

Series 2000
3G/4G Modem / Router
Firmware Release Notes

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1 Introduction

This document provides a summary of the firmware changes and details the firmware upgrade procedure for the Cybertec Series 2000 of 3G and 4G Modem / Routers.

2 Version

The latest version of the Series 2000 firmware is v1.7.9.6.

The firmware files for the current release are:

- **Series 2000 Model 2155 & Model 2255** : S2155-v1.7.9.6.zip
- **Series 2000 Model 2355 & Model 2455** : S2355-v1.7.9.6.zip
- **Series 2000 Model 2455X** : S2455X-v1.7.9.6.zip
- **Model DMM-250** : XMM250-v1.7.9.6.zip

The zip file contains two files, the upgrade file, for example S2155-v1.7.9.6.upg and the MD5 hash of the upgrade file. The upgrade file is the file to be used to upgrade the unit.

3 Applicability

The firmware described in this document is applicable for the following models:

- Series 2000
 - Model 2155 / 2155X
 - Model 2255 / 2255X
 - Model 2355
 - Model 2455 / 2455X
- DMM-250
- DMM-450

The firmware upgrade will fail for any model not listed above.

4 Version 1.7.9.6 (18/06/2019)

4.1 General

- This is an enhancement and bug fix release.

4.2 New Features

- No new features

4.3 Enhancements

- Low baud rate serial latency improvements.
- Serial MUX modes.
- Added support for SCEP plain text character encoding in certificates.
- LTE signal strength reporting improvements.
- Improvements to roaming functionality.
- Improved wireless connection stability on Model 2455X Rev 1.

4.4 Bug Fixes

- Resolved issue where MTU was incorrectly set on some LTE Cat 1 models.
- Fixed issue with Model 2455X Rev 1 restarting authenticated packet sessions on any configuration change.
- Fixed custom band selection issue on Model 2455X Rev 2 ,where GSM and UMTS bands selected at the same time, without LTE.

4.5 Known Issues

- No known issues.

5 Version 1.7.9.5 (22/03/2019)

5.1 General

- This is an enhancement and bug fix release.

5.2 New Features

- No new features

5.3 Enhancements

- DHCP: Added custom default route option.
- RIP: Added option to disable advertising default route.
- Improved logging.

5.4 Bug Fixes

- Resolved an issue with VRRP invalid packet causing restart.
- Resolved issue with constant SNMP walk causing restart.
- Resolved issue with L2TP not starting correctly due to DNS lookup failure.
- Resolved issue with SSH connection when using PuTTY as client.
- Removed IPsec 0.0.0.0 messages from logs.
- Resolved issue whereby when an active IPsec tunnel was deleted it was not correctly removed from the status page.
- Resolved incorrect network time timezone issue present on models with Rev 2 hardware.

5.5 Known Issues

- No known issues.

6 Version 1.7.9.4 (01/02/2019)

6.1 General

- This is an enhancement and bug fix release.

6.2 New Features

- No new features

6.3 Enhancements

- Improved firmware update process.

6.4 Bug Fixes

- Resolved an issue with infrequent configuration read error on boot.
- Resolved an issue where connection maintenance would incorrectly detect a connection failure as an establishment error and restart the wireless interface.

6.5 Known Issues

- No known issues.

7 Version 1.7.9.3 (18/12/2018)

7.1 General

- This is an enhancement and bug fix release.

7.2 New Features

- No new features

7.3 Enhancements

- Added support for DMM-450

7.4 Bug Fixes

- Fixed issue with DHCP relay incorrectly displaying errors at boot.
- Correctly export certificates option for IPsec.
- Fix issue with roaming on Model 2455X
- Fix issue with initial bearer web page options on Models 2155X & 2255X

7.5 Known Issues

- No known issues.

8 Version 1.7.9.2 (28/11/2018)

8.1 General

- This is an enhancement and bug fix release.

8.2 New Features

- No new features

8.3 Enhancements

- Improved the roaming valid condition detections.
- Improved roaming capabilities.
- Disabled roaming by default on a new (or config reset) unit.
- Modem Emulator:
 - Add custom connect suffix.
 - Ignore some unused AT commands.

8.4 Bug Fixes

- Fix issue initial bearer options were not shown.
- Fix an issue where DHCP Relay settings may display and error on the Alarms page.
- DynDNS: Correctly escape special characters in the password used.

