Software Release Notes

Digi AccelePort RAS 4 and AccelePort RAS 8
Device Driver for AIX Release 4.2 and 4.3
Document Part# 93000330B

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History

1/x/99
Initial beta release. AIX VRMF (Version, Release, Modification Level, Fix Level) is 0.1.0.0.

2/x/99
2nd beta release. AIX VRMF is 0.1.0.1.

(1) Symptom: The Digi driver and hardware failed in systems with ISA boards that required memory resources below the 1-Megabyte boundary. Resolution: Changes were made to the driver PCI configuration scheme.
(2) Symptom: Driver failed during status change from Available to Defined. Resolution: An erroneous memory pointer was found and fixed in the adapter termination code.

3/4/99
3rd beta release. AIX VRMF is 0.1.0.2

(1) Multiple program fixes are implemented.
(2) Tracing and error logging are added.
(3) Device memory structures are now dynamically allocated.

Note: The Secure Attention Key sequence is not supported by this driver.

3/26/99
First production release. AIX VRMF is 1.0.0.0. Firmware release D.

8/13/99
Beta release. AIX VRMF is 1.0.0.1. Firmware release is F4P.

(1) This release supports the AccelePort RAS 4.
(2) Multiple program fixes implemented.

12/17/99
Production release. AIX VRMF is 1.0.1.0. Firmware release is F.

(1) Incorporates international modem support.
(2) Multiple SMP fixes.

Introduction

This document describes the software maintenance procedures for the AIX device driver for the Digi AccelePort RAS 4 and AccelePort RAS 8 modem products. This device driver was designed to function under AIX Release 4.2 and 4.3.

Included in this document are instructions for installing, testing and removing the device driver software.

Obtaining the Software

The device driver software is available electronically via FTP from the Digi Internet site. The location is:

```
ftp.digi.com/support/released/drivers/aix
```

The file names are:

4001896B.installp	- the device driver software package, single binary image
9300330B.pdf	- this release notes document, PDF format
9300330B.txt	- this release notes document, ASCII text format

Assuming you download the single binary image, create a directory on your computer for the device driver software package and copy the binary to it. The directory named /tmp/digidm is used in the examples that follow.

The Installation Process

Note:
This device driver software package was not designed to update previous versions. Prior to installing this device driver software, you must remove any previous versions. See the section titled 'Removing the Software' for instructions.

Software installation consists of two steps:

(1) Device driver installation, and

(2) TTY creation and configuration.

Both of these steps are performed with the aid of the AIX System Management Interface Tool (SMIT).

You must login as super-user (root) to perform the installation procedures, otherwise SMIT command processing will fail.

Installing the Device Driver Software

As super-user (root), invoke SMIT with the following FastPath command:

```
smit install_latest
```

A dialog panel will appear:

```
          Install and Update from LATEST Available Software

* INPUT device / directory for software               /tmp/digidm
```

Specify the directory where the device driver software package resides, as shown above. Press OK to continue.

An expanded dialog panel is now displayed:

```
          Install and Update from LATEST Available Software

* INPUT device / directory for software               /tmp/digidm
  SOFTWARE to install                                 _all_latest
  PREVIEW only? (install operation will NOT occur)    no
  COMMIT software updates?                            yes
  SAVE replaced files?                                no
  AUTOMATICALLY install requisite software?           yes
  EXTEND file systems if space needed?                yes
  OVERWRITE same of newer versions?                   no
  VERIFY install and check file sizes?                no
  Include corresponding LANGUAGE filesets             yes
  DETAILED output?                                    no
  Process multiple volumes?                           Yes
```

No additional fields require input. Press OK, and then re-confirm when the *Are You Sure?* prompt appears.

Installation should proceed to a successful conclusion. The following is an abbreviated output listing:

```
File:
    digidm.pci.rte                1.0.1.0

       …
       …
       …

Installation Summary
--------------------
Name                        Level           Part        Event       Result
-------------------------------------------------------------------------------
-
digidm.pci.rte              1.0.1.0         USR         APPLY       SUCCESS
digidm.pci.rte              1.0.1.0         ROOT        APPLY       SUCCESS
```

When device driver installation is complete, restart the system.

After the system has been restarted, you may confirm that the driver has successfully been installed and recognizes the adapter or adapters by executing the following command:

```
lsdev -C -c adapter
```

The output of this command will display a one line summary of each hardware adapter installed in the system. The line describing the Digi adapter will be similar to the following:

```
dm0  Available 04-02 Digi AccelePort RAS 8 (config 1)
```

You may now proceed to create and configure the TTY devices as described in the next section.

Creating and Configuring the TTY Devices

The procedures for creating and configuring TTY devices for the AccelePort RAS 4/8 adapter are identical to those used to create and configure TTY devices for standard serial devices (COM1 and COM2).

