

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

Document Number: 0013-001-000632  
Document Version: 1.2 (11 May, 2020)

Firmware Version: v1.8.1.0

---

**CYBERTEC**

## **Documentation Control**

Generation Date: May 20, 2020

## **Copyright © 2020 Cybertec Pty Limited**

### **All rights Reserved.**

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Cybertec Pty Limited.

Cybertec Pty Limited has intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from Cybertec Pty Limited, the furnishing of this document does not give you any license to this intellectual property.

## **Legal Information**

The contents of this document are provided “as is”. Except as required by applicable law, no warranties of any kind, either express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, are made in relation to the accuracy and reliability or contents of this document. Cybertec Pty Ltd reserves the right to revise this document or withdraw it at any time without prior notice.

Under no circumstances shall Cybertec Pty Ltd be responsible for any loss of data or income or any special, incidental, and consequential or indirect damages howsoever caused.

More information about Cybertec can be found at the following Internet address: <http://www.cybertec.com.au>

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Version</b>	<b>1</b>
<b>3</b>	<b>Applicability</b>	<b>1</b>
<b>4</b>	<b>Version 1.8.1.0 (11/05/2020)</b>	<b>2</b>
4.1	General . . . . .	2
4.2	New Features . . . . .	2
4.3	Enhancements . . . . .	2
4.4	Bug Fixes . . . . .	3
4.5	Known Issues . . . . .	3
<b>5</b>	<b>Version 1.8.0.1 (19/12/2019)</b>	<b>4</b>
5.1	General . . . . .	4
5.2	New Features . . . . .	4
5.3	Enhancements . . . . .	4
5.4	Bug Fixes . . . . .	4
5.5	Known Issues . . . . .	4
<b>6</b>	<b>Version 1.8.0.0 (15/11/2019)</b>	<b>5</b>
6.1	General . . . . .	5
6.2	New Features . . . . .	5
6.3	Enhancements . . . . .	5
6.4	Bug Fixes . . . . .	6
6.5	Known Issues . . . . .	6
<b>7</b>	<b>Firmware Upgrade Procedure</b>	<b>7</b>
7.1	Connect to the Web interface . . . . .	7
7.2	System Backup and Upgrade . . . . .	8

## 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 v1.8.1.0.

The firmware files for the current release are:

- **Series 2000 Model 2155/2155X & Model 2255/2255X** : S2155-v1.8.1.0.zip
- **Series 2000 Model 2455/2455X** : S2455-v1.8.1.0.zip
- **Model DMM-250 & Model DMM-450** : XMM250-v1.8.1.0.zip

The zip file contains two files, the upgrade file, for example S2155-v1.8.1.0.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 2455 / 2455X
- DMM-250
- DMM-450

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

## 4 Version 1.8.1.0 (11/05/2020)

### 4.1 General

- This is an enhancement and bug fix release.

### 4.2 New Features

- DMM-450 & DMM-250: Added remote syslog support.

### 4.3 Enhancements

- Added SHA2 support to:
  - IPsec
  - Open VPN
  - Web server
  - SNMP
  - SCEP
- IPsec:
  - Added XAuth server
  - Added ability to enforce strict settings.
- Security:
  - General improvements.
  - Password cannot be set to the default.
  - Warning if password has not been changed from default.
  - TLS upgrade.
- Web:
  - Improved Javascript error handling on various web pages.
  - Added hardware version to information page.
- Wireless:
  - Improved LTE connection establishment.
  - Improved LTE authentication prior to network connection. This reduces instances of connection to UMTS prior to connection to LTE.
  - Improved LTE connection times in some situations.
  - Improvement to band swapping on some models.
  - Improved roaming support.
  - Improvements to Private APN authentication and connection establishment.
- Serial Server: DNP3 primary / backup support improved.
- Log: Improvements to log rotation.
- VRRP: Added ability to add polling source address.
- SCEP: added support for non chained certificates.
- PPP: Updated.

#### **4.4 Bug Fixes**

- IPsec: Individual tunnel restart no longer causes all tunnels to restart.
- Custom route: Fixed issue where custom routes were not maintained through upgrade.
- CLI: Fixed issue with firmware upgrade command.
- SMS: Fixed case sensitivity issue for VPN tunnel trigger.
- Firewall: Fixed issue with limit on number of rules. Limit is now 150.

#### **4.5 Known Issues**

- No known issues.