8.5 Known Issues

- No known issues.

9 Version 1.7.9.1 (15/11/2018)

9.1 General

- This is a bug fix release.

9.2 New Features

- No new features

9.3 Enhancements

- No enhancements.

9.4 Bug Fixes

- Fixed issue with Location page not displayed on GNSS capable 3G models.
- Only display GNSS active antenna power option on capable models.
- For clarification on the location page the option “HTTP GPS Location Page” was renamed to “Simple GNSS API”.
- Fixed issue where uploading an incorrect firmware image could result in an incorrectly handled error.

9.5 Known Issues

- No known issues.

10 Version 1.7.9.0 (06/11/2018)

10.1 General

- This is a feature, enhancement and bug fix release.

10.2 New Features

- Added roaming support options.
- DHCP relay.

10.3 Enhancements

- Added support for 2455X Hardware Revision 2 (Hw Rev2).
- Serial server - Added support for baud rates 14400, 28800 and 56000.
- Added support for active GNSS antennas on units with hardware support.
- Updated SNMP.
- Updated OpenVPN.
- Logging improvements.
- Firewall improvements.
- Security enhancements.

10.4 Bug Fixes

- Fixed issue with Google maps location due to API change.
- Added SNMP interface fadeout timers so that re-enumerating interfaces will replace old interfaces rather than generate constantly growing MIB entries.

10.5 Known Issues

- No known issues.

11 Version 1.7.8.7 (05/09/2018)

11.1 General

- This is a bug fix release.

11.2 New Features

- No new features.

11.3 Enhancements

- No enhancements.

11.4 Bug Fixes

- Resolved an issue with some 2455X models and network time settings.
- Improved the time used for generating certificates to ensure valid at time of generation.

11.5 Known Issues

- No known issues.

12 Version 1.7.8.6 (22/08/2018)

12.1 General

- This is a bug fix release.

12.2 New Features

- No new features.

12.3 Enhancements

- No enhancements.

12.4 Bug Fixes

- Resolved an issue upgrading early firmware versions to latest firmware versions, where wireless does not respond.
- Resolved an issue porting wireless configuration settings between various unit models.
- Correctly display the Target Address and Netmask in Custom NAT if using network ranges.
- Resolved an issue where upgrading from old firmware versions may cause issues with DHCP leases.
- Resolved an issue where web certificates could be corrupted if there was power loss straight after generation.

12.5 Known Issues

- No known issues.

13 Version 1.7.8.5 (18/05/2018)

13.1 General

- This is an enhancement and bug fix release.

13.2 New Features

- No new features.

13.3 Enhancements

- Improvements to connection establishment and stability of wireless interface.
- Added ability to optionally add initialisation default bearer.
- Improved handling on network initiated disconnections.
- Improved logging.

13.4 Bug Fixes

- Serial Server - Fixed issue with disconnection on idle timeout.
- SysLog - Fixed issue with importing of remote hosts not working consistently.

13.5 Known Issues

- No known issues.

14 Version 1.7.8.4 (08/02/2018)

14.1 General

- This is an enhancement and bug fix release.

14.2 New Features

- No new features.

14.3 Enhancements

- Improvements to connection establishment and stability of wireless interface.
- Improved logging.

14.4 Bug Fixes

- Web: Fixed bug displaying incorrect syslog page.

14.5 Known Issues

- No known issues.

15 Version 1.7.8.3 (11/01/2018)

15.1 General

- This is an enhancement and bug fix release.

15.2 New Features

- No new features.

15.3 Enhancements

- Improvements to connection establishment and stability of wireless interface.
- Improvement to better facilitate LTE only authenticated connections.

15.4 Bug Fixes

- Fixed Wireless instability resulting from configuration modification.

15.5 Known Issues

- No known issues.

16 Version 1.7.8.2 (22/12/2017)

16.1 General

- This is an enhancement and bug fix release.

16.2 New Features

- No new features.

16.3 Enhancements

- Improvements to connection establishment and stability of wireless interface.
- Stability improvements.
- IPSec: Add resolution of hostnames when configuring IPSec
- Added support for new hardware variant.

16.4 Bug Fixes

- Fixed an issue with the bootloader information display.
- Web: Fix a token issue with IPSec page.

16.5 Known Issues

- Wireless instability may result from configuration modification.

