READ ME FIRST!!

UMI

UNIVERSAL MEDIATION INTERFACE MODULE

PRODUCT / RELEASE NOTES

RELEASE 28.1

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IMPORTANT !!

USER DOCUMENTATION IS AVAILABLE AT OUR WEB SITE.

Documentation:	http://www.trdcusa.com
Sales:	sales@trdcusa.com

The **UMI** is shipped from the factory with the inslot "magic" jumper disabled. This is the normal configuration for the UMI. Refer to the UMI User's Manual at http://www.trdcusa.com for instructions on changing this factory setting.

Special Installation and Upgrade Procedures

- **Database Conversion** – Release 24.2 and later will convert a UMI database that is on releases 11 through 24.1 inclusive. User's upgrading their UMIs from builds earlier than release 11 will need to use an intermediate release or a conversion failure will result. Conversion failures may require the UMI to be repaired for recovery. Please consult the notice on Module Series in this section.
- **IP Address** – Starting with release 23, the IP address specified on the Datakit node controller will not overwrite the IP address specified on the UMI.
- **Release Numbers** - Build numbers, beginning with release 24.1, consist of two parts: a release number and version level.
- **Activation Keys** – The UMI, when initially manufactured and delivered to the customer, *may* need a software key to fully activate the software[1]. If so, when initially delivered, the equipment can be installed, but the module cannot be restored to service after it is configured until the keys are entered. In addition, when the UMI is upgraded with a new software build, a software key is required to activate the new software. The software initially is placed into a staging area and is not active. However, prior to the information being obtained for mechanized key generation, the device must be rebooted to make the new software active. When the reboot is executed without the new key being installed, the new software will execute, and the device will continue functioning as it did previously. However, no backup , reloads, or upgrades can be performed nor can any OA&M be performed or parameters, such

[1] It is the intent of the manufacturer, and it's resellers, to have already installed the key(s) before receipt by the end-customer, so that the software is fully functional.

as an IP address, be changed until the key(s) have been installed for the active software. If the module is taken out of service, the module cannot be restored until the new key(s) are installed.

- **Mechanized Key Procedure** – A mechanized key procedure is required starting with release 24.1. The mechanized procedure simplified the key installation and allows many devices to be installed at the same time.
- **Serial Port Upgrade Anomaly** – There is an anomaly when performing the upgrade of a UMI that is using a DTK41 I/O board through it's console serial port. An upgrade via the normal TELNET console is not affected. Should the anomaly occur, the upgrade download will fail. In that event, the –slow option of the upgrade utility is required. The –slow option will require an extended period for downloading, but is a workaround to this anomaly.

1 INTRODUCTION

These release notes highlight the product features, modifications, known caveats and any special considerations for the Univeral Mediation Interface (**UMI**) product. For detailed information on this product, reference the **UMI** User's Manual.

2 PRODUCT FEATURES

The **UMI** is a BNS[2] module that allows the customer to employ more cost-effective interconnection facilities between the Datakit/BNS network endpoints, and Internet Protocol network endpoints

The basic features are:

- 504 virtual sessions per UMI.
- Seamless operation in either call setup direction (BNS to IP, IP to BNS)
- Closed User groups (CUGs)
- Hunt Groups
- DNS capability
- Data Filters
- Session Control
- Peer Level Encryption
- Operate with any release level of Datakit or BNS controller that can support a SAM.
- Virtual PAD operation used in conjunction with X25P and/or other modules.

Consult the **UMI** User's manual for a complete enumeration of the features..

[2] In this document, BNS means any of the members of the BNS family of products which includes the BNS-2000 nodes and the BNS-2000 VCS nodes (a.k.a. Datakit® VCS nodes).

