

Application Note: Configuration Upgrades via Scripts

This provides steps for performing CTM device configuration upgrades via scripts using the **cmd confupgrade** command available on the CTM devices.

When several CTM commands need to be configured on a unit, it may be more efficient to create a script that contains these commands and execute **cmd confupgrade** on the unit. The command **cmd confupgrade** retrieves the script from an http or ftp server and executes it on the CTM device.

Script files are text documents created typically in a Linux operating environment. They can be created locally on the CTM or created remotely and executed on the CTM using **cmd confupgrade**. For ease of scripting it is typically easier to write a shell script using a text editor.

The CTM-200 supports the busybox ash shell. This shell is a lightweight version of the Bourne shell (bash).

All shell script files must have the shell header of:

```
#!/bin/sh
.....
.....
.....
```

If a script is written on a Windows desktop, the file must be converted to respect the Unix line endings format using the "dos2unix" utility before uploading to an http or ftp server. Also, **cmd confupgrade** requires the script to have a corresponding MD5 checksum file, created using an MD5 checksum utility, to be stored in the same directory as the script.

Example

For Windows, a free **dos2unix** command-line utility is available online from <http://sourceforge.net/projects/dos2unix/> and a free MD5 checksum utility, **WinMD5Free**, is available online from <http://www.winmd5.com>.

1. In Windows Notepad or another Windows text editor enter the following CTM-200 command (ensure there is a carriage return after the last line):

```
#!/bin/sh
cmd gpsremip 1 1.2.3.4
```

In Notepad, select the Save As Type of **All Files (*.*)** and save the file with the filename **test.sh**.

2. Using the free **dos2unix** command-line utility, convert the script to use Unix line endings:

dos2unix test.sh

dos2unix: converting file test.sh to Unix format ...

3. Using the WinMD5Free utility, generate the MD5 checksum for **test.sh**. Copy the value under **Current file MD5 checksum value**.

Using Notepad, paste this value into a new file called **test.sh.md5**, add two spaces, and then add the script's filename (ensure there is a carriage return after the last line):

```
d48c719773349d94509cddfdeed05334  test.sh
```

4. Using the free **dos2unix** command-line utility, convert the checksum file to use Unix line endings:

dos2unix test.sh.md5

dos2unix: converting file test.sh.md5 to Unix format ...

5. Copy **test.sh** and **test.sh.md5** to your HTTP or FTP server using an FTP client.

6. When the script is stored on an HTTP server, execute the following command on the CTM device

```
cmd confupgrade test.sh http://1.2.3.4/testfolder
```

Replace **http://1.2.3.4/testfolder** with the actual IP and folder of your HTTP server hosting the script and checksum files.

7. When the script is stored on an FTP server, use the command instead:

```
cmd confupgrade test.sh 1.2.3.4 guest guestpw,*XX[0x0D][0x0A]
```

Replace 1.2.3.4, guest, and guestpw with the actual IP, username, and password to access your FTP server.

8. Verify that the device's ID has changed per the commands in the **test.sh** script.

Technical Support

**Cypress Solutions Service
Support Group**

1.844.462.9773 or 778.372.4603
9.00am to 5.00pm PST
support@cypress.bc.ca