17 Version 1.7.8.1 (30/11/2017)

17.1 General

- This is an enhancement and bug fix release.

17.2 New Features

- No new features.

17.3 Enhancements

- Improvements to connection establishment and stability of wireless interface.
- Improved boot sequence.
- Stability improvements.
- Security updates.
- Improved logging.
- Improved Technical support file generation.
- Improve responsiveness of packet connection indicators.
- Added support for new hardware variant.

17.4 Bug Fixes

- Fixed bug displaying incorrect signal strength/quality on UMTS and LTE.
- Fixed issue of the incorrect band being shown on the 2455X.
- Fixed DNS entry not being correctly processed at time of wireless connection establishment.

17.5 Known Issues

- No known issues.

18 Version 1.7.8.0 (22/09/2017)

18.1 General

- This is an enhancement.

18.2 New Features

- No new features.

18.3 Enhancements

- Improved firmware upgrader.
- Added support for Model 2455X.

18.4 Bug Fixes

- No bug fixes

18.5 Known Issues

- No known issues.

19 Version 1.7.7.3 (23/08/2017)

19.1 General

- This is an enhancement release.

19.2 New Features

- No new features.

19.3 Enhancements

- Added support for new hardware variant.

19.4 Bug Fixes

- No bug fixes.

19.5 Known Issues

- No known issues.

20 Version 1.7.7.2 (04/08/2017)

20.1 General

- This is an enhancement release.

20.2 New Features

- No new features.

20.3 Enhancements

- Added the support for Models 2155X & 2255X.

20.4 Bug Fixes

- No bug fixes

20.5 Known Issues

- No known issues.

21 Version 1.7.7.1 (06/07/2017)

21.1 General

- This is an enhancement and bug fix release.

21.2 New Features

- No new features.

21.3 Enhancements

- Added the ability to accept '-' character to separate MAC address octets.

21.4 Bug Fixes

- Fixed SNMP issues:
 - a blank user could be added and not deleted.
 - a trap could be enabled for a non-existent event.
- Fixed web page display issues.

21.5 Known Issues

- No known issues.

22 Version 1.7.7.0 (06/06/2017)

22.1 General

- This release includes several enhancements and bug fixes.

22.2 New Features

- Power controller added.
- GPS: gps command added to command line interface, to configure and read status of the GPS.
 - Syntax:

```
$ gps status
$ gps enable
$ gps disable
```
- SNMP: snmp command added to the command line interface to configure and read basic SNMP settings.
 - Syntax:

```
$ snmp v2c enable
$ snmp v2c disable $ snmp v2c set public/private <public/privateName>
$ snmp v2c delete public/private

$ snmp traps sink add <DestinationIP> <Community> <Port>
$ snmp traps sink delete <DestinationIP>
$ snmp traps sink list

$ snmp traps trigger enable <trapname>
$ snmp traps trigger disable <trapname>
$ snmp traps trigger list

$ snmp firewall open <interfacename>
$ snmp firewall close <interfacename>
$ snmp firewall list
```

22.3 Enhancements

- Resolved issue where the incorrect netmask was being supplied on some LTE private networks.
- SNMP: GPS coordinates now available.
- Security enhancements.

22.4 Bug Fixes

- Fixed issue where some units did not start up correctly resulting in the reporting of a POST failure.
- Command line firmware upgrade works correctly.

22.5 Known Issues

- No known issues.

23 Version 1.7.5.4 (16/05/2017)

23.1 General

- This is a bug fix release.

23.2 New Features

- No new features

23.3 Enhancements

- No enhancements

23.4 Bug Fixes

- Resolved issue where a sustained LTE upload could result in a connection lock up.

23.5 Known Issues

- No known issues.

24 Version 1.7.5.3 (10/02/2017)

24.1 General

- This is a bug fix release.

24.2 New Features

- No new features

24.3 Enhancements

- No enhancements

24.4 Bug Fixes

- Resolved a web page branding issue.
- Resolved a 4G connection where IP addressed assigned was incompatible.

24.5 Known Issues

- No known issues.

25 Version 1.7.5.2 (19/01/2017)

25.1 General

- This release contains an enhancement.

25.2 New Features

- No new features

25.3 Enhancements

- Added Privonet Support for the DMM250

25.4 Bug Fixes

- No bug fixes

25.5 Known Issues

- No known issues.