3 RELEASE CHANGES

3.1 RELEASE 28.1 ERRATA

- The number of CUGs allowed on a per virtual port, or per endpoint basis is now 128. There are also 128 masked CUG values that may be administered. Each virtual port may have any, none, or all of the CUGs in any combination.
- Virtual ports defined as “VPAD” (Virtual PADs) may use an embedded snooper. The snooper is enabled as follows:

  snoop VP <virtual port #> [verbose]

  and is disabled with the command:

  snoop OFF

3.2 RELEASE 27.1 ERRATA

- The Virtual PAD adds a dynamic dialer allowing all routing information to be stored on the UMI. This is useful for disaster recovery purposes as this single database may be loaded onto a spare without affecting any other modules on the node.

  The Dynamic dialing is configured as follows:

  vpad <vport#> [paddial=<DEL | <DK/BNS Destination String>]

  In order to use the VPAD dynamic dialer, the configuration on the DKCC “sam port” that corresponds to the UMI VPORT of the VPAD must be: Async, Term, Not Autobaud, Not PDD, and the node does not echo the user input.

  An entire “sam board” on a DKCC (32 ports) may be configured with a single command sequence. All UMIs VPORTs used for this purpose have identical DKCC configuration.
- The forwarding option of “exclamation point (!)” is added as some DACS equipment requires same. The syntax is as follows:

  vpad <vport#> [cnt=<cnt>] padfwd=EXCL

  The exclamation forwarding condition may be combined with any other forwarding condition.
- Minor formatting corrections on the VFY MOD output to align SNMP variables.

3.3 RELEASE 26.1 ERRATA

- A Virtual PAD has been introduced as a major feature of the UMI. With the Virtual PAD, IP based operations systems can access network elements via a DK/BNS resident X25P module. The VPAD is similar to the PAD implementation on a DT-4180 and all of the popular forwarding options are supported.

  The VPORT is configured into pad mode with the command:

  vport <VP> cnt=<cnt> prot=vpad

  The VPAD configuration is done with the following command:

  vpad <vport#> [cnt=<#>] [padecho=<ON | OFF>]
  [paderase=< NONE | BS | <HEX BYTE>]
  [padidle=<#X.3 Ticks>]
  [padparity=<TRANS | EVEN | ODD>]
  [padcrlf=<NONE | RMT | VC | BOTH>]
  [padfwd=<NONE | CR | CRDROP |
  SEMI | ALL | GRPx >]
  [padcmap=<ON | OFF>]
  [padapi=<TELNET | RAW>]

  Consult the UMI user manual for additional details.

3.4 RELEASE 25.2 ERRATA

- Revised cryptographic libraries for TACACS+ and other features.

3.5 RELEASE 25.1 ERRATA

- Support for TACACS+ RADIUS servers is added. Two servers are supported, a primary and a secondary. Non-standard TCP ports are fully supported. Each server may be individually enabled. The syntax is as follows:

  Syntax: tac < PRI | SEC > [ipaddr=<IP Address>]
  [port=<TCP Port>]
  [key="Encryption Key" | NONE]
  [ENABLE]
  [DISABLE]

- A BANNER page has been updated with up to 24 lines of 80 characters each. The syntax is changed as follows:

  Syntax: banner [clear] [L#="Line # Message"]

- A correction is implemented to the TCP that prevents the potential for some additional packets, and a possible deadlock, at connection teardown.
- The SNMP agent has been updated to include protections from malicious attack. It should also be noted that access to the the SNMP agent can be restricted by closed user groups.
- The DBRESET command has been changed to prompt for the password rather than accepting it on the command line. This makes the command consistent with the other products in the product line; and enhances the security of the command.

