

Information systems, IC

OPERATIONAL DIRECTIONS



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GENERAL

An information system can consist of, for example, a message switching system of type interception computer, voice mail system, messaging system, or an ANCD server running on a service node. These operational directions deal with the commands which are common to all types of information systems.

Instructions for specific types of information systems are described in separate operational directions. A factor applying generally to all types of information systems is that they shall be connected to the exchange via the general interface for information systems.

The MESSAGE WAITING function is also included in the general interface for information systems. Message waiting means that when an extension receives a message in an information system, the extension will be notified of this on the telephone.

Notification can take place in the following different ways:

- a) Ring signal. Ringing is achieved as a single burst (pling) on the bell for an analogue telephone.
The period between two plings is 15 minutes (changeable by application system parameter *PARNUM=45*). If the extension is diverted (direct diversion, follow me, or message diversion), no notification will be given.
- b) Special dial tone.
- c) Lamp indication. Applicable only for telephones with a dedicated message waiting lamp and connected to an extension board that is capable of providing message waiting lamp indication. When message waiting is initiated, the lamp on the telephone set is turned on.

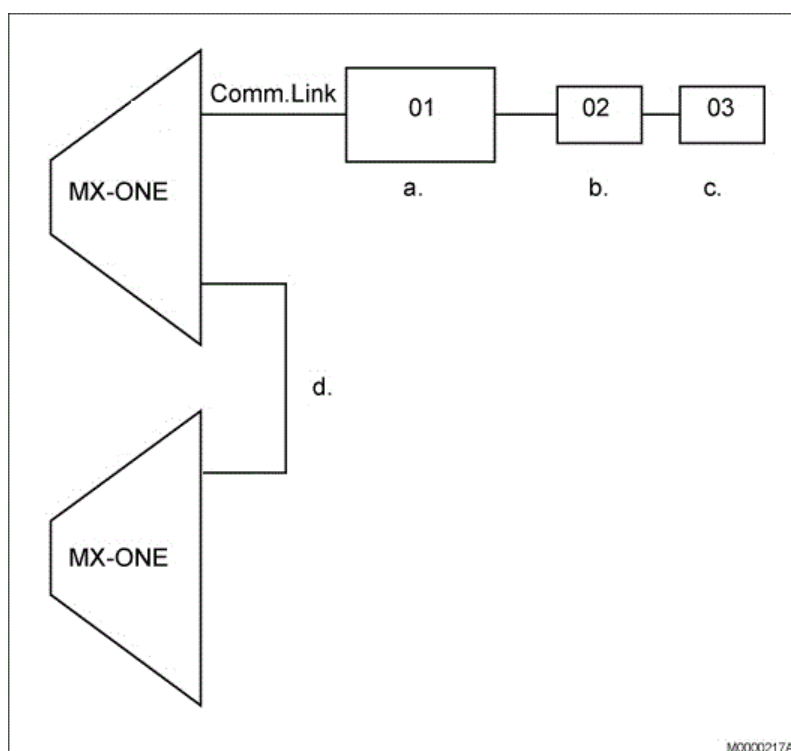
An application system parameter (*PARNUM=88*) makes it possible to choose the type of message waiting indication(s) desired. The parameter can be set to either ring signal or special dial tone. The message waiting indications based on parameter selection for different types of telephones will be as follows (the letters a, b, and c refer to the message waiting indications above):

Telephone type	Ring signal selected	Special dial tone selected
Analog telephone	a	b
Analog telephone with message waiting lamp	a	b and c
IP extension	a	b
IP extension with message waiting lamp	a	b and c

The NETWORK MESSAGE WAITING function is similar to MESSAGE WAITING function with the following differences:

- only voice mail systems can activate/deactivate network message waiting indication.
- the voice mail systems are located in other exchanges.
- used only in a private network environment. Message waiting indication is sent to the other end via ISDN/H.323 virtual call connection.

Figure 1-1 shows the connection of an information system to the exchange.



- Directly connected information system with system identity 01
- Indirectly connected information system with system identity 02
- Indirectly connected information system with system identity 03
- Sharing of information system (voice mail system only) with other node within an ISDN/H.323 private network.

The system identity (SID) is used in commands *ICMWC* and *ICMWP*.

