

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: sec. (Range: 1 - 30)

TACACS+ Server Table

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

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.

TACACS+ Server Table							
<input type="checkbox"/>	Server	Priority	Key String (Encrypted)	Timeout for Reply	Authentication IP Port	Single Connection	Status
0 results found.							
<input 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/8OYuutpRJON...	4	50	Enabled	Not Connected

TACACS+ Server Table							
<input checked="" type="checkbox"/>	Server	Priority	Key String(Encrypted)	Timeout for Reply	Authentication IP Port	Single Connection	Status
<input checked="" type="checkbox"/>	192.168.0.4	5	Oe/80YuutpRjON...	4	50	Enabled	Not Connected

Step 9. (Optional) To edit an entry in the TACACS+ Server Table, check the corresponding check box and click **Edit**.

Step 10. (Optional) To delete an entry in the TACACS+ Server Table, check the corresponding check box and click **Delete**.

Step 11. (Optional) Click **Display Sensitive Data As Plaintext** to display sensitive data in plaintext form in the configuration file.

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