26 Version 1.7.5.1 (16/12/2016)

26.1 General

- This release contains enhancements and bug fixes.

26.2 New Features

- No new Features

26.3 Enhancements

- OpenVPN: Improved handling of OpenVPN configuration imports
- Updated Dynamic DNS client.

26.4 Bug Fixes

- OpenVPN: Fixed an issue where a static address was not loading correctly at start-up.

26.5 Known Issues

- No known issues.

27 Version 1.7.5.0 (16/11/2016)

27.1 General

- This release includes several enhancements and bug fixes.

27.2 New Features

- No new features.

27.3 Enhancements

- Modem Emulator: Added support for PDU mode SMS.
- IPsec: Added DoorKnocking to allow connection to external service.
- OpenVPN: Added the ability to import a configuration file containing a limited subset of options.
- Firewall: Added ICMP to protocol lists.
- Certificates: Delete and regenerate static web certificates for HTTP and SSH keys.
- Serial Server: Added the ability to set a Lockout timer on UDP connections.
- SNMP: Added SysService.

27.4 Bug Fixes

- SMTP: Resolved an authentication issue.
- Certificates:
 - Resolved an issue with non alphabetic characters in passwords.
 - Improved handling of certificate importing.
- SMS:
 - Resolved an issue with GPIO SMS trigger being saved.
 - Improves SMS handling via the AT Emulator

27.5 Known Issues

- No known issues.

28 Version 1.7.4.0 (04/05/2016)

28.1 General

- This release includes new features, several enhancements and bug fixes.

28.2 New Features

- EMAIL: Add support for connecting to TLS encrypted email servers (such as gmail).

28.3 Enhancements

- GPS: Display the number of satellites being tracked and the signal to noise ratio.
- IPSEC: Allow IPsec to be brought up and down when the unit becomes the VRRP master.
- Modem Emulator: Add support for:
 - AT+CGMI
 - AT+CMGR
 - AT+CGSN
 - AT+CIMI
- Improved logging of wireless interface.

28.4 Bug Fixes

- WEB: Fix an issue with authentication settings being incorrectly decoded.
- Fixed issue where long hostnames were being truncated.
- Correctly save configuration after uploading an Astaro VPN file.
- Fixed issue with Custom NAT firewall page caching information.
- Fixed issue where browser add-on could prevent expansion of SSL VPN configuration section.

28.5 Known Issues

- No known issues.

29 Version 1.7.3.2 (05/02/2016)

29.1 General

- This is a bug fix release.

29.2 New Features

- No new features.

29.3 Enhancements

- No enhancements

29.4 Bug Fixes

- Fixed IPSec re-start on DNS update issue. IPsec and other services will now only re-start on IP address change.

29.5 Known Issues

- No known issues.

30 Version 1.7.3.1 (07/01/2016)

30.1 General

- This is a bug fix release.

30.2 New Features

- No new features.

30.3 Enhancements

- No enhancements.

30.4 Bug Fixes

- Handle switching LTE bands more efficiency.
- Fixed issue where “No Bands” was incorrectly displayed.
- Fixed issue with DMM-250 LED when no SIM is inserted.

30.5 Known Issues

- No known issues.

31 Version 1.7.3.0 (15/12/2015)

31.1 General

- This release includes new features, several enhancements and bug fixes.

31.2 New Features

- Added a technical support feature to the System / Support page.
- Fastpoll command added to CLI.
- Added SNMP support to DMM-250

31.3 Enhancements

- Improved the throughput of the LTE wireless interface.
- Added RSSI, BER , provider and current band logging.
- Improved wireless interface band search algorithm when changing bands.
- New option for Serial server to disconnect on idle.
- Improved LED behaviour on the DMM-250 to show signal and status information.
- Display and log the band used by the Wireless interface.

31.4 Bug Fixes

- Fixed issue which prevented data flow over the wireless interface when wireless band was changed.
- Fixed a typo on the VPN / IPsec web page.
- Fixed issue where selecting an LTE band sometimes did not change the operating band correctly.
- Update the displayed band information quicker.
- Fixed issue where RIP sends the default route's interface address through GRE tunnels which sometimes created a routing "loop" causing the GRE tunnel to fail.
- Fixed web pages typos.
- Remove the automatic connect option when VRRP is not available.

