

**365-353-014**

**DACS II MML Operation and Command and Message Supplement -  
Release 6.1 - 365-353-014**

Refer to Chapter 6

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# 1. About This Document and Introduction

## 1.1 About This Document

### 1.1.1 Purpose

This document contains the operating procedures and commands and messages for DACS II Release 6.1 MML. This document supplements the *DACS II Release 6.0 MML Operation and Maintenance Manual* and the *DACS II Release 6.0 MML Command and Message Manual*.

### 1.1.2 Intended Audiences

This document is intended for craft personnel responsible for operating and maintaining the DACS II frame.

### 1.1.3 How to Use This Document

#### 1.1.3.1 General

Before you attempt to use the procedures in this document, you should become familiar with its contents. The contents are described below.

#### 1.1.3.2 Contents

##### **Chapter 1 - Introduction**

This chapter provides a high-level overview of the DACS II Release 6.1 features.

##### **Chapter 2 - Operating Procedures**

This chapter contains the procedures to accomplish the tasks and activities needed to utilize the new set of features provided in DACS II Release 6.1. These activities are presented in a descriptive fashion with command examples. These examples are provided to develop a conceptual understanding of each feature. The huMan Machine Language (MML) version of the commands and messages are presented in this chapter.

##### **Chapter 3 - Command and Message Supplement for Ericsson Cellular Framing**

This chapter provides the commands and messages that have been modified to reflect the Ericsson Cellular Framing feature. The MML version of the commands and messages are presented in this chapter.

##### **Chapter 4 - Command and Message Supplement for Main Controller Availability**

This chapter provides the commands and messages that have been modified to reflect the Main Controller Availability feature. The MML version of the commands and messages are presented in this chapter.

### 1.1.4 Conventions Used

This manual uses special fonts in order for the user to differentiate computer input/output. The constant width font indicates message formats, keywords, letter representations of parameters, parameter values, and messages as they would appear on a DACS II terminal screen.

The backslash character is used in both the input commands and output message representations within this manual to mark the point in the message text where the line has been terminated and continued to another line. This is consistent with the present use of the backslash character on input to enter a command whose length exceeds 80 characters.

### 1.1.5 Related Documentation

The following manuals support DACS II Release 6.0 and should be used in conjunction with this manual.

- o DACS II Release 6.0 MML Operation and Maintenance Manual (365-353-011)

Audience: End-user maintenance personnel.

Content: Procedures to operate and maintain the DACS II.

- o DACS II Release 6.0 MML Command and Message Manual (365-353-012)

Audience: End-user maintenance personnel.

Content: Description of each software input command and its response message along with a description of each system output report.

- o DACS II Release 6.0 MML Quick Reference Guide (365-353-013)

Audience: End-user maintenance personnel.

Content: Abbreviated list of system commands and parameters.

- o DACS II Release 6.0 MML 2.048 Mb/s Interface Operation and Maintenance Manual (365-353-031)

Audience: End-user maintenance personnel.

Content: Procedures to operate and maintain the DACS II.

- o DACS II Release 6.0 MML 2.048 Mb/s Interface Command and Message Manual (365-353-032)

Audience: End-user maintenance personnel.

Content: Description of each software input command and its response message along with a description of each system output report.

- o DACS II Release 6.0 MML 2.048 Mb/s Interface Quick Reference Guide (365-353-033)

Audience: End-user maintenance personnel.

Content: Abbreviated list of system commands and parameters.

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## **1.2 Introduction**

### **1.2.1 Introduction**

#### **1.2.1.1 Overview**

This document details the operation procedures and the commands and messages of the Digital Access and Cross-Connect System II (DACS II) Release 6.1. DACS II Release 6.1 contains the following two new features:

- o Main Controller Availability Enhancement
- o Ericsson Cellular Framing

The remainder of this chapter provides an introduction to these two features.

#### **1.2.1.2 Main Controller Availability Enhancement**

The Main Controller availability enhancement makes the execution of the disk-to-tape database backup command optionally a background process so the Main Controller can be released for the processing of other input commands. DACS II Release 6.1 provides a new command option for enabling the background execution of the disk-to-tape backup command. When this new background option is entered for the backup command, the

following three tasks are performed in the background:

- o Restoration of the tape by software
- o Database backup from disk to tape
- o Removal of the tape by software.

During the execution of this background backup, the Main Controller is available to process a limited set of input commands. This set of input commands is listed in Chapter 2 (see Table 2-1).

**1.2.1.3 Ericsson Cellular Framing**

DACS II Release 6.1 allows DACS II to terminate facilities in cellular networks that carry signals between Ericsson cellular switches using the Mobile Both-way Line Terminal (MBLT) framing format and cell sites. DACS II Release 6.1 supports Ericsson Cellular Framing by providing a new user-provisionable framing format, programmed by specifying a value of x=8 when provisioning Network Processing Circuits (NPCs) "xyz" parameters. This new framing format applies to the following NPC types:

- o "DA" and "DE" type NPCs in DS1 facility terminating units
- o "TA" and "TE" type NPCs in DS3 facility terminating units.

## 2. Operating Procedures

### 2.1 Main Controller Availability Enhancement

#### 2.1.1 Overview

The Main Controller availability enhancement makes the execution of the disk-to-tape database backup command optionally a background process so the Main Controller can be released for the processing of other input commands. DACS II Release 6.1 provides a new command option for enabling the background execution of the disk-to-tape backup command. When this new background option is entered for the backup command, the following three tasks are performed in the background:

- o Restoration of the tape by software
- o Database backup from disk to tape
- o Removal of the tape by software.

The system must be in the following state before a background backup can be performed:

- o The Main Controller must be either in service or in maintenance condition.
- o The disk must be in service.
- o The tape must be both physically in the tape drive and writable.

