



Z H O N E™

EtherXtend 1.13.2.204 Release Notes

This document describes the EtherXtend 1.13.2.204 release and includes the following sections:

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The Zhone EtherXtend 4-port and 8-port devices are products in a family of next-generation Ethernet-enabled CPE devices. Each EtherXtend model performs the function of a network extender, an emerging class of products that lengthens the reach of packets passing from the source or destination to or from a service provider, a distance known as *Ethernet in the First Mile* (EFM).

This release uses firmware version is 1.13.2.204.

This release uses ROM version is 1.13.2.203.

When upgrading the EtherXtend to firmware version 1.13.2.204 for this release, a ROM upgrade to 1.13.2.203 is also required. The ROM upgrade should be performed after the firmware upgrade.



Note: For complete information about EtherXtend operations, see the *EtherXtend Users Guide*.

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FEATURES

New features in 1.13.2.204

SNR behavior

Zhone's EtherXtend product line focuses on providing high-availability links for business data needs using Ethernet over Copper technology. By bonding two or more copper pairs, the EtherXtend provides several megabits of throughput for a fraction of the cost of a T1 or E1. Bonding several pairs which reside in a single binder can create cross-talk and noise that can adversely affect adjacent pairs. To ensure that existing lines are not affected as service lines are added to a copper bundle, EtherXtend anticipates the maximum number of disturbers and sets the Target SNR accordingly. As more SHDSL pairs are added to an EtherXtend unit or as more services are added to the bundle, the existing lines have already taken these added disturbers into account and will not need to retrain or adjust rates. A service provider using the EtherXtend can be confident that the train rates observed on the initial day of deployment will remain true as more services are brought up over time.

Configuring the EtherXtend for the maximum number of disturbers can result in a perceived low train rate in an empty bundle. EtherXtend sets a Target SNR in expectation of 49 *users*, the maximum number of disturbers in a 50 pair bundle. A lower SNR can result in a higher train rate, but is susceptible to bit errors and retrains in the presence of noise from other services.

Upgrading the system software

This section explains how to upgrade the EtherXtend software.



Note: Zhone recommends that you back-up your configuration to a file with the **dump** command before upgrading software.

Upgrading the system software

To check the bootrom version of a system running 1.13.2.110 or later:

```
zSH> slots 1
Type                : G.SHDSL ETHERXTEND
Card Version        : 18710106
EEPROM Version      : 2
Serial #            : 4151731
CLEI Code           : No CLEI
Card-Profile ID     : 1/1/7101
```

```

Shelf          : 1
Slot           : 1
ROM Version    : ETHX CAN 1.13.2.103
Software Version: ETHX CAN 1.13.2.110
State          : RUNNING
Mode           : NONE
Heartbeat check : enabled
Longest hbeat  : 0
Fault reset    : enabled
Uptime         : 1 hour, 14 minutes
zSH>

```

To upgrade the system software:

- 1 Verify you are at the root of the flash card:

```

zSH> cd /card1
zSH> pwd
/card1/

```

- 2 If desired, save the configuration file to a host on the network.

To save the configuration file, backup the configuration file using the `dump` command. The `dump` command uses the following syntax:
dump [console] [file filename] [network host filename]

To save the configuration file locally:

```
zSH> dump file ethxshdsl.cfg.date
```

To save the configuration file on a remote host:

```
zSH> dump network 192.168.8.21 ethxshdsl.cfg
```

- 3 If desired, save the existing software images on the flash card by copying them to a different file name. For example:

```
zSH> copy ethxshdsl.bin ethxshdsl.bin.<ver>
```

Copy the rest of the software images in the same way.

- 4 Download the latest system image software for the device to the system flash using the `image` command. The command uses the following syntax:

```

image download TFTPserverAddress sourcefilename
[destinationfilename]

```



Note: If you do not specify a *destinationfilename*, it will be the same as the *sourcefilename*.

For example:

```
zSH> image download TFTPserverAddress ethxshdsl.bin
```



Note: If a download error occurs check for and delete unnecessary files to regain flash space.

- 5 Use the **systemreboot** command to reboot the system with the new configuration.
The system reboots again with the new configuration. This may take up to 5 minutes to complete.

Performing local ROM upgrades

This procedure describes how to perform a local upgrade of EtherXtend ROM using the console connection.

