



# IP Office - Job Aid

## DTE Port Maintenance

### **Summary**

This document gives details of how to erase an IP Office's configuration and software via the Control Unit's DTE port. These are maintenance actions which should only be performed if absolutely necessary.

# DTE Port Maintenance

## Overview

The DTE port on the back of an IP Office Control Unit is not normally used when configuring an IP Office system. However the DTE port can be used to erase the system's operational software and/or configuration if necessary.

Due to the drastic nature of these actions they should only be performed if absolutely necessary to return a system back to working order.

In either case you must ensure that you have a backup copy of the system configuration.

## DTE Port Settings

Access to the DTE port requires a serial cable wired as shown below using D-type plugs. The DTE port on the IP Office Control Unit may be either 25-pin or 9-pin.

IP Office 25-pin	IP Office 9-pin	Signal	PC 9-pin
2	3	Receive Data	3
3	2	Transmit Data	2
4	7	RTS	7
5	8	CTS	8
6	6	DSR	6
7	5	Ground	5
8	1	DCD	1
20	4	DTR	4
22	9	RI	9

You also require an asynchronous terminal program such as HyperTerminal. Configure this for operation via a PC serial port, as follows:

- **Bits per second:** 38,400.
- **Data bits:** 8.
- **Parity:** None.
- **Stop Bits:** 1.
- **Flow Control:** None.
- **Settings | Emulation:** TTY or VT100.

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## Finding Out the Loader Version

It may sometimes be necessary to find out the version of Loader software on the IP Office Control Unit.

1. Switch off power to the IP Office Control Unit.
2. Attach the serial cable between the PC and the DTE port on the IP Office Control Unit.
3. Start the terminal program on your PC. Ensure that it has been setup as listed in DTE Port Settings above.
  - Within a HyperTerminal session the current settings are summarized across the base of the screen.
4. Power on the IP Office Control Unit and press the escape key every second until you get a **Loader** message. Below is an example.

```
P2 Loader 0.7 (4MB-2xLV160 Flash-120nS SDRAM-10)
CPU Revision 0x0501
```

5. To return the IP Office Control Unit to normal operation switch power to it off and then back on.
6. Close the terminal program session.

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## Erasing the Flash Configuration

**This process erases the configuration held in the IP Office Control Unit's Flash memory. Following this action, when rebooted all aspects of the configuration will be return to their factory defaults.**

**Ensure that you have a backup copy of the IP Office's configuration before performing this action.**

1. Switch off power to the IP Office Control Unit.
2. Attach the serial cable between the PC and the DTE port on the IP Office Control Unit.
3. Start the terminal program on your PC. Ensure that it has been setup as listed in DTE Port Settings above.
  - Within a HyperTerminal session the current settings are summarized across the base of the screen.
7. Power on the Control Unit and press the escape key every second until you get a **Loader** message. Below is an example.

```
P2 Loader 0.7 (4MB-2xLV160 Flash-120nS SDRAM-10)
CPU Revision 0x0501
```

4. Enter **AT** (note upper case). The Control Unit should respond **OK**.
5. Enter **AT-X2**. The Control Unit should respond **0x0200C000H Erase**.
6. Enter **AT-X3**. The Control Unit should respond **0x02001000H Erase**.
7. Switch power to the Control Unit off and then back on. Within the terminal program you should see various messages as the Control Unit performs various start up tasks. See "DTE Port Trace of Defaulted Unit Reboot" on page 5 for an example.
8. Close the terminal program session.
9. You can now use Manager to alter and then upload an old configuration file or receive and edit the Control Unit's now defaulted configuration.

## Erasing the Operational Software

Do not perform this process unless absolutely necessary. If you want to upgrade the software this can be done via the Upgrade tool in the Manager application (File | Advanced | Upgrade).

This process erases the operational software and system configuration. Before attempting this process you must know the MAC and IP addresses of the system, plus have a backup copy of its configuration and the correct .bin file for the Control Unit type and level of software.

