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# STAREX-BSS IS2000

BSM User's Manual

( STAREX-IS User's Manual )

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designated to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**CAUTION :**

Do not attempt to modify this product in any way without written authorization from LG Electronics Inc.

Unauthorized modification could void the user's authority to operate this product.

The responsible party for this device compliance is :

Company Name : LGInfoComm U.S.A. Inc.

Address : 10225 Willow Creek RD San Diego, CA, 92131, U.S.A.

Telephone No. : 858-635-5332

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# 1. Introduction to BSM

## 1.1. Overview

BSM refers to the maintenance system. Through BSM, the operation and maintenance is controlled and information needed for maintenance and the maintenance data are managed and kept. The information needed for the maintenance refers to the following: loading, state, faults, statistics, diagnosis, and configuration information. The above information can be controlled by the maintenance operator. The BSM S/W functions are as follows:

- Configuration Management of System
- Fault Management of System
- Performance Management of System
- Security Management of System
- Account Management of System

### 1.1.1. Configuration Management of System

Configuration management of the system can be divided into the following: (1) system initialization which installs the configuration target to the target system (system loading process), (2) figuring out system components, (3) system component status monitoring, (4) understanding of the relations among the components, and (5) addition and deletion of the components to be managed.

### 1.1.2. Fault Management of System

Fault management target includes the subsystem, board, and Memory. When problems occur in these, it should be reported to the operator promptly and accurately, so that he/she can operate the system stably. The fault management and handling function is divided into the following: (1) fault detection, (2) fault diagnosis, and (3) fault handling.

- Fault detection: the function to monitor the faults on a regular basis and write the error report.
- Fault diagnosis: the function to run a diagnosis on causes for the corresponding faults. It regenerates the causes for errors, analyzes the errors, and receives report on the causes for errors from the corresponding error factors. Therefore, in general, the system test function corresponds to the diagnostic function.
- Fault handling: Faults can be handled by other parts of the BSM system such as configuration management.

NE (Network Element) and intangible resources, which are mounted to the system, can be managed as the status information such as Sector, FA, etc. In addition, BSM informs to the operator the status information on the status management target accurately and can inquire the status of the status management target in real time. Furthermore, through the function to check memory, it can manage the appropriateness of the memory and its use state online.

In case of the call resource state management, if problems occur in the corresponding resources, BSM assists to provide the high-quality services by isolating them after tests. It notifies the operator of the reasons for the errors so he/she can isolate them and take proper measures to correct them.

When faults occur or when clearing faults, the corresponding information is reported to the operator immediately through the use of the operator terminal, GUI, audible device, Alarm panel, etc. The resources with faults are automatically excluded from services to prevent the system quality degradation using the corresponding resources when processing calls. Depending on the degree that faults affect the system, they are classified into minor, major, and critical and then the operator is notified.

- 1) Critical ALM: It has the fatal influence on the system function. Therefore, regardless of the time it occurs, it requires the urgency in action.
- 2) Major ALM: It affects the system profoundly. It indicates abnormal operation of the main circuits, or fault occurrence. This fault should be notified to the operator so that he/she can perform a test on the functions or restore them.

- 3) Minor ALM: It does not influence services or subscribers or call processing to much degree. It does not require urgency in action.

In order to minimize the influences of the faults, BSM reports the classified faults in details, and if necessary, the operator can isolate the corresponding fault blocks and restore them. In addition, when faults occur, it helps to isolate faults and recover them by figuring out the state accurately through the diagnosis function.

The diagnosis is divided into the following: 1) the Online diagnosis that is automatically run without the operator's request and the On-demand diagnosis that is run by the operator's command. The test function exists in the system separate from the diagnosis function and the diagnosis function uses the performance result of the test function. Online diagnosis can be changed using the operator's MMC and Online diagnosis starting point and end point can also be changed.

### 1.1.3. Performance Management of System

Performance and management functions of the system are classified into the following: (1) the performance measurement function, (2) the performance evaluation measurement adjusting function, and (3) the performance evaluation function (performance evaluation and performance evaluation report using the designated performance evaluation criteria). The criteria that can be used for the performance evaluation are in general as follows:

- Throughput: it measures communication circuit and network node throughput. In general, PDU (protocol data unit) measures the success rate of the sending/transmission.
- Workload: It takes various actions to prevent overload. By setting the standard for the workload, it prevents the overload.
- Others: it measures propagation delay, wait time, and response time, and quality of service.

Hourly statistics files that are generated every hour are stored in the BSM and using the hourly statistics files, the statistics files are generated by the date, week, period, and month. In addition, the corresponding raw data can be processed using other tools.

#### **1.1.4. Security Management of System**

Security management function is divided into the following: (1) notarization and (2) access control. The former secures the sources or origin of the received information, the time they are generated, and the accurateness of the information. The latter controls the access of the unauthorized users and provides the functions according to access permission. Each command has the performance level or grade so the operator can perform the command suitable for the level or grade. It allows the access to the corresponding modules by the operator. When accessing defined modules, it prohibits the input command to be performed. That is, it restricts the user rights by classifying them into the following: the operator's rights that are related to exchanging, the operator's rights that are related to the BTS, and the operator's rights that are related to the RF Device control.

#### **1.1.5. Account Management of System**

In line with the security management, the account management defines each user and provides the additional functions such as the user log, etc. Super User can register the new user or delete the existing user. Up to 64 new users can be registered and if necessary, the number of users can be increased.

### **1.2. Interoperability and Operation**

BSM S/W functions interwork with OAM (Operation and Maintenance) S/W functions that are mounted to BSP and CCP. For the network management, it configures the ATM network separately. BSM manages BSC and BS through ATM S/W and provides NMC Agent function. Through the interface with EMS, the BSM supports Q3 interface with the CMIS/CMIP protocol and the object-oriented information model. For EMS network management for BS and BSC, it uses the Manager-Agent model. BSM TMN Agent plays Agent roles, and by interoperating with EMS that plays the Manager roles, it transmits



the BS, BSC, BSM configuration, faults, and performance data based on TMN. The GUI and WUI functions are provided for the operator to control the system easily.

### 1.2.1. Configuration Management of System

Upon initializing the system, updating the System, and upgrading the System, BSM displays the corresponding information to the operator's question by performing the following: by downloading the execution module and system data that are mounted to the each processor in BTS and BSC, receiving the loading history and information from each processor, and then backing them up.

It displays the changed BTS and BSC parameter information and configuration data on the PCS mobile communication network of the CDMA method on the screen. By managing the H/W insertion information and system parameter information, it plays the essential role in recovering the faults when faults occur. In addition, the state change report along with the fault occurrence detects problems in an early stage and solves them. It also changes the configuration of the subsystem in operation and parameter information.

### 1.2.2. Fault Management of System

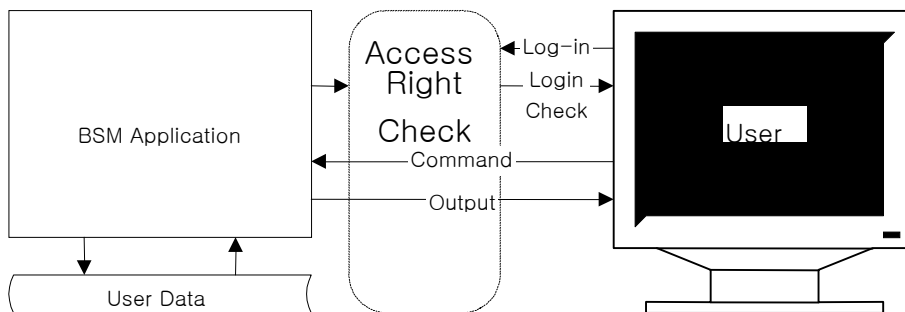
BSM collects, manages, and analyzes the faults that can occur in BTS and BSC of the CDMA method in real time and reports them to the operator audibly and visibly. It can display the current fault state at the operator's request and test and control the subsystem with faults. In addition, it operates in Active/Standby mode and each BSM is connected to ATM S/W. Active BSM provides classical BSM functions and Standby BSM checks the Active BSM status on a regular basis and then makes the data consistent. When Standby BSM detects faults in Active BSM, it executes the Active BSM function.

### 1.2.3. Performance Management of System

BSM collects and stores the data that are needed to evaluate behavior and trend that occur in BTS and BSC and to determine the extension or reduction of the system by interworking with BTS and BSC. Regarding the performance data collection, it is divided into the following: to collect data in a cycle (5min./1hr./1day/1 month) and to collect the data at the operator's request. At the operator's request, it displays the statistical data that are stored or controls the statistical functions that are currently executed. The collected data are as follows: call-related data, NE use rate, frequency of fault occurrence, etc.

### 1.2.4. Security Management of System

It authorizes the manager that operates and manages BSM, develops log for messages that are generated in the system and the command by the user and processes the information.



- All the BSM commands have the execution authority level.
- Operator ID should have passwords, and when logging in, the passwords should be input.
- The user with the upper level can have all the authorities that the user with the lower level has.
- Only the user with the upper most level can change the command class.
- When performing the work through the network, if there are too many users that perform the work at the same time, all the on-line messages that come to the system should be notified to the system and the message that comes through the command should be displayed on the corresponding window.

- All the On-line or On-demand commands and messages should be stored.
- Among the stored messages, only the messages that are desired can be displayed by the data, time, BTS and BSC section and object number combination.

### 1.2.5. Account Management of System

By allowing the user register, deletion, and information change by the manager that operates and manages BSM, it provides the authority by the level or the user that contains the system operation and maintenance layer to operate the stable system and maintain the system.

- User ID can be added.
- User ID can be deleted.
- Deletion and addition of the User ID can be made by the upper level user.
- User ID information can be changed.
- User ID has the following information: ID, Password, and class.
- The user with the higher authority can read the user with the equal or lower level user ID.

## 1.3. BSM Configuration

### 1.3.1. S/W System Boundary

#### 1.3.1.1. S/W System Environment

As a unit that provides the function to operate and maintain BTS and BSC, BSM interfaces with the CAN(Central ATM Network) and can manage up to 12 BSC and 576 BTC. When the system requirements change later, the accommodated BTS and BSC

counts can be changed. At the carrier's request, it interworks with NMS to interwork with TMN.

### **1.3.1.2. External Interface of the S/W System**

BSM inserts the ATM Card into Workstation and has interface using CAN (Central ATM Network) and Optic Cable/5 UTP Cable. It provides the following interface: CMIP Interface to interface with the NMS and TCP/UDP/IP Interface to interface with BSC and BS.

## **1.3.2. S/W Architecture**

### **1.3.2.1. BSM S/W Configuration**

As shown in Fig. 1-2 below, BSM S/W is configured with the following: 1) BUIS (BSS User Interface Subsystem), 2) BEMS (BSS Element Management Subsystem), 3) BAMS (BSS Agent Management Subsystem), and 4) BSIS (BSS System Interface Subsystem).

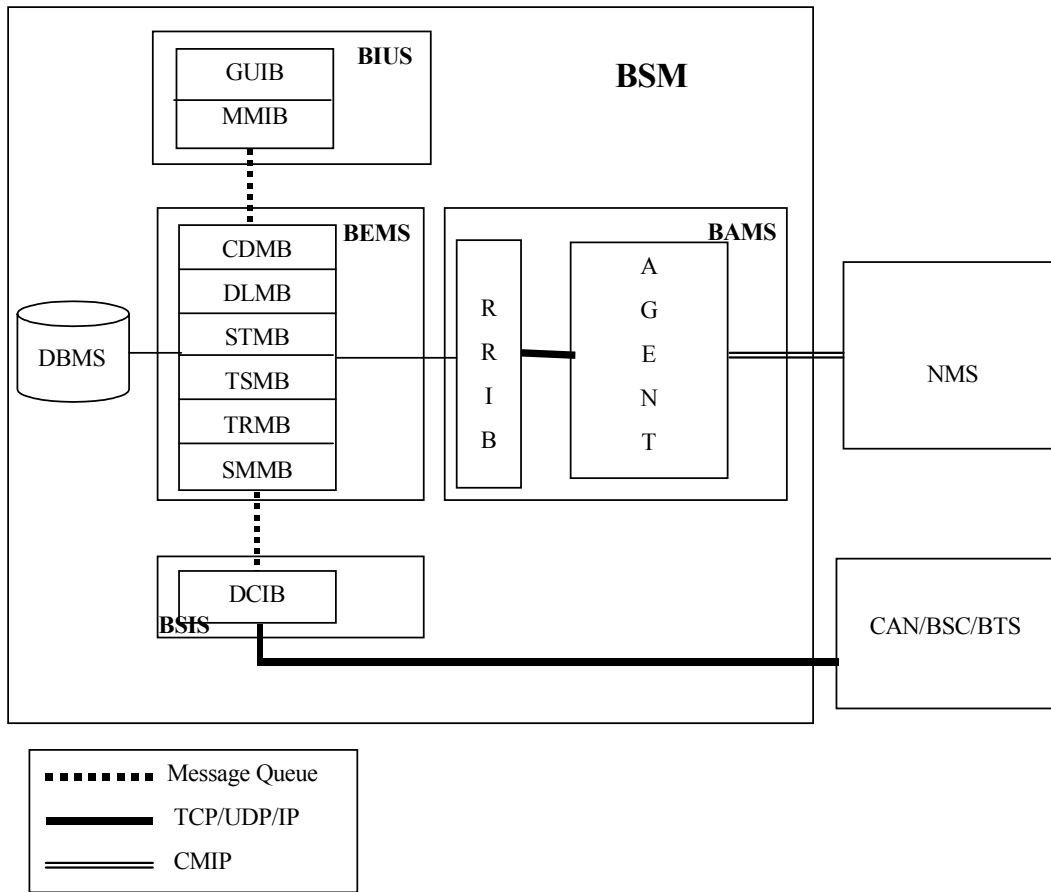


Fig. 1.3-1 BSM S/W Configuration

## 2. BSM Environment Setting

### 2.1. OS Installation

#### 2.1.1. Solaris 2.7 Installation Procedures

1. Insert Solaris cdrom into Drive, input ID and Password in the Workstation and then press **stop+a** in a login status.

Changed to a prompt state.

Input the followings:

```
boot cdrom
```

2. Check to see if OS is rebooted by the CDROM

Once booting is complete, the following will be displayed on the initial screen:

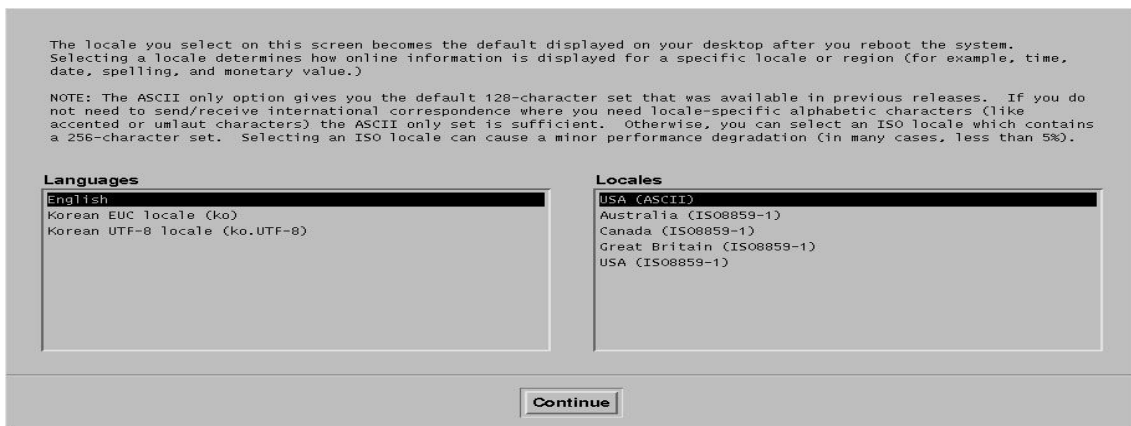


Fig. 2.1-1 OS Language Selection Screen

3. Select Korean EUC local (ko) from Language and Local items. Then, click **Continue!**

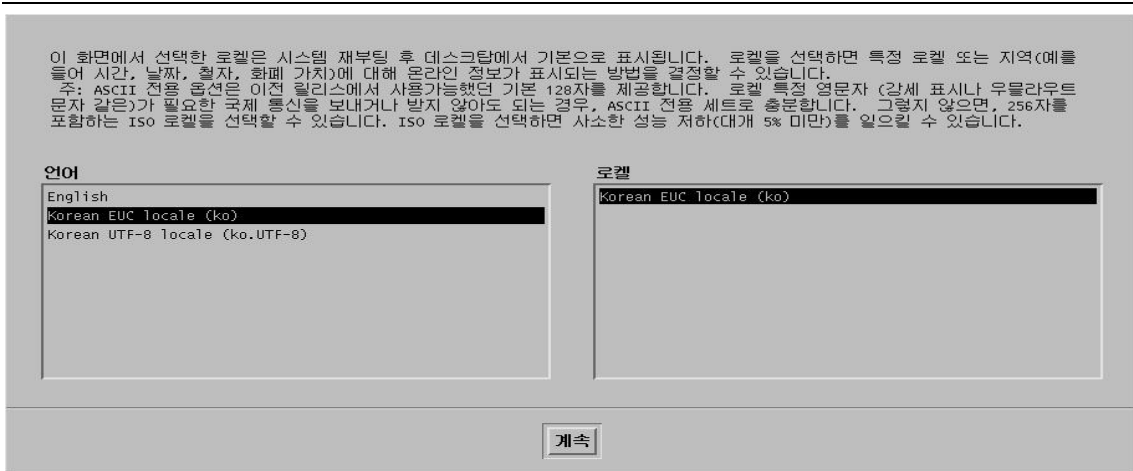
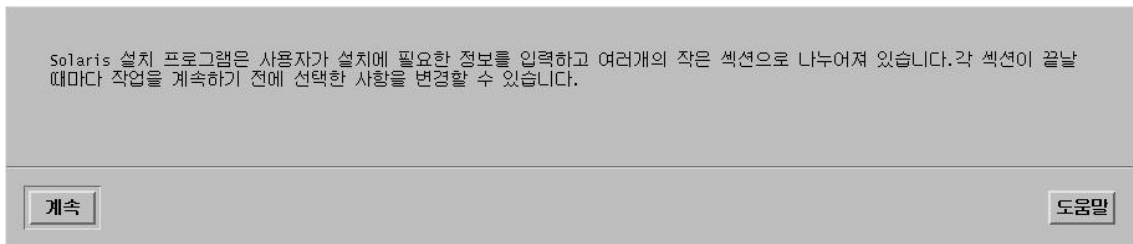


Fig. 2.1-2 OS Installation Language and Selection Screen 2

4. Click **Continue**!



5. The following is the initial screen related to the network setting. Click **Continue**!

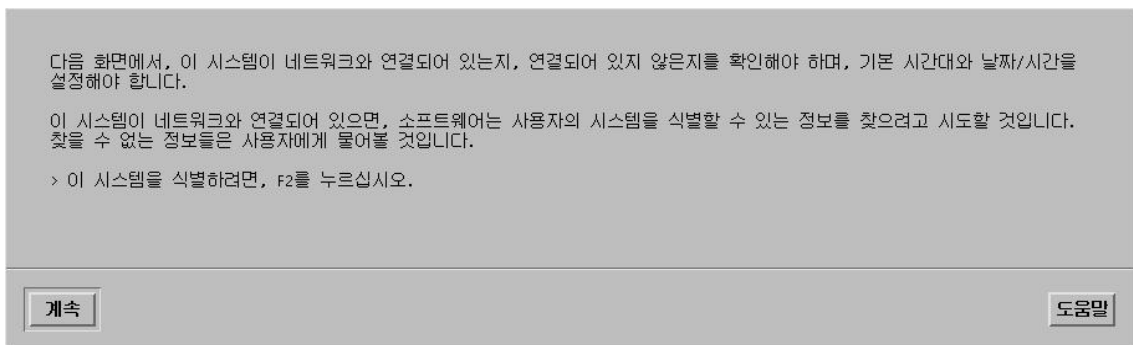


Fig. 2.1-3 OS Installation Time Setting

6. The screen that requires the host name is displayed.

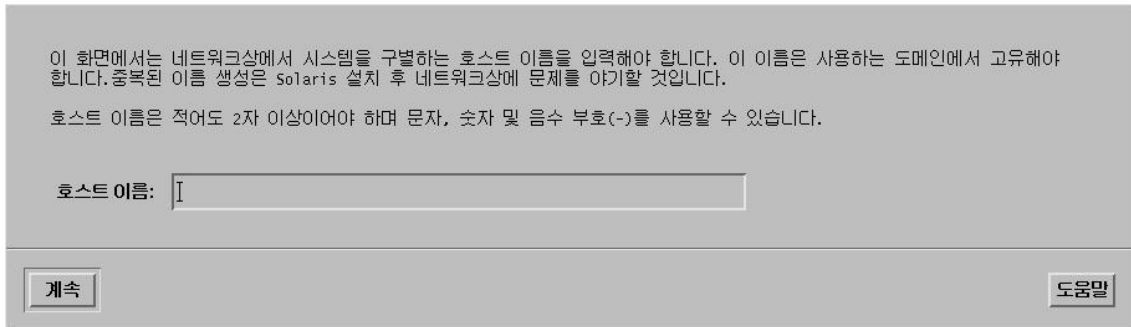


Fig. 2.1-4 Host Name Input Screen

7. Input the appropriate Host name as show below. Ex) feel.

Then, click **Continue!**

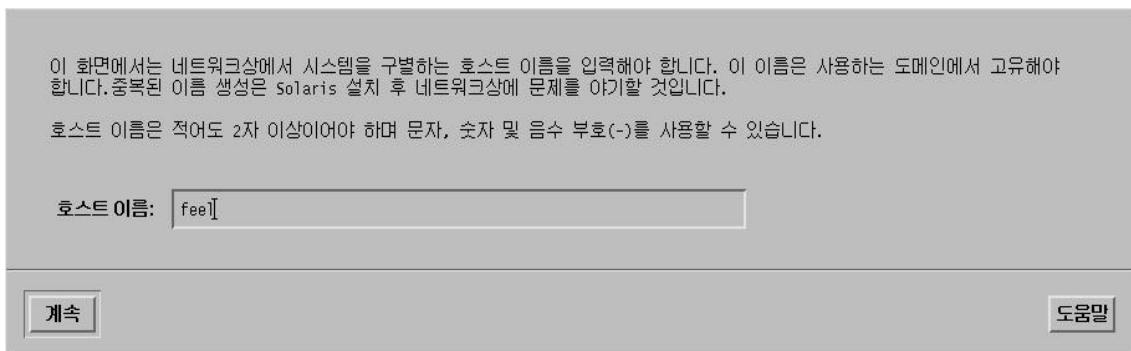


Fig. 2.1-5 Host Name Input 2

8. Ask whether to set up the network. If the network is possible, select **Yes**. Click **Continue!**



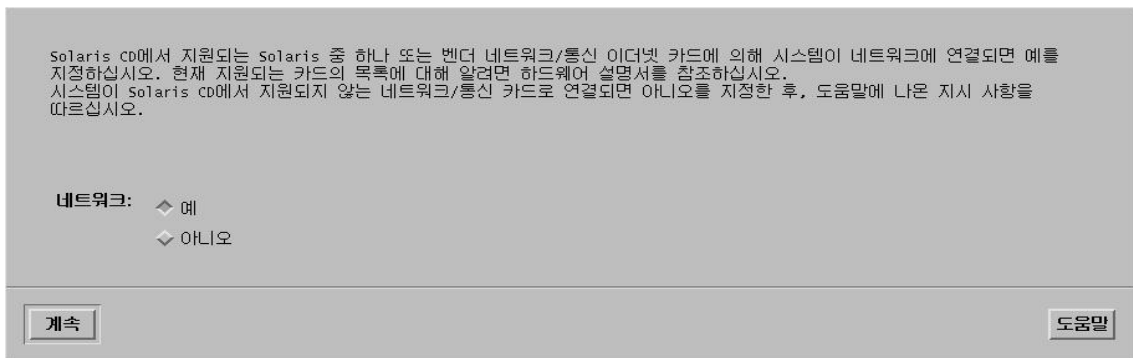


Fig. 2.1-6 Network Setting Screen

9. The screen asking for IP Address is displayed.

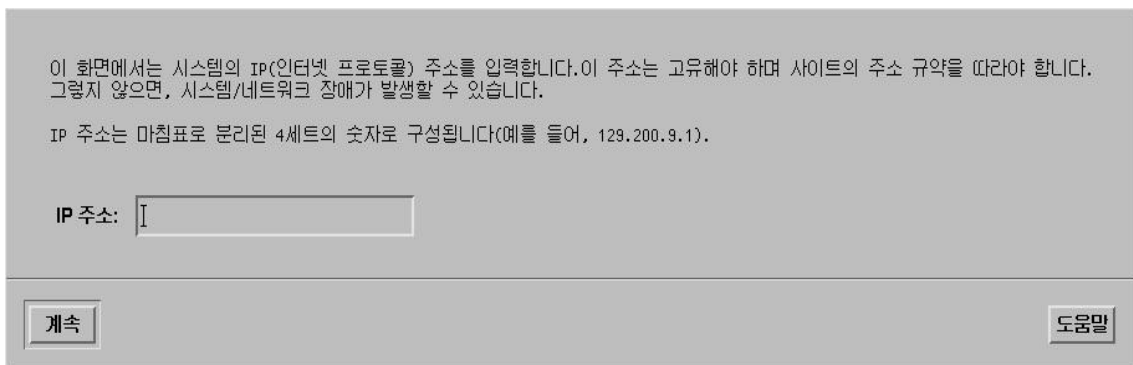


Fig. 2.1-7 IP Address Input Screen

10. Type IP address that is allocated to Workstation as shown below.

Ex) 150.150.62.102 → Unique IP is given to each system.

Then, click **Continue**!

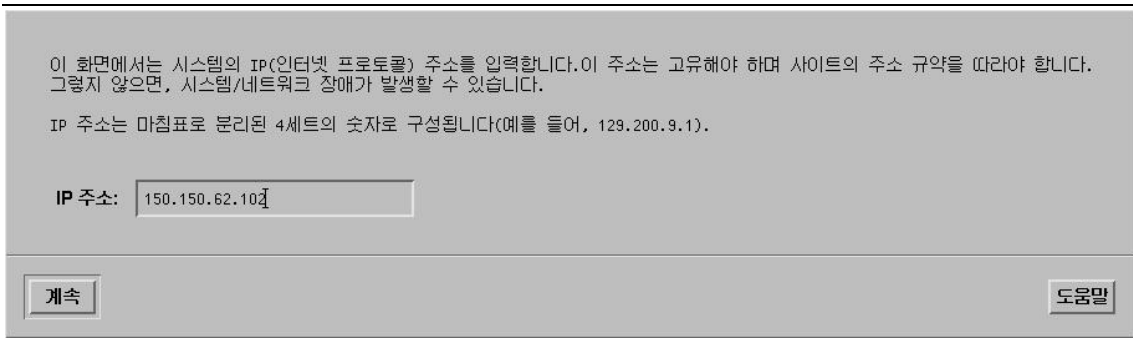


Fig. 2.1-8 IP Address Input Screen 2

11. The setting information is summarized on the screen as follows. Click **Continue!**

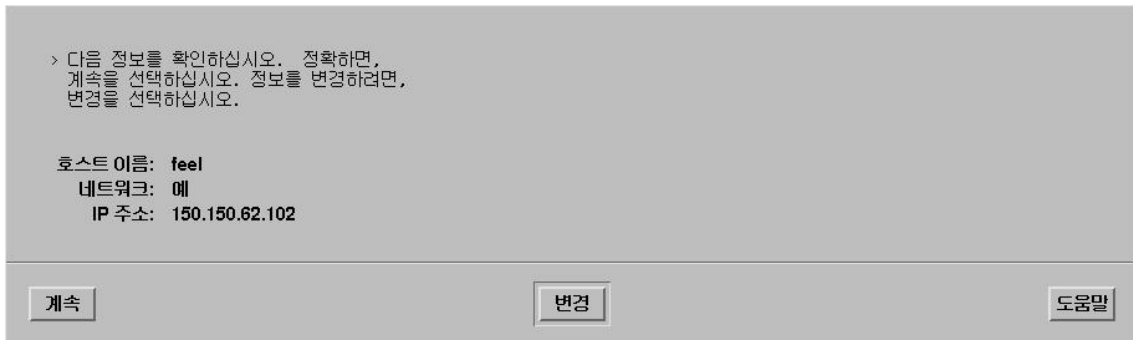


Fig. 2.1-9 Network Basic Setting Summary Screen

12. DNS(name service) select-menu is displayed

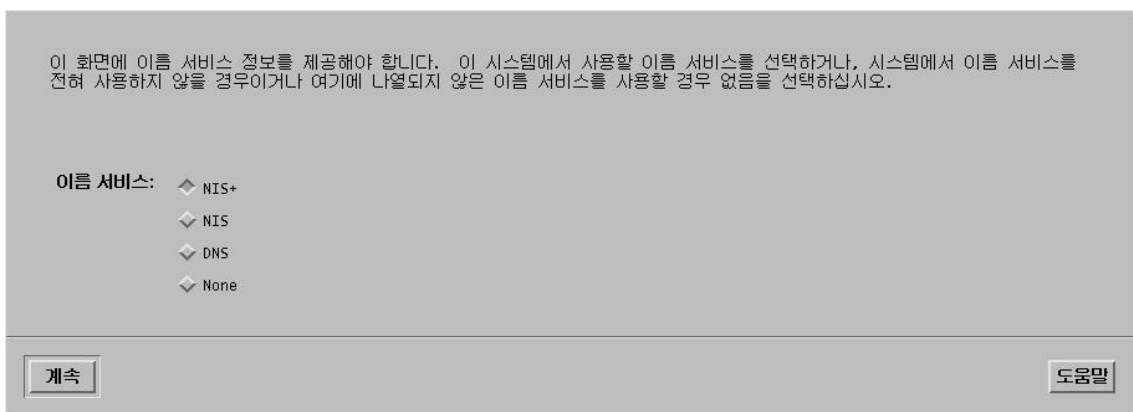


Fig. 2.1-10 DNS Setting Screen

13. Select None among 4 select items. (To be set) Click **Continue!**

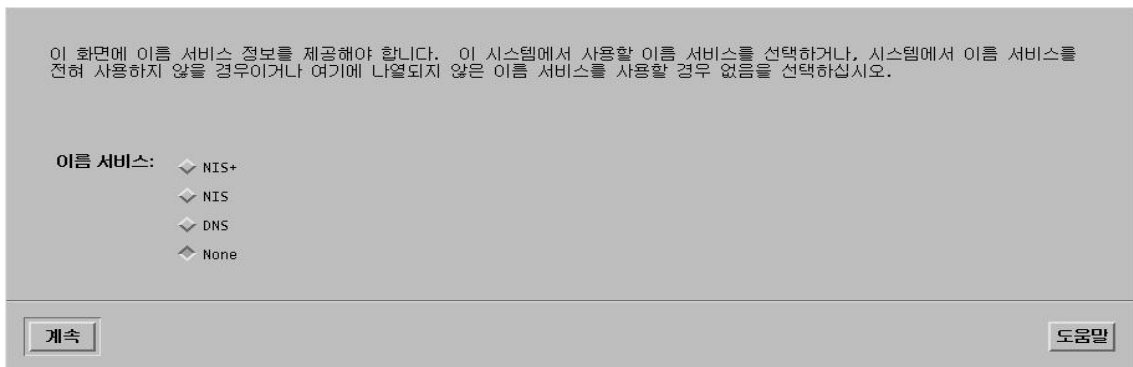


Fig. 2.1-11 DNS Setting Screen 2

14. OK menu is displayed. Click **Continue!**



Fig. 2.1-12 DNS Setting Summary Screen

15. Subnet setting screen is displayed. Select **Yes**. Then, click **Continue**!

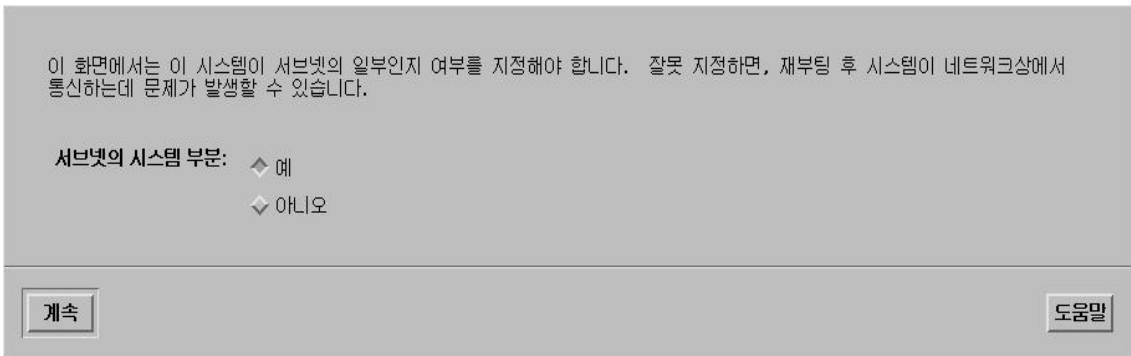


Fig. 2.1-13 Subnet Setting Screen

16. The subnet mask IP inputting part is shown.

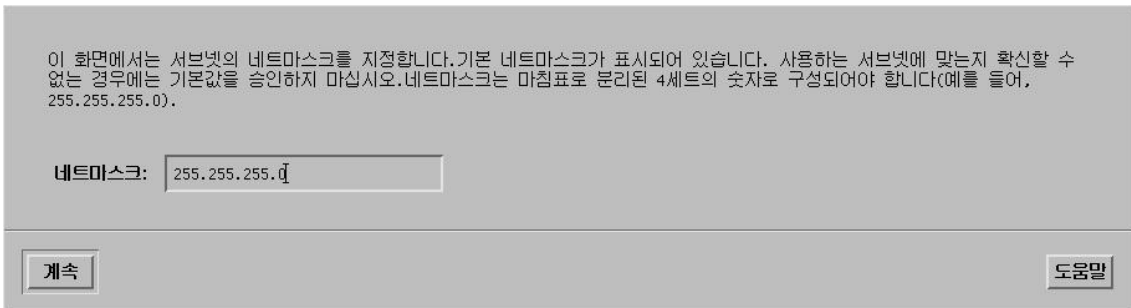


Fig. 2.1-14 Subnet Setting Screen 2

17. Type the subnet mask as shown below.

Ex) 255.255.255.128 (before inputting them, check if the subnet mask is used)