31.5 Known Issues

- No known issues.

32 Version 1.7.2.1 (20/11/2015)

32.1 General

- This is an enhancement and bug fix release.

32.2 New Features

- No new features.

32.3 Enhancements

- Removed excessive log messages when a SIM is not present.
- Improve timing when passing CSD data through the modem.
- Wireless interface Stability improvements.

32.4 Bug Fixes

- Fixed IPSec issue where the long certificate name sometimes caused re-start.
- Fixed issue where not have a SIM inserted would cause issues at boot.
- Fixed IPsec configuration input verification issue.
- Fixed issue with GRE Status web page.
- Fixed issue which sometimes prevented RIP messages to be accepted through GRE tunnels.

32.5 Known Issues

- No known issues.

33 Version 1.7.2.0 (29/09/2015)

33.1 General

- This release includes new features, several enhancements and bug fixes.
- Once installed firmware cannot be downgraded to a previous version.

33.2 New Features

- Added support for Privonet support.
- Added support to firewall for NATing entire subnet ranges (netmasks must match for a valid NAT).

33.3 Enhancements

- Added support for DNP3 backup master
- Allow the SNMP engineID to be regenerated to allow for unique values.
- Allow point-to-point multicast traffic over GRE.
- Do not constantly reboot when no SIM has been detected.
- Hardware controller firmware update.

33.4 Bug Fixes

- Fixed issue preventing L2TP from working.
- Fixed issue where SNMP OID's were reporting inconsistent information between models and versions.
- Changing the Serial Port configuration to CSD has an immediate effect.
- Fixed issue where CSD stops working.
- Fixed issue with RIP over GRE tunnels.
- Fixed issue with RIP so that it correctly advertises routes that have been configured but are down.
- Improve backward configuration for the WLS interface.
- Accept incoming CSD calls correctly. (Model 2455)
- Improved the upgrade process for internal hardware controller.
- Fixed IE8 compatibility issue with the Firewall > Access Control web page.
- Removed redundant log messages so that logs are more consistent and readable.
- Resolved backwards compatibility issues when using a 1.7 configuration in a 1.6 devices.

33.5 Known Issues

- No known issues.

34 Version 1.7.1.14 (04/06/2015)

34.1 General

- This is an enhancement and bug fix release.

34.2 New Features

- No new features.

34.3 Enhancements

- Improve powering up sequence.
- Updated SNMP.

34.4 Bug Fixes

- Fixed issue with CSD disconnecting.
- Fixed IE8 compatibility issue with the VPN▷SSL web page.

34.5 Known Issues

- No known issues.

35 Version 1.7.1.13 (13/05/2015)

35.1 General

- This is a bug fix release.

35.2 New Features

- No new features.

35.3 Enhancements

- No enhancements

35.4 Bug Fixes

- Fixed issue loading the Astaro configuration file.

35.5 Known Issues

- No known issues.

36 Version 1.7.1.12 (11/05/2015)

36.1 General

- This is an enhancement and bug fix release.

36.2 New Features

- No new features.

36.3 Enhancements

- Add the ability to forward SMS.
- Add support for RF firmware version 12.00.006

36.4 Bug Fixes

- Correctly read firewall access control configuration from 1.5 and 1.6 Series firmware.
- Correct emulation of AT+CSMS
- Correct emulation of AT+CMEE
- IPSec to recover when the local interface changes address.
- IPSec to ignore LAN Ethernet state.
- Correctly read IPSec configuration from 1.5 and 1.6 Series firmware.
- Fixed issue with Dynamic DNS.
- Fixed issue with power control.

36.5 Known Issues

- No known issues.

37 Version 1.7.1.11 (27/04/2015)

37.1 General

- This is an enhancement release.

37.2 New Features

- No new features.

37.3 Enhancements

- Added support for SMM-250 & DMM-250.

37.4 Bug Fixes

- No bug fixes.

37.5 Known Issues

- No known issues.

38 Version 1.7.1.10 (01/04/2015)

38.1 General

- This is an enhancement release.

38.2 New Features

- No new features.

38.3 Enhancements

- Hardware controller firmware update.

38.4 Bug Fixes

- No bug fixes.

38.5 Known Issues

- No known issues.

39 Version 1.7.1.9 (20/03/2015)

39.1 General

- This is an enhancement and bug fix release.

