

# Message Transfer Part Data, MT

OPERATIONAL DIRECTIONS



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# 1

## GENERAL

This document describes the administration of Message Transfer Part (MTP) functions of Signaling System Number 7. An overview description of the MTP is contained in ITU-T Recommendation Q.701.

MTP is subdivided into three function levels.

Levels 1 and 2 deal with signaling link functions. Level 1 defines the signaling link itself and the means of access to it; level 2 is concerned with the correct alignment of the signaling link and the transmission of messages without error over the signaling link.

Level 3 of MTP is specified to cover signaling message handling functions and signaling network management functions according to ITU-T Recommendation Q.704.

Level 3 of MTP is an interface between the User Parts (TUP) and MTP level 2 modules, where each module is assigned to a separate PCM board at level 1.

The functions which are handled by level 3 are as follows:

- Message handling functions, such as routing and distribution of signaling information
- Signaling network management functions, such as signaling traffic management and signaling link management
- Maintenance functions, such as initiation, alteration, and removal of signaling links and link sets, collection of data for monitoring, alarm handling, and error indication

See operational directions for *ADMINISTRATION OF ROUTES* for further information.

### 1.1

## GLOSSARY

For a complete list of abbreviations and glossary, see the description for *ACRONYMS, ABBREVIATIONS AND GLOSSARY*.

**2****AIDS**

I/O terminal.

### 3 REFERENCES

In these operational directions references are made to the following documents:  
see the command description for *MESSAGE TRANSFER PART DATA, MT*

## 4

## PROCEDURE

The following work flow shall be used at message transfer part administration:

1. Initiate a signaling link set.
2. Initiate a signaling link.
3. Initiate a signaling route set.
4. Initiate a signaling route.
5. Initiate route and trunk lines, see operational directions for *ROUTE DATA*.
6. Activate the signaling link.

## 5 EXECUTION

### 5.1 SIGNALING LINK SET

#### 5.1.1 INITIATING A SIGNALING LINK SET

##### **General**

A signaling link set comprises all signaling links between two adjacent nodes. The maximum number of link sets in the system is 16.

##### **Execution**

Key the command *MTSSI* to initiate the signaling link set.

Key the command *MTSSP* to verify the result.

#### 5.1.2 CHANGING SIGNALING LINK SET DATA

##### **General**

Initiated data can be altered by keying the command *MTSSC* with the new desired values.

##### **Prerequisites**

If the parameter DPC is to be changed, there must be no signaling route initiated using the current DPC.

##### **Execution**

Key the command *MTSSC* to alter data for the link set.

Key the command *MTSSP* to verify the result.

#### 5.1.3 REMOVING A SIGNALING LINK SET

##### **Prerequisites**

No signaling links must be initiated for the signaling link set that is to be removed. The destination must not be initiated as destination for any signaling route or signaling route set.

##### **Execution**

Key the command *MTSSE* to remove the signaling link set.

Key the command *MTSSP* to verify the result.

#### 5.1.4 PRINTING SIGNALING LINK SET DATA

##### **General**

Command *MTSSP* is used to obtain a printout of signaling link set data. It is possible to choose between a printout of all trunks or a printout of all signaling links in the stated signaling link set.

##### **Execution**

Key the command *MTSSP* to obtain a printout of the signaling link set data.

## 5.2 SIGNALING LINK

### 5.2.1 INITIATING A SIGNALING LINK

**General**

A signaling path between two adjacent signaling points is called a signaling link. The maximum number of signaling links in the same signaling link set is 16.

**Prerequisites**

The related signaling link set and the board must be initiated.

**Execution**

Key the command *MTSLI* to initiate the signaling link.

Key the command *MTSLP* to verify the result.

### 5.2.2 CHANGING SIGNALING LINK DATA

**General**

Initiated data can be altered by keying the command *MTSLC* with the new desired value(s).

**Execution**

Key the command *MTSLC* to alter data for the signaling link.

Key the command *MTSLP* to verify the result.

### 5.2.3 REMOVING A SIGNALING LINK

**Prerequisites**

No trunk lines are initiated on the corresponding TLU76/4 board.

**Execution**

Key the command *MTSSP* to verify that no lines are initiated.

Key the command *MTSLE* to remove the signaling link.

Key the command *MTSLP* to verify the result.

### 5.2.4 ACTIVATING A SIGNALING LINK

**General**

A signaling link must be in active state in order to use it for transfer of CCSS7 messages. If the link has been activated once, it is kept in this state automatically by the system.