Then, click **Continue!**

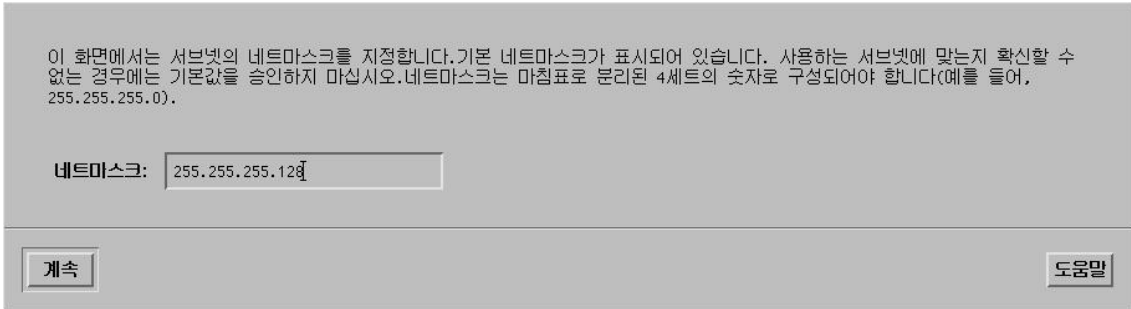


Fig. 2.1-15 Subnet Setting Screen 3

18. The menu designating the basic time zone is shown.

Select **the regional location**. Then, click **Set!**

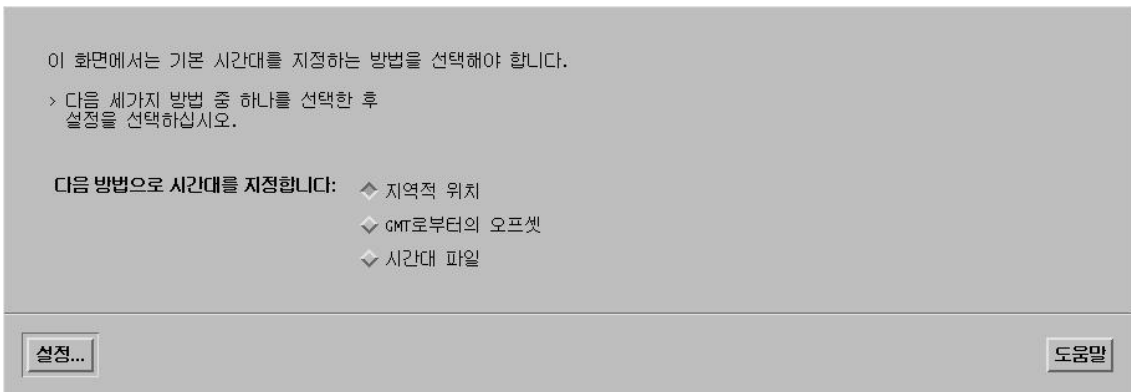


Fig. 2.1-16 OS Time Setting Method Screen

19. The menu containing the country and time zone is shown.

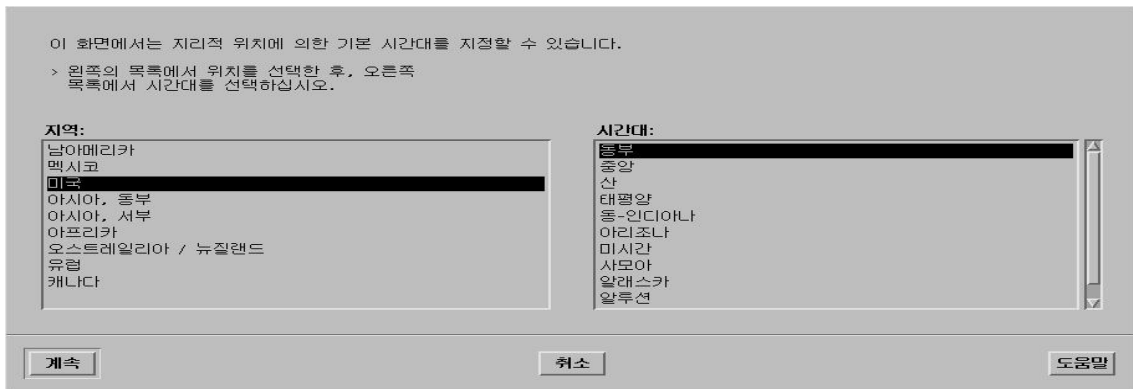


Fig. 2.1-17 OS Time Setting Region Selection Screen

20. Select Asia for the region and Korean for time zone. Then, click **Select!**

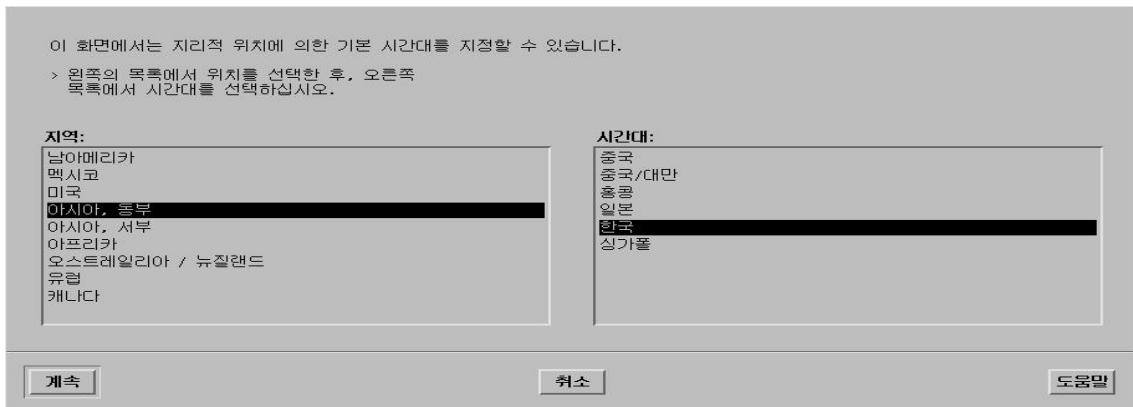


Fig. 2.1-18 OS Time Setting Region Selection Screen 2

21. Check to see if minute, time, data, month, and year are accurate. If they are not, click **Continue!**



Fig. 2.1-19 Time Setting Screen

22. The items that are related to the subnet are summarized. Click **Continue!**

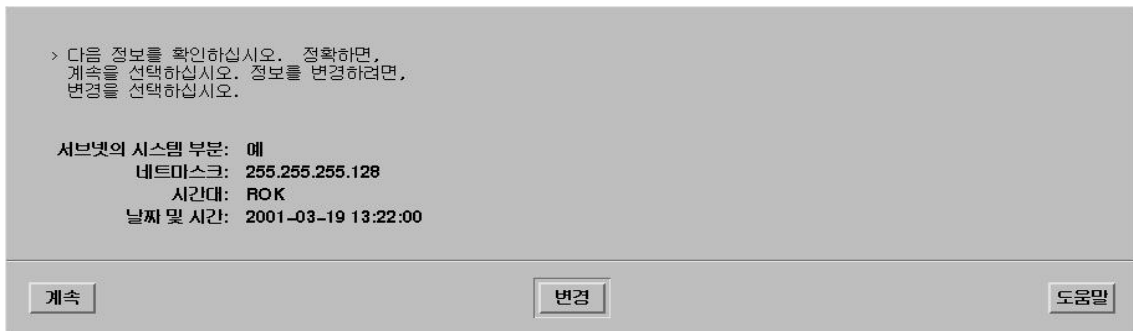


Fig. 2.1-20 Subnet and Time Setting Summary Screen

23. The screen selecting Solaris installation method is displayed on the screen. Click **Initialize!**

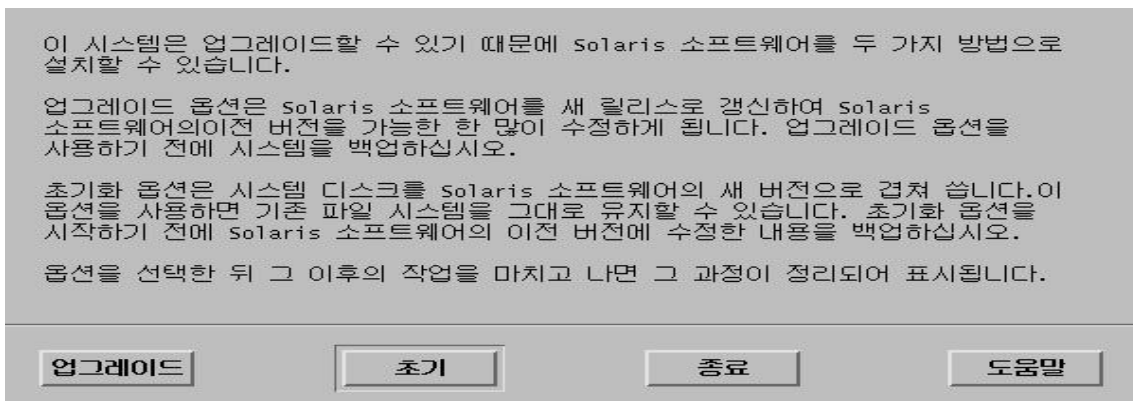


Fig. 2.1-21 OS Installation Method Selection Screen

24. Click **Continue!**

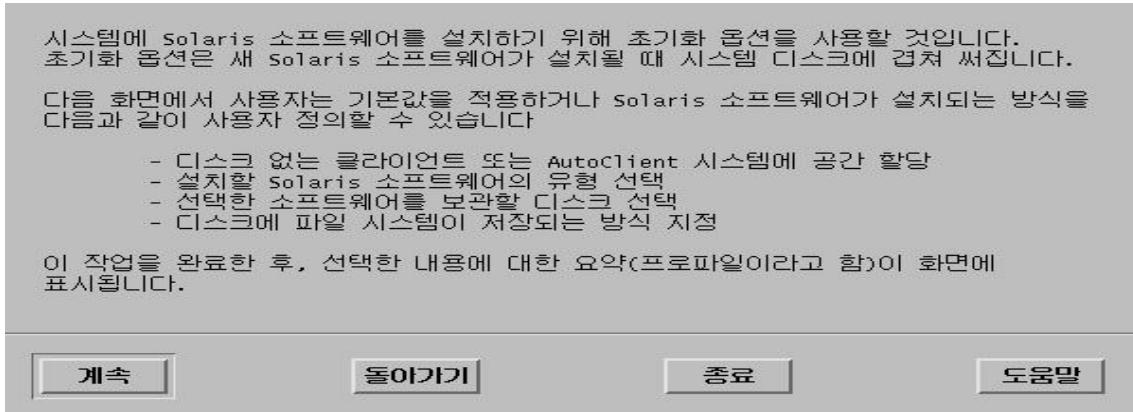


Fig. 2.1-22 Attention to the Installation of OS

25. Client-related questions are shown. Click **Continue!**

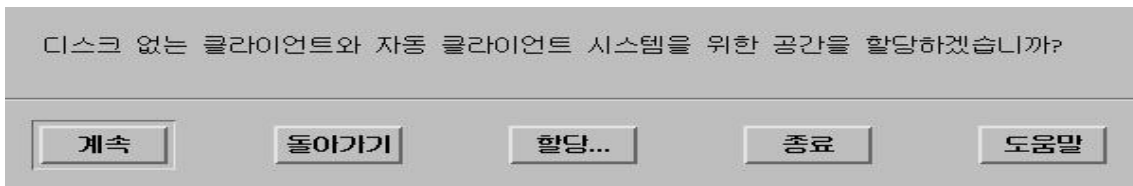


Fig. 2.1-23 X-Terminal Setting Screen

26. Language select screen is shown. Click **Continue!**





Fig. 2.1-24 User Language Selection Screen

27. S/W installation-related menu is displayed. Click **Continue!**

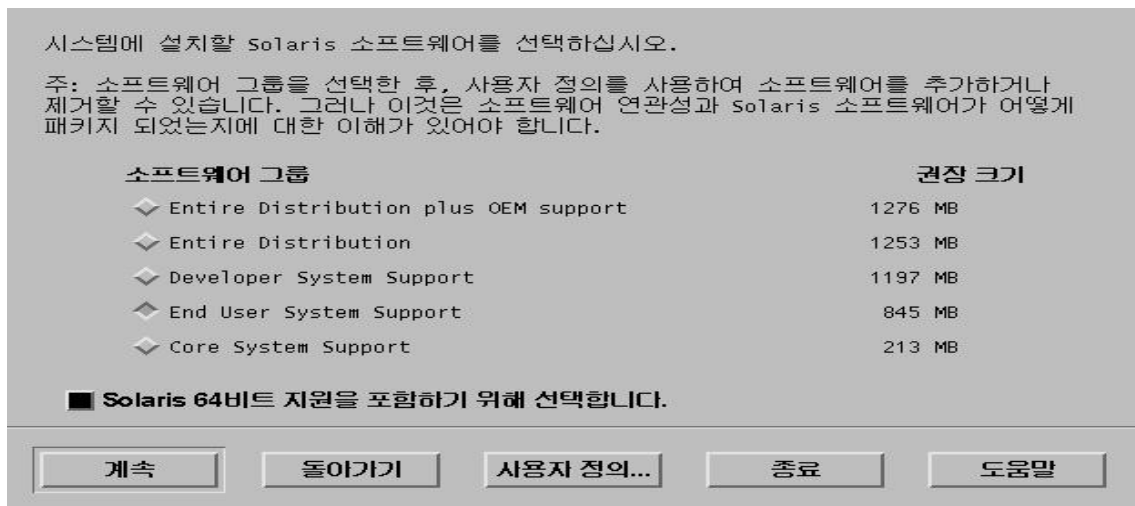


Fig. 2.1-25 OS Installation Category Selection Screen

28. Select **Entire Distribution plus OEM support**. Then, click **Continue!**

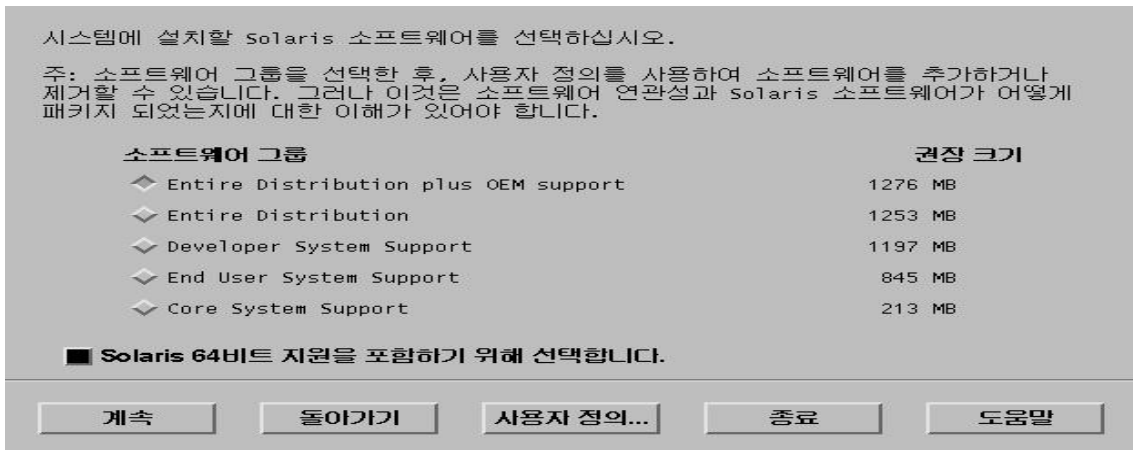


Fig. 2.1-26 OS Installation Category Selection Screen 2

29. Select the disk where OS is to be installed.

If two disks are displayed on the screen, it shows information.

t : Select the disk with t0 - a parameter that represents the disk - written.

Click **Continue**!

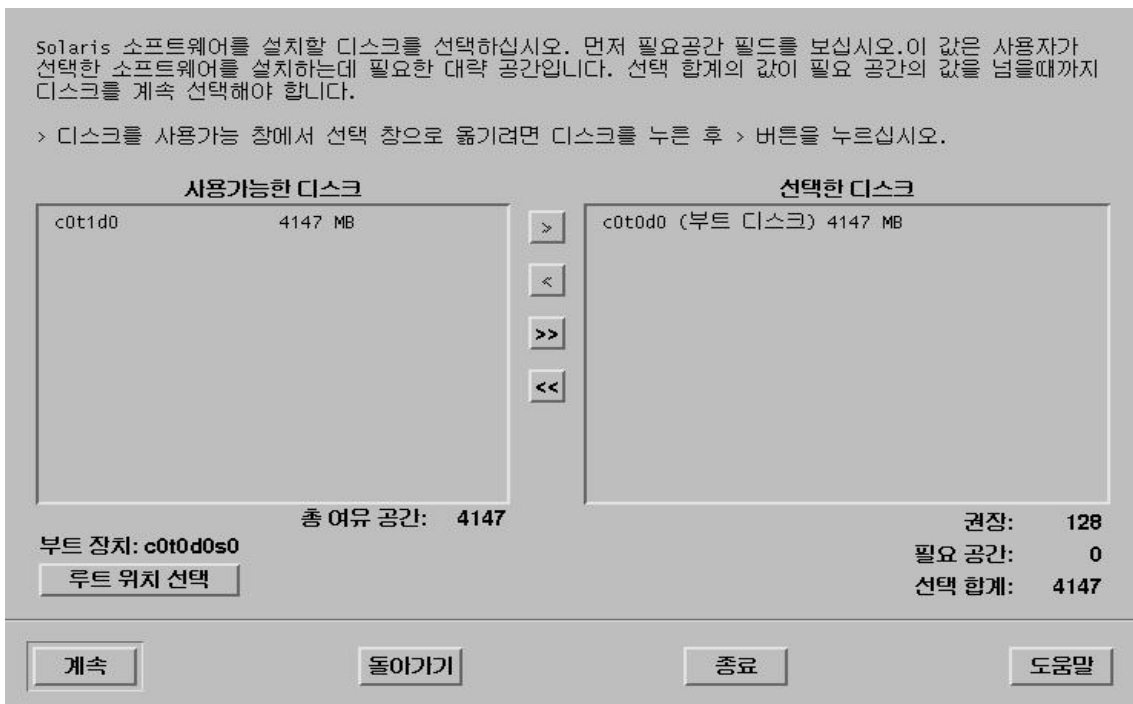


Fig. 2.1-27 OS Installation Disk Selection Screen

30. Determine whether to keep data. Then, click **Continue**.

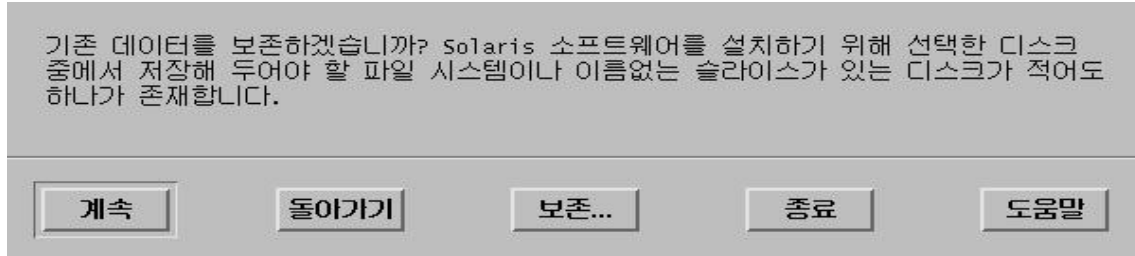


Fig. 2.1-28 Warning Sentence Screen Resulting from the Disk Setting

31. File system-related items are shown.

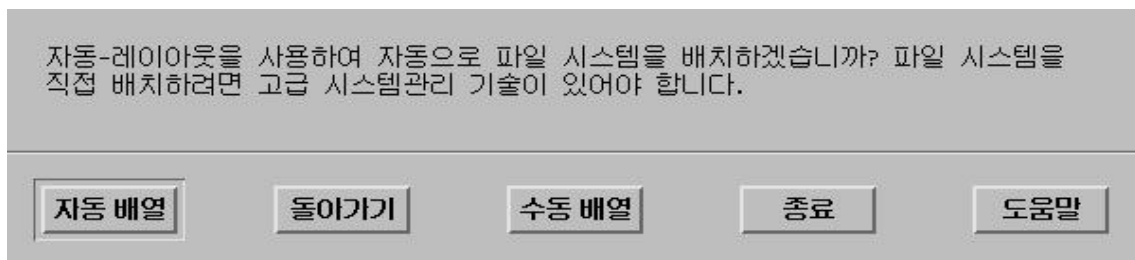


Fig. 2.1-29 Selection Screen for Disk Installation Method

32. Click **Manual Arrangement**.

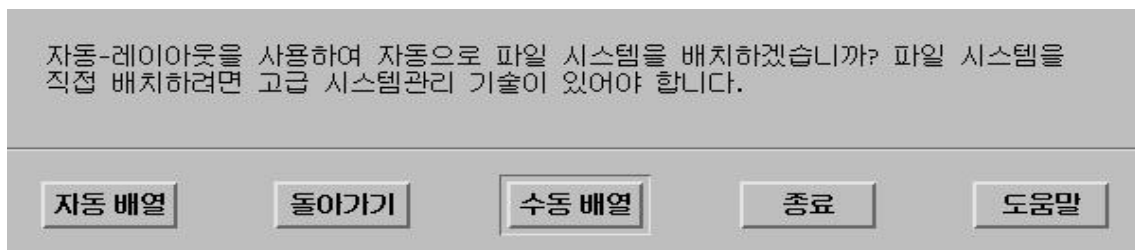


Fig. 2.1-30 Select Screen for Disk Installation Method

33. The current disk information is shown. Click **Customize**!

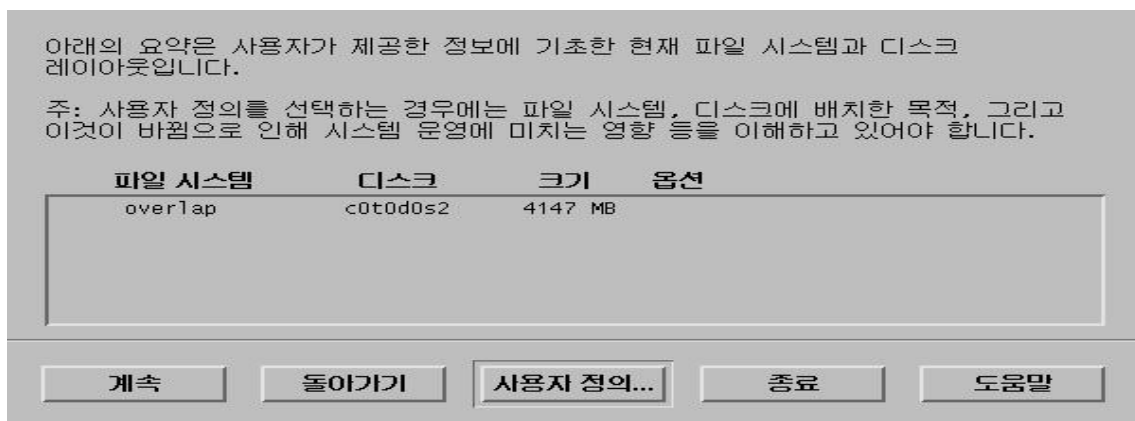


Fig. 2.1-31 Selected Disk Information Display Screen

34. Disk use information is shown. Overlap(disk size) can be checked.

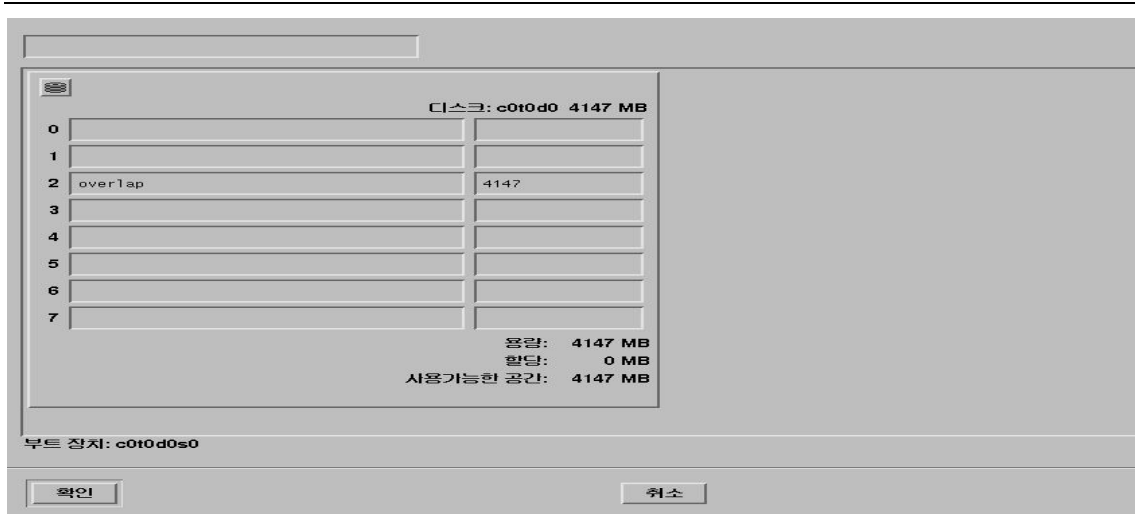


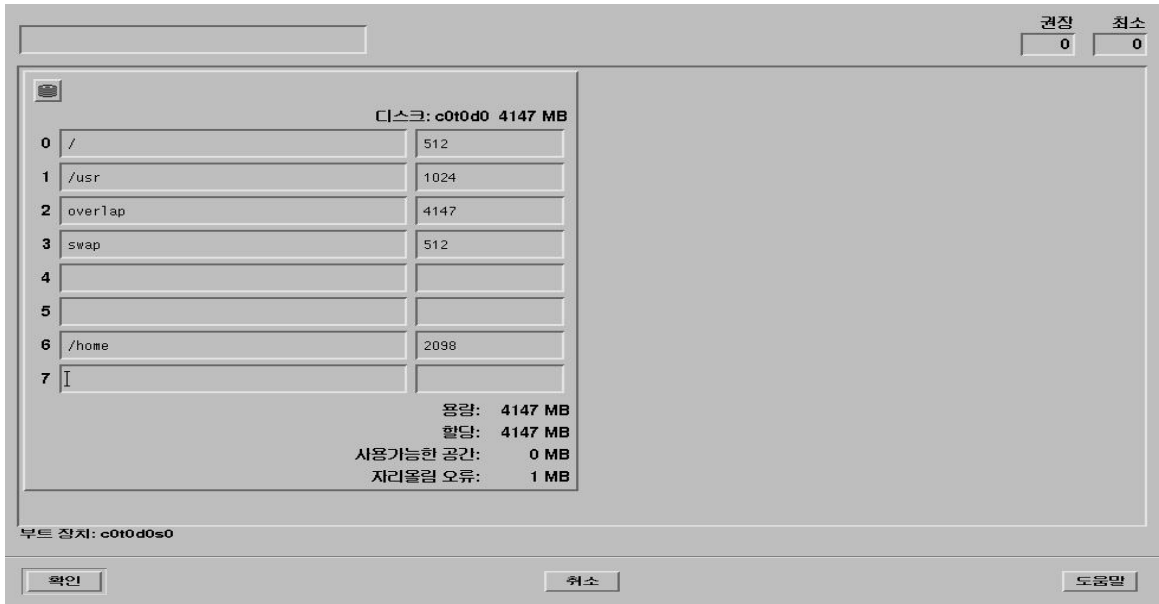
Fig. 2.1-32 Area Information Display Screen for the Disk Division

### 35. Disk Space Allocation

As shown below, type **route(/)**, **user(/usr)**, and **swap** and select the size to the total disk space. In general, much of disk space is allocated to **Route /usr**. (For the suitable Disk Size, refer to the attached file.)

