

# Surveillance Observation and Monitoring, ZO

INTERWORKING DESCRIPTION



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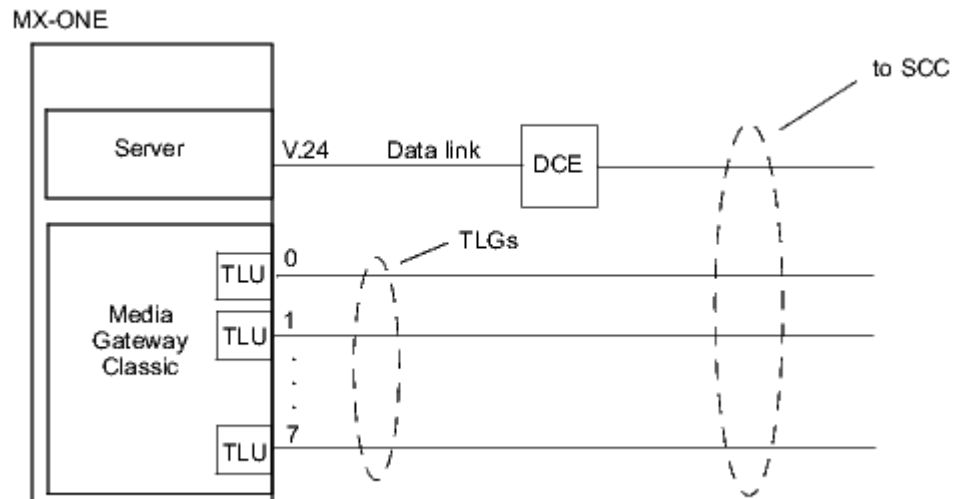
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## 1

## GENERAL

The Surveillance Observation and Monitoring, SOM, comprises functions for observation and monitoring of traffic to or from certain extensions, groups or routes/trunks.

The surveillance is controlled and administered from a Surveillance Control Centre, SCC.



**Figure 1: Surveillance system connected to the SCC with a data link and trunk line groups**

The data link carries administration data and observation information for observed objects.

The data link is set up on serial communication ports or TCP-IP interface in the MX-ONE Service Node. The data link is then connected to the SCC through a data communication equipment (DCE).

To be able to distribute speech information to the SCC trunk line groups, TLGs are used. Each TLG contains thirty trunk line individuals.

## 2 INTERFACE IN

### 2.1 CONNECTION TO THE DATA LINK

#### 2.1.1 GENERAL

All data communication between the SCC and the SOM are done through the data link. The data link is divided into two channels, the Control Channel (CCL) and the Event Channel (ECL).

#### 2.1.2 LOGICAL INTERFACE

An I/O interface is used to connect the data link to a data communication equipment (DCE), for instance ordinary modems or TAU2680, used to transfer messages and orders to and from the SCC. Communication over the interface is asynchronous, full duplex.

#### 2.1.3 ELECTRICAL INTERFACE

The electrical characteristics for the V.24 interface complies with ITU-T recommendation V.28.

The electrical characteristics for the TCP/IP interface comply with IEEE 802.3ab Gigabit Ethernet standard.

#### 2.1.4 MECHANICAL INTERFACE

For the mechanical interface, see the interworking description for PARNUM for the chosen equipment.

#### 2.1.5 PROTOCOL

Data sent from the SOM are converted from an internal protocol to a byte stream, which then are sent through the V.24 ports or TCP/IP interface to the SCC. This protocol includes Control Messages sent via the CCL and Event Messages sent via the ECL.

Similarly, Control Orders sent on the CCL from the SCC are received as a byte stream and then converted to the internal SOM protocol.

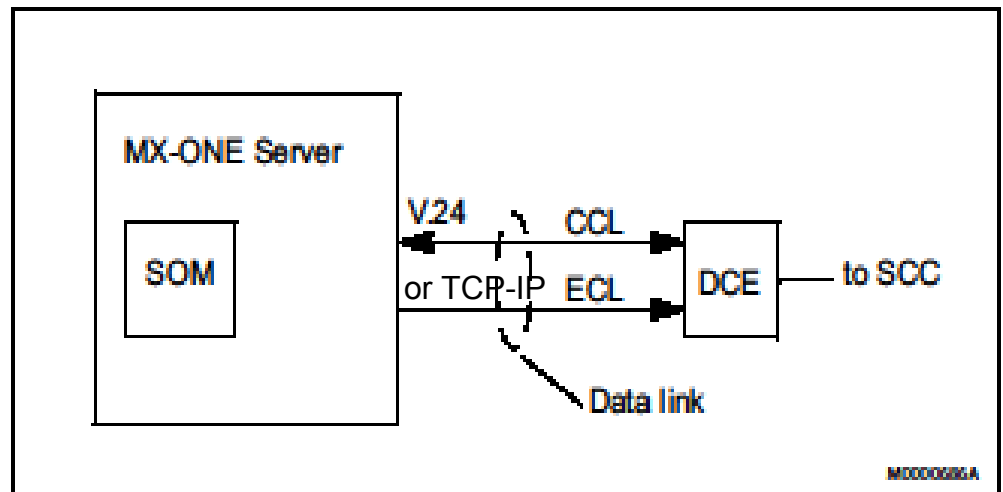


Figure 2: The data link and its channels, CCL and ECL

## 2.2 CONNECTION TO THE MONITORING TRUNK LINES

### 2.2.1 GENERAL

The digital trunk lines are used to carry speech information from the MX-ONE Service Node to the SCC.

### 2.2.2 LOGICAL INTERFACE

The interface between the MX-ONE Service Node and the SCC consists of up to eight 30/32-channels PCM interfaces. The PCM interfaces are connected and set up as normal routes in the MX-ONE Service Node.

### 2.2.3 ELECTRICAL INTERFACE

See the description for the chosen trunk line board (ISDN PRA).

### 2.2.4 MECHANICAL INTERFACE

See the description for the chosen trunk line board (ISDN PRA).

### 2.2.5 PROTOCOL

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### **3 INTERFACE OUT**

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### **4 OPERATOR INTERFACE**

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