During the execution of this background backup, the Main Controller is available to process a limited set of input commands. Table 2-1 lists the commands that can be processed during a background backup.

When a command that is not listed in this table is entered on any link/virtual circuit during a disk-to-tape background backup, it will neither be executed nor denied. Instead, these commands will be queued until the completion of the backup, as in the previous releases of DACS II software.

**Note:** If the command being queued is an autonomous removal command or any other error-recovery related command, all subsequent commands entered on all links/virtual circuits will be queued. However, if the command being queued is not an autonomous removal command or another error-recovery related command, only subsequent commands entered on the same link/virtual circuit will be queued.

### 2.1.2 Invoking Disk-to-Tape Background Backup

**Note:** The screening option for the link that the background backup is entered on should be set to 1. Refer to *Change Output Message Screening* in Chapter 7 of the Operation and Maintenance Manual.

To invoke a disk-to-tape background backup, enter the following command:

```
CPY-MEM:[xy]::[ww]:<from>,<to>:[ ]PROG{ |DBASE |INSTL }:[INCL]:[BKGRND]
```

Where:

from = Source for copy memory.

to = Destination for copy memory.

WKG - Working (Random Access Memory)  
PRI - Primary (Primary memory, the disk)  
SEC - Secondary (Secondary memory, the tape)

The only permissible combinations are:

WKG to PRI  
PRI to SEC  
SEC to PRI

PROG = Program. Copy generic software only. May not be used when copying from working to primary memory.

DBASE = Database. Transfer Database only.

INSTL = Install. This can only be used when transferring initialized database from a special tape to disk.

INCL = Inclusive. The INCL keyword is used to request that the database on the disk be transferred to the tape excluding the generic journal files.

BKGRND = Background. This keyword can only be used when transferring the database from DISK to TAPE.

### 2.1.3 Scheduling Daily Disk-to-Tape Background Backup

To schedule a daily disk-to-tape background backup, enter the following command:

```
SCHED-BKUP-MEM:[<xy>]:SEC:[ww]:DATA:{00|24}-HR:[hr-mn-sc]:[BKGRND]
```

Where:

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DATA = Data

SEC = Secondary

00-HR = Cancel the daily BMTR from disk to tape.

24-HR = Set the time for the daily BMTR from disk to tape.

HR = Hour

hr-mn-sc = The starting time of the BMTR.

BKGRND = Background. This requests that the backup memory transfer takes place in the background. This allows the Main Controller to process a limited set of commands during the backup.

### 2.1.4 Querying the Scheduled Daily Disk-to-Tape Background Backup

To query the status of daily disk-to-tape backups, enter the following command:

```
RTRV-BKUPSCHED-MEM:[<xy>]:SEC:[ww]:DATA
```

Where:

SEC = Secondary (the tape).

DATA = Data.

**Note:** The command response will indicate if the scheduled backup is to be performed in the background.

## 2.2 Ericsson Cellular Framing

### 2.2.1 Overview

**Note:** This feature is only applicable to 1.544 Mb/s applications.

DACS II Release 6.1 allows DACS II to terminate facilities in cellular networks that carry signals between Ericsson cellular switches using the Mobile Both-way Line Terminal (MBLT) framing format and cell sites. DACS II Release 6.1 supports Ericsson Cellular Framing by providing a new user-provisionable framing format, programmed by specifying a value of x=8 when provisioning Network Processing Circuits (NPCs) "xyz" parameters. This new framing format applies to the following NPC types:

- o DA and DE type NPCs in DS1 facility terminating units

- o TA and TE type NPCs in DS3 facility terminating units.

Table 2-2 contains the circuit packs and NPC types to which this feature applies.

**Note:** The following circuit packs are not supported by this feature: TG80, TG184, TG186, and TG183. However, provisioning NPCs on these circuit packs with Ericsson Cellular Format (x=8) will not be denied.

A typical network configuration with T1 facilities is shown in Figure 2-1.

In order to perform grooming and consolidation to reduce transmission costs, 1/0 cross-connect equipment can be placed between the cell sites and the cellular switches. Release 6.1 enables DACS II to terminate the Ericsson MBLT framing format, which carries both the cell traffic and a signaling link between the switch and the cell. All cell site signaling is carried on channel nine (D4 channel numbering), leaving 23 channels available to carry voice traffic.

Included in this section are procedures for growing type DA, DE, TA, and TE NPCs.

## 2.2.2 Install Plug-Ins and Grow Type DA NPC

**Overview:** This procedure is used to define the operating characteristics of the NPC in the data base. When the NPC is subsequently restored to service, it will be provisioned per the growth specification.

1. Install the TG191 circuit pack in the NPC slot.
2. Familiarize yourself with the command as follows:  

```
CRTE-EQPT::NPC <npc No.>:[ww]:mnxyz:\
[rr/m][&rr/m][...]:[IW-X-pq[,INCL]]\
[,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}];
```

Where:

<npc No.> = NPC number.  
 <range> = Optional, last NPC of continuous range of NPCs.  
 mn = NPC type DA.  
 xyz = NPC type identifier. Table 2-3 contains identifier definitions. Recommended value is DA810.

**Note:** The standard xyz table has been limited to show only values that apply to the Ericsson Cellular Format. The recommended y and z values are: y=1 and z=0.

rr = Facility performance parameter number. Table 2-4 contains valid values.

m = Facility performance threshold index (0 through 3).  
 IW = Insertion word.  
 INCL = Inclusive.  
 AIS = Alarm Indication Signal.  
 INFO = Information message (not an alarm).  
 MJ = Major  
 MN = Minor  
 PL = Payload loopback  
 ENA = Enabled  
 DSA = Disabled

3. Enter command with required TYPE options. If default alarm thresholds are appropriate, the OPTS field can be omitted from the command.
4. Check the output message to verify type and option selections.
5. When the PL field is not specified, the default is payload loopback enabled.