2 PREREQUISITES

An network interface port for connecting the information system to the exchange.

3 AIDS

I/O terminal

4 REFERENCES

In these operational directions, references are made to the following documents:

Command Descriptions:	<i>MESSAGE WAITING, EM INTERCEPTION SERVICE, IS VOICE MAIL, VM</i>
Installation Instructions:	<i>MESSAGE WAITING, EM INTERCEPTION SERVICE, IS VOICE MAIL, VM</i>
Operational Directions:	<i>MESSAGE WAITING, EM INTERCEPTION SERVICE, IS VOICE MAIL, VM</i>

5 PROCEDURE

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6

EXECUTION

6.1

THE INFORMATION SYSTEM FUNCTION

6.1.1

INITIATING THE INFORMATION SYSTEM FUNCTION

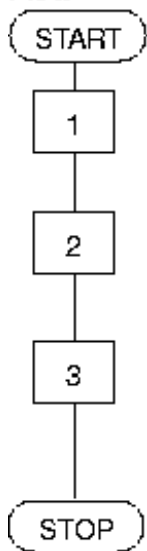
General

Connect the information system to the network interface port on the MX-ONE Service Node, see installation instructions for the relevant information system application.

Prerequisites

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Execution

		Measure/Question	Observation/Comment
Flow  <pre> graph TD START([START]) --> 1[1] 1 --> 2[2] 2 --> 3[3] 3 --> STOP([STOP]) </pre>			
	1	Key the command <i>ICFUP</i> to print IFCIND already defined.	
	2	Key the command <i>ICFUI</i> to initiate an IFCIND for remote server port.	
	3	Key the command <i>ICFUP</i> to verify the result.	

6.1.2

REMOVAL OF THE INFORMATION SYSTEM FUNCTION

General

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Prerequisites

Before the information system function can be removed, the applications, if any, must be removed.

Execution

		Measure/Question	Observation/Comment
Flow <pre> graph TD START([START]) --> 1[1] 1 --> 2{2} 2 -- Y --> 3[3] 2 -- N --> 4[4] 3 --> 5[5] 4 --> 5 5 --> STOP([STOP]) </pre>	1	Verify, with the specific information system's printout commands, that no application is connected to the information system's serial number.	See commands: <i>ISFUP</i> , <i>VMFUP</i> , and <i>VMGEP</i> .
	2	Is any application initiated?	
	3	Remove the application with the specific information system's ending command.	See relevant application's operational directions.
	4	Remove the information system function with command <i>ICFUE</i> .	
	5	Verify the result with command <i>ICFUP</i> .	

6.1.3

CHANGING INFORMATION SYSTEM DATA

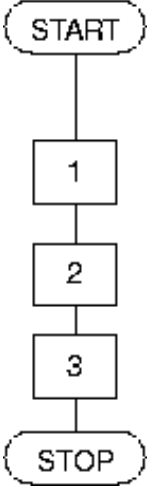
General

Data for an information system function can be changed with command *ICFUC*. All parameters are specific to the individual information system whose serial number (IFCIND) is specified, with the exception of parameters UPDTIM and MWF which apply to all connected information systems.

Prerequisites

The information system function must be initiated by means of command *ICFUI*.

Execution

		Measure/Question	Observation/Comment
Flow  <pre> graph TD START([START]) --> 1[1] 1 --> 2[2] 2 --> 3[3] 3 --> STOP([STOP]) </pre>			
	1	Verify the existing data with command <i>ICFUP</i> .	
	2	Change the desired data with command <i>ICFUC</i> .	
	3	Verify the result with command <i>ICFUP</i> .	

6.1.4

PRINTOUT OF INFORMATION SYSTEM FUNCTION

General

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Prerequisites

The function must be initiated with command *ICFUI*.

Execution

Print out data of the information system function with command *ICFUP*.

6.2

INITIATION OF UPDATING

General

Updating of the exchanges message waiting information is executed from all connected information systems that can execute updating. In case of the interception computer function, the exchanges message diversion information is also updated.

Prerequisites

The information system application must have been initiated by means of the updating function (see *ICFUI*).

