Plaintext  (0/128 Characters Used)

⚙️ Timeout for Reply: 5 sec. (Range: 1 - 30)

**Apply** **Cancel**

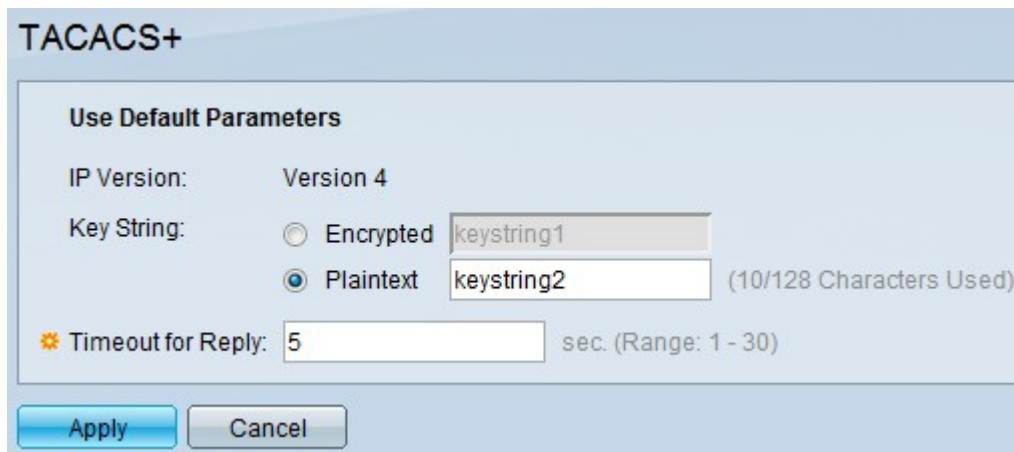
**TACACS+ Server Table**

<input type="checkbox"/>	Server	Priority	Key String( Encrypted )	Timeout for Reply	Authentication IP Port	Single Connection	Status
0 results found.							

**Add...** **Edit...** **Delete**

**Display Sensitive Data As Plaintext**

The TACACS+ page opens.



**TACACS+**

**Use Default Parameters**

IP Version: Version 4

Key String: ☐ Encrypted  ☒ Plaintext  (10/128 Characters Used)

⚙️ Timeout for Reply:  sec. (Range: 1 - 30)

**Note:** The IP Version field gives the IP version supported. TACACS+ supports only IP Version 4.

Step 2. Click the desired text mode and enter the key string value in the *Key String* field. This is used for communication with all the TACACS+ servers. This switch can be configured in such a way that it can use the key given here or the key given for a specific server. The key for a specific server can be given in the *Add TACACS+ server* page. There are two text modes which are available.

- Encrypted — The key string value is in an encrypted form which is mainly used for security.
- Plaintext — The key string value is in a plaintext form.

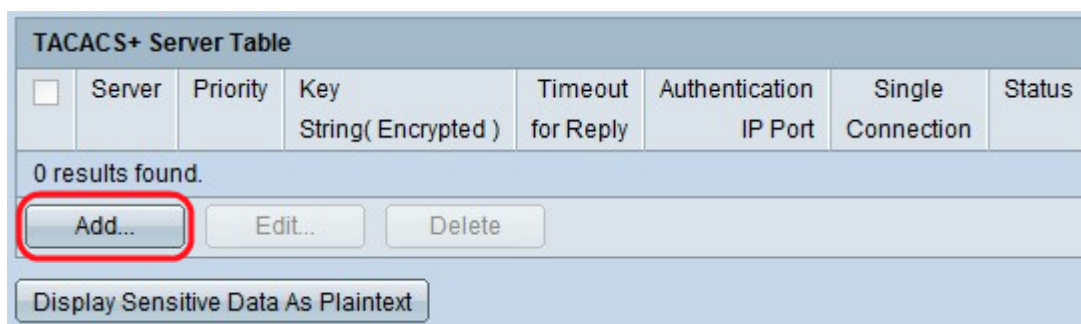
**Note:** If the key string is not entered in this field, then the server key which is used in the *Add TACACS+ server* page must be compatible with the encryption key used by the TACACS+ server. If the key string is entered in this field and also in the specific TACACS+ field, then the key string configured for the specific TACACS+ server takes priority.

Step 3. Enter the desired default value in the *Timeout for Reply* field. This is how much time the switch waits for a reply from the TACACS+ server before the connection between the switch and the server times out. If a value is not entered in the *Add TACACS+ server* page for a particular server then the value is taken from this field.

Step 4. Click **Apply**. The default TACACS+ settings are added to the Running Configuration file.

## Manage TACACS+ Server Table

Step 1. Click **Add** in the TACACS+ Server Table to add a TACACS+ server. The *Add TACACS+ server* page opens.



<input type="checkbox"/>	Server	Priority	Key String( Encrypted )	Timeout for Reply	Authentication IP Port	Single Connection	Status
0 results found.							
<input checked="" type="button" value="Add..."/> <input type="button" value="Edit..."/> <input type="button" value="Delete"/>							
<input type="button" value="Display Sensitive Data As Plaintext"/>							

Step 2. Click the **By IP Address** radio button to enter the IP address in the Server IP Address/Name field or click the **By name** radio button to enter the name of the server in the

## Server IP Address/Name field

Server Definition: ☒ By IP address ☐ By name

⚙️ Server IP Address/Name:

⚙️ Priority:  (Range: 0 - 65535)

Key String:

☐ Use Default

☐ User Defined (Encrypted)

☒ User Defined (Plaintext)  (10/128 Characters Used)

⚙️ Timeout for Reply: ☐ Use Default

☒ User Defined  sec. (Range: 1 - 30, Default: 5)

⚙️ Authentication IP Port:  (Range: 0 - 65535, Default: 49)

Single Connection: ☒ Enable

Step 3. Enter the priority in which the TACACS+ server is used in the Priority field. Zero is given the highest priority and so it is the first server used. If the switch is not able to establish a connection with the highest priority server then the switch tries to establish connections with the next highest priority server. The range is from 0 to 65535.

Step 4. Click the Use Default radio button to use the default value configured in the *Default Parameters* section. Click the **User Defined (Encrypted)** to enter the encrypted key string value of the specific TACACS+ server in the Key String field. Click the User Defined (Plain Text) to enter the key string value of the specific TACACS+ server in the Key String field. nbsp;

Step 5. Click **Use Default** radio button to use the default value configured in the *Default Parameters* section. Click **User Defined** radio button to enter the desired interval in the *Timeout for Reply* field in the *User Defined* field. This is how much time the switch waits for a reply from the TACACS+ server before the connection between the switch and the server times out.

Step 6. Enter the port number that is used for the TACACS+ session in the Authentication IP Port field. The default is 49.

Step 7. (Optional) To enable a single connection between the switch and the TACACS+ server, check **Enable** in the Single Connection field. If the TACACS+ server does not support single connection, then it switches to multiple connections.

Step 8. Click **Apply** to add the new TACACS+ server and save your changes to the Running Configuration file of the switch. The entry appears in the TACACS+ Server Table.

TACACS+ Server Table							
<input type="checkbox"/>	Server	Priority	Key String( Encrypted )	Timeout for Reply	Authentication IP Port	Single Connection	Status
<input type="checkbox"/>	192.168.0.4	5	Oe/8OYutpRjON...	4	50	Enabled	Not Connected
<input type="button" value="Add..."/> <input type="button" value="Edit..."/> <input type="button" value="Delete"/>							