### 2.2.3 Install Plug-Ins and Grow Type DE NPC

**Overview:** This procedure is used to define the operating characteristics of the NPC in the data base. When the NPC is subsequently restored to service, it will be provisioned per the growth specification.

1. Install the appropriate plug-in cards in the NPC slots to be equipped from the following list: TG80B or TG191.
2. Familiarize yourself with the following command:

```
CRTE-EQPT:[xy]:NPC-<npc No.>[&&[&]-<range>]:[ww]:[DExyz]
[:rr/l&ss/m,&tt/n,...][:IW-X-pq][,AIS-{INFO|MJ|MN}];
```

Where:

<npc No.> = NPC number, either extended (for example, [0]001) or hierarchical (for example, 01-1-01).

<range> = Optional, last NPC of continuous range of NPCs.

xyz = Line and channel format specification; DE100 is the default. See Table 2-5 for values. Recommended value is DE810.

rr/l,ss/m,tt/n,... = Optional, to list any or all alarm types (01 through 08) per Table 2-6 and predefined number (0 through 3) per Table 2-7 which sets alarm threshold. See EXAMPLE in step 5.

pq = Optional, to enter IW in hexadecimal form; default is 7F. See typical values in Step 4.

AIS field = Optional; to specify class of output message issued when AIS is received: INFO (default) for information, MJ for major alarm, or MN for minor alarm.

3. If you are going to use the IW field, consider the following:

- The two hexadecimal digits define an 8-bit insertion word for unassigned channels. To prevent the generation of a yellow alarm condition (with D4 line format), the hexadecimal number for the left digit must not be one that corresponds to a binary number with bit 2 = 0 (that is, decodes to x0xx).

- MUX keyword - IW = IA.

4. Enter command with required information.

EXAMPLE: CRTE-EQPT::NPC-012::DE810:01/1&03/2&07/2:  
IW-X-18;

- o If the command is denied, find the reason for the denial from the output message and perform corrective action to obtain command completion (*Command Denials* has explanations of denial codes).

5. Check completion message to verify changes.

**Note:** The standard xyz table has been limited to show only values that apply to the Ericsson Cellular Format. The recommended y and z values are: y=1 and z=0.

## 2.2.4 Grow Type TE NPCs

**Overview:** This procedure is used to enter the type specifications of the NPCs on the Multiplexer/Enhanced Multiplexer (MXR/EMXR) pack in a DS3 unit. These NPCs are incorporated in the MXR pack and are not separate plug-ins. The type specification determines the basic operation and the line and channel formats of the DS1 signal. Optional fields in the growth command allow selecting different facility performance alarm thresholds and specifying a particular insertion word. The alarm threshold options are only applicable to the TE type.

1. Install the KCR1/KCR5 (MXR/EMXR) circuit pack in the appropriate slot.
2. Familiarize yourself with the command as follows:  
CRTE-EQPT:[xy]:NPC-<npc No.>[&&[&]-<range>]:[ww]:  
[mnxyz]:[rr/l&ss/m ...&tt/n)][[:IW-X-pq];

Where:

- xy = DACS II frame number (00 through ZZ).
- ww = Command sequence number (00 through 49).
- <npc No.> = NPC number, either extended (for example, [0]001) or hierarchical (for example, 01-1-01). The additional NPCs on the DS3 are identified by suffix, A through H.
- <range> = Optional, for last NPC of continuous range to be grown. Extra ampersand [&] required for hierarchical.
- mn = Type designation, mn = **TE**.
- xyz = Format specification; see Table 2-8. TE100 is default. Recommended value is TE810.
- rr,ss,tt = Optional field for type TE NPC to select nondefault alarm thresholds; see Table 2-9 for code to represent facility parameter.
- l,m,n = Option number (1 through 3) which has been predefined in the data base; 0 selects default value.
- pq = Optional, hexadecimal notation to specify IW pattern. Typical values are 7F (default), 18 for T1DM format, or FF for all 1s.

3. Enter command with required information. If default alarm thresholds and IW are appropriate for the NPCs, the corresponding optional fields can be omitted from the command.

EXAMPLE: CRTE-EQPT::NPC-16A:TE110:01/1&03/2&07/2:IW-X-FF;

4. Check output message to verify type and option entries.

**Note:** The standard xyz table has been limited to show only values that apply to the Ericsson Cellular Format. The recommended y and z values are: y=1 and z=0.

### 2.2.5 Install Plug-Ins and Grow Type TA NPC

1. Install the KCR5 (EMXR) and KCR6 (EMIU) circuit pack.
2. Familiarize yourself with the command as follows:

```
CRTE-EQPT::NPC <npc No.>:[ww]:mnxyz:\
[rr/m][&rr/m][...]:[IW-X-pq[,INCL]]\
[,AIS-{INFO|MJ|MN}][,PL-{ENA|DSA}]
```

Where:

- <npc No.> = NPC number.
- <range> = Optional, last NPC of continuous range of NPCs.
- mn = NPC type TA.
- xyz = NPC type identifier. Table 2-10 contains identifier definitions.

**Note:** The standard xyz table has been limited to show only values that apply to the Ericsson Cellular Format. The recommended y and z values are: y=1 and z=0.

rr = Facility performance parameter number. Table 2-11 contains valid values.  
m = Facility performance threshold index (0 through 3).

IW = Insertion word.  
INCL = Inclusive.  
AIS = Alarm Indication Signal.  
INFO = Information message (not an alarm).  
MJ = Major  
MN = Minor  
PL = Payload loopback  
ENA = Enabled  
DSA = Disabled

3. Enter command with required TYPE options. If default alarm thresholds are appropriate, the OPTS field can be omitted from the command.
4. Check the output message to verify type and option selections.
5. When the PL field is not specified, the default is payload loopback enabled.

