Android VPN Client

Release Notes 6.4

1   Preamble

The following release notes provide a detailed description of the features, improvements, fixes, known issues and limitations in the various releases of the Android VPN Client.

2   TheGreenBow Android VPN Client 6.4 build 004

Major changes, features, improvements, and fixes since release 6.2 build 012:

2.1   Major changes

- Provides full support for gateways configured in IPsec DR mode
- Supports certificates with elliptic curves in Android certificate store
- SHA-1 has algorithm has been removed entirely from the software
- The VPN service is set to foreground mode for better reliability
- Support for RFC 4304 Extended Sequence Number (ESN) and RFC 6023 (Childless IKE Initiation) for enhanced security
- Support for Digital Signature Authentication RFC 4754 "ECDSA with SHA-2" (Method 9) and RFC 7427 "ECDSA with RSA" (Method 14) for strong authentication of certificates using elliptic curves
- Weaker algorithms (DES, 3DES, SHA, MD5, DH 1-2, DH 5) have been removed from the software for enhanced security
- The gateway certificate will be checked by default each time a tunnel is opened

2.1.1   Features

- Introduces biometric authentication to access the app
- App now sends notifications about various app-related events to the notification drawer
- Introduces new algorithm: Diffie-Hellman 28 (BrainpoolP256r1)
- Introduces certificate authentication method ECDSA BrainpoolP256r1 with SHA256
- Uses certificate authentication method 14 RSASSA-PSS by default with all RSA certificates
- Forces UDP encapsulation mode for IKEv2

2.2   Improvements

- VPN Client now accepts `id-kp-ipsecIKE` in Extended Key Usage (EKU) for gateway certificate
- Smoother and more reliable Always-On function

2.3   Fixes

- Fixes an issue where the application would crash in the event of an IKE crash
- Fixes an issue where the wrong certificate status was displayed in the configuration information
- VPN service no longer exits when Always-On is disabled in phone settings

3   Previous versions

3.1   TheGreenBow Android VPN Client 6.2 build 012

Major changes, features, improvements, and known issues since release 5.11 build 009:

3.1.1   Major changes

- Uses certificates stored in the mobile terminal's certificate store
- VPN can now be enabled permanently, even when the client is not running
- Supports activation using TheGreenBow Activation Server (TAS), both offline and online from within a tunnel
- Protocols and encryption are based on those used in version 7 of the Windows VPN Client
- `VPN_IMPORT` and `VPN_EXPORT` directories have been removed
- Logs and configuration files are now exported using the Android share sheet
- Supports Android 10 and higher
- User interface has been redesigned from the ground up
- Log management has been updated

3.1.2   Features

- Users can now import P12 certificates into the configuration
- Verbose mode can now be enabled for logs
- Available languages (English & French) are now open to localization, if desired

3.1.3   Improvements

- IKEv1 has been removed
- OpenSSL has been updated to version 1.1.1s
- Improved application performance
- Improved tunnel stability
- Verbose mode is now slightly less detailed

3.1.4   Known issues

- The app currently does not support certificates with validity dates that are too far into the future
- The Android VPN Client must be in interactive mode to renew the license, renewing with the Always on function enabled is currently not supported
- The Certificate List cannot be reorganized
- Once it has been referenced in the Certificate List, a certificate cannot be removed from the list without deleting the application data

3.2   TheGreenBow Android VPN Client 5.11 build 009

Features, improvements, and fixes since release 5.01 build 004:

3.2.1   Features

- Support for Android 10 (limitation: only IKEv2 is supported on Android 10)
- Files with a `.tgb` extension are now automatically linked to TheGreenBow Android VPN Client

3.2.2   Improvements

- List of network interfaces has been moved to the **About** section
- Better support for **Auto** Mode in IKEv1: the VPN Client sends the most secure algorithm available to the gateway
- When using certificates, passwords are no longer required in IKEv1
- Better management of the virtual keyboard
- Optimized memory management

3.2.3   Fixes

- Fixes an issue when opening a tunnel without an internet connection
- Fixes an issue than occurred when opening the **About** section
- DNS settings are now correctly used in IKEv2
- Fixes an issue when importing a configuration file with certificates in IKEv1
- Fixes an issue on IKEv2 where Remote ID was rejected

3.3 TheGreenBow Android VPN Client 5.01 build 004

Features and improvements since release 4.43 build 003:

3.3.1 Features

- Full support for IKEv2:
  - o Authentication (EAP, Certificate)
  - o Encryption (AES256, SHA512, DH18) – VPN Features (Mode CP, DPD)
  - o All-traffic-in-tunnel mode
  - o Fragmentation
  - o IKEv2 logs
  - o Secured VPN policy management

- Ability to show/hide logs when a tunnel is open

3.3.2 Improvements

- Prevents VPN configuration from being created with an empty name
- Ability to create IKEv2 VPN test configuration
- Removed password size limitation when importing encrypted `.tgb` files

3.4 TheGreenBow Android VPN Client 4.43 build 003

Features, improvements, and fixes since release 4.40 build 003:

3.4.1 Features

- Support for Android 7 (Nougat)
- Manual activation process has been added

3.4.2 Improvements

- Documentation of application activation errors has been improved

3.4.3 Fixes

- Fixes ID Type conversion issue between Windows VPN Client and Android VPN Client

3.5   TheGreenBow Android VPN Client 4.40 build 003

Features, improvements, and fixes since initial release:

3.5.1   Features

- Support for BoringSSL instead of OpenSSL
- Support for Android 6 (Marshmallow)
- Several graphical interface improvements
- Keeps entered data when application is minimized

3.5.2   Improvements

- Improves display in landscape format
- `tgbm` VPN configuration files are removed from `TgbImport` folder
- Proper management of bad ID reception in Phase 1

3.5.3   Fixes

- Fixes crash when closing the demo tunnel from the notification bar
- Fixes crash that occurred when pressing the **Back** or **Quit** button
- Fixes crash when importing a `.tgb` VPN configuration with a certificate but no CA
- Fixes inability to open the **About** window

Protect your connections
in any situation