NetScaler Gateway Clients

Contents

NetScaler Gateway VPN clients and supported features

March 19, 2024

> **Important:**
>
> - Citrix SSO for iOS/Android is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.
> - The legacy VPN client was built using Apple's private VPN APIs that are now deprecated. VPN support in Citrix Secure Access client for macOS/iOS is rewritten using Apple's public Network Extension framework. NetScaler Gateway plug-in and VPN for iOS and macOS are no longer supported. Citrix Secure Access for iOS/macOS is the recommended VPN client to be used.
> - General availability of nFactor authentication support for Android devices would be available in one of the upcoming releases.

The following table lists some of the commonly used features supported for each VPN client.

Feature	Citrix Secure Access for Windows	Citrix Secure Access for Linux	Citrix Secure Access for macOS	Citrix Secure Access for iOS	Citrix Secure Access for Android
Always On (user mode)	Yes (11.1 and later)	No	No	No	Yes (via MDM) Android 7.0+
PAC file	Yes (12.0 and later)	No	Yes	Yes	No
Client proxy support	Yes	Yes	No	No	Yes. *See note 1*
Max limit of Intranet Applications	512	128	No limit	No limit	No limit
Intranet IP (IIP) support	Yes	Yes	Yes	Yes	Yes
Split tunnel ON	Yes	Yes	Yes	Yes	Yes
Split tunnel reverse	Yes	Yes	Yes	Yes	Yes. *See note 5*
Split DNS REMOTE	No	Yes	Yes	Yes	Yes. *See note 6*

Feature	Citrix Secure Access for Windows	Citrix Secure Access for Linux	Citrix Secure Access for macOS	Citrix Secure Access for iOS	Citrix Secure Access for Android
Split DNS BOTH	Yes	No	Yes	Yes	Yes. *See note 6*
FQDN based split tunnel	Yes-Only ON (13.0 and later)	No	Yes	Yes	Yes. *See note 5*
Client idle timeout	Yes	Yes	Yes	No	No
Endpoint analysis	Yes	Yes	Yes	No	No
Device certificate (classic)	Yes	No	Yes	No	No
nFactor authentication	Yes (12.1 and later)	No	Yes	Yes	Yes. *See note 3*
EPA (nFactor)	Yes (12.1 and later)	No	Yes	No	No
Device certificate (nFactor)	Yes (12.1 and later)	No	Yes	No	No
Push notification	Yes (12.1 and later)	No	No	Yes	Yes
OTP token autofill support. *See note 2*	No	No	No	Yes	Yes
TLS 1.3 support	Yes	Yes	Yes	Yes (Disabled, by default. Available on request.)	Yes (Disabled, by default. Available on request.)
DTLS support. *See note 4*	Yes (13.0 and later)	No	Yes	Yes	No
HTTPOnly cookies	Yes	Yes	Yes	Yes	Yes

Feature	Citrix Secure Access for Windows	Citrix Secure Access for Linux	Citrix Secure Access for macOS	Citrix Secure Access for iOS	Citrix Secure Access for Android
Global server load balancing (GSLB)	Yes	Yes	Yes	Yes	Yes
Local LAN access	Yes	No	Always enabled	Always enabled	No

> **Note:**
>
> 1. Setting a proxy in the client configuration on the VPN virtual server in the gateway configuration for Android 10 and later is supported. Only basic HTTP proxy configuration with IP address and port is supported.
> 2. Only QR code-scanned tokens are eligible for auto filling. Auto filling is not supported in the nFactor authentication flow.
> 3. nFactor authentication support for Android devices is under preview and the feature is disabled, by default. Contact NetScaler support for enabling this feature. Customers must provide their NetScaler Gateway's FQDN to the support team for enabling nFactor authentication for Android devices.
> 4. For details, see Configure DTLS VPN virtual server using SSL VPN virtual server.
> 5. FQDN based split tunnel support and reverse split tunnel for Android devices is under preview and the feature is disabled, by default. Contact NetScaler support for enabling this feature. Customers must provide their NetScaler Gateway's FQDN to the support team for enabling it for Android devices.
> 6. For Split DNS BOTH mode, DNS suffixes must be configured on the gateway and only DNS A record queries ending in those suffixes are sent to the gateway. Rest of the queries are resolved locally. Citrix Secure Access for Android also supports Split DNS LOCAL mode.

Reference

End-user help documentation

Citrix Secure Access for macOS/iOS

April 11, 2024

The legacy VPN client was built using Apple's private VPN APIs that are now deprecated. VPN support in Citrix Secure Access for macOS and iOS is rewritten from the ground up using Apple's public Network Extension framework.

> **Note**
>
> - Citrix SSO for iOS is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.
> - Citrix Secure Access for macOS is supported on 10.15 (Catalina), 11.x (Big Sur), 12.x (Monterey), 13.x (Ventura), and 14.x (Sonoma). It supports devices with Intel chips and Apple chips.
> - Users with hardware which cannot be upgraded to one of the earlier mentioned versions (macOS 10.15 and macOS 11.0) have access to the last compatible version on the App Store, but there are no further updates to the older versions.
> - If a macOS user switches between App Store app and TestFlight preview build or conversely, then the users must recreate the connection profile by performing the following steps:
> 1. Click the hamburger menu and then click **Configuration**.
> 2. Delete the profile from the list and add the same profile again.

Major features of Citrix Secure Access client for macOS/iOS

- **Password tokens:** A password token is a 6-digit code which is an alternative to Secondary Password Services such as VIP, OKTA. This code uses the Time-based One Time Password (T-OTP) protocol to generate the OTP code similar to services such as Google Authenticator and Microsoft Authenticator. Users are prompted for two passwords during authentication to NetScaler Gateway for a given Active Directory user. The second factor is a changing six-digit code that users copy from a registered third-party service such as Google or Microsoft Authenticator into the desktop browser. Users must first register for T-OTP on the NetScaler appliance. For registration steps, refer https://support.citrix.com/article/CTX228454. On the app, users can add the OTP feature by scanning the QR Code generated on NetScaler or manually entering the TOTP secret. OTP Tokens once added show up on the Password Tokens segment on the user interface.

To improve the experience, adding an OTP prompts the user to create a VPN profile automatically. Users can take advantage of this VPN profile to connect to the VPN directly from their iOS devices.

Citrix Secure Access client for macOS/iOS can be used to scan the QR code while registering for native OTP support.
NetScaler Gateway Push notification functionality is available only to the Citrix Secure Access for macOS/iOS users.

- **Push notification:** NetScaler Gateway sends push notification on your registered mobile device for a simplified two-factor authentication experience. Instead of launching Citrix Secure Access client for macOS/iOS to provide the second factor OTP on the NetScaler logon page, you can validate your identity by providing your Device PIN/Touch ID/ Face ID for the registered device.

Once you register your device for Push notification, you can also use the device for native OTP support using Citrix Secure Access for macOS/iOS. Registration for Push Notifications is transparent to the user. When users register TOTP, the device is also registered for Push Notifications if NetScaler supports it.

Release Notes

April 18, 2024

> **Important:**
>
> Citrix SSO for iOS is now renamed to Citrix Secure Access. We are updating the UI screenshots in our documentation to reflect this name change. Also, you might notice Citrix SSO references used in the iOS documentation during this transition period.

The release notes describe the new features, enhancements to existing features, fixed issues, and known issues available in a service release. The release notes include one or more of the following sections:

What's new: The new features and enhancements available in the current release.

Fixed issues: The issues that are fixed in the current release.

Known issues: The issues that exist in the current release and their workarounds, wherever applicable.

> **Important notes about EPA clients:**
>
> - EPA clients are supported on macOS 10.13, 10.14, 10.15, 11.x, 12.x and 13.x versions.
> - EPA clients are supported on the NetScaler 12.1, 13.0, 13.1, and 14.1 versions.

V24.04.1 (18 April 2024)

What's new

- EPA libraries are updated to 24.04.1.0 (OPSWAT OESIS library V 4.3.3503.0).

  [CSACLIENTS-9559]
- This release addresses some issues to improve the overall performance and stability.

V24.03.1 (14 Mar 2024)

What's new

- EPA libraries are updated to 24.03.1.0 (OPSWAT OESIS library V 4.3.3460.0).
- **Automatic single sign-on (SSO) to Citrix Secure Access through Citrix Workspace app - Preview**

  Citrix Secure Access for macOS now supports automatic single sign on (SSO) to Citrix Secure Access when you log on to Citrix Workspace app. Ensure that you use Citrix Secure Access for macOS 24.03.1 and Citrix Workspace app for Mac 2402 and above, to leverage this functionality. This feature is supported only on cloud stores and not for on-premises stores.

  - Currently, this functionality is disabled, by default. You can sign up for the preview using https://podio.com/webforms/29383411/2410629.
  - For admin and end-user instructions, refer to Automatic single sign-on to Citrix Secure Access through Citrix Workspace app for Mac - Preview.
  - For end-user instructions, refer to Automatic single sign-on to Citrix Secure Access via Citrix Workspace app.

  [CSACLIENTS-6321]
- **Overall performance and stability improvements**

  Citrix Secure Access client is enhanced with the following capabilities to improve the overall performance and stability:

  - An increase in the number of the simultaneous connections that can be tunneled through a VPN. This is applicable only to iOS clients.
  - An improved VPN connection resiliency with IPv6 gateways. This is applicable to both macOS and iOS clients.

  [NSHELP-36903]

V24.02.1 (15 Feb 2024)

What's new

- **Support for EPA scan operators on Mac clients**

  Citrix Secure Access client for macOS now supports all the operators <, >, >=, <=, ==, and != on the EPA editor. Also, the **Mac OS** option is available as a separate option on the EPA editor

(**Mac > Mac OS**). You can perform a product version scan of your macOS devices using these operators.

For details, see the **Note** section in Advanced Endpoint Analysis scans.

[CSACLIENTS-6462]

- EPA libraries are updated to 24.1.2.1 (OPSWAT OESIS library V 4.3.3405.0).

  [CSACLIENTS-8520]

- This release addresses some issues to improve the overall performance and stability.

24.1.5 EPA client for macOS (12 Feb 2024)

What's new

- **EPA support for Mac devices with Apple silicon processor**

  Citrix EPA client now supports Mac devices that use the Apple silicon processor. Mac devices no longer require Rosetta to be installed to run the Citrix EPA client.

  [CSACLIENTS-8731]

- **Support for EPA scan operators on Mac clients**

  Citrix EPA client for Mac now supports the operators (<, >, >=, and <=) in the EPA expressions. Admins can configure EPA scans to allow a wide range of OS versions.

  For example, to allow the OS versions from 12.4 to 13.0, except 12.8, admins can configure the expression `version >= 12.4 && version <= 13.0 && version != 12.8`. This means that the macOS version must be from 12.4 to 13.0 but cannot be 12.8.

  For details, see Advanced Endpoint Analysis scans.

  [CSACLIENTS-6462]

V23.12.2 (20 Dec 2023)

What's new

This release addresses issues to improve the overall performance and stability.

V23.12.1 (06 Dec 2023)

What's new

- EPA libraries are updated to 23.11.1.5 (OPSWAT OESIS library V 4.3.3318.0).

[CSACLIENTS-8516]

- This release addresses other issues to improve the overall performance and stability.

V23.11.2 (01 Nov 2023)

What's new

EPA libraries are updated to 23.11.1.1 (OPSWAT OESIS library V 4.3.3279.0).

[CSACLIENTS-8515]

V23.11.1 (27 Oct 2023)

What's new

- Citrix SSO for iOS is now renamed to Citrix Secure Access. We are updating the UI screenshots in our documentation to reflect this name change.
- EPA libraries are updated to 23.10.1.1 (OPSWAT OESIS library V 4.3.3246.0).
- This release addresses the following:
  - Connection issues with the Citrix Secure Private Access environment.
  - Other issues to improve the overall performance and stability.

V23.10.2 (17 Oct 2023)

This release addresses the IPv6 login issues.

V23.10.1 (09 Oct 2023)

What's new

- EPA libraries are updated to 23.9.1.2 (OPSWAT OESIS library V4.3.3221.0).
- **Support for Local LAN access**

  Citrix Secure Access for macOS / Citrix SSO for iOS now support the Local LAN access functionality of NetScaler Gateway. You can configure local LAN access so that once a VPN connection is established, end users are either allowed to or blocked from accessing local LAN resources on their client devices. For more information, see the following:

  - NetScaler Gateway admin configurations

- End user configurations - macOS
- End user configurations - iOS

V23.09.1 (07 Sep 2023)

> **Important:**
>
> If you are using the latest Apple OS versions such as macOS 14/iOS 17 and later, then we recommend that you upgrade to Citrix Secure Access client/Citrix SSO version 23.09.1 or later. For more information about the NetScaler Gateway client software requirements, see Citrix Secure Access client system requirements.

What's new

- EPA libraries are updated to 1.3.9.9 (OPSWAT OESIS v4.3.3160).

  [CSACLIENTS-6547]

- **Secured connection insights on the UI**

  On the "Connections"screen of the Citrix Secure Access client UI, you can view the secured connection details. The details include the IP address, FQDN, destination port, and the duration of the connection. For more information, see Secured connection insights.

  [SPA-2364]

- **Reauthenticate with NetScaler Gateway after a VPN connection failure**

  Citrix Secure Access client for macOS and Citrix SSO for iOS now prompt you to reauthenticate with NetScaler Gateway when a VPN connection is lost. You are notified on the UI indicating that the connection to NetScaler Gateway is lost and that you must reauthenticate to resume the connection. For more information, see:

  - Reconnect to NetScaler Gateway from macOS after a VPN connection failure
  - Reconnect to NetScaler Gateway from iOS after a VPN connection failure.

  [CSACLIENTS-6071]

V23.08.1 (24 Aug 2023)

What's new

- This release addresses issues that help to improve overall performance and stability.
- EPA libraries are updated to 1.3.9.9 (OPSWAT OESIS v4.3.3122).

23.7.6 EPA client for macOS (10 Aug 2023)

This release addresses issues that help to improve overall performance and stability.

V23.07.1 (17 Jul 2023)

What's new

- **Various options to share log files**

  The "Email Logs"option in Citrix SSO for iOS is now replaced with the "Share Logs"option. The compressed log files can now be shared through options such as email, chat, save to files, and so on.

  For more information, see Send logs.

  [CSACLIENTS-3834]

- **Enhancements to Logs page**

  The Logs page of Citrix Secure Access for macOS is enhanced with the following options:

  - Maximum number of log files: Specify the maximum number of log files that you want to add for log collection.
  - Email logs: Send the logs over email.

  For more information, see Send logs.

  [SPA-2365]

Fixed issues

When connecting to VPN, if you are prompted to select a certificate for authentication, then the authentication login screen appears behind the Citrix Secure Access client's home page.

[CSACLIENTS-455]

V23.06.1 (07 Jun 2023)

What's new

- **Help menu on the navigation bar**

  A Help menu is now added to the navigation bar of the Citrix Secure Access client. The options (Open Logs, Export Logs, Email Logs, and Clear Logs) in the Help menu can be used for debugging logs.

An Email Logs option is introduced under the Help menu. It can be used to share the logs over email. For more information, see Send logs.

[SPA-2361]

Fixed issues

In some cases, the DNS short name resolution fails on Citrix Secure Access for macOS and Citrix SSO for iOS.

[NSHELP-34568]

Known issues

In some cases, the excluded routes in reverse split-tunneling are tunneled.

[CGOP-24575]

V23.05.2 (11 May 2023)

Fixed issues

After an upgrade, the Citrix SSO for iOS client devices cannot establish per-app VPN connections.

[NSHELP-35224]

V23.05.1 (04 May 2023)

What's new

- EPA libraries are updated to 1.3.9.3 and OPSWAT libraries are updated to 4.3.2987.
- **Support for sending events to Citrix Analytics**

  Citrix Secure Access for macOS now supports sending events such as session creation, session termination, and app connection to Citrix Analytics service. These events are then logged in the Secure Private Access service dashboard.

  [SPA-2197]

Fixed issues

- When the users are connected to Citrix Secure Access or Citrix SSO, the "Connection Duration" field fails to display the time in the region-specific format.

  [CGOP-23587]

V23.04.1 (04 Apr 2023)

What's new

- EPA libraries are updated to 1.3.9.1 and OPSWAT libraries are updated to 4.3.2923.

V22.12.2 (27-Feb-2023)

What's new

- EPA libraries are updated to 1.3.8.9 (OPSWAT OESIS v4.3.2892.0).

V22.12.1 (07-Dec-2022)

This release addresses issues that help to improve overall performance and stability.

V22.11.1 (29-Nov-2022)

Fixed issues

- Transfer logon does not work for non-nFactor authentication with on-premises gateways.

  [CGOP-22729]

22.11.3 EPA plug-in for macOS (28-Nov-2022)

Fixed issues

- Citrix EPA plug-in for macOS crashes when GSLB is enabled on NetScaler.

  [CGOP-22722]

V22.10.1 (17-Nov-2022)

What's new

- The Citrix Endpoint Analysis plug-in now supports new MAC address validation expression where pattern sets can be created for the list of allowed IP addresses.

  [CGOP-22095]

Fixed issues

- Sometimes, empty proxy settings in NetScaler Gateway release 13.0 or 13.1 causes Citrix SSO to create improper proxy settings.

  [NSHELP-31970]

- Sometimes, VPN clients fail to reconnect after a network outage or after the device wakes up from sleep mode.

  [NSHELP-32483]

- Sometimes, gateway connections fail when using IPv6 literals as the destination.

  [NSHELP-32876]

22.10.1 EPA plug-in for macOS (27-Oct-2022)

What's new

- The Citrix Endpoint Analysis plug-in now a supports new MAC address validation expression where pattern sets can be created for the list of allowed IP addresses.

  [CGOP-22098]

- The Citrix Endpoint Analysis plug-in sends duplicate consent alerts while handling private network access preflight requests from Google Chrome.

  [CGOP-21751]

V22.06.1 (20-Sep-2022)

What's new

- EPA libraries are updated to 4.3.2523.0 (1.3.7.5)

Fixed issues

- nFactor authentication with EPA scan does not work on the macOS clients.

  [NSHELP-32182 - macOS]

- On the Secure Access Agent home page for macOS, extra padding with white or black color appears on the left and top of the hamburger menu depending on the selected theme (light or dark).

  [CGOP-19353 - macOS]

- When logging into the VPN, the WebView window minimizes on the first try if the device certificate is configured.

  [CGOP-19354 - macOS]

- Endpoint analysis does not work for the Citrix Secure Access app on the macOS client when GSLB is enabled on the NetScaler appliance.

  [CGOP-21634 - macOS]

- If there is a space in the configured application name and you try to access the app, the Enhanced Security Enabled popup does not show up on the macOS clients.

  [ACS-2632 - macOS]

- nFactor authentication with an optional client certificate fails when there are no appropriate client certificates on the device.

  [NSHELP-32127 - iOS]

- On a Mac device using Chrome, the VPN extension crashes while accessing two FQDNs.

  [NSHELP-32144]

- Citrix Secure Access crashes when an incorrect location value is received from the gateway. This can happen if the administrator defines a responder policy to redirect to another host.

  [NSHELP-32312]

- Direct connections to the resources outside of the tunnel established by Citrix Secure Access might fail if there is a significant delay or congestion.

  [NSHELP-31598]

V3.2.4.9 - EPA plug-in for macOS (01-Aug-2022)

Fixed issues

- Citrix Endpoint Analysis plug-in does not handle private network access preflight requests from the Google Chrome browser version 104.

  [CGOP-20709]

- Citrix Endpoint Analysis plug-in for macOS does not support GSLB.

  [CGOP-21543]

Known issues

- Citrix Endpoint Analysis plug-in for macOS displays a duplicate consent dialog box when started from the Google Chrome browser version 104. The users have to accept both the prompts.

  [CGOP-21751]

V22.03.1 (14-Jun-2022)

What's new

- EPA libraries are updated to 4.3.2393.0.

Fixed issues

- An extra DNS domain is added to the search list. This is because, when the split tunnel is set to "Split"or "Both"only the specified domains and their subdomains are NOT tunneled. If the specified domain is A.B.C, then B.C is also matched in addition to A.B.C and *.A.B.C.

  [CGOP-21657]

- HTTP/HTTPS proxy settings that do not use a PAC file are broken.

  [CGOP-21660]

V22.02.3 (24-Mar-2022)

What's new

- Citrix Secure Access for macOS resolves the FQDN of a service node on every TCP data connection from the client for the cloud workspace connections. Resolving the FQDN of a service node on every TCP data connection is not applicable for the on-premises gateway connections.

[ACS-1068]

Fixed issues

- Sometimes, the Citrix Secure Access for macOS drops connections because of issues with some non-DNS protocols using port 53, such as STUN.

  [NSHELP-31004]

- The Citrix Secure Access app breaks some protocols when the server sends data before the client, immediately after the connection is established.

  [NSHELP-29374]

- If the user closes the authentication window of the Citrix Secure Access client for macOS without completing the authentication, then subsequent attempts to connect to the server fail until the app is restarted.

  [ACS-2415]

- The Citrix Secure Access client for macOS is now bundled with OPSWAT library version 4.3.2367.0

  [NSHELP-30802]

- Citrix Secure Access for macOS takes a longer time than expected to run the post-authentication EPA check.

  [NSHELP-29118]

Known issues

- Citrix Secure Access app for macOS logs out one minute after the already connected Citrix Secure Private Access service region becomes unreachable. However, this does not affect the on-premises gateway connections.

  [ACS-2715]

V22.02.2 (15-Feb-2022)

Fixed issues

- Multiple pop-ups are displayed when a user tries to access an unsubscribed Web app from Citrix Secure Access for macOS.

  [ACS-2406]

V22.01.1 (08-Feb-2022)

Fixed issues

- Per-App VPN connections with Citrix SSO for iOS devices fail to connect to NetScaler Gateway on ports other than 443.

  [NSHELP-30653]

V1.4.1 (28-Jan-2022)

what's new

- The Citrix SSO app for macOS is now rebranded as Citrix Secure Access.

  [ACS-1092]

Fixed issues

- Client certificate authentication fails if the authentication server requests for the client certificate multiple times in the same web view session.

  [CGOP-20388]

- Citrix SSO fails to establish a VPN connection if the server certificate has only an IP address for common name because of a proxy in between the client and the ADC.

  [CGOP-20390]

- EPA scan for checking the antivirus last full system scan fails on macOS.

  [NSHELP-29571]

- Sometimes, the Citrix SSO app crashes while handling large DNS packets.

  [NSHELP-29133]

V1.4.0 (17-Nov-2021)

Fixed issues

- Sometimes, the server validation code fails when the server certificate is trusted. As a result, end users cannot access the gateway.

  [NSHELP-28942]

- Citrix SSO fails to re-establish the VPN connection after network disruption.

  [CGOP-19988]

V1.3.13 (05-Nov-2021)

Fixed issues

- You might experience failures when filtering sessions for managed versus unmanaged VPNs. The initial requests to establish the session are missing the "ManagedVpn"information in the User-Agent header.

  [CGOP-19561]

V1.3.12 (21-Oct-2021)

Fixed issues

- Client certificate authentication fails for Citrix SSO for macOS if there are no client certificates in the macOS Keychain.

  [NSHELP-28551]

- The Citrix SSO app crashes intermittently when receiving notifications.

  [CGOP-19363]

- The VPN extension might crash when the "isFeatureEnabled"parameter is called to check a feature flag.

  [CGOP-19360]

- The gateway VPN extension crashes if the DTLS protocol has an empty payload.

