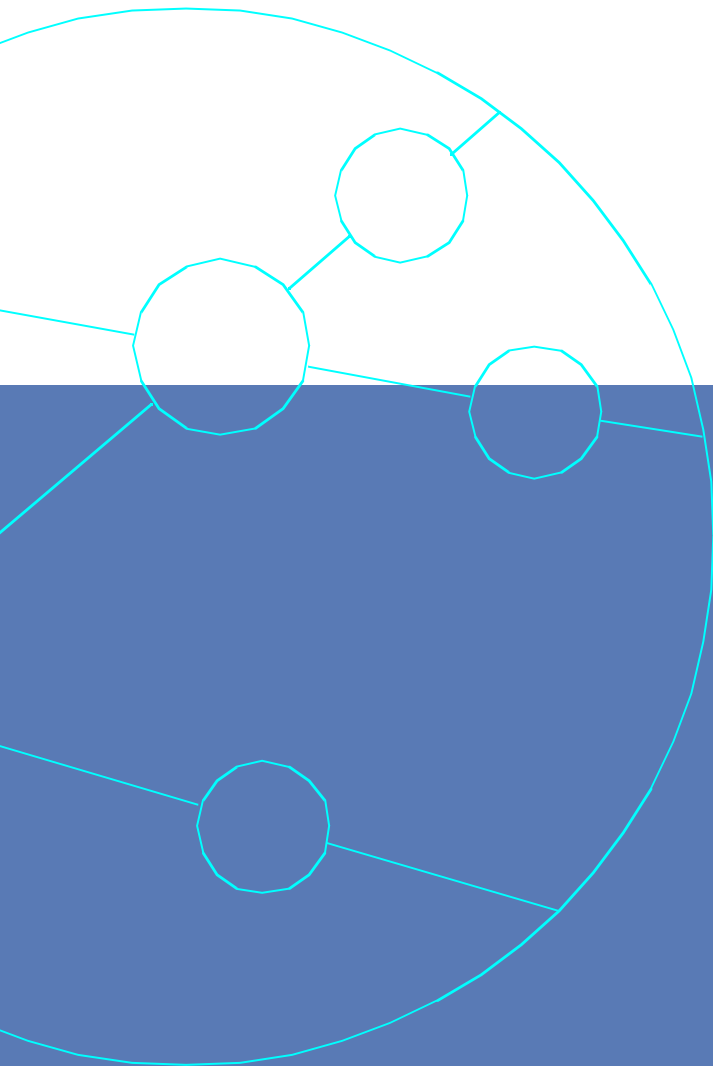


V5 Monitoring on the Aurora Tempo

The most common problems on V5 links between the Local Exchange (LE) and the Access Network (AN) relates to the configuration and the live traffic. It can be described with a few simple questions:

- Is it a V5.1 or V5.2 link?*
- How is the link configured?*
- What kinds of protocols are running?*
- Are all protocols working correctly?*

Application Note ANTEMPO_2



Testing the World's Digital Networks

TrendCommunications

CHECK THE CONFIGURATION AND THE OPERATION OF E1 LINKS RUNNING V5 PROTOCOLS

The most common problem on V5 links between the Local Exchange (LE) and the Access Network (AN) relates to the configuration and the live traffic. It can be described with a few simple questions:

- Is it a V5.1 or V5.2 link?·
- How is the link configured?
- What kinds of protocols are running?·
- Are all protocols working correctly?

The auroraTempo with the V5 monitor option provides the answers.

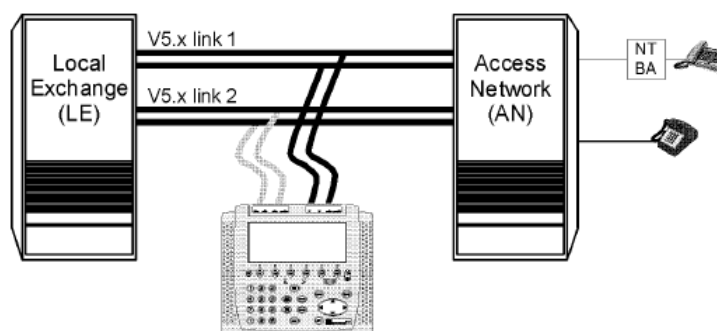
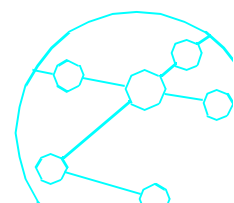


Figure 1

Monitoring two V5 links

The automatic link protocol scan can be run on all or some selected timeslots. This identifies the position of the C-channels by finding the C-channel protocols and LAPD signalling. Commonly on V5.1 links timeslot 16 is used for the C-channel where only two C-channel protocols are in use. In V5.2 links can use three C-channels typically found on timeslots 15, 16 and 31. The five V5.2 protocols may be in use spread across any of these three C-channels. Having tagged several timeslots the test can be run and each timeslot scanned for a predefined period. If any signalling occurs during this period it is decoded and displayed.



The detected protocols are displayed per timeslot. V5.1 links contains the PSTN and Control protocol; presence of any other V5 protocol (Link Control protocol, Bearer Channel Control protocol and Protection protocol) indicates that the link is a V5.2 link.

To monitor the activity and the traffic on a live E1 link using V5 protocol the auroraTempo supports the tagging of up to 4 user selectable channels simultaneously!

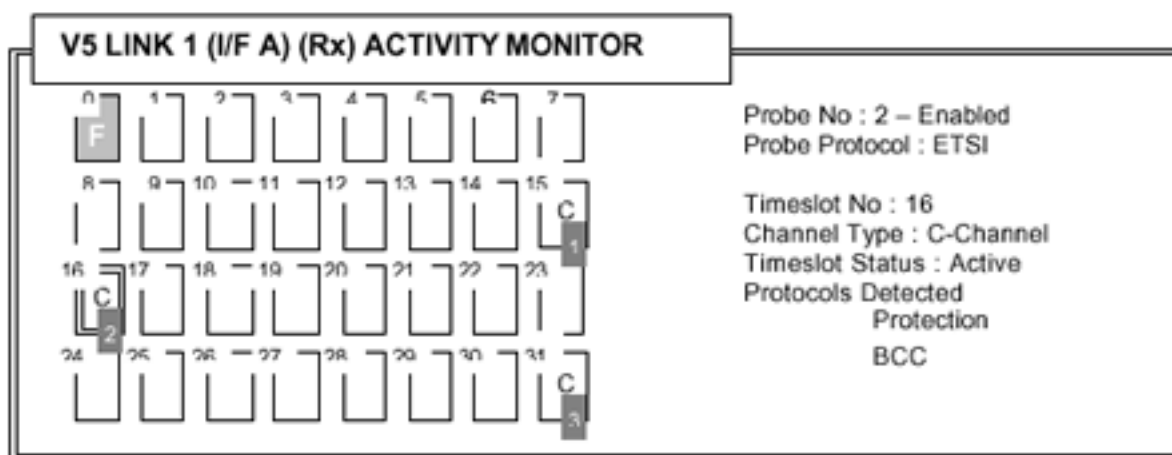
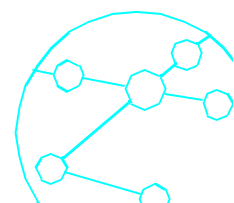


Figure 2

Activity monitor with tagged probes on several timeslots

This allows the user to monitor three C-channels and one B-channel at the same time and gives an overview of all the signalling traffic on the link. This allows the user to get a complete view of the operation of the link.

The display of channel activity from both receive sides allows the user to get an overview of the actual timeslot states. If the auroraTempo is used as a dual port unit, the tester can support the display of channel activity on both interfaces simultaneously.



V5 Monitoring on the Aurora Tempo

Check the configuration and the operation of E1 links running V5 protocols

```
-----  
12:43:38.0114 IntB  RX  
V5: EF Addr=8177 V5 CONTROL PROTOCOL  
DL Addr=8177  
L2: INFO  
CR=0 [Cmd] PF=0 N(r)=5 N(s)=4  
FC E3 FC E3 08 0A  
L3: Prot Disc=48 L3 Addr=8177  
M13 COMMON CONTROL ACK  
I21 Control function id  
Function id=07  
Variant and interface id  
48 FC E3 13 21 01 87  
  
-----  
12:43:38.0145 IntB Mon RX  
V5: EF Addr=8177 V5 CONTROL PROTOCOL  
DL Addr=8177  
L2: RR  
CR=0 [Cmd] PF=0 N(r)=5  
FC E3 FC E3 01 0A
```

Figure

3

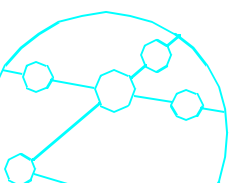
V5.x Protocol Decode

The full and comprehensive real time decoding of the V5 protocol and LAPD protocols ensures a detailed signalling traffic scenario of the link.

All data can either be captured into the internal memory with the option to print out later or transmitted through the serial interface online to a terminal program on the PC.

The user definable filter of the layer, the ISDN info, the V5 info and the L3 protocols allows the user to reduce the captured data for his requirement.

The functionality detailed above is available in the latest release of auroraTempo software. Please contact your Local Vendor or the Trend Communications Ltd Customer Support. Call the Hotline (tel: +44 1628 851085) for further information.





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