



## Configuring Dial Backup (DBU) with TSU and ISU Products

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### TSU 100e/120e NxDBU Port – 1202052L1 and 1202129L1



### Y-Cable for NxDBU Built-in – 1200196L1



- Can be used as Nx56/64 (V.35) only with no DBU
- Uses Built-in 0.1 NxDBU/56/64 port (V.35)
- Requires Y-Cable to connect to DTE and DBU device (ISU, etc.)
- Raises DTR to DBU device to initiate DBU
- DBU Initiated based on Net Fail, Data Fail, or Net/Data Fail
  - Net Fail: T1 Alarms
  - Data Fail: Lack of transitions in data bits (all 1s, all 0s)
  - Net/Data Fail: Net or Data Fail initiates DBU
- Supports Inband Mode trigger for DBU (see note below on Inband Mode)

## Configuration:

**TSU XXX**     Make sure DSO's are mapped to NxDBU

### DBU Config TSU xxx

	<u>LOCAL</u>	<u>REMOTE</u>
Backup Mode	Originate	Answer
Backup On	Net Fail	Net Fail
Pattern Verify	Enable	Enable
(Disable if not NxDBU to NxDBU or not ISDN)		
Backup Delay	3 sec	3 sec (as desired)
Restore Delay	10 sec	10 sec
Retry Delay	10 sec	10 sec
# Retries	Unlimited	Unlimited
Backup Testing	(use these menu options only when necessary)	
Weekend lockout	Off	Off

### ISU 128

#### Network Options

Dial/Lease	Dial	Dial
Switch Protocol	National ISDN1	National ISDN1
Call Type	64K	64K
Term ID		
SPID 1	xxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxx
SPID 2	xxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxx
LDN1	xxxxxxx	xxxxxxx
LDN2	xxxxxxx	xxxxxxx
Dial Options	Front Panel	Front Panel
Auto Answer	Enable	Enable
Answer Tone	No Answer Tone	No Answer Tone
Connect t/out	30 sec	30 sec (default)
Call Screening	Answer Any	Answer Any

#### DTE Options

Async/Sync	Synchronous	Synchronous
Bit Rate	128	128
Con Type	V.35	V.35
RTS options	1 ms	1 ms
CTS option	Follow RTS	Follow RTS (or force on)
CD option	Normal	Normal
DTR opt.	Dial 0 if on	Dial 0 if on
DSR	Force On	Force On
Xmit clk	Normal	Normal

<u>Protocol</u>	Bonding Mode 1	Bonding Mode 1
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Dial Options

Store/review	# on far end	NA
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After making changes ISU 128 will state ISDN-1 Ready  
 When T1 is down and dial back-up is active should change to Bonding 128K  
 TSU will indicate DBU card Active.

Leads in Idle state CS (if forced on) & SR  
 Leads in DBU state ALL (assuming that the routers are talking)

**TSU Modules**

**1. NxDBU Module – 1200158L1#HS**



- Same as built-in NxDBU on TSU 1X0e.
- No need for Y-Cable since there are 2 ports (labeled V.35 Port X.1 and DBU V.35 (TO DCE))
- Uses 2 straight-through V.35 Cables
- Supports Inband Mode trigger for DBU

**Configuration:**

**TSU XXX:** Make sure DSO's are mapped to NxDBU

**DBU Config TSU xxx**

	<u>LOCAL</u>	<u>REMOTE</u>
Backup Mode	Originate	Answer
Backup On	Net Fail	Net Fail
Pattern Verify	Enable	Enable
(Disable if not NxDBU to NxDBU or not ISDN)		
Backup Delay	3 sec	3 sec (Or as desired)
Restore Delay	10 sec	10 sec
Retry Delay	10 sec	10 sec
# Retries	Unlimited	Unlimited
Backup Testing	(use these menu options only when necessary)	
Weekend lockout	Off	Off

## **ISU 128**

### **Network Options**

Dial/Lease	Dial	Dial
Switch Protocol	National ISDN1	National ISDN1
Call Type	64K	64K
Term ID		
SPID 1	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx
SPID 2	xxxxxxxxxxxxxxx	xxxxxxxxxxxxxxx
LDN1	xxxxxxx	xxxxxxx
LDN2	xxxxxxx	xxxxxxx
Dial Options	Front Panel	Front Panel
Auto Answer	Enable	Enable
Answer Tone	No Answer Tone	No Answer Tone
Connect t/out	30 sec	30 sec (default)
Call Screening	Answer Any	Answer Any

### **DTE Options**

Async/Sync	Synchronous	Synchronous
Bit Rate	128	128
Con Type	V.35	V.35
RTS options	1 ms	1 ms
CTS option	Follow RTS	Follow RTS (or force on)
CD option	Normal	Normal
DTR opt.	Dial 0 if on	Dial 0 if on
DSR	Force On	Force On
Xmit clk	Normal	Normal

<b><u>Protocol</u></b>	Bonding Mode 1	Bonding Mode 1
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### **Dial Options**

Store/review	# on far end	NA
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After making changes ISU 128 will state ISDN-1 Ready  
When T1 is down and dial back-up is active should change to Bonding 128K  
TSU will indicate DBU card Active.