  [CGOP-19361]

- The SSO app crashes intermittently when the device wakes up from the sleep mode and the VPN is connected.

  [CGOP-19362]

V1.3.11 (17-Sep-2021)

Fixed issues

- EPA scan for firewall check fails for macOS devices using Citrix SSO.

  [CGOP-19271]

- Citrix SSO crashes in an iOS 12 device when legacy authentication or Intune Network Access Compliance (NAC) is configured.

  [CGOP-19261]

V1.3.10 (31-Aug-2021)

What's new

- Citrix SSO for macOS is now bundled with OPSWAT library version 4.3.1977.0.

  [NSHELP-28467]

V1.3.9 (13-Aug-2021)

Fixed issues

- On some systems with HTTP proxy software installed, the NetScaler Gateway IP address shows up internally as 127.0.0.1 thus preventing tunnel establishment.

  [CGOP-18538]

- The setting "Block Untrusted Servers"does not work on systems that support non-English localization of Citrix SSO for iOS.

  [CGOP-18539]

- Citrix SSO cannot connect to systems where the DNS name does not match the common name in the server certificate. Citrix SSO now checks for the subject alternative names, and connects correctly.

  [NSHELP-28348]

V1.3.8 (07-Jul-2021)

What's new

- Citrix SSO for macOS is compatible with versions 10.15 (Catalina) and higher only.

  [CGOP-12555]

- Starting from Citrix SSO for macOS version 1.3.8, the EPA libraries are embedded within the app and are not downloaded from the NetScaler Gateway server. The current embedded EPA library version is 1.3.5.1.

  [NSHELP-26838]

Set up Citrix Secure Access for iOS users

January 8, 2024

> **Important:**
>
> - Citrix SSO for iOS is now renamed to Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change. You might notice Citrix SSO references used in the documentation during this transition period.
> - VPN cannot be used on iOS 12 and later. To continue to VPN, use Citrix Secure Access.

For the list of some commonly used features supported by the Citrix Secure Access for iOS, see NetScaler Gateway VPN clients and supported features.

Compatibility with MDM products

Citrix Secure Access (macOS/iOS) are compatible with most MDM providers such as Citrix Endpoint Management (formerly XenMobile), Microsoft Intune and so on.

Citrix Secure Access (macOS/iOS) also support a feature called Network Access Control (NAC). For more information on NAC, see Configure Network Access Control device check for NetScaler Gateway virtual server for single factor login. With NAC, MDM administrators can enforce end user device compliance before connecting to the NetScaler appliance. NAC on Citrix Secure Access (macOS/iOS) requires an MDM server such as Citrix Endpoint Management or Intune and NetScaler.

> **Note:**
>
> To use Citrix Secure Access client on macOS/iOS with NetScaler Gateway VPN without MDM, you must add a VPN configuration. You can add the VPN configuration on iOS from Citrix Secure Access (macOS/iOS) home page.

Configure an MDM managed VPN profile for Citrix Secure Access client (macOS/iOS)

The following section captures step-by-step instructions to configure both device-wide and per-app VPN profiles for the Citrix Secure Access client (macOS/iOS) using Citrix Endpoint Management (formerly XenMobile) as an example. Other MDM solutions can use this document as reference when working with Citrix Secure Access (macOS/iOS).

> **Note:**
>
> This section explains the configuration steps for a basic Device-wide and Per-App VPN profile.

> Also you can configure On-Demand, Proxies by following the Citrix Endpoint Management (formerly XenMobile) documentation or Apple's MDM VPN payload configuration.

Device level VPN profiles

Device level VPN profiles are used to set up a system wide VPN. Traffic from all apps and services is tunneled to NetScaler Gateway based on the VPN policies (such as Full-tunnel, Split-tunnel, Reverse Split tunnel) defined in NetScaler.

To configure a device level VPN on Citrix Endpoint Management Perform the following steps to configure a device level VPN on Citrix Endpoint Management.

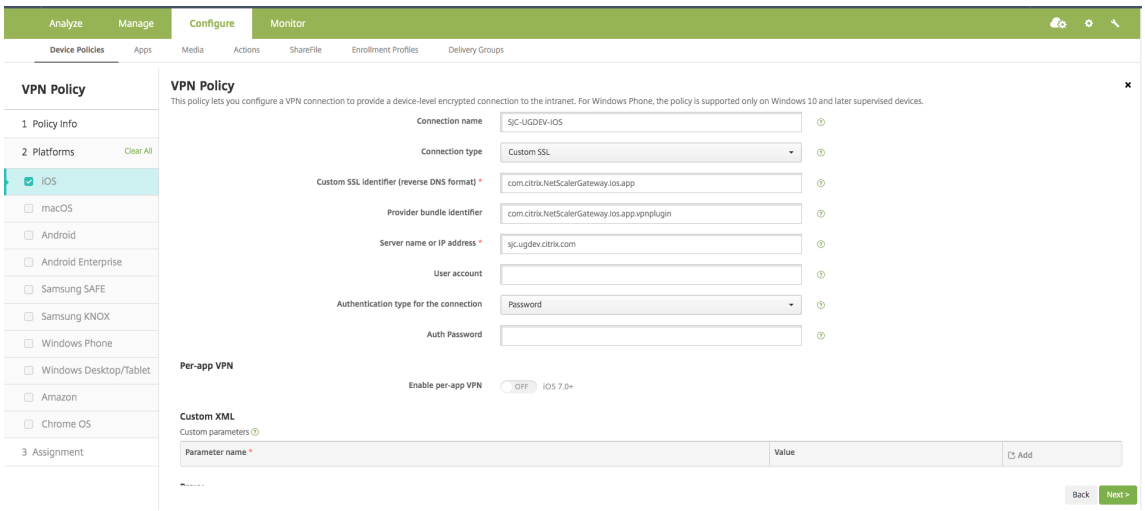
1. On the Citrix Endpoint Management MDM console, navigate to **Configure** > **Device Policies** > **Add New Policy**.
2. Select **iOS** on the left Policy Platform pane. Select **VPN** on the right pane.
3. On the **Policy Info** page, enter a valid policy name and description and click **Next**.
4. On the **VPN Policy** page for iOS, type a valid connection name and choose **Custom SSL** in **Connection Type**.

   In the MDM VPN payload, the connection name corresponds to the **UserDefinedName** key and **VPN Type Key** must be set to **VPN**.
5. In **Custom SSL identifier (reverse DNS format)**, enter **com.citrix.NetScalerGateway.ios.app**. This is the bundle identifier for the Citrix Secure Access on iOS.

   In the MDM VPN payload, the Custom SSL identifier corresponds to the **VPNSubType** key.
6. In **Provider bundle identifier** enter **com.citrix.NetScalerGateway.ios.app.vpnplugin**. This is the bundle identifier of the network extension contained in the Citrix Secure Access iOS app binary.

   In the MDM VPN payload, the provider bundle identifier corresponds to the **ProviderBundleIdentifier** key.
7. In **Server name or IP address** enter the IP address or FQDN (fully qualified domain name) of the NetScaler associated with this Citrix Endpoint Management instance.

   The remaining fields in the configuration page are optional. Configurations for these fields can be found in the Citrix Endpoint Management (formerly XenMobile) documentation.
8. Click **Next**.



9. Click **Save**.

Per-App VPN profiles

Per-App VPN profiles are used to set up the VPN for a specific application. Traffic from only the specific app is tunneled to NetScaler Gateway. The **Per-App VPN payload** supports all keys for Device-wide VPN plus a few other keys.

To configure a per-App level VPN on Citrix Endpoint Management Perform the following steps to configure a Per-App VPN:

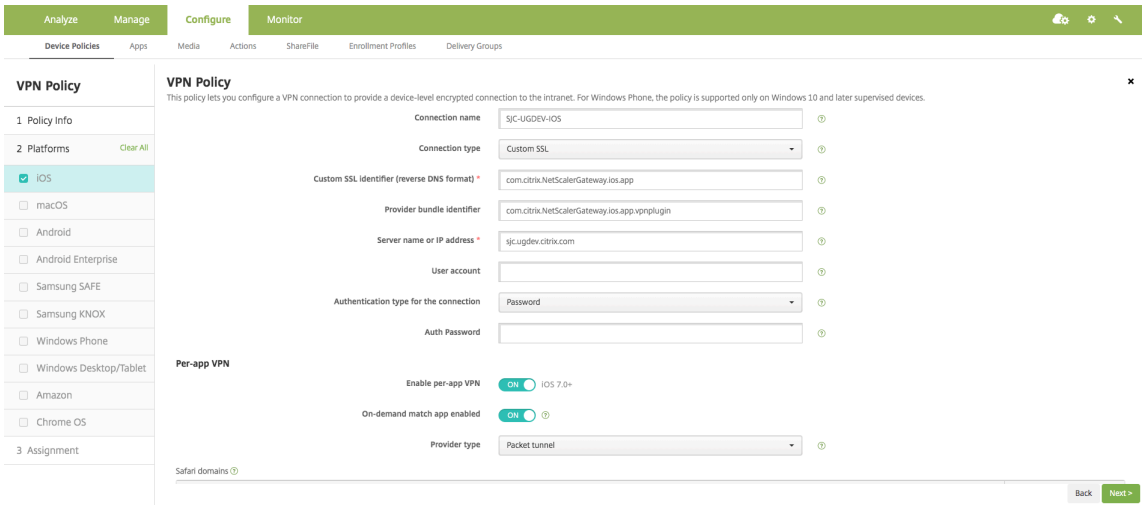
1. Complete the device level VPN configuration on Citrix Endpoint Management.
2. Turn the **Enable Per-App VPN** switch ON in the Per-App VPN section.
3. Turn the **On-Demand Match App Enabled switch ON** if Citrix Secure Access (macOS/iOS) must be started automatically when the Match App is launched. This is recommended for most Per-App cases.

   In the MDM VPN payload, this field corresponds to the key **OnDemandMatchAppEnabled**.
4. In **Provider Type**, select **Packet Tunnel**.

   In the MDM VPN payload, this field corresponds to the key **Provider Type**.
5. Safari Domain configuration is optional. When a Safari domain is configured, Citrix Secure Access (macOS/iOS) starts automatically when users launch Safari and navigate to a URL that matches the one in the **Domain** field. This is not recommended if you want to restrict the VPN for a specific app.

   In the MDM VPN payload, this field corresponds to the key **SafariDomains**.

The remaining fields in the configuration page are optional. Configurations for these fields can be found in the Citrix Endpoint Management (formerly XenMobile) documentation.



6. Click **Next.**
7. Click **Save**.

To associate this VPN profile to a specific App on the device, you must create an App Inventory policy and a credentials provider policy by following this guide - https://www.citrix.com/blogs/2016/04/19/per-app-vpn-with-xenmobile-and-citrix-vpn/.

Configuring split tunnel in Per-App VPN

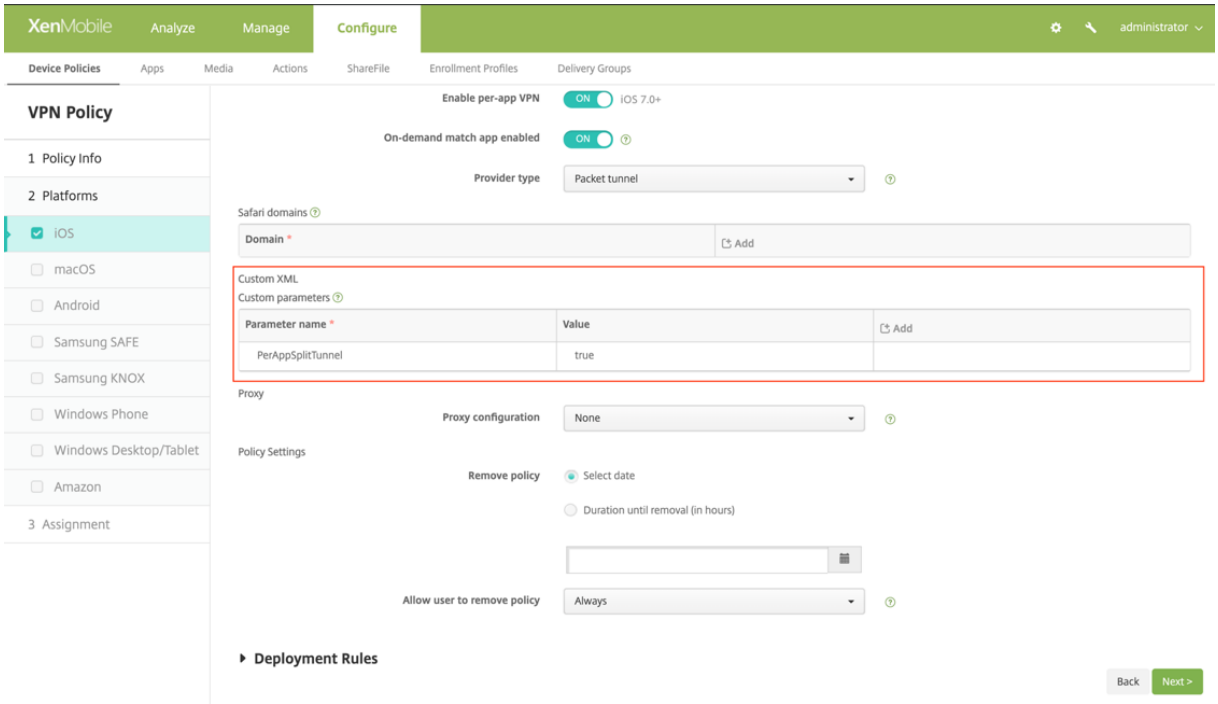
MDM customers can configure split tunnel in Per-App VPN for Citrix Secure Access (macOS/iOS). The following key/value pair must be added to the vendor configuration section of the VPN profile created on the MDM server.

```
-  Key = "PerAppSplitTunnel"
-  Value = "true or 1 or yes"
<!--NeedCopy-->
```

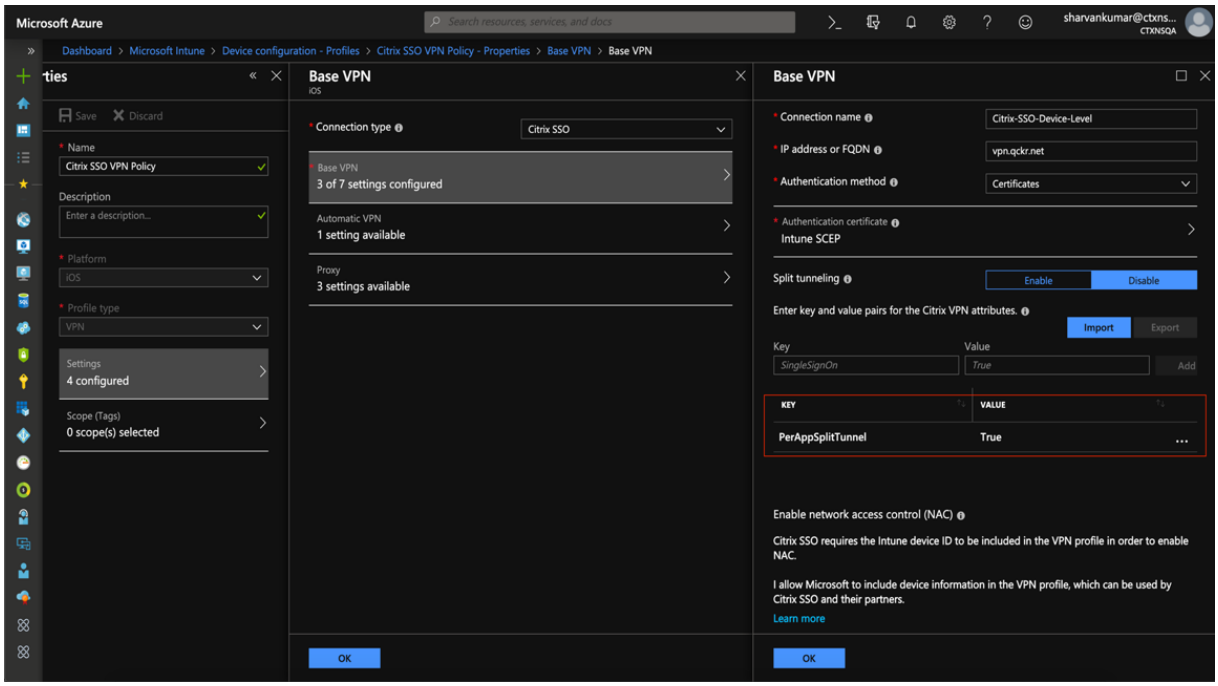
The key is case sensitive and must be an exact match while the value is not case sensitive.

> **Note:**
>
> The user interface to configure vendor configuration is not standard across MDM vendors. Contact the MDM vendor to find the vendor configuration section on your MDM user console.

The following is a sample screenshot of the configuration (vendor specific settings) in Citrix Endpoint Management.



The following is a sample screenshot of the configuration (vendor specific settings) in Microsoft Intune.



Disabling user created VPN profiles

MDM customers can prevent users from manually creating VPN profiles from within Citrix Secure Access (macOS/iOS). To do this, the following key/value pair must be added to the vendor configuration

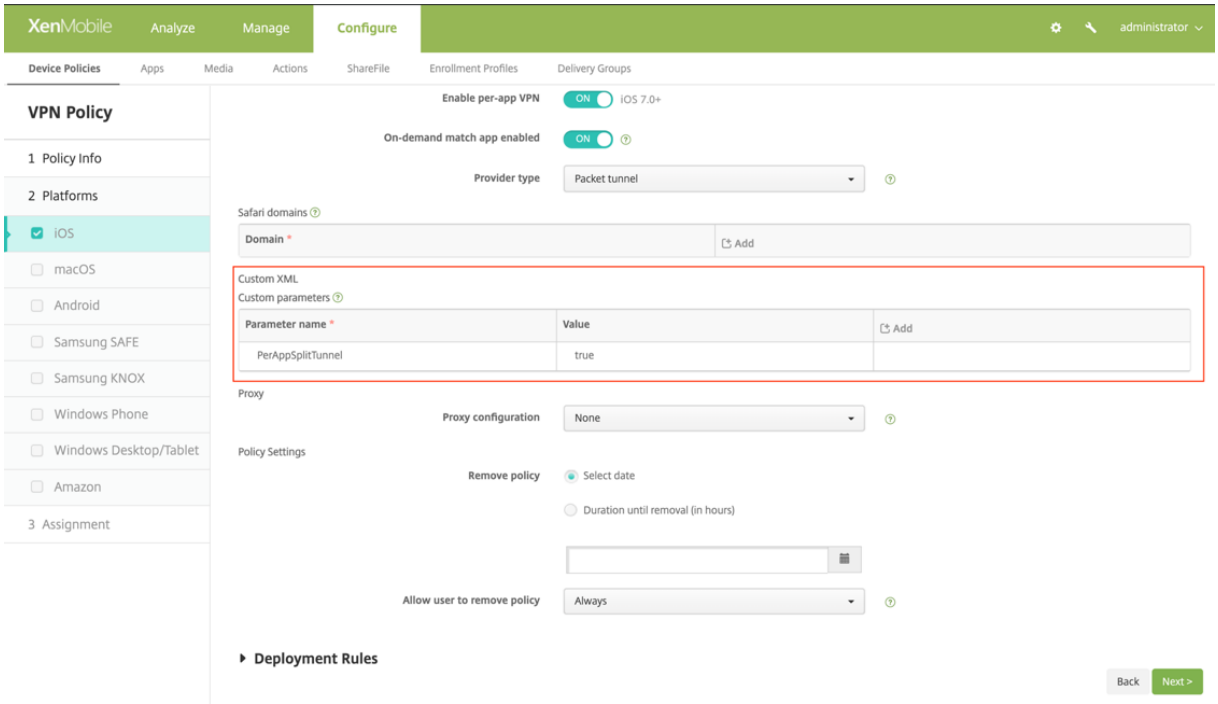
section of the VPN profile created on the MDM server.

```
-  Key = "disableUserProfiles"
-  Value = "true or 1 or yes"
<!--NeedCopy-->
```

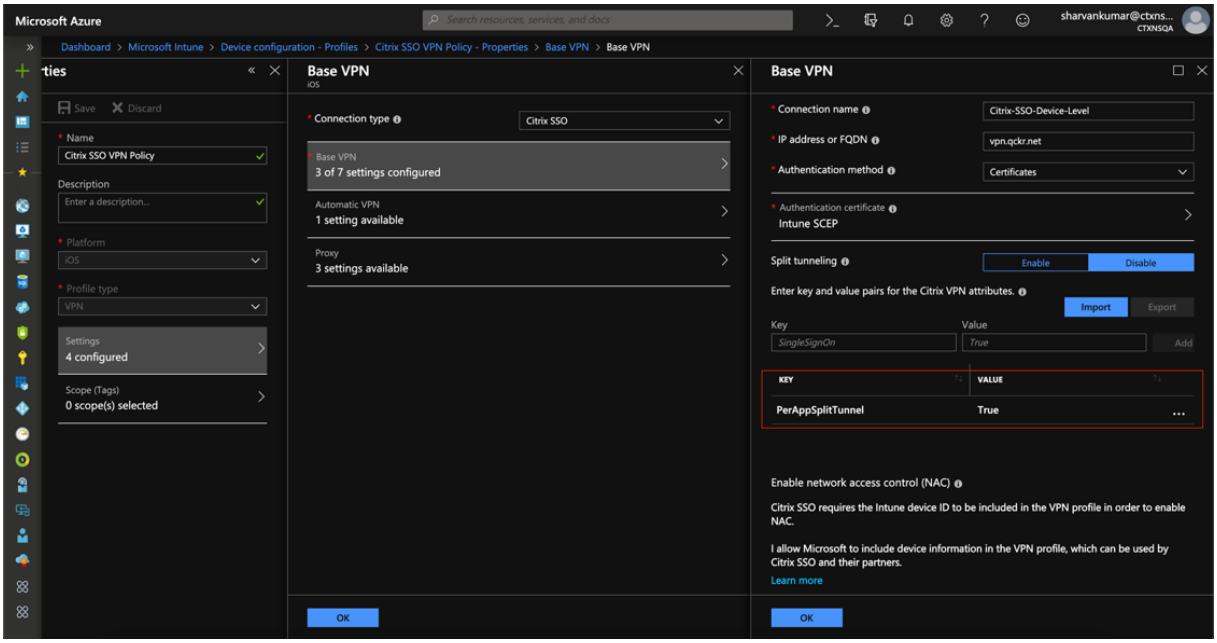
The key is case sensitive and must be an exact match while the value is not case sensitive.

> **Note:**
>
> The user interface to configure vendor configuration is not standard across MDM vendors. Contact the MDM vendor to find the vendor configuration section on your MDM user console.

The following is a sample screenshot of the configuration (vendor specific settings) in Citrix Endpoint Management.



The following is a sample screenshot of the configuration (vendor specific settings) in Microsoft Intune.



DNS handling

The recommended DNS settings for Citrix Secure Access client are as follows:

- **Split DNS > REMOTE** if the split tunnel is set to **OFF.**
- **Split DNS > BOTH** if the split tunnel is set to **ON**. In this case, the admins have to add DNS suffixes for the intranet domains. DNS queries for FQDNs belonging to DNS suffixes are tunneled to the NetScaler appliance and the remaining queries go to the local router.

> **Note:**
>
> - It is recommended that the **DNS truncate fix** flag is always **ON**. For more details, see https://support.citrix.com/article/CTX200243.
> - When split tunnel is set to **ON** and split DNS is set to **REMOTE**, there might be issues resolving DNS queries after the VPN is connected. This is related to the Network Extension framework not intercepting all the DNS queries.