39.2 New Features

- No new features.

39.3 Enhancements

- Added IPSec connection management.
- Improved RF hardware recovery times.
- Improved details on the System▷ Information page when no SIM is present.

39.4 Bug Fixes

- Fixed firewall from dropping all packets within an IPSec tunnel when the local interface is either WLS or DSL.
- Fixed WLS connection management when configured to use "Poll at fixed interval" and using an ICMP poller.

39.5 Known Issues

- No known issues.

40 Version 1.7.1.8 (06/03/2015)

40.1 General

- This is an enhancement release.

40.2 New Features

- No new features.

40.3 Enhancements

- Hardware controller firmware update.

40.4 Bug Fixes

- No bug fixes.

40.5 Known Issues

- No known issues.

41 Version 1.7.1.7 (03/03/2015)

41.1 General

- This is an enhancement release.

41.2 New Features

- No new features.

41.3 Enhancements

- Added GPS support for Models 2355 and 2455.

41.4 Bug Fixes

- No bug fixes.

41.5 Known Issues

- No known issues.

42 Version 1.7.1.6 (27/02/2015)

42.1 General

- This is an enhancement release.

42.2 New Features

- No new features.

42.3 Enhancements

- Improved wireless band select for Models 2355 and 2455.

42.4 Bug Fixes

- No bug fixes.

42.5 Known Issues

- No known issues.

43 Version 1.7.1.5 (26/02/2015)

43.1 General

- First release to provide support for Models 2355 and 2455.
- For other models this is a bug fix release.

43.2 New Features

- No new features.

43.3 Enhancements

- No enhancements.

43.4 Bug Fixes

- Fixed incorrect random serial server POST fault message
- IPSec to accept a traffic map of 0.0.0.0/0
- Correctly emulate AT+CPIN

43.5 Known Issues

- No known issues.

44 Version 1.7.1.4 (06/02/2015)

44.1 General

- This is a bug fix release.

44.2 New Features

- No new features.

44.3 Enhancements

- Improve powering up sequence.
- Updated SNMP.

44.4 Bug Fixes

- Fixed web page error on Wireless ▷ SMS page.
- Fixed web page error on System ▷ GPIO page.
- Fixed web page error on Status ▷ GPIO page.
- Fixed IE8 compatibility issue with the Management ▷ SNMP web page.

44.5 Known Issues

- No known issues.

45 Version 1.7.1.3 (21/01/2015)

45.1 General

- This is an enhancement release.
- Once installed firmware cannot be downgraded to a previous version.

45.2 New Features

- No new features.

45.3 Enhancements

- Hardware controller firmware update.

45.4 Bug Fixes

- No bug fixes.

45.5 Known Issues

- No known issues.

46 Version 1.7.1.2 (23/12/2014)

46.1 General

- This is an enhancement release.

46.2 New Features

- No new features.

46.3 Enhancements

- Security enhancement.

46.4 Bug Fixes

- Security.

46.5 Known Issues

- No known issues.

47 Version 1.7.1.1 (23/12/2014)

47.1 General

- This is an enhancement release.

47.2 New Features

- No new features.

47.3 Enhancements

- Added low power mode.

47.4 Bug Fixes

- No bug fixes.

47.5 Known Issues

- No known issues.

48 Version 1.7.1.0 (17/12/2014)

48.1 General

- This release includes new features, several enhancements and bug fixes.

48.2 New Features

- Added serial server hunt-group feature added.
- Added support for AT+CGREG in the modem emulator.
- Added the ability to read and synchronise to network time.

48.3 Enhancements

- Allow port forwarding from the LAN interface.
- Web server no longer supports SSLv2 connections.

48.4 Bug Fixes

- Fixed IPSec issue when certificates are used.
- Read the correct RF hardware version number.
- Return the correct value when emulating AT+CREG.
- Improved RF hardware shut-down sequence.

48.5 Known Issues

- No known issues.

49 Version 1.7.0.0 (04/12/2014)

49.1 General

- First release in the 1.7 Series.

49.2 New Features

- Support for new hardware.

49.3 Enhancements

- No enhancements.

49.4 Bug Fixes

- No bug fixes.

49.5 Known Issues

- No known issues.

50 Firmware Upgrade Procedure

The firmware upgrade procedure for the Series 2000 3G/4G Modem / Router is described. The same procedure can be used for all models in the product range.