## 2.2.6 Restore NPC

**Overview:** In the process of restoring, the DACS II runs both an out-of-service and in-service diagnostic and provisions the NPCs according to the NPC growth information. The looped tests that are included in the diagnostics test the transmission paths in the NPC (except line transformers) and test some of the facility checking circuitry. A hardware failure will cause a failed diagnostic and a restore denial. A facility problem will cause a CGA alarm.

1. Enter RST-EQPT:[xy]:NPC-<npc No.>[&&[&]-<range>]:[ww];  
Where:  
xy = Unique ID (target ID); up to 20 characters  
ww = Command correlation tag; up to 10 characters  
<npc No.> = NPC number, either extended (for example, [0]001) or hierarchical (for example, 01-1-01)  
<range> = Optional, to name the final NPC when it is desired to restore a continuous range of NPCs.  
Three ampersand (&s) are required for hierarchical.
2. Repeat the procedure as needed to restore other NPCs (or

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groups of NPCs).

**Note:** If a NPC is restored but its FTMI is OOS the RTRV-STATE-EQPT command will not show the alarm counts and alarms will not be displayed.

### 3. Command and Message Supplement For Ericsson Cellular Framing

#### 3.1 Overview

This chapter contains information that is intended to supplement the *Command and Message Manual* to support the Ericsson Cellular Framing feature. Table 3-1 lists the xyz Identifier Definitions.

Table 3-1 supplements the following commands:

<b>Message No.</b>	<b>Description</b>
38221	Change NPC Options
38231	Change Type Options
38241	Change Options
38271	Change DS3U NPC Type
38211	Change NPC Type
31341	Grow ANSI NPC
31352	Grow NPC
33351	Remove NPC
34351	Restore NPC
52011	Query Cross-Connect Map
52031	Utility Query DMAP
52041	Channelized Utility Query To
52051	Channelized Utility Query From
52061	Non-Channelized Utility Query To
52071	Non-Channelized Utility Query From
56311	Utility Query State
56314	Utility Query NPC State

## 4. Commands and Messages for Main Controller Availability

### 4.1 General

The commands and messages supplied in this chapter are intended to supplement the Command and Message Manual to support the Main Controller Availability feature. The following is a listing of the commands and messages contained in this chapter.

Message No.	Description
55701	Backup Memory Transfer
51051	Cancel Backup Memory Transfer
51061	Query Time of Day

### 4.2 CPY, MEM, PROG, DBASE, INSTL, INCL -- BACKUP MEMORY TRANSFER

#### Input Message Format

---

[I.55701]

```
CPY-MEM:[<xy>]::[ww]:<from>,<to>:[{PROG|DBASE|INSTL}]:[INCL]:[BKGRND];
```

#### Completion Message

[O.55701]

```
<xy> yy-mm-dd hh:mm:ss LINK-n[vv]
```

```
M CPY MEM:::[ww]:<from>,<to>:[{PROG|DBASE|INSTL}]:[INCL]:[BKGRND]
```

```
COMPLD
```

```
/* [O.55701] */
```

```
[ /* COUNT */
```

```
"ddd"]
```

```
;
```

[O.55702]

```
<xy> yy-mm-dd hh:mm:ss LINK-n[vv]
```

```
M CPY MEM:::[ww] IN_PROGRESS
```

```
;
```

#### Denial Message

[O.55701.01]

```
<xy> yy-mm-dd hh:mm:ss LINK-n[vv]
```

```
M CPY MEM:::[ww]:<from>,<to>:[{PROG|DBASE|INSTL}]:[INCL]:[BKGRND]
```

```
DENY
```

```
mmmm  
/* [O.55701.01] */  
/* <explanation of error condition code> */  
;
```

**Autonomous Message**

---

[O.55701]

```
<xy> yy-mm-dd hh:mm:ss  
A ff REPT CPY MEM  
/* [O.55701] */  
/* From memory,To memory:Memory usage */  
"<from>,<to>:[PROG|DBASE|INSTL]:[BKGRND] COMPLD"  
[/* COUNT */  
"ddd"]  
;
```

[O.55701.01]

```
<xy> yy-mm-dd hh:mm:ss  
A ff REPT CPY MEM  
mmmm  
/* [O.55701.01] */  
/* <explanation of error condition code> */  
/* From memory,To memory:Memory usage */  
"<from>,<to>:[PROG|DBASE|INSTL]:[BKGRND] DENY"  
;
```

**Explanation Of Message**

---

This message performs two functions:

1. It may be used to request a transfer of data base information from working, primary, or secondary memory to either primary or secondary memory.
2. It may be used to request a transfer of software between primary and secondary memory.

The user requires restricted maintenance privilege for transfers from secondary to primary memory. This privilege is restricted to the frame administrator. The Main Controller (MC) must be in maintenance condition (MCOND) for the transfer of databases or executables from tape to disk.

Every ten minutes the state of the frame is checked to look for changes in provisioning and/or cross connections. If a change has occurred within that period, an autonomous request is made to transfer data base information from working to primary memory.

This message may also be used to enable or disable the tape validation sequence whenever the database or program is transferred from the tape.

**Explanation Of Parameters**

---

from - Source for copy memory

to - Destination for copy memory

WKG Working (Random access memory)  
PRI Primary (Primary memory, the disk)  
SEC Secondary (Secondary memory, the tape)

**Note:** The only permissible combinations are listed below:

from to

WKG PRI  
PRI SEC  
SEC PRI

PROG - Program

Copy generic software only. May not be used when copying from working to primary memory. Frame must be in maintenance condition state (MCOND) when copying software from primary to secondary memory.

