Configuring the ISU 512 for a KIV-7

The ISU 512 is a "Layer 1" device used to provide a WAN link for the KIV-7 and other secure / encrypted systems. This is the proper configuration for the ADTRAN ISU 512.

```
3=CONFIG
        1=Network Options
                1=Dial Line
                        1=Switch Type
                                2=XXXXX (As determined by your network Provider)
                        2=Call type
                                4 = Data 64Kbps
                        3=Terminal ID
                                1=SPID
                                        SPID 1 = XXXXXXXX (Per network provider)
                                        SPID 2 = XXXXXXXX (Per network provider)
                                        SPID 3 = XXXXXXXX (Per network provider)
                                        SPID 4 = XXXXXXXX (Per network provider)
                                        SPID 5 = XXXXXXXX (Per network provider)
                                        SPID 6 = XXXXXXXX (Per network provider)
                                        SPID 7 = XXXXXXXX (Per network provider)
                                        SPID 8 = XXXXXXXX (Per network provider)
                                        (On a 5ESS Point to Point / or EURO ISDN
                                                No SPIDS.  Only LDNs)
                                2=LDN
                                        LDN 1 = XXX-XXXX (Per network provider)
                                        LDN 2 = XXX-XXXX (Per network provider)
                                        LDN 3 = XXX-XXXX (Per network provider)
                                        LDN 4 = XXX-XXXX (Per network provider)
                                        LDN 5 = XXX-XXXX (Per network provider)
                                        LDN 6 = XXX-XXXX (Per network provider)
                                        LDN 7 = XXX-XXXX (Per network provider)
                                        LDN 8 = XXX-XXXX (Per network provider)
                                        ( The LDN's are normally 7 digits but can be less)
                        4=Dial options
                                2=RS-366
                                        1=RS366 Time
                                                4=10 sec or EON
                                        2=Security
                                                2=Disabled
                        5=Auto answer
                                2=Enabled
                        6=Connect Timeout
                                2=30 sec (def)
                        7=Call Screening
```

1=Answer any

        2=DTE Options
                1=Max Bit Rate
                        1=64K Mode 1
                                6=6x64 384K (** most common)(3 BRI's)
                                8=8x64 512K (4 BRI's)

                2=Connector Type
                        1=RS-530 (Required for the Kiv)
                3=530-V35 Cable
                        2=Disabled
                4=RS366-Y Cable
                        2=Disabled
                5=CTS Option
                        3=Follow CD
                6=CD Option
                        2=Normal
                7=DTR Option
                        6=Ignore / Idle   (Set to #1 Ignore for testing purposes)**
                8=DSR Option
                        1=**Forced On**

        3=BONDING Setup
                1=TXINT
                        5=20
                2=TXFA
                        6=50
                3=TXADD01
                        8=200
                4=TXDEQ
                        8=200
                5=TANULL
                        6=50
                6=TCID
                        5=20

Note: *If this unit has been in service before, or it is not performing correctly, then factory restore it before configuring. To factory restore the ISU 512 hold the "0" key (zero) down and reboot. Keep the key held down until "STATUS" appears.*

Smart Dial Strings: The ISU 512 units respond to smart dial strings. This is helpful for dialing and testing. At the end of the dial string place a # sign and a number 1 to 4. This first # sign and number override the call type. **Normal is to use #4 for 64k per channel**. The second # sign and number 1-8 indicate the number channels the 512 is to bond. Example xxxxxxxxxxx#4#2   This will instruct the ISU 512 to bond 2 channels at 64k per channel. The #4 #6 at the end of the phone numbers will give you a 384 connection.

International S/T units: If you are doing EURO ISDN the S/T (**L2** or **L3**) units should be flashed to the INTERNATIONAL firmware **F.00**.   WARNING: Do not confuse the F.00 S/T international with the F.00 U (**L1**) interface firmware. Also do not use CS.00 DOMESTIC S/T

(**L3**) firmware to do EURO ISDN. While it also has Euro in its menu it does not work correctly on European switches.   If the Euro units are not dialing & connecting correctly power cycle the unit then try again. Euro units will show "DEACT" on the LCD instead of ready. If problems occur on a Euro ISDN line ask the provider to keep layer 1 and 2 of the BRI up at all times. They may resist this but it will help you maintain an active connection to the switch. One other note: EURO ISDN use NO SPIDS. Only use the provided LDN in both LDN 1 and 2.

TYPES OF 512 UNITS:

There are **4** ISU 512's available: Web site:
http://www.adtran.com/adtranpx/Rooms/DisplayPages/LayoutInitial_webrQS%20_Q29udGFpb mVyPWNvbS53ZWJyaWRnZS5lbnRpdHkuRW50aXR5JTVCT0lEJTVCMkFGQ0JGRURRDNz M4M0Y0N0I2QThEQTY5RjIxN0ZFNjQlNUQlNUQ.

1202.086L1: This is the ISU 512 U-interface unit designed to work with North American Switches. Current firmware F.00 (U)

1202.086L2: This is the ISU 512 S/T-interface International unit designed to work with EURO Switches.   Current firmware F.00 (S/T)

1202.086L3: This is the ISU 512 S/T-interface Domestic unit designed to work with North American Switches. Current firmware C.00 (S/T)

1203.086L1: This is the 512e and while it was designed to allow Ethernet SNMP it was also designed to do MLPPP. While it will do Bonding Mode 1 it does NOT have an RS530 port required for connections to a KIV.

Note: (1)
- The 1203.086**L2** & **L3** S/T 512's are identical hardware wise but the software is different. Flashing the correct firmware will allow the unit to be used in the appropriate market place.
- Use the "Domestic firmware" on either **L2** or **L3** units that are used in the North American area working with North American Switch protocols.
- Flash the "International firmware" on units that are overseas or connecting to switches that use EURO ISDN protocol / type settings.

Note: (2)
- When setting the Switch Type to National ISDN (NI-1) the BRI service provider must translate the BRI line per the I.O.C., Capability Package "S" to achieve full functionality from the Adtran ISU 512 unit.
- Follow link for general info on I.O.C.s: http://www.nationalisdncouncil.com/ioc.htm

Note: (3)
- VT 100 Terminal and Modem access is accomplished thru the chain-in port. Use the Adtran provided RJ45 to db9 adapter sent with the units.

Note: (4)
- Do not use the additional cable provided with the 512 kit (if so ordered)
- These are Adtran part numbers:
  1200.120L1   RS-530 to V.35 Adapter &
  1200.072L1   RS-366 Y Cable

- They are only used for the older 2x64 Video connections. <u>Not used with the KIV or other secure installs</u>.

Note: (5)
- Reference **Satellite Linkage**:   ADTRAN ISU units only use Bonding Mode 1 protocol. They are not capable of performing Bonding Mode 2 or 3.   Many of the satellites systems in service today only use Bonding Mode 2 or 3, therefore ADTRAN ISU units are incompatible. Bonding Mode 1 must be supported in order to use ADTRAN ISU products.

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