Execution

	Measure/Question	Observation/Comment	
<p>Flow</p> <pre>graph TD START([START]) --> D1{1} D1 -- N --> D3_2{3} D1 -- Y --> P2[2] P2 --> D3_1{3} D3_2 -- Y --> P4[4] D3_2 -- N --> P5[5] P5 --> P6[6] P6 --> P7_1[7] D3_1 -- Y --> P4 D3_1 -- N --> P7_2[7] P4 --> P7_1 P7_1 --> P7_2 P7_2 --> STOP([STOP])</pre>	1	Do any of the Information Systems being updated that use network message waiting?	If yes, then an update of all information systems that use network message waiting is required.
	2	Erase network message waiting in all nodes with command <i>ICUPI:IFCIND=16</i> .	Must be entered at I/O terminal of remote nodes.
	3	Estimate the length of time the update will take. Will this time frame interfere with the periodic update time? Verify with command <i>ICFUP</i> .	If yes, then wait for periodic update.
	4	Start update with <i>ICUPI</i> .	
	5	Start update with command <i>ICUPI</i> in all nodes that have connected Information Systems that use network message waiting.	
	6	Start update with command <i>ICUPI</i> in any other nodes that have connected Information Systems that need to be updated.	
	7	A result printout is obtained as an acknowledgement of the executed updating when the terminal is logged off or when another command is keyed.	

6.3

MESSAGE WAITING

General

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Prerequisites

The connected information system (e.g. voice mail or interception computer), must be capable of sending message waiting messages across the general information computer interface (GICI).

Execution

		Measure/Question	Observation/Comment
Flow <pre> graph TD START([START]) --> 1[1] 1 --> 2[2] 2 --> 3[3] 3 --> 4[4] 4 --> 5[5] 5 --> 6[6] 6 --> 7[7] 7 --> STOP([STOP]) </pre>			
	1	Key the command <i>ICMWC</i> to alter displayed text, function of the message waiting button and number information	
	2	Key command <i>ICMWP</i> to verify the result.	
	3	Key the command <i>ASPAP</i> to print the type of message waiting notification currently selected.	Use <i>PARNUM=88</i>
	4	Key the command <i>ASPAC</i> to change the type of message waiting notification.	Use <i>PARNUM=88</i>
	5	Key the command <i>ASPAP</i> to print the time interval at which message waiting ring signal is to be repeated.	Use <i>PARNUM=45</i>
	6	Key the command <i>ASPAC</i> to change the time interval at which message waiting ring signal is to be repeated.	Use <i>PARNUM=45</i>
	7	Key the command <i>ASPAP</i> to verify the result.	Use <i>PARNUM=88</i>

6.4

NETWORK MESSAGE WAITING

General

Care should be taken to determine the correct settings for each node in the network. Then the execution section should be performed for each node in the network that is to receive message waiting indications.

Prerequisites

The connected information system (e.g. voice mail), must be capable of sending message waiting messages across the general information computer interface (GICI).

Execution

		Measure/Question	Observation/Comment
Flow <pre> graph TD START([START]) --> 1[1] 1 --> 2[2] 2 --> 3[3] 3 --> 4[4] 4 --> A((A)) </pre>			
	1	Key the command <i>ICMWC</i> to alter displayed text, function of the message waiting button and number information.	
	2	Key command <i>ICMWP</i> to verify the result.	
	3	Key the command <i>ASPAP</i> to print the type of message waiting notification currently selected.	Use <i>PARNUM=88</i>
	4	Key the command <i>ASPAC</i> to change the type of message waiting notification.	Use <i>PARNUM=88</i>

		Measure/Question	Observation/Comment
Flow <pre> graph TD A((A)) --> 5[5] 5 --> 6[6] 6 --> 7[7] 7 --> STOP([STOP]) </pre>			
	5	Key the command <i>ASPAP</i> to print the time interval at which message waiting ring signal is to be repeated.	Use <i>PARNUM=45</i>
	6	Key the command <i>ASPAC</i> to change the time interval at which message waiting ring signal is to be repeated.	Use <i>PARNUM=45</i>
	7	Key the command <i>ASPAP</i> to verify the result.	Use <i>PARNUM=88</i>

7

TERMINATION

If exchange data have been changed and if no more commands are to be entered, a dump shall be performed.