T-40 SERIES UTILITIES

RELEASE NOTES

RELEASE 26.1

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1 INTRODUCTION

These release notes highlight the product features, modifications, known caveats and any special considerations for the host based utilities for the **T-40** series platforms.

Please note that all prior versions of the **T-40** series utilities are now deprecated and no longer supported.

The utilities are distributed in 32 bit images for X86 based linux systems. As such, they can operate on both 32 bit and 64 bit systems. Inquire with the author for any other host platform required.

Each utility has an associated MAN page describing it's operation and parameters.

2 SYNOPSIS

The **ssh_upgrade** utility is used to apply software errata to the **T-40** series platforms. The **ssh_upgrade** utility uses SSH to provide security, and validates the software prior to the download. With this release, it also matches the software image to the device so inadvertent mistakes are not possible.

The **tel_upgrade** utility is the same as the **ssh_upgrade** utility except that it uses Telnet as an API over TCP rather than SSH. The same command line options, features, and file checks are supported. The **tel_upgrade** utility is considerably faster as Telnet does not have the same overhead as SSH. However, the **ssh_upgrade** utlity is the preferred method where time to upgrade is not an issue.

The **ssh_backup** utility is used to retrieve a database from a **T-40** series device and store it as a file on the host. With this release, it creates self validating files to prevent inadvertent, or intentional, corruption on their storage medium.

The **tel_backup** utility is the same as the **ssh_backup** utility except that it uses Telnet as an API over TCP rather than SSH. The same command line options, features, and file checks are supported. The **tel_backup** utility is considerably faster as Telnet does not have the same overhead as SSH. However, the **ssh_backup** utility is the preferred method where time to retrieve the database is not an issue.

The **ssh_reload** utility is used to send a database stored on the host to a **T-40** series device. After the DB is sent, the device is restarted to make the database take effect. With this release, the self validating files are supported to prevent corruption on the storage medium. Existing files are continue to be supported. There is no need to create new backup files.

The **tel_reload** utility is the same as the **ssh_reload** utility except that it uses Telnet as an API over TCP rather than SSH. The same command line options, features, and file checks are supported. The **tel_reload** utility is considerably faster as Telnet does not have the same overhead as SSH. However, the **ssh_reload** utility is the preferred method where time to reload the database is not an issue.

The **ssh_talk** utility is a general purpose SSH client. It is a lightweight client using about 1/10 the resources of OpenSSH. It also does not need external libraries. Like all the other utilities, the **ssh_talk** has been updated in this release to the most current revisions of SSH. However, it remains backward compatible with all older versions of the **T-40**.

The **T40type.sh** is a shell for any Linux System. It uses the standard Linux snmpget app to retrieve information from the **T-40** using the **T-40** MIB. This shell will indicate the hardware errata of the **T-40**.

The **T40info.sh** is a shell for any Linux System. It uses the standard Linux snmpget app to retrieve information from the **T-40** using the **T-40** MIB. This shell will indicate the Backup Status, Device ID, Device Owner, Software Information, Number of Sync Ports, Number of Discrete Ports, and Number of Scan points.

The **T40devid.sh** is a shell for any Linux System. It uses the standard Linux snmpget app to retrieve information from the **T-40** using the **T-40** MIB. This shell will indicate the Device ID of the T-40. Please note that this is a proper subset of the **T40info.sh**.

The **T40release.sh** is a shell for any Linux System. It uses the standard Linux snmpget app to retrieve information from the **T-40** using the **T-40** MIB. This shell will indicate the Software Information of the T-40. Please note that this is a proper subset of the **T40info.sh**.

The **T40nsync.sh** is a is a shell for any Linux System. It uses the standard Linux snmpget app to retrieve information from the **T-40** using the **T-40** MIB. This shell will indicate the Software Information of the T-40. Please note that this is a proper subset of the **T40info.sh**.

The **T40dbstat.sh** is a is a shell for any Linux System. It uses the standard Linux snmpget app to retrieve information from the **T-40** using the **T-40** MIB. This shell will indicate whether or not a database backup is required. That is, if there has been any administrative changes since the last software backup. Please note that this is a proper subset of the **T40info.sh**.

The **T40portstatus.sh** is a is a shell for any Linux System. It uses the standard Linux snmpget app to retrieve information from the **T-40** using the **T-40** MIB. This shell will indicate the per port status for all the ports on the **T-40** device.

The **T40raw** is a utility to allow a client connection to a **T-40** endpoint that been defined with an API of "RAW". That is, a TCP socket without either Telnet or SSH API defined on it. Some operations systems require such an interface for proper operation. This utility allows a manual user to use the same connection and avoid the need for an alternate interface with either Telnet or SSH API defined.

3 RELEASE CHANGES

3.1 RELEASE 26.1

This release supports the **T-40**, Datatek devices, and Dakakit moduless going forward into 2026. It is backward compatible with prior revisions.

Required updates to the SSH protocol since the last major update in release 2.1 have been incorporated into the individual utilities.

3.2 RELEASE 3.4

This release supports the **T-40 MMX** devices using self validation files.

3.3 RELEASE 3.3

This release supports the **T-40 AI-SLM** devices using self validation files.

3.4 RELEASE 3.2

This release supports the **T-40 ETNC** devices using self validation files.

3.5 RELEASE 3.1

This is a security release and supports the necessary updates to the **T-40** series devices to preserve network integrity.

3.6 RELEASE 2.2

This release supports the **T-40 LTCN** devices using self validation files.

3.7 RELEASE 2.1

The major updates for this release is that the SSH implementation has been brought up to 2023 standards as recognized by the IETF. However, since the utilities need to operate with older equipment and servers; they are fully backward compatible when they connect to a device that has not been brought up to date.

The second major issue is that the host resident files themselves were subject to corruption. There was a manual procedure of checking the files for corruption via checksums prior to each use; but in reality the checks were never performed. The validation of the files is now performed by the utilities automatically at every invocation. This prevents the inadvertent "bricking" a device in the field with a corrupt file.

The utilities, where necessary, also now check to see if the files are compatible with the **T-40** device on which the operation are being performed. This was previously a manual operation which was in reality almost always skipped. It is now automatic and more reliable.

This release is considered a **critical** security update. All prior versions of the utilities are immediately deprecated and should no longer be used.

4 INSTALLATION

The distribution file consists of a zip that contains a BIN and a DOC directory.

After unzipping, change to the BIN directory and make all the file executable with the command "**chmod +x ***". Add the BIN directory to the PATH variable.

The individual utilities may be renamed if so desired.

All prior revisions of the **T-40** Series Utilities are deprecated with this release. Please remove them to avoid problems.

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