Swap should be twice as large as the memory. (Current system memory : 256Mbyte)

Click



36. The screen that reconfirms the disk space arrangement that is previously set. Click **Continue!**

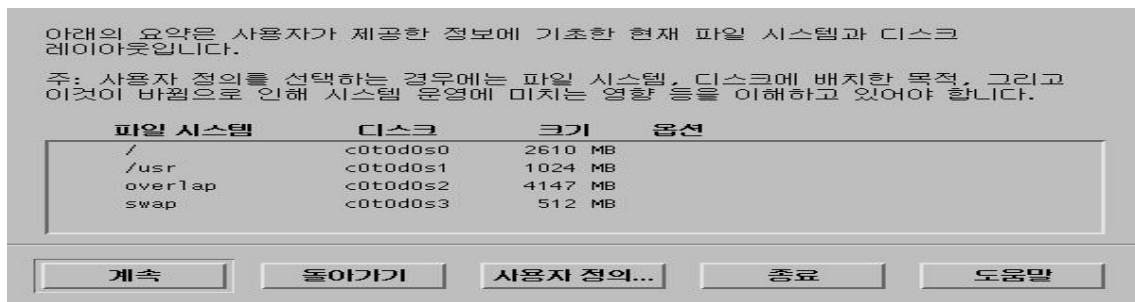


Fig. 2.1-33 Disk Allocation Result Display Screen

37. Items that are related to the remote file server are shown. Click **Continue**.

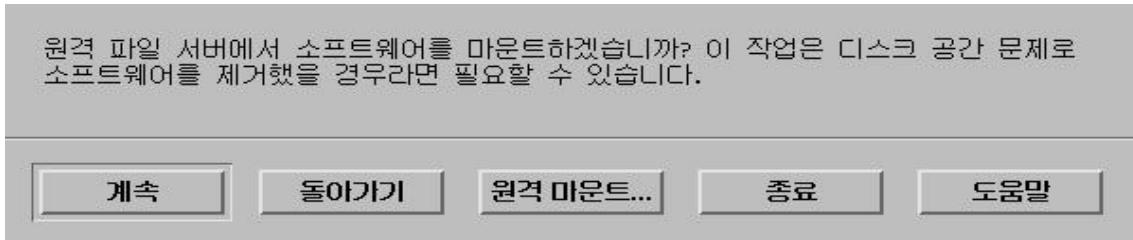


Fig. 2.1-34 Remote File Server Installation Screen

38. Click **Start Installation** for final installation.

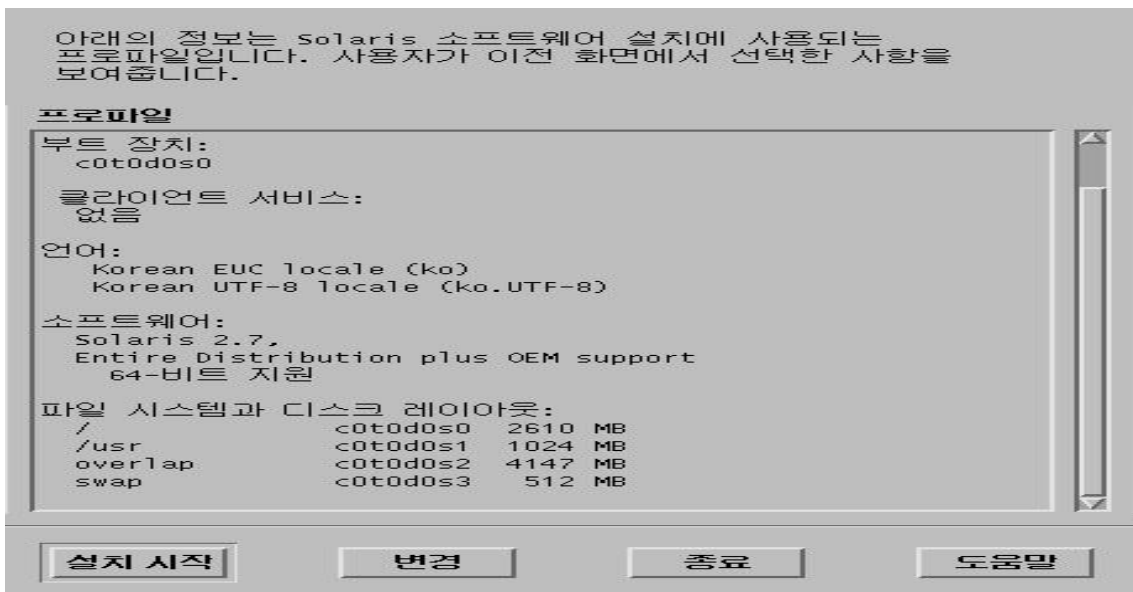


Fig. 2.1-35 Set up Information Display Screen for the Installation

## 2.1.2. Network Environment Setting Procedures

The following material is developed taking the BSM feel system as an example.

**Attention** : If the setting is not done inappropriately, C-compiler or Informix cannot be installed.

1. After booting is done, change shell of root to c-shell(default : bourne shell).

Purpose : to use the C-Shell

```
$cd /etc
$vi passwd
Correct root:x:0:1:Super-User:/:/sbin/sh in the first line/
Modified Items : sbin/sh→bin/csh
```

2. Create .cshrc & .login file.

Purpose : After booting, create .cshrc &.login file in the root.

```
cp /etc/skel/local.cshrc /.cshrc
cp /etc/skel/local.login /.login
```

3. Create resolv.conf.

```
vi /etc/resolv.conf
```

Modified Contents

```
domain      lgic.co.kr
nameserver  165.243.140.230
```



4. Create the hosts file.

```
vi /etc/hosts
```

Items to be added to the Internet host table on top.

```
127.0.0.1 localhost
150.150.62.102 feel.lgic.co.kr feel loghost
```

**Attention** : If inputting feel.lgic.co.kr loghost, BSM might not operate.

5. Create nsswitch.conf.

```
: vi /etc/nsswitch.conf
```

Add dns to the line where the host exists.

```
hosts:      files  dns
```

6. Create defaultrouter.

```
vi /etc/defaultrouter
```

Input Router IP.

```
150.150.62.126
```

7. Create defaultdomain.

```
vi /etc/defaultdomain
```

Input domain name.

```
lgic.co.kr
```

8. Test the network.

Network Setting Test

```
ping 150.150.62.100
```

Ping result : 150.150.62.64 is alive → it means that the network is set up.

## 2.2. DBMS(Informix) Installation

### 2.2.1. Informix Install

#### 2.2.1.1. Preparation for Installation

Note> The host name that is used in this document as an example is zen and Informix home directory path is /home/Informix.

##### 2.2.1.1.1. Informix Account Creation

In order to install Informix, the informix user account of the informix group is required. Account can be made by the following methods: the method that uses admintool and the method that directly modifies the file.

###### 2.2.1.1.1.1. First Method – execute admintool

1. Informix group generation: create a group under the name of informix on the Group Add menu.
2. Informix user generation: create a user under the name of informix on the Us Add menu.

###### 2.2.1.1.1.2. Second Method – modify the file directly

Add informix group/ to the etc/group file

and add informix account as informix group in a /etc/passwd file.

Authorize the informix user by making an informix homedirectory.

##### 2.2.1.1.2. Informix Installation File Copy

Log in to the informix account in order to install Informix. Move the Informix installation file to the home directory in the informix account. Then, release all the compression to create the Install Script in the Informix Directory. (Ex. installsql, installserver, installconn, etc)

```
$ cd /cdrom/informix/  
$ ls -al (check the path where the Informix product is located)  
$ cd $INFORMIXDIR (informix Home Directory)  
$ tar xvf /cdrom/informix/ICONNECT/SUN/CONNECT.TAR <= Informix Dynamic  
  Server CD  
$ tar xvf /cdrom/informix/SERVER/IDS.TAR <= Informix Dynamic Server CD  
$ tar xvf /cdrom/informix/SQLRT.TAR <= Informix SQL CD
```

### 2.2.1.2. Environment File Modification

To install informix, modify the system file, services file, etc and then perform rebooting.

#### 2.2.1.2.1. /etc/ System Modification

```
set msgsys:msginfo_msgmap=256  
set msgsys:msginfo_msgmax=1024  
set msgsys:msginfo_msgmnb=614400  
set msgsys:msginfo_msgmni=50  
set msgsys:msginfo_msgssz=128  
set msgsys:msginfo_msgtql=1200  
set msgsys:msginfo_msgseg=16384  
  
set shmsys:shminfo_shmmax=104858000  
#set shmsys:shminfo_shmmin=10  
set shmsys:shminfo_shmmni=100  
set shmsys:shminfo_shmseg=100  
#set shmsys:shminfo_shmbrk=10485800  
  
set semsys:seminfo_semmap=64  
set semsys:seminfo_semmni=128  
set semsys:seminfo_semmsl=64  
set semsys:seminfo_semmns=8192  
set semsys:seminfo_semmnu=4096  
set semsys:seminfo_semume=64
```

```
set pt_cnt=120
```

#### 2.2.1.2.2. /etc/services File Modification

```
sqlexec          5000/tcp
```

#### 2.2.1.2.3. Addition to .cshrc file

Add the following to .cshrc file in the user account that uses the root, informix, and Informix and then execute the source .cshrc command.

```
#
# Informix Environment
#

setenv INFORMIXDIR      /home/Informix
setenv INFORMIXSERVER  zen_tcp
                        => Use TCP connection. (when using semaphore: zen)
setenv PATH $INFORMIXDIR/bin:$PATH
setenv LD_LIBRARY_PATH $INFORMIXDIR/lib:$INFORMIXDIR/lib/esql:/usr/lib
setenv TERMCAP $INFORMIXDIR/etc/termcap
setenv DBTEMP $INFORMIXDIR/tmp    -> Create a tmp directory directly
setenv ONCONFIG onconfig
setenv INFORMIXC cc
setenv TERM vt100
```

#### 2.2.1.2.4. Addition to .login file

```
# @(#)login 2.0  Apr 5  1995  TriGem

stty echoe
stty erase ^ H
stty cs8 -istrip defeucw
setenv LANG C >& /dev/null
```

```
setenv DISPLAY unix:0

stty -istrip
# Aliasing .....
setenv EXINIT 'set aw terse|map @ dd|map # x'
echo -n " Terminal type is ($term): "
set X = $<
if $X != "" then
                                set term = $X
endif
if $X == "sun" then
    stty erase ^ H
    stty werase ^ ?
endif
if $X == "fast" then
    stty erase ^ H
    stty werase '^ ?'
endif
tset -I -Q
```

**2.2.1.2.5. Rebooting**

```
#sync
#sync
#sync
..
# reboot
```

**2.2.1.3. Informix Installation**

Let's install informix.

Note> The host name that is used in this document as an example is zen and the informix home directory path is /home/informix.

**2.2.1.3.1. Installing install file in order**

Install the following in order: installsqlrt<root>, installserver<root>, installconn<Informix>. At this point, input serial numbers and key.

*In the <root> account*

**# installsqlrt**

INFORMIX-SQL Run Time Facility Version 7.30.UC4

Copyright (C) 1984-2000 Informix Software, Inc.

Installation Script

This installation procedure must be run by root (super-user).

It will change the owner, group, and mode of all files of this package in this directory. There must be a user "informix" and a group "informix" known to the system.

Press RETURN to continue,

or the interrupt key (usually CTRL-C or DEL) to abort.     RETURN

Enter your serial number (for example, INF#X999999) >

Serial number

Enter your serial number KEY (uppercase letters only) >

Key

WARNING!

          This software, and its authorized use and number of users, are subject to the applicable license agreement with Informix Software, Inc.

If the number of users exceeds the licensed number, the excess users may be prevented from using the software.   UNAUTHORIZED USE OR COPYING MAY SUBJECT YOU AND YOUR COMPANY TO SEVERE CIVIL AND CRIMINAL LIABILITIES.

Press RETURN to continue,

or the interrupt key (usually CTRL-C or DEL) to abort.

Installing directory .

Installing directory bin

Installing directory etc

Installing directory msg

Installing directory msg/en\_us

Installing directory msg/en\_us/0333

Installing directory msg/ja\_jp

:

:

:

Installing directory gls/lc11/th\_th

Installing directory gls/lc11/zh\_cn

Installing directory gls/lc11/zh\_tw

Installation of INFORMIX-SQL, Runtime Facility complete.

:

:

**#installserver**        <= Perform identically

Informix Dynamic Server Version 7.31.UC7



Copyright (C) 1986-2000 Informix Software, Inc.

### Installation and Configuration Script

This installation procedure must be run by a privileged user (Super User)

It will change the owner, group, mode, (and other file attributes on Secure systems) of all files of this package in this directory.

There must be a user "informix" and a group "informix" known to the system.

Press RETURN to continue,

or the interrupt key (usually CTRL-C or DEL) to abort.

:

:

:

Installing directory gls/lc11/zh\_tw

Installing directory bitmaps

Installing Shared Libraries in System Directories ...

Linking /usr/lib/ismdd07b.so from lib/ismdd07b.so

Linking /usr/lib/iosm07a.so from lib/iosm07a.so

Linking /usr/lib/ipldd07a.so from lib/ipldd07a.so

Installation of Informix Dynamic Server complete.

*In the <Informix> account*

**#installconn**

INFORMIX-Connect Version 2.40.UC1

Copyright (C) 1984-1999 Informix Software, Inc.

Installation Script

Installation Script Requirements:

- A user "informix" and a group "informix" must be known to the system.
- The product source files must have been loaded by user informix
- This installation procedure must be run by user informix.
- You must also set INFORMIXDIR to where you would like to install the product on and make INFORMIXDIR as your current working directory.

This script will change the owner, group, and mode of many of the files of this package in this directory.

Extracting files from conncontent file...      <= Wait until the compressed file is unzipped.

Installing I-Connect as user "informix"...

Press RETURN to continue,  
or the interrupt key (usually CTRL-C or DEL) to abort.

Enter your serial number (for example, INF#X999999) >

**Serial number**

Enter your serial number KEY (uppercase letters only) >

KEY

WARNING!

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Press RETURN to continue,  
or the interrupt key (usually CTRL-C or DEL) to abort.

Installing directory .

Installing directory etc

Installing directory msg

:  
:  
:

Installing directory gls/lc11/zh\_cn

Installing directory gls/lc11/zh\_tw

\*\*\*\*\*

To complete the installation of INFORMIX-Connect,  
run /home/informix/RUN\_AS\_ROOT.conn as root.

\*\*\*\*\*

Informix user portion of installation of INFORMIX-Connect complete.

### 2.2.1.3.2. Shared Library Linking

Once the above work is complete, change the user ID of part of the execution files to root for the informix file and link shared libraries. This work can check if RUN\_AS\_ROOT.SERVER file is generated within the \$INFORMIXDIR after performing the install script.

```
#RUN_AS_ROOT.conn  -> perform root.

Informix Product:      INFORMIX-Connect
Installation Directory: /home/informix

Performing root portion of installation of INFORMIX-Connect...

Installation of INFORMIX-Connect complete.
```

## 2.2.2. Environment Setting

### 2.2.2.1. onconfig file

Let's create the etc/onconfig in the informix account. Copy the existing onconfig.std file to the onconfig file and then modify and add the following paths and parameters. In the example below, the Informix path is /home/informix and the host name is zen. Modify them suitable to your system.

```
#
#
#           INFORMIX SOFTWARE, INC.
#
# Title:      onconfig.std
# Description: Informix Dynamic Server Configuration Parameters
#
#*****

# Root Dbspace Configuration
ROOTNAME      rootdbs          # Root dbspace name
ROOTPATH      /home/informix/DBS/root_chk # Path for device containing root
dbspace
ROOTOFFSET    0                # Offset of root dbspace into device (Kbytes)
ROOTSIZE      100000           # Size of root dbspace (Kbytes)

# Disk Mirroring Configuration Parameters
MIRROR        1                # Mirroring flag (Yes = 1, No = 0)
```

MIRRORPATH		# Path for device containing mirrored root
MIRROROFFSET	0	# Offset into mirrored device (Kbytes)
# Physical Log Configuration		
PHYSDBS	rootdbs	# Location (dbspace) of physical log
PHYSFILE	10000	# Physical log file size (Kbytes)
# Logical Log Configuration		
LOGFILES	10	# Number of logical log files
LOGSIZE	3000	# Logical log size (Kbytes)
# Diagnostics		
MSGPATH	/home/informix/online.log	# System message log file path
CONSOLE	/dev/console	# System console message path
ALARMPROGRAM	/home/informix/etc/no_log.sh	# Alarm program path
SYSALARMPROGRAM	/home/informix/etc/evidence.sh	# System Alarm program path
TBLSPACE_STATS	1	
# System Archive Tape Device		
TAPEDEV	/dev/null	# Tape device path
#TAPEDEV	/dev/tapedev	# Tape device path
TAPEBLK	16	# Tape block size (Kbytes)
TAPESIZE	10240	# Maximum amount of data to put on tape (Kbytes)
# Log Archive Tape Device		
LTAPEDEV	/dev/null	# Log tape device path
#LTAPEDEV	/dev/tapedev	# Log tape device path
LTAPEBLK	16	# Log tape block size (Kbytes)
LTAPESIZE	10240	# Max amount of data to put on log tape (Kbytes)
# Optical		
STAGEBLOB		# Informix Dynamic Server/Optical staging area
# System Configuration		
SERVERNUM	0	# Unique id corresponding to a Dynamic Server instance
DBSERVERNAME	zen	# Name of default database server

DBSERVERALIASES zen_tcp		# List of alternate dbservernames
NETTYPE ipcshm,1,10,CPU		# When using semaphore, it is good to increase the setting with 10 connection to 50.
NETTYPE tlitcp,1,10,NET		# Configure poll thread(s) for nettype
DEADLOCK_TIMEOUT 60		# Max time to wait of lock in distributed env.
RESIDENT 0		# Forced residency flag (Yes = 1, No = 0)
MULTIPROCESSOR 0		# 0 for single-processor, 1 for multi-processor
NUMCPUVPS 1		# Number of user (cpu) vps
SINGLE_CPU_VP 1		# If non-zero, limit number of cpu vps to one
NOAGE 0		# Process aging
AFF_SPROC 0		# Affinity start processor
AFF_NPROCS 0		# Affinity number of processors
# Shared Memory Parameters		
LOCKS 100000		# Maximum number of locks
BUFFERS 12800		# Maximum number of shared buffers
NUMAIOVPS 1		# Number of IO vps
PHYSBUFF 32		# Physical log buffer size (Kbytes)
LOGBUFF 32		# Logical log buffer size (Kbytes)
LOGSMAX 20		# Maximum number of logical log files
CLEANERS 1		# Number of buffer cleaner processes
SHMBASE 0x0A000000L		# Shared memory base address
SHMVIRTSIZE 30000		# initial virtual shared memory segment size
SHMADD 16000		# Size of new shared memory segments (Kbytes)
SHMTOTAL 0		# Total shared memory (Kbytes). 0=>unlimited
CKPTINTVL 300		# Check point interval (in sec)
LRUS 8		# Number of LRU queues
LRU_MAX_DIRTY 60		# LRU percent dirty begin cleaning limit
LRU_MIN_DIRTY 50		# LRU percent dirty end cleaning limit
LTXHWM 50		# Long transaction high water mark percentage
LTXEHWM 60		# Long transaction high water mark (exclusive)
TXTIMEOUT 300		# Transaction timeout (in sec)
STACKSIZE 32		# Stack size (Kbytes)

```
# System Page Size
# BUFFSIZE - Dynamic Server no longer supports this configuration parameter.
#           To determine the page size used by Dynamic Server on your platform
#           see the last line of output from the command, 'onstat -b'.

# Recovery Variables
# OFF_RECVRY_THREADS:
# Number of parallel worker threads during fast recovery or an offline restore.
# ON_RECVRY_THREADS:
# Number of parallel worker threads during an online restore.

OFF_RECVRY_THREADS    10      # Default number of offline worker threads
ON_RECVRY_THREADS    1      # Default number of online worker threads

# Data Replication Variables
# DRAUTO: 0 manual, 1 retain type, 2 reverse type
DRAUTO                0      # DR automatic switchover
DRINTERVAL            30      # DR max time between DR buffer flushes (in sec)
DRTIMEOUT             30      # DR network timeout (in sec)
DRLOSTFOUND           /home/informix/etc/dr.lostfound # DR lost+ found file path

# CDR Variables
CDR_LOGBUFFERS       2048    # size of log reading buffer pool (Kbytes)
CDR_EVALTHREADS     1,2     # evaluator threads (per-cpu-vp,additional)
CDR_DSLOCKWAIT       5      # DS lockwait timeout (seconds)
CDR_QUEUEMEM         4096    # Maximum amount of memory for any CDR queue
                        (Kbytes)
CDR_LOGDELTA         30     # % of log space allowed in queue memory
CDR_NUMCONNECT       16     # Expected connections per server
CDR_NIFRETRY         300    # Connection retry (seconds)
CDR_NIFCOMPRESS      0      # Link level compression (-1 never, 0 none, 9 max)

# Backup/Restore variables
BAR_ACT_LOG           /tmp/bar_act.log
BAR_MAX_BACKUP        0
BAR_RETRY             1
```

```
BAR_NB_XPORT_COUNT      10
BAR_XFER_BUF_SIZE       31

# Informix Storage Manager variables
ISM_DATA_POOL   ISMData      # If the data pool name is changed, be sure to
                          # update $INFORMIXDIR/bin/onbar.  Change to
                          # ism_catalog -create_bootstrap -pool <new name>
ISM_LOG_POOL    ISMLogs

# Read Ahead Variables
RA_PAGES        32           # Number of pages to attempt to read ahead
RA_THRESHOLD    30           # Number of pages left before next group

# DBSPACETEMP:
# Dynamic Server equivalent of DBTEMP for SE. This is the list of dbspaces
# that the Dynamic Server SQL Engine will use to create temp tables etc.
# If specified it must be a colon separated list of dbspaces that exist
# when the Dynamic Server system is brought online.  If not specified, or if
# all dbspaces specified are invalid, various ad hoc queries will create
# temporary files in /tmp instead.

DBSPACETEMP          # Default temp dbspaces

# DUMP*:
# The following parameters control the type of diagnostics information which
# is preserved when an unanticipated error condition (assertion failure) occurs
# during Dynamic Server operations.
# For DUMPSHMEM, DUMPGCORE and DUMPCORE 1 means Yes, 0 means No.

DUMPDIR            /tmp      # Preserve diagnostics in this directory
DUMPSHMEM          0         # Dump a copy of shared memory
DUMPGCORE          0         # Dump a core image using 'gcore'
DUMPCORE           0         # Dump a core image (Warning:this aborts Dynamic
Server)
DUMPCNT            1         # Number of shared memory or gcore dumps for
                          # a single user's session
```



```
FILLFACTOR      90          # Fill factor for building indexes

# method for Dynamic Server to use when determining current time
USEOSTIME       0          # 0: use internal time(fast), 1: get time from OS(slow)

# Parallel Database Queries (pdq)
MAX_PDQPRIORITY 100       # Maximum allowed pdqpriority
DS_MAX_QUERIES  # Maximum number of decision support queries
DS_TOTAL_MEMORY # Decision support memory (Kbytes)
DS_MAX_SCANS    1048576 # Maximum number of decision support scans
DATASKIP        # List of dbspaces to skip

# OPTCOMPIND
# 0 => Nested loop joins will be preferred (where
#     possible) over sortmerge joins and hash joins.
# 1 => If the transaction isolation mode is not
#     "repeatable read", optimizer behaves as in (2)
#     below.  Otherwise it behaves as in (0) above.
# 2 => Use costs regardless of the transaction isolation
#     mode.  Nested loop joins are not necessarily
#     preferred.  Optimizer bases its decision purely
#     on costs.
OPTCOMPIND      0          # To hint the optimizer

ONDBSPACEDOWN  2          # Dbspace down option: 0 = CONTINUE, 1 = ABORT, 2
= WAIT
LBU_PRESERVE    1          # Preserve last log for log backup
OPCACHEMAX     0          # Maximum optical cache size (Kbytes)

# HETERO_COMMIT (Gateway participation in distributed transactions)
# 1 => Heterogeneous Commit is enabled
# 0 (or any other value) => Heterogeneous Commit is disabled
HETERO_COMMIT   0

# Optimization goal: -1 = ALL_ROWS(Default), 0 = FIRST_ROWS
OPT_GOAL        -1
```

```
# Optimizer DIRECTIVES ON (1/Default) or OFF (0)
DIRECTIVES      1

# Status of restartable restore

RESTARTABLE_RESTORE OFF
```

### 2.2.2.2. sqlhosts File

Copy the etc/sqlhosts.demo file in the Informix account to the sqlhosts file and then modify them suitable to the system.

```
zen    onipcshm      zen    sqlxecshm
zen_tcp onlitcp      zen    sqlxec
```

### 2.2.2.3. onconfig Parameter Setting

```
Input the onmonitor command on the prompt
# onmonitor
* If creating dbspace using the cooked file, create null file.
# cd $INFORMIXDIR
# mkdir DBS
# cd DBS
# touch root_chk
# chmod 660 root_chk
```

### 2.2.3. Execution

Now, the Informix installation and environment setting are complete. Let's execute the Informix.

```
# oninit -isy      <= DB Execution
# onmode -my      <= Convert DB into online mode
#onstat -         <= DB Status viewing
Informix Dynamic Server Version 7.31.UC7   -- On-Line -- Up 00:01:00 -- 62752
Kbytes
```

```
#
```

## 2.2.4. Others

### 2.2.4.1. Command Usage Viewing

```
command --      <= Give - option to the command to see the command usage.
```

### 2.2.4.2. DB Space Viewing and Expansion

One can see the entire size of the DB and Chunk in use. If the DB space in use is short, it can be expanded by adding chunk.

```
#onstat -d

Informix Dynamic Server Version 7.31.UC7   -- On-Line -- Up 10:22:12 -- 62752
Kbytes

Dbspaces
address number  flags   fchunk  nchunks  flags   owner   name
c04a150  1           1       1        1        N       informix rootdbs
  1 active, 2047 maximum

Chunks
address  chk/dbs offset  size    free    bpages  flags  pathname
c04a210  1      1      0         50000   28913   PO-
/home2/informix/DBS/root_chk
  1 active, 2047 maximum

#onspaces --      <= Viewing the command to expand

Usage:
onspaces { -a spacename -p pathname -o offset -s size [-m path offset] |
          -c { -d DBspace [-t] | -b BLOBspace -g pagesize }
          -p pathname -o offset -s size [-m path offset] |
```

```
-d spacename [-p pathname -o offset] [-f] [-y] |
-f[y] off [DBspace-list] | on [DBspace-list] |
-m spacename {-p pathname -o offset -m path offset [-y] |
-f filename} |
-r spacename [-y] |
-s spacename -p pathname -o offset {-O | -D} [-y] }
```

- a - Add a chunk to a DBspace or BLOBspace
- c - Create a DBspace or BLOBspace
- d - Drop a DBspace, BLOBspace or chunk
- f - Change dataskip default for specified DBspaces
- m - Add mirroring to an existing DBspace or BLOBspace
- r - Turn mirroring off for a DBspace or BLOBspace
- s - Change the status of a chunk

*Now, expand the DB space.*

```
#cd DBS
```

```
#touch root_chk2 <= chunk create
```

```
#chmod 660 root_chk2
```

```
#onspaces -a rootdbs -p /home2/informix/DBS/root_chk2 -o 0 -s 50000
```

Verifying physical disk space, please wait ...

Chunk successfully added.

```
# onstat -d
```

```
Informix Dynamic Server Version 7.31.UC7 -- On-Line -- Up 10:42:43 -- 62752
Kbytes
```

Dbspaces

address	number	flags	fchunk	nchunks	flags	owner	name
c04a150	1	1	1	2	N	informix	rootdbs

1 active, 2047 maximum

Chunks

address	chk/dbs	offset	size	free	bpages	flags	pathname
c04a210	1	1	0		50000	28913	PO- /home2/informix/DBS/root_chk

```

c2d5a80  2    1    0          25000    24997          PO-
/home2/informix/DBS/root_chk2
  2 active, 2047 maximum

Now, remove the trunk that is added. At this time, if typing spacename(rootdbs), the DB
space is dropped. For this reason, caution is required.

#onspaces -d rootdbs -p /home2/informix/DBS/root_chk2 -o 0
WARNING:  Dropping a chunk.
Do you really want to continue? (y/n)y
Chunk successfully dropped.
** WARNING **  A level 0 archive for DBspace rootdbs will need to be done
before '/home2/informix/DBS/root_chk2' can be reused (see Dynamic Server
Administrator's manual).

#onstat -d

Informix Dynamic Server Version 7.31.UC7  -- On-Line -- Up 10:47:20 -- 62752
Kbytes

Dbspaces
address  number  flags  fchunk  nchunks  flags  owner  name
c04a150  1        1      1        1        N      informix rootdbs
  1 active, 2047 maximum

Chunks
address  chk/dbs  offset  size    free    bpages  flags  pathname
c04a210  1        1        0        50000   28913          PO-
/home2/informix/DBS/root_chk
  1 active, 2047 maximum

```

## 2.3. ATM Adaptor Setup

### 2.3.1. SunATM Adopter Setup

Power the workstation off and use the `show-devs` command in the OK mode to check if the adaptor card is normally set up after setting up SunATM adaptor. (In case of Sbus adaptor, use `show-devs /sbus`.)

```
Ok show-devs
...
/pci@1f,4000/SUNW,ma@1
...
```

```
Ok show-devs /sbus
...
/sbus@3,0/SUNW,ba@2,0
...
```

### 2.3.2. SunATM S/W Installation and Solaris Setup File Modification

Modify SunATM adaptor device driver installation and a couple of Solaris 7 OS setup files to use the SunATM adaptor in the BSM. A series of work can be performed through one command using the `atm_setup` tool, which is provided with the package.