50.1 Connect to the Web interface

- Connect to the Web interface of the modem either via the Ethernet interface or the wireless interface if web access is enabled.
- If connecting via the Ethernet interface:
 - Connect an Ethernet cable between the modem and the PC which will be used for the upgrade.
 - Open a web browser on the PC and enter the IP address of the LAN address of the modem. Note: The IP address of the modem may be configured differently for each installation. The default IP address is 10.10.10.10
- If connecting via the wireless interface:
 - Open a web browser on the PC and enter the IP address of the wireless interface.
- When prompted supply the user-name and password.
- The main status page should now be displayed.
- If the main page is not shown check:
 - If using the Ethernet interface:
 - The Ethernet cable is connected correctly to the modem and the PC.
 - The IP address of the modem is correct.
 - The Ethernet ports are enabled.
 - If using the wireless interface:
 - The wireless IP address is correct and is publicly accessible.
 - The firewall rules have been set to allow wireless web access.

50.2 System Backup and Upgrade

- Select System ▸ Backup & Upgrade. The System Backup & Upgrade page will be displayed as shown in Figure 1.

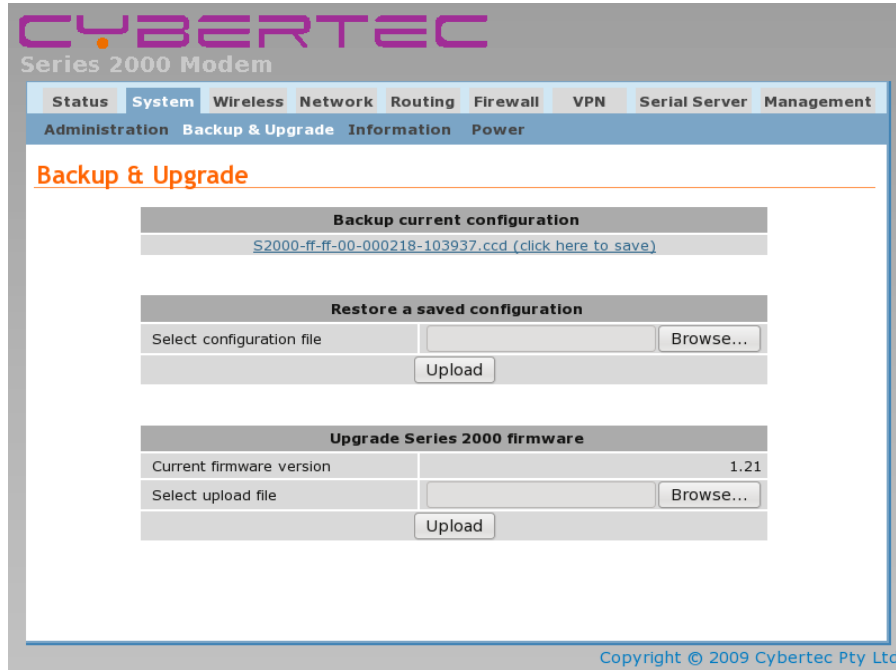


Figure 1: The System Backup & Upgrade page.

50.2.1 Backup Configuration

- It is recommended to save the current configuration file.
- The configuration of the modem is forward compatible. This means the configuration of the modem will still be correct after a firmware upgrade to a later version even though the format used to store the configuration may be changed.
- The configuration of the modem is not always backward compatible. This means that if the modem firmware is replaced with an earlier version the configuration file may not be readable by the earlier version of firmware and so the configuration will revert to the default settings. If the configuration file from the earlier version was saved prior to the upgrade then this configuration can be loaded into the modem to restore the previous settings after reverting to the earlier revision of firmware.
- To save the configuration click the link in the section titled “Backup current configuration” as shown in Figure 2 and save the file to the local machine.



Figure 2: System configuration backup.

- To restore a configuration click the Browse button in the section title “Restore a saved configuration” as shown in Figure 3 then click the Upload button.

| Restore a saved configuration | |
|-------------------------------|--------------------------------|
| Select configuration file | <input type="text"/> Browse... |
| Upload | |

Figure 3: System configuration restore.