Known issues

Issue description: Tunneling for FQDN addresses that contain a "`.local`" domain in Per-App VPN or On-Demand VPN configurations. There is a bug at Apple's Network Extension framework which stops FQDN addresses containing `.local` in the domain part (for example, http://wwww.abc.local) from being tunneled over the system's TUN interface. Instead, the traffic for the FQDN addresses is sent through the physical interface of the client device. The issue is observed only with Per-App VPN or

On-Demand VPN config and is not seen with system-wide VPN configurations. Citrix has filed a radar bug report with Apple, and Apple noted that according to RFC-6762: https://tools.ietf.org/html/rfc6762, local is a multicast DNS (mDNS) query and is hence not a bug. However, Apple has not closed the bug yet and it is not clear if the issue will be addressed in future iOS releases.

Workaround: Assign a `non .local` domain name for such addresses as the workaround.

Limitations

- End point Analysis (EPA) is not supported on iOS.
- Split tunneling based on ports/protocols is not supported.

Automatic single sign-on to Citrix Secure Access through Citrix Workspace app for Mac - Preview

April 18, 2024

Starting from Citrix Secure Access for macOS 24.03.1, a login to Citrix Workspace app can single sign-on (SSO) an end-users to Citrix Secure Access client, establish a user tunnel, and seamlessly provide access to TCP/UDP applications. If the end-users are connected to Citrix Workspace app, Citrix Secure Access for macOS is automatically launched and the end-users can seamlessly log on using single sign-on.

When the end-users log out of Citrix Workspace app, Citrix Secure Access automatically logs out without user intervention. This feature saves time as end-users are expected to log on to just one application, thereby providing a unified experience.

Currently, this functionality is disabled, by default. You can sign up for the preview using https://podio.com/webforms/29383411/2410629.

Pre-requisites

1. End-users must be using Citrix Workspace app 2402 or later. For details about installation of Citrix Workspace app for Mac, see Citrix Workspace app for Mac.
2. End-users must be using Citrix Secure Access for macOS 24.03.1 or later.
3. To enable this feature through MDM, admins must use the following settings:
    - `<key>EnableSecureAccessAutoLogin</key><true/>`

Points to note

- If end-users are already logged on to Citrix Workspace app before enabling this functionality, they must re-login so that Citrix Workspace app can trigger SSO to Citrix Secure Access client.
- When there is a logoff from Citrix Workspace app due to reasons such as a timeout or manual user logout, Citrix Secure Access is also logged out and the user session is disconnected (this is only if Citrix Secure Access was automatically launched via Citrix Workspace app).
- SSO login from Citrix Workspace app to Citrix Secure Access is supported only on a single primary domain. SSO on multiple domains is not supported.
- If you switch your Citrix Workspace app connection to a different URL after being single signed on to Citrix Secure Access through this feature, you are prompted to choose your Citrix Workspace app connection URL.

Send user certificate identity as an email attachment to iOS users

January 8, 2024

> **Important:**
>
> Citrix SSO for iOS is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

Citrix Secure Access on iOS supports client certificate authentication with NetScaler Gateway. On iOS, certificates can be delivered to Citrix Secure Access in one of following ways:

- MDM server - This is the preferred approach for MDM customers. Certificates are configured directly on the MDM managed VPN profile. Both VPN profiles and certificates are then pushed to enrolled devices when the device enrolls into the MDM server. Please follow MDM vendor specific documents for this approach.
- Email - Only approach for non-MDM customers. In this approach, administrators send an email with the User Certificate identity (Certificate and private key) attached as a PCKS#12 file to users. Users need to have their email accounts configured on their iOS device to receive the email with attachment. The file may then be imported to Citrix Secure Access on the iOS. The following section explains the configuration steps for this approach.

Prerequisites

- User Certificate - A PKCS#12 identity file with a .pfx or .p12 extension for a given user. This file contains both the certificate and the private key.

- Email account configured on the iOS device.
- Citrix Secure Access installed on the iOS device.

Configuration steps

1. Rename the Extension/MIME type of the User Certificate.

   File extensions most commonly used for user certificate are ".pfx,"".p12,"and so forth. These file extensions are non-standard to the iOS platform unlike formats such as .pdf, .doc. Both ".pfx" and ".p12"are claimed by the iOS System and cannot be claimed by third-party apps such as Citrix Secure Access. Hence Citrix Secure Access has defined a new Extension/MIME type called ".citrixsso-pfx"and ".citrixsso-p12". Administrators must change the Extension/MIME type of the User Certificate, from standard ".pfx"or ".p12"to ".citrixsso-pfx"or ".citrixsso-p12" respectively. To rename the extension, admins can run the following command on Command prompt or terminal.

   Windows 10

   ```
   cd <DIRECTORY_PATH_TO_CERTIFICATE_FILE>
   rename <CERTIFICATE_FILE_NAME>.pfx <CERTIFICATE_FILE_NAME>.
      citrixsso-pfx
   <!--NeedCopy-->
   ```

   macOS

   ```
   cd <DIRECTORY_PATH_TO_CERTIFICATE_FILE>
   mv <CERTIFICATE_FILE_NAME>.pfx <CERTIFICATE_FILE_NAME>.citrixsso-
      pfx
   <!--NeedCopy-->
   ```

2. Send the file as an email attachment.

   The User Certificate file with the new extension can be sent as an email attachment to the user.

   On receipt of the email, users must install the certificate in Citrix Secure Access.

Setup proxy PAC file for the Citrix SSO app for iOS users or the Citrix Secure Access client for macOS users

January 8, 2024

> **Important:**
>
> Citrix SSO for iOS is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

Citrix Secure app for iOS or the Citrix Secure Access client for macOS support Auto Proxy Config(proxy PAC file) after the VPN tunnel establishment. Admins can use the proxy PAC file to allow all the client's HTTP traffic to go through a proxy, including resolving host names.

How to set up a proxy PAC file

Have an internal machine that can host a proxy file. For example, consider that the IP of the machine is 172.16.111.43 and the name of the PAC file is proxy.pac.

If the IP address of the actual proxy server is 172.16.43.83 which is listening on port 8080, then a sample of proxy.pac is as follows:

```
function FindProxyForURL(url, host)
{
return "PROXY 172.16.43.83:8080";
}
```

The proxy PAC URL is http://172.16.111.43/proxy.pac. Assuming that the file is hosted on port HTTP port 80.

For more details, see https://support.citrix.com/article/CTX224235 or Proxy Auto Configuration for Outbound Proxy support for NetScaler Gateway.

Note:

- If Split Tunnel is ON, then make sure that the IP address of the server hosting the PAC file is included in the intranet applications list so that it is reachable through VPN.
- After logging in from Citrix Secure Access (macOS/iOS), the browsers start to use the rules from the proxy PAC file. If only one proxy rule is provided as in the previous example, then all HTTP or HTTPS traffic is routed to the internal proxy server.

Set up Citrix Secure Access for macOS users

January 8, 2024

> **Important:**
>
> Citrix SSO for iOS is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

The Citrix Secure Access client for macOS provides a best-in-class application access and data protection solution offered by NetScaler Gateway. You can now securely access business critical applications, virtual desktops, and corporate data from anywhere at any time.
Citrix Secure Access is the next generation VPN client for NetScaler Gateway to create and manage VPN connections from macOS devices. Citrix Secure Access is built using Apple's Network Extension (NE) framework. NE framework from Apple is a modern library which contains APIs that can be used to customize and extend the core networking features of macOS. Network Extension with support for SSL VPN is available on devices running macOS 10.11+.

Citrix Secure Access provides complete Mobile Device Management (MDM) support on macOS. With an MDM server, an admin can now remotely configure and manage device level VPN profiles and per-app VPN profiles.
Citrix Secure Access for macOS can be installed from a Mac App store.

For the list of some commonly used features supported by the Citrix Secure Access client for macOS, see NetScaler Gateway VPN clients and supported features.

Compatibility with MDM products

Citrix Secure Access for macOS is compatible with most MDM providers such as Citrix XenMobile, Microsoft Intune and so on. It supports a feature called Network Access Control (NAC) using which, MDM administrators can enforce end user device compliance before connecting to NetScaler Gateway. NAC on Citrix Secure Access requires an MDM server such as XenMobile and NetScaler Gateway. For more information on NAC, see Configure Network Access Control device check for NetScaler Gateway virtual server for single factor login.

> **Note:**
>
> To use the Citrix Secure Access with NetScaler Gateway VPN without MDM, you must add a VPN configuration. You can add the VPN configuration on macOS from the Citrix Secure Access configuration page.

Configure an MDM managed VPN profile for Citrix Secure Access

The following section captures step-by-step instructions to configure both device-wide and per-app VPN profiles for Citrix Secure Access using Citrix Endpoint Management (formerly XenMobile) as an example. Other MDM solutions can use this document as reference when working with Citrix Secure Access.

> **Note:**
>
> This section explains the configuration steps for a basic Device-wide and Per-App VPN profile. Also you can configure On-Demand, Proxies by following the Citrix Endpoint Management (formerly XenMobile) documentation or Apple's MDM VPN payload configuration.

Device level VPN profiles

Device level VPN profiles are used to set up a system wide VPN. Traffic from all apps and services is tunneled to NetScaler Gateway based on the VPN policies (such as Full-tunnel, Split-tunnel, Reverse Split tunnel) defined in NetScaler.

To configure a device level VPN on Citrix Endpoint Management Perform the following steps to configure a device level VPN.

1. On the Citrix Endpoint Management MDM console, navigate to **Configure** > **Device Policies** > **Add New Policy**.
2. Select **macOS** on the left Policy Platform pane. Select **VPN Policy** on the right pane.
3. On the **Policy Info** page, enter a valid policy name and description and click **Next**.
4. On the **Policy detail** page for macOS, type a valid connection name and choose **Custom SSL** in **Connection Type**.

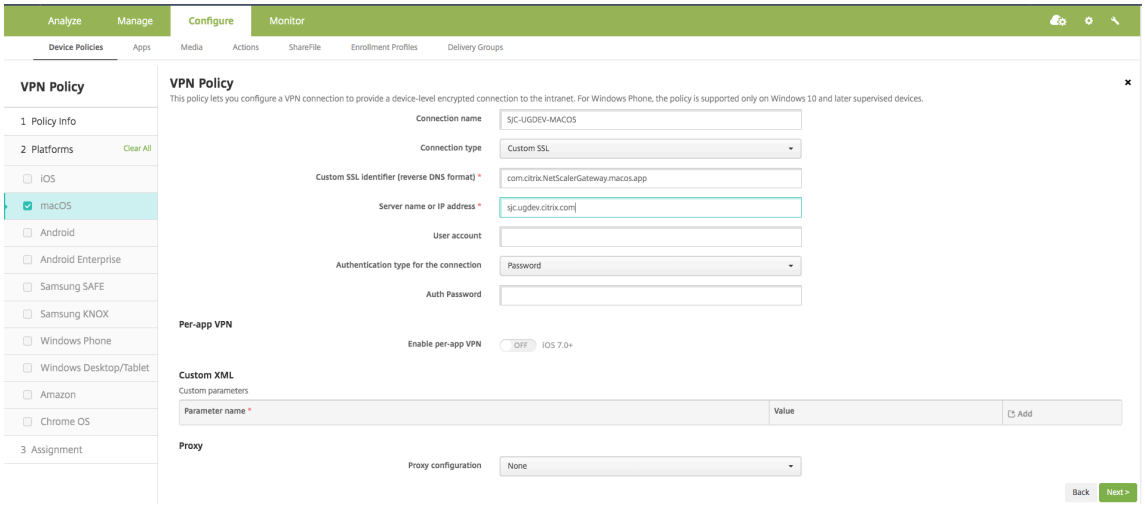
   In the MDM VPN payload, the connection name corresponds to the **UserDefinedName** key and **VPN Type Key** must be set to **VPN**.
5. In **Custom SSL identifier (reverse DNS format)**, enter **com.citrix.NetScalerGateway.macos.app**. This is the bundle identifier for the Citrix Secure Access on macOS.

   In the MDM VPN payload, the Custom SSL identifier corresponds to the **VPNSubType** key.
6. In **Provider bundle identifier** enter **com.citrix.NetScalerGateway.macos.app.vpnplugin**. This is the bundle identifier of the network extension contained in the Citrix Secure Access client binary.

   In the MDM VPN payload, the provider bundle identifier corresponds to the **ProviderBundleIdentifier** key.
7. In **Server name or IP address** enter the IP address or FQDN of the NetScaler associated with this Citrix Endpoint Management instance.

   The remaining fields in the configuration page are optional. Configurations for these fields can be found in the Citrix Endpoint Management documentation.

8. Click **Next**.



9. Click **Save**.

Per-App VPN profiles

Per-App VPN profiles are used to set up a VPN for a specific application. Traffic from only the specific app is tunneled to NetScaler Gateway. The **Per-App VPN payload supports all** keys for Device-wide VPN plus a few other keys.

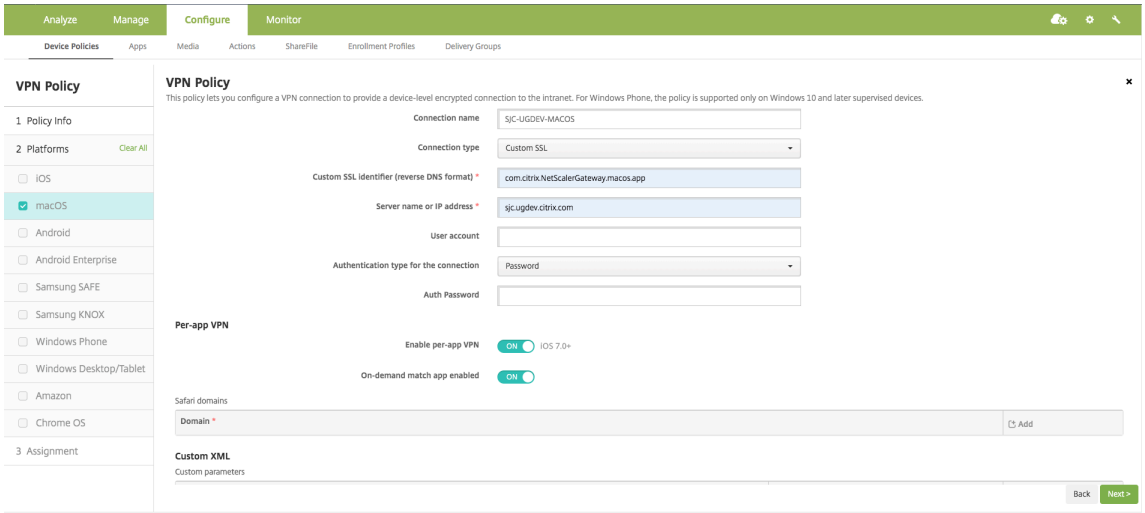
To configure a per-App level VPN on Citrix Endpoint Management Perform the following steps to configure a Per-App VPN on Citrix Endpoint Management:

1. Complete the device level VPN configuration on Citrix Endpoint Management.
2. Turn the **Enable Per-App VPN** switch ON in the **Per-App VPN** section.
3. Turn the **On-Demand Match App Enabled switch ON** if Citrix Secure Access must be started automatically when the Match App is launched. This is recommended for most Per-App cases.

   In the MDM VPN payload, this field corresponds to the key **OnDemandMatchAppEnabled**.
4. Safari Domain configuration is optional. When a Safari domain is configured, Citrix Secure Access starts automatically when users launch Safari and navigate to a URL that matches the one in the **Domain** field. This is not recommended if you want to restrict the VPN for a specific app.

   In the MDM VPN payload, this field corresponds to the key **SafariDomains**.

   The remaining fields in the configuration page are optional. Configurations for these fields can be found in the Citrix Endpoint Management (formerly XenMobile) documentation.



5. Click **Next**.
6. Click **Save**.

   To associate the VPN profile to a specific App on the device, you must create an App Inventory policy and a credentials provider policy by following this guide - https://www.citrix.com/blogs/2016/04/19/per-app-vpn-with-xenmobile-and-citrix-vpn/

Configuring split tunnel in Per-App VPN

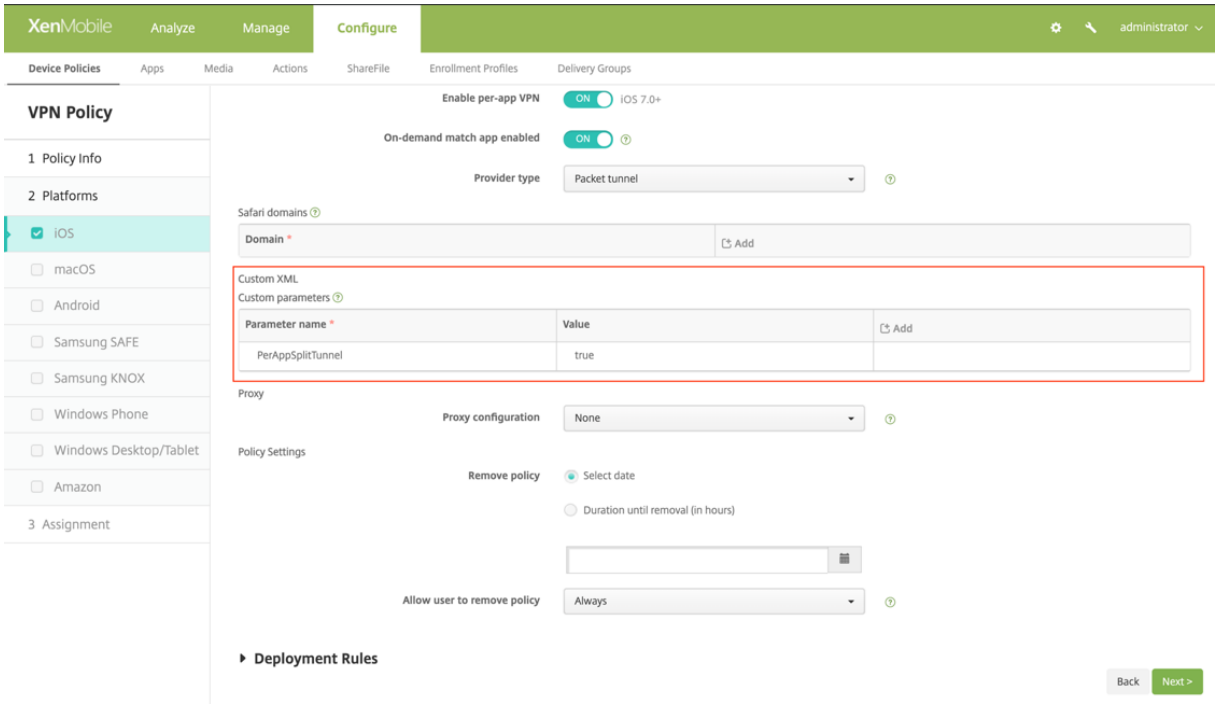
MDM customers can configure split tunnel in Per-App VPN for Citrix Secure Access. The following key/-value pair must be added to the vendor configuration section of the VPN profile created on the MDM server.

```
- Key = "PerAppSplitTunnel"
- Value = "true or 1 or yes"
```

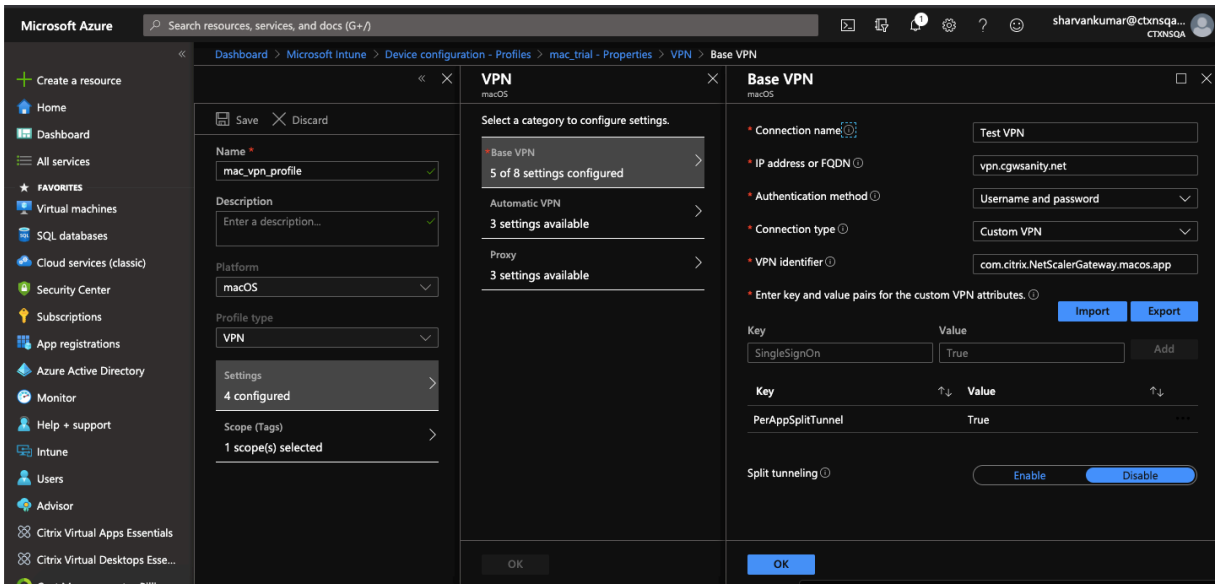
The key is case sensitive and must be an exact match while the value is not case sensitive.

> **Note:**
>
> The user interface to configure vendor configuration is not standard across the MDM vendors. Contact the MDM vendor to find the vendor configuration section on your MDM user console.

The following is a sample screenshot of the configuration (vendor specific settings) in Citrix Endpoint Management.



The following is a sample screenshot of the configuration (vendor specific settings) in Microsoft Intune.