1. Becomes Super user.
2. Unzip the downloaded `atm_setup.tar` file.

```
# tar xvf atm_setup.tar
x atm_setup, 0 bytes, 0 tape blocks
```

```
x atm_setup/sunatm_4_0_update_1, 0 bytes, 0 tape blocks
x atm_setup/sunatm_4_0_update_1/Copyright, 2175 bytes, 5 tape blocks
x atm_setup/sunatm_4_0_update_1/FR_Copyright, 2316 bytes, 5 tape blocks
x atm_setup/sunatm_4_0_update_1/Product, 0 bytes, 0 tape blocks
x atm_setup/sunatm_4_0_update_1/Product/SUNWatm, 0 bytes, 0 tape blocks
x atm_setup/sunatm_4_0_update_1/Product/SUNWatm/install, 0 bytes, 0 tape blocks
x atm_setup/sunatm_4_0_update_1/Product/SUNWatm/install/copyright, 59 bytes, 1 tape blocks
x atm_setup/sunatm_4_0_update_1/Product/SUNWatm/install/depend, 930 bytes, 2 tape blocks
... ellipsis ...
x atm_setup/atm_setup_system, 2621 bytes, 6 tape blocks
x atm_setup/atm_setup_gsm, 17824 bytes, 35 tape blocks
#
# cd atm_setup
# ls -l
total 82
-rwxr-xr-x  1 1009    1000    17824 Mar 14 12:04 atm_setup_gsm
-rwxr-xr-x  1 1009    1000    18764 Mar 14 12:04 atm_setup_is
-rw-r--r--  1 1009    1000     2621 Mar 14 12:04 atm_setup_system
drwxr-x---  3 1009    1000     512 Mar 13 17:37 sunatm_4_0_update_1
#
```

3. In case of the IS-2000 system, execute the atm\_setup\_is file. In case of the ATM IMT-2000 system, execute the atm\_setup\_gsm file. For the question that demands the MSC number, input the MSC number (value ranging from 1 to 7) where the corresponding BSM is to be installed (because depending on the MSC number, IP address of each NE differs). If answering 'y' for the question asking with a couple of 'y' or 'n', the device driver and each setup file are generated.

※ **Attention:** atm\_setup\_is or atm\_setup\_gsm file should be executed by the Super User Authority only once. If they are executed more than twice by mistake, ATM adopter-related items of the /etc/hosts and /etc/netmasks file can be generated. If this happens, delete the ATM-related items using the vi editor directly, and then reexecute, atm\_setup\_is or atm\_setup\_gsm.

```
feel# ./atm_setup_is
```

```
#####  
### SunATM Adaptor Auto Installation Program ###  
### Made by Mobile Comm. S/W Dept. 1 on 01/03/14 ###  
#####  
Caution!! You must run this program as a superuser, and just "ONE" time.  
  
Press Enter key. Then I'll start installation process...  
Input MSC No.??? 2  
  
Uninstalling previously installed device drivers .....  
#####  
sh: /etc/opt/SUNWconn/atm/bin/atmifconfig: not found  
pkgrm: ERROR: no package associated with <SUNWatm>  
pkgrm: ERROR: no package associated with <SUNWatma>  
pkgrm: ERROR: no package associated with <SUNWatmu>  
  
Installing SunATM adaptor device drivers .....  
#####  
  
Processing package instance <SUNWatm> from  
</tmp/atm_setup/sunatm_4_0_update_1/Product>  
  
SunATM Device Drivers  
(sparc) 4.0.1,REV=1999.4.27.18  
Copyright 1999 Sun Microsystems, Inc. All rights reserved.  
Using </> as the package base directory.  
## Processing package information.  
## Processing system information.  
8 package pathnames are already properly installed.  
## Verifying package dependencies.  
## Verifying disk space requirements.  
## Checking for conflicts with packages already installed.  
## Checking for setuid/setgid programs.  
  
This package contains scripts which will be executed with super-user
```



permission during the process of installing this package.

Do you want to continue with the installation of <SUNWatm> [y,n,?] **y**

Installing SunATM Device Drivers as <SUNWatm>

## Installing part 1 of 1.

/etc/init.d/sunatm

/etc/opt/SUNWconn/atm/aarconfig.template

/etc/opt/SUNWconn/atm/atmconfig.template

/etc/opt/SUNWconn/atm/atmf.mib

/etc/opt/SUNWconn/atm/bin/aarsetup

/etc/opt/SUNWconn/atm/bin/aarstat

/etc/opt/SUNWconn/atm/bin/atmadmin

/etc/opt/SUNWconn/atm/bin/atmarp

/etc/opt/SUNWconn/atm/bin/atmgetmac

...Ellipsis...

/kernel/mod/sscop

/platform/SUNW,Ultra-4FT/kernel/drv/ba

[ verifying class <base> ]

/etc/rc2.d/S00sunatm <linked pathname>

## Executing postinstall script.

You will need to edit the config files in /etc/opt/SUNWconn/atm to specify your ATM configuration.

As an alternative to manually editing the files, you may also run /etc/opt/SUNWconn/bin/atmadmin to set up your configuration. Refer to the SunATM User's Guide for more information on atmadmin and the ATM configuration files.

Installation of <SUNWatm> was successful.

Processing package instance <SUNWatmu> from  
</tmp/atm\_setup/sunatm\_4\_0\_update\_1/Product>

```
SunATM Runtime Support Software
(sparc) 4.0.1,REV=1999.4.27.18
Copyright 1999 Sun Microsystems, Inc. All rights reserved.
Using </opt> as the package base directory.

## Processing package information.
## Processing system information.
## Verifying package dependencies.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.
## Checking for setuid/setgid programs.

Installing SunATM Runtime Support Software as <SUNWatmu>

## Installing part 1 of 1.
/opt/SUNWconn/atm/examples/Makefile
/opt/SUNWconn/atm/examples/dltst.c
/opt/SUNWconn/atm/examples/raw.c
/opt/SUNWconn/atm/examples/tstqcc.c
/opt/SUNWconn/atm/examples/xdump.c
/opt/SUNWconn/atm/man/man1m/aarsetup.1m
/opt/SUNWconn/atm/man/man1m/aarstat.1m
/opt/SUNWconn/atm/man/man1m/atmadmin.1m
...Ellipsis...
/opt/SUNWconn/man/man9f/qcc_unpack_status.9f <symbolic link>
/opt/SUNWconn/man/man9f/qcc_unpack_status_enq.9f <symbolic link>
[ verifying class <none> ]

Installation of <SUNWatmu> was successful.

Processing          package          instance          <SUNWatma>          from
</tmp/atm_setup/sunatm_4_0_update_1/Product>

SunATM Interim Api Support Software
(sparc) 4.0.1,REV=1999.4.27.18
Copyright 1999 Sun Microsystems, Inc. All rights reserved.
Using </opt> as the package base directory.
```

```
## Processing package information.
## Processing system information.
## Verifying package dependencies.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.

The following files are already installed on the system and are being
used by another package:
  /opt/SUNWconn <attribute change only>
  /opt/SUNWconn/atm <attribute change only>

Do you want to install these conflicting files [y,n,?,q] y
## Checking for setuid/setgid programs.

Installing SunATM Interim Api Support Software as <SUNWatma>

## Installing part 1 of 1.
/opt/SUNWconn/atm/include/atm/atm.h
/opt/SUNWconn/atm/include/atm/atmioc1.h
/opt/SUNWconn/atm/include/atm/limits.h
/opt/SUNWconn/atm/include/atm/qcc.h
/opt/SUNWconn/atm/include/atm/qccdefs.h
/opt/SUNWconn/atm/include/atm/qccioctl.h
/opt/SUNWconn/atm/include/atm/qccotypes.h
/opt/SUNWconn/atm/include/atm/types.h
/opt/SUNWconn/atm/lib/libatm.a
...Ellipsis...
/opt/SUNWconn/lib/sparcv9/libatm.a <symbolic link>
[ verifying class <base> ]

Installation of <SUNWatma> was successful.

Installed device drivers listing .....
#####
system      SUNWatm      SunATM Device Drivers
application SUNWatma     SunATM Interim Api Support Software
application SUNWatmu   SunATM Runtime Support Software
```

```
Making /etc/hosts .....  
  
Making /etc/opt/SUNWconn/atm/aarconfig .....  
  
Making /etc/opt/SUNWconn/atm/atmconfig .....  
  
Making /etc/netmasks .....  
  
Making /etc/system .....  
  
Installation completed. You should REBOOT the workstation!!!  
Installation completed. You should REBOOT the workstation!!!  
Installation completed. You should REBOOT the workstation!!!  
  
feel#
```

4. Reboot the system.

```
feel#  
feel# sync  
feel# sync  
feel# sync  
feel# reboot -- -r
```

### 2.3.3. SunATM IPoA Driver Load

Reboot the system and then execute the following with the superuser authority.

Input **# /etc/opt/SUNWconn/bin/atmifconfig ba0 plumb** and then IpoA driver is loaded. In addition, status can be check with **netstat -i** or **ifconfig -a**.

```
# netstat -I
```

```
Name Mtu Net/Dest Address Ipkts Ierrs Opkts Oerrs Collis
Queue
lo0 8232 loopback localhost 3557318 0 3557318 0 0
hme0 1500 lgicbsm.lgic.co.kr lgicbsm.lgic.co.kr 3806466 2 275845 0
6605 0
ba0 9180 msc1_bsm msc1_bsm 6874893 1557 7013685 0
0 0

# ifconfig -a
lo0: flags=849<UP,LOOPBACK,RUNNING,MULTICAST> mtu 8232
inet 127.0.0.1 netmask ffffffff
hme0: flags=863<UP,BROADCAST,NOTRAILERS,RUNNING,MULTICAST>
mtu 1500
inet 192.168.53.60 netmask fffffff0 broadcast 192.168.53.255
ba0: flags=863<UP,BROADCAST,NOTRAILERS,RUNNING,MULTICAST> mtu
9180
inet 29.192.0.1 netmask f0000000 broadcast 31.255.255.255
ether 8:0:20:be:7e:c7
```

### 2.3.4. System File Changed by atm\_setup Tool

This section describes the system file information changed by the atm\_setup tool. If the SunATM Adopter cannot be used for the reasons such as when the atm\_setup tool generated the system files abnormally or when the operator edited these files by mistake, modify the system to the normal state and restart the ATM Adopter.

#### 2.3.4.1. /etc/opt/SUNWconn/atm/atmconfig File

```
# Signalling versions for each interface:
```

```
ba0 3.0 - - -
```

```
# Classical IP values for each interface:
```

```
ba0 - msc1_bsm - -
```

# LAN Emulation values for each interface:

# Framing interface values for each interface:

ba0 SONET - - -

### 2.3.4.2. /etc/opt/SUNWconn/atm/aarconfig File

# Basic entries for each Classical IP instance:

ba0 - - - l

# ILMI disabled entries:

ba0 - - - m

# Manual entries (not touched by atmadmin):

ba0 msc1\_cnp\_a - 32 t

ba0 msc1\_cnp\_s - 645 t

ba0 msc1\_rnc0\_ncp\_a - 33 t

ba0 msc1\_rnc0\_ncp\_s - 646 t

ba0 msc1\_rnc1\_ncp\_a - 34 t

ba0 msc1\_rnc1\_ncp\_s - 647 t

ba0 msc1\_rnc2\_ncp\_a - 35 t

ba0 msc1\_rnc2\_ncp\_s - 648 t

ba0 msc1\_rnc3\_ncp\_a - 36 t

ba0 msc1\_rnc3\_ncp\_s - 649 t

ba0 msc1\_rnc4\_ncp\_a - 37 t

ba0 msc1\_rnc4\_ncp\_s - 650 t

ba0 msc1\_rnc5\_ncp\_a - 38 t

ba0 msc1\_rnc5\_ncp\_s - 651 t

ba0 msc1\_rnc6\_ncp\_a - 39 t

ba0 msc1\_rnc6\_ncp\_s - 652 t

ba0 msc1\_rnc7\_ncp\_a - 40 t

ba0 msc1\_rnc7\_ncp\_s - 653 t

ba0 msc1\_rnc8\_ncp\_a - 41 t

ba0 msc1\_rnc8\_ncp\_s - 654 t

ba0 msc1\_rnc9\_ncp\_a - 42 t  
ba0 msc1\_rnc9\_ncp\_s - 655 t  
ba0 msc1\_rnc10\_ncp\_a - 43 t  
ba0 msc1\_rnc10\_ncp\_s - 656 t  
ba0 msc1\_rnc11\_ncp\_a - 44 t  
ba0 msc1\_rnc11\_ncp\_s - 657 t

ba0 msc1\_rnc0\_ccp\_a - 45 t  
ba0 msc1\_rnc0\_ccp\_s - 658 t  
ba0 msc1\_rnc1\_ccp\_a - 46 t  
ba0 msc1\_rnc1\_ccp\_s - 659 t  
ba0 msc1\_rnc2\_ccp\_a - 47 t  
ba0 msc1\_rnc2\_ccp\_s - 660 t  
ba0 msc1\_rnc3\_ccp\_a - 48 t  
ba0 msc1\_rnc3\_ccp\_s - 661 t  
ba0 msc1\_rnc4\_ccp\_a - 49 t  
ba0 msc1\_rnc4\_ccp\_s - 662 t  
ba0 msc1\_rnc5\_ccp\_a - 50 t  
ba0 msc1\_rnc5\_ccp\_s - 663 t  
ba0 msc1\_rnc6\_ccp\_a - 51 t  
ba0 msc1\_rnc6\_ccp\_s - 664 t  
ba0 msc1\_rnc7\_ccp\_a - 52 t  
ba0 msc1\_rnc7\_ccp\_s - 665 t  
ba0 msc1\_rnc8\_ccp\_a - 53 t  
ba0 msc1\_rnc8\_ccp\_s - 666 t  
ba0 msc1\_rnc9\_ccp\_a - 54 t  
ba0 msc1\_rnc9\_ccp\_s - 667 t  
ba0 msc1\_rnc10\_ccp\_a - 55 t  
ba0 msc1\_rnc10\_ccp\_s - 668 t  
ba0 msc1\_rnc11\_ccp\_a - 56 t  
ba0 msc1\_rnc11\_ccp\_s - 669 t

ba0 msc1\_rnc0\_pcp\_a - 57 t  
ba0 msc1\_rnc1\_pcp\_a - 58 t  
ba0 msc1\_rnc2\_pcp\_a - 59 t  
ba0 msc1\_rnc3\_pcp\_a - 60 t  
ba0 msc1\_rnc4\_pcp\_a - 61 t

ba0 msc1\_rnc5\_pcp\_a - 62 t  
ba0 msc1\_rnc6\_pcp\_a - 63 t  
ba0 msc1\_rnc7\_pcp\_a - 64 t  
ba0 msc1\_rnc8\_pcp\_a - 65 t  
ba0 msc1\_rnc9\_pcp\_a - 66 t  
ba0 msc1\_rnc10\_pcp\_a - 67 t  
ba0 msc1\_rnc11\_pcp\_a - 68 t

ba0 msc1\_rnc0\_bs0\_bsp\_a - 69 t  
ba0 msc1\_rnc0\_bs1\_bsp\_a - 70 t  
ba0 msc1\_rnc0\_bs2\_bsp\_a - 71 t  
ba0 msc1\_rnc0\_bs3\_bsp\_a - 72 t  
ba0 msc1\_rnc0\_bs4\_bsp\_a - 73 t  
ba0 msc1\_rnc0\_bs5\_bsp\_a - 74 t  
ba0 msc1\_rnc0\_bs6\_bsp\_a - 75 t  
ba0 msc1\_rnc0\_bs7\_bsp\_a - 76 t  
ba0 msc1\_rnc0\_bs8\_bsp\_a - 77 t  
ba0 msc1\_rnc0\_bs9\_bsp\_a - 78 t  
ba0 msc1\_rnc0\_bs10\_bsp\_a - 79 t  
ba0 msc1\_rnc0\_bs11\_bsp\_a - 80 t  
ba0 msc1\_rnc0\_bs12\_bsp\_a - 81 t  
ba0 msc1\_rnc0\_bs13\_bsp\_a - 82 t  
ba0 msc1\_rnc0\_bs14\_bsp\_a - 83 t  
ba0 msc1\_rnc0\_bs15\_bsp\_a - 84 t  
ba0 msc1\_rnc0\_bs16\_bsp\_a - 85 t  
ba0 msc1\_rnc0\_bs17\_bsp\_a - 86 t  
ba0 msc1\_rnc0\_bs18\_bsp\_a - 87 t  
ba0 msc1\_rnc0\_bs19\_bsp\_a - 88 t  
ba0 msc1\_rnc0\_bs20\_bsp\_a - 89 t  
ba0 msc1\_rnc0\_bs21\_bsp\_a - 90 t  
ba0 msc1\_rnc0\_bs22\_bsp\_a - 91 t  
ba0 msc1\_rnc0\_bs23\_bsp\_a - 92 t  
ba0 msc1\_rnc0\_bs24\_bsp\_a - 93 t  
ba0 msc1\_rnc0\_bs25\_bsp\_a - 94 t  
ba0 msc1\_rnc0\_bs26\_bsp\_a - 95 t  
ba0 msc1\_rnc0\_bs27\_bsp\_a - 96 t  
ba0 msc1\_rnc0\_bs28\_bsp\_a - 97 t



ba0 msc1\_rnc0\_bs29\_bsp\_a - 98 t  
ba0 msc1\_rnc0\_bs30\_bsp\_a - 99 t  
ba0 msc1\_rnc0\_bs31\_bsp\_a - 100 t  
ba0 msc1\_rnc0\_bs32\_bsp\_a - 101 t  
ba0 msc1\_rnc0\_bs33\_bsp\_a - 102 t  
ba0 msc1\_rnc0\_bs34\_bsp\_a - 103 t  
ba0 msc1\_rnc0\_bs35\_bsp\_a - 104 t  
ba0 msc1\_rnc0\_bs36\_bsp\_a - 105 t  
ba0 msc1\_rnc0\_bs37\_bsp\_a - 106 t  
ba0 msc1\_rnc0\_bs38\_bsp\_a - 107 t  
ba0 msc1\_rnc0\_bs39\_bsp\_a - 108 t  
ba0 msc1\_rnc0\_bs40\_bsp\_a - 109 t  
ba0 msc1\_rnc0\_bs41\_bsp\_a - 110 t  
ba0 msc1\_rnc0\_bs42\_bsp\_a - 111 t  
ba0 msc1\_rnc0\_bs43\_bsp\_a - 112 t  
ba0 msc1\_rnc0\_bs44\_bsp\_a - 113 t  
ba0 msc1\_rnc0\_bs45\_bsp\_a - 114 t  
ba0 msc1\_rnc0\_bs46\_bsp\_a - 115 t  
ba0 msc1\_rnc0\_bs47\_bsp\_a - 116 t

ba0 msc1\_rnc1\_bs0\_bsp\_a - 117 t  
ba0 msc1\_rnc1\_bs1\_bsp\_a - 118 t  
ba0 msc1\_rnc1\_bs2\_bsp\_a - 119 t  
ba0 msc1\_rnc1\_bs3\_bsp\_a - 120 t  
ba0 msc1\_rnc1\_bs4\_bsp\_a - 121 t  
ba0 msc1\_rnc1\_bs5\_bsp\_a - 122 t  
ba0 msc1\_rnc1\_bs6\_bsp\_a - 123 t  
ba0 msc1\_rnc1\_bs7\_bsp\_a - 124 t  
ba0 msc1\_rnc1\_bs8\_bsp\_a - 125 t  
ba0 msc1\_rnc1\_bs9\_bsp\_a - 126 t  
ba0 msc1\_rnc1\_bs10\_bsp\_a - 127 t  
ba0 msc1\_rnc1\_bs11\_bsp\_a - 128 t  
ba0 msc1\_rnc1\_bs12\_bsp\_a - 129 t  
ba0 msc1\_rnc1\_bs13\_bsp\_a - 130 t  
ba0 msc1\_rnc1\_bs14\_bsp\_a - 131 t  
ba0 msc1\_rnc1\_bs15\_bsp\_a - 132 t  
ba0 msc1\_rnc1\_bs16\_bsp\_a - 133 t

ba0 msc1\_rnc1\_bs17\_bsp\_a - 134 t  
ba0 msc1\_rnc1\_bs18\_bsp\_a - 135 t  
ba0 msc1\_rnc1\_bs19\_bsp\_a - 136 t  
ba0 msc1\_rnc1\_bs20\_bsp\_a - 137 t  
ba0 msc1\_rnc1\_bs21\_bsp\_a - 138 t  
ba0 msc1\_rnc1\_bs22\_bsp\_a - 139 t  
ba0 msc1\_rnc1\_bs23\_bsp\_a - 140 t  
ba0 msc1\_rnc1\_bs24\_bsp\_a - 141 t  
ba0 msc1\_rnc1\_bs25\_bsp\_a - 142 t  
ba0 msc1\_rnc1\_bs26\_bsp\_a - 143 t  
ba0 msc1\_rnc1\_bs27\_bsp\_a - 144 t  
ba0 msc1\_rnc1\_bs28\_bsp\_a - 145 t  
ba0 msc1\_rnc1\_bs29\_bsp\_a - 146 t  
ba0 msc1\_rnc1\_bs30\_bsp\_a - 147 t  
ba0 msc1\_rnc1\_bs31\_bsp\_a - 148 t  
ba0 msc1\_rnc1\_bs32\_bsp\_a - 149 t  
ba0 msc1\_rnc1\_bs33\_bsp\_a - 150 t  
ba0 msc1\_rnc1\_bs34\_bsp\_a - 151 t  
ba0 msc1\_rnc1\_bs35\_bsp\_a - 152 t  
ba0 msc1\_rnc1\_bs36\_bsp\_a - 153 t  
ba0 msc1\_rnc1\_bs37\_bsp\_a - 154 t  
ba0 msc1\_rnc1\_bs38\_bsp\_a - 155 t  
ba0 msc1\_rnc1\_bs39\_bsp\_a - 156 t  
ba0 msc1\_rnc1\_bs40\_bsp\_a - 157 t  
ba0 msc1\_rnc1\_bs41\_bsp\_a - 158 t  
ba0 msc1\_rnc1\_bs42\_bsp\_a - 159 t  
ba0 msc1\_rnc1\_bs43\_bsp\_a - 160 t  
ba0 msc1\_rnc1\_bs44\_bsp\_a - 161 t  
ba0 msc1\_rnc1\_bs45\_bsp\_a - 162 t  
ba0 msc1\_rnc1\_bs46\_bsp\_a - 163 t  
ba0 msc1\_rnc1\_bs47\_bsp\_a - 164 t

ba0 msc1\_rnc2\_bs0\_bsp\_a - 165 t  
ba0 msc1\_rnc2\_bs1\_bsp\_a - 166 t  
ba0 msc1\_rnc2\_bs2\_bsp\_a - 167 t  
ba0 msc1\_rnc2\_bs3\_bsp\_a - 168 t  
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ba0 msc1\_rnc9\_bs22\_bsp\_a - 523 t  
ba0 msc1\_rnc9\_bs23\_bsp\_a - 524 t  
ba0 msc1\_rnc9\_bs24\_bsp\_a - 525 t  
ba0 msc1\_rnc9\_bs25\_bsp\_a - 526 t  
ba0 msc1\_rnc9\_bs26\_bsp\_a - 527 t  
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ba0 msc1\_rnc9\_bs29\_bsp\_a - 530 t  
ba0 msc1\_rnc9\_bs30\_bsp\_a - 531 t  
ba0 msc1\_rnc9\_bs31\_bsp\_a - 532 t

ba0 msc1_rnc9_bs32_bsp_a	- 533 t
ba0 msc1_rnc9_bs33_bsp_a	- 534 t
ba0 msc1_rnc9_bs34_bsp_a	- 535 t
ba0 msc1_rnc9_bs35_bsp_a	- 536 t
ba0 msc1_rnc9_bs36_bsp_a	- 537 t
ba0 msc1_rnc9_bs37_bsp_a	- 538 t
ba0 msc1_rnc9_bs38_bsp_a	- 539 t
ba0 msc1_rnc9_bs39_bsp_a	- 540 t
ba0 msc1_rnc9_bs40_bsp_a	- 541 t
ba0 msc1_rnc9_bs41_bsp_a	- 542 t
ba0 msc1_rnc9_bs42_bsp_a	- 543 t
ba0 msc1_rnc9_bs43_bsp_a	- 544 t
ba0 msc1_rnc9_bs44_bsp_a	- 545 t
ba0 msc1_rnc9_bs45_bsp_a	- 546 t
ba0 msc1_rnc9_bs46_bsp_a	- 547 t
ba0 msc1_rnc9_bs47_bsp_a	- 548 t
ba0 msc1_rnc10_bs0_bsp_a	- 549 t
ba0 msc1_rnc10_bs1_bsp_a	- 550 t
ba0 msc1_rnc10_bs2_bsp_a	- 551 t
ba0 msc1_rnc10_bs3_bsp_a	- 552 t
ba0 msc1_rnc10_bs4_bsp_a	- 553 t
ba0 msc1_rnc10_bs5_bsp_a	- 554 t
ba0 msc1_rnc10_bs6_bsp_a	- 555 t
ba0 msc1_rnc10_bs7_bsp_a	- 556 t
ba0 msc1_rnc10_bs8_bsp_a	- 557 t
ba0 msc1_rnc10_bs9_bsp_a	- 558 t
ba0 msc1_rnc10_bs10_bsp_a	- 559 t
ba0 msc1_rnc10_bs11_bsp_a	- 560 t
ba0 msc1_rnc10_bs12_bsp_a	- 561 t
ba0 msc1_rnc10_bs13_bsp_a	- 562 t
ba0 msc1_rnc10_bs14_bsp_a	- 563 t
ba0 msc1_rnc10_bs15_bsp_a	- 564 t
ba0 msc1_rnc10_bs16_bsp_a	- 565 t
ba0 msc1_rnc10_bs17_bsp_a	- 566 t
ba0 msc1_rnc10_bs18_bsp_a	- 567 t
ba0 msc1_rnc10_bs19_bsp_a	- 568 t

ba0 msc1\_rnc10\_bs20\_bsp\_a - 569 t  
ba0 msc1\_rnc10\_bs21\_bsp\_a - 570 t  
ba0 msc1\_rnc10\_bs22\_bsp\_a - 571 t  
ba0 msc1\_rnc10\_bs23\_bsp\_a - 572 t  
ba0 msc1\_rnc10\_bs24\_bsp\_a - 573 t  
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ba0 msc1\_rnc10\_bs27\_bsp\_a - 576 t  
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ba0 msc1\_rnc10\_bs39\_bsp\_a - 588 t  
ba0 msc1\_rnc10\_bs40\_bsp\_a - 589 t  
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ba0 msc1\_rnc10\_bs42\_bsp\_a - 591 t  
ba0 msc1\_rnc10\_bs43\_bsp\_a - 592 t  
ba0 msc1\_rnc10\_bs44\_bsp\_a - 593 t  
ba0 msc1\_rnc10\_bs45\_bsp\_a - 594 t  
ba0 msc1\_rnc10\_bs46\_bsp\_a - 595 t  
ba0 msc1\_rnc10\_bs47\_bsp\_a - 596 t

ba0 msc1\_rnc11\_bs0\_bsp\_a - 597 t  
ba0 msc1\_rnc11\_bs1\_bsp\_a - 598 t  
ba0 msc1\_rnc11\_bs2\_bsp\_a - 599 t  
ba0 msc1\_rnc11\_bs3\_bsp\_a - 600 t  
ba0 msc1\_rnc11\_bs4\_bsp\_a - 601 t  
ba0 msc1\_rnc11\_bs5\_bsp\_a - 602 t  
ba0 msc1\_rnc11\_bs6\_bsp\_a - 603 t  
ba0 msc1\_rnc11\_bs7\_bsp\_a - 604 t

ba0 msc1\_rnc11\_bs8\_bsp\_a - 605 t  
ba0 msc1\_rnc11\_bs9\_bsp\_a - 606 t  
ba0 msc1\_rnc11\_bs10\_bsp\_a - 607 t  
ba0 msc1\_rnc11\_bs11\_bsp\_a - 608 t  
ba0 msc1\_rnc11\_bs12\_bsp\_a - 609 t  
ba0 msc1\_rnc11\_bs13\_bsp\_a - 610 t  
ba0 msc1\_rnc11\_bs14\_bsp\_a - 611 t  
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ba0 msc1\_rnc11\_bs16\_bsp\_a - 613 t  
ba0 msc1\_rnc11\_bs17\_bsp\_a - 614 t  
ba0 msc1\_rnc11\_bs18\_bsp\_a - 615 t  
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ba0 msc1\_rnc11\_bs21\_bsp\_a - 618 t  
ba0 msc1\_rnc11\_bs22\_bsp\_a - 619 t  
ba0 msc1\_rnc11\_bs23\_bsp\_a - 620 t  
ba0 msc1\_rnc11\_bs24\_bsp\_a - 621 t  
ba0 msc1\_rnc11\_bs25\_bsp\_a - 622 t  
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ba0 msc1\_rnc11\_bs28\_bsp\_a - 625 t  
ba0 msc1\_rnc11\_bs29\_bsp\_a - 626 t  
ba0 msc1\_rnc11\_bs30\_bsp\_a - 627 t  
ba0 msc1\_rnc11\_bs31\_bsp\_a - 628 t  
ba0 msc1\_rnc11\_bs32\_bsp\_a - 629 t  
ba0 msc1\_rnc11\_bs33\_bsp\_a - 630 t  
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ba0 msc1\_rnc11\_bs35\_bsp\_a - 632 t  
ba0 msc1\_rnc11\_bs36\_bsp\_a - 633 t  
ba0 msc1\_rnc11\_bs37\_bsp\_a - 634 t  
ba0 msc1\_rnc11\_bs38\_bsp\_a - 635 t  
ba0 msc1\_rnc11\_bs39\_bsp\_a - 636 t  
ba0 msc1\_rnc11\_bs40\_bsp\_a - 637 t  
ba0 msc1\_rnc11\_bs41\_bsp\_a - 638 t  
ba0 msc1\_rnc11\_bs42\_bsp\_a - 639 t  
ba0 msc1\_rnc11\_bs43\_bsp\_a - 640 t  
ba0 msc1\_rnc11\_bs44\_bsp\_a - 641 t

ba0 msc1\_rnc11\_bs45\_bsp\_a - 642 t  
ba0 msc1\_rnc11\_bs46\_bsp\_a - 643 t  
ba0 msc1\_rnc11\_bs47\_bsp\_a - 644 t

### 2.3.4.3. /etc/hosts File

```
#  
# Classical IP over ATM  
#  
29.192.0.1      msc1_bsm          # This host  
29.64.2.1      msc1_cnp_a        # VCI=32  
29.64.2.129    msc1_cnp_s        # VCI=645  
  
17.64.2.1      msc1_rnc0_ncp_a   # VCI=33  
17.64.2.129    msc1_rnc0_ncp_s   # VCI=646  
18.64.2.1      msc1_rnc1_ncp_a   # VCI=34  
18.64.2.129    msc1_rnc1_ncp_s   # VCI=647  
19.64.2.1      msc1_rnc2_ncp_a   # VCI=35  
19.64.2.129    msc1_rnc2_ncp_s   # VCI=648  
20.64.2.1      msc1_rnc3_ncp_a   # VCI=36  
20.64.2.129    msc1_rnc3_ncp_s   # VCI=649  
21.64.2.1      msc1_rnc4_ncp_a   # VCI=37  
21.64.2.129    msc1_rnc4_ncp_s   # VCI=650  
22.64.2.1      msc1_rnc5_ncp_a   # VCI=38  
22.64.2.129    msc1_rnc5_ncp_s   # VCI=651  
23.64.2.1      msc1_rnc6_ncp_a   # VCI=39  
23.64.2.129    msc1_rnc6_ncp_s   # VCI=652  
24.64.2.1      msc1_rnc7_ncp_a   # VCI=40  
24.64.2.129    msc1_rnc7_ncp_s   # VCI=653  
25.64.2.1      msc1_rnc8_ncp_a   # VCI=41  
25.64.2.129    msc1_rnc8_ncp_s   # VCI=654  
26.64.2.1      msc1_rnc9_ncp_a   # VCI=42  
26.64.2.129    msc1_rnc9_ncp_s   # VCI=655  
27.64.2.1      msc1_rnc10_ncp_a  # VCI=43  
27.64.2.129    msc1_rnc10_ncp_s  # VCI=656  
28.64.2.1      msc1_rnc11_ncp_a  # VCI=44
```