DBASE - Data base

Transfer data base only. (Default if PROG or INSTL is not specified.)

INSTL - Install

Transfer initialized data base only. Can be used only when transferring initialized data base from a special tape (different from the regular tape that contains release software and frame data base) to disk.

INCL - Inclusive

The INCL keyword is used to request that the data base on the disk be transferred to the tape excluding the generic journal files. This keyword cannot be combined with the PROG keyword. INCL may not be used when copying WKG to PRI.

BKGRND - Background

The BKGRND keyword is used to request that the operation of transferring the data base from primary to secondary memory be run in the background.

Use of the BKGRND keyword in this command will cause three tasks to be performed in the background; restoring secondary memory by software, data base backup from primary to secondary memory, and removing secondary memory by software.

The only commands available to the user while performing a background backup are those listed below.

```

11001  CONN,CRS,T0
11011  CONN,CRS,T1 (clear DS1/clear 2M bps)
11021  CONN,CRS,T0 (multi-point)
15001  DISC,CRS,T0
15002  DISC,CRS,T0 (multi-point)
15011  DISC,CRS,T1 (clear DS1/clear 2M bps)
19001  REPT,LGT,ED,MACRO,MAP
19101  CRTE,CRS,TS,DS0A,DS0B,SEC,PCH
19111  CRTE,CRS,TS,RATE,DP,PCH
19151  DLT,CRS,TS,PCH,DCC
19201  CONN,CRS,TS,RATE,NORM
19211  CONN,CRS,TS,DS0A,RATE,NORM,DS0B,DSOA,MML
19221  CONN,CRS,TS,MJU,RATE,MA,NORM
19401  DISC,CRS,TS,RATE
19411  DISC,CRS,TS,RATE
19421  DISC,CRS,TS,MJU,RATE (MJU branch)
19431  DISC,CRS,TS,MJU,RATE,ALL (MJU master)
19501  ED,CRTE,TS,PCH,DCC
19581  ED,CONN,TS (change MJU branch)
19591  ED,CONN,TS,MPTM (change MJU master)
39001  LGN,USER,DACS,II,PASSWD
39101  LGT,TERM,USER
51011  SCHED,PMREPT,ALL,CFA,MONDAT,FAC,PRIM
51041  RTRV,HDR,NE
51131  RTRV,PRMTR,SQLN
52011  RTRV,CRS,T1,MAP
52031  RTRV,CRS,T1,NPC,MAP
52041  RTRV,PRMTR,T0,TO
52061  RTRV,PRMTR,T1,TO (clear DS1/clear 2M bps)
52501  RTRV,STATE,TS
52511  RTRV,CRS,TS
52521  RTRV,PRMTR,TS
52531  RTRV,EQPT,TS,SRHDW
55711  ABT-CMD
56311  RTRV,STATE,EQPT,NPC (except DA,TA,PA types)
56314  RTRV,STATE,EQPT,NPC (DA,TA,PA types only)
56501  RTRV,EVT,TS,SROOF,ALL
81001  REPT,RTRV,ALM,EQPT,NPC,CFA,CGA,LFVR,FFER

```

The BKGRND keyword may only be used when transferring

the data base from primary to secondary memory. Therefore it cannot be combined with the PROG keyword or the INSTL keyword. However, it can be combined with the INCL keyword.

ddd - Number of data base transfers performed on the tape

A counter is incremented for each CPY-MEM disk to tape data base transfer performed on a tape. This count is used to estimate the useful life of a tape. NCB or ERR will appear in place of the count if the count cannot be displayed.

*ddd Explanation*

NCB No count block; old tape, doesn't have a count block  
 ERR Error; the count block could not be read

mmmm - Error condition code

*mmmm Explanation*

SNVS DB MP or units ram error  
 SWFA DB disk error OP-CL-RD-WR-SK  
 SROF DB can't send or receive mail  
 SROF Can't lock or unlock ram database  
 SROF DB can't get the slave mail box  
 SNVS Invalid option, mailbox or flag  
 SNIS Unit(s) OOS, and/or additional backup required  
 SNVS Entity can't be addressed in this configuration  
 SWFA Checksums verification failed  
 SNVS The tape contains previous release journal files, not retrofittable  
 SNVS Software Identification Block is not readable  
 SNVS Software Identification Block failed comparison  
 SNVS FPI on tape does not match one on disk  
 SNVS Problem occurred while accessing TAPE or unformatted TAPE  
 SNVS Problem occurred while accessing DISK  
 SNVS Source does not contain requested information  
 ENRE Tape is a special install tape  
 ENRE Tape is a normal tape  
 SNVS Can't mount or unmount tape  
 SNVS Can't mount or unmount disk  
 SNVS TAPE is not present  
 SNVS TAPE unit is not restored  
 SWFA DB tape error OP-CL-RD-WR-SK  
 SNVS Disk not restored

### 4.3 SCHED,BKUP,MEM,SEC,DATA,HR -- CANCEL BACKUP MEMORY TRANSFER

#### Input Message Format

---

## 365-353-014

[I.51051]

SCHED-BKUP-MEM: [<xy>]:SEC:[ww]:DATA:{00|24}-HR:[hr-mn-sc]:[BKGRND];

**Note:** If the link/user has RMON privilege, the system will respond:

"ARE YOU SURE? (YES/NO)"

Otherwise, the BADVERB,CMD,INERR message (O.01131) will be given.