Disabling user created VPN profiles

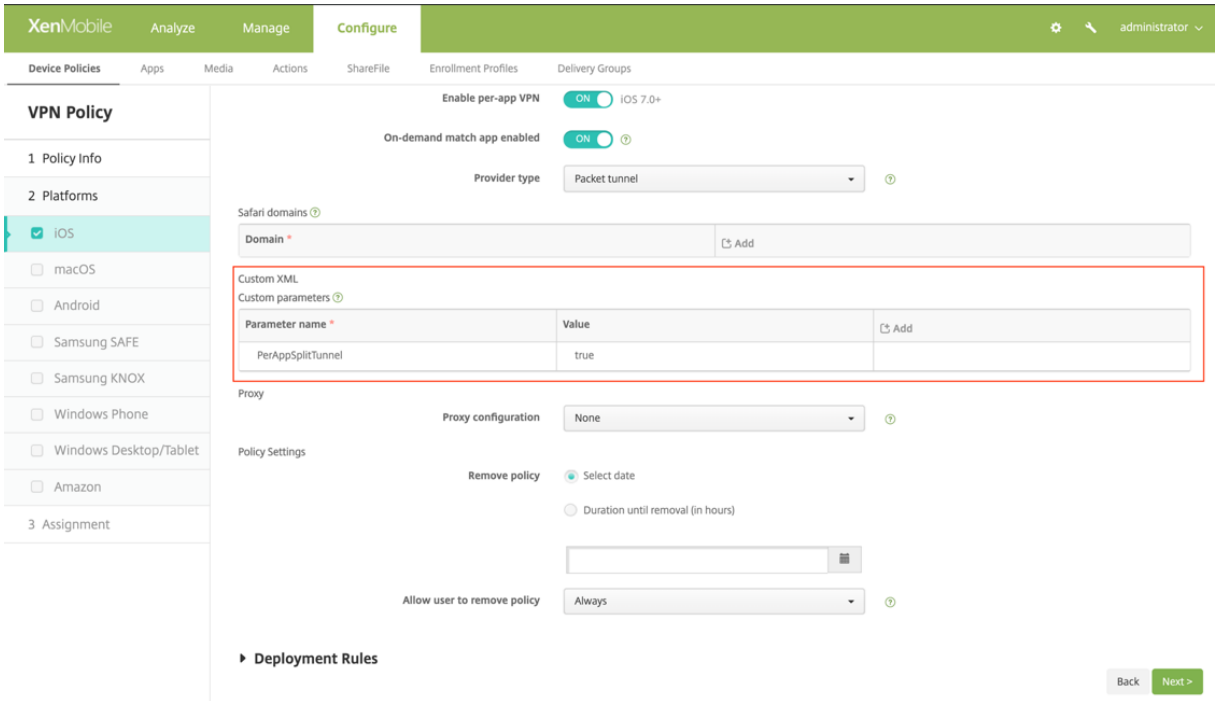
MDM customers can prevent users from manually creating VPN profiles from within the Citrix Secure Access. To do this, the following key/value pair must be added to the vendor configuration section of the VPN profile created on the MDM server.


```
- Key = "disableUserProfiles"
- Value = "true or 1 or yes"
```

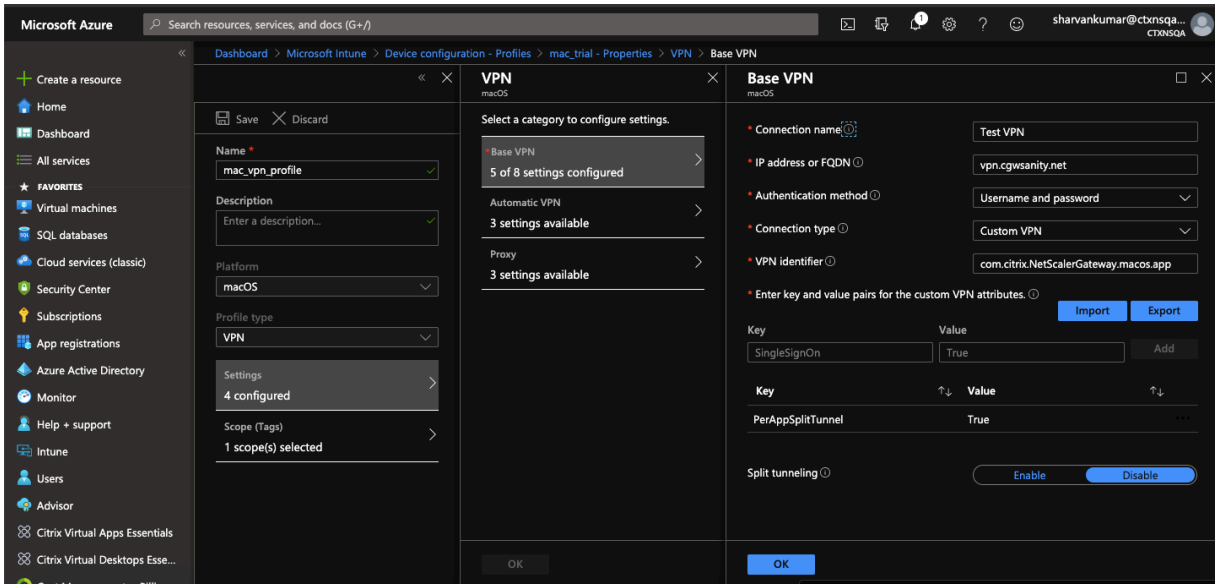
The key is case sensitive and must be an exact match while the value is not case sensitive.

> **Note:**
>
> The user interface to configure vendor configuration is not standard across MDM vendors. Contact the MDM vendor to find the vendor configuration section on your MDM user console.

The following is a sample screenshot of the configuration (vendor specific settings) in Citrix Endpoint Management.



The following is a sample screenshot of the configuration (vendor specific settings) in Microsoft Intune.



DNS handling

The recommended DNS settings for Citrix Secure Access are as follows:

- **Split DNS > REMOTE** if the split tunnel is set to **OFF.**
- **Split DNS > BOTH** if the split tunnel is set to **ON**. In this case, the admins have to add DNS suffixes for the intranet domains. DNS queries for FQDNs belonging to DNS suffixes are tunneled to the NetScaler appliance and the remaining queries go to the local router.

> **Note:**
>
> - It is recommended that the **DNS truncate fix** flag is always **ON**. For more details, see https://support.citrix.com/article/CTX200243.
> - When split tunnel is set to **ON** and split DNS is set to **REMOTE**, there might be issues resolving DNS queries after the VPN is connected. This is related to the Network Extension framework not intercepting all the DNS queries.

Supported EPA scans

For the complete list of scans supported, see Latest EPA Libraries.

1. In the section **Supported Scan Matrix by OPSWAT v4**, click **Supported Application List** under the column **MAC OS Specific**.
2. In the Excel file, click the **Classic EPA scans** tab to view the details.

Known issues

The following are the known issues currently.

- EPA login fails if the user is placed in the quarantine group.
- Forced timeout warning message is not displayed.
- Citrix Secure Access allows login if the split tunnel is ON and no intranet apps are configured.

Limitations

The following are the limitations currently.

- The following EPA scans might fail because of restricted access to Secure Access due to sandboxing.
  - Hard Disk encryption ‘type’and ‘path’
  - Web Browser ‘default’and ‘running’
  - Patch management ‘missing patches’
  - Kill process operation during EPA
- Split tunneling based on ports/protocols is not supported.
- Ensure that you do not have two certificates with the same name and expiry date in the keychain as this causes the client to display only one of the certificates instead of both.

Troubleshooting

If the end users are presented with the **Download EPA plug-in** button in the authentication window of Citrix Secure Access, it means that the content security policy on the NetScaler appliance is blocking invocation of the URL `com.citrix.agmacepa://`. The admins have to modify the content security policy such that `com.citrix.agmacepa://` is allowed.

nFactor support for Citrix Secure Access client on macOS/iOS

January 8, 2024

> **Important:**
>
> Citrix SSO for iOS is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

Multi-factor (nFactor) authentication enhances the security of an application by requiring users to provide multiple proofs of identify to gain access. Admins can configure different authentication factors that include client cert, LDAP, RADIUS, OAuth, SAML, and so on. These authentication factors can be configured in any order based on the organization's needs.

Citrix Secure Access client on macOS/iOS supports the following authentication protocols:

- **nFactor** –The nFactor protocol is used when an authentication virtual server is bound to the VPN virtual server on the gateway. Because the order of the authentication factors is dynamic, the client uses a browser instance that is rendered within the app's context to present the authentication GUI.
- **Classic** –Classic protocol is the default fall-back protocol used if classic authentication policies are configured on the VPN virtual server on the gateway. Classic protocol is the fall-back protocol if nFactor fails for specific authentication methods such as NAC.
- **Citrix identity platform** –The Citrix identity platform protocol is used when authenticating to CloudGateway or Citrix Gateway service and requires MDM enrollment with Citrix Cloud.

The following table summarizes the various authentication methods supported by each protocol.

Authentication method	nFactor	Classic	Citrix IdP
Client Cert	Supported	Supported	Not supported
LDAP	Supported	Supported	Not supported
Local	Supported	Supported	Not supported
RADIUS	Supported	Not supported	Not supported
SAML	Supported	Not supported	Not supported
OAuth	Supported	Not supported	Not supported
TACACS	Supported	Not supported	Not supported
WebAuth	Supported	Not supported	Not supported
Negotiate	Supported	Not supported	Not supported
EPA	Supported	Supported	Not supported
NAC	Not supported	Supported	Not supported
StoreFront	Not supported	Not supported	Not supported
ADAL	Not supported	Not supported	Not supported
DS-AUTH	Not supported	Not supported	Supported

nFactor configuration

For details about configuring nFactor, see Configuring nFactor authentication.

> **Important:**
>
> To use the nFactor protocol with Citrix Secure Access client on macOS/iOS, the recommended NetScaler Gateway on-premises version is 12.1.50.xx and later.

Limitations

- Mobile specific authentication policies such as NAC (network access control) require the client to send a signed device identifier as part of the authentication with NetScaler Gateway. The signed device identifier is a rotatable secret key that uniquely identifies a mobile device which is enrolled in an MDM environment. This key is embedded in a VPN profile that is managed by an MDM server. It might not be possible to inject this key into the WebView context. If NAC is enabled on an MDM VPN profile, Citrix Secure Access client on macOS/iOS automatically fall back to the classic authentication protocol.
- You cannot configure NAC check with Intune for macOS as Intune does not provide an option to enable NAC for macOS unlike for iOS.

Troubleshooting common Citrix Secure Access for macOS/iOS issues

January 8, 2024

> **Important:**
>
> Citrix SSO for iOS is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

DNS resolution issues

- If the device goes to sleep or is inactive for long, then it might take around 30–60 seconds for the VPN to resume. During this time, users might see some DNS requests failing. DNS requests automatically resolve after a short period.
  If DNS queries are not resolving, it is possible that an advanced authorization policy is blocking the DNS traffic. See https://support.citrix.com/article/CTX232237 to fix this issue.
- Always check the DNS resolution from browsers. DNS queries using the `nslookup` command from the terminal might not be accurate. If you have to use the `nslookup` command,

then you have to include the client IP address in the command. For example, `nslookup website_name 172.16.255.1.`

EPA issues

- Gatekeeper is considered as an antivirus. If there is a scan that checks for "any antivirus"(MAC-ANTIVIR_0_0), the scan always passes even if the user has not installed any antivirus from other vendors.

Note:

- Enable client security logging to get debug logs for EPA. You can enable client security logging by setting the VPN parameter `clientsecurityLog` to ON.
- The built-in patch management software from Apple is "Software Update". It corresponds to the "App Store"app on the device. The version of the "Software Update"must be like `"MAC-PATCH_100011_100076_VERSION_==_3.0[COMMENT: Software Update]"`
- Always keep the EPA libraries on NetScaler up to date. The latest libraries can be found at https://www.citrix.com/downloads/citrix-gateway/epa-libraries/epa-libraries-for-netscaler-gateway.html

nFactor issues

- Citrix Secure Access opens the **Citrix SSO auth** window for nFactor authentication. It is similar to a browser. If there are errors on this page, it can be cross verified by trying authentication on a web browser.
- If the transfer logon fails when nFactor is enabled, then change the portal theme to "RFWebUI".
- If you get an error "Secure connection to NetScaler Gateway cannot be established because the certificate chain does not contain any of the required certificates. Please contact your administrator", or "Gateway not reachable", then either the gateway server certificate has expired or the server certificate is bound with SNI enabled. Citrix Secure Access does not support SNI yet. Bind the server certificate without SNI enabled. The error can also be due to certificate pinning configured in the MDM VPN profile and the certificate presented by NetScaler Gateway not matching the pinned certificate.
- When trying to connect to the gateway, if the **Citrix SSO auth window** opens but is blank, then check if the ECC curve (ALL) is bound to the default cipher group. The ECC curve (ALL) must be bound to the default cipher group.

Network Access Control (NAC) check

NAC authentication policy is supported only in classic authentication. It is not supported as part of nFactor authentication.

FAQs

January 8, 2024

> **Important:**
>
> Citrix SSO for iOS is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

This section captures the FAQ on Citrix Secure Access for macOS/iOS.

How is Citrix Secure Access client for macOS/iOS different from VPN app?
Citrix Secure Access client for macOS and Citrix Secure Access client for iOS (formerly known as Citrix SSO for iOS) is the next generation SSL VPN client for NetScaler. The App uses Apple's Network Extension framework to create and manage VPN connections on iOS and macOS devices. Citrix VPN is the legacy VPN client that uses Apple's private VPN APIs which are now deprecated. Support for Citrix VPN is no longer available on the App store.

What is NE?
The Network Extension (NE) framework from Apple is a modern library which contains APIs that can be used to customize and extend the core networking features of iOS and macOS. Network Extension with support for SSL VPN is available on devices running iOS 9+ and macOS 10.11+.

For which versions of NetScaler is the Citrix Secure Access client for macOS/iOS compatible?
VPN features in Citrix Secure Access client for macOS/iOS are supported on NetScaler versions 10.5 and above. The TOTP is available on NetScaler version 12.0 and above. Push Notification on NetScaler has not been publicly announced yet. The App requires iOS 9+ and macOS 10.11+ versions.

How does Cert-based authentication for non-MDM customers work?
Customers who previously distributed Certificates via Email or Browser to perform Client Certificate Authentication in VPN must note this change when using Citrix Secure Access client for macOS/iOS. This is mostly true for non-MDM customers who do not use an MDM Server to distribute User Certificates.

What is Network Access Control (NAC)? How do I configure NAC with Citrix Secure Access for iOS and NetScaler Gateway?
Microsoft Intune and Citrix Endpoint Management (formerly XenMobile) MDM customers can take advantage of the Network Access Control (NAC) feature in the Citrix Secure Access for iOS. With NAC,

administrators can secure their enterprise internal network by adding an extra layer of authentication for mobile devices that are managed by an MDM server. Administrators can enforce a device compliancy check at the time of authentication in the Citrix Secure Access for iOS.

To use NAC with the Citrix Secure Access for iOS, you must enable it on both the NetScaler Gateway and the MDM server.

- To enable NAC on NetScaler, see Configure Network Access Control device check for NetScaler Gateway virtual server for single factor login.
- If an MDM vendor is Intune, see Network access control (NAC) integration with Intune.
- If an MDM vendor is Citrix Endpoint Management (formerly XenMobile), see Network Access Control.

> **Note:**
>
> The minimum supported Citrix Secure Access client for macOS/iOS version are 1.1.6 and above.

Citrix Secure Access for Android

February 12, 2024

Citrix Secure Access (formerly Citrix SSO) for Android provides best-in-class application access and data protection solution offered by NetScaler Gateway. You can now securely access business critical applications, virtual desktops, and corporate data from anywhere at any time.

> **Important:**
>
> - Citrix SSO for Android is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.
> - Citrix Secure Access client for Android works within the Android subsystem built on ChromeOS. It works with ChromeOS if installed as an Android app from the Play Store and can tunnel any application within the Android subsystem.

Release Notes

January 8, 2024

> **Important:**
>
> - Citrix SSO for Android is now renamed to Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change. You might notice Citrix SSO references used in the documentation during this transition period.
> - FQDN based split tunneling and nFactor authentication support are currently in preview.
> - Citrix Secure Access is not supported for Android 6.x and lower versions after June 2020.

The Citrix Secure Access release notes describe the new features, enhancements to existing features, fixed issues, and known issues available in a service release. The release notes include one or more of the following sections:

What's new: The new features and enhancements available in the current release.

Fixed issues: The issues that are fixed in the current release.

Known issues: The issues that exist in the current release and their workarounds, wherever applicable.

V23.12.2 (15-Dec-2023)

> **Note:**
>
> Citrix Secure Access for Android version 23.12.2 includes the fix for CSACLIENTS-8799 and replaces version 23.12.1.

[CSACLIENTS-8799]

What's new

- **Citrix SSO for Android renamed to Citrix Secure Access**

  Citrix SSO for Android is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

  [CSACLIENTS-6337]

- **Receive or block notifications on an Android 13+ devices**

  When installing or reinstalling Citrix Secure Access client on an Android 13 device, end-users are now prompted to provide permissions to receive notifications from Citrix Secure Access client. If end-users deny the permission, they will not receive any VPN status or push notifications from Citrix Secure Access client on their Android devices. MDM admins are advised to grant the notification permission to Citrix Secure Access (Package ID: `com.citrix.CitrixVPN`) in their solution.

End-users can navigate to **Settings > Notifications** on the Android device to change the notification permission for
Citrix Secure Access client. For details, see How to use Citrix Secure Access from your Android device.

[CSACLIENTS-8252]

- **Support for Transfer Logon in Always On VPN mode**

  Citrix Secure Access for Android now supports the Transfer Logon functionality in the Always On VPN mode. For details about how to configure Transfer Logon, see Configure the Transfer Logon page.

  [CSACLIENTS-8305]

Fixed issues

Citrix Secure Access crashes when users copy the Time-based OTP (TOTP) token on the Android 13+ device.

[CSACLIENTS-8799]

V23.10.2 (19-Dec-2023)

What's new

> **Notes:**
>
> - Citrix SSO for Android version 23.10.2 includes the fix for CSACLIENTS-8314 and replaces version 23.10.1.
> - Citrix SSO for Android 23.10.1 works with Android 14.

- **Reauthenticate with NetScaler Gateway after a VPN connection failure - Preview**

  Citrix SSO for Android now prompts you to reauthenticate with NetScaler Gateway when a VPN connection is lost. You are notified on the Citrix SSO UI and the notification panel of your Android device indicating that the connection to NetScaler Gateway is lost and that you must reauthenticate to resume the connection. This feature is in preview.

  For more information, see Reconnect to NetScaler Gateway after a VPN connection failure.

Fixed issues

Citrix SSO crashes intermittently when restarting the VPN service in certain Always On VPN scenarios.

[CSACLIENTS-8314]

V23.8.1 (31-Aug-2023)

What's new

- **Automatic restart of Always On VPN**

  The Citrix SSO app automatically restarts the Always On VPN when an app that is part of the allow or block list is installed in a work profile or a device profile. Traffic from this app is automatically tunneled over a VPN connection without restarting the work profile or rebooting the device. To enable the automatic restart of Always On VPN, end users must grant the Query all packages consent to the Citrix SSO app. For more information, see Automatic restart of Always On VPN.

  [CSACLIENTS-6158]

- **Enable debug logging in a managed VPN profile**

  MDM admins can now enable debug logging as a custom parameter in the managed VPN profile of the Endpoint Management console. To enable debug logging, the value of `EnableDebugLogging` must be set to True. If any of the managed VPN configurations has debug logging enabled, the debug logging functionality takes effect when the configurations are parsed. For more details, see Custom parameters for Intune configuration.

  [CSACLIENTS-3746]

Fixed issues

- Sometimes, the Citrix SSO app might fail to tunnel the traffic to some resources. This issue occurs when split tunneling is set to OFF and some unreachable domains or IP addresses are blackholed.

  [NSHELP-35555]

V22.11.1 (30-Nov-2022)

What's new

- **Citrix Secure Access is updated to target Android 12.1 (API level 32)**

  Citrix Secure Access is now updated to target Android 12.1 (API level 32). In case of per-app VPN, the VPN service might not restart automatically, if one of the packages in the per-app VPN package list is installed after the VPN tunnel setup. This is due to the app visibility restrictions

introduced in Android 11. For details, see https://developer.android.com/training/package-visibility.

[CGOP-21409]

V22.10.1 (21-Oct-2022)

What's new

- Display of the app's version number is updated to the format YY.MM.point-release, where YY is the 2-digit year, MM is the 2-digit month, and point-release that is 1+ depending on the release number within a month.
- Google Analytics/Crashlytics data collection from EU region is disabled for Android clients.

Fixed issues

- Error messages that appear for an invalid input in the Add Connection and Edit connection screens are not localized.

  [CGOP-22060]

V2.5.3 (05-May-2022)

What's new

- Citrix SSO updated to Android 11 target SDK (API 30)

  The Citrix SSO app is now updated to Android 11 target SDK (API 30). This change requires that Microsoft Intune NAC v2 APIs are used by NetScaler Gateway for device compliance check. For details, refer to the KB article https://support.citrix.com/article/CTX331615.

  [CGOP-19774]

Fixed issues

- Sometimes, Citrix SSO might not use an alternate DNS server for host name resolution after a network change.

  [NSHELP-29378]

V2.5.2 (21-Oct-2021)

Fixed issues

- Sometimes, Citrix SSO crashes when handling a non-compliance error in NAC check.

  [CGOP-19198]

V2.5.1 (12-Aug-2021)

Fixed issues

- Citrix SSO app fails to resolve host when the CNAME chain is longer than 6 hops.

  [CGOP-18475]
- Citrix SSO displays an authentication prompt when NAC check only authentication is required by NetScaler Gateway.

  [CGOP-18348]
- Citrix SSO might crash while processing unusually large ICMP packets.

  [CGOP-18286]
- Citrix SSO might crash when adding a VPN profile on some Android 8.0 devices.

  [CGOP-17607]
- Citrix SSO might crash when you restart the VPN configured for Always On.

  [CGOP-17580]
- Citrix SSO might crash when handling an SSL error in the nFactor authentication flow.

  [CGOP-17577]

V2.5.0 (08-Jun-2021)

What's new

- **Support for FQDN based split tunneling**

  Citrix SSO for Android now supports FQDN based split tunneling.

  [CGOP-12079]

Fixed issues

- Citrix SSO preview build 2.5.0 fails (110) to connect to NetScaler Gateway versions 12.1 and earlier.

  [CGOP-17735]

- The “DisableUserProfiles”setting is not applied after the SSO app is restarted.

  [CGOP-17454]

V2.4.16 (31-Mar-2021)

Fixed issues

- The nFactor authentication is aborted if safe browsing is not be enabled on some devices.

  [CGOP-17514]

V2.4.15 (17-Mar-2021)

Fixed issues

- Sometimes, Citrix SSO does not reconnect Always On VPN when session timeout happens on the NetScaler Gateway appliance.

  [CGOP-16800]

V2.4.14 (23-Feb-2021)

Fixed issues

- Citrix SSO requires user interaction when Always-On VPN with certificate only authentication is used along with nFactor authentication.

  [CGOP-16805]

- Sometimes, Citrix SSO might crash during VPN service restart or transition.

  [CGOP-16766]

V2.4.13 (04-Feb-2021)

Fixed issues

- In some cases, the Citrix SSO login request times out before NetScaler Gateway responds.

  [CGOP-16759]

V2.4.12 (15-Jan-2021)

This release addresses various issues that help to improve overall performance and stability.

V2.4.11 (08-Jan-2021)

- Classic authentication fails because the Citrix SSO sends an HTTP header (X-Citrix-Gateway) to the NetScaler Gateway which is used only in nFactor authentication.

  [CGOP-16449]

V2.4.10 (09-Dec-2020)

Fixed issues

- Sometimes, classic authentication might fail for Android devices.

  [CGOP-16219]
- Citrix SSO might crash when performing classic authentication.

  [CGOP-16012]
- The orientation of the Citrix SSO app does not change when you rotate the device.

  [CGOP-639]

V2.4.9 (20-Nov-2020)

Fixed issues

- Citrix SSO app crashes when a user taps the TOTP token value on the device.

  [CGOP-15886]

V2.4.8 (04-Nov-2020)

Fixed issues

- Citrix SSO might crash when disconnecting the VPN after a session timeout on the gateway.

  [CGOP-15592]

V2.4.7 (12-Oct-2020)

This release addresses various issues that help to improve overall performance and stability.

V2.4.6 (28-Sep-2020)

This release addresses various issues that help to improve overall performance and stability.

V2.4.5 (16-Sep-2020)

What's new

- New NetScaler logo is introduced.

  [CGOP-15327]

V2.4.4 (10-Sep-2020)

Fixed issues

- Sometimes, Citrix SSO crashes when reconnecting the VPN session.

  [CGOP-15215]

V2.4.3

Known issues

- Citrix SSO fails to establish a VPN session to NetScaler Gateway when the Android device is resource constrained.

  [NSHELP-24647]

V2.4.2

Fixed issues

- Citrix SSO app crashes when loading previously saved corrupt token data. With this fix, the token value is displayed as “Token data corrupted”for corrupt tokens in the token list. Remove the corrupt tokens and add it again.