3.6 RELEASE 24.2 ERRATA

- The serial number initialization for hardware series 6 (AM6) and earlier modules was not consistent in release 24.1. This has been corrected.
- Support has been added for interproduct database conversions.
- The Console Timeout command has changed the semantics of the command from seconds to minutes. This allows a console inactivity timeout from one to 255 minutes, or roughly four hours. Previously, this was 15 to 255 seconds. The syntax of the command has not been changed. See the **UMI** user's manual for more information.
-

3.7 RELEASE 24.1 ERRATA

- This release of the UMI, when configured on the module and administered on the DKCC node as a SAM504, has a total of 176 distinct VPORT ranges. Each range may have one, several, or all 504 VPORTs specified. It is possible to administer the UMI with a single range of VPORTs. Each range is displayed seperately on the VFY VPORT output. When administered as a "UMI" on the DKCC, the VPORT information is maintained on the DKCC and this item is not applicable. The previous DB (Releases 18-23) had 184 ranges, and the oldest convertable DB (Releases 11-17) had 192 ranges. Only the first 176 VPORT ranges will be converted in the automatic DB conversions. If more are needed, the DKCC patch to administer the module as a UMI is recommended.
- A revised DB conversion is performed from the Release 23 DB to the 2006 format starting witn release 24.1 This revised DB was used in Releases 19-23 although there were dynamic modifications in build 21 making any backward conversions irreversable.
- A revised DB conversion is perfromed from the Release 18 DB to the 2006 format starting in release 24.1 This DB is used in Releases 11-18.
- The UMI requires a key to activate its software. In order to obtain a key, the module must be registered. For registration of the software, support has been added in this release for a mechanized key generation. This procedure will alleviate administrators of the tedious process of getting key generation information for each device by running a command on that device after logging into it, and then having to go back later and enter the new key manually.

  This procedure requires a site to have a support host connected to the network that can connect to the individual devices over IP. The support host must use the Solaris®, HPUX® or the Linux operating system.
- Due to hardware changes in the AM7 series of modules, the memory test was executed on each reboot. The original intent was to execute the memory test only on a power-up. The AM1 through AM6 modules work that way. This release changes the hardware management such that the AM7 series behaves in the same manner as the other series. A memory test will occur only when the module is initially power cycled.

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- The Inventory Tag, normally only available on the printed label on the bottom of the unit, is now populated into the VFY MOD during registration.
- Six new parameters have been added to the **SNMP** command: **COMM**, **PUBLIC**, **SYSCONTACT**, **SYSNAME**, **SYSLOC**, and **CUG**. The syntax of the command is now:

```
Syntax: snmp [ COMM=”Double Quoted String” | NONE ]
             [ PUBLIC=< YES | NO > ]
                [ SYSCONTACT=”Double Quoted String” | NONE ]
                [ SYSNAME=”Double Quoted String” | NONE ]
                [ SYSLOC=”Double Quoted String” | NONE ]
                [ CUG=<<+|->CUG Number> ]
                [ ipaddr=<trap manager address> ]
                [ port=< trap manager port> ]
```

  The UMI allows the setting of an SNMP community in addition to the “public” community. When configured, the UMI will respond to SNMP manager requests in that community. The UMI will always respond to a request in the “public” community. The settable SNMP community is configured with the **[COMM=”Double Quoted String” | NONE]** option. The community string may be in any case and up to 31 characters long, not including the double quotes that are used to enclose it. Setting **COMM=NONE** will clear the community.

  The **PUBLIC** option allows the setting of whether or not the SNMP agent "public" community is recognized. The default is that the "public" community is recognized (YES). When the value is set to **NO**, the "public" community is not recognized. *After setting the option to **YES** or **NO**, the unit must be rebooted in order to have the value take effect.*

  The MIB-II variables **sysName**, **sysContact**, and **sysLocation** may be initialized for the UMI non-volatile database using the **SNMP** command with the following parameters: **SYSCONTACT**, **SYSNAME**, and **SYSLOC**. The initial default values are strings that state that the initial values are not set. These variables are still volatile in that they may be over-written by an SNMP manager. However, any change made by the SNMP manager will not impact the UMI non-volatile database. Setting the value to **NONE** will clear the entries in the UMI non-volatile database. Each field may be in any case and up to 31 characters long, not including the double quotes that are used to enclose it. Any of the three parameters, **SYSCONTACT**, **SYSNAME**, and **SYSLOC,** may be cleared by setting the parameter keyword to the value **NONE**.