### Completion Message

---

[O.51051]

<xy> yy-mm-dd hh:mm:ss LINK-n[vv]  
M SCHED BKUP MEM::SEC:[ww]:DATA:{00|24}-HR:[hr-mn-sc]:[BKGRND] COMPLD

### Denial Message

---

[O.51051.01]

<xy> yy-mm-dd hh:mm:ss LINK-n[vv]  
M SCHED BKUP MEM::SEC:[ww]:DATA:{00|24}-HR:[hr-mn-sc]:[BKGRND] DENY  
mmmm  
/\* [O.51051.01] \*/  
/\* <explanation of error condition code> \*/  
;

### Autonomous Message

---

Not applicable.

### Explanation Of Message

---

This message requests the autonomous backup of memory from disk to tape. The backup may be designated to occur periodically. This schedule may be retrieved via the RTRV-BKUPSCHEM MEM command. The predesignated autonomous schedule can be removed (cleared) by entering 00-HR at the {00|24}-HR parameter block.

Clearing the BKUP SCHED is a restricted command and requires RMON privilege.

### Explanation Of Parameters

---

DATA - Data

## 365-353-014

SEC - Secondary

00-HR - Cancel the daily BMTR from disk to tape

24-HR - Set the time for the daily BMTR from disk to tape

HR - Hour

hr-mn-sc - The starting time of the BMTR

hr - Hour

mn - Minute

sc - Second

BKGRND - Background

The BKGRND keyword is used to request that the operation of transferring the data base from primary to secondary memory be run in the background.

Use of the BKGRND keyword in this command will cause three tasks to be performed in the background; restoring secondary memory by software, data base backup from primary to secondary memory, and removing secondary memory by software.

The only commands available to the user while performing a background backup are those listed below.

11001 CONN,CRS,T0  
11011 CONN,CRS,T1 (clear DS1/clear 2M bps)  
11021 CONN,CRS,T0 (multi-point)  
15001 DISC,CRS,T0  
15002 DISC,CRS,T0 (multi-point)  
15011 DISC,CRS,T1 (clear DS1/clear 2M bps)  
19001 REPT,LGT,ED,MACRO,MAP  
19101 CRTE,CRS,TS,DS0A,DS0B,SEC,PCH  
19111 CRTE,CRS,TS,RATE,DP,PCH  
19151 DLT,CRS,TS,PCH,DCC  
19201 CONN,CRS,TS,RATE,NORM  
19211 CONN,CRS,TS,DS0A,RATE,NORM,DS0B,DSOA,MML  
19221 CONN,CRS,TS,MJU,RATE,MA,NORM  
19401 DISC,CRS,TS,RATE  
19411 DISC,CRS,TS,RATE  
19421 DISC,CRS,TS,MJU,RATE (MJU branch)  
19431 DISC,CRS,TS,MJU,RATE,ALL (MJU master)  
19501 ED,CRTE,TS,PCH,DCC  
19581 ED,CONN,TS (change MJU branch)  
19591 ED,CONN,TS,MPTM (change MJU master)  
39001 LGN,USER,DACS,II,PASSWD  
39101 LGT,TERM,USER  
51011 SCHED,PMREPT,ALL,CFA,MONDAT,FAC,PRIM  
51041 RTRV,HDR,NE

## 365-353-014

51131	RTRV,PRMTR,SQN
52011	RTRV,CRS,T1,MAP
52031	RTRV,CRS,T1,NPC,MAP
52041	RTRV,PRMTR,T0,TO
52061	RTRV,PRMTR,T1,TO (clear DS1/clear 2M bps)
52501	RTRV,STATE,TS
52511	RTRV,CRS,TS
52521	RTRV,PRMTR,TS
52531	RTRV,EQPT,TS,SRHDW
55711	ABT-CMD
56311	RTRV,STATE,EQPT,NPC (except DA,TA,PA types)
56314	RTRV,STATE,EQPT,NPC (DA,TA,PA types only)
56501	RTRV,EVT,TS,SROOF,ALL
81001	REPT,RTRV,ALM,EQPT,NPC,CFA,CGA,LFVR,FFER

mmmm - Error condition code

mmmm *Explanation*

SROF **No Memory Backup Has Been Scheduled**

### 4.4 RTRV,BKUPSCHED,MEM,SEC,DATA, QUERY TIME OF DAY

#### Input Message Format

---

[I.51061]

RTRV-BKUPSCHED-MEM:[<xy>]:SEC:[ww]:DATA;

#### Completion Message

---

[O.51061]

```
<xy> yy-mm-dd hh:mm:ss LINK-n[vv]
M RTRV BKUPSCHED MEM::SEC:[ww]:DATA:[BKGRND] COMPLD
/* [O.51061] */
"SEC,DATA:{00|24}-HR,{hr-mn-sc|-----}"
;
```

#### Denial Message

---

Not applicable.

#### Autonomous Message

---

Not applicable.

**Explanation Of Message**

---

This message requests the time of day at which an automated backup from disk to tape is scheduled to occur.

**Explanation Of Parameters**

---

TOD - Time of day

BMTR - Backup Memory Transfer

Used to request the time of day for the daily transfer from disk to tape

BKGRND - Background

The BKGRND keyword is used to request that the operation of transferring the data base from primary to secondary memory be run in the background.

Use of the BKGRND keyword in this command will cause three tasks to be performed in the background; restoring secondary memory by software, data base backup from primary to secondary memory, and removing secondary memory by software.

The only commands available to the user while performing a background backup are those listed below.

