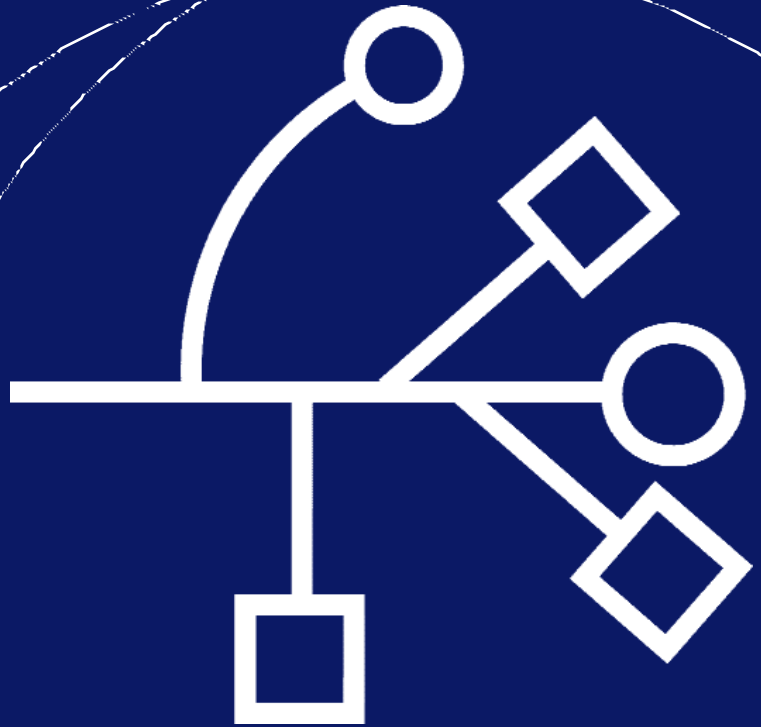


# UQoS ProMon

- A Central Site Network and Subscriber Line protocol monitoring system for Alcatel System 12 switches



- Efficient error tracking of network and subscriber lines
- Feature both monitor set up and decoding
- Covers both network and access side
- Centralised operation
- Application based on Java technology (i.e. platform independent)



Your customers will notice

# UQoS ProMon



## OVERVIEW

Utel Systems' protocol monitor for Alcatel System 12 (S12) switches improves and simplifies network maintenance by providing an efficient tool for error tracking on both access side and network side. UQoS ProMon for S12 opens for centralised access to signalling information on any ISDN subscriber line or SS7 signalling link. A simultaneous view of three levels of detailed signalling information combined with a user-friendly interface makes it very attractive and efficient to users.

The UQoS ProMon for S12 system requires remote units (computers) located at every S12 switch in the network. Operators and engineers communicate with remote units connected to the S12 switches using an IP connection (LAN/WAN/Dial up). Monitoring can then be carried out independent of the switch location.

## MONITORING SETUP

The user can easily set up and monitor either on the network side or the access side. To set up monitoring of a subscriber line, the following inputs are required.

- Subscriber number to be monitored
- Time interval for monitoring

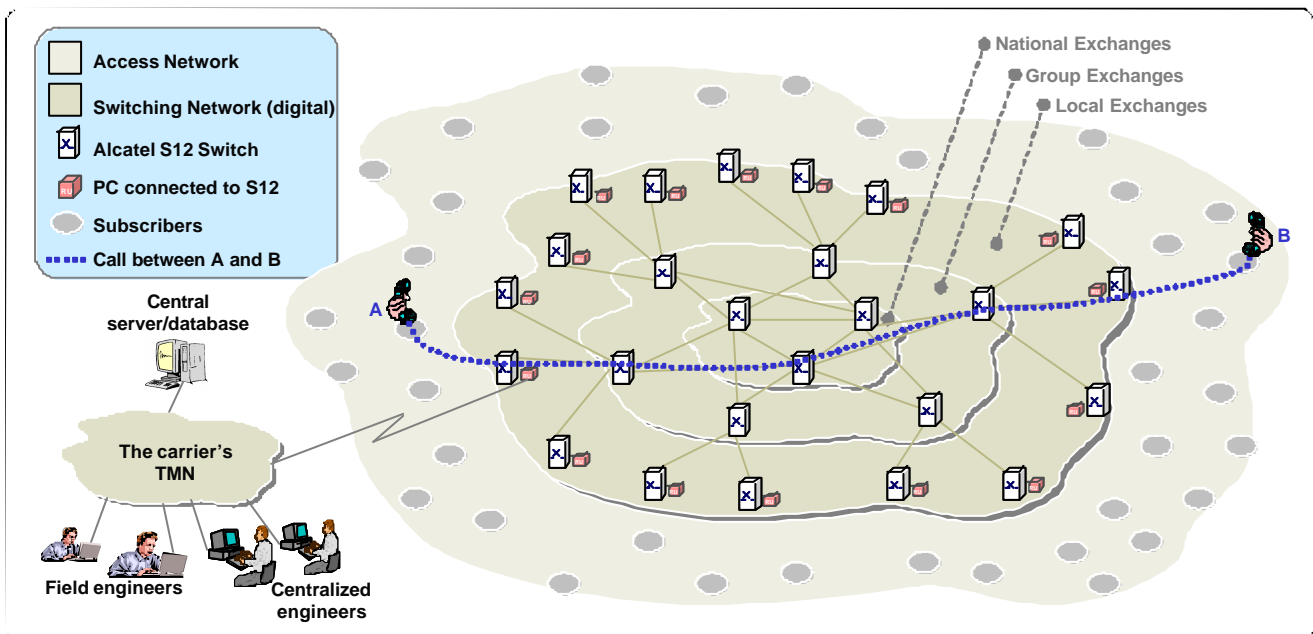
A monitor agent on the PC connected to the selected switch is contacted. The switch then starts the monitoring of the subscriber line as requested. The signalling information is returned to the central site application for decoding and presentation.

