

MicroClimate™ Management System [MCMS] R2.1.2 to R4.0.0 Upgrade Guide

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WARNING !

Refer to *Install Guide* before Installation

Warranty Notice: Device Attenuation Required

Do not connect OLT directly to ONUs without proper attenuation. PON transceivers will be **permanently damaged** unless connected with minimum 16dB attenuation (20dB recommended)
Damage from optical overload will void warranty.

Combination of attenuator and splitters can provide required attenuation -- see example:

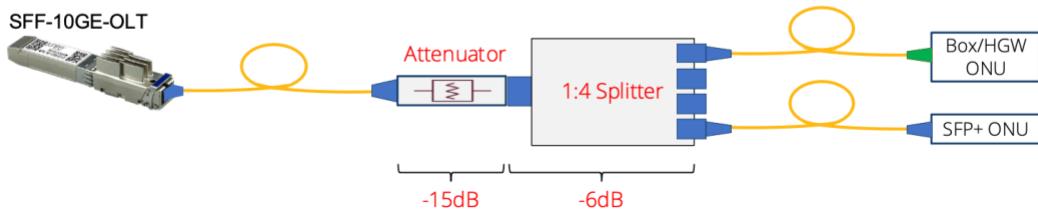


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Preparation for R4.0.0 System Upgrade

This procedure is specifically targeted to upgrade Release R2.1.2 to R4.0.0 OFF-BOX implementations. This following procedure walks the user through the process of upgrading individual MCMS R2.1.2 Software modules directly to R4.0.0. Each module has a README.txt or INSTALL.txt with additional information concerning the Installation process.

This procedure was tested with the following installed software

- Ubuntu 18.04
- Mongo R4.0.25
- PON Controller R2.0.4
- PON Manager R2.1.2
- Netconf R2.1.0

Follow the steps below prior to starting your upgrade:

- Login to your system with SSH with your Credentials
- cd into Software Installation Directory (ex: tibit-pon)
- SFTP the Installation Package to Software Installation Directory
- sudo unzip MCMS-R4.0.0-Tibit-UB1804.zip
- cd MCMS-R4.0.0-Tibit-UB1804/
- Copy current system configuration files from R2.1.2 installation
 - sudo mkdir R2.1.2-ConfigFiles
 - cd ./R2.1.2-ConfigFiles/
 - sudo cp /etc/tibit/poncntl/PonCntrInit.json .
 - sudo cp /etc/tibit/ponmgr/* .
 - sudo cp /etc/tibit/netconf/* .

Note: The configuration files in R4.0.0 have evolved with more options. Verify the configuration parameters are correct. The saved Config Files that we save at the start can be used to verify the new configuration files.

Install R4.0.0 PON Controller

The following steps will Uninstall the current R2.0.4 PON Controller and Install the new R4.0.0 PON Controller.

- Install R4.0 PON Controller
 - sudo apt-get install ./tibit-poncntl_R4.0.0_amd64.deb
 - Stop PON Controller (sudo systemctl stop tibit-poncntl)
 - Verify config parameters from saved PonCtlInit.json file
 - Edit new PonCtlInit.json file
 - Sudo nano /etc/tibit/poncntl/PonCtlInit.json
 - Enable DHCP4, DHCP6, or PPPoE if required
 - Verify interface parameter using value from previous saved file
 - Restart PON Controller (sudo systemctl restart tibit-poncntl)
 - check status of PON Controller (sudo systemctl status tibit-poncntl)

Install R4.0.0 PON Manager

The following steps will Uninstall the current R2.1.2 PON Manager and Install the new R4.0.0 PON Manager.

- Install R4.0.0 PON Manager
 - sudo apt-get install ./tibit-ponmgr_R4.0.0_all.deb
 - or optionally 'sudo TIBIT_PONMGR_CERT_REQ=/path/to/cert.conf apt-get install ./tibit-ponmgr_R4.0.0_all.deb' # Creates custom certificate using the config file that was given (please see README.txt file in PON Manager installation directory for additional information about the custom certificate)
- Pre-Release R3.1.0 steps
 - NOTE - Upgrading from R3.0.X and earlier: (please see README.txt file in PON Manager installation directory)
 - run two scripts, 'merge_collections.py' and 'drop_collections.py', that will allow them to see data collected prior to the upgrade for both system logs and statistics.
 - cd into the "MCMS-R4.0.0-Tibit-UB1804/R4.0.0-PonManager-UB1804/tools/R3.1.0_upgrade_syslog_stats_db" Directory.
 - Run "./merge_collections.py --db
mongodb://172.16.0.29:27017/tibit_pon_controller" **EXAMPLE**
 - Run "./drop_collections.py --db
mongodb://172.16.0.29:27017/tibit_pon_controller" **EXAMPLE**
 - If you get an error running these scripts "ModuleNotFoundError: No module named 'pymongo'
 - Run the command: "pip install pymongo"
- Post PON Manager Install configuration steps:
 - Navigate to /etc/tibit/ponmgr/ directory.
 - Modify the "user_database.json" file and
 - The "databases.json" file
 - (please see README.txt file in PON Manager installation directory)
- Restart Apache2.service.
 - "systemctl restart apache2.service"
 - Check status. "systemctl status apache2.service"
- In a browser navigate to "https://<your server IP>
 - Login with your previous userid / password
- Optional step
 - Go to Global Config / Databases / Update
 - Controller will probably take multiple updates.

Install R4.0.0 Netconf Server

Please check the Netconf README.txt file. Security updates have been enacted the Netconf Server. New NACM rules are in place.

- Mongo Pre-req.
 - Verify that MONGO has ReplicaSet enabled
 - When you enter “mongo” at the command line you should see “rs0:PRIMARY>”
- Install new Netconf Server
 - “sudo apt-get install ./tibit-netconf_R4.0.0_amd64.deb”
 - Verify config in “/etc/tibit/Netconf/NetConflnt.json” file
- Restart Netconf Server
 - Run command “sudo systemctl restart tibit-netconf”
 - Check Status “sudo systemctl status tibit-netconf”
 - Notes: NACM based security has been enacted on version R3.1.0 and above.
 - An Ubuntu user is not enabled to access Netconf. A new Netconf user must be created, or an existing user must be added to the netconf-users group.
 - Please see the Netconf users guide for guidance on adding Netconf Users.