- 1 Connect to the console port of the EtherXtend and log in to the device.
- 2 Use the **slots 1** command to verify the EtherXtend software and ROM versions to be upgraded
- 3 Configure an IP address on the EtherXtend and establish connectivity to the TFTP Server.
- 4 Download the ROM image from the TFTP server.

```
zSH> image download IPofTftpServer ethxshdslrom.bin
ethxshdslrom.bin
```

- 5 Use the **systemreboot** to reboot the EtherXtend
- 6 During the reboot type *zhone* when the message *Preparing to load full image...* appears. The message *Boot process interrupted* will appear.
- 7 Update the ROM using the **rom update ethxshdslrom.bin** command.

```
zSH> rom update ethxshdslrom.bin
WARNING: This operation will erase the boot flash
and overwrite it with the specified image.
Continue? (yes or no) [no] yes
Erasing boot flash... passed
Programming boot flash... passed
Verifying boot flash... passed
Resetting card...
Boot EthXtend Unit
Starting ethXShdslROM.
```

- 8 Wait 5 minutes for the EtherXtend to reboot.
- 9 Login to the EtherXtend.
- 10 Use the **slots 1** command to verify that the ROM Version has been updated.

Downgrading a system

For unplanned downgrades, contact Zhone GSS before performing the downgrade procedures.

- 1 Verify that you are at the root of the flash card:

```
zSH> cd /card1
zSH> pwd
/card1
```

- 2 Rename the saved configuration file from the previous release:

```
zSH> cd onreboot
zSH> copy restore.done restore
```

The restore file can be validated using the **restore validate <filename>** command.

- 3 Download the old system image software using the **image** command. The command uses the following syntax:

```
image download TFTPserverAddress sourcefilename
[ destinationfilename ]
```



Note: If you do not specify a *destinationfilename*, it will be the same as the *sourcefilename*.

For example:

```
zSH> image download TFTPserverAddress ethxshdsl.bin
```



Note: If a download error occurs check for and delete unnecessary files to regain flash space.

- 4 Use the **set2default** command to erase the system configuration:

```
zSH>set2default
Ok to reset to default (system will reboot) ? [yes] or
[no]: yes
```

During the reboot, the system will look for the file named **restore** in the **onreboot** directory, then use that file to recreate the configuration files in the **datastor** directory. After the restore is finished, it renames the **restore** file to **restore.done**. A system warning will appear if a restore file is not found.

Backing up and restoring the configuration

This section explains how to backup and restore a EtherXtend system configuration.

You can back up your configuration using the **dump** command. You can either save the configuration to the console, a local file, or the network.

The **dump** command uses the following syntax:

```
dump [ console ] [ file filename ] [ network host filename ]
```

To back up and restore the configuration to the network:

1 Create the file in the destination location of the TFTP server and make it writable.

2 Save the configuration. The following example saves the configuration to a file named *ethxshdsl.cfg* on the host 192.168.8.21:

```
zSH> dump network 192.168.8.21 ethxshdsl.cfg
```

3 On the flash card, create a directory named **onreboot**:

```
zSH> cd /card1
zSH> mkdir onreboot
```

4 Copy the previously saved dump file to the **onreboot** directory and rename it **restore**:

```
zSH>file download 192.168.2.89 dumpfilename onreboot/
restore
```

where **192.168.2.89** is the hostname the restore file was saved to and **dumpfilename** is the name of the restore file.

The restore file can be validated using the **restore validate <filename>** command.

5 Use the **set2default** command to erase the system configuration:

```
zSH>set2default
Ok to reset to default (system will reboot) ? [yes] or
[no]: yes
```

During the reboot, the system will look for the file named **restore** in the **onreboot** directory, then use that file to recreate the configuration files in the **datastor** directory. After the restore is finished, it renames the **restore** file to **restore.done**. A system warning will appear if a restore file is not found.

Contacting Global Service and Support

Contact Global Service and Support (GSS) if you have any questions about this or other Zhone products. Before contacting GSS, make sure you have the following information:

- Zhone product you are using
- System configuration
- Software version running on the system
- Description of the issue

Technical support

If you require assistance with the installation or operation of your product, or if you want to return a product for repair under warranty, contact GSS. The contact information is as follows:

E-mail	support@zhone.com
Telephone (North America)	877-ZHONE20
Telephone (International)	510-777-7133
Internet	www.zhone.com/support

If you purchased the product from an authorized dealer, distributor, Value Added Reseller (VAR), or third party, contact that supplier for technical assistance and warranty support.

Service requirements

If the product malfunctions, all repairs must be performed by the manufacturer or a Zhone-authorized agent. It is the responsibility of users requiring service to report the need for service to GSS.