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28.64.2.129	msc1_rnc11_ncp_s	# VCI=657
17.64.1.1	msc1_rnc0_ccp_a	# VCI=45
17.64.1.129	msc1_rnc0_ccp_s	# VCI=658
18.64.1.1	msc1_rnc1_ccp_a	# VCI=46
18.64.1.129	msc1_rnc1_ccp_s	# VCI=659
19.64.1.1	msc1_rnc2_ccp_a	# VCI=47
19.64.1.129	msc1_rnc2_ccp_s	# VCI=660
20.64.1.1	msc1_rnc3_ccp_a	# VCI=48
20.64.1.129	msc1_rnc3_ccp_s	# VCI=661
21.64.1.1	msc1_rnc4_ccp_a	# VCI=49
21.64.1.129	msc1_rnc4_ccp_s	# VCI=662
22.64.1.1	msc1_rnc5_ccp_a	# VCI=50
22.64.1.129	msc1_rnc5_ccp_s	# VCI=663
23.64.1.1	msc1_rnc6_ccp_a	# VCI=51
23.64.1.129	msc1_rnc6_ccp_s	# VCI=664
24.64.1.1	msc1_rnc7_ccp_a	# VCI=52
24.64.1.129	msc1_rnc7_ccp_s	# VCI=665
25.64.1.1	msc1_rnc8_ccp_a	# VCI=53
25.64.1.129	msc1_rnc8_ccp_s	# VCI=666
26.64.1.1	msc1_rnc9_ccp_a	# VCI=54
26.64.1.129	msc1_rnc9_ccp_s	# VCI=667
27.64.1.1	msc1_rnc10_ccp_a	# VCI=55
27.64.1.129	msc1_rnc10_ccp_s	# VCI=668
28.64.1.1	msc1_rnc11_ccp_a	# VCI=56
28.64.1.129	msc1_rnc11_ccp_s	# VCI=669
17.64.5.1	msc1_rnc0_pcp_a	# VCI=57
18.64.5.1	msc1_rnc1_pcp_a	# VCI=58
19.64.5.1	msc1_rnc2_pcp_a	# VCI=59
20.64.5.1	msc1_rnc3_pcp_a	# VCI=60
21.64.5.1	msc1_rnc4_pcp_a	# VCI=61
22.64.5.1	msc1_rnc5_pcp_a	# VCI=62
23.64.5.1	msc1_rnc6_pcp_a	# VCI=63
24.64.5.1	msc1_rnc7_pcp_a	# VCI=64
25.64.5.1	msc1_rnc8_pcp_a	# VCI=65
26.64.5.1	msc1_rnc9_pcp_a	# VCI=66

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27.64.5.1	msc1_rnc10_pcp_a	# VCI=67
28.64.5.1	msc1_rnc11_pcp_a	# VCI=68
17.128.1.1	msc1_rnc0_bs0_bsp_a	# VCI=69
17.129.1.1	msc1_rnc0_bs1_bsp_a	# VCI=70
17.130.1.1	msc1_rnc0_bs2_bsp_a	# VCI=71
17.131.1.1	msc1_rnc0_bs3_bsp_a	# VCI=72
17.132.1.1	msc1_rnc0_bs4_bsp_a	# VCI=73
17.133.1.1	msc1_rnc0_bs5_bsp_a	# VCI=74
17.134.1.1	msc1_rnc0_bs6_bsp_a	# VCI=75
17.135.1.1	msc1_rnc0_bs7_bsp_a	# VCI=76
17.136.1.1	msc1_rnc0_bs8_bsp_a	# VCI=77
17.137.1.1	msc1_rnc0_bs9_bsp_a	# VCI=78
17.138.1.1	msc1_rnc0_bs10_bsp_a	# VCI=79
17.139.1.1	msc1_rnc0_bs11_bsp_a	# VCI=80
17.140.1.1	msc1_rnc0_bs12_bsp_a	# VCI=81
17.141.1.1	msc1_rnc0_bs13_bsp_a	# VCI=82
17.142.1.1	msc1_rnc0_bs14_bsp_a	# VCI=83
17.143.1.1	msc1_rnc0_bs15_bsp_a	# VCI=84
17.144.1.1	msc1_rnc0_bs16_bsp_a	# VCI=85
17.145.1.1	msc1_rnc0_bs17_bsp_a	# VCI=86
17.146.1.1	msc1_rnc0_bs18_bsp_a	# VCI=87
17.147.1.1	msc1_rnc0_bs19_bsp_a	# VCI=88
17.148.1.1	msc1_rnc0_bs20_bsp_a	# VCI=89
17.149.1.1	msc1_rnc0_bs21_bsp_a	# VCI=90
17.150.1.1	msc1_rnc0_bs22_bsp_a	# VCI=91
17.151.1.1	msc1_rnc0_bs23_bsp_a	# VCI=92
17.152.1.1	msc1_rnc0_bs24_bsp_a	# VCI=93
17.153.1.1	msc1_rnc0_bs25_bsp_a	# VCI=94
17.154.1.1	msc1_rnc0_bs26_bsp_a	# VCI=95
17.155.1.1	msc1_rnc0_bs27_bsp_a	# VCI=96
17.156.1.1	msc1_rnc0_bs28_bsp_a	# VCI=97
17.157.1.1	msc1_rnc0_bs29_bsp_a	# VCI=98
17.158.1.1	msc1_rnc0_bs30_bsp_a	# VCI=99
17.159.1.1	msc1_rnc0_bs31_bsp_a	# VCI=100
17.160.1.1	msc1_rnc0_bs32_bsp_a	# VCI=101
17.161.1.1	msc1_rnc0_bs33_bsp_a	# VCI=102

17.162.1.1 msc1\_rnc0\_bs34\_bsp\_a # VCI=103  
17.163.1.1 msc1\_rnc0\_bs35\_bsp\_a # VCI=104  
17.164.1.1 msc1\_rnc0\_bs36\_bsp\_a # VCI=105  
17.165.1.1 msc1\_rnc0\_bs37\_bsp\_a # VCI=106  
17.166.1.1 msc1\_rnc0\_bs38\_bsp\_a # VCI=107  
17.167.1.1 msc1\_rnc0\_bs39\_bsp\_a # VCI=108  
17.168.1.1 msc1\_rnc0\_bs40\_bsp\_a # VCI=109  
17.169.1.1 msc1\_rnc0\_bs41\_bsp\_a # VCI=110  
17.170.1.1 msc1\_rnc0\_bs42\_bsp\_a # VCI=111  
17.171.1.1 msc1\_rnc0\_bs43\_bsp\_a # VCI=112  
17.172.1.1 msc1\_rnc0\_bs44\_bsp\_a # VCI=113  
17.173.1.1 msc1\_rnc0\_bs45\_bsp\_a # VCI=114  
17.174.1.1 msc1\_rnc0\_bs46\_bsp\_a # VCI=115  
17.175.1.1 msc1\_rnc0\_bs47\_bsp\_a # VCI=116

18.128.1.1 msc1\_rnc1\_bs0\_bsp\_a # VCI=117  
18.129.1.1 msc1\_rnc1\_bs1\_bsp\_a # VCI=118  
18.130.1.1 msc1\_rnc1\_bs2\_bsp\_a # VCI=119  
18.131.1.1 msc1\_rnc1\_bs3\_bsp\_a # VCI=120  
18.132.1.1 msc1\_rnc1\_bs4\_bsp\_a # VCI=121  
18.133.1.1 msc1\_rnc1\_bs5\_bsp\_a # VCI=122  
18.134.1.1 msc1\_rnc1\_bs6\_bsp\_a # VCI=123  
18.135.1.1 msc1\_rnc1\_bs7\_bsp\_a # VCI=124  
18.136.1.1 msc1\_rnc1\_bs8\_bsp\_a # VCI=125  
18.137.1.1 msc1\_rnc1\_bs9\_bsp\_a # VCI=126  
18.138.1.1 msc1\_rnc1\_bs10\_bsp\_a # VCI=127  
18.139.1.1 msc1\_rnc1\_bs11\_bsp\_a # VCI=128  
18.140.1.1 msc1\_rnc1\_bs12\_bsp\_a # VCI=129  
18.141.1.1 msc1\_rnc1\_bs13\_bsp\_a # VCI=130  
18.142.1.1 msc1\_rnc1\_bs14\_bsp\_a # VCI=131  
18.143.1.1 msc1\_rnc1\_bs15\_bsp\_a # VCI=132  
18.144.1.1 msc1\_rnc1\_bs16\_bsp\_a # VCI=133  
18.145.1.1 msc1\_rnc1\_bs17\_bsp\_a # VCI=134  
18.146.1.1 msc1\_rnc1\_bs18\_bsp\_a # VCI=135  
18.147.1.1 msc1\_rnc1\_bs19\_bsp\_a # VCI=136  
18.148.1.1 msc1\_rnc1\_bs20\_bsp\_a # VCI=137  
18.149.1.1 msc1\_rnc1\_bs21\_bsp\_a # VCI=138

18.150.1.1 msc1\_rnc1\_bs22\_bsp\_a # VCI=139  
18.151.1.1 msc1\_rnc1\_bs23\_bsp\_a # VCI=140  
18.152.1.1 msc1\_rnc1\_bs24\_bsp\_a # VCI=141  
18.153.1.1 msc1\_rnc1\_bs25\_bsp\_a # VCI=142  
18.154.1.1 msc1\_rnc1\_bs26\_bsp\_a # VCI=143  
18.155.1.1 msc1\_rnc1\_bs27\_bsp\_a # VCI=144  
18.156.1.1 msc1\_rnc1\_bs28\_bsp\_a # VCI=145  
18.157.1.1 msc1\_rnc1\_bs29\_bsp\_a # VCI=146  
18.158.1.1 msc1\_rnc1\_bs30\_bsp\_a # VCI=147  
18.159.1.1 msc1\_rnc1\_bs31\_bsp\_a # VCI=148  
18.160.1.1 msc1\_rnc1\_bs32\_bsp\_a # VCI=149  
18.161.1.1 msc1\_rnc1\_bs33\_bsp\_a # VCI=150  
18.162.1.1 msc1\_rnc1\_bs34\_bsp\_a # VCI=151  
18.163.1.1 msc1\_rnc1\_bs35\_bsp\_a # VCI=152  
18.164.1.1 msc1\_rnc1\_bs36\_bsp\_a # VCI=153  
18.165.1.1 msc1\_rnc1\_bs37\_bsp\_a # VCI=154  
18.166.1.1 msc1\_rnc1\_bs38\_bsp\_a # VCI=155  
18.167.1.1 msc1\_rnc1\_bs39\_bsp\_a # VCI=156  
18.168.1.1 msc1\_rnc1\_bs40\_bsp\_a # VCI=157  
18.169.1.1 msc1\_rnc1\_bs41\_bsp\_a # VCI=158  
18.170.1.1 msc1\_rnc1\_bs42\_bsp\_a # VCI=159  
18.171.1.1 msc1\_rnc1\_bs43\_bsp\_a # VCI=160  
18.172.1.1 msc1\_rnc1\_bs44\_bsp\_a # VCI=161  
18.173.1.1 msc1\_rnc1\_bs45\_bsp\_a # VCI=162  
18.174.1.1 msc1\_rnc1\_bs46\_bsp\_a # VCI=163  
18.175.1.1 msc1\_rnc1\_bs47\_bsp\_a # VCI=164

19.128.1.1 msc1\_rnc2\_bs0\_bsp\_a # VCI=165  
19.129.1.1 msc1\_rnc2\_bs1\_bsp\_a # VCI=166  
19.130.1.1 msc1\_rnc2\_bs2\_bsp\_a # VCI=167  
19.131.1.1 msc1\_rnc2\_bs3\_bsp\_a # VCI=168  
19.132.1.1 msc1\_rnc2\_bs4\_bsp\_a # VCI=169  
19.133.1.1 msc1\_rnc2\_bs5\_bsp\_a # VCI=170  
19.134.1.1 msc1\_rnc2\_bs6\_bsp\_a # VCI=171  
19.135.1.1 msc1\_rnc2\_bs7\_bsp\_a # VCI=172  
19.136.1.1 msc1\_rnc2\_bs8\_bsp\_a # VCI=173  
19.137.1.1 msc1\_rnc2\_bs9\_bsp\_a # VCI=174

19.138.1.1	msc1_rnc2_bs10_bsp_a	# VCI=175
19.139.1.1	msc1_rnc2_bs11_bsp_a	# VCI=176
19.140.1.1	msc1_rnc2_bs12_bsp_a	# VCI=177
19.141.1.1	msc1_rnc2_bs13_bsp_a	# VCI=178
19.142.1.1	msc1_rnc2_bs14_bsp_a	# VCI=179
19.143.1.1	msc1_rnc2_bs15_bsp_a	# VCI=180
19.144.1.1	msc1_rnc2_bs16_bsp_a	# VCI=181
19.145.1.1	msc1_rnc2_bs17_bsp_a	# VCI=182
19.146.1.1	msc1_rnc2_bs18_bsp_a	# VCI=183
19.147.1.1	msc1_rnc2_bs19_bsp_a	# VCI=184
19.148.1.1	msc1_rnc2_bs20_bsp_a	# VCI=185
19.149.1.1	msc1_rnc2_bs21_bsp_a	# VCI=186
19.150.1.1	msc1_rnc2_bs22_bsp_a	# VCI=187
19.151.1.1	msc1_rnc2_bs23_bsp_a	# VCI=188
19.152.1.1	msc1_rnc2_bs24_bsp_a	# VCI=189
19.153.1.1	msc1_rnc2_bs25_bsp_a	# VCI=190
19.154.1.1	msc1_rnc2_bs26_bsp_a	# VCI=191
19.155.1.1	msc1_rnc2_bs27_bsp_a	# VCI=192
19.156.1.1	msc1_rnc2_bs28_bsp_a	# VCI=193
19.157.1.1	msc1_rnc2_bs29_bsp_a	# VCI=194
19.158.1.1	msc1_rnc2_bs30_bsp_a	# VCI=195
19.159.1.1	msc1_rnc2_bs31_bsp_a	# VCI=196
19.160.1.1	msc1_rnc2_bs32_bsp_a	# VCI=197
19.161.1.1	msc1_rnc2_bs33_bsp_a	# VCI=198
19.162.1.1	msc1_rnc2_bs34_bsp_a	# VCI=199
19.163.1.1	msc1_rnc2_bs35_bsp_a	# VCI=200
19.164.1.1	msc1_rnc2_bs36_bsp_a	# VCI=201
19.165.1.1	msc1_rnc2_bs37_bsp_a	# VCI=202
19.166.1.1	msc1_rnc2_bs38_bsp_a	# VCI=203
19.167.1.1	msc1_rnc2_bs39_bsp_a	# VCI=204
19.168.1.1	msc1_rnc2_bs40_bsp_a	# VCI=205
19.169.1.1	msc1_rnc2_bs41_bsp_a	# VCI=206
19.170.1.1	msc1_rnc2_bs42_bsp_a	# VCI=207
19.171.1.1	msc1_rnc2_bs43_bsp_a	# VCI=208
19.172.1.1	msc1_rnc2_bs44_bsp_a	# VCI=209
19.173.1.1	msc1_rnc2_bs45_bsp_a	# VCI=210
19.174.1.1	msc1_rnc2_bs46_bsp_a	# VCI=211

19.175.1.1 msc1\_rnc2\_bs47\_bsp\_a # VCI=212

20.128.1.1 msc1\_rnc3\_bs0\_bsp\_a # VCI=213

20.129.1.1 msc1\_rnc3\_bs1\_bsp\_a # VCI=214

20.130.1.1 msc1\_rnc3\_bs2\_bsp\_a # VCI=215

20.131.1.1 msc1\_rnc3\_bs3\_bsp\_a # VCI=216

20.132.1.1 msc1\_rnc3\_bs4\_bsp\_a # VCI=217

20.133.1.1 msc1\_rnc3\_bs5\_bsp\_a # VCI=218

20.134.1.1 msc1\_rnc3\_bs6\_bsp\_a # VCI=219

20.135.1.1 msc1\_rnc3\_bs7\_bsp\_a # VCI=220

20.136.1.1 msc1\_rnc3\_bs8\_bsp\_a # VCI=221

20.137.1.1 msc1\_rnc3\_bs9\_bsp\_a # VCI=222

20.138.1.1 msc1\_rnc3\_bs10\_bsp\_a # VCI=223

20.139.1.1 msc1\_rnc3\_bs11\_bsp\_a # VCI=224

20.140.1.1 msc1\_rnc3\_bs12\_bsp\_a # VCI=225

20.141.1.1 msc1\_rnc3\_bs13\_bsp\_a # VCI=226

20.142.1.1 msc1\_rnc3\_bs14\_bsp\_a # VCI=227

20.143.1.1 msc1\_rnc3\_bs15\_bsp\_a # VCI=228

20.144.1.1 msc1\_rnc3\_bs16\_bsp\_a # VCI=229

20.145.1.1 msc1\_rnc3\_bs17\_bsp\_a # VCI=230

20.146.1.1 msc1\_rnc3\_bs18\_bsp\_a # VCI=231

20.147.1.1 msc1\_rnc3\_bs19\_bsp\_a # VCI=232

20.148.1.1 msc1\_rnc3\_bs20\_bsp\_a # VCI=233

20.149.1.1 msc1\_rnc3\_bs21\_bsp\_a # VCI=234

20.150.1.1 msc1\_rnc3\_bs22\_bsp\_a # VCI=235

20.151.1.1 msc1\_rnc3\_bs23\_bsp\_a # VCI=236

20.152.1.1 msc1\_rnc3\_bs24\_bsp\_a # VCI=237

20.153.1.1 msc1\_rnc3\_bs25\_bsp\_a # VCI=238

20.154.1.1 msc1\_rnc3\_bs26\_bsp\_a # VCI=239

20.155.1.1 msc1\_rnc3\_bs27\_bsp\_a # VCI=240

20.156.1.1 msc1\_rnc3\_bs28\_bsp\_a # VCI=241

20.157.1.1 msc1\_rnc3\_bs29\_bsp\_a # VCI=242

20.158.1.1 msc1\_rnc3\_bs30\_bsp\_a # VCI=243

20.159.1.1 msc1\_rnc3\_bs31\_bsp\_a # VCI=244

20.160.1.1 msc1\_rnc3\_bs32\_bsp\_a # VCI=245

20.161.1.1 msc1\_rnc3\_bs33\_bsp\_a # VCI=246

20.162.1.1 msc1\_rnc3\_bs34\_bsp\_a # VCI=247

20.163.1.1 msc1\_rnc3\_bs35\_bsp\_a # VCI=248  
20.164.1.1 msc1\_rnc3\_bs36\_bsp\_a # VCI=249  
20.165.1.1 msc1\_rnc3\_bs37\_bsp\_a # VCI=250  
20.166.1.1 msc1\_rnc3\_bs38\_bsp\_a # VCI=251  
20.167.1.1 msc1\_rnc3\_bs39\_bsp\_a # VCI=252  
20.168.1.1 msc1\_rnc3\_bs40\_bsp\_a # VCI=253  
20.169.1.1 msc1\_rnc3\_bs41\_bsp\_a # VCI=254  
20.170.1.1 msc1\_rnc3\_bs42\_bsp\_a # VCI=255  
20.171.1.1 msc1\_rnc3\_bs43\_bsp\_a # VCI=256  
20.172.1.1 msc1\_rnc3\_bs44\_bsp\_a # VCI=257  
20.173.1.1 msc1\_rnc3\_bs45\_bsp\_a # VCI=258  
20.174.1.1 msc1\_rnc3\_bs46\_bsp\_a # VCI=259  
20.175.1.1 msc1\_rnc3\_bs47\_bsp\_a # VCI=260

21.128.1.1 msc1\_rnc4\_bs0\_bsp\_a # VCI=261  
21.129.1.1 msc1\_rnc4\_bs1\_bsp\_a # VCI=262  
21.130.1.1 msc1\_rnc4\_bs2\_bsp\_a # VCI=263  
21.131.1.1 msc1\_rnc4\_bs3\_bsp\_a # VCI=264  
21.132.1.1 msc1\_rnc4\_bs4\_bsp\_a # VCI=265  
21.133.1.1 msc1\_rnc4\_bs5\_bsp\_a # VCI=266  
21.134.1.1 msc1\_rnc4\_bs6\_bsp\_a # VCI=267  
21.135.1.1 msc1\_rnc4\_bs7\_bsp\_a # VCI=268  
21.136.1.1 msc1\_rnc4\_bs8\_bsp\_a # VCI=269  
21.137.1.1 msc1\_rnc4\_bs9\_bsp\_a # VCI=270  
21.138.1.1 msc1\_rnc4\_bs10\_bsp\_a # VCI=271  
21.139.1.1 msc1\_rnc4\_bs11\_bsp\_a # VCI=272  
21.140.1.1 msc1\_rnc4\_bs12\_bsp\_a # VCI=273  
21.141.1.1 msc1\_rnc4\_bs13\_bsp\_a # VCI=274  
21.142.1.1 msc1\_rnc4\_bs14\_bsp\_a # VCI=275  
21.143.1.1 msc1\_rnc4\_bs15\_bsp\_a # VCI=276  
21.144.1.1 msc1\_rnc4\_bs16\_bsp\_a # VCI=277  
21.145.1.1 msc1\_rnc4\_bs17\_bsp\_a # VCI=278  
21.146.1.1 msc1\_rnc4\_bs18\_bsp\_a # VCI=279  
21.147.1.1 msc1\_rnc4\_bs19\_bsp\_a # VCI=280  
21.148.1.1 msc1\_rnc4\_bs20\_bsp\_a # VCI=281  
21.149.1.1 msc1\_rnc4\_bs21\_bsp\_a # VCI=282  
21.150.1.1 msc1\_rnc4\_bs22\_bsp\_a # VCI=283

21.151.1.1	msc1_rnc4_bs23_bsp_a	# VCI=284
21.152.1.1	msc1_rnc4_bs24_bsp_a	# VCI=285
21.153.1.1	msc1_rnc4_bs25_bsp_a	# VCI=286
21.154.1.1	msc1_rnc4_bs26_bsp_a	# VCI=287
21.155.1.1	msc1_rnc4_bs27_bsp_a	# VCI=288
21.156.1.1	msc1_rnc4_bs28_bsp_a	# VCI=289
21.157.1.1	msc1_rnc4_bs29_bsp_a	# VCI=290
21.158.1.1	msc1_rnc4_bs30_bsp_a	# VCI=291
21.159.1.1	msc1_rnc4_bs31_bsp_a	# VCI=292
21.160.1.1	msc1_rnc4_bs32_bsp_a	# VCI=293
21.161.1.1	msc1_rnc4_bs33_bsp_a	# VCI=294
21.162.1.1	msc1_rnc4_bs34_bsp_a	# VCI=295
21.163.1.1	msc1_rnc4_bs35_bsp_a	# VCI=296
21.164.1.1	msc1_rnc4_bs36_bsp_a	# VCI=297
21.165.1.1	msc1_rnc4_bs37_bsp_a	# VCI=298
21.166.1.1	msc1_rnc4_bs38_bsp_a	# VCI=299
21.167.1.1	msc1_rnc4_bs39_bsp_a	# VCI=300
21.168.1.1	msc1_rnc4_bs40_bsp_a	# VCI=301
21.169.1.1	msc1_rnc4_bs41_bsp_a	# VCI=302
21.170.1.1	msc1_rnc4_bs42_bsp_a	# VCI=303
21.171.1.1	msc1_rnc4_bs43_bsp_a	# VCI=304
21.172.1.1	msc1_rnc4_bs44_bsp_a	# VCI=305
21.173.1.1	msc1_rnc4_bs45_bsp_a	# VCI=306
21.174.1.1	msc1_rnc4_bs46_bsp_a	# VCI=307
21.175.1.1	msc1_rnc4_bs47_bsp_a	# VCI=308
22.128.1.1	msc1_rnc5_bs0_bsp_a	# VCI=309
22.129.1.1	msc1_rnc5_bs1_bsp_a	# VCI=310
22.130.1.1	msc1_rnc5_bs2_bsp_a	# VCI=311
22.131.1.1	msc1_rnc5_bs3_bsp_a	# VCI=312
22.132.1.1	msc1_rnc5_bs4_bsp_a	# VCI=313
22.133.1.1	msc1_rnc5_bs5_bsp_a	# VCI=314
22.134.1.1	msc1_rnc5_bs6_bsp_a	# VCI=315
22.135.1.1	msc1_rnc5_bs7_bsp_a	# VCI=316
22.136.1.1	msc1_rnc5_bs8_bsp_a	# VCI=317
22.137.1.1	msc1_rnc5_bs9_bsp_a	# VCI=318
22.138.1.1	msc1_rnc5_bs10_bsp_a	# VCI=319



22.139.1.1	msc1_rnc5_bs11_bsp_a	# VCI=320
22.140.1.1	msc1_rnc5_bs12_bsp_a	# VCI=321
22.141.1.1	msc1_rnc5_bs13_bsp_a	# VCI=322
22.142.1.1	msc1_rnc5_bs14_bsp_a	# VCI=323
22.143.1.1	msc1_rnc5_bs15_bsp_a	# VCI=324
22.144.1.1	msc1_rnc5_bs16_bsp_a	# VCI=325
22.145.1.1	msc1_rnc5_bs17_bsp_a	# VCI=326
22.146.1.1	msc1_rnc5_bs18_bsp_a	# VCI=327
22.147.1.1	msc1_rnc5_bs19_bsp_a	# VCI=328
22.148.1.1	msc1_rnc5_bs20_bsp_a	# VCI=329
22.149.1.1	msc1_rnc5_bs21_bsp_a	# VCI=330
22.150.1.1	msc1_rnc5_bs22_bsp_a	# VCI=331
22.151.1.1	msc1_rnc5_bs23_bsp_a	# VCI=332
22.152.1.1	msc1_rnc5_bs24_bsp_a	# VCI=333
22.153.1.1	msc1_rnc5_bs25_bsp_a	# VCI=334
22.154.1.1	msc1_rnc5_bs26_bsp_a	# VCI=335
22.155.1.1	msc1_rnc5_bs27_bsp_a	# VCI=336
22.156.1.1	msc1_rnc5_bs28_bsp_a	# VCI=337
22.157.1.1	msc1_rnc5_bs29_bsp_a	# VCI=338
22.158.1.1	msc1_rnc5_bs30_bsp_a	# VCI=339
22.159.1.1	msc1_rnc5_bs31_bsp_a	# VCI=340
22.160.1.1	msc1_rnc5_bs32_bsp_a	# VCI=341
22.161.1.1	msc1_rnc5_bs33_bsp_a	# VCI=342
22.162.1.1	msc1_rnc5_bs34_bsp_a	# VCI=343
22.163.1.1	msc1_rnc5_bs35_bsp_a	# VCI=344
22.164.1.1	msc1_rnc5_bs36_bsp_a	# VCI=345
22.165.1.1	msc1_rnc5_bs37_bsp_a	# VCI=346
22.166.1.1	msc1_rnc5_bs38_bsp_a	# VCI=347
22.167.1.1	msc1_rnc5_bs39_bsp_a	# VCI=348
22.168.1.1	msc1_rnc5_bs40_bsp_a	# VCI=349
22.169.1.1	msc1_rnc5_bs41_bsp_a	# VCI=350
22.170.1.1	msc1_rnc5_bs42_bsp_a	# VCI=351
22.171.1.1	msc1_rnc5_bs43_bsp_a	# VCI=352
22.172.1.1	msc1_rnc5_bs44_bsp_a	# VCI=353
22.173.1.1	msc1_rnc5_bs45_bsp_a	# VCI=354
22.174.1.1	msc1_rnc5_bs46_bsp_a	# VCI=355
22.175.1.1	msc1_rnc5_bs47_bsp_a	# VCI=356

23.128.1.1 msc1\_rnc6\_bs0\_bsp\_a # VCI=357  
23.129.1.1 msc1\_rnc6\_bs1\_bsp\_a # VCI=358  
23.130.1.1 msc1\_rnc6\_bs2\_bsp\_a # VCI=359  
23.131.1.1 msc1\_rnc6\_bs3\_bsp\_a # VCI=360  
23.132.1.1 msc1\_rnc6\_bs4\_bsp\_a # VCI=361  
23.133.1.1 msc1\_rnc6\_bs5\_bsp\_a # VCI=362  
23.134.1.1 msc1\_rnc6\_bs6\_bsp\_a # VCI=363  
23.135.1.1 msc1\_rnc6\_bs7\_bsp\_a # VCI=364  
23.136.1.1 msc1\_rnc6\_bs8\_bsp\_a # VCI=365  
23.137.1.1 msc1\_rnc6\_bs9\_bsp\_a # VCI=366  
23.138.1.1 msc1\_rnc6\_bs10\_bsp\_a # VCI=367  
23.139.1.1 msc1\_rnc6\_bs11\_bsp\_a # VCI=368  
23.140.1.1 msc1\_rnc6\_bs12\_bsp\_a # VCI=369  
23.141.1.1 msc1\_rnc6\_bs13\_bsp\_a # VCI=370  
23.142.1.1 msc1\_rnc6\_bs14\_bsp\_a # VCI=371  
23.143.1.1 msc1\_rnc6\_bs15\_bsp\_a # VCI=372  
23.144.1.1 msc1\_rnc6\_bs16\_bsp\_a # VCI=373  
23.145.1.1 msc1\_rnc6\_bs17\_bsp\_a # VCI=374  
23.146.1.1 msc1\_rnc6\_bs18\_bsp\_a # VCI=375  
23.147.1.1 msc1\_rnc6\_bs19\_bsp\_a # VCI=376  
23.148.1.1 msc1\_rnc6\_bs20\_bsp\_a # VCI=377  
23.149.1.1 msc1\_rnc6\_bs21\_bsp\_a # VCI=378  
23.150.1.1 msc1\_rnc6\_bs22\_bsp\_a # VCI=379  
23.151.1.1 msc1\_rnc6\_bs23\_bsp\_a # VCI=380  
23.152.1.1 msc1\_rnc6\_bs24\_bsp\_a # VCI=381  
23.153.1.1 msc1\_rnc6\_bs25\_bsp\_a # VCI=382  
23.154.1.1 msc1\_rnc6\_bs26\_bsp\_a # VCI=383  
23.155.1.1 msc1\_rnc6\_bs27\_bsp\_a # VCI=384  
23.156.1.1 msc1\_rnc6\_bs28\_bsp\_a # VCI=385  
23.157.1.1 msc1\_rnc6\_bs29\_bsp\_a # VCI=386  
23.158.1.1 msc1\_rnc6\_bs30\_bsp\_a # VCI=387  
23.159.1.1 msc1\_rnc6\_bs31\_bsp\_a # VCI=388  
23.160.1.1 msc1\_rnc6\_bs32\_bsp\_a # VCI=389  
23.161.1.1 msc1\_rnc6\_bs33\_bsp\_a # VCI=390  
23.162.1.1 msc1\_rnc6\_bs34\_bsp\_a # VCI=391  
23.163.1.1 msc1\_rnc6\_bs35\_bsp\_a # VCI=392