50.2.2 Firmware Upgrade

- In the section titled “Upgrade Series 2000 firmware” click the Browse button and navigate to and select the upgrade file appropriate for the modem being upgraded as shown in Figure 4. Refer to Section 2 on page 10 for the firmware file name and version number details.
- If the incorrect file is selected the upload will fail and report an error.

| Upgrade Series 2000 firmware | |
|------------------------------|------------------------------------------------------------------|
| Current firmware version | 1.21 |
| Select upload file | <input type="text" value="000-images/S2000-v140.upg"/> Browse... |
| Upload | |

Figure 4: Select the upgrade file.

- Click the Upload button. The file will now be transferred to the modem.
- When the upload is complete the Upgrade section of the page will change to be similar to that shown in Figure 5.

| Upgrade Series 2000 firmware | |
|------------------------------|----------------------|
| Status of uploaded file | Passed |
| Filename | series-2000-v140.img |
| Release | 1.40 |
| Build date | 24/04/2010 |
| Upgrade | Cancel Upgrade |

Figure 5: File has been uploaded to the modem.

- Check that the information shown is correct.
- If the data is correct click the “Upgrade” button.



Once the Upgrade has started power must be maintained to the modem to prevent corruption of the Flash memory.

- The Upgrade section of the page will now show a message as shown in Figure 6.

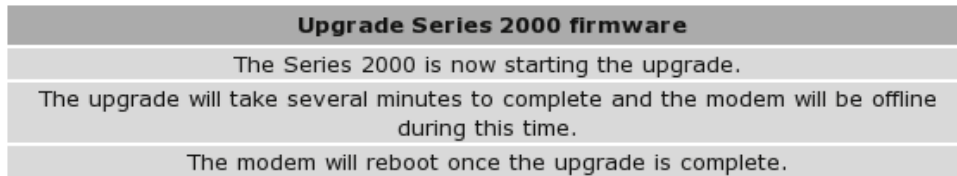


Figure 6: The Upgrade page.

- During the upgrade:
 - the top two front panel LEDs will flash alternatively Red then Green.
 - the modem will disconnect from the wireless network.
 - the modem will not respond to any network traffic.
 - the modem will re-boot when the upgrade has completed
- When the Upgrade has completed and the modem has re-booted the new firmware version can be checked in the System Information page. Figure 7 is an example of the System Information page after the upgrade has completed. Note only the Application Version is shown.

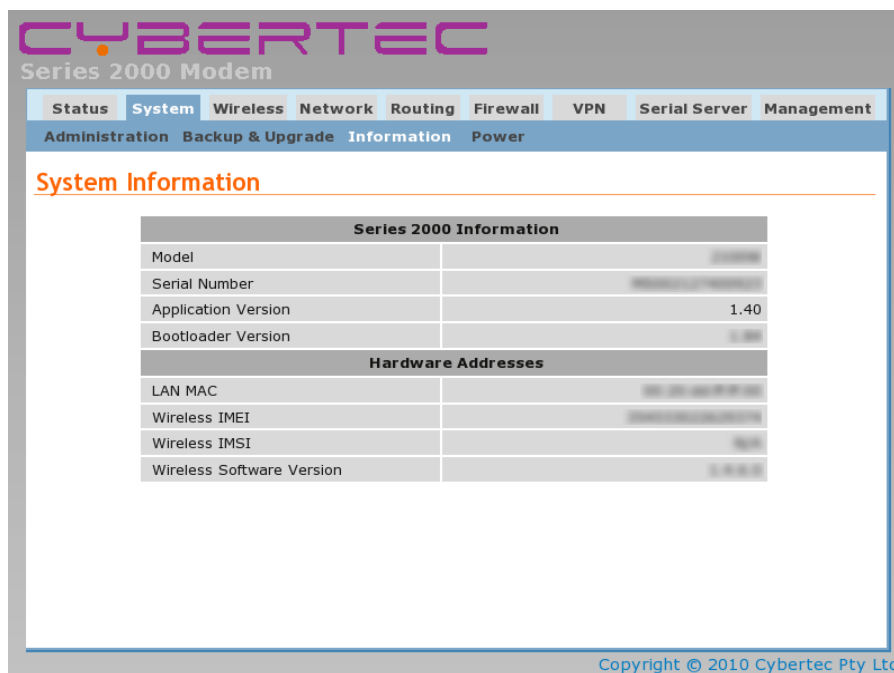


Figure 7: The System Information page after the upgrade.

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