  [CGOP-14546]

V2.4.1

Fixed issues

- Citrix SSO app is not supported for Android 6.x and lower versions after June 2020.

  [CGOP-13853]

V2.3.19

This release addresses various issues that help to improve overall performance and stability.

V2.3.18

What’s New

- Proxy configuration is now supported in the Android Citrix SSO app for Android 10 devices.

  [CGOP-12007]

V2.3.17

This release addresses various issues that help to improve overall performance and stability.

V2.3.16

This release addresses various issues that help to improve overall performance and stability.

V2.3.15

What's New

- Citrix SSO app now supports NetScaler Gateway certificate pinning for managed VPN profiles.

  [CGOP-12538]

- Citrix SSO app for Android 10 now detects Always On VPN from the system settings.

  [CGOP-12656]

Fixed issues

- Citrix SSO app crashes when disconnecting from VPN if there are only MDM VPN profiles defined.

  [CGOP-13825]

V2.3.14

What's New

- Citrix SSO app can now perform user authentication on behalf of Citrix Workspace app for native app single sign-on.

  [CGOP-12083]

- VPN service restarts if one of the packages in the per-app VPN package list is installed after the VPN tunnel setup.

  [CGOP-11262]

Fixed issues

- Citrix SSO now correctly handles the final VPN session establishment message.

  [CGOP-12488]

- The NetScaler Gateway IP address is now resolved only once. Earlier, the NetScaler Gateway IP address was resolved multiple times that resulted in connection failures sometimes.

  [CGOP-12101]

Known issues

- Always-On VPN status is not always updated correctly in the app user interface.

  [NSHELP-21709]

V2.3.13

Fixed issues

- The NetScaler Gateway IP address is now resolved only once.

  Earlier, the NetScaler Gateway IP address was resolved multiple times that resulted in connection failures sometimes.

  [CGOP-12101]

Known issues

- Always-On VPN status is not always updated correctly in the app user interface.

  [NSHELP-21709]

V2.3.12

Fixed issues

- Citrix SSO might crash when saving a VPN profile.

  [CGOP-12137]

V2.3.11

Fixed issues

- Citrix SSO might crash when saving a VPN profile.

  [CGOP-12137]

- The disableUserProfile setting is not correctly reflected in the user interface when a new VPN profile or update to an existing profile results in the change of the disableUserProfile value.

  [CGOP-11899]

- Citrix SSO for Android does not process VPN profiles in Device Owner (DO) mode.

  [CGOP-11981]

- VPN connection is not established when there are IPv6 only local DNS servers.

  [CGOP-12053]

V2.3.10

Fixed issues

- VPN connection lost after some idle time on the device.

  [CGOP-11381]

V2.3.8

What's new

- **Set up Citrix SSO app in an Intune Android Enterprise environment**

  You can now set up the Citrix SSO app in an Intune Android Enterprise environment. For details, see Set up Citrix SSO app in an Intune Android Enterprise environment.

  [CGOP-635]

- **Support for VPN profile provisioning via Android Enterprise**

  VPN profile provisioning via Android Enterprise is now supported.

  [CGOP-631]

Fixed issues

- If you save a token that is already saved and then try to open it, garbled characters appear in the token name.

  [CGOP-11696]

- Citrix SSO app fails to establish a VPN session if no DNS search domains are configured on NetScaler Gateway.

  [CGOP-11259]

V2.3.6

What's new

- **Always On support for Citrix SSO**

  The Always On feature of Citrix SSO ensures that users are always connected to the enterprise network. This persistent VPN connectivity is achieved by an automatic establishment of a VPN tunnel.

  [CGOP-10015]

- **Notification to relogin is displayed if Athena token expiry causes a logout**

  A notification prompting the users to relogin to Citrix Workspace is displayed if the following conditions are met.

  - Always On feature is enabled in the Citrix Workspace provisioned VPN profile
  - Athena authentication is used for SSO
  - User is signed out of the Citrix Workspace app because of Athena token expiry

  [CGOP-10016]

- **Registration for Push notification service is done using NetScaler Gateway**

  You can now register for push notification service using the NetScaler Gateway appliance. Earlier the registration was done on the client device.

  [CGOP-10542]

Fixed issues

Sometimes, Citrix SSO crashes when a new token is scanned. For example, Citrix SSO crashes when an existing token is deleted and another one is scanned with the same token name.

[CGOP-10818]

V2.3.1

What's new

- **Managed configurations are updated to include more user settings**

  Managed configurations are updated to include "BlockUntrustedServers,""DefaultProfileName,"and "DisableUserProfiles"settings for Android Enterprise environments.

  [CGOP-10033]

- **Enhanced Push notification support**

  Upon configuring NetScaler Gateway for Push Notification with type “OTP,”PIN/fingerprint is not asked after the user selects “Allow”in response to the Push Notification requesting the user’s consent for allowing the authentication to proceed.

  [CGOP-9843]

- **Firebase Analytics support**

  Support for basic Firebase Analytics is added to provide usage information about the Citrix SSO app. The enhancement is applicable to coarse geolocations, screen usage, different versions of Android in use and so on.

  [CGOP-7523]

- **Support for Android Managed Configurations based VPN profile configuration**

  Citrix SSO app can be configured in the Android Enterprise environment using an EMM/UEM vendor like Citrix Endpoint Management. The Android Enterprise Managed Configurations wizard in CEM can be used to deploy managed VPN configurations to the Citrix SSO app. For information on how to configure the Citrix SSO app using Managed Configurations, refer VPN device policy.

V2.2.9

What’s new

- **Push Notification support**

  NetScaler Gateway sends a push notification on your registered mobile device for a simplified two-factor authentication experience.

  [CGOP-9592]

Fixed issues

- Non-URL characters are allowed in the Server field under the Add Connection screen.

  [CGOP-588]

Set up Citrix Citrix Secure Access in an MDM enviroment

January 8, 2024

> **Important:**
>
> Citrix SSO for Android is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

To set up Citrix Secure Access in an MDM environment, see Configure Citrix Secure Access protocol for Android.

> **Notes:**
>
> - In a Non-MDM environment, users create VPN profiles manually.
> - You can also create an Android Enterprise managed configuration for Citrix Secure Access. For details, see Configure VPN profiles for Android Enterprise.
> - For Android 13+ users using Citrix Secure Access 23.12.1 and above, MDM admins are advised to grant the notification permission to Citrix Secure Access (Package ID: `com.citrix.CitrixVPN`) in their solution.

Set up Citrix Secure Access in an Intune Android Enterprise environment

January 8, 2024

> **Important:**
>
> Citrix SSO for Android is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

The topic captures details about deploying and configuring Citrix Secure Access through Microsoft Intune. This document assumes that Intune is already configured for Android Enterprise support and device enrollment is already done.

Prerequisites

- Intune is configured for Android Enterprise Support
- Device enrollment is complete

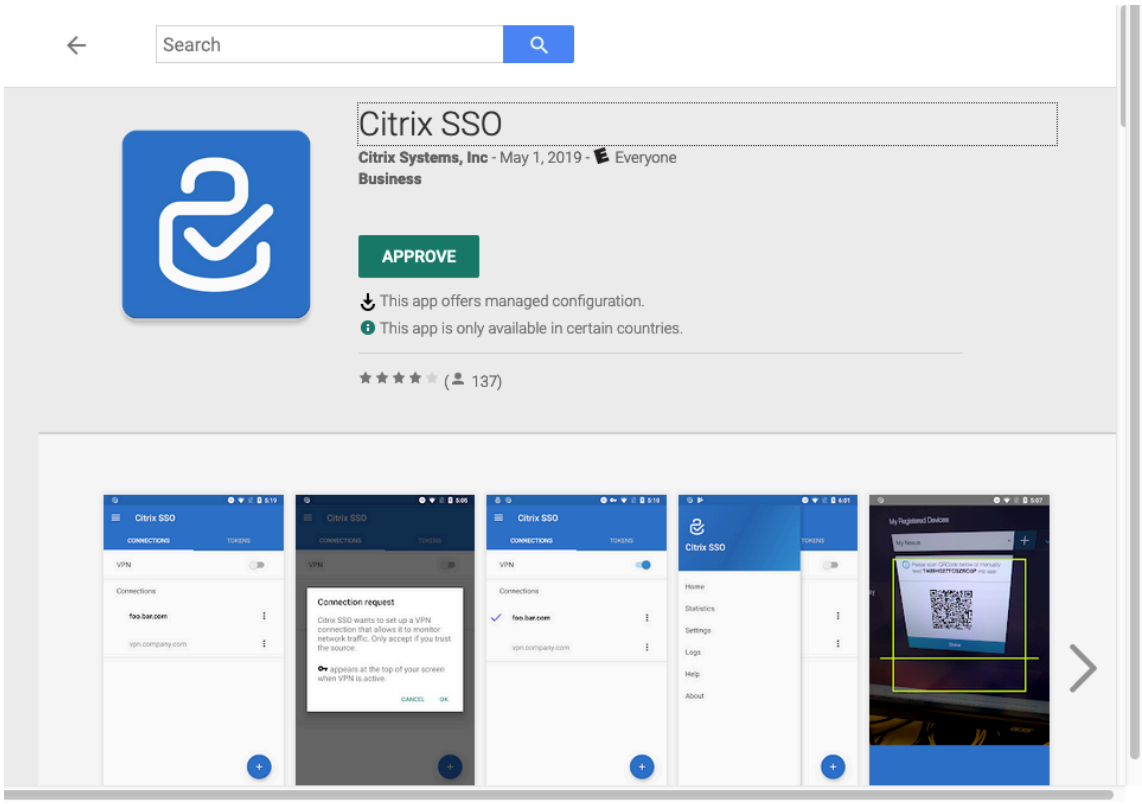
To set up Citrix Secure Access in an Intune Android Enterprise environment

- Add Citrix Secure Access as a managed app
- Configure managed app policy for Citrix Secure Access

Add Citrix Secure Access as a managed app

1. Log in to your Azure portal.
2. Click **Intune** on the left navigation blade.
3. Click **Client Apps** in the Microsoft Intune blade and then click Apps in the Client apps blade.
4. Click **+Add link** in the top right menu options. The Add app configuration blade appears.
5. Select **Managed Google Play** for the app type.

   This adds Manage Google Play search and approve blade if you have configured Android Enterprise.
6. Search for Citrix Secure Access and select it from the list of apps.

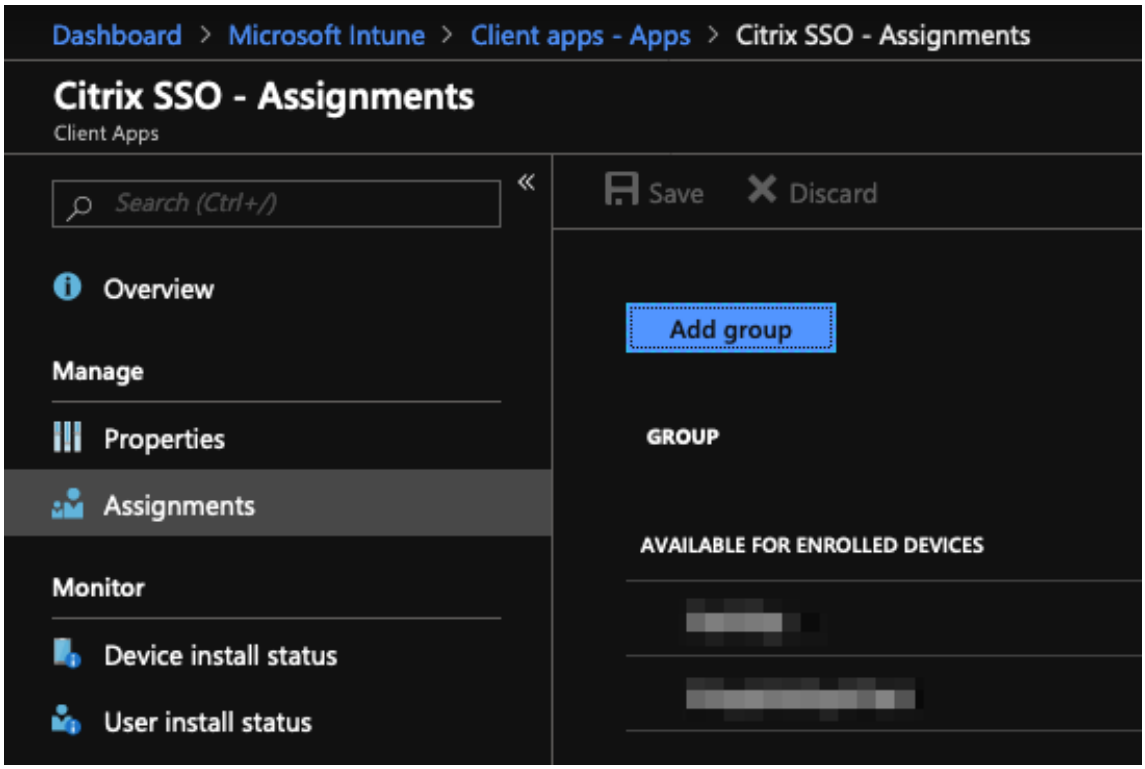


   Note: If Citrix Secure Access does not appear in the list, it means that the app is not available in your country.
7. Click **APPROVE** to approve Citrix Secure Access for deployment through Managed Google Play store.

   The permissions that are required by the Citrix Secure Access are listed.
8. Click **APPROVE** to approve the app for deployment.
9. Click **Sync** to sync this selection with Intune.

Citrix Secure Access is added to the Client apps list. You might have to search for the Citrix Secure Access if there are many apps added.

10. Click **Citrix Secure Access** app to open the app details blade.
11. Click **Assignments** in the details blade. **Citrix Secure Access - Assignments** blade appears.



12. Click **Add group** to assign the user groups to which you want to give permission to install Citrix Secure Access, and click **Save**.
13. Close the Citrix Secure Access details blade.

Citrix Secure Access is added and enabled for deployment to your users.

Configure managed app policy for Citrix Secure Access

After Citrix Secure Access is added, you must create a managed configuration policy for Citrix Secure Access so that the VPN profile can be deployed to Citrix Secure Access on the device.

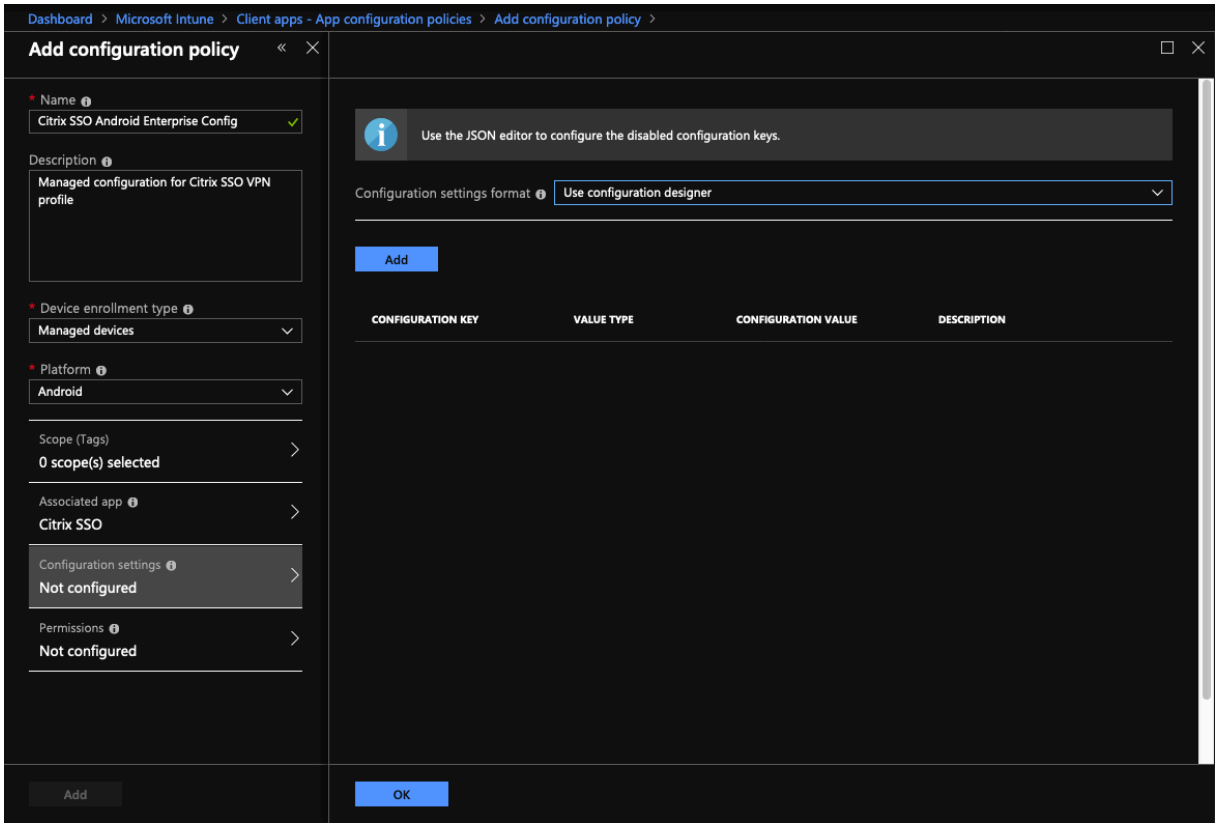
1. Open the **Intune** blade in your Azure portal.
2. Open **Client Apps** blade from the Intune blade.
3. Select **App configuration policies** item from the Client apps blade and click **Add** to open the **Add configuration policy** blade.
4. Enter a name for the policy and add a description for it.

5. In **Device enrollment type**, select **Managed devices**.
6. In **Platform**, select **Android**.

   This adds another configuration option for the associated app.
7. Click **Associated app** and select **Citrix Secure Access** app.

   You might have to search for it if you have many apps.
8. Click **OK**. A configuration settings option is added in the Add configuration policy blade.
9. Click **Configuration** settings.

   A blade to configure Citrix Secure Access appears.
10. In **Configuration Settings**, select either **Use configuration designer**or **Enter JSON data** to configure the Citrix Secure Access.



> **Note:**
>
> For simple VPN configurations it is recommended to use the configuration designer.

VPN configuration using configuration designer

1. In **Configuration Settings**, select **Use configuration designer** and Click **Add**.

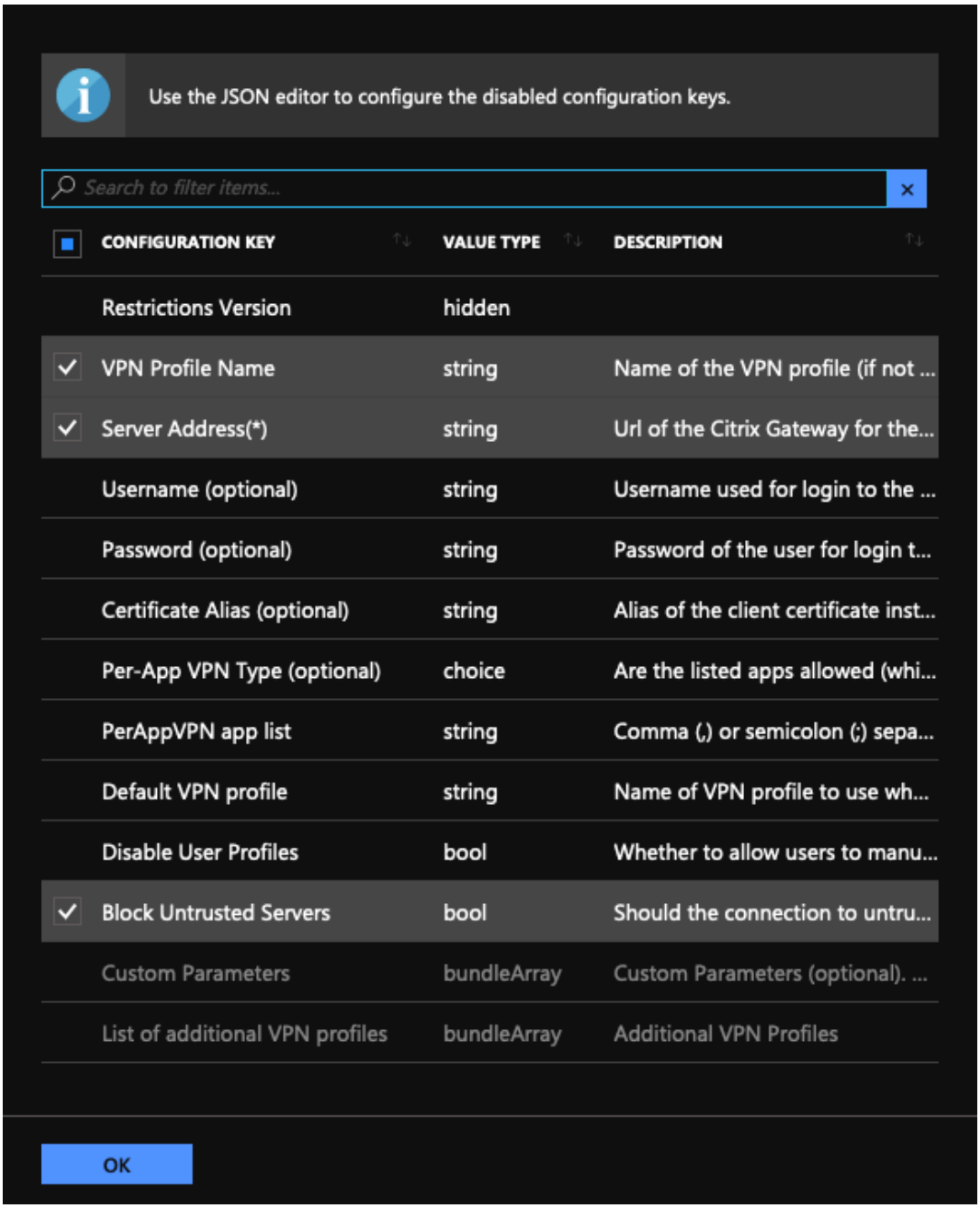
You are presented with a key value entry screen for configuring various properties that are supported by Citrix Secure Access. At a minimum you must configure the **Server Address** and **VPN Profile Name** properties. You can hover over the **DESCRIPTION** section to get more information about each property.

2. For example, select **VPN Profile Name** and **Server Address(*)** properties and click **OK**.

   This adds the properties to the configuration designer. You can configure the following properties.

   - **VPN Profile Name**. Type a name for the VPN profile. If you are creating more than one VPN profile, use a unique name for each. If you do not provide a name, the address you enter in the Server Address field is used as the VPN profile name.
   - **Server Address(*)**. Type your NetScaler Gateway base FQDN. If your NetScaler Gateway port is not 443, also type your port. Use URL format. For example, `https://vpn.mycompany.com:8443`.
   - **Username (optional)**. Enter the user name that the end users use to authenticate to the NetScaler Gateway. You can use the Intune config value token for this field if the gateway is configured to use it (see config value tokens.) If you do not provide a user name, users are prompted to provide a user name when they connect to NetScaler Gateway.
   - **Password (optional)**. Enter the password that end users use to authenticate to the NetScaler Gateway. If you do not provide a password, users are prompted to provide a password when they connect to NetScaler Gateway.
   - **Certificate Alias (optional)**. Provide a certificate alias in the Android KeyStore to be used for client certificate authentication. This certificate is pre-selected for users if you are using certificate-based authentication.
   - **Gateway Certificate Pins (optional)**. JSON object describing certificate pins used for NetScaler Gateway. Example value: `{ "hash-alg": "sha256", "pinset": ["AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA=", "BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB="] }`. For details, see NetScaler Gateway certificate pinning with Android Citrix Secure Access.
   - **Per-App VPN Type (optional)**. If you are using a per-app VPN to restrict which apps use this VPN, you can configure this setting.
     - If you select **Allow**, network traffic for app package names listed in the PerAppVPN app list is routed through the VPN. The network traffic of all other apps is routed outside the VPN.
     - If you select **Disallow**, network traffic for app package names listed in the PerAppVPN app list are routed outside the VPN. The network traffic of all other apps is routed through the VPN. Default is Allow.