## MONITORING DECODING

All returned signalling messages are decoded and presented in a user-friendly manner in the monitor. The monitor shows three levels of detailed information simultaneously. The screenshot on the top on the next page illustrates that by clicking on a selected message to the left, the contents of the message is presented in a hierarchical structure to the upper right. By clicking on one of these details, the corresponding field in the Hex code are outlined.

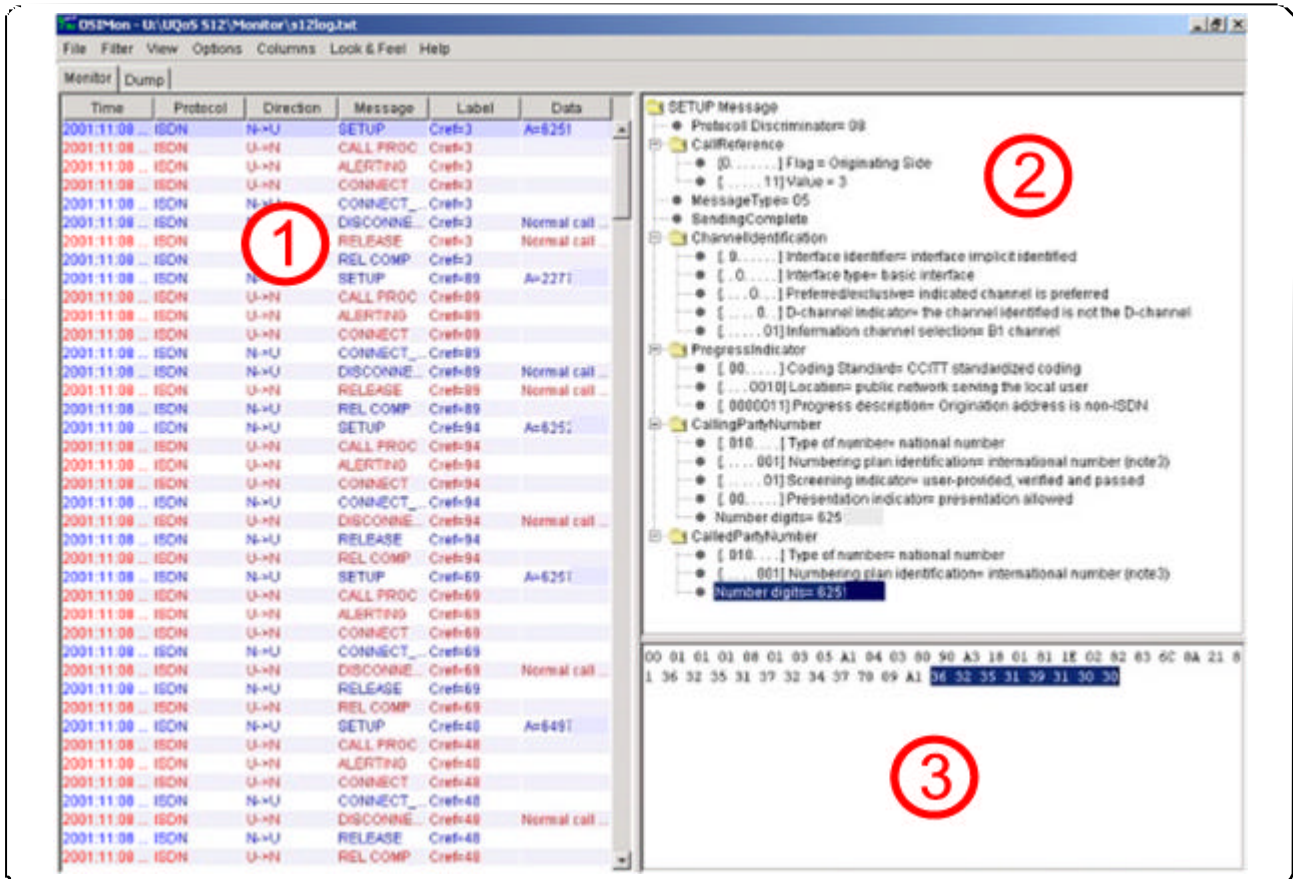
## DATA DUMP

A 'Dump' function provides dumping of selected data to a text file. This is useful for documentation purposes.