23.164.1.1 msc1\_rnc6\_bs36\_bsp\_a # VCI=393  
23.165.1.1 msc1\_rnc6\_bs37\_bsp\_a # VCI=394  
23.166.1.1 msc1\_rnc6\_bs38\_bsp\_a # VCI=395  
23.167.1.1 msc1\_rnc6\_bs39\_bsp\_a # VCI=396  
23.168.1.1 msc1\_rnc6\_bs40\_bsp\_a # VCI=397  
23.169.1.1 msc1\_rnc6\_bs41\_bsp\_a # VCI=398  
23.170.1.1 msc1\_rnc6\_bs42\_bsp\_a # VCI=399  
23.171.1.1 msc1\_rnc6\_bs43\_bsp\_a # VCI=400  
23.172.1.1 msc1\_rnc6\_bs44\_bsp\_a # VCI=401  
23.173.1.1 msc1\_rnc6\_bs45\_bsp\_a # VCI=402  
23.174.1.1 msc1\_rnc6\_bs46\_bsp\_a # VCI=403  
23.175.1.1 msc1\_rnc6\_bs47\_bsp\_a # VCI=404

24.128.1.1 msc1\_rnc7\_bs0\_bsp\_a # VCI=405  
24.129.1.1 msc1\_rnc7\_bs1\_bsp\_a # VCI=406  
24.130.1.1 msc1\_rnc7\_bs2\_bsp\_a # VCI=407  
24.131.1.1 msc1\_rnc7\_bs3\_bsp\_a # VCI=408  
24.132.1.1 msc1\_rnc7\_bs4\_bsp\_a # VCI=409  
24.133.1.1 msc1\_rnc7\_bs5\_bsp\_a # VCI=410  
24.134.1.1 msc1\_rnc7\_bs6\_bsp\_a # VCI=411  
24.135.1.1 msc1\_rnc7\_bs7\_bsp\_a # VCI=412  
24.136.1.1 msc1\_rnc7\_bs8\_bsp\_a # VCI=413  
24.137.1.1 msc1\_rnc7\_bs9\_bsp\_a # VCI=414  
24.138.1.1 msc1\_rnc7\_bs10\_bsp\_a # VCI=415  
24.139.1.1 msc1\_rnc7\_bs11\_bsp\_a # VCI=416  
24.140.1.1 msc1\_rnc7\_bs12\_bsp\_a # VCI=417  
24.141.1.1 msc1\_rnc7\_bs13\_bsp\_a # VCI=418  
24.142.1.1 msc1\_rnc7\_bs14\_bsp\_a # VCI=419  
24.143.1.1 msc1\_rnc7\_bs15\_bsp\_a # VCI=420  
24.144.1.1 msc1\_rnc7\_bs16\_bsp\_a # VCI=421  
24.145.1.1 msc1\_rnc7\_bs17\_bsp\_a # VCI=422  
24.146.1.1 msc1\_rnc7\_bs18\_bsp\_a # VCI=423  
24.147.1.1 msc1\_rnc7\_bs19\_bsp\_a # VCI=424  
24.148.1.1 msc1\_rnc7\_bs20\_bsp\_a # VCI=425  
24.149.1.1 msc1\_rnc7\_bs21\_bsp\_a # VCI=426  
24.150.1.1 msc1\_rnc7\_bs22\_bsp\_a # VCI=427  
24.151.1.1 msc1\_rnc7\_bs23\_bsp\_a # VCI=428

24.152.1.1 msc1\_rnc7\_bs24\_bsp\_a # VCI=429  
24.153.1.1 msc1\_rnc7\_bs25\_bsp\_a # VCI=430  
24.154.1.1 msc1\_rnc7\_bs26\_bsp\_a # VCI=431  
24.155.1.1 msc1\_rnc7\_bs27\_bsp\_a # VCI=432  
24.156.1.1 msc1\_rnc7\_bs28\_bsp\_a # VCI=433  
24.157.1.1 msc1\_rnc7\_bs29\_bsp\_a # VCI=434  
24.158.1.1 msc1\_rnc7\_bs30\_bsp\_a # VCI=435  
24.159.1.1 msc1\_rnc7\_bs31\_bsp\_a # VCI=436  
24.160.1.1 msc1\_rnc7\_bs32\_bsp\_a # VCI=437  
24.161.1.1 msc1\_rnc7\_bs33\_bsp\_a # VCI=438  
24.162.1.1 msc1\_rnc7\_bs34\_bsp\_a # VCI=439  
24.163.1.1 msc1\_rnc7\_bs35\_bsp\_a # VCI=440  
24.164.1.1 msc1\_rnc7\_bs36\_bsp\_a # VCI=441  
24.165.1.1 msc1\_rnc7\_bs37\_bsp\_a # VCI=442  
24.166.1.1 msc1\_rnc7\_bs38\_bsp\_a # VCI=443  
24.167.1.1 msc1\_rnc7\_bs39\_bsp\_a # VCI=444  
24.168.1.1 msc1\_rnc7\_bs40\_bsp\_a # VCI=445  
24.169.1.1 msc1\_rnc7\_bs41\_bsp\_a # VCI=446  
24.170.1.1 msc1\_rnc7\_bs42\_bsp\_a # VCI=447  
24.171.1.1 msc1\_rnc7\_bs43\_bsp\_a # VCI=448  
24.172.1.1 msc1\_rnc7\_bs44\_bsp\_a # VCI=449  
24.173.1.1 msc1\_rnc7\_bs45\_bsp\_a # VCI=450  
24.174.1.1 msc1\_rnc7\_bs46\_bsp\_a # VCI=451  
24.175.1.1 msc1\_rnc7\_bs47\_bsp\_a # VCI=452

25.128.1.1 msc1\_rnc8\_bs0\_bsp\_a # VCI=453  
25.129.1.1 msc1\_rnc8\_bs1\_bsp\_a # VCI=454  
25.130.1.1 msc1\_rnc8\_bs2\_bsp\_a # VCI=455  
25.131.1.1 msc1\_rnc8\_bs3\_bsp\_a # VCI=456  
25.132.1.1 msc1\_rnc8\_bs4\_bsp\_a # VCI=457  
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25.138.1.1 msc1\_rnc8\_bs10\_bsp\_a # VCI=463  
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25.145.1.1	msc1_rnc8_bs17_bsp_a	# VCI=470
25.146.1.1	msc1_rnc8_bs18_bsp_a	# VCI=471
25.147.1.1	msc1_rnc8_bs19_bsp_a	# VCI=472
25.148.1.1	msc1_rnc8_bs20_bsp_a	# VCI=473
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25.150.1.1	msc1_rnc8_bs22_bsp_a	# VCI=475
25.151.1.1	msc1_rnc8_bs23_bsp_a	# VCI=476
25.152.1.1	msc1_rnc8_bs24_bsp_a	# VCI=477
25.153.1.1	msc1_rnc8_bs25_bsp_a	# VCI=478
25.154.1.1	msc1_rnc8_bs26_bsp_a	# VCI=479
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25.156.1.1	msc1_rnc8_bs28_bsp_a	# VCI=481
25.157.1.1	msc1_rnc8_bs29_bsp_a	# VCI=482
25.158.1.1	msc1_rnc8_bs30_bsp_a	# VCI=483
25.159.1.1	msc1_rnc8_bs31_bsp_a	# VCI=484
25.160.1.1	msc1_rnc8_bs32_bsp_a	# VCI=485
25.161.1.1	msc1_rnc8_bs33_bsp_a	# VCI=486
25.162.1.1	msc1_rnc8_bs34_bsp_a	# VCI=487
25.163.1.1	msc1_rnc8_bs35_bsp_a	# VCI=488
25.164.1.1	msc1_rnc8_bs36_bsp_a	# VCI=489
25.165.1.1	msc1_rnc8_bs37_bsp_a	# VCI=490
25.166.1.1	msc1_rnc8_bs38_bsp_a	# VCI=491
25.167.1.1	msc1_rnc8_bs39_bsp_a	# VCI=492
25.168.1.1	msc1_rnc8_bs40_bsp_a	# VCI=493
25.169.1.1	msc1_rnc8_bs41_bsp_a	# VCI=494
25.170.1.1	msc1_rnc8_bs42_bsp_a	# VCI=495
25.171.1.1	msc1_rnc8_bs43_bsp_a	# VCI=496
25.172.1.1	msc1_rnc8_bs44_bsp_a	# VCI=497
25.173.1.1	msc1_rnc8_bs45_bsp_a	# VCI=498
25.174.1.1	msc1_rnc8_bs46_bsp_a	# VCI=499
25.175.1.1	msc1_rnc8_bs47_bsp_a	# VCI=500

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26.151.1.1 msc1\_rnc9\_bs23\_bsp\_a # VCI=524  
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26.154.1.1 msc1\_rnc9\_bs26\_bsp\_a # VCI=527  
26.155.1.1 msc1\_rnc9\_bs27\_bsp\_a # VCI=528  
26.156.1.1 msc1\_rnc9\_bs28\_bsp\_a # VCI=529  
26.157.1.1 msc1\_rnc9\_bs29\_bsp\_a # VCI=530  
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26.163.1.1 msc1\_rnc9\_bs35\_bsp\_a # VCI=536  
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26.171.1.1	msc1_rnc9_bs43_bsp_a	# VCI=544
26.172.1.1	msc1_rnc9_bs44_bsp_a	# VCI=545
26.173.1.1	msc1_rnc9_bs45_bsp_a	# VCI=546
26.174.1.1	msc1_rnc9_bs46_bsp_a	# VCI=547
26.175.1.1	msc1_rnc9_bs47_bsp_a	# VCI=548
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27.129.1.1	msc1_rnc10_bs1_bsp_a	# VCI=550
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27.165.1.1	msc1_rnc10_bs37_bsp_a	# VCI=586
27.166.1.1	msc1_rnc10_bs38_bsp_a	# VCI=587
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27.168.1.1	msc1_rnc10_bs40_bsp_a	# VCI=589
27.169.1.1	msc1_rnc10_bs41_bsp_a	# VCI=590
27.170.1.1	msc1_rnc10_bs42_bsp_a	# VCI=591
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27.173.1.1	msc1_rnc10_bs45_bsp_a	# VCI=594
27.174.1.1	msc1_rnc10_bs46_bsp_a	# VCI=595
27.175.1.1	msc1_rnc10_bs47_bsp_a	# VCI=596
28.128.1.1	msc1_rnc11_bs0_bsp_a	# VCI=597
28.129.1.1	msc1_rnc11_bs1_bsp_a	# VCI=598
28.130.1.1	msc1_rnc11_bs2_bsp_a	# VCI=599
28.131.1.1	msc1_rnc11_bs3_bsp_a	# VCI=600
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28.133.1.1	msc1_rnc11_bs5_bsp_a	# VCI=602
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28.155.1.1 msc1\_rnc11\_bs27\_bsp\_a # VCI=624  
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28.167.1.1 msc1\_rnc11\_bs39\_bsp\_a # VCI=636  
28.168.1.1 msc1\_rnc11\_bs40\_bsp\_a # VCI=637  
28.169.1.1 msc1\_rnc11\_bs41\_bsp\_a # VCI=638  
28.170.1.1 msc1\_rnc11\_bs42\_bsp\_a # VCI=639  
28.171.1.1 msc1\_rnc11\_bs43\_bsp\_a # VCI=640  
28.172.1.1 msc1\_rnc11\_bs44\_bsp\_a # VCI=641  
28.173.1.1 msc1\_rnc11\_bs45\_bsp\_a # VCI=642  
28.174.1.1 msc1\_rnc11\_bs46\_bsp\_a # VCI=643  
28.175.1.1 msc1\_rnc11\_bs47\_bsp\_a # VCI=644

## 2.4. User Environment

# 3. BSM Package Configuration

## 3.1. Application Configuration

The S/W Packages that are needed to operate BMS are configured with the following: ~/Package/DATA, ~/Package/DATA/PLD and ~/Package/exec. Files that are included in each directory are as follows:

Table 3.1-1 ~/Package/exec

File name	Description
bim	A BMS initial operation shell program that runs check_bim, sigkill, rmipc, and bsm in order.
bsm	Execution file that runs BMS application programs (DCI, dci_console, BDNL, mmi, stmx, smmx, tsmx, trmx, cdmx, and scmx)
check_bim	Execution file that prevents the operator from rerunning bim which is already run by mistake.
rmipc	Shell program that deletes unnecessary Message Queue, Semaphores and Shared Memory before BSM programs are run.
sigkill	Execution file that terminates application programs which are activated before BMS application programs are run
BDNL	Execution file that transmits the OS, execution code, PLD, etc when each processor is initially activated.
DCI, dci_console	Execution file that provides interface between BMS Workstation and lower level BTS and BSC.
cdmx	Execution file that manages parameter information and configuration information
scmx	Manages No.7 related information
smmx	Collects and manages the statistical data

stmx	Execution file that manages the processor and device state.
trmx	Execution file that informs the operator of problems in processor and device in a alarm/ fault format when detecting them
tsmx	Execution file that informs test results to the operator after conducting a test.
mmi	Provides interface between the operator and the application program.
cmdanal	Application program that checks the command input by the user. If problems are not found, it transmits the command to the corresponding process, receives the results, and then transmits them to the mmcmmsg block.
mmcmmsg	Application program that formats data from cmdanal or other application programs and transmits them to output-related process (outerm, prnman).
deadlock	Processor that detects the deadlock state for process that indefinitely seizes queue resources and solve the problem.
omdmmc	As an application program which is run by mmi, it processes the user management command.
garbage	Process that finds the message that lost its destination or does not have any destination among the messages that are stacked in the queue within the mmi.
prnman	Application program that outputs data received from mmcmmsg to the printer
pcsnet	Processor that runs the BMS client programs.
manager	Processor that manages entire GUI processors.
manager.client	As a manager that operates on the client side, it is distinguished from the processor on the server side.
client	As a processor that is operated on the client side, it transmits the command using TPC to the server and receives output messages.
server	Operated on the server side, it receives the command and sends the output message to the client by interworking with the client.
interm	It is in charge of the command line user interface among GUI, and displays command execution results.
outerm	It displays console messages that are from BMS among GUI.
neighbor	Application program that simplifies the complicated neighbor list input on the window.

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stmGUI	Application program that provides BTS and BSC configuration in graphics by the hierarchy so the user can understand the system configuration and the current state.
dbms	Informix procedure that initializes the DB used by stmGUI.
pld_read	It allows to read PLD by the one tuple unit.
trace_ipc	When the Message Queue is full, it reads all the data in the Queue.
DATAPATH	Text file that indicates BTS and BSC application programs, loading data, and data needed for the screen configuration.
PLD_PATH	Text file that indicates the PLD Directory which is referred in the BMS as a status path.

## 4. BSM Command

### 4.1. User Interface Command

#### 4.1.1. User Management Command

##### 4.1.1.1. System Log-in

In order to manage the system and perform the desired work, one has to log in to the BSM system. Login can be achieved through ID and passwords given to each individual user. In order to log in to BSM, INTERM should be performed. At this time, one has to input ID in LOGIN on the window that is shown and put passwords in "PASSWD". Once the existing ID and the Passwords are input, it is changed to the state that can input the command.

If one does not log in for a while or time expires, INTERM should be performed again.

- Input the corresponding user ID in Command "LOGIN:"
- Input the corresponding password in "PASSWORD:".



Fig. 4.1-1 BSM System Login Window

##### 4.1.1.2. LOG-OUT

When terminating the work in the BSM and then wanting to log in again as other ID, the user has to log out of his/her ID first. Once he/she logs out of the system and does not relog in, he/she cannot use the command any more.

After logout, the window for the command input disappears and it is not shown until relog-in is done.

- Command : LOG-OUT

- Input : LOG-OUT;

- Output

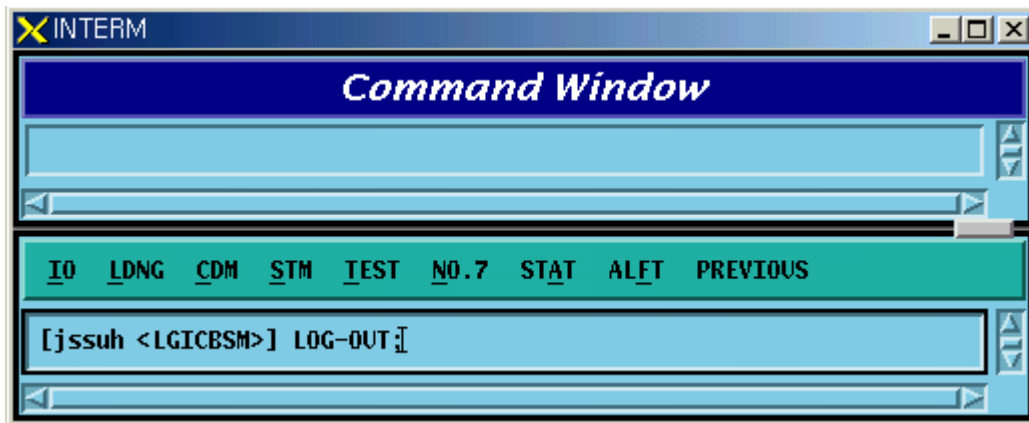


Fig. 4.1-2 Log-out

### 4.1.1.3. User Addition

To operate and maintain the system, the user should register ID. The right to register ID can be obtained from the manger in the first class. The newly registered ID is set identically with initial passwords and ID and for security reason, the password for the newly registered ID should be changed. The ID that is to be registered should be original. That is, it should not be overlapped with existing ones. It can be registered as the second or third class. ID should be within 15 letters.

- Command : ADD-USR:USR=a, CLS=b;  
a : User ID [ String ]  
b : Class [Number 2 or 3 ]
- Input : ADD-USER:USER=USER1,CLS=2;
- Output

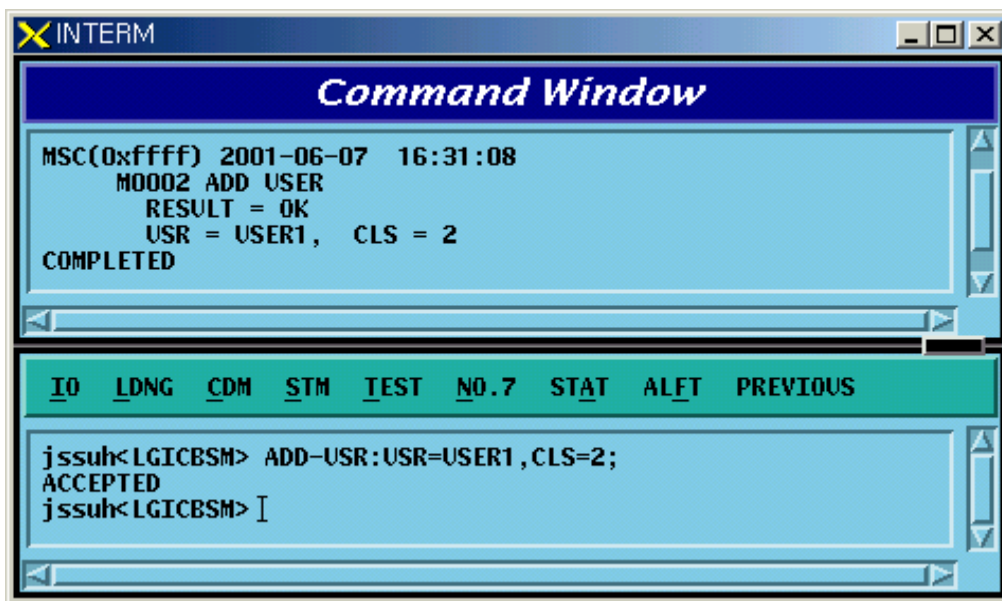


Fig. 4.1-3 User ID Register

- When the ID exists already

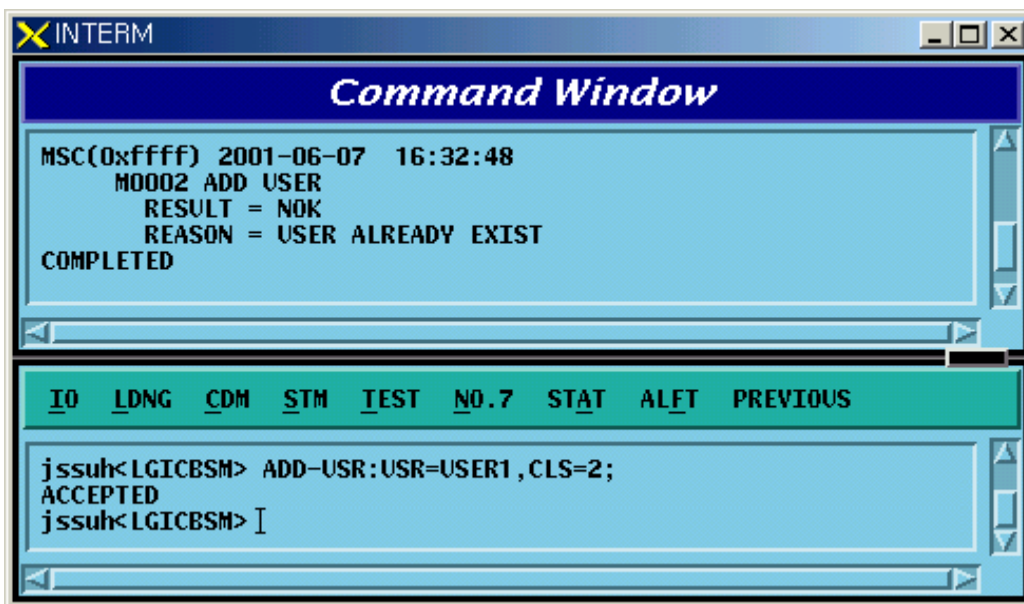


Fig. 4.1-4 Errors When Registering User ID

#### 4.1.1.4. User Deletion

Delete one user ID among the IDs that are no longer used or unnecessary ID.

- Command : DEL-USR:USR=a;

a : User ID to be deleted [ String ]

- Input : DEL-USR:USR=USER1;
- Output

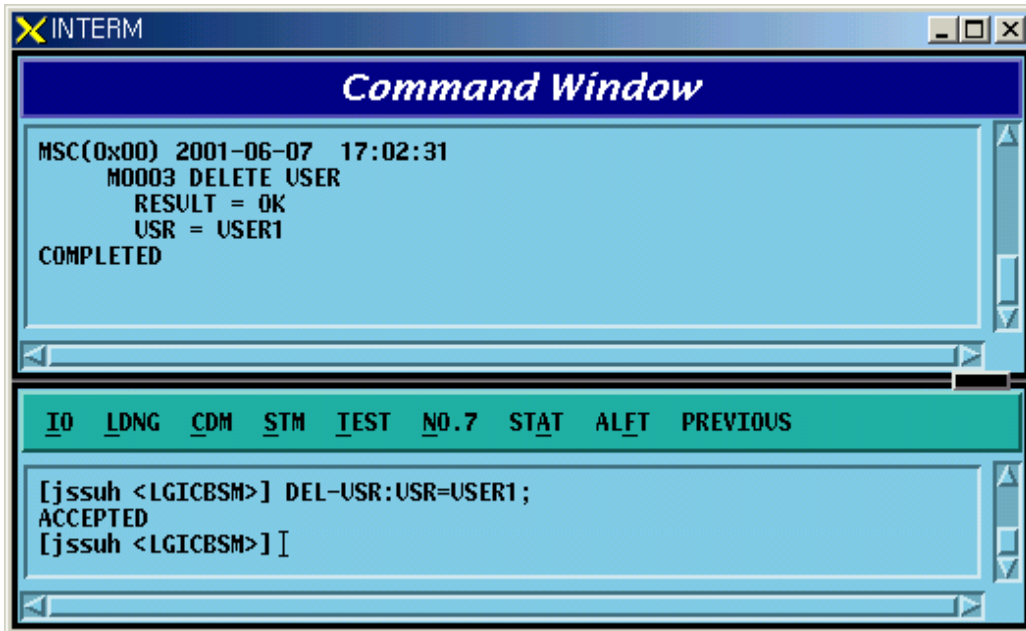


Fig. 4.1-5 User ID Deletion

- When deleting ID that does not exist

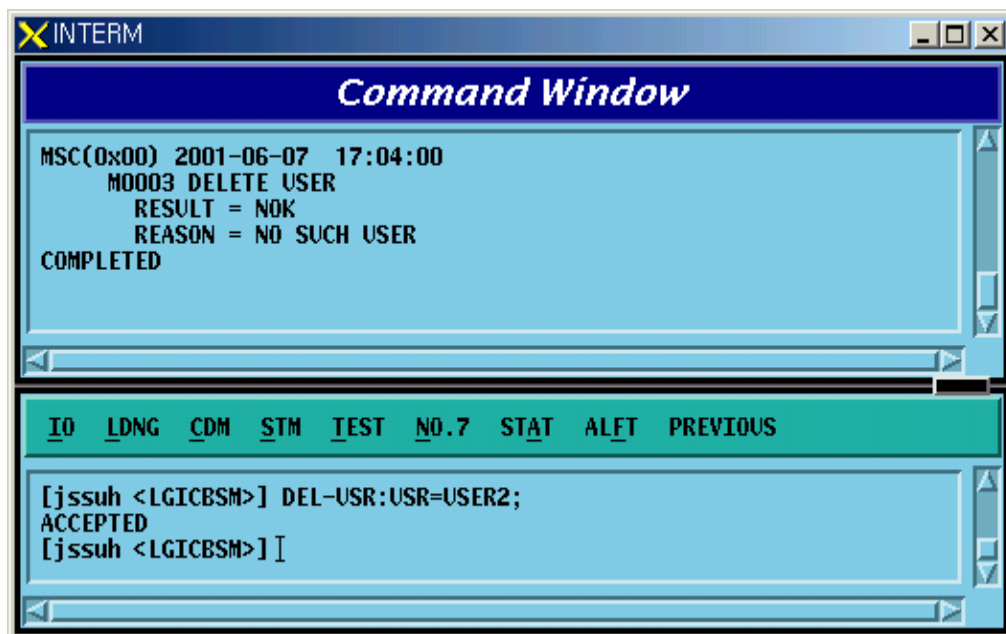


Fig. 4.1-6 Errors When Deleting User ID That Does Not Exist



- When deleting manager class ID

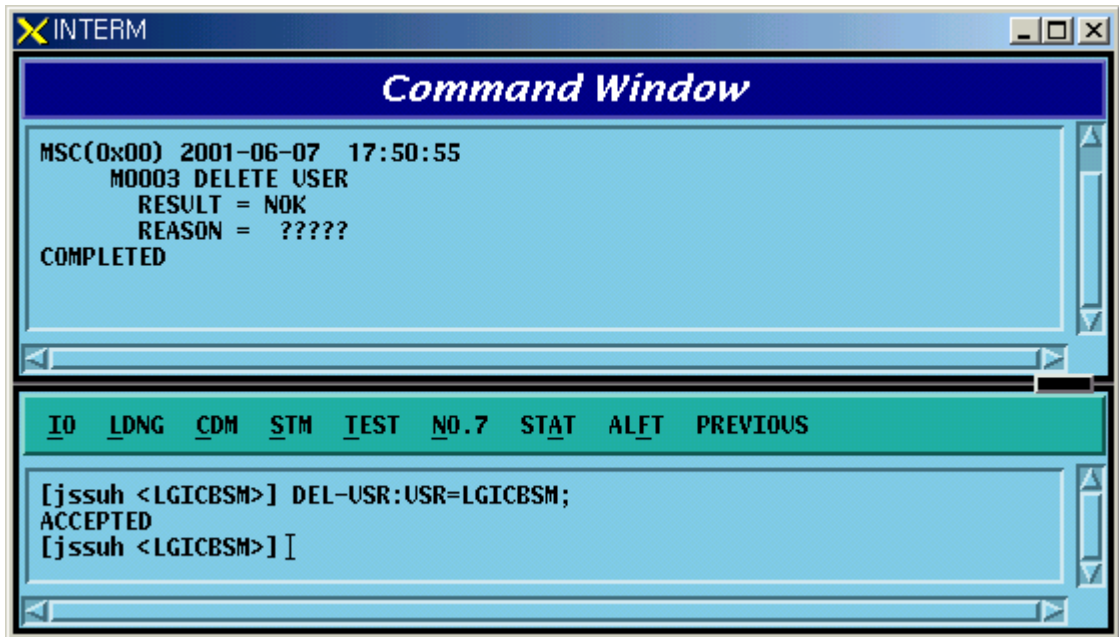


Fig. 4.1-7 Errors When Deleting the Manager Class ID

#### 4.1.1.5. User Class Change

Broaden the range of the command or narrow it down by changing the use class of the corresponding user.

