Zephyr Xstream

For version 3.7.12i   *(January 24, 2012)*

The following information applies to Zephyr Xstream units currently running a version ending in 'p' or 'i.' If your Xstream is running software ending in a 'r' or an 'b,' (Livewire-capable) please download the appropriate software and instructions from the Zephyr support website.

The Zephyr Xstream's software is stored on a reprogrammable memory. The Xstream can use FTP (File Transfer Protocol) over any IP network to download new firmware from an FTP server into the memory module. We advise you to contact Telos Customer Support (have your current software version and serial numbers handy) to discuss whether the latest version would better meet your needs.

Installing the Telos Updater ftp server

Note, if your firewall allows access to ftp://ftp.zephyr.com, skip to the next section.

First, you must have a copy of the new software update package. If this was emailed to you by customer support, save the file to your hard drive. If you did not receive the file from email, you can download it from the Telos website, http://telos-systems.com.

The updater has no installer; it is simply an executable that can be run from anywhere. It is an FTP server and needs to listen to the standard port 21, which means that no other FTP servers should be running on the computer. When you are ready to update, start the update server.

You will need to know the IP address of the machine that is running the server. You can find out your IP address by going to the command prompt and typing "ipconfig," or by looking at the windows TCP/IP settings. You may need to consult with your network administrator to find the proper settings.

Configuring the Xstream

If you have never connected to your Xstream the ethernet, you may need to connect some cables and perform the following configuration steps:

1. Connect the computer to be used for the update and the Zephyr Xstream to the same Ethernet network. Typically, this will be done through either a hub or a switch. Note that a direct connection between a computer and your Xstream can be made if an appropriate "crossover" cable is used. Please see *Appendix 5* of your Xstream User's Manual for more details.
2. Configure the Xstream to be able to communicate on your network. Press the System button three times. You will see a screen that looks similar to the this:

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3. Enter the following information in this menu (you may need to contact your network administrator for the details):

   1) IP Address

      The IP (Internet Protocol) address for this Xstream. As with any computer on the network, the Xstream must have a unique IP address before you can communicate with it.

   2) SN Mask

      The subnet mask describes which addresses are local to your network, and which must be accessed through a router. All packets outside this local area are sent to the gateway node entered in the next menu item. Normally, you should enter 255.255.255.0 here, though some larger networks will use 255.255.0.0.

   3) Gateway

      This is required if you are updating from Telos' FTP server, or if your computer and the Xstream are not on the same subnet.

   4) DNS

      This is required if you are updating from Telos' FTP server.

4. Press the System button again, and the following screen will be displayed:
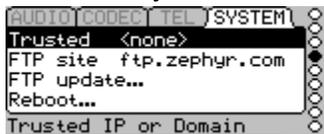
   Enter the *FTP site* to be used. This will either be the IP address of the computer running the update server, or ftp.zephyr.com.

5. Choose *FTP update…* and press <SEL>. Confirm that you want to update the software, and press <SEL> again. The Zephyr will reboot once the update is complete. It may also give a message about non-volatile RAM values. This message is normal.

If you updated locally, you can see the progress of the software update by watching the update server's window. If all went properly, the last line you should see will be

```
RETR /pub/ZXstream/Update/Image was successful
```

6. If you are updating from a version earlier than 1.5.x to a version 2.5.x or later, the Xstream will display a message asking you to update again to complete the update process. Please do so; additional files will be downloaded.

7. After the Zephyr reboots, press <SYSTEM> once and verify that the new software version is shown. The update process is now complete.

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Telos Zephyr Xstream Software Release Notes

For 10Base-T hardware

3.7.12i   (January, 2012)

- Include new Layer 3 Dual/Mono decoder to prevent lockups or channel swapping on received bit errors

3.7.11p   (December, 2011)

- Fix for crash when Auto decode mode is used with v.35 split and no ISDN card is present

3.7.10p   (November, 2011)

- Fix for v.35 instability over long-term connections

3.7.9p   (February, 2009)

- Fix crash associated with activating dial setup with ISDN rollover enabled
- Fix lockup associated with dropping an ISDN line when no connection is active

3.7.3p   (November, 2007)

- Transparent rs232 works with binary data
- Transparent rs232 supports sustained data at 9600 bps
- Panic dials always dial, even if a call must be disconnected first
- RTP streaming enhancements:
  - Streams automatically reconnect on boot if last disconnect was not clean
  - Streams automatically reconnect after network failure
- Redial of last ISDN call in case of power failure is more reliable
- Rollover of ISDN on v.35 failure is more reliable
- Fixed web interface in v.35 split mode
- Updated INS-64 redial rules to match current standards

3.2.1p   (June, 2007)