- 11001 CONN,CRS,T0
- 11011 CONN,CRS,T1 (clear DS1/clear 2M bps)
- 11021 CONN,CRS,T0 (multi-point)
- 15001 DISC,CRS,T0
- 15002 DISC,CRS,T0 (multi-point)
- 15011 DISC,CRS,T1 (clear DS1/clear 2M bps)
- 19001 REPT,LGT,ED,MACRO,MAP
- 19101 CRTE,CRS,TS,DS0A,DS0B,SEC,PCH
- 19111 CRTE,CRS,TS,RATE,DP,PCH
- 19151 DLT,CRS,TS,PCH,DCC
- 19201 CONN,CRS,TS,RATE,NORM
- 19211 CONN,CRS,TS,DS0A,RATE,NORM,DS0B,DSOA,MML
- 19221 CONN,CRS,TS,MJU,RATE,MA,NORM
- 19401 DISC,CRS,TS,RATE
- 19411 DISC,CRS,TS,RATE
- 19421 DISC,CRS,TS,MJU,RATE (MJU branch)
- 19431 DISC,CRS,TS,MJU,RATE,ALL (MJU master)
- 19501 ED,CRTE,TS,PCH,DCC
- 19581 ED,CONN,TS (change MJU branch)
- 19591 ED,CONN,TS,MPTM (change MJU master)
- 39001 LGN,USER,DACS,II,PASSWD
- 39101 LGT,TERM,USER

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51011 SCHED, PMREPT, ALL, CFA, MONDAT, FAC, PRIM  
51041 RTRV, HDR, NE  
51131 RTRV, PRMTR, SQN  
52011 RTRV, CRS, T1, MAP  
52031 RTRV, CRS, T1, NPC, MAP  
52041 RTRV, PRMTR, T0, TO  
52061 RTRV, PRMTR, T1, TO (clear DS1/clear 2M bps)  
52501 RTRV, STATE, TS  
52511 RTRV, CRS, TS  
52521 RTRV, PRMTR, TS  
52531 RTRV, EQPT, TS, SRHDW  
55711 ABT-CMD  
56311 RTRV, STATE, EQPT, NPC (except DA, TA, PA types)  
56314 RTRV, STATE, EQPT, NPC (DA, TA, PA types only)  
56501 RTRV, EVT, TS, SROOF, ALL  
81001 REPT, RTRV, ALM, EQPT, NPC, CFA, CGA, LFVR, FFER

Since BKGRND is used for scheduling the backup, it cannot be output with 00-HR.

hr-mn-sc - Starting time of facility report or transfer from disk to tape

hr - Hours (00 through 23)  
mn - Minutes (00 through 59)  
sc - Seconds (00 through 59)

DATA - Data

SEC - Secondary

HR - Hour

00-HR - The daily transfer from disk to tape is not scheduled

24-HR - The time for the daily transfer from disk to tape is set

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Document Number: 365-353-014                      Issue Number: 6.1

Publication Date: July 1994

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**List of Tables**

**Table 2-1: Allowable Commands**

Command Number	Command
11001	CONN, CRS, T0
11011	CONN, CRS, T1
11021	CONN, CRS, T0 (multi-point)
15001	DISC, CRS, T0
15002	DISC, CRS, T0 (multi-point)
15011	DISC, CRS, T1
19101	CRTE, CRS, TS, DS0A, DS0B, SEC, PCH
19111	CRTE, CRS, TS, RATE, DP, PCH
19151	DLT, CRS, TS, PCH, DCC
19201	CONN, CRS, TS, RATE, NORM
19211	CONN, CRS, TS, RATE, NORM
19221	CONN, CRS, TS, MJU, RATE, MA, NORM
19401	DISC, CRS, TS, RATE
19411	DISC, CRS, TS, RATE
19421	DISC, CRS, TS, MJU, RATE
19431	DISC, CRS, TS, MJU, RATE, ALL
19501	ED, CRTE, TS, PCH, DCC
19581	ED, CONN, TS
19591	ED, CONN, TS, MPTM
39001	LGN, USER
39101	LGT, TERM, USER
51041	RTRV, HDR, NE
51131	RTRV, PRMTR, SQN
52011	RTRV, CRS, T1, MAP
52041	RTRV, PRMTR, T0, TO
52061	RTRV, PRMTR, T1, TO
52501	RTRV, STATE, TS
52511	RTRV, CRS, TS

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52521	RTRV , PRMTR , TS
52531	RTRV , EQPT , TS , SRDH
55711	ABT , CMD
56311	RTRV , STATE , EQD , NPC
56314	RTRV , STATE , EQD , NPC
56501	RTRV , EVT , TS , SROOF , ALL
81001	RTRV , ALM , EQPT , NPC , CFA , CGA , LOS

**Table 2-2: Applicable Circuit Packs**

Circuit Pack	NPC Type
TG80B	DE
TG191	DE,DA
KCR1	TE
KCR5	TE,TA

**Table 2-3: Identifier Definitions**

Bit	Value	Explanation
x	8*	Ericsson Cellular Format
y	0	Zero Code Suppression
	1	No Zero Code Suppression
	2	Bipolar with 8 Zero Substitution
z	0	D4 channel bank channel numbering
	1	D2 channel bank channel numbering
	2	D1D channel bank channel numbering

\* Option 8 must be selected to allow DACS II to terminate facilities in cellular networks that carry signals between Ericsson cellular switches and cell sites.