  Any combination of the **CUG**s may be assigned to the SNMP interface using the SNMP command with the Closed User Group option (**CUG**). Packets that fail the SNMP Closed User Group test are discarded. An alarm is not displayed, but the failure is counted. The number of failures may be displayed with the **dmeas mod** command.

- A configurable option to allow the UMI TCP to either send a TCP reset, or an ICMP port unreachable message on a connection attempt to an invalid TCP port. The syntax is as follows:

Syntax: local tcpunreach= < ICMP | RESET >

- A banner message can be configured of up to 10 lines, where each line can have up to 29 characters. This banner is output upon execution of the login command after the prompt for the password.

```
Syntax: banner [clear] [L#=”Line # Message”]

Where # is 1-9 and A (hexadecimal 10)
```

- There was a problem on the serial console where a ^S would inhibit data transport on the UMI if left flow controlled forever. The problem was originally found on another product, but the UMI shares the same mechanisms.
- A “Restore Password” command has been added to recover from an inadvertant loss of the configured password.
- Should the telnet console be closed by the administrator issuing the **disc console** command two times consecutively, the telnet console would be removed from the active lists of sockets and not respond. This problem was corrected.
- The database reload operation using the **reload** utility now prevents the following fields from being overwritten by the utility: **MAC** address, **local ipaddr** and **submask**, and **gateway ipaddr**.

3.8 RELEASES PRIOR TO 24.1

Contact support@trdcusa.com with specific questions on releases older than 24.1.

4 INSTALLATION ADDENDUM

4.1 OBTAINING INFORMATION FROM TELECOMP R&D

Load modules for all the TeleComp R&D products are obtained by sending email to support@trdcusa.com. All other documentation, including release notes, user manuals, "white-papers", etc. can be accessed on the TeleComp R&D web site and downloaded for your use.

To insure that the correct version of the binary load modules have been retrieved and has not been corrupted during the transmission process, the UNIX® **sum** command can be used.

On some hosts, the "-s" flag must be used with the **sum** command. On X86 linux hosts, the –sysv flag must be used with the **sum** command.

Key-in **sum** < name of load module file>.

The values returned must match the numbers shown below:

For example:

Key-in**: sum –sysv umi.28.1**
Response**: 12802 1293 umi.28.1**

4.2 DATABASE CONVERSIONS

When moving from one release or version to the next, the database is usually automatically converted. Therefore, **do not attempt** to perform a **backup** on an earlier release/version and then do a **reload** on the new release/version. The database structures may not be the same. For safety reasons, do a **backup** on the earlier release/version in case you need to revert back to this release/version. Then upgrade to the new release/version, and do a backup again which will now be the converted database for use with this release/version. Backups and restores should only be used with the same release/version, not across releases or versions.

4.3 SOFTWARE REGISTRATION

The **UMI** must be registered when it is upgraded with new software. The **UMI** will continue to operate without registration, but **various OA&M functions, including placing the module into service, will not operate until registration is complete.** See the **UMI** User's Manual for the registration procedure.

4.4 UTILITIES

The current version of the upgrade, backup, and reload utilities are 19.1 respectively. The getinfo, devrep, and setreg utilities have a current version of 2.1. All of the utilities are available by contacting support@trdcusa.com. Please note that the TCP port for the console is 1023.

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4.5 POWER

The **UMI** may be powered via the node backplane. For planning purposes, a maximum consumption of 20 Watts is to be used. This is a worse case value. The actual power consumption will be substantially less than the planning value. -48VDC or 5VDC via an AC power adapter.

5 DOCUMENTATION

The current version of the **UMI** User manual, and this release letter, may be downloaded from the support area of http://www.trdcusa.com.

6 HARDWARE WARRANTY

The warranty period for hardware shall be ninety (90) days from the date of shipment from TeleComp R&D or a designated manufacturer. Replacements and repairs are guaranteed for the longer of the remaining original warranty period or 30 days.

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