1. Run Manager. In the **BOOTP** entries check that there is an entry that matches the MAC Address, IP Address and .bin file used by the system (the first two details can be found in the **Unit** settings in the system's configuration file).
2. If an entry isn't present, create a new entry. Then close and restart Manager.
3. Under **File | Preferences** ensure that Manager is set to 255.255.255.255.
4. Select **View | TFTPLog**.
5. Check that the required .bin file is present in Manager's working directory.
6. Attach the serial cable between the PC and the DTE port on the IP Office Control Unit.
7. Start the terminal program on your PC. Ensure that it has been setup as listed in "DTE Port Settings".
8. Arrange the program windows so that the Terminal program and Manager TFTP Log are visible at the same time.
9. Switch off power to the IP Office Control Unit.
10. Power on the Control Unit and press the escape key every second until you get a **Loader** message.
11. Enter **AT** (note upper case). The Control Unit should respond **OK**.
12. Enter **AT-X**. The Control Unit should respond **Multi-Sector Erase**.
13. The Control Unit will now request the .bin file it requires from Manager. This process appears in the TFTPLog.
14. When completed the system will reboot.

Below is an example of the TFTPLog of a successful transfer.

```
: Received BOOTP request for 00e007000123 192.168.42.1 napremis.bin
: Sending BOOTP response for 00e007000123 192.168.42.1 napremis.bin
: Sending napremis.bin length 654321 bytes to 192.168.42.1
: Sent 10% of napremis.bin
: Sent 20% of napremis.bin
: Sent 30% of napremis.bin
: Sent 40% of napremis.bin
: Sent 50% of napremis.bin
: Sent 60% of napremis.bin
: Sent 70% of napremis.bin
: Sent 80% of napremis.bin
: Sent 90% of napremis.bin
: Sent 100% of napremis.bin
: Sent napremis.bin length 654321 bytes
```

The following in the TFTPLog indicates that the required .bin file is not in Manager's Working Directory. A set of .bin files is available on the IP Office Administration Applications CD in the \bin folder.

```
: Received BOOTP request for 00e007000123 192.168.42.1 napremis.bin
: Sending BOOTP response for 00e007000123 192.168.42.1 napremis.bin
: Unable to send napremis.bin length 0 bytes
```

The following in the TFTPLog indicates that a matching BOOTP entry was not found. If this occurs use Manager to add or edit the required BOOTP entry.

```
: Received BOOTP request for 00e007000123 192.168.42.1 napremis.bin, unable
to process
```

## DTE Port Trace of Defaulted Unit Reboot

This is an example of a defaulted Control Unit booting.

```
Expanding MPPC image ...
Constructor StaticHeap=56 DynamicHeap=8185688
NoCacheStaticHeap=1442036 NoCacheDynamicHeap=3694348 Overflow=0
Factory Test Status 00000001
Product Variation Status ffffffff
NVConfiguration:: No NV Stored default..
found FLASH file: ..\modem\zmbin004.s37, len=790
found FLASH file: ..\modem\mcode.bin, len=40000
found FLASH file: ..\vcomp\48105ak.123, len=d8
found FLASH file: ..\vcomp\48105ae3.123, len=1c158
found FLASH file: ..\nabbranch\onehz.bin, len=3e80
DT interface detected
htl 00010000 hth 20400000
SLOT A: PRI24 Module Added
SLOT B: No ISDN/AT Module fitted
SLICOFI2: chip version: V1.3
Dual-Modem fitted
Voice Compression PCB detected
Found voice compressor 0
No voice compressor 1
No voice compressor 2
No voice compressor 3
USS-820 USB Device Controller: rev 1.3
Route 00000000 00000000 Usurped (NOCHANGE) is LAN1
Route::Attempting DHCP...
USS820: USB bus reset detected
USBDevice: state POWERED --> DEFAULT
1: Reset phone due to SendsABM NACKs
2: Reset phone due to SendsABM NACKs
Route::No DHCP defaulting IP Address c0a82a01 ffffffff00
RouteSystem::Starting DHCP Server...
RouteSystem::RouteSystem LAN1 ipaddr=c0a82a01 ipmask=fffffff00
Configuration::Attempting to read from FLASH...
FlashConfigIO::Load(0)
Configuration::Using Default...
No System IPADDR using DISCOVERED Values
No System IPADDR 2 using DISCOVERED Values
Platform::Discover TDM Attached Units...
Platform::Discover Possible LAN Attached Units...
Configuration::WARNING Unit IP 403 is not configured - adding
Configuration::WARNING Unit ANALOGUE POTS2 is not configured - adding
Configuration::WARNING Unit DIGITAL DT 8 is not configured - adding
Checking WAN
Firewall Validating LAN1
Adding RemoteManager route to 192.168.99.0
Configuration::AddDeadRoute 0a000000 ff000000 00000000
Configuration::AddDeadRoute e0000000 ff000000 00000000
Configuration::Complete
0: PCM=2648 ALaw=9f
1: PCM=4452 ALaw=9f
2: PCM=0000 ALaw=9f
3: PCM=1068 ALaw=9f
4: PCM=0000 ALaw=ff
5: PCM=0003 ALaw=73
6: PCM=0000 ALaw=18
7: PCM=0000 ALaw=98
CallSystem::NEW LINE Detected 1
CallSystem::StartExtn No Config for 2.10 Adding
CallSystem::StartExtn No Config for 2.14 Adding
CallSystem::StartExtn No Config for 2.3 Adding
CallSystem::StartExtn No Config for 2.7 Adding
CallSystem::StartExtn No Config for 2.11 Adding
CallSystem::StartExtn No Config for 2.15 Adding
CallSystem::StartExtn No Config for 2.19 Adding
CallSystem::StartExtn No Config for 2.23 Adding
RasServer::Starting...
Added ACDQueue to Main
SNMP::Starting SNMP Server...
MIBII::Creating MIBII base...
IGMP::Starting IGMP Module...
Tue 14/8/2001 09:53:47 FreeMem=7646324
Inband Exception Handling Enabled
Initialisation complete starting TA
```