- Command CHG-USR-CLS:USR=a,CLS=b  
a: User ID[String]  
b: Class [2-3]
- Input CHG-USR-CLS:USR=USER1,CLS=3;
- Output

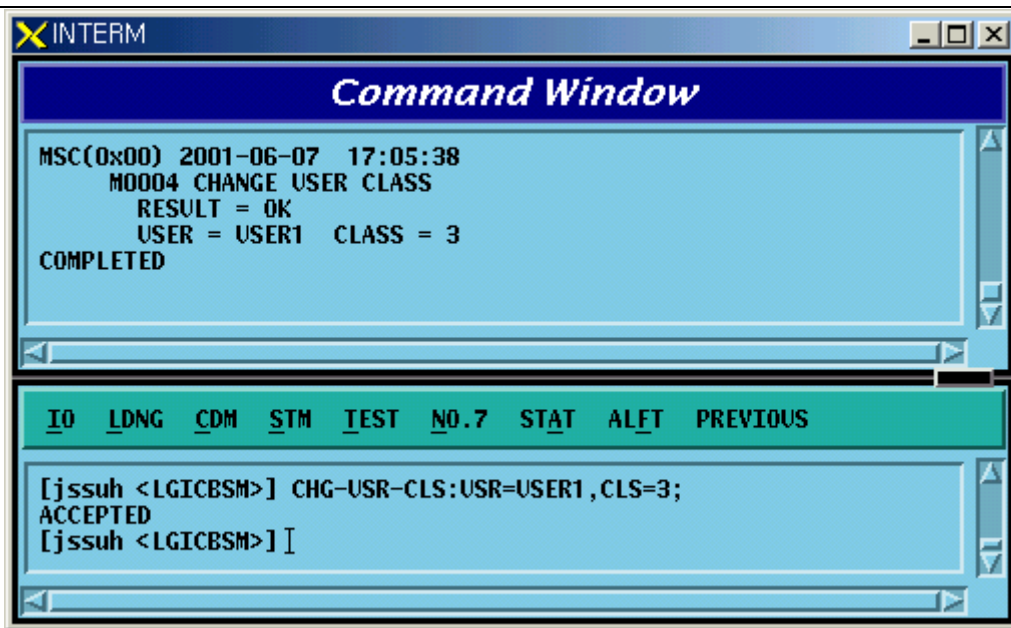


Fig. 4.1-8 User Class Change

- When changing the use class of the manager

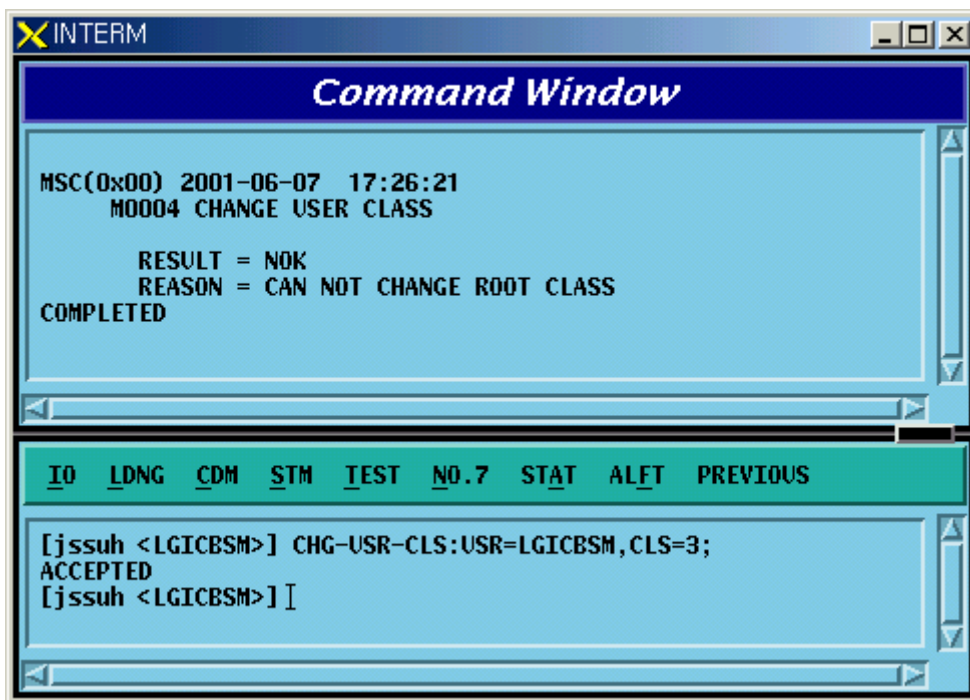


Fig. 4.1-9 Errors When Changing the Use Class of the Manager

#### 4.1.1.6. User Information Display

Display registered User ID and class.

- Command DIS-USR-INFO[USR=a]  
a: User ID[String]
- Input CHG-USR-INFO:USR=USER1;
- Output

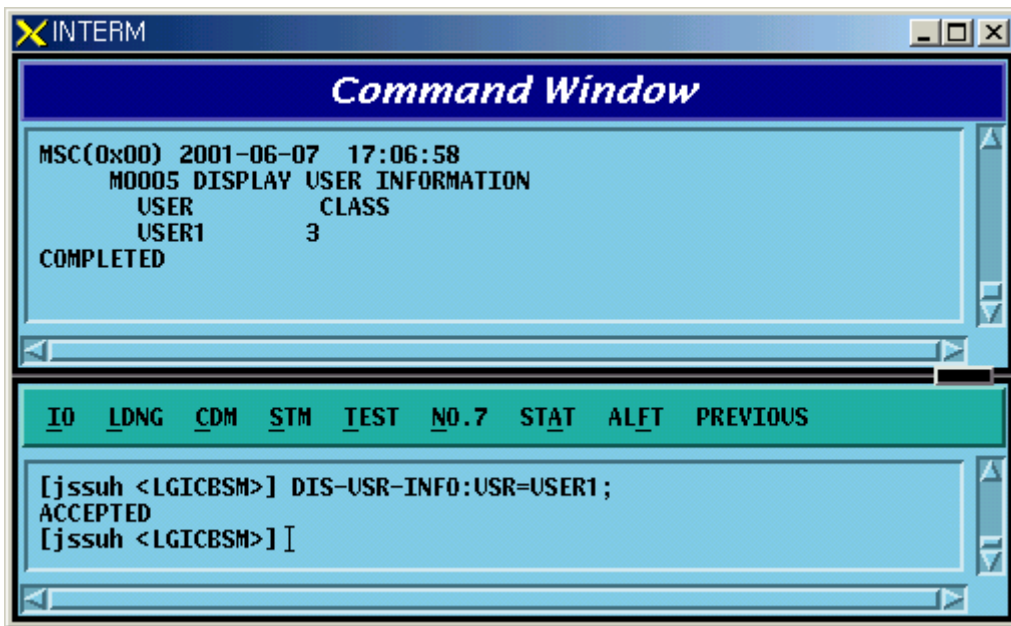


Fig. 4.1-10 User Information Display

#### 4.1.1.7. User Password Change

Change ID and Password in use. In particular, since the ID of the first time registered user should be identical with the password, change the password as follows for security reasons.

- Command CHG-PWD
- Input CHG-PWD
- Output

Input the OLD PASSWORD and NEWPASSWORD one more time and check them.

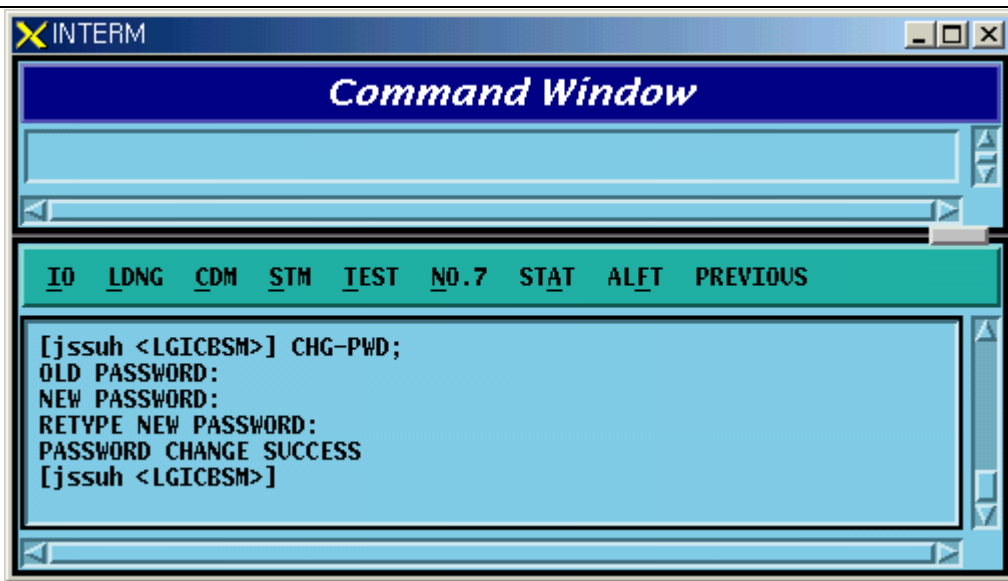


Fig. 4.1-11 User Password Change

## 4.1.2. Command Management Command

### 4.1.2.1. Command Class Modification

Modify the minimum class that can execute the registered command.

If the command class is n, one has to log in as ID that is more than n class to use this command.

- Command      CHG-CMD-CLS:CRN=a,CLS=b  
                   a : Command Reference Number [0~9999]  
                   b : Class [1~3]
- Input      CHG-CMD-CLS:CRN=0300,CLS=1
- Output

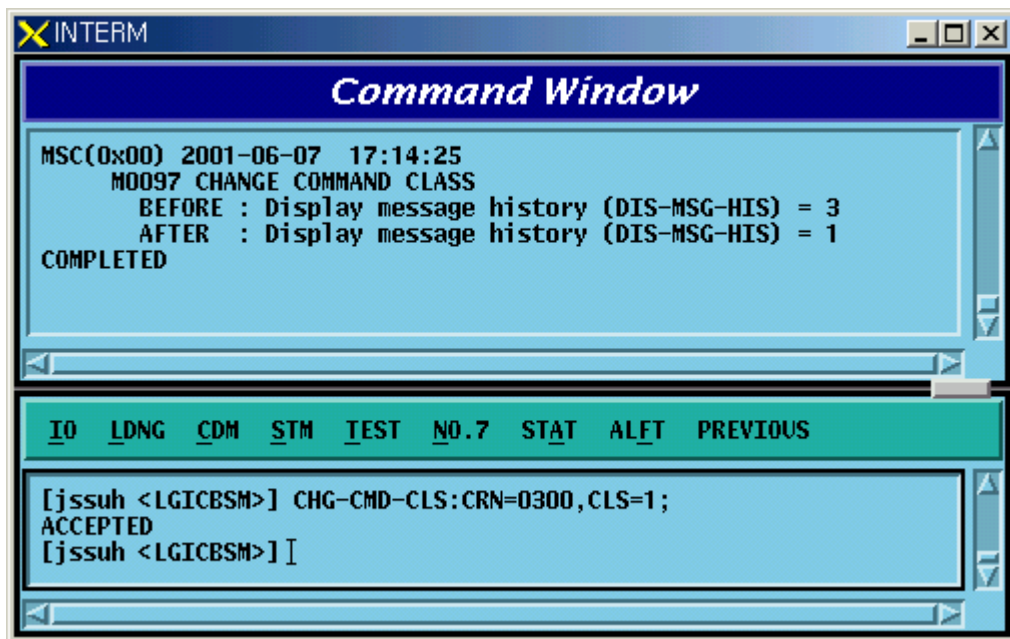


Fig. 4.1-12 Command Class Modification

#### 4.1.2.2. Command Class Display

One can see the command of the corresponding class by designating the class that is desired to be displayed.

- Command      DIS-CMD-CLS:CLS=a;  
                  a : Class [1~3]
- Input        DIS-CMD-CLS:CLS=3;

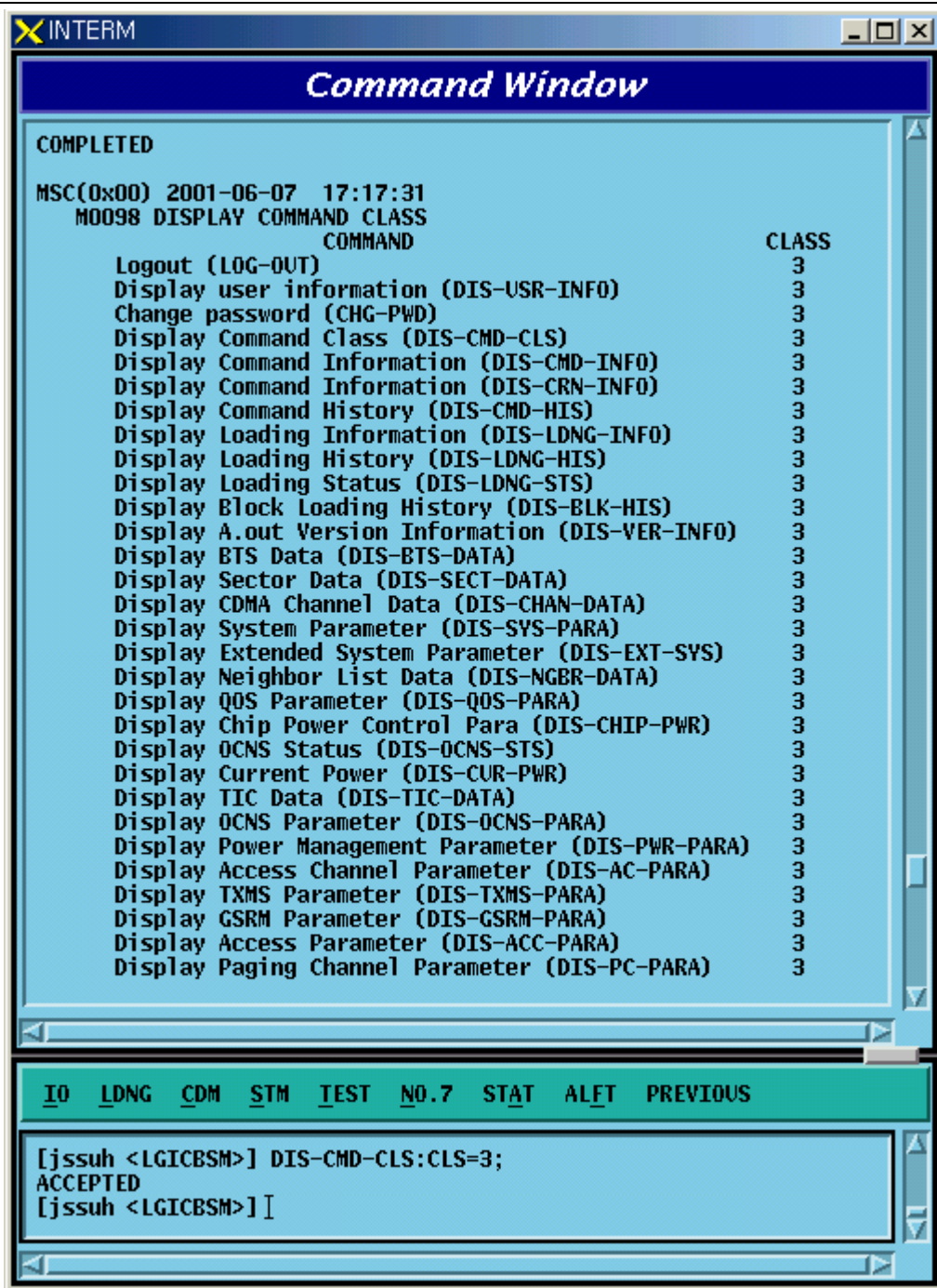


Fig. 4.1-13 Command Class Display

#### 4.1.2.3. Command Information Display by Name

Display the syntax to use the information on the registered commands.

- Command           DIS-CMD-INFO:VERB=a  
           a : Command [Note : The command discriminator is determined to be &]

- Input DIS-CMD-INFO:DIS&CMD&INFO;
- Output

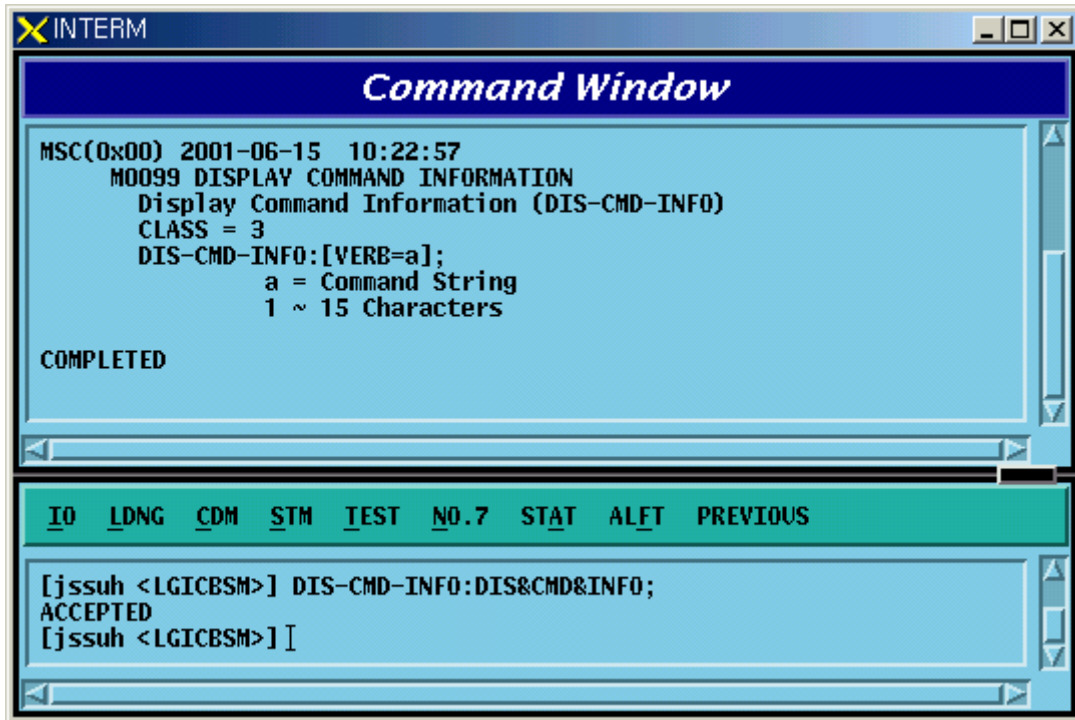


Fig. 4.1-14 Command Information Display by Name

#### 4.1.2.4. Command Information by CRN

Display the command information by CRN which is designated for each command.

- Command DIS-CRN-INFO:CRN=a  
a : Command Reference Number [0~9999]
- Input DIS-CRN-INFO:CRN=0200;
- Output

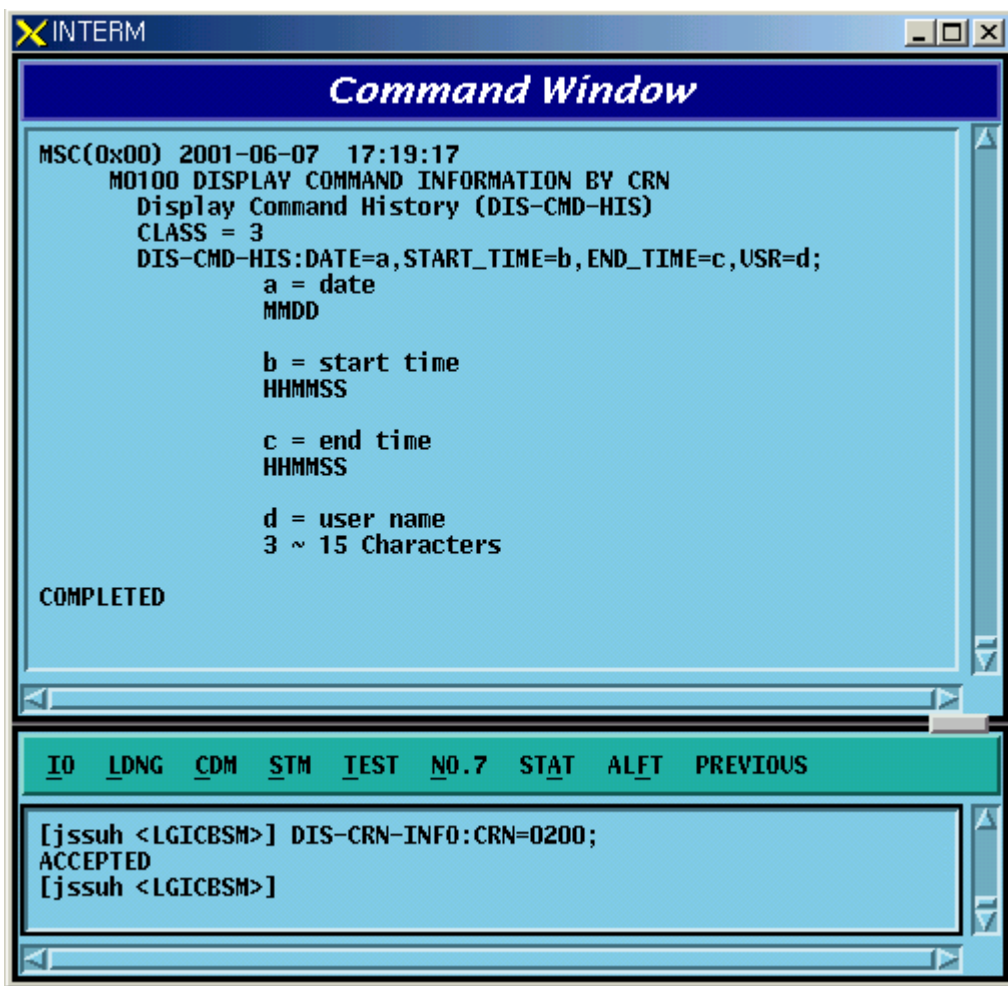


Fig. 4.1-15 Command Information Display by CRN

### 4.1.3. History Management Command

#### 4.1.3.1. Command History Display

- Command DIS-CMD-HIS[:[DATE=a][,STM=b][,ETM=c][,USR=d]]

a : Date [MMDD]  
 MM : Month [1-12]  
 DD : Day [1-day last]

b : Start Time [HHMMSS]  
 HH : Hour [00-24]  
 MM : Min [00-60]  
 SS : Sec [00-60]

c : End Time [HHMMSS]  
 d : User ID [string]



- Input DIS-CMD-HIS:DATE=0625,STM=160000,ETM=180000
- Output

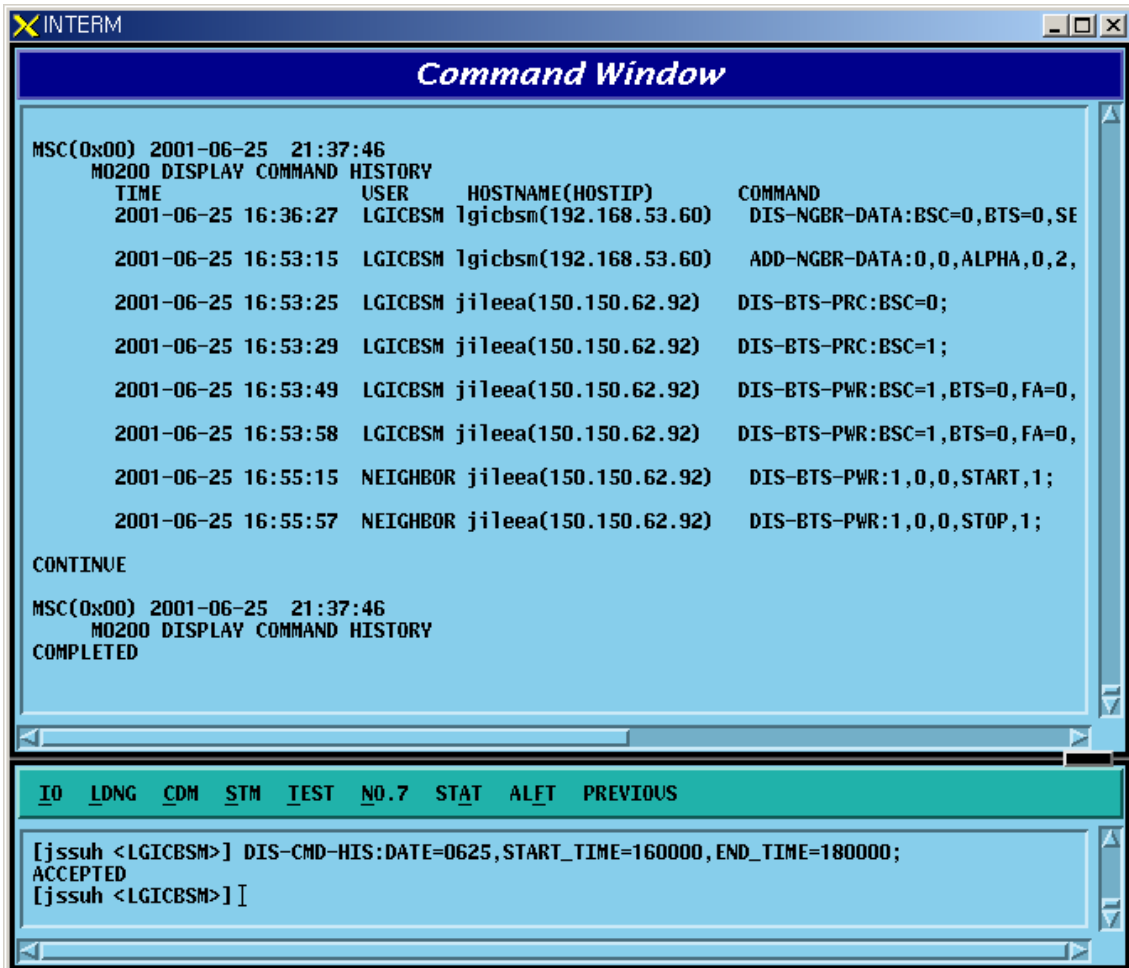


Fig. 4.1-16 Command History Display

#### 4.1.3.2. Message History Display

- Command DIS-MSG-HIS:TYPE=a,[DATE=b],[START\_TIME=c],[END\_TIME=d],[START\_BSC=e],[END\_BSC=f],[START\_BTSGRP=g],[END\_BTSGRP=h],[START\_BTSSUB=i],[END\_BTSSUB=j],[PRN=k];  
 a : Message Type [SYS, MMC, STS, FLT, ALM]  
 SYS : system message  
 MMC : MMC command  
 STS : status message

FLT : fault message

ALM : alarm message

b : Date [MMDD]

MM : Month [1-12]

DD : Day [1-day last]

c : Start Time [HHMMSS]

HH : Hour [00-24]

MM : Min [00-60]

SS : Sec [00-60]

d : End Time [HHMMSS]

e : Start BSC number[0 ~ 127]

f : End BSC number[0 ~ 127]

g : Start BTS GRP number[0 ~ 47]

h : End BTS GRP number[0 ~ 47]

i : Start BTS SUB number[0 ~ 3]

j : End BTS SUB number[0 ~ 3]

k : Message number[0 ~ 9999]

- Input DIS-MSG-HIS:TYPE=MMC,DATE=0625,START\_TIME=140000,  
END\_TIME=150000, START\_BSC=0, [START\_BTSGRP=0;
- Output

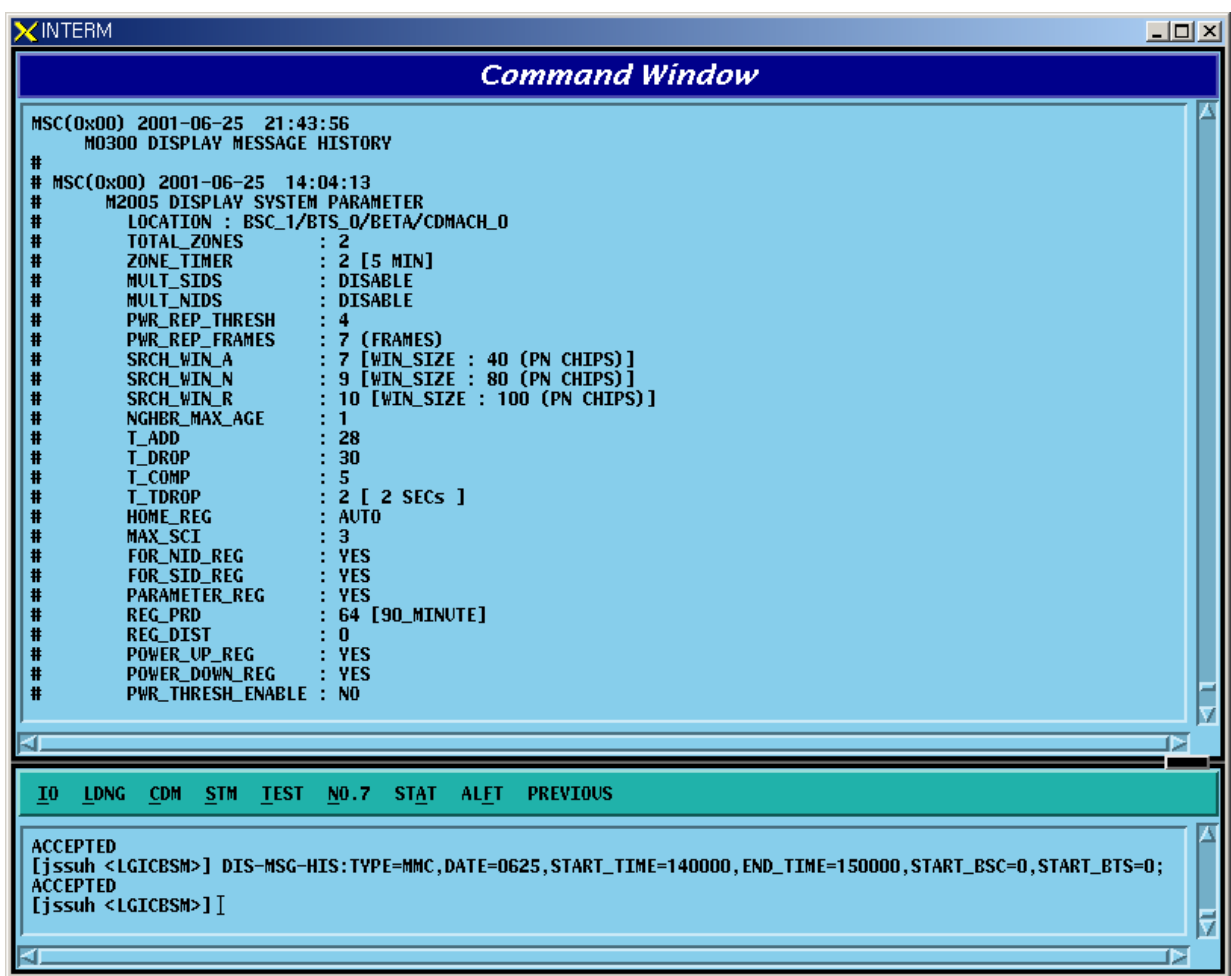


Fig. 4.1-17 Message History Display Start

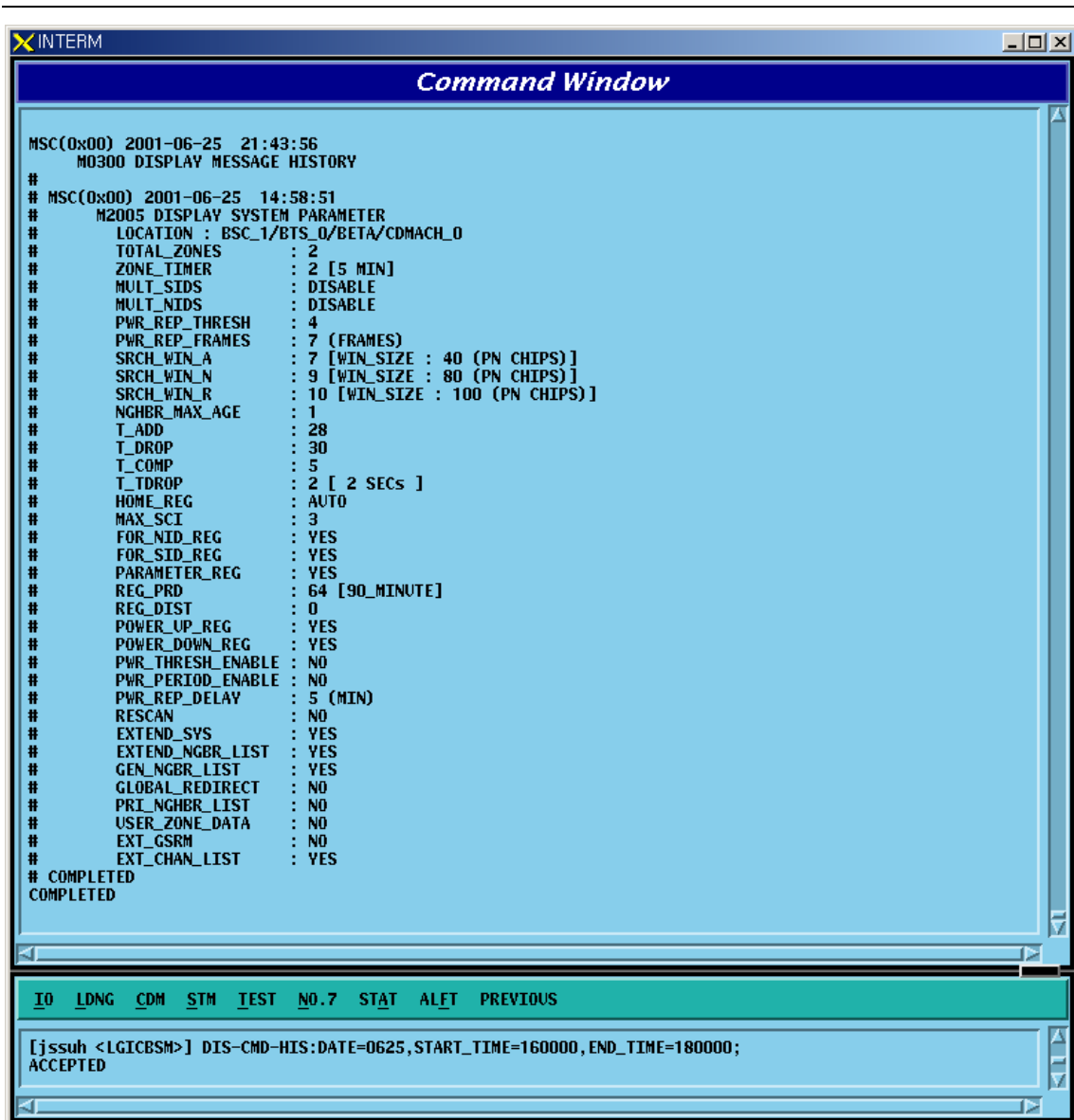


Fig. 4.1-18 Message History Display End

## 4.2. Loading Command

### 4.2.1. Loading Control Command

#### 4.2.1.1. Block Loading (DOWN-BLK)

This command is used to download specific S/W blocks to target processors from BSM. The target processors that can designate the block loading are as follows: CNP, PNP, PCP, PMP, NCP, CCP, SCP, BSP, SMP, and VMP. This command is used to download blocks that need subloading to the lower level processors of the designated target processors.