## **5 Version 1.8.0.1 (19/12/2019)**

### **5.1 General**

- This is an enhancement and bug fix release.
- When upgrading from firmware version V1.8.0.0 NAPT settings should be checked.

### **5.2 New Features**

- No New features

### **5.3 Enhancements**

- Improved upgrader.
- Improvements to web pages.
- Improvements to CLI.

### **5.4 Bug Fixes**

- Fixed issue with 3G connection on some 3G only models.
- Fixed RADIUS server authentication.
- Fixed issue with OpenVPN dropping route on configuration update.
- Fixed interface issue when NAPT disabled.

### **5.5 Known Issues**

- No known issues.

## 6 Version 1.8.0.0 (15/11/2019)

### 6.1 General

- This is an enhancement and bug fix release.

### 6.2 New Features

- Web: Improve the web authentication process.
- Web: All web interactions are now Session based.
- Web: Added logout capabilities.
- LLDP: Added support for LLDP
- LLDP: Disable flooding of LLDP packets by default (can be re-enabled).
- mDNS: Added basic mDNS capabilities.
- LAN: A Link Local address can be enabled on the LAN interface (and discovered through mDNS)
- LAN: Allow ethernet ports to be separated into two independent networks.
- DMM-450: Added Loopback Interface configuration.
- DMM-450: Added support for MAC filtering.

### 6.3 Enhancements

- Web: Improved Javascript and functionality of various web pages.
- DMM-450: Raised the number of certificates from 1 to 4.
- DMM-450: Increase the number of IPSec tunnels from 1 to 3.
- IPSEC: Allow the specification of the Source Address various connections.
- Interface: Allow strict ARP checking to be enabled on Ethernet ports (default off).
- DHCP: Move configuration to DHCP specific web page.
- DNS: Move “Automatically obtain DNS from WAN interface” to the dns page.
- MSP: Better reporting of Signal Quality information for Rev2 Units.
- MSP: Improve the roaming code to support more networks and moving between technologies better.
- Wireless: Add additional LTE band Connectivity on some units.
- Wireless: Add option to enable or disable case sensitivity for SMS triggers.
- SNMP: Added Configurable Sysname.
- SNMP: Add button to send a “test” trap to all trap destinations. This is a temperature trap with a 237C value.
- SNMP: Added the device MAC address to the unit’s MIB (Cybertec OID enterprise.15428.1.5.1.4).
- General: Shutdown improvements.
- General: Enable the LinkLocal Interface and MDNS on the initial boot (until a configuration has been saved).
- General: Improve the routing efficiently through better interrupt management.



## 6.4 Bug Fixes

- Loopback: Correctly set address when changed while enabled.
- SerialServer: Fixed an issue with Reverse Telnet.
- SerialServer: Fixed issues with disconnection and reconnection of dnp3, modem emulation and tcp serial modes.
- HW: Fixed an issue with frequency band display on Model 2455X Rev2 Hardware.
- GPS: Correctly save and restore the authentication required config.
- DynDNS: Fix an issue where the password was not being correctly restored after reboot.
- Time: If a date has not be saved previously default to the BuildDate rather than Epoch.
- SMS: Remove triggers that are not valid for that unit (EG CSD on a unit without CSD capabilities).
- SNMP: Block SNMP traffic until the SNMP agent has time to correctly initialise.
- SNMP: Do not Populate SysContact or SysLocation if empty.
- Interface: Update packet counters periodically to remove “Large Jump” errors.
- CLI: Fixed an issue displaying SMS support.
- Diagnostics: Clear Ping trace on Config Reset.
- OpenVPN: Display the import OpenVPN configuration.

## 6.5 Known Issues

- No known issues.