## DTE Port Trace of Normal Reboot

This is an example of a Control Unit rebooting and loading an existing configuration.

```
Expanding MPPC image ...
Constructor StaticHeap=56 DynamicHeap=8185688
NoCacheStaticHeap=1442036 NoCacheDynamicHeap=3694348 Overflow=0
Factory Test Status 00000001
Product Variation Status ffffffff
found FLASH file: ..\modem\zmbin004.s37, len=790
found FLASH file: ..\modem\mcode.bin, len=40000
found FLASH file: ..\vcomp\48105ak.123, len=d8
found FLASH file: ..\vcomp\48105ae3.123, len=1c158
found FLASH file: ..\nabranh\onehz.bin, len=3e80
DT interface detected
htl 00010000 hth 20400000
SLOT A: PRI24 Module Added
SLOT B: No ISDN/AT Module fitted
SLICOFI2: chip version: V1.3
Dual-Modem fitted
Voice Compression PCB detected
Found voice compressor 0
No voice compressor 1
No voice compressor 2
No voice compressor 3
USS-820 USB Device Controller: rev 1.3
Route 00000000 00000000 Usurped (NOCHANGE) is LAN1
RouteSystem::Starting DHCP Server...
RouteSystem::RouteSystem LAN1 ipaddr=c0a82a01 ipmask=ffffff00
Configuration::Attempting to read from FLASH...
FlashConfigIO::Load(0)
No System IPADDR 2 using DISCOVERED Values
Platform::Discover TDM Attached Units...
USS820: USB bus reset detected
USBDevice: state POWERED --> DEFAULT
Platform::Discover Possible LAN Attached Units...
DT5ToneGenerator::UpdateOper
DT5DTMFGenerator::UpdateOper
Checking WAN
Firewall Validating LAN1
Configuration::Complete
0: PCM=2648 ALaw=9f
1: PCM=4452 ALaw=9f
2: PCM=0000 ALaw=9f
3: PCM=1068 ALaw=9f
4: PCM=0000 ALaw=ff
5: PCM=0003 ALaw=73
6: PCM=0000 ALaw=18
7: PCM=0000 ALaw=98
8: PCM=0000 ALaw=00
9: PCM=0012 ALaw=00
RasServer::Starting...
Added ACDQueue to Main
SNMP::Starting SNMP Server...
MIBII::Creating MIBII base...
IGMP::Starting IGMP Module...
Tue 14/8/2001 09:49:54 FreeMem=7646752
Inband Exception Handling Enabled
Initialisation complete starting TA
```

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