**Table 2-4: Facility Performance Parameters**

rr	Parameter
41	Daily near-end path coding violations
42	Daily near-end path errored seconds
43	Daily near-end path severely errored seconds
44	Daily near-end severely errored framing seconds
45	Daily near-end path controlled slip seconds
46	Daily near-end path unavailable seconds
47	Daily near-end line coding violations
48	Daily near-end line errored seconds
49	Daily near-end line severely errored seconds
50	Daily far-end path coding violations
51	Daily far-end path errored seconds
52	Daily far-end path severely errored seconds
53	Daily far-end severely errored framing seconds
54	Daily far-end path controlled slip seconds
55	Daily far-end path unavailable seconds
56	Daily far-end line errored seconds
57	15-minute near-end path coding violations
58	15-minute near-end path errored seconds
59	15-minute near-end path severely errored seconds
60	15-minute near-end severely errored framing seconds
61	15-minute near-end path controlled slip seconds
62	15-minute near-end path unavailable seconds
63	15-minute near-end line coding violations
64	15-minute near-end line errored seconds
65	15-minute near-end line severely errored seconds
66	15-minute far-end path coding violations
67	15-minute far-end path errored seconds
68	15-minute far-end path severely errored seconds
69	15-minute far-end severely errored framing seconds

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70	15-minute far-end path controlled slip seconds
71	15-minute far-end path unavailable seconds
72	15-minute far-end line errored seconds

**Table 2-5: Identifier Definitions**

Bit	Value	Explanation
x	8*	Ericsson Cellular Format
y	0	Zero Code Suppression
	1	No Zero Code Suppression
	2	Bipolar with 8 Zero Substitution
z	0	D4 channel bank channel numbering
	1	D2 channel bank channel numbering
	2	D1D channel bank channel numbering

\* Option 8 must be selected to allow DACS II to terminate facilities in cellular networks that carry signals between Ericsson cellular switches and cell sites.

Table 2-6: Alarm Types

Type (rr,ss,tt,...)	Meaning
01	SLIPs, Major, Alarm
02	SLIPs, Minor, Alarm
03	BER (bit error rate), Major Alarm
04	BER Minor Alarm
07	COFA (change of frame alignment), Major Alarm
08	COFA Minor Alarm

**Table 2-7: Alarm Thresholds**

Option (l,m,n)	Meaning
0	Default Value
1	First Option Value (set1)
2	Second Option Value (set2)
3	Third Option Value (set3)

**Table 2-8: Identifier Definitions**

Bit	Value	Explanation
x	8*	Ericsson Cellular Format
y	0	Zero Code Suppression
	1	No Zero Code Suppression
	2	Bipolar with 8 Zero Substitution
z	0	D4 channel bank channel numbering
	1	D2 channel bank channel numbering
	2	D1D channel bank channel numbering

\* Option 8 must be selected to allow DACS II to terminate facilities in cellular networks that carry signals between Ericsson cellular switches and cell sites.

**Table 2-9: Facility Parameter Codes**

Type (rr,ss,tt,...)	Meaning
01	SLIPs, Major, Alarm
02	SLIPs, Minor, Alarm
03	BER (bit error rate), Major Alarm
04	BER Minor Alarm
07	COFA (change of frame alignment), Major Alarm
08	COFA Minor Alarm

**Table 2-10: Identifier Definitions**

Bit	Value	Explanation
x	8*	Ericsson Cellular Format
y	0	Zero Code Suppression
	1	No Zero Code Suppression
	2	Bipolar with 8 Zero Substitution
z	0	D4 channel bank channel numbering
	1	D2 channel bank channel numbering
	2	D1D channel bank channel numbering

\* Option 8 must be selected to allow DACS II to terminate facilities in cellular networks that carry signals between Ericsson cellular switches and cell sites.

**Table 2-11: Identifier Definitions**

Bit	Value	Explanation
x	8*	Ericsson Cellular Format
y	0	Zero Code Suppression
	1	No Zero Code Suppression
	2	Bipolar with 8 Zero Substitution
z	0	D4 channel bank channel numbering
	1	D2 channel bank channel numbering
	2	D1D channel bank channel numbering

\* Option 8 must be selected to allow DACS II to terminate facilities in cellular networks that carry signals between Ericsson cellular switches and cell sites.

**Table 2-12: Facility Performance Parameters**

rr	Parameter
41	Daily near-end path coding violations
42	Daily near-end path errored seconds
43	Daily near-end path severely errored seconds
44	Daily near-end severely errored framing seconds
45	Daily near-end path controlled slip seconds
46	Daily near-end path unavailable seconds
50	Daily far-end path coding violations
51	Daily far-end path errored seconds
52	Daily far-end path severely errored seconds
53	Daily far-end severely errored framing seconds
54	Daily far-end path controlled slip seconds
55	Daily far-end path unavailable seconds
57	15-minute near-end path coding violations
58	15-minute near-end path errored seconds
59	15-minute near-end path severely errored seconds
60	15-minute near-end severely errored framing seconds
61	15-minute near-end path controlled slip seconds
62	15-minute near-end path unavailable seconds
66	15-minute far-end path coding violations
67	15-minute far-end path errored seconds
68	15-minute far-end path severely errored seconds
69	15-minute far-end severely errored framing seconds
70	15-minute far-end path controlled slip seconds
71	15-minute far-end path unavailable seconds

**Table 3-1: Identifier Definitions**

Bit	Value	Explanation
x	0	Not Assigned
	1	D4
	2	ESF - Voice
	3	ESF - Data
	4	DDST (T1DM - Rbit connection via channel 24)
	5-7	Not assigned
	8*	Ericsson Cellular Format
	9	Not assigned
y	0	Zero Code Suppression
	1**	No Zero Code Suppression
	2**	Bipolar with 8 Zero Substitution
	3	Not assigned
	4	Zero Code Suppression/DMI signaling
	5	No Zero Code Suppression/DMI signaling
	6	Bipolar with 8 Zero Substitution/DMI signaling
	7-9	Not assigned
z	0	D4 channel bank numbering
	1	D2 channel bank numbering
	2	D1D channel bank numbering
	3-8	Not assigned
	9	Unchannelized 193-bit Clear DS1 cross-connection

\* Option 8 must be selected to allow DACS II to terminate facilities in cellular networks that carry signals between Ericsson cellular switches and cell sites.

\*\* Options 1 and 2 are only applicable to DA type clear-DS1 NPCs.

### List of Figures

Figure 2-1: Network Configuration With T1 Facilities

