Consent Token

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Consent Token is a security feature that authenticates the network administrator of an organization to access system shell with mutual consent from the network administrator and Cisco Technical Assistance Centre (Cisco TAC).

In some debugging scenarios, the Cisco TAC engineer may have to collect certain debug information or perform live debug on a production system. In such cases, the Cisco TAC engineer will ask you (the network administrator) to access system shell on your device. Consent Token is a lock, unlock and re-lock mechanism that provides you with privileged, restricted, and secure access to the system shell.

How consent token authorization works

Summary

When you request access to system shell, you need to be authorized. You must first run the command to generate a challenge using the Consent Token feature on your device. The device generates a unique challenge as output. You must then copy this challenge string and send it to a Cisco Authorized Personnel through e-mail or Instant Message.

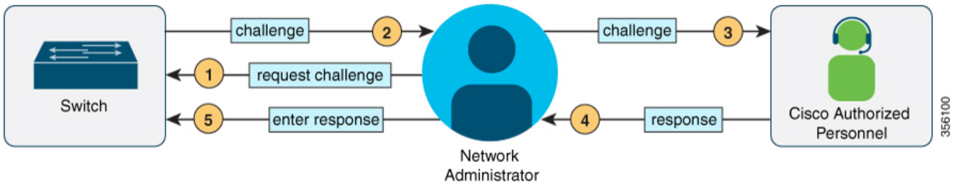
The Cisco Authorized Personnel processes the unique challenge string and generates a response that is unique. The Cisco Authorized Personnel copies this response string and sends it to you through e-mail or Instant Message.

You must then input this response string into your device. If the challenge-response pair match, you are authorized to access system shell. If not, an error is displayed and you are required to repeat the authentication process.

Once you gain access to system shell, collect the debug information required by the Cisco TAC engineer. After you are done accessing system shell, terminate the session and continue the debugging process.

Workflow

Figure 1: Consent Token



1. Generate a challenge requesting for access to system shell for the specified time period.
2. Send the challenge string to a Cisco Authorized Personnel.
3. Input the response string onto your device.
4. Terminate the session.

Consent token authorization process for system shell access

This procedure details the Consent Token authorization process to access system shell.

Procedure

Step 1 Send a request for a challenge using the **request consent-token generate-challenge shell-access** *time-validity-slot* command.

Example:

```
Device# request consent-token generate-challenge shell-access auth-timeout 900
zSSdrAAAAQEBAAQAAAABAgAEAAAAAAMACH86csUhmDl0BAAQ0FvdJ7CxqRYUeoD7B4AwW7QUABAAAAG8GAAhDVEFfREVNTwAGENUQV9ERU1PX0NUQV9TSUdOSU5HX0tFWQgAC0M5ODAwLUNMLUs5CQALOVpQUEVESE5KRkI=
Device#
*Jan 18 02:47:06.733: %CTOKEN-6-AUTH_UPDATE: Consent Token Update (challenge generation
attempt: Shell access 0).
```

time-validity-slot: The duration in minutes for which you are requesting access to system shell.

In this example, the time period is 900 minutes after which the session expires.

The device generates a unique challenge as output. This challenge is a base-64 format string.

Step 2 Send the challenge string generated by the device to a Cisco Authorized Personnel through e-mail or Instant Message.

The Cisco Authorized Personnel processes the unique challenge string and generates a response. The response is also a base-64 string that is unique. The Cisco Authorized Personnel copies this response string and sends it to you through e-mail or Instant Message.

Step 3 Input the response string sent to you by the Cisco Authorized Personnel using the **request consent-token accept-response shell-access** *response-string* command.

Example:

```
Device# request consent-token accept-response shell-access
[illegible]
% Consent token authorization success
*Jan 18 02:51:37.807: %CTOKEN-6-AUTH_UPDATE: Consent Token Update (authentication success:
 Shell access 0).

Device# request platform software system shell
Activity within this shell can jeopardize the functioning of the system.
Are you sure you want to continue? [y/n] y
Device#
*Jan 18 02:56:59.714: %CTOKEN-6-AUTH_UPDATE: Consent Token Update (authorization for Shell
 access 0 will expire in 10 min).
```

If the challenge-response pair match, you are authorized to access system shell. If the challenge-response pair do not match, an error is displayed and you are required to repeat steps 1 to 3.

After you are authorized, you can access system shell for the requested time-slot.

The device sends a message when there is ten minutes remaining of the authorization session.

Step 4 When you finish accessing system shell, you can end the session using the **request consent-token terminate-auth** command. You can also force terminate the session prior to the authorization timeout using this command. The session also gets terminated automatically when the requested time slot expires.

Example:

```
Device# request consent-token terminate-auth
% Consent token authorization termination success

Device#
*Jan 18 23:33:02.937: %CTOKEN-6-AUTH_UPDATE: Consent Token Update (terminate authentication:
 Shell access 0).
Device#
```