- **PerAppVPN app list**. A list of apps whose traffic is allowed or disallowed on the VPN, depending on the value of Per-App VPN Type. List the app package names separated by commas or semicolons. App package names are case sensitive and must appear on this list exactly as they appear in the Google Play store. This list is optional. Keep this list empty for provisioning device-wide VPN.
- **Default VPN profile**. The VPN profile name used when Always On VPN is configured for Citrix Secure Access. If this field is empty, the main profile is used for the connection. If only one profile is configured, it is marked as the default VPN profile.



> **Note:**
>
> - For making Citrix Secure Access as an Always On VPN app in Intune, use VPN provider as custom and `com.citrix.CitrixVPN` as the app package name.
> - Only certificate-based client authentication is supported for Always On VPN by Citrix Secure Access.
> - Admins must select **Client Authentication** and set **Client Certificate** to **Mandatory** in the **SSL Profile** or **SSL Properties** on the NetScaler Gateway for Citrix Secure Access to work as intended.

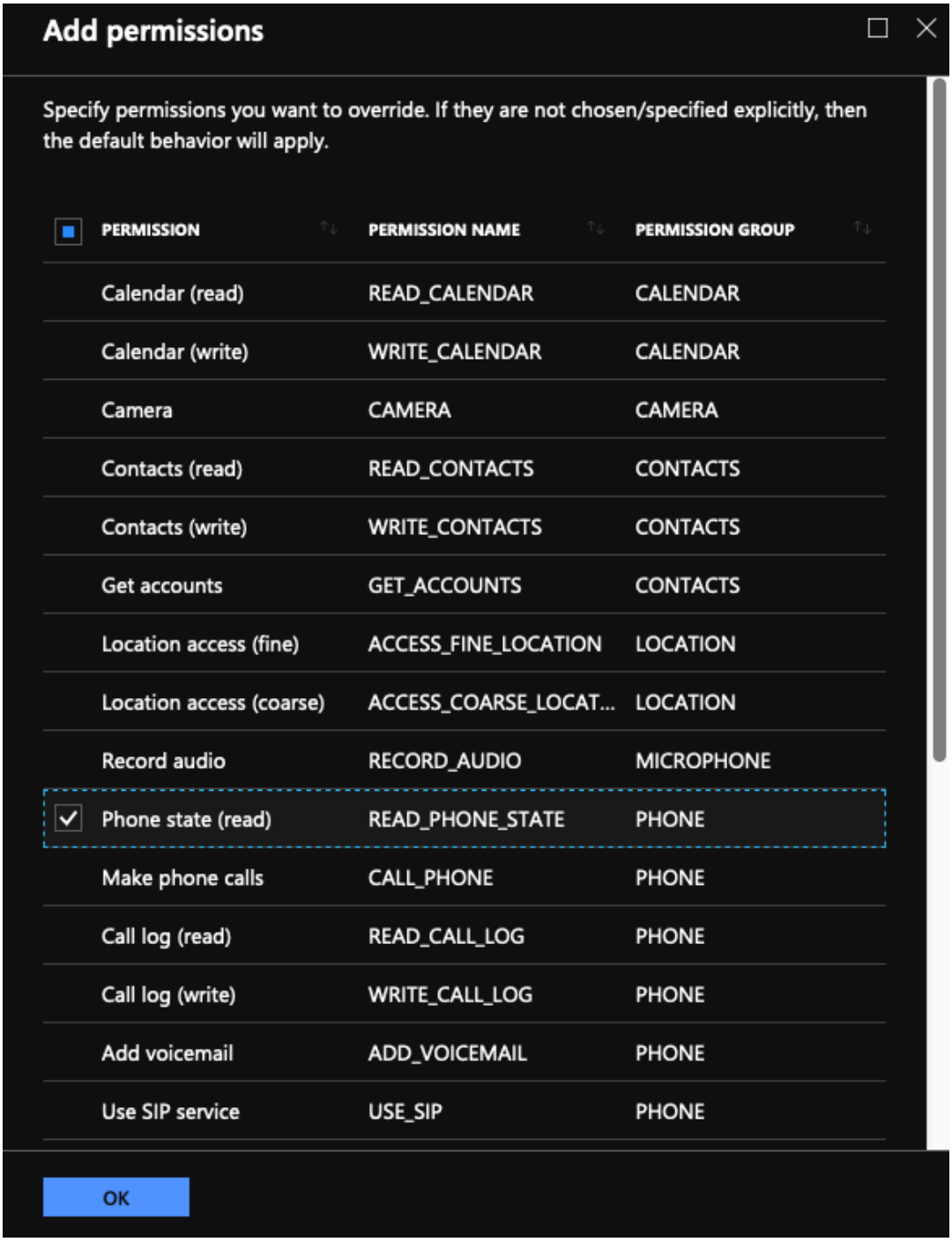
- **Disable User Profiles**
  - If you set this value to true, users cannot add new VPN profiles on their devices.
  - If you set this value to false, users can add their own VPNs on their devices.

  The default value is false.

- **Block Untrusted Servers**
  - Set this value to false when using a self-signed certificate for NetScaler Gateway or when the root certificate for the CA issuing the NetScaler Gateway certificate is not in the system CA list.
  - Set this value to true to enable the Android operating system validate the NetScaler Gateway certificate. If the validation fails, the connection is not allowed.

  The default value is true.

3. For the **Server Address(*)** property, enter your VPN gateway base URL (for example, `https://vpn.mycompany.com`).
4. For **VPN Profile Name**, enter a name that is visible to the end user in the Citrix Secure Access client's main screen (for example, My Corporate VPN).
5. You can add and configure other properties as appropriate to your NetScaler Gateway deployment. Click **OK** when you are done with configuration.
6. Click the **Permissions** section. You can grant the following permissions required by Citrix Secure Access:
   - If you are using the Intune NAC check, Citrix Secure Access requires that you grant **Phone state (read)** permission. Click **Add** button to open permissions blade. Currently, Intune displays a significant list of permissions that are available to all the apps.
   - If you are using Intune NAC check, select **Phone state (read)** permission and click **OK**. This adds it to the list of permissions for the app. Select either **Prompt** or **Auto grant** so that the Intune NAC check can work and click **OK**.



- You are advised to autogrant notifications permissions to Citrix Secure Access.

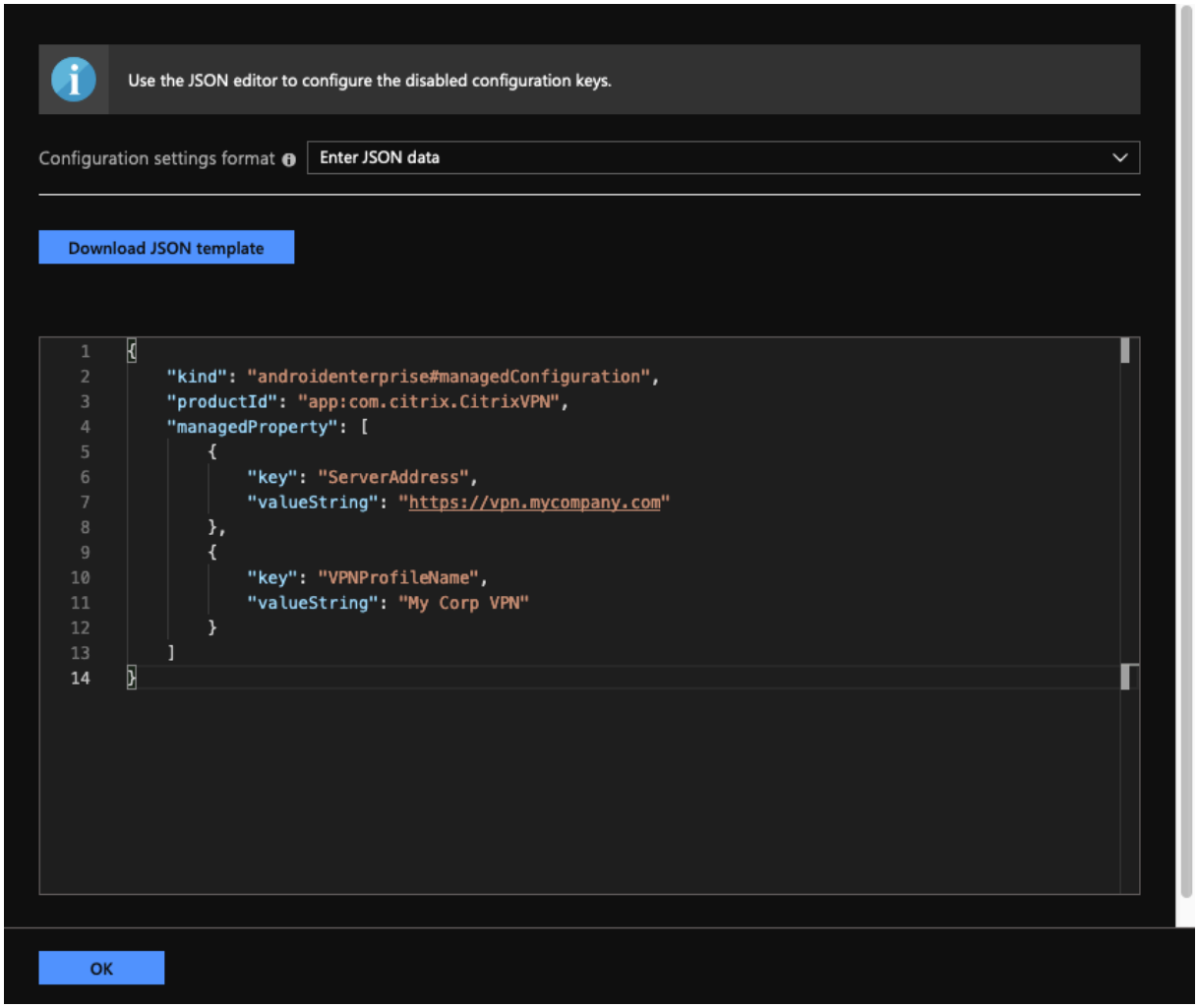
> **Note:**
>
> For Android 13+ users using Citrix Secure Access 23.12.1 and above, MDM admins are advised to grant the notification permission to Citrix Secure Access (package ID: `com.citrix.CitrixVPN`) in their solution.

7. Click **Add** at the bottom of the App configuration policy blade to save the managed configuration for Citrix Secure Access.
8. Click **Assignments** in the App configuration policy blade to open the **Assignments** blade.
9. Select the user groups for which you want this Citrix Secure Access configuration to be delivered and applied.

VPN configuration by entering JSON data

1. In **Configuration Settings**, select **Enter JSON data** for configuring the Citrix Secure Access.
2. Use the Download JSON template button to download a template that allows for providing more detailed/complex configuration for Citrix Secure Access. This template is a set of JSON key-value pairs to configure all the possible properties that Citrix Secure Access understands.

   For a list of all the available properties that can be configured, see Available properties for configuring VPN profile in Citrix Secure Access app.
3. Once you have created a JSON configuration file, copy and paste its contents in the editing area. For example, the following is the JSON template for basic configuration created previously using the configuration designer option.



This completes the procedure for configuring and deploying VPN profiles for Citrix Secure Access in the Microsoft Intune Android Enterprise environment.

> **Important:**
>
> Certificate used for client certificate-based authentication is deployed using an Intune SCEP profile. The alias for this certificate must be configured in the **Certificate Alias** property of the managed configuration for Citrix Secure Access.

Available properties for configuring VPN profile in Citrix Secure Access

Configuration Key	JSON Field Name	Value Type	Description
VPN Profile Name	VPNProfileName	Text	Name of the VPN profile (if not set defaults to server address).
Server Address(*)	ServerAddress	URL	Base URL of the NetScaler Gateway for the connection (`https://host[:port]`). This is a required field.
`Username` (optional)	Username	Text	User name used for authenticating with the NetScaler Gateway (optional).
Password (optional)	Password	Text	Password of the user for authenticating with the NetScaler Gateway (optional).
Certificate Alias (optional)	ClientCertAlias	Text	Alias of the client certificate installed in the Android credential store for use in certificate-based client authentication (optional). **Certificate alias** is a required field when using certificate-based authentication on NetScaler Gateway.

Configuration Key	JSON Field Name	Value Type	Description
Gateway Certificate Pins (optional)	ServerCertificatePins	JSON Text	Embedded JSON object describing certificate pins used for NetScaler Gateway. Example value: `{ "hash-alg": "sha256", "pinset": ["AAAAAAAAAAAAAAAAAAAAAAAAAA=", "BBBBBBBBBBBBBBBBBBBBBBBBBB="] }`. Make sure to escape this embedded JSON data when using the JSON configurator.
Per-App VPN Type (optional)	PerAppVPN_Allow_Disallow_Setting	Enumeration (Allow, Disallow)	Are the listed apps allowed (allow list) or disallowed (block list) to use the VPN tunnel. If set to **Allow**, only listed apps (in the PerAppVPN app list property) are allowed to tunnel through the VPN. If set to **Disallow**, all apps except the listed ones are allowed to tunnel through the VPN. If no apps are listed the all apps are allowed to tunnel through the VPN.

Configuration Key	JSON Field Name	Value Type	Description
PerAppVPN app list	PerAppName_Appnames	Text	Comma (,) or semicolon (;) separated list of app package names for per-app VPN. The package names must be the same as they appear in the Google Play store app listing page URL. Package names are case sensitive.
Default VPN profile	DefaultProfileName	Text	Name of the VPN profile to use when the system starts the VPN service. This setting is used for identifying the VPN profile to use when Always On VPN is configured on the device.
Disable User Profiles	DisableUserProfiles	Boolean	Property to allow or not allow the end users to manually create VPN profiles. Set this value to **true** to disable users from creating VPN profiles. Default value is **false.**

Configuration Key	JSON Field Name	Value Type	Description
Block Untrusted Servers	BlockUntrustedServers	Boolean	Property to determine if the connection to untrusted gateways (for example, using self-signed certificates or when issuing CA is not trusted by the Android operating system) be blocked? Default value is true (block connections to untrusted gateways).
Custom Parameters (optional)	CustomParameters	List	List of custom parameters (optional) that are supported by Citrix Secure Access. For details, see Custom Parameters. Check the **NetScaler Gateway product documentation** for available options.
List of other VPN profiles	bundle_profiles	List	List of other VPN profiles. Most of the previously mentioned values for each profile are supported. For details, see Properties supported for each VPN in VPN Profile List.

Custom Parameters Each custom parameter must be defined using the following key-value names.

Key	Value Type	Value
ParameterName	Text	Name of the custom parameter.

Key	Value Type	Value
ParameterValue	Text	Value of the custom parameter.

Custom Parameters for Intune configuration

Parameter name	Description	Value
UserAgent	Citrix Secure Access appends this parameter value to the user-agent HTTP header, when communicating with NetScaler Gateway, to perform an additional check on NetScaler Gateway.	Specify the text that you need to append to the user-agent HTTP header. The text must conform to the HTTP user-agent specifications.
EnableDebugLogging	Enable debug logging on Citrix Secure Access to help troubleshoot VPN connectivity issues in case of Always On VPN. You can enable it in any one of the managed VPN configurations. The debug logging takes effect when the managed configurations are processed.	**True**: Enables debug logging. Default value: **False**.

For more information about the custom parameters, see Create an Android Enterprise managed configuration for Citrix Secure Access.

Properties supported for each VPN in VPN Profile List Following properties are supported for each of the VPN profile when configuring multiple VPN profiles using the JSON template.

Configuration Key	JSON Field Name	Value Type
VPN Profile Name	bundle_VPNProfileName	Text
Server Address(*)	bundle_ServerAddress	URL
User name	bundle_Username	Text

Configuration Key	JSON Field Name	Value Type
Password	bundle_Password	Text
Client Cert Alias	bundle_ClientCertAlias	Text
Gateway Certificate Pins	bundle_ServerCertificatePins	Text
Per-App VPN Type	bundle_PerAppVPN_Allow_Disallow_Setting	Enum (Allow, Disallow)
PerAppVPN app list	bundle_PerAppVPN_Appnames	Text
Custom Parameters	bundle_CustomParameters	List

Set Citrix Secure Access as Always On VPN provider in Intune

In the absence of an on-demand VPN support in an Android VPN subsystem, the Always On VPN can be used as an alternative to provide seamless VPN connectivity option along with client certificate authentication with Citrix Secure Access. The VPN is started by the operating system when it starts up or when the work profile is turned on.

For making Citrix Secure Access an Always On VPN app in Intune, you must use the following settings.

- Choose the correct type of managed configuration to use (personally owned with work profile OR fully managed, dedicated, and corporate owned work profile).
- Create a device configuration profile and select **Device restrictions** and then go to **Connectivity** section. Select enable for Always On VPN setting.
- Choose **Citrix Secure Access** as VPN client. If Citrix Secure Access is not available as an option, you can choose **Custom** as VPN Client and enter **com.citrix.CitrixVPN** in the Package ID field (the Package ID field is case sensitive)
- Leave other options as is. It is recommended not to enable Lockdown mode. When enabled, the device might lose complete network connectivity if VPN is not available.
- In addition to these settings, you can also set **Per-App VPN type** and **PerAppVPN app list** in the **App configuration policies** page to enable per-app VPN for Android as described in the preceding sections.

> **Note:**
>
> Always On VPN is supported only with client certificate authentication in Citrix Secure Access.

References

Refer to the following topics for more details about setting up connectivity options in Intune.

- Fully managed dedicated corporate owned devices
- Personally owned devices

Automatic restart of Always On VPN

Starting from Citrix SSO for Android 23.8.1, Citrix Secure Access automatically restarts the Always On VPN when an app that is a part of the allow or block list is installed in a work profile or a device profile.Traffic from the newly installed app is automatically tunneled over a VPN connection without restarting the work profile or rebooting the device.

To enable automatic restart of Always On VPN, end users must grant the Query all packages consent to Citrix Secure Access. Once the consent is granted, Citrix Secure Access:

- Receives the package install notification from the operating system.
- Restarts the Always On VPN.

When an end user connects to a per-app VPN profile for the first time, the user is prompted to provide consent (required by Google policies) to collect information of the installed package. If the end user grants the consent, the VPN connection is initiated. If the user denies the consent, the VPN connection is aborted. The consent screen does not reappear once the consent has been granted. For details about the end user instructions, see How to use Citrix Secure Access from your Android device.

Limitations

The following are the limitations for per-app VPN in Android Enterprise environment on Android 11+ devices due to package visibility restrictions introduced in Android 11:

- If an app that is part of the allowed/denied list is deployed to a device after the VPN session has started, the end user must restart the VPN session for the app to be able to route its traffic through the VPN session.
- If per-app VPN is used via an Always On VPN session, then after installing a new app on the device, the end user must restart the work profile or reboot the device for the app's traffic to be routed via the VPN session.

> **Note:**
>
> These limitations are not applicable if you are using Citrix SSO for Android 23.8.1 or later versions. See Automatic restart of Always On VPN for more details.

NetScaler Gateway certificate pinning with Citrix Secure Access for Android

January 8, 2024

> **Important:**
>
> Citrix SSO for Android is now called Citrix Secure Access. We are updating our documentation and the UI screenshots to reflect this name change.

Certificate pinning helps in preventing man-in-the-middle attacks. Citrix Secure Access supports certificate pinning only for managed VPN configurations in Android Enterprise mode and legacy device administrator mode. It is not supported for VPN profiles added by end user.

Configure NetScaler Gateway certificate pinning with Android Citrix Secure Access

For details on certificate pinning in the managed configuration (formerly app restrictions) for Citrix Secure Access, see Certificates and authentication.

A new key-value pair is defined to carry the pinned NetScaler Gateway certificate hashes as follows.

```
Key: ServerCertificatePins
Value: {

  "hash-alg": "sha256",
  "pinset": [
    "cert1_base64_encoded_SHA-256_hash_of_the_X509_SubjectPublicKeyInfo
        (SPKI)",
    "AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA=",
    "BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB="
    ...
  ]
 }

<!--NeedCopy-->
```

The key for specifying certificate pinning details in the managed configuration is **ServerCertificatePins**. The value is a JSON payload carrying the base64 encoded SHA-256 hashes of the pinned NetScaler Gateway certificate and the hashing algorithm used. The pinned certificate can be any of the certificates in the chain of trust validated by the operating system. In this case, it is Android.

The certificate pinning is done only after the operating system has validated the certificate chain during TLS handshake. The pin of the certificate is computed by hashing the certificate's subject public key information (SPKI). Both the fields ("**hash-alg**"and "**pinset**") must be specified in the JSON payload.

The "**hash-alg**"specifies the hashing algorithm used to compute the SPKI hash.
The "**pinset**"specifies the JSON array containing base64 encoded SHA-256 hash of the NetScaler Gateway certificate's SPKI data.
At least one value must be specified for the certificate pin. More pin values can be specified to allow for certificate rotation or expiry.

You can compute the value for the pin for a domain (for example, gw.yourdomain.com) by using the following openssl command.

```
openssl s_client -servername gw.yourdomain.com -connect gw.yourdomain.com:443 | openssl x509 -pubkey -noout | openssl pkey -pubin -outform der | openssl dgst -sha256 -binary | openssl enc -base64
<!--NeedCopy-->
```

The command displays the base64 encoded SHA-256 hash of the leaf certificate presented by a gateway. Any certificate in the chain can be used for certificate pinning. For example, if an enterprise is using their own intermediate CA for generating certificates for multiple gateways, pin corresponding to the intermediate signing certificate can be used. If none of the pins match the certificates in the validated certificate chain, the TLS handshake is aborted and connection to the gateway does not proceed.

> **Note:**
>
> In device administrator mode, certificate pinning is supported only with Citrix Endpoint Management and Microsoft Endpoint Management solutions. Certificate pinning must be configured in the custom parameters used in the legacy VPN profile (not managed configuration) with the custom parameter ServerCertificatePins with the same JSON payload for pinning.

Citrix Secure Access for Windows release notes

April 18, 2024

The Citrix Secure Access client for Windows is now released on a standalone basis and is compatible with all NetScaler versions. We recommend that you use the latest version of Citrix Secure Access client as it contains the latest fixes and enhancements.

The Citrix Secure Access client releases follow the format YY.MM.Release.Build.

The release notes describe the new features, enhancements to the existing features, and fixed issues.

What's new: The new features and enhancements available in the current release.

Fixed issues: The issues that are fixed in the current release.

For detailed information on the supported features, see NetScaler Gateway Product Documentation.

> **Notes:**
>
> - Citrix Secure Access client for Windows builds 23.7.1.1 and later contain the fix for https://support.citrix.com/article/CTX564833.
> - Citrix Secure Access for Windows 23.5.1.3 and later releases address the security vulnerabilities described in https://support.citrix.com/article/CTX561480/citrix-secure-access-client-for-windows-security-bulletin-for-cve202324491.
> - Citrix Secure Access client (formerly known as NetScaler Gateway plug-in for Windows) builds 21.9.1.2 and later contains the fix for https://support.citrix.com/article/CTX341455.

