TeleComp
Research & Development Corp

T-40 SERIES
FORTY PORT AM5 SERIES

RELEASE NOTES

RELEASE 25.1

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1   I N T R O D U C T I O N

These release notes are for the forty port **T-40** **AM5** series. Those are identified with serial numbers from 4000 through 4999, 6000 through 6999, and 8000 through 10999 as of the time of this document.

These release notes highlight the product features, modifications, known caveats and any special considerations for the standard personality module for the **T-40** **AM5** series platforms.

2   P R O D U C T   F E A T U R E S

The **T-40** is a Multiple Protocol Inter-Networking device with enhanced vertical services. It has 40 ports which may be enabled for synchronous operation. Baud rates are up to 115.2 kbps. Popular protocols such as asynchronous, various Bi-Synchronous variants, HDLC, SDLC, X.25, LAPB, XOT, BiSync, and E2A are all supported interchangeably on a per port basis. In addition, vertical services for X.25 typically found on Embedded Network Processors have been incorporated. The vertical services allow the **T-40** to directly mediate X.25 to individual circuits over TCP/IP connections. Specialized protocols such as **SLM** or the MLT variants are directly supported. Telemetry protocols are supported.

The **T-40** supports multiple connections to asynchronous ports using the MultiMate asynchronous protocol definition (**MMA**). When **MMA** is used, the users are mediated to a common serial port. This is typically used for console sharing.

The **T-40** supports multiple connections to Virtual Circuits, OS interfaces, and other endpoints with the MultiMate Streams feature. Individual endpoints can be shared using a MultiMate Stream. This feature is used for OS sharing of a common resource.

The **T-40** supports **Telnet**, **RAW** (TCP/IP socket without additional protocols), and **SSH** transport protocols to the user endpoints.

The **T-40** allows administration by multiple parties simultaneously with different permission levels. This allows a single device to be shared by multiple discrete organizations. **SSH** and **Telnet** are supported consoles Closed user groups are supported. Consoles may be authenticated with TACACS+, RADIUS, Closed User Groups, or all of them simultaneously.

Consult the **T-40** User's manual, application notes, and manual pages for a complete enumeration of the features.

3 R ELEASE E RRATA

The errata in these release notes are for Release **25.1** only. For errata on prior releases, please consult the previous release notes.

- Starting in 2025, the release numbering scheme will be the year, followed by a sequential enumeration. This is done due to the substantial number of security threats that need to be identified and enumerated.

- The 25.1 release includes security issues known through December 2024. They are relevant in that at least three states had successful assaults in November and December.

- The SSH implementation has been updated with revised keys per the recommendation of the IETF.

- There are no user features in release 25.1 above and beyond the prior release of 8.4.

- This release requires T-40 Host Utilities Revision 3.1 or later for administration. The current release of the T-40 Host Utilities is 3.4. It is suggested, but not required, to use the most recent release of the T-40 Host Utilities.

4 INSTALLATION

4.1 OBTAINING INFORMATION FROM TELECOMP R&D

Upgrade files for all the TeleComp R&D products are obtained by contacting the author.

The **ssh_upgrade** and **tel_upgrade** utility will verify the integrity of the files automatically. It is no longer necessary to manually check the sums.

The files will be emailed **gziped**. The procedure is to merely **gunzip** the files and then use the **ssh_upgrade** or **tel_upgrade** utilities to apply the file to the device.

Upgrade files are specific for a **T-40** series device and hardware errata.

For example:

> **gunzip T-40_AM5_Release_25_1.official.gz**
>
> **ssh_upgrade –v –s 192.168.0.80 T-40_AM5_Release_25.1.official**

Repeat the **ssh_upgrade**, or **tel_upgrade**, command for each device to be upgraded. They may be spawned in parallel as they use very few resources on the server.

This release requires the use of the T-40 Host utilities revision 3.1 or later.

4.2 DATABASE CONVERSIONS

When moving from one release or version to the next, the database is usually automatically converted.

4.3 SOFTWARE REGISTRATION

The **T40** series device pre-registered when received. No further action is required. Registration for any subsequent update is automatically performed as part of the upgrade procedure. Devices that are not registered will not update.

4.4 UTILITIES

- The **T-40** series utilities are available for Telnet and SSH operation. This release requires the use of the T-40 host utilities. The current release of the T-40 Host Utilities is **3.4**. It is suggested, but not required, to use the most recent release of the T-40 Host Utilities.

All of the utilities are available by contacting angel@trdcusa.com.

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