- Updated files to work with new revision of audio boards

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- New streaming engine uses RTP/UDP (TCP streams not recommended)
    - AAC now supports error concealment
    - Improved clock mastership algorithm and clock tracking
    - Added frame reordering and substitution for lost frames
    - SIP offers one touch bi-directional calls. Requires two network ports
    - RTP offers audio push streams (can receive also if far end also pushes)
- Added the following options to the *Interface* menu selection
    - Ethernet SIP (establishes bi-directional stream)
    - Ethernet RTP (permits mono-directional RTP/UDP streams to be sent)
- Added menu items in the *TEL* menu for support of the above:
    - SIP Port (default = 5060)
    - UDP Port (default = 9150)
    - HTTP Port (default = 8080)
- Added menu items to the *CODEC* menu in Ethernet mode for support of the above:
    - Mode
    - Buffering
    - WAN IP (IP address of router, required only when using SIP from behind a firewall)
    - Hostname (used as a caller ID on SIP calls)
- New HTTP engine/pages:
    - Minor tweaks and fixes
    - v.35 menu
- Enabled IP multicast
- Web pages now display hostname to make control of multiple units easier (*Note*: Hostname can be set in the *CODEC* menu when *TEL*/Interface is set to "Ethernet SIP")
- Fixed reboot problem when making/receiving an Xstream call after an Xport call
- Fixed problem with changing between Ehternet and ISDN interfaces
- Added *PP Out* option "Mixer On" (active when an MX unit has any input assigned)
- Better recover from marginal/intermittent AES Input or Sync Input connections
- Fixed AUTO receive mode problems with g.722 and AAC-LD
- Fixed lack of audio in ISDN calls in progress (present since 2.7.1p)
- Improvements to ISDN modem code
- Fixed spontaneous "SPID pending" problem in certain 2.9.x and previous 3.0.x betas
- Fixed *About* submenu

2.7.1p   (October, 2003)

- Support for Xport at lower bitrates
- Improved fidelity on return feed to Xport
- Added 96kbps for AAC over v.35/x.21
- Added lock function for MX/MXP (locks A/B and Send/Receive settings)
- Added auto-redial after power cycle

- New call mode Xport for aacPlus modem communication with Zephyr Xport
- AAC decoder enhanced to include error concealment.
- AAC decoder more robust when bit errors are present
- Improved g.722 decoder to be more robust in the presence of clipped audio from far end
- Fixed several problems with HTML interface, including line 2 dialing problem
- Added compatibility mode option to the codec menu. Set to *Slimline* to operate with Dialog-4 Slimline codecs.
- *CODEC* status menu changed to include ISDN modem information and compatibility setting
- *V.35 Single* mode now supports 96kbps in AAC modes
- DDS clock now used for Ethernet audio clock

2.1.1p   (February, 2002)

- Improved compatibility with Dialog-4 codecs

2.1.0p   (December, 2001)

- Added HTTP interface support
- Default system password changed from <> to <Telos> (case sensitive, ignore <>)
- Changed dial screen to reflect last number dialed if line 2 dialed first
- Fixed problem with g.722 decoder adding gain to received audio
- Improved the ability to boot and display errors in the case of hardware POST failure
- Removed delay in g.722 encoder present if unit rebooted while in g.722 transmit mode
- Fixed problem where large numbers of AUTO setups could prevent proper initialization
- Improved ISDN compatibility with certain ETS 300 lines and DMS-100 custom (signal IE no longer sent in DMS Cust.)
- Added V.35 single mode to the *Interface* selection of the *TEL* menu (for single v.35 port at 112, 128, 256, 384 kbps).
- Renamed "V.35" to "V.35 split"
- Added streaming encoder support for AAC. Added streaming decoder for Layer 3 and AAC.
- Fixed instability in AAC at 32 kHz
- Fixed instability in AAC-LD at 48 kHz
- Update process improved with checksum for loadset
- Fixed contact closure incompatibility with Zephyr Classic revision 2.66 and earlier
- Non-Mixer only: fixed Gain Trim in Audio menu to be 1 dB steps +/- 12 dB
- Non-Mixer only: fixed problem where A and B inputs would be summed
- MX/MXP only: Improved audio fidelity at 48kHz sample rate
- MX/MXP only: Fixed mixer inputs versus pot assignment issue and monitor 1 vs. 2 issue

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1.5.5p   (August, 2001)

- Memory management changed to reduce occasional problems encountered during software update

1.5.2p   (August, 2001)

- Multi-print deadlock conflict solved. Prevents occasional non-volatile memory corruption
- L3 Dual decoder added. Now supports fully independent Layer 3 mono 64 operation on B1 and B2
- AAC-LD changed. New version requires 1.5.1p or later for compatibility
- Contact closure support (ancillary data and local control) added. Menus for inputs and outputs added
- Ancillary data support added. Contact closures and serial data transmission available in all L3 modes, all AAC modes, all AAC-LD modes. Also available in L2 Mono 64 and L2 Half 24
- Panic dial added
- Dial prefix fixed
- Changed connect sound
- Enhanced software debounce of front panel buttons
- SYSTEM status screen added
- Added Timeout option to the *SYSTEM* menu to determine if default screen is automatically displayed
- Default status screen added
- Improved screen rewrites
- Changed some default values to be more sensible
- Added L3 Mono 128 mode
- Minor ISDN changes: B channel 2 no longer incorrectly reports busy
- Auto receive mode only active when IDN B channel(s) or v.35/x.21 are active
- Improved L2 Mono 128 compatibility
- Fixed AES output sync when AES IN option was selected
- Layer 3 (MP3) streaming to Real Audio and Telos Audioactive players
- MX/MXP: Added support for Consumer/Professional line output level selection
- MX/MXP: Fixed output assignment issue
- Non-mixer version: Send Mix option added to first *AUDIO* menu. Allows the sum of A+B to be sent (primarily useful when mono modes are used)

1.2.20p   (April, 2001)

- Initial Release

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