24.2.1.15 (04-Mar-2024)

What's new

- **Support for SNI**

  In a Citrix Secure Private Access deployment, Citrix Secure Access client now supports the server name indication (SNI) extension on all the pre-authentication requests.

  [SPAHELP-236]

- **Support for TLS 1.3**

  Citrix Secure Access client now supports the TLS 1.3 protocol. TLS 1.3 is supported on the following platforms:

  - Windows 11 and later
  - Windows Server 2022 and later

  For details on how to configure TLS 1.3 on NetScaler, see Support for TLS 1.3 protocol.

  [CSACLIENTS-6106]

- **Support for Windows OS details in the HTTP header**

  Citrix Secure Access client now includes details of the Windows OS as part of the HTTP header (user-agent) string.

  [NSHELP-36732]

Fixed issues

DNS resolution intermittently fails if IPv6 is enabled on the client network adapter.

[NSHELP-35708]

Users might not be able to log on to Citrix Secure Access client if there are simultaneous login attempts using autologon.

[NSHELP-35768]

Citrix Secure Access installation fails when Smart App Control is enabled on non-English client machines.

[NSHELP-36126], [NSHELP-36907]

Users cannot access some applications through VPN if Citrix Secure Access client is configured with the WFP driver. This issue occurs because of modifications to the firewall policies.

[NSHELP-36254], [NSHELP-36312]

A popup dialog appears during an EPA scan. However, when the user clicks OK, EPA scan works as usual. This issue occurs when the Swedish language is selected (**Configuration > Language**) on the Citrix Secure Access client UI.

[NSHELP-36408]

In an Always On VPN mode, the machine level tunnel fails to transfer the session when the user certificate authentication is configured on NetScaler Gateway.

[NSHELP-36492]

Access to the intranet resources intermittently fails when the Windows Filtering Platform (WFP) driver is enabled on Citrix Secure Access client.

[NSHELP-36568]

The Citrix Secure Access client UI page intermittently freezes when users click the Home button.

[NSHELP-37046]

Non-admin users cannot connect to the full VPN tunnel if the following conditions are met:

- EPA is configured as a factor in an nFactor flow.
- Edge WebView is enabled.
- The control upgrade setting of Citrix EPA client is set to **Always** on NetScaler Gateway and there's a mismatch in the Citrix EPA client versions between the client device and NetScaler.

[NSHELP-37340]

EPA device certificate scan fails if the client machine's system certificate store contains only one device certificate.

[NSHELP-37371]

The login page of Citrix Secure Access client intermittently goes blank when connecting to Citrix Secure Private Access service.

[SPAHELP-202]

End-users might not be able to connect the client machines to the domain through VPN if Windows Server 2019 or later versions are used.

[SPAHELP-219]

When Citrix Device Posture service is enabled, unwanted entries appear in the **Connection** drop-down list of the Citrix Secure Access client UI.

[SPAHELP-271]

End-users cannot access the intranet resources if the single sign-on feature is enabled on Citrix Secure Access client.

[CSACLIENTS-9940]

23.10.1.7 (29-Nov-2023)

What's new

- **Configure private port range for server initiated connections**

  You can now configure a private port ranging from 49152 to 64535 for server-initiated connections. Configuring private ports avoids conflicts that might arise when you use ports to create sockets between Citrix Secure Access client and third party apps on the client machines. You can configure the private ports by using the "SicBeginPort"Windows VPN registry. Alternatively, you can configure the private port range by using a VPN plug-in customization JSON file on NetScaler.

  For more information, see Configure server-initiated connections and NetScaler Gateway Windows VPN client registry keys.

  [NSHELP-36627]

- **Kerberos authentication support for seamless autologon**

  Citrix Secure Access client now uses the Kerberos authentication method for autologon. As part of this support, a VPN client registry key "EnableKerberosAuth"is introduced. As a pre-requisite, admins must configure Kerberos authentication on NetScaler and on their client machines. End users must install Microsoft Edge WebView on their machines to enable the Kerberos authentication method. For more information, see Autologon with Kerberos authentication.

  [CSACLIENTS-3128]

- **Auto assign of spoof IP address range**

Citrix Secure Access client can now detect and apply a new spoof IP address range if there is a conflict between the admin-configured spoof IP address range and the IP-based applications or the end-user's network.

[CSACLIENTS-6132]

- **Microsoft notifications**

  The Citrix Secure Access client notifications now appear as Microsoft notifications on the Notifications panel of your Windows machine.

  [CSACLIENTS-6136]

- **Improved log collection**

  The Verbose log level is now used as the default debug logging level for an enhanced log collection and troubleshooting. For more information about logging, see Configure logging by using the client user interface.

  [CSACLIENTS-8151]

Fixed issues

Citrix Secure Access client remains in the "Connecting"state if the machine tunnel of the Always On service fails to detect the client device location.

[CSACLIENTS-1174]

The transfer logon feature fails to work when Microsoft Edge WebView is enabled in Citrix Secure Access client.

[CSACLIENTS-6655]

In the Always On service mode, Citrix Secure Access client fails to establish a machine-level tunnel with NetScaler Gateway if the device certificate-based classic authentication policies are bound to a VPN virtual server.

[NSHELP-33766]

Incoming and outgoing Webex calls fail when users are connected to the VPN. This issue occurs when the Windows filtering platform (WFP) driver is enabled on Citrix Secure Access client instead of the Deterministic network enhancer (DNE) driver.

[NSHELP-34651]

Citrix Secure Access client crashes if the following conditions are met:

- Connections are switched when SAML policies are bound to a VPN virtual server.
- Internet Explorer WebView support is enabled.

[NSHELP-35366]

The Citrix Secure Access client UI displays the Connect button during autologon. This issue occurs if the UserCert authentication method is used to connect to VPN.

[NSHELP-36134]

The local LAN access feature fails to work with Citrix Secure Access client if a machine-level tunnel is configured.

With this release, the local LAN access feature can be set with a machine-level tunnel configuration. To achieve this, you must configure the local LAN access parameter to FORCED when using the machine tunnel mode. For more details, see Enforce local LAN access to end users based on ADC configuration.

[NSHELP-36214]

When a client machine wakes up from sleep mode multiple times, Citrix Secure Access client fails to establish a VPN connection with the intranet applications.

[NSHELP-36221]

23.8.1.11 (19-Oct-2023)

Fixed issues

The epaPackage.exe file might fail to download if forward proxy support is configured on NetScaler Gateway.

[CSACLIENTS-6917]

The Citrix EPA client installation fails for non-admin users with restricted access to C drive.

[NSHELP-36590]

23.8.1.5 (09-Aug-2023)

Fixed issues

Kerberos SSO fails for applications when connected over Citrix Secure Private Access service.

[CSACLIENTS-912]

Application access with Citrix Secure Private Access service fails intermittently. This issue occurs when Citrix Secure Access client shares an incorrect destination IP address for TCP or UDP traffic.

[CSACLIENTS-1151, CSACLIENTS-6326]

Citrix Secure Access client fails to launch applications intermittently because of a DNS caching issue.

[CSACLIENTS-1170]

Citrix Secure Access client fails to apply a DNS suffix to Citrix Virtual Adapter. This issue occurs when Citrix Virtual Adapter fails to authenticate with Active Directory.

[NSHELP-33817]

Citrix Secure Access client crashes if the following conditions are met:

- NetScaler Gateway virtual server contains a client certificate as a factor for nFactor authentication.
- Microsoft Edge WebView support is enabled.

[CSACLIENTS-6171]

When connected to VPN, you might not be able to access back-end resources after you apply Microsoft KB5028166.

[NSHELP-35909]

Citrix Secure Access client intermittently fails to download the configurations from NetScaler Gateway when the portal customization exceeds the allowed limit.

[NSHELP-35971]

Known issues

The transfer logon feature fails to work with Citrix Secure Access client. This issue occurs when Microsoft Edge WebView is enabled.

Workaround: Log on using a web browser to transfer the session.

23.7.1.1 (14-Jul-2023)

Fixed issues

In some cases, after an upgrade to the release version 23.x.x.x, traffic fails to pass through the VPN tunnel, resulting in blocking of VPN access when an Intranet IP range is configured on NetScaler. This happens when cross profile firewall rule is not applied to VPN applications.

[NSHELP-35766]

23.5.1.3 (02-Jun-2023)

Fixed issues

The Always On service crashes when the improved log collection is enabled using the "useNewLogger" registry under `HKEY_LOCAL_MACHINE\SOFTWARE\Citrix\Secure Access Client`.

[CGOP-24462]

23.4.1.5 (14-Apr-2023)

What's new

- **Microsoft Edge WebView support**

  Microsoft Edge WebView support on Citrix Secure Access client for Windows introduces an enhanced end user experience. This feature is disabled, by default. For details, see Microsoft Edge WebView support for Windows Citrix Secure Access.

  [CGOP-22245]

- **Adding DNS suffixes to resolve FQDNs to IP addresses**

  Admins can now add suffixes to the applications at the operating system level. This helps Citrix Secure Access clients to resolve a non-fully qualified domain name during name resolution.

  Admins can also configure applications using the IP addresses (IP CIDR/IP range) so that the end users can access the applications using the corresponding FQDNs. For details see, DNS suffixes to resolve FQDNs to IP addresses.

  [ACS-2490]

- **Improved log collection**

  The logging feature for the Windows Secure Access client is now improved for log collection and debugging. The following changes are made to the logging feature.

  - Enable users to change the maximum log file size to a value less than 600 MB.
  - Enable users to update the number of log files to less than 5.
  - Increase the log levels to three for the new logging feature.

  With these changes, admins and end-users can collect logs from the current session and past sessions. Previously, collection of logs was limited to the current sessions only. For details see, Improved log collection for Windows client.

> **Note:**
>
> To enable debug logging, select **Logging > Verbose** from the **Select Log Level** drop-down list. Prior to the Citrix Secure Access client for Windows 23.4.1.5 release, debug logging could be enabled using the **Configuration > Enable debug logging** check-box.

[CGOP-23537]

- **Support for sending events to Citrix Analytics service**

  Citrix Secure Access client for Windows now supports sending events such as session creation, session termination, and app connection to Citrix Analytics service. These events are then logged in Citrix Secure Private Access dashboard.

  [SPA-2197]

Fixed issues

- Citrix Secure Access client single sign-on authentication with Citrix Workspace app to cloud endpoint fails for Unicode users.

  [CGOP-22334]

- Access to the resources fails when host name-based applications are configured along with DNS suffix in Citrix Secure Private Access.

  [SPA-4430]

- Always-On VPN connection fails intermittently on startup due to gateway virtual server reachability issue.

  [NSHELP-33500]

- Intranet resources overlapping with a spoofed IP address range cannot be accessed with split-tunnel set to OFF on the Citrix Secure Access client.

  [NSHELP-34334]

- Citrix Secure Access client fails to load the authentication schema leading to login failure in Citrix Secure Private Access service.

  [SPAHELP-98]

23.1.1.11 (20-Feb-2023)

This release addresses issues that help to improve the overall performance and stability of Citrix Secure Private Access service.

23.1.1.8 (08-Feb-2023)

Fixed issues

- DNS resolution failures occur as the Citrix Secure Access fails to prioritize IPv4 packets over IPv6 packets.

  [NSHELP-33617]

- The OS filtering rules are captured when the Citrix Secure Access client is running in Windows Filtering Platform (WFP) mode.

  [NSHELP-33715]

- Spoofed IP address is used for IP-based intranet applications when the Citrix Secure Access client runs on Citrix Deterministic Network Enhancer (DNE) mode.

  [NSHELP-33722]

- When using the Windows Filtering Platform (WFP) driver, sometimes intranet access does not work after the VPN is reconnected.

  [NSHELP-32978]

- Endpoint analysis (EPA) scan for OS version check fails on Windows 10 and Windows 11 Enterprise multi-session desktops.

  [NSHELP-33534]

- Windows client supports 64 KB configuration file size, by default, and this restricts the users to add more entries in the configuration file. This size can be increased by setting the `ConfigSize` registry value in HKEY_LOCAL_MACHINE\SOFTWARE\Citrix\Secure Access Client. The `ConfigSize` registry key type is `REG_DWORD` and key data is <`Bytes size`>. If the configuration file size is larger than the default value (64 KB), then the ConfigSize registry value must be set to 5 x 64 KB (after converting to bytes) for every addition of 64 KB. For example, if you are adding additional 64 KB, then you must set the registry value to 64 x 1024 x 5 = 327680. Similarly, if you are adding 128 KB, then you must set the registry value to 64 x 1024 x (5+5) = 655360.

  [SPA-2865]

- On VPN logoff, DNS suffix list entries in SearchList registry are rewritten in a reverse order separated by one or more commas.

  [NSHELP-33671]

- Proxy authentication fails when the NetScaler appliance completes an EPA scan for antivirus.

  [NSHELP-30876]

- If the Citrix Secure Access related registry values are greater than 1500 characters, then the log collector fails to gather the error logs.

  [NSHELP-33457]

22.10.1.9 (08-Nov-2022)

What's new

- **EPA support for connection proxy type site persistence in GSLB**

  Windows EPA scan now supports connection proxy type site persistence in GSLB when the scan is initiated from a browser. Previously, EPA scan for Windows did not support connection proxy persistence type for browser initiated EPA scan.

  [CGOP-21545]

- **Seamless single sign-on for Workspace URL (Cloud only)**

  Citrix Secure Access client now supports single sign-on for Workspace URL (cloud only) if the user has already logged on via the Citrix Workspace app. For more details, see Single sign-on support for the Workspace URL for users logged in via Citrix Workspace app.

  [ACS-2427]

- **Manage Citrix Secure Access client and/or EPA plug-in version via Citrix Workspace App (Cloud only)**

  Citrix Workspace app now has the capability to download and install the latest version of Citrix Secure Access and/or EPA plug-in via the Global App Configuration Service. For more details, see Global App Configuration Service.

  [ACS-2426]

- **Debug logging control enhancement**

  Debug logging control for Citrix Secure Access client is now independent of NetScaler Gateway and it can be enabled or disabled from the plug-in UI for both machine and user tunnel.

  [NSHELP-31968]

- **Support for Private Network Access preflight requests**

  Citrix Secure Access Client for Windows now supports Private Network Access preflight requests issued by the Chrome browser when accessing private network resources from public websites.

  [CGOP-20544]

Fixed issues

- The Citrix Secure Access client, version 21.7.1.1 and later, fails to upgrade to later versions for users with no administrative privileges.

  This is applicable only if the Citrix Secure Access client upgrade is done from a NetScaler appliance. For details, see Upgrade/downgrade issue on Citrix Secure Access client.

  [NSHELP-32793]

- Users cannot log on to VPN because of intermittent EPA failures.

  [NSHELP-32138]

- Sometimes, the Citrix Secure Access client in machine tunnel only mode does not establish the machine tunnel automatically after the machine wakes up from sleep mode.

  [NSHELP-30110]

- In Always on service mode, user tunnel tries to start even if only machine tunnel is configured.

  [NSHELP-31467]

- The Home Page link on the Citrix Secure Access UI does not work if Microsoft Edge is the default browser.

  [NSHELP-31894]

- Customized EPA failure log message is not displayed on the NetScaler Gateway portal, instead the message “internal error”is displayed.

  [NSHELP-31434]

- When users click the Home Page tab on the Citrix Secure Access screen for Windows, the page displays the connection refused error.

  [NSHELP-32510]

- On some client machines, the Citrix Secure Access client fails to detect the proxy setting and this results in logon failure.

  [SPAHELP-73]

Known issues

- Windows Update check-based EPA scan does not work on the Windows 11 22H2 version. For details, see EPA Check failing for Windows11 22H2.

  [NSHELP-33068]

22.6.1.5 (17-June-2022)

What's new

- **Login and logout script configuration**

  The Citrix Secure Access client accesses the login and logout script configuration from the following registries when the Citrix Secure Access client connects to the Citrix Secure Private Access cloud service.

  Registry path: **HKEY_LOCAL_MACHINE>SOFTWARE>Citrix > Secure Access Client**

  Registry values:

  - SecureAccessLogInScript type REG_SZ - path to login script
  - SecureAccessLogOutScript type REG_SZ - path to logout script

  [ACS-2776]

- **Windows Citrix Secure Access client using Windows Filtering Platform (WFP)**

  WFP is a set of API and system services that provide a platform for creating network filtering application. WFP is designed to replace previous packet filtering technologies, the Network Driver Interface Specification (NDIS) filter which was used with the DNE driver. For details, see Windows Citrix Secure Access client using Windows Filtering Platform.

  [CGOP-19787]

- **FQDN based reverse split tunnel support**

  WFP driver now enables support for FQDN based REVERSE split tunneling. It is not supported with the DNE driver. For more details on reverse split tunnel, see Split tunneling options.

  [CGOP-16849]

Fixed issues

- Sometimes, the Windows auto logon does not work when a user logs into the windows machine in an Always On service mode. The machine tunnel does not transition to the user tunnel and the message **Connecting** is displayed in the VPN plug-in UI.

  [NSHELP-31357]

- On VPN logoff, the DNS suffix list entries in SearchList (Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Citrix\ Access Client) registry are rewritten in reverse order separated by one or more commas.

  [NSHELP-31346]

- Spoofed IP address is used even after the NetScaler intranet application configuration is changed from FQDN based to IP based application.

  [NSHELP-31236]

- The gateway home page is not displayed immediately after the gateway plug-in establishes the VPN tunnel successfully.

  With this fix, the following registry value is introduced.

  \HKLM\Software\Citrix\Secure Access Client\SecureChannelResetTimeoutSeconds

  Type: DWORD

  By default, this registry value is not set or added. When the value of "SecureChannelResetTimeoutSeconds"is 0 or not added, the fix to handle the delay does not work, which is the default behavior. Admin has to set this registry on the client to enable the fix (that is to display the home page immediately after the gateway plug-in establishes the VPN tunnel successfully).

  [NSHELP-30189]

- AlwaysOnAllow list registry does not work as expected if the registry value is greater than 2000 bytes.

  [NSHELP-31836]

- Citrix Secure Access client for Windows does not tunnel new TCP connections to the back-end TCP server if the already connected Citrix Secure Private Access service region becomes unreachable. However, this does not affect the on-premises gateway connections.

  [ACS-2714]

22.3.1.5 (24-Mar-2022)

Fixed issues

- The Windows EPA plug-in name is reverted to the NetScaler Gateway EPA plug-in.

  [CGOP-21061]

Known issues

- Citrix Secure Access client for Windows does not tunnel new TCP connections to the back-end TCP server if the already connected Citrix Secure Private Access service region becomes unreachable. However, this does not affect the on-premises gateway connections.

  [ACS-2714]

22.3.1.4 (10-Mar-2022)

What's new

- **Enforce local LAN access to end users based on ADC configuration**

  Admins can restrict the end users from disabling the local LAN access option on their client machines. A new option, FORCED is added to the existing Local LAN Access parameter values. When the Local LAN Access value is set to FORCED, the local LAN access is always enabled for end users on the client machines. End users cannot disable the local LAN settings using the Citrix Secure Access client UI. If admins want to provide an option to enable or disable local LAN access to the end user, they must re-configure the Local LAN access parameter to ON.

  To enable the **FORCED** option by using the GUI:

  1. Navigate to **NetScaler Gateway > Global Settings > Change Global Settings**.
  2. Click the **Client Experience** tab and then click **Advanced Settings**.
  3. In **Local LAN Access**, select **FORCED**.

  To enable the **FORCED** option by using the CLI, run the following command:

  ```
  set vpn parameter -localLanAccess FORCED
  <!--NeedCopy-->
  ```

  [CGOP-19935]

- **Support for Windows server 2019 and 2022 in the EPA OS scan**

  EPA OS scan now supports Windows server 2019 and 2022.

  You can select the new servers by using the GUI.

  1. Navigate to **NetScaler Gateway > Policies > Preauthentication**.
  2. Create a new preauthentication policy or edit an existing policy.
  3. Click the **OPSWAT EPA Editor** link.
  4. In **Expression Editor**, select **Windows > Windows Update** and click the **+** icon.
  5. In **OS Name**, select the server as per your requirement.

  You can upgrade to the OPSWAT version 4.3.2744.0 to use the Windows server 2019 and 2022 in the EPA OS scan.

  [CGOP-20061]

- **New EPA scan classification types for missing security patches**

  The following new classification types are added to the EPA scan for missing security patches. The EPA scan fails if the client has any of the following missing security patches.

  - Application

  - Connectors
  - CriticalUpdates
  - DefinitionUpdates
  - DeveloperKits
  - FeaturePacks
  - Guidance
  - SecurityUpdates
  - ServicePacks
  - Tools
  - UpdateRollups
  - Updates

You can configure the classification types by using the GUI.

1. Navigate to **NetScaler Gateway > Policies > Preauthentication**.
2. Create a new preauthentication policy or edit an existing policy.
3. Click the ((OPSWAT EPA Editor)) link.
4. In Expression Editor, select **Windows > Windows Update**.
5. In **Shouldn't have missing patch of following windows update classification type**, select the classification type for the missing security patches
6. Click **OK**.

You can upgrade to the OPSWAT version 4.3.2744.0 to use these options.

  - For details about the Windows server update services classification GUIDs, see https://docs.microsoft.com/en-us/previous-versions/windows/desktop/ff357803(v=vs.85)
  - For the description of the Microsoft software updates terminology, see https://docs.microsoft.com/en-us/troubleshoot/windows-client/deployment/standard-terminology-software-updates

Earlier, the EPA scans for missing security patches were done on the severity levels; Critical, Important, Moderate, and Low on the Windows client.

[CGOP-19465]

- **Support for multiple device certificates for EPA scan**

  In the Always on VPN configuration, if multiple device certificates are configured, the certificate with the longest expiry date is tried for the VPN connection. If this certificate allows EPA scan successfully, then VPN connection is established. If this certificate fails in the scan process, the next certificate is used. This process continues until all the certificates are tried.

  Earlier, if multiple valid certificates were configured, if the EPA scan failed for one certificate, the scan was not attempted on the other certificates.

  [CGOP-19782]

Fixed issues

- If the clientCert parameter is set to ‘Optional’in the SSL profile when configuring the VPN virtual server, users are prompted multiple times to select the smart card.

  [NSHELP-30070]

- Users cannot connect to the NetScaler Gateway appliance after changing the ‘networkAccessOnVPNFailure’always on profile parameter from ‘fullAccess’to ‘onlyToGateway‘.

  [NSHELP-30236]

- When Always on is configured, the user tunnel fails because of the incorrect version number (1.1.1.1) in the aoservice.exe file.

  [NSHELP-30662]

- DNS resolution to internal and external resources stops working over a prolonged VPN session.

  [NSHELP-30458]

- The Windows VPN client does not honor the ‘SSL close notify’alert from the server and sends the transfer login request on the same connection.

  [NSHELP-29675]

- Registry EPA check for the “==”and “!=”operator fails for some registry entries.

  [NSHELP-29582]

22.2.1.103 (17-Feb-2022)

Fixed issues

- Users cannot launch the EPA plug-in or the VPN plug-in after an upgrade to Chrome 98 or Edge 98 browser versions. To fix this issue, perform the following:

  1. For the VPN plug-in upgrade, end users must connect using the VPN client for the first time to get the fix on their machines. In the subsequent login attempts, users can choose the browser or the plug-in to connect.
  2. For the EPA only use case, the end users will not have the VPN client to connect to the gateway. In this case, perform the following:

     a) Connect to the gateway using a browser.
     b) Wait for the download page to appear and download the nsepa_setup.exe.
     c) After downloading, close the browser and install the nsepa_setup.exe file.
     d) Restart the client.