Leads in Idle state CS (if forced on) & SR  
Leads in DBU state ALL (assuming that the DTE is up)

## 2. Multiport DBU – 1200089L2#HS



- Can backup multiple ports in TSU 1X0e and 600 (e)
- Has only 1 V.35 Port (labeled DIAL BACKUP PORT X.1)
- Uses 1 straight through V.35 cable
- Uses Map B to determine which ports will get bandwidth while in DBU
- Supports Inband Mode trigger for DBU
- Must be in slot 2 of TSU 600/600e

### Multiport DBU Configuration:

#### TSU XXX

- Map A contains the channel assignment for use when the T1 is up and active.
- Map B contains the channel assignment to be used when in DBU.
- Choose which ports need backup based on how much bandwidth that you have on the DBU (single BRI – 128k, 4 BRIs – 512k, etc)
- No channels need to be assigned to the MP DBU card. It will swap from Map A to Map B when the DBU conditions are met.

#### MP DBU Config

	<u>LOCAL</u>	<u>REMOTE</u>
Backup	Enable	Enable
Backup Delay	3 sec	3 sec
Restore Delay	10 sec	10 sec
DBU Mode	Originate	Answer
DS0 Rate	64k	64K
# of DS0	2	2
Weekend Backup	Disable	Disable
Enable HR	0	0
Disable HR	0	0
DCE Rate ALRM	Disable	Disable

## **ISU 128**

### **Network Options**

Dial/Lease	Dial	Dial
Switch Protocol	National ISDN1	National ISDN1
Call Type	64K	64K
Term ID		
SPID 1	xxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxx
SPID 2	xxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxx
LDN1	xxxxxxx	xxxxxxx
LDN2	xxxxxxx	xxxxxxx
Dial Options	Front Panel	Front Panel
Auto Answer	Enable	Enable
Answer Tone	No Answer Tone	No Answer Tone
Connect t/out	30 sec	30 sec
Call Screening	Answer Any	Answer Any

### **DTE Options**

Async/Sync	Synchronous	Synchronous
Bit Rate	128	128
Con Type	V.35	V.35
RTS options	1 ms	1 ms
CTS options	Follow RTS	Follow RTS
CD option	Normal	Normal
DTR opt.	Dial 0 if on	Dial 0 if on
DSR	Force On	Force On
Xmit clk	Normal	Normal

<b><u>Protocol</u></b>	Bonding Mode 1	Bonding Mode 1
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### **Dial Options**

Store/review	# on far end	NA
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After making changes ISU 128 will state ISDN-1 Ready  
When T1 is down and dial back-up is active should change to Bonding 128K  
TSU will indicate DBU card Active.

Leads in Idle state SR

Leads in DBU state ALL (assuming that the routers are talking)

## TSU ESP (ISDN, S4W, Dedicated)



- DBU is optional and modular.
- Available DBU Option modules are ISDN, S4W, and External DCE.

### ISDN DBU Module – 1204004L1



- Uses 1 BRI (2B+D) line
- Can use 1 or 2 B channels at 56k or 64k
- Supports National ISDN-1, AT&T 5ESS, and DMS-100 switch types
- SPIDs and LDNs are entered in the ISDN Options Menu
- Number to Dial on DBU is entered in the Phone Numbers menu

### External DCE DBU Module – 1204006L1



## Configuration:

### ISDN Options

	<u>LOCAL</u>	<u>REMOTE</u>
Backup Rate	N x 64	N x 64
Num Channels	2	2
Switch Type	National ISDN 1	National ISDN 1
Loc Dir Nums	LDN1: xxxxxxxx LDN2: xxxxxxxx	LDN1: xxxxxxxx LDN2: xxxxxxxx
SPID Numbers	SPID1: xxxxxxxxxxxx SPID2: xxxxxxxxxxxx	SPID1: xxxxxxxxxxxx SPID2: xxxxxxxxxxxx
DBU Hunt Opt	Disable	Disable
Phone Numbers	#1 through #9	#1 through #9

**S4W Options**

	<b><u>LOCAL</u></b>	<b><u>REMOTE</u></b>
DBU Hunt Opt	Disable	Disable
Phone Numbers	#1 through #9	#1 through #9

**External DCE Options**

**Note: Connector is DB25, for V.35 use, an adapter cable is required. Part number is 1200193L1 (Male V.35) or 1200194L1 (Female V.35)**

	<b><u>LOCAL</u></b>	<b><u>REMOTE</u></b>
Interface	V.35 or RS-232	V.35 or RS-232
Pattern Verify	Disable	Disable

**Generic DBU Options**

	<b><u>LOCAL</u></b>	<b><u>REMOTE</u></b>
Backup Mode	Originate	Answer
Backup On	Network Fail	Network Fail
Weekend Lockout	Disable	Disable
Enable HR	0	0
Disable HR	0	0
Backup Delay	10 sec	10 sec
Restore Delay	1 Min	1 Min
Retry Delay	10 sec	10 sec
Num Retries	Unlimited	Unlimited