As super-user (root), invoke SMIT with the following FastPath command:

```
smit mktty
```

The first SMIT panel to appear is a menu titled: *Add a TTY*. Select the *Add a TTY* menu item.

A list of TTY types will appear in a selector panel. Select *tty rs232 Asynchronous Terminal*.

A list of parent adapters will now appear in a selector panel. Select the item that identifies the Digi adapter (it will be similar to: *dm0 Available 04-03 AccelePort RAS 8*).

The following dialog panel will appear:

```
                              Add a TTY

  TTY type                                          tty
  TTY interface                                     rs232
  Description                                       Asynchronous Terminal
  Parent adapter                                    dm0
* PORT number                                       0
  Enable LOGIN                                      disable
  BAUD rate                                         9600
  PARITY                                            none
  BITS per character                                8
  Number of STOP BITS                               1
  TIME before advancing to next port setting        0
  TERMINAL type                                     dumb
  FLOW CONTROL to be used                           xon
      …                                             …
      …                                             …
```

The only required entry is the *PORT number* field. Valid entries for this field are 0 through 7 for the AccelePort RAS 8 adapter or 0 through 3 for the AccelePort RAS 4 adapter. Other fields may be altered as required for your unique situation. Press OK to complete the TTY addition.

The name of the TTY that was created will be displayed when SMIT command processing has completed.

Repeat this procedure for each required TTY device.

Testing the Installation

The *cu* utility program may be used to verify that the hardware and software are functioning.

Note:
The *cu* utility is not installed as part of the Base Operating System package. You must explicitly install the package 'bos.net.uucp'. Also, prior to using the *cu* utility with the TTY devices created for the Digi adapter, you must identify the new TTY devices in the file /etc/uucp/Devices. Use the existing entries in that file as examples.

Single-sided Test

You should be able to duplicate the following command sequence from your terminal. Use a TTY device name that was created for your AccelePort adapter rather than the device name used here.

```
$ cu -ml /dev/tty1          < type this at the command prompt
Connected                   < cu responds with this
at                          < type this
OK                          < the AccelePort modem responds with this
~[hostname].                < type a tilde followed by a period and then the Enter key

Disconnected                < cu responds with this, and then
$                           < returns to the command prompt
```

Loop-back Test

This test requires two terminal screens, so it is most easily performed from the Common Desktop Environment.

Connect a telephone cable between two ports on the AccelePort adapter. In the examples that follow, these ports are named tty1 and tty2. You must use TTY device names created for your AccelePort adapter.

Duplicate the following command sequence from the 1st terminal screen:

```
$ cu -ml /dev/tty1
Connected
at
OK
atx3w1\v1s95=255
OK
```

Duplicate the following command sequence from the 2nd terminal screen:

```
$ cu -ml /dev/tty2
Connected
at
OK
atx3w1\v1s95=255
OK
```

Return to the 1st terminal screen and type the dial command:

```
atdt
```

Return to the 2nd terminal screen and type the answer command:

```
ata
```

After approximately 20-seconds you should see a message similar to the following on both screens:

```
CONNECT /V34/LAPM/V42BIS/33600
```

Characters typed on one screen will now appear on the other screen and vice-versa.

To terminate the connection, type the 3-character escape sequence on either screen (it is not necessary to terminate the sequence with the Enter key):

```
+++
```

The modem will respond with:

```
OK
```

Then type the hang-up command:

```
ath
```

The following message will appear on both screens:

```
NO CARRIER
```

To terminate the cu program, press the Enter key, the tilde key, the period key and the Enter key.

If you fail to get the results described above, retry the sequence several times. The answer command (ata) must be issued soon after the dial command (atdt) for the modems to successfully connect. Also, check the integrity of the cable.

Removing the Software

The software removal process will fail if any of the TTY devices supported by the driver are active. You must terminate all programs that may be holding a TTY device open before proceeding.

As super-user (root), invoke SMIT with the following FastPath command:

```
smit remove
```

A dialog panel will appear:

```
                    Remove Installed Software

* SOFTWARE name                                        digidm.pci.rte
  PREVIEW only? (remove operation will NOT occur)      no
  REMOVE dependent software                            no
  EXTEND file systems if space needed?                 no
  DETAILED output                                      no
```

Alter the fields labeled *SOFTWARE name* and *PREVIEW only*, as shown above. Press OK, and then OK again when the *Are You Sure?* prompt appears.

The command should proceed to a successful conclusion. The following is an abbreviated output listing:

```
File:
    digidm.pci.rte

      …
      …
      …

Installation Summary
--------------------
Name                      Level           Part        Event       Result
-------------------------------------------------------------------------------
-
digidm.pci.rte            1.0.1.0         ROOT        DEINSTALL   SUCCESS
digidm.pci.rte            1.0.1.0         USR         DEINSTALL   SUCCESS
```

Device driver software removal is now complete.