  [NSHELP-30641]

21.12.1.4 (17-Dec-2021)

What's new

- **Rebranding changes**

  NetScaler Gateway plug-in for Windows is rebranded to Citrix Secure Access client.

  [ACS-2044]

- **Support for TCP/HTTP(S) private applications**

  Citrix Secure Access client now supports TCP/HTTP(S) private applications for remote users through the Citrix Workspace Secure Access service.

  [ACS-870]

- **Additional language support**

  Windows VPN and EPA plug-ins for NetScaler Gateway now support the following languages:

  - Korean
  - Russian
  - Chinese (Traditional)

  [CGOP-17721]

- **Citrix Secure Access support for Windows 11**

  Citrix Secure Access client is now supported for Windows 11.

  [CGOP-18923]

- **Automatic transfer logon when the user is logging in from the same machine and Always on is configured**

  Automatic login transfer now occurs without any user intervention when Always on is configured and the user is logging in from the same machine. Previously, when the client (user) had to relogin in the scenarios such as system restart or network connectivity issues, a pop-up message appeared. The user had to confirm the transfer login. With this enhancement, the pop-up window is disabled.

  [CGOP-14616]

- **Deriving Citrix Virtual Adapter default gateway IP address from the NetScaler provided net mask**

  Citrix Virtual Adapter default gateway IP address is now derived from the NetScaler provided net mask.

  [CGOP-18487]

Fixed issues

- Sometimes, users lose internet access after a VPN tunnel is established in split tunnel ON mode. Citrix Virtual adapter's erroneous default route causes this network issue.

  [NSHELP-26779]

- When split tunnel is set to "Reverse,"DNS resolution for the intranet domains fails.

  [NSHELP-29371]

21.9.100.1 (30-Dec-2021)

What's new

- **Citrix Secure Access support for Windows 11**

  Citrix Secure Access client is now supported for Windows 11.

  [CGOP-18923]

Fixed issues

- Sometimes, users lose internet access after a VPN tunnel is established in split tunnel ON mode. Citrix Virtual adapter's erroneous default route causes this network issue.

  [NSHELP-26779]

- When split tunnel is set to "Reverse,"DNS resolution for the intranet domains fails.

  [NSHELP-29371]

21.9.1.2 (04-Oct-2021)

Fixed issues

- Sometimes, after disconnecting the VPN, the DNS resolver fails to resolve the host names, because the DNS suffixes are removed during VPN disconnection.

  [NSHELP-28848]

- Sometimes, a user is logged out of NetScaler Gateway within a few seconds when the client idle timeout is set.

  [NSHELP-28404]

- The Windows plug-in might crash during authentication.

  [NSHELP-28394]

- In Always On service mode, the VPN plug-in for Windows fails to establish the user tunnel automatically after the users log on to their Windows machines.

  [NSHELP-27944]

- After the tunnel establishment, instead of adding DNS server routes with the previous gateway IP address, the Windows plug-in adds the routes with the default gateway address.

  [NSHELP-27850]

V21.7.1.1 (27-Aug-2021)

What's new

- **New MAC address scan**

  Support is added for newer MAC address scans.

  [CGOP-16842]

- **EPA scan to check for Windows OS and its build version**

  Added EPA scan to check for Windows OS and its build version.

  [CGOP-15770]

- **EPA scan to check for a particular value's existence**

  A new method in the registry EPA scan now checks for a particular value's existence.

  [CGOP-10123]

Fixed issues

- If there is a JavaScript error during login because of a network error, subsequent login attempts fail with the same JavaScript error.

  [NSHELP-27912]

- The EPA scan fails for McAfee antivirus last update time check.

  [NSHELP-26973]

- Sometimes, users lose internet access after a VPN tunnel is established.

  [NSHELP-26779]

- A script error for the VPN plug-in might be displayed during nFactor authentication.

  [NSHELP-26775]

- If there is a network disruption, UDP traffic flow that started before the network disruption does not drop for up to 5 minutes.

  [NSHELP-26577]

- You might experience a delay in the starting of the VPN tunnel if the DNS registration takes a longer time than expected.

  [NSHELP-26066]

V21.3.1.2 (31-Mar-2021)

What's new

- **Upgraded EPA libraries**

  The EPA libraries are upgraded to support the latest version of the software applications used in EPA scans.

  [NSHELP-26274]

- **NetScaler Gateway virtual adapter comaptibility**

  The NetScaler Gateway virtual adapter is now compatible with Hyper-V and Microsoft Wi-Fi direct virtual adapters (used with printers).

  [NSHELP-26366]

Fixed issues

- The Windows VPN gateway plug-in blocks use of "CTRL + P"and "CTRL + O"over the VPN tunnel.

  [NSHELP-26602]

- The NetScaler Gateway plug-in for Windows responds only with an Intranet IP address registered in the Active Directory when a `"nslookup"` action is requested for the machine name.

  [NSHELP-26563]

- The IIP registration and deregistration fails intermittently if the split DNS is set as "Local"or "Both."

  [NSHELP-26483]

- Auto logon to Windows VPN gateway plug-in fails if Always On is configured.

  [NSHELP-26297]

- The Windows VPN gateway plug-in fails to drop IPv6 DNS packets resulting in issues with DNS resolution.

  [NSHELP-25684]

- The Windows VPN gateway plug-in maintains the existing proxy exception list even if the list overflows because of the browser limit on the Internet Explorer proxy exception list.

  [NSHELP-25578]

- The Windows VPN gateway plug-in fails to restore the proxy settings when the VPN client is logged off in Always On mode.

  [NSHELP-25537]

- The VPN plug-in for Windows does not establish the tunnel after logging on to Windows, if the following conditions are met:

  - NetScaler Gateway appliance is configured for the Always On feature.
  - The appliance is configured for certificate based authentication with two factor authentication "off."

  [NSHELP-23584]

Microsoft Edge WebView support for Windows Citrix Secure Access - Preview

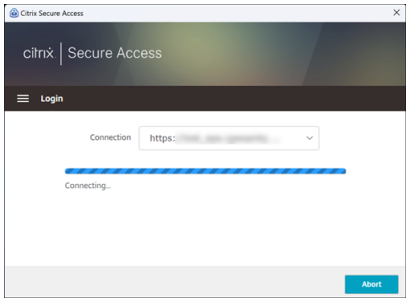
January 18, 2024

Microsoft Edge WebView is now the recommended WebView by Microsoft because the Internet Explorer WebView is deprecated. We recommend you to use Citrix Secure Access client 23.8.1.5 or later versions to leverage the functionalities of Microsoft Edge WebView.

Currently, Microsoft Edge WebView is disabled, by default. You can sign up for the preview using https://podio.com/webforms/28291989/2245437.

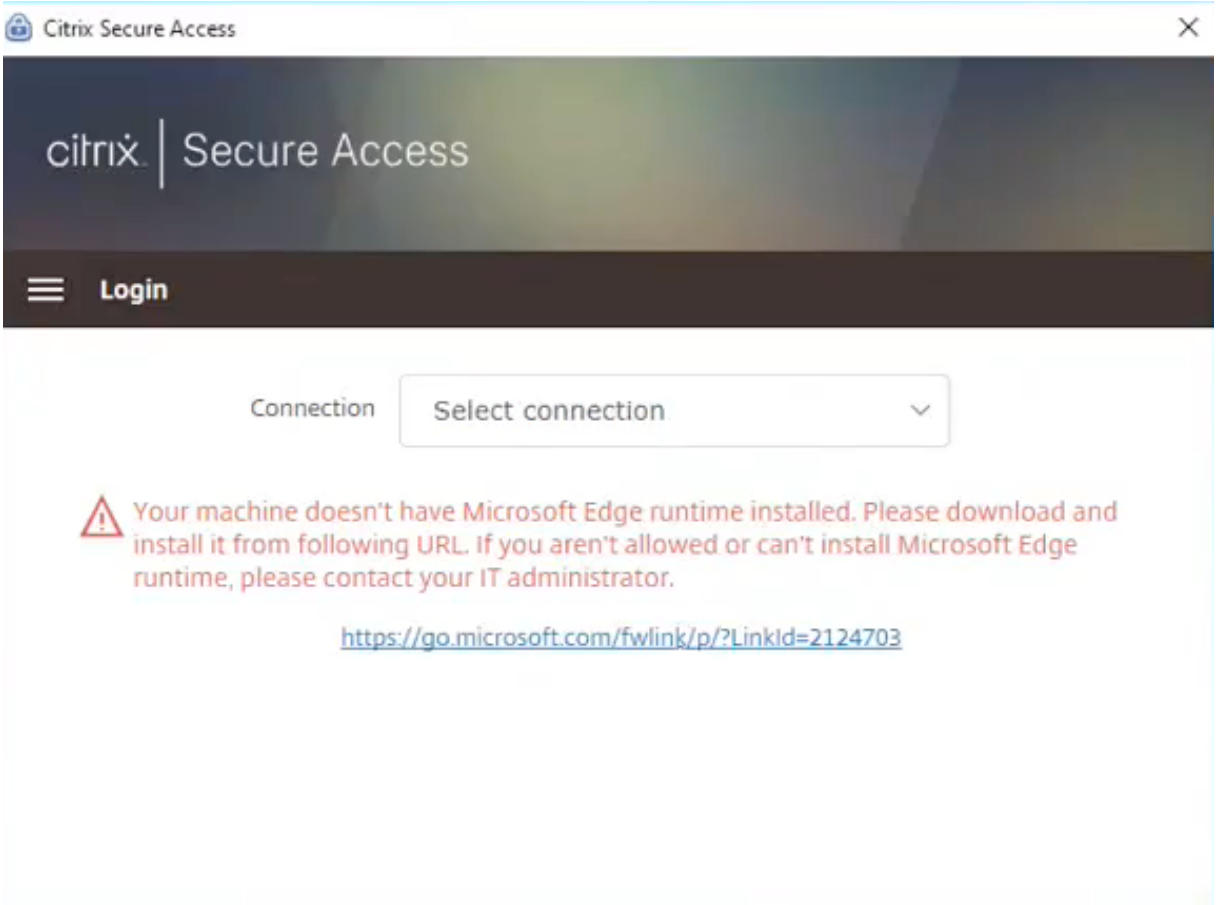
Changes to the end-user

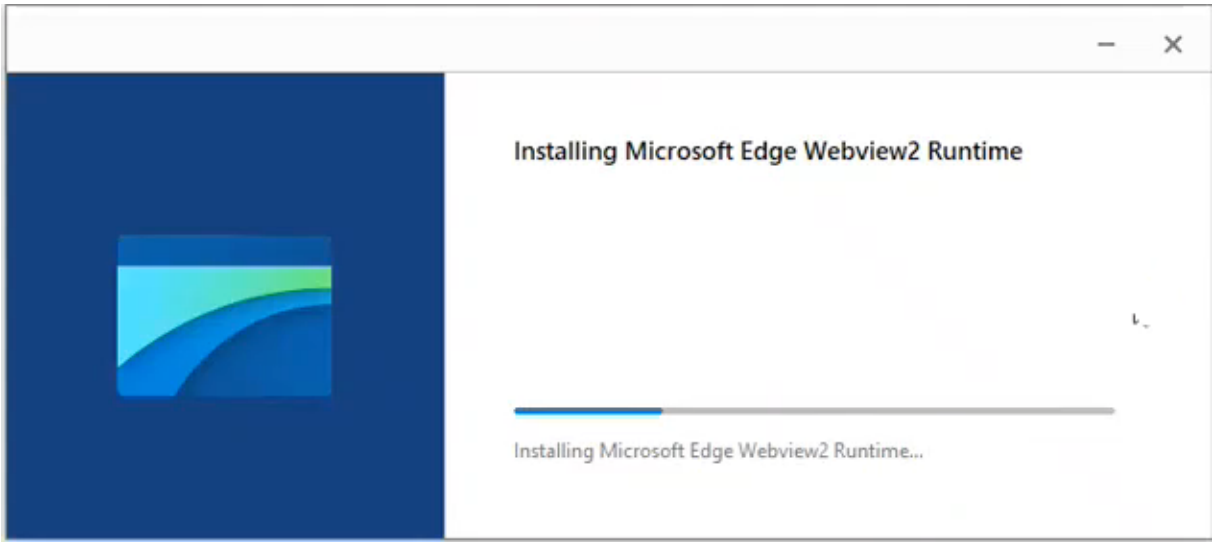
The authentication screens of the Citrix Secure Access client UI appear as follows.



Once the end-users select the URL, Citrix Secure Access client opens a new window prompting them to log on to NetScaler Gateway using their credentials.

If the Windows client machine does not have the Microsoft Edge WebView runtime installed, end-users are provided with a link on the Citrix Secure Access client UI to download and install the Microsoft Edge WebView runtime. End-users can download and install the Edge WebView runtime seamlessly when connected to the VPN and the authentication isn't interrupted during this process.





Notes:

- The Microsoft Edge WebView functionality does not impact any admin-specific configurations.
- We recommend that you enable the HttpOnly cookie feature when using Edge WebView on

> Citrix Secure Access. This improves the NetScaler Gateway logon duration when EPA is used as a factor in the nfactor flow.

Troubleshooting

- If you face any issues with this feature, contact Citrix support.
- You can submit your feedback about the Edge WebView feature through citrixgatewaybetafeedback@cloud.com.

Improved log collection for Windows client

January 8, 2024

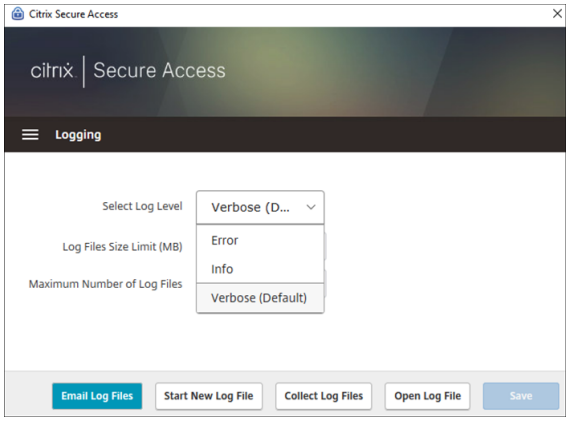
The logging feature for the Windows Secure Access client is enhanced with improved log collection and debugging. The new log files are prefixed with “csa_”.

Starting from Citrix Secure Access client for Windows 23.10.1.7, the default log level is set to Verbose for an enhanced log collection and troubleshooting.

With these changes, admins and end-users can collect logs from the current session as well as past sessions. Previously, collection of logs was limited to the current sessions only.

Configure logging by using the Citrix Secure Access client UI

1. Install the Secure Access client for Windows.
2. Click **Logging** from the menu. All configuration related to logs can be done in the Logging screen.



- **Select Log Level:**

  When the new logging mechanism is enabled, the following three log levels are available.

  - Error: Only exceptions or failures reported by the application are logged.
  - Info: This level includes informational messages and events relevant from program execution. It also includes errors and exceptions.
  - Verbose (default): This level includes all log messages reported by Error and Info log levels and additional messages that might help in troubleshooting.

- **Log File Size Limit:** (Mandatory) Enter the log file size of each log file. Maximum value is 600 MB.
- **Maximum Number of Log Files:** (Mandatory) Enter the number of files that you want to add for log collection. Maximum value is 5.
- **Email Log Files** –Email the log files to the registered email ID.
- **Start New Log File** –When you select this option, a new log file is created.
- **Collect Log Files** –Click to create a zip file with all log files from the application. This zip file is saved on the client's desktop.
- **Open Log Files** –When you select this option, the latest `csa_nssslvpn*.txt` file opens.

Citrix Secure Access client for Linux

January 8, 2024

Citrix Secure Access client for Linux is a VPN client software managed by NetScaler Gateway that enables users to access corporate data and applications remotely. Citrix Secure Access client protects applications from unauthorized access, application-level threats, and browser-based attacks.

Citrix End Point Analysis (EPA) client is a client software managed by NetScaler Gateway. It checks the endpoint criteria before granting access to corporate data through NetScaler Gateway. The Citrix EPA client and Citrix Secure Access client are independent from each other.

> **Note:**
>
> Even if you do not use EPA, we recommend that you update both EPA and VPN plug-in binaries together in case you choose to use the EPA functionality later.

Supported Linux versions

Citrix Secure Access client and Citrix EPA client are compatible with Ubuntu 18.04, Ubuntu 20.04, and Ubuntu 22.04 versions. For more information about the supported browsers, see Client Software Requirements.

> **Note:**
>
> For Ubuntu 22.04 to work with Citrix Secure Access client and Citrix EPA client, set the SSL parameter `denySSLReneg` to `NONSECURE` on the NetScaler CLI.

Supported features

Citrix Secure Access client for Ubuntu supports the following features:

- Split tunneling and reverse split tunneling
- Tunneling TCP, UDP, and ICMP applications
- Server-initiated connections via Intranet IP (IIP)
- Split DNS remote
- Client side proxy
- Classic EPA scans
- Advanced authentication (nFactor) including advanced EPA scans (only from the browser)
- HTTPOnly cookies
- Global server load balancing (GSLB)

> **Note:**
>
> Split DNS BOTH is not supported with Citrix Secure Access client for Ubuntu.

Upgrade Ubuntu clients on NetScaler Gateway

You can download the Citrix Secure Access client and Citrix EPA client for Ubuntu from the Downloads page.

The Citrix Secure Access client and Citrix EPA client are named “nsgclient18_64.deb”and “nsepa18.deb”, respectively. The clients are compatible with both Ubuntu 18.04 and 20.04.

The Citrix Secure Access client and Citrix EPA client that support Ubuntu 22.04 are named “nsginstaller64.deb”and “nsepa.deb”, respectively.

If you want to upgrade to the latest version of Citrix Secure Access client from version 1.0.0.x to version 23.6.1, for example:

1. Replace the files “nsgclient18_64.deb”and “nsginstaller64.deb”at the location `/var/netscaler/gui/vpn/scripts/linux/` by using the shell prompt.

2. Replace the files “nsepa18.deb”and “nsepa.deb”at the location `/var/netscaler/gui/epa/scripts/linux/` by using the shell prompt.
3. Open the `/var/netscaler/gui/vpn/scripts/linux/clientversions.xml` file.

   a) For the Citrix EPA client, replace the current version (1.0.0.x) in the following XML tags with the latest version (23.6.1). If the XML tags do not exist, add them to the XML file. For example,

   replace

   ```
   <component pkgname="nsepa18"currentversion="1.0.0.x"minversion
   ="1.0.0.x"ostype="ubuntu64"minkernelversion="0"maxkernelversion
   ="100"updatetype="compatible"action="/epa/scripts/linux/
   nsepa18.deb"/>
   ```

   with

   ```
   <component pkgname="nsepa18"currentversion="23.6.1"minversion
   ="23.6.1"ostype="ubuntu64"minkernelversion="0"maxkernelversion
   ="100"updatetype="compatible"action="/epa/scripts/linux/
   nsepa18.deb"/>
   ```

   and replace

   ```
   <component pkgname="nsepa22"currentversion="1.0.0.x"minversion
   ="1.0.0.x"ostype="ubuntu64"minkernelversion="0"maxkernelversion
   ="100"updatetype="compatible"action="/epa/scripts/linux/nsepa
   .deb"/>
   ```

   with

   ```
   <component pkgname="nsepa22"currentversion="23.6.1"minversion
   ="23.6.1"ostype="ubuntu64"minkernelversion="0"maxkernelversion
   ="100"updatetype="compatible"action="/epa/scripts/linux/nsepa
   .deb"/>
   ```

   b) For the Citrix Secure Access client, replace the current version (1.0.0.x) in the following XML tags with the latest version (23.6.1). If the XML tags do not exist, add them to the XML file. For example,

   replace

   ```
   <component pkgname="nsgclient18"currentversion="1.0.0.x"
   minversion="1.0.0.x"ostype="ubuntu64"minkernelversion="3.0
   "maxkernelversion="5.16"updatetype="compatible"action="/vpn/
   scripts/linux/nsgclient18_64.deb"/>
   ```

   to


```
<component pkgname="nsgclient18"currentversion="23.6.1"minversion
="23.6.1"ostype="ubuntu64"minkernelversion="3.0"maxkernelversion
="5.16"updatetype="compatible"action="/vpn/scripts/linux/
nsgclient18_64.deb"/>
```

and

```
<component pkgname="nsgclient22"currentversion="1.0.0.x"
minversion="1.0.0.x"ostype="ubuntu64"minkernelversion="3.0
"maxkernelversion="5.20"updatetype="compatible"action="/vpn/
scripts/linux/nsginstaller64.deb"/>
```

to

```
<component pkgname="nsgclient22"currentversion="23.6.1"minversion
="23.6.1"ostype="ubuntu64"minkernelversion="3.0"maxkernelversion
="5.20"updatetype="compatible"action="/vpn/scripts/linux/
nsginstaller64.deb"/>
```

4. On the NetScaler shell prompt, run the following commands:

```
rm -rf /netscaler/ns_gui
ln -s /var/netscaler/gui /netscaler/ns_gui
```

5. On the NetScaler CLI, run the following commands:

```
set vpn parameter -clientversions all
flush cache contentgroup loginstaticobjects
```

References

- NetScaler Gateway VPN clients and supported features
- Endpoint Analysis scans supported for Ubuntu
- End-user help documentation

Citrix Secure Access for Linux release notes

January 8, 2024

The Citrix Secure Access client and Citrix End Point Analysis (EPA) client for Linux are now released on a standalone basis and are compatible with all NetScaler versions. The Citrix Secure Access client version follows the format YY.MM Release.Build.

The release notes describe the new features, enhancements to the existing features, fixed issues, and known issues.

What's new: The new features and enhancements available in the current release.

Fixed issues: The issues that are fixed in the current release.

Known issues: The issues that exist in the current release and their workarounds, wherever applicable.

For detailed information on the supported features, see NetScaler Gateway Product Documentation.

23.10.3 (16-Oct-2023)

Fixed issues

For French users, the Connections page of the Citrix Secure Access for Linux UI displays the data transfer rate in KB and MB instead of Ko and Mo, respectively.

[NSOSLX-177]

23.9.1 (08-Sep-2023)

What's new

This release addresses issues that help to improve overall performance and stability.

[CGOP-25231]

23.6.2 (20-Jun-2023)

What's new

- **Ubuntu 22.04 support for Citrix Secure Access client and Citrix EPA client**

  Ubuntu 22.04 is the latest long-term support release of Ubuntu. The Citrix Secure Access and Citrix EPA clients are compatible with Ubuntu 22.04. For more information, see Client software requirements.

  [CGOP-24312]

- **GSLB support for Citrix Secure Access and Citrix EPA clients**

  The Citrix Secure Access client and Citrix EPA client for Ubuntu support the Global Server Load Balancing (GSLB) feature on NetScaler Gateway. By configuring GSLB for NetScaler Gateway,

admins can ensure that the enterprise network (intranet resources) is always available to end-users from any geographic location. GSLB also addresses disaster situations or network outages wherein users of one data center can be redirected to another data center. For more information, see Support for active-active GSLB deployments on NetScaler Gateway.

[CGOP-23506]

- **HTTPOnly support for Citrix Secure Access and Citrix EPA clients**

  The Citrix Secure Access and Citrix EPA clients support the HTTPOnly flag on the authentication cookies. NetScaler Gateway admins configure the HTTPOnly feature on the authentication cookies that are generated by web applications. This feature helps in preventing cookie theft due to cross-site scripting. For more information, see Enforce the HttpOnly flag on authentication cookies.

  [CGOP-23517]