Secure Client VPN Connection Failure with SAML Authentication and Bencode Dictionary Errors

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Issue

VPN connections using Cisco Secure Client fail to establish when using SAML authentication with Google IdP. Although SAML authentication is successful on the IdP side, the client fails during post-authentication processing and transitions to a disconnected state, preventing the VPN tunnel from being created.

Environment

- Cisco Secure Client version 5.1.13.177
- SAML authentication configured with Google IdP
- Secure Access - Secure Client Remote Access (VPN, Posture, Private Resource)
- Google IdP authentication logs show successful SAML authentication

Resolution

The issue was resolved by reinstalling the Cisco Secure Client. This troubleshooting approach was documented:

Initial Diagnostic Steps

Step 1: Collect DART logs from the affected endpoint.

Extract Dart Bundle > Cisco Secure client > Anyconnect VPN > Logs > Under VPN Folder > AnyConnectVPN.txt shows these errors while reading internal settings, with the errors appearing continuously:

- Bencode dictionary internalize failed
- Failed to create Bencode dictionary
- PHONEHOMEVPN_ERROR_UNEXPECTED
- GLOBAL_ERROR_UNEXPECTED

Step 2: Verify SAML authentication status on IdP side.

Confirm that Google IdP logs show successful SAML authentication to isolate the issue to the client-side post-authentication processing.

Resolution Implementation

Step 1: Reinstall Cisco Secure Client.

Uninstall the existing Cisco Secure Client installation and perform a clean reinstallation of the client software.

Step 2: Verify VPN connectivity restoration.

After re installation, test the VPN connection with SAML authentication to confirm that the connection establishes successfully and the tunnel is created properly.

The re installation of Cisco Secure Client restored VPN functionality, allowing successful SAML authentication and tunnel establishment.

Cause

The root cause appears to be related to corrupted internal configuration data within the Cisco Secure Client installation, specifically affecting the ability of the CPhoneHomeVpn/PhoneHomeAgent component to process Bencode dictionary data during post-authentication processing. The repeated "Bencode dictionary internalize failed" and "Failed to create Bencode dictionary" errors indicate that the client was unable to properly parse or process internal configuration data required for establishing the VPN tunnel after successful SAML authentication.

The issue was resolved through client reinstallation, suggesting that the problem was related to corrupted client-side data rather than server-side configuration or IdP integration issues.

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