- Command : DOWN-BLK:[BSC=a,][BTS=b,]PROC=c,FLASH=d,BLK=e;
  - a : BSC ID [ Number 0~11 ]
  - b : BTS ID [ Number 0~47 ]
  - c : Processor Name [ CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP, SMP0, SMP1, SMP2, SMP3, SMP4, VMP0, VMP1, VMP2, VMP3, VMP4, VMP5, VMP6, VMP7 ]
  - d : Whether to update the flash memory [ UPDATE or MAINTAIN ]
  - e : Block Name [ String ]
- Input : DOWN-BLK:BSC=1,PROC=CCP,FLASH=MAINTAIN,BLK=rcpuser;

- Output :

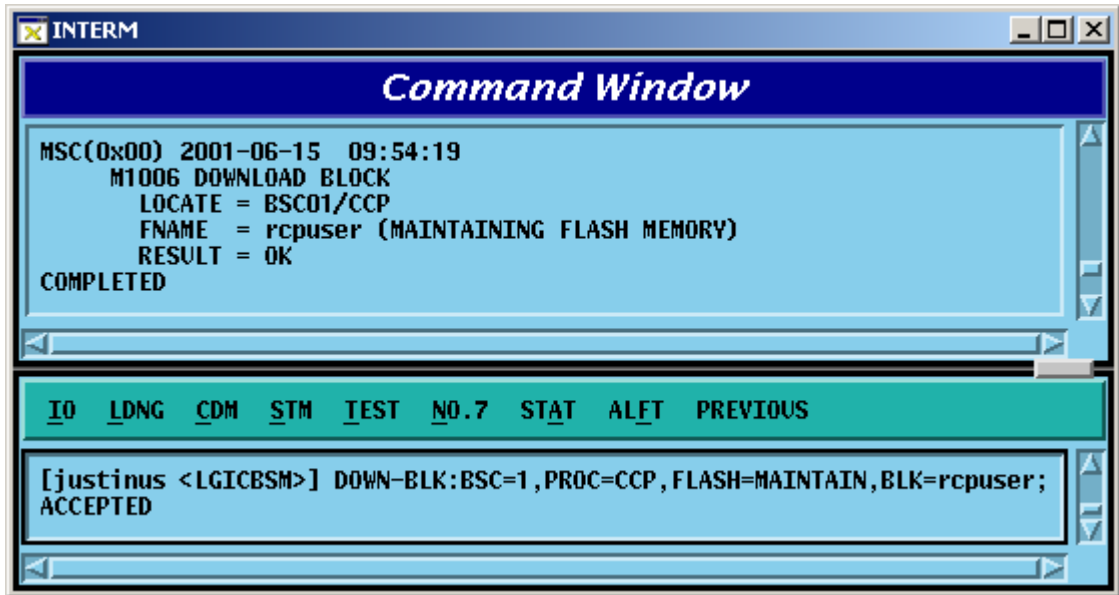


Fig. 4.2-1 Blocking Loading Performance Result

#### 4.2.1.2. Activation Loading (ACT-BLK)

This command is used to download the specific S/W blocks from BSM to the target processor and then to activate them. The target processors that can designate the activation loading are CNP, PNP, PCP, PMP, NCP, CCP, SCP, BSP, ALP, SMP, and VMP. This command is used to download S/W blocks that are operated in the target processors and to replace blocks which are currently in operation by using the newly downloaded blocks.

- Command : ACT-BLK:[BSC=a,][BTS=b,]PROC=c,FLASH=d,  
BLK1=e[,BLK2=e][,BLK3=e];  
a : BSC ID [ Number 0~11 ]  
b : BTS ID [ Number 0~47 ]  
c : Processor Name[ CNP, PNP, PCP0, PCP1, PCP2, PMP0,  
PMP1, PMP2, NCP, CCP, SCP, BSP,  
ALP, SMP0, SMP1, SMP2, SMP3, SMP4,  
VMP0, VMP1, VMP2, VMP3, VMP4,  
VMP5,  
VMP6, VMP7 ]  
d : Whether to Update Flash Memory [ UPDATE or

MAINTAIN ]

e : Block Name [ String ]

- Input : ACT-BLK:BSC=1,PROC=CCP,FLASH=UPDATE,BLK=ccp\_cal;
- Output :

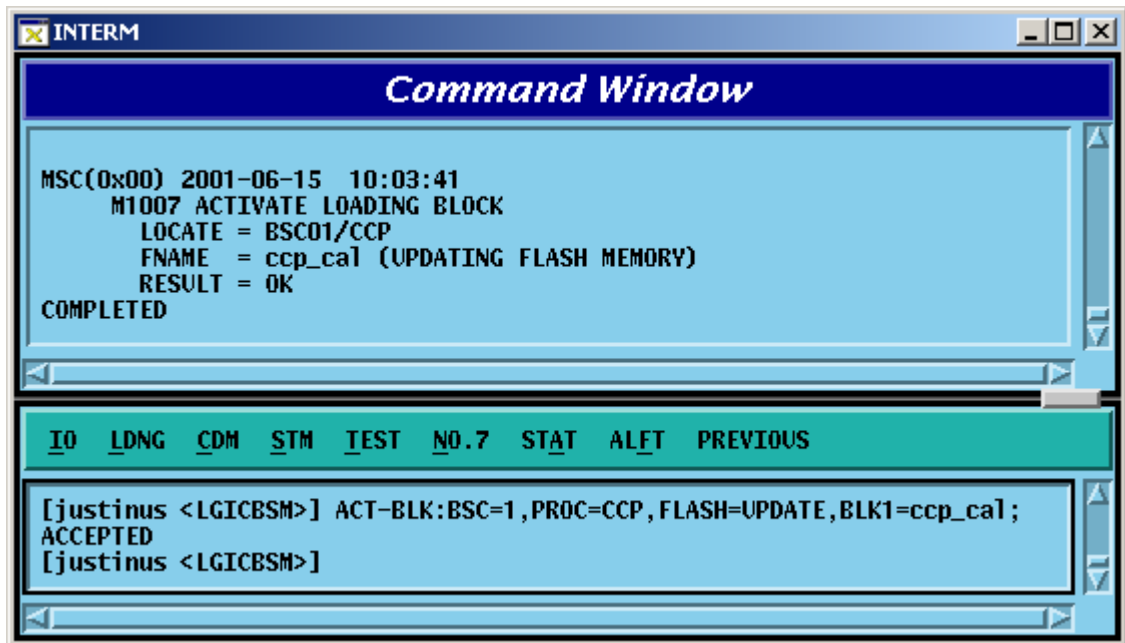


Fig. 4.2-2 Activation Loading Performance Result

### 4.2.1.3. Flash Memory Update (UPD-FLS)

The command to update Flash memory is used to designate memory update as MAINTAIN in the block loading and activation loading and then to record the following: 1) the blocks that are downloaded as a result of the block loading and 2) activation loading command results in the Flash Memory.

- Command : UPD-FLS:[BSC=a,][BTS=b,]PROC=c ;
  - a : BSC ID [ Number 0~11 ]
  - b : BTS ID [ Number 0~47 ]
  - c : Processor Name [ CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP, ALP ]
- Input : UPD-FLS:BSC=1,PROC=CCP;
- Output :

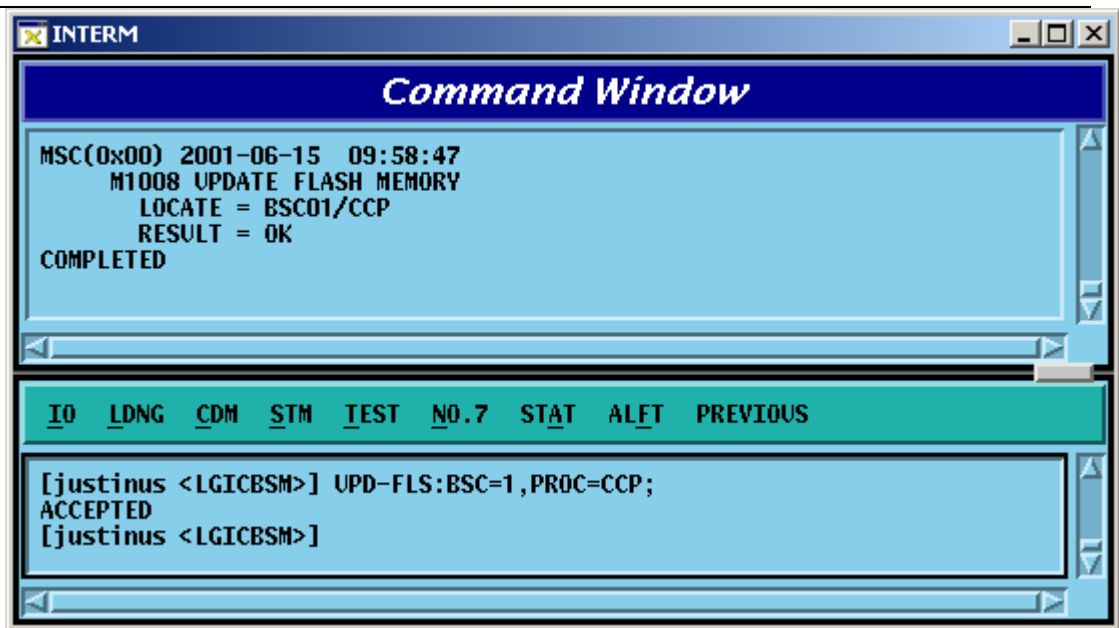


Fig. 4.2-3 Flash Memory Update Result

#### 4.2.1.4. Processor Loading Request on the Standby Side (SBY-LDNG-PRC)

It is the function that requests the loading to standby side of the processors. The target processors that can perform the Standby loading should be duplicated and both A and B sides should be normally operated. (If they are not duplicated or abnormal, the Standby loading cannot be performed.)

The target processors that can request the processor loading on the standby side are as follows: CNP, PNP, PCP, PMP, NCP, CCP, SCP, and BSP.

- Command : SBY-LDNG-PRC:[BSC=a,][BTS=b,]PROC=c ;
  - a : BSC ID [ Number 0~11 ]
  - b : BTS ID [ Number 0~47 ]
  - c : Processor Name [ CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP ]

#### 4.2.1.5. Processor Switching-over (ACT-PRC)

The command to switch over the processors is switch over the Active Side of the target processors which operate as NORM(OLD) and NORM(NEW) after performing standby loading.



- Command : ACT-PRC:[BSC=a,][BTS=b,]PROC=c ;  
a : BSC ID [ Number 0~11 ]  
b : BTS ID [ Number 0~47 ]  
c : Processor Name [ CNP, PNP, PCP0, PCP1, PCP2, PMP0,  
PMP1, PMP2, NCP, CCP, SCP, BSP ]

#### 4.2.1.6. Processor Copy (COPY-PRC)

The command to copy processors which performed the standby loading and then operate as NORM(OLD) and NORM(NEW) to the Block that received the Standby loading.

- Command : COPY-PRC:[BSC=a,][BTS=b,]PROC=c ;  
a : BSC ID [ Number 0~11 ]  
b : BTS ID [ Number 0~47 ]  
c : Processor Name [ CNP, PNP, PCP0, PCP1, PCP2, PMP0,  
PMP1, PMP2, NCP, CCP, SCP, BSP ]

#### 4.2.1.7. Firmware Loading (LOAD-FIRM)

The command to load the firmware is used to download the firmware data to fuse to the target processors or processors that serve as device servers.

- Command : LOAD-FIRM :[BSC=a,] [BTS=b,] PROC\_L1=c  
[ ,PROC\_L2=d], FILENAME=e;  
a : BSC ID [ Number 0~11 ]  
b : BTS ID [ Number 0~47 ]  
c : Level 1 Processor [ CNP, PNP, PCP0, PCP1, PCP2, PMP0,  
PMP1, PMP2, NCP, CCP, SCP, BSP ]  
d : Level 2 Processor [ ASCA, ASIA0, ASIA1, ASIA2, ASIA3,  
ENP,  
CRP, PIP0, PIP1, PIP2, PIP3, PIP4, PIP5,  
PIP6, PIP7, PIP8, PIP9, PIP10, ALP,  
SMP0,  
SMP1, SMP2, SMP3, SMP4, VMP0, VMP1,  
VMP2, VMP3, VMP4, VMP5, VMP6,

VMP7,

LICA0, LICA1, LICA2 ]

e : Firmware Data File Name [ String ]

#### 4.2.1.8. Firmware Update (UPD-FIRM)

After downloading the firmware data to fuse to target processor or processors that serve as the device servers using the firmware loading command, it downloads or fuse firmware data to target processors to devices using the firmware update command.

- Command : UPD-FIRM : [BSC=a] [,BTS=b] ,PROC\_L1=c [,PROC\_L2=d] [,PROC\_L3=e] [,SIDE=f] ,FILENAME=g ,TYPE=h;  
a : BSC ID [ Number 0~11 ]  
b : BTS ID [ Number 0~47 ]  
c : :Level 1 Processor [ CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP ]  
d : Level 2 Processor [ ASCA, ASIA\_ALL, ASIA0, ASIA1, ASIA2, ASIA3, ENP, CRP, PIP\_ALL, PIP0, PIP1, PIP2, PIP3, PIP4, PIP5, PIP6, PIP7, PIP8, PIP9, PIP10, ALP, SMP0, SMP1, SMP2, SMP3, SMP4, VMP0, VMP1, VMP2, VMP3, VMP4, VMP5, VMP6, VMP7, LICA\_ALL, LICA0, LICA1, LICA2 ]  
e : Level 3 Processor [ ALMA\_ALL, ALMA0, ALMA1, ALPA\_ALL, ALPA0\_0, ALPA0\_1, ALPA0\_2, ALPA0\_3, ALPA0\_4, ALPA1\_0, ALPA1\_1, ALPA1\_2, ALPA1\_3, ALPA1\_4, SLP\_ALL, SLP0, SLP1, SLP2, SLP3, SLP4, SLP5, SLP6, SLP7, SLP8, SLP9, SLP10, SLP11, SLP12, SLP13, SLP14, SLP15, SLP16, SLP17, SLP18, SLP19, VCP\_ALL, VCP0, VCP1, VCP2, VCP3,

VCP4,  
VCP5, VCP6, VCP7, VCP8, VCP9, VCP10,  
VCP11, VCP12, VCP13, VCP14, VCP15 ]  
f : Side Information [ A\_SIDE, B\_SIDE, BOTH ]  
g : Firmware Data File Name [ String ]  
h : Firmware Type [ BOOTER\_FW, CPLD\_FW ]

## 4.2.2. Loading Information Display Command

### 4.2.2.1. Loading Information Display (DIS-LDNG-INFO)

It is the function that displays the loading information of specific processor.

- Command : DIS-LDNG-INFO:[BSC=a,][BTS=b,]PROC=c ;  
a : BSC ID [ Number 0~11 ]  
b : BTS ID [ Number 0~47 ]  
c : Processor Name [ CNP, PNP, PCP0, PCP1, PCP2, PMP0,  
PMP1, PMP2, NCP, CCP, SCP, BSP,  
ALP, SMP0, SMP1, SMP2, SMP3, SMP4,  
VMP0, VMP1, VMP2, VMP3, VMP4,  
VMP5,  
VMP6, VMP7, RCP0, RCP1, RCP2, RCP3,  
RCP4, RCP5, RCP6, RCP7, RCP8, RCP9 ]
- Input : DIS-LDNG-INFO:BSC=1,PROC=CCP;
- Output :

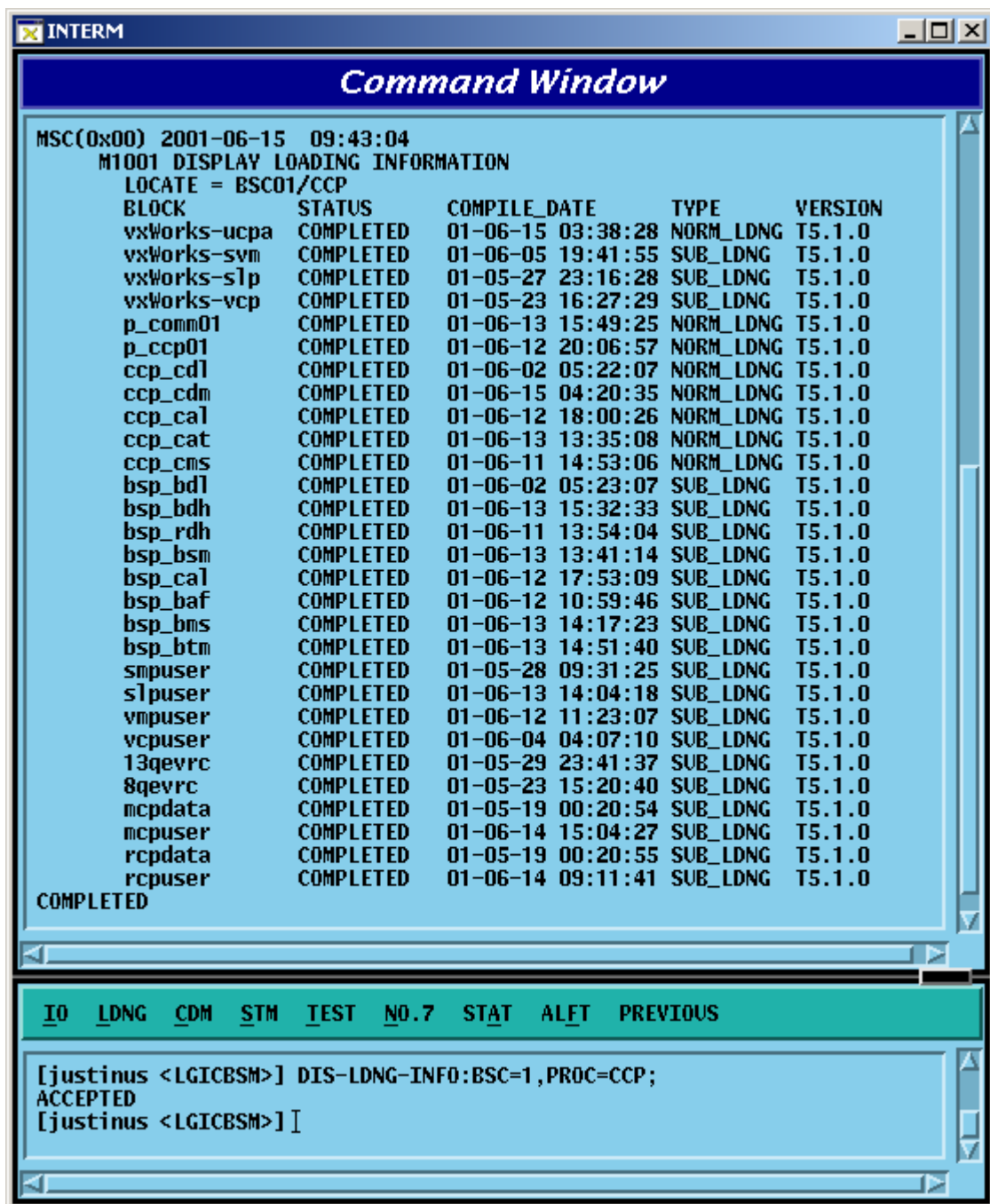


Fig. 4.2-4 Loading Information Display Command Execution Result

#### 4.2.2.2. Loading History Display (DIS-LDNG-HIS)

It is the function that displayed up to 30 of the latest loading history of the specific processor.

- Command : DIS-LDNG-HIS:[BSC=a,][BTS=b,][PROC=c] ;
  - a : BSC ID [ Number 0~11 ]
  - b : BTS ID [ Number 0~47 ]
  - c : Processor Name (When deleting processor names, the entire processors are displayed)
    - [ CNP, PNP, PCP0, PCP1, PCP2, PMP0, PMP1, PMP2, NCP, CCP, SCP, BSP, ALP, SMP0, SMP1, SMP2, SMP3, SMP4, VMP0, VMP1, VMP2, VMP3, VMP4, VMP5, VMP6, VMP7, RCP0, RCP1, RCP2, RCP3, RCP4, RCP5, RCP6, RCP7, RCP8, RCP9 ]
- Input : DIS-LDNG-INFO:BSC=1,PROC=NCP;
- Output :

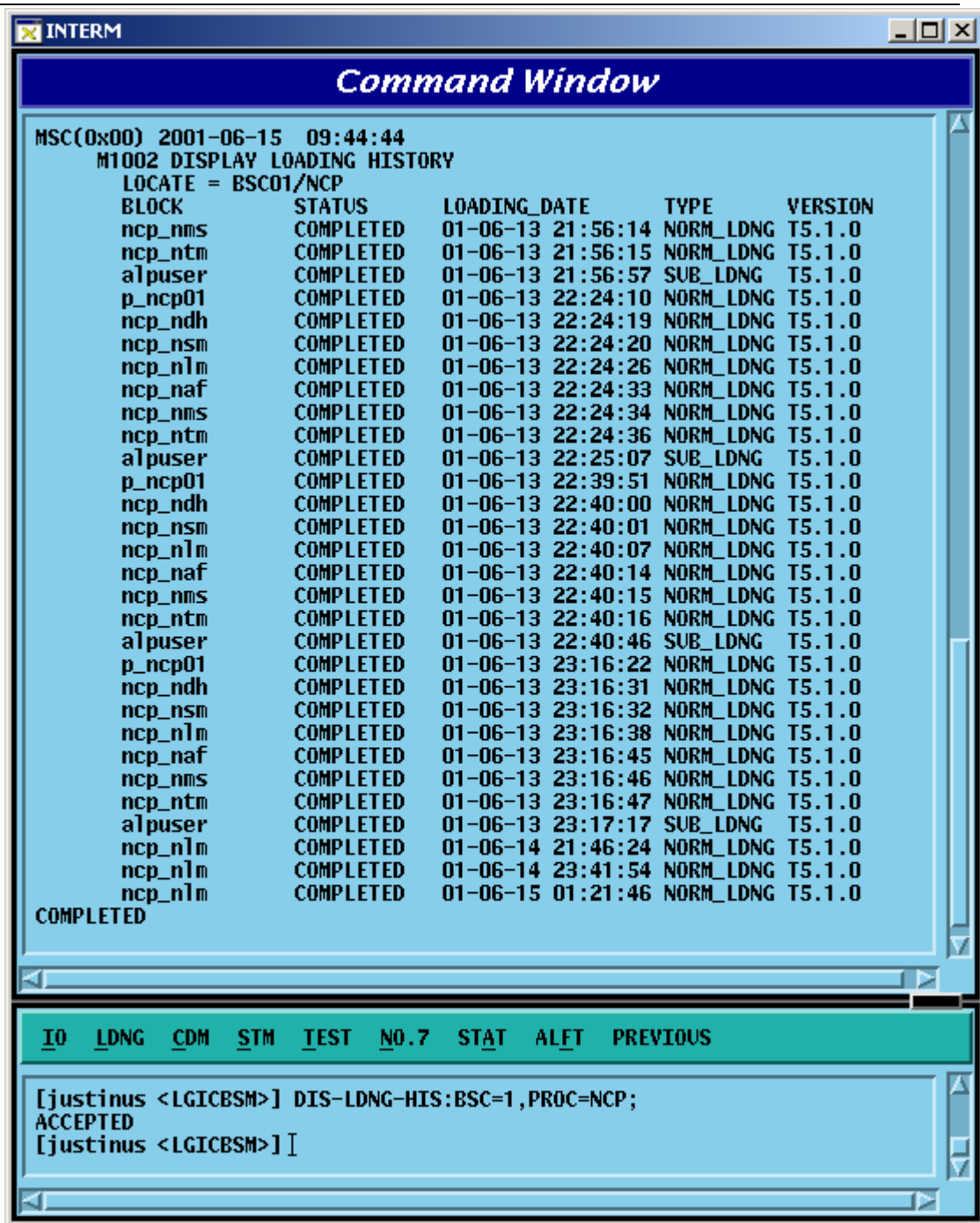


Fig. 4.2-5 Loading History Display Function Execution Result

#### 4.2.2.3. Block Loading History Display (DIS-BLK-HIS)

It is the function that displays up to 30 of the latest block loading history of the specific processors.

- Command : DIS-BLK-HIS:[BSC=a,][BTS=b,]PROC=c ;
  - a : BSC ID [ Number 0~11 ]
  - b : BTS ID [ Number 0~47 ]
  - c : Processor Name [ CNP, PNP, PCP0, PCP1, PCP2, PMP0,  
PMP1, PMP2, NCP, CCP, SCP, BSP,  
SMP0,  
SMP1, SMP2, SMP3, SMP4, VMP0, VMP1,  
VMP2,VMP3,VMP4,VMP5,VMP6,VMP7 ]
- Input : DIS-LDNG-INFO:BSC=1,BTS=0,PROC=BSP;
- Output :

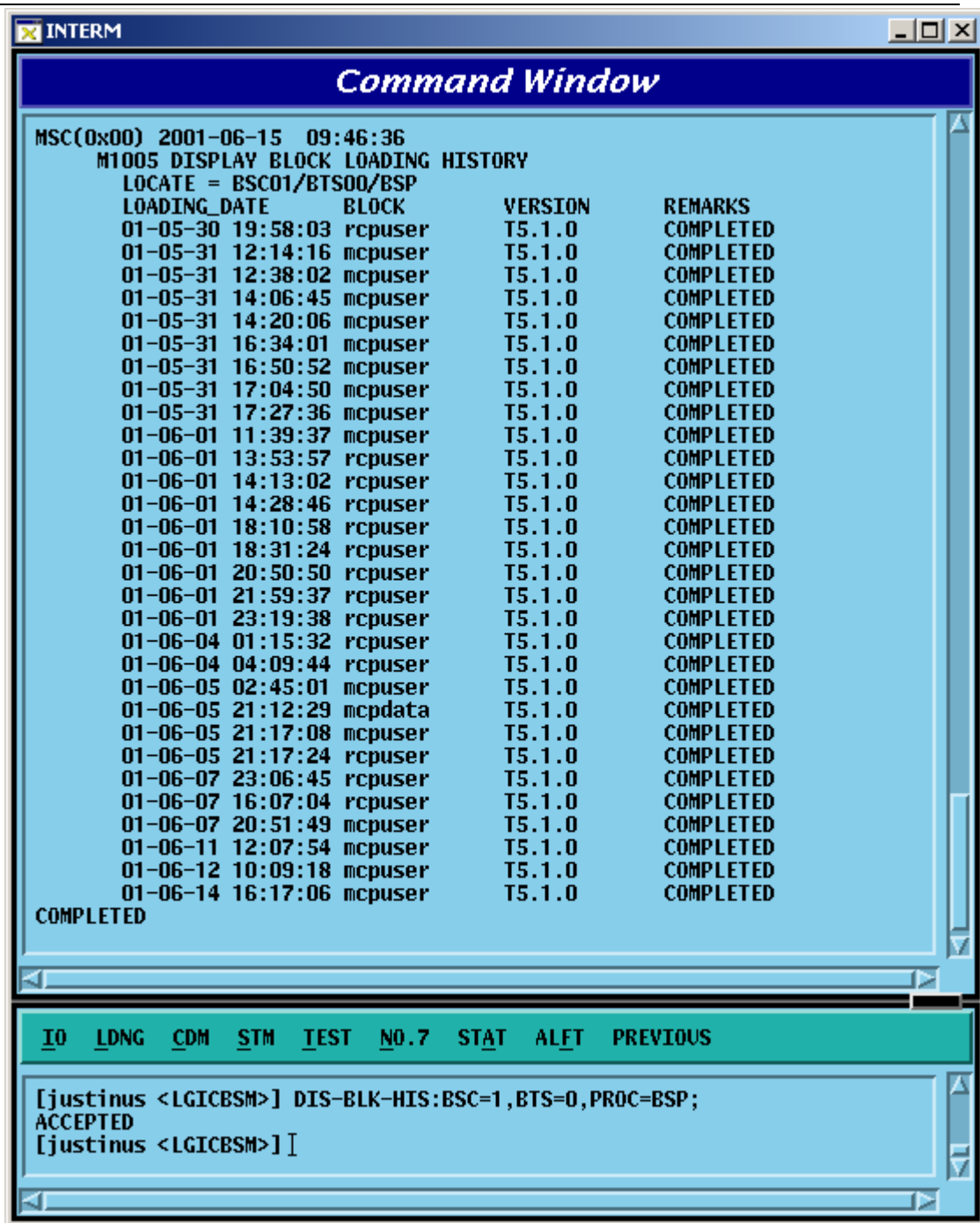


Fig. 4.2-6 Block Loading History Display Result

#### 4.2.2.4. Loading State Display (DIS-LDNG-ST5)

It is the function that displays the information on the processor that is performing downloading.



- Command : DIS-LDNG-STG;
- Input : DIS-LDNG-STG;
- Output :