## 7 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.

### 7.1 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.

## 7.2 System Backup and Upgrade

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

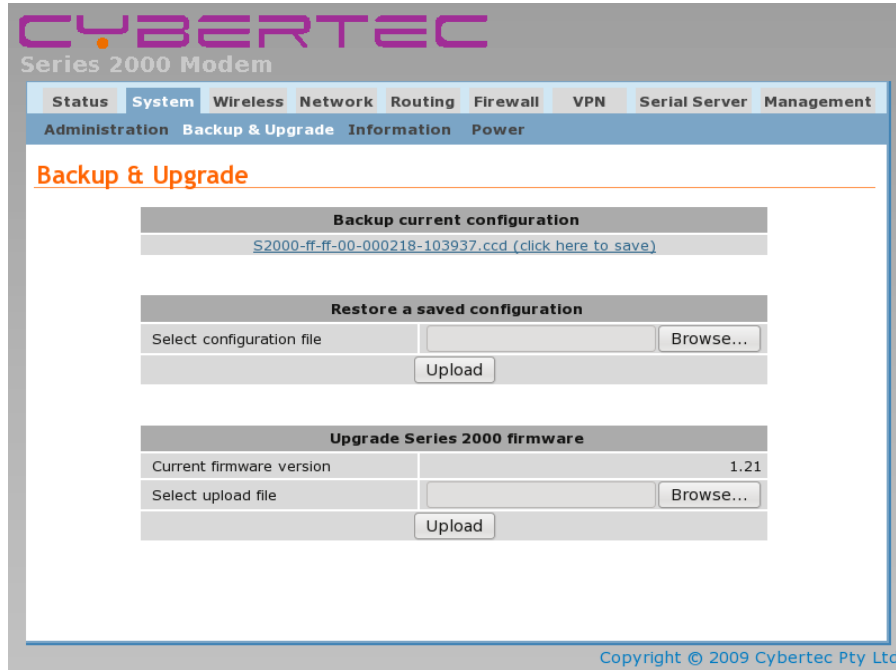


Figure 1: The System Backup & Upgrade page.

### 7.2.1 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.

### 7.2.2 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 1 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.

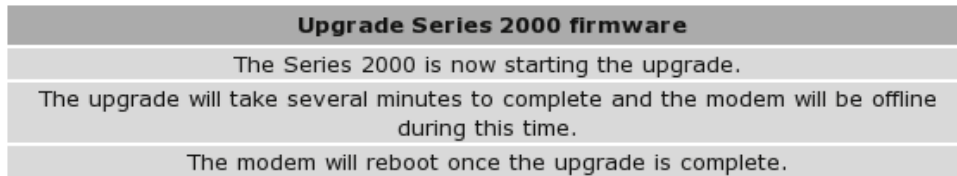


Figure 6: The Upgrade page.

- 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.

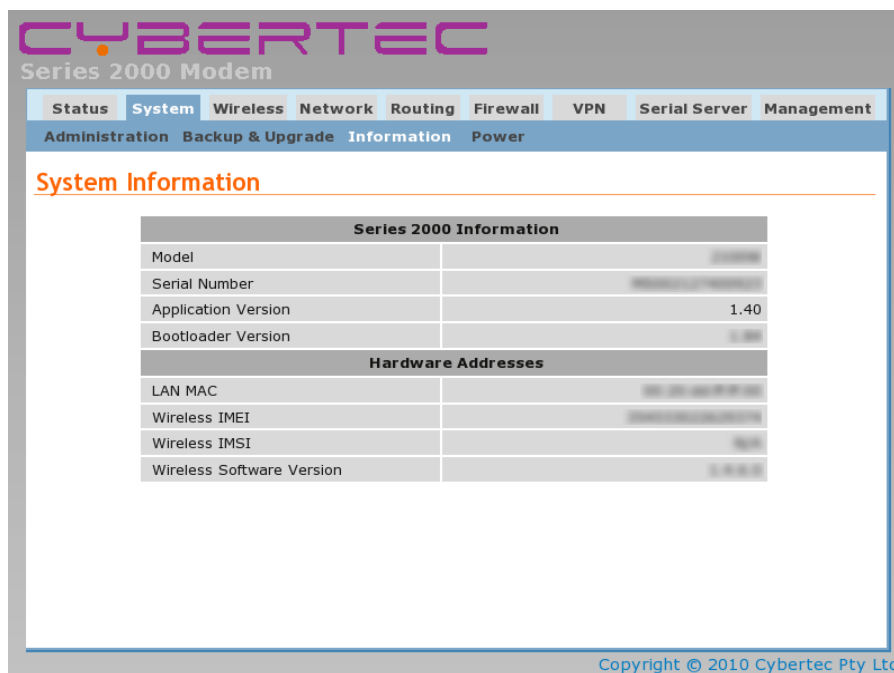


Figure 7: The System Information page after the upgrade.

CYBERTEC

Cybertec Pty Limited  
ABN 72 062 978 474  
19 Buffalo Road  
Gladesville NSW 2111 Australia  
Phone: +61 2 9807 5911  
[www.cybertec.com.au](http://www.cybertec.com.au)