If the value for the signaling link is stated in the command, only the stated signaling link is activated. However, if the value for the signaling link set is entered, all signaling links within the signaling link set are activated into service.

**Execution**

Key the command *MTSDC* with the value NO for parameter DEACT.

Key the command *MTSLP* or *MTSSP* to verify the result.



## 5.2.5 DEACTIVATING A SIGNALING LINK

### **General**

If the value for the signaling link is entered in the command, only the stated signaling link will be deactivated. However, if the value for the signaling link set is entered in the command, all active signaling links within this signaling link set will be deactivated.

### **Prerequisites**

If no signaling link within the corresponding signaling link set will be active after execution, all lines assigned to the signaling link set must be manually blocked before the signaling link can be deactivated.

### **Execution**

Key the command *MTSDC* with the value YES for parameter DEACT.

Key the command *MTSLP* or *MTSSP* to verify the result.

## 5.2.6 PRINTING SIGNALING LINK DATA

### **General**

Command *MTSLP* is used to obtain a signaling link data printout.

### **Execution**

Key the command *MTSLP* to obtain a printout of the signaling link data.

## 5.2.7 INITIATING THE SIGNALING LINK INHIBITION

### **General**

Signaling link management inhibition is requested in order to make or keep a signaling link unavailable for user part-generated signaling traffic. At the same time, the signaling link will still be able to transmit maintenance and test messages.

### **Prerequisites**

The stated signaling link must be initiated and inhibited.

### **Execution**

Key the command *MTSLP* to verify that the signaling link is initiated and not locally inhibited.

Key the command *MTLII* to initiate a signaling link inhibition.

Key the command *MTLIP* to verify the result.

## 5.2.8 REMOVING THE SIGNALING LINK INHIBITION

### **General**

Removal of inhibition causes the signaling link to be available again for user part generated signaling traffic.

### **Prerequisites**

The stated signaling link must be initiated and inhibited.

### **Execution**

Key the command *MTSLP* to verify that the signaling link is initiated and locally inhibited.

Key the command *MTLIE* to remove the local inhibition.

Key the command *MTLIP* to verify the result.

### 5.2.9

## PRINTING THE SIGNALING LINK INHIBITION STATE

### General

Command *MTLIP* is used to obtain a printout of a signaling link inhibition state.

### Execution

Key the command *MTLIP* to obtain a printout of the signaling link inhibition state.

## 5.3

## SIGNALING ROUTE SET

### 5.3.1

## INITIATING A SIGNALING ROUTE SET

### General

A signaling route set defines all possible paths to a particular signaling point.

### Prerequisites

The stated destination point code must be initiated in a link set.

### Execution

Key the command *MTSTI* to initiate a signaling route set.

Key the command *MTSTP* to verify the result.

### 5.3.2

## REMOVING A SIGNALING ROUTE SET

### General

Removal of a signaling route set deletes all paths to a particular signaling point.

### Prerequisites

No signaling routes may be initiated in the signaling route set.

### Execution

Key the command *MTSRP* to verify that no signaling routes are assigned to the route set.

Key the command *MTSTE* to remove the signaling route set.

Key the command *MTSTP* to verify the result.

### 5.3.3

## PRINTING SIGNALING ROUTE SET DATA

### General

Command *MTSTP* is used to obtain a printout of signaling route set data.

### Execution

Key the command *MTSTP* to obtain a printout of the signaling route set data.

## 5.4 SIGNALING ROUTE

### 5.4.1 INITIATING A SIGNALING ROUTE

#### **General**

A signaling route defines a path with a certain priority to a particular signaling point.

#### **Prerequisites**

The stated signaling link set and the signaling route set must be initiated.

#### **Execution**

Key the command *MTSSP* to obtain a printout to verify that the signaling link set is initiated.

Key the command *MTSTP* to obtain a printout to verify that the signaling route set is initiated.

Key the command *MTSRI* to initiate a signaling route.

Key the command *MTSRP* to verify the result.

### 5.4.2 REMOVING A SIGNALING ROUTE

#### **General**

Removing a signaling route deletes a path to a particular signaling point.

#### **Prerequisites**

The stated signaling route must be initiated.

#### **Execution**

Key the command *MTSRE* to remove the signaling route.

Key the command *MTSRP* to verify the result.

### 5.4.3 PRINTING SIGNALING ROUTE DATA

#### **General**

Command *MTSRP* is used to obtain a printout of the signaling route data.

#### **Execution**

Key the command *MTSRP* to obtain a printout of the signaling routes.

**6****TERMINATION**

If exchange data has been altered and no more commands are to be keyed, a dump to backup media shall be performed.