The figure shows a network solution of PCs connected to the S12 switches. Engineers control all switches from a single central location. If a subscriber has reported a problem, the switch serving this subscriber can generate a logfile and send this to an engineer for analysis.

# UQoS ProMon



The screenshot from the Windows client shows the three main windows in the protocol decoding application. These are described below.

## THE APPLICATION WINDOW

The protocol decoding application is divided into three different windows:

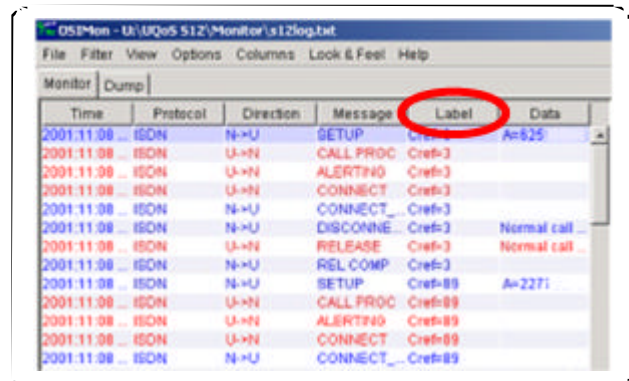
1. The left window is the main window showing all messages in the log file. The messages are presented in blue or red colour depending on the direction of the message. By clicking on a column tab, the messages are sorted after the selected column. Hence all messages from one call can quickly be grouped together.

2. When clicking on a message in the main window, the content of the message is displayed in a hierarchical structure in the upper right window (2). The information displayed can easily be adjusted according to the user's requirement as different sections can be collapsed or expanded.

3. When clicking on a detail in the upper right window, the hex values are presented (or highlighted) in the lower right window (3). By holding the mouse over a hex value in this window, the bit structure from that hex value is displayed as a popup information window.

## SORTING FUNCTIONS

A powerful sorting function is also available for fast selection of parts of the data. By clicking on one of the column tabs, the column is automatically sorted. Hence messages related to one call can easily be viewed (in the example below the user has clicked on the "Label" column in order to sort calls after call reference).



The above figure illustrates how the operator can click on any of the column tabs in order to sort and display data in different ways.

# UQoS ProMon

## FEATURES AND BENEFITS



Feature	Customer benefit
Centralised and distributed operation supported	<ul style="list-style-type: none"><li>• An operator/engineer can monitor any subscriber line from anywhere in the network (via TMN/RAS)</li><li>• Reduced network maintenance cost</li><li>• Reduced error detection time</li><li>• Efficient use of expert personnel at central site</li></ul>
Monitoring setup and decoding in one system	<ul style="list-style-type: none"><li>• Fast and efficient error tracking</li><li>• Improved network quality and customer satisfaction</li></ul>
Covers both network and access side	<ul style="list-style-type: none"><li>• Cost efficient - "all in one" concept</li></ul>
Java based application	<ul style="list-style-type: none"><li>• Independent of computer operating system</li><li>• No program installation required at client side</li><li>• Central maintenance and administration</li></ul>
Familiar user interface	<ul style="list-style-type: none"><li>• Easy for new users</li><li>• Minimum of training required</li></ul>
Sorting function	<ul style="list-style-type: none"><li>• Fast and easy sorting and grouping of data</li></ul>
Open information model	<ul style="list-style-type: none"><li>• Fast documentation of errors e.g. as attachments to fault reports</li></ul>

## TECHNICAL SPECIFICATIONS

### Protocols supported

UQoS ProMon is built to monitor any protocol following the OSI model. Currently supported protocols are:

- ISDN BA and ISDN PRA
  - Q.931 and Supplementary Services including ASN.1
  - Other protocols can be implemented on request
- SS7
  - ISUP
  - Other protocols can be implemented on request

### Operating systems supported/tested

The UQoS ProMon application is built on Java technology, meaning it can be installed on any operating system supporting Java2 v1.3 or newer. Examples are:

- Windows 98
- Windows NT
- Windows 2000
- Windows XP
- Solaris
- Linux
- Unix

### MANUFACTURER:

Utel Systems  
P.O.Box 1616, N-3007 Drammen, Norway  
Tel: +47 3282 9400 • Fax: +47 3282 9401  
Internet: [www.utelsystems.com](http://www.utelsystems.com)  
E-mail: [sales@utelsystems.com](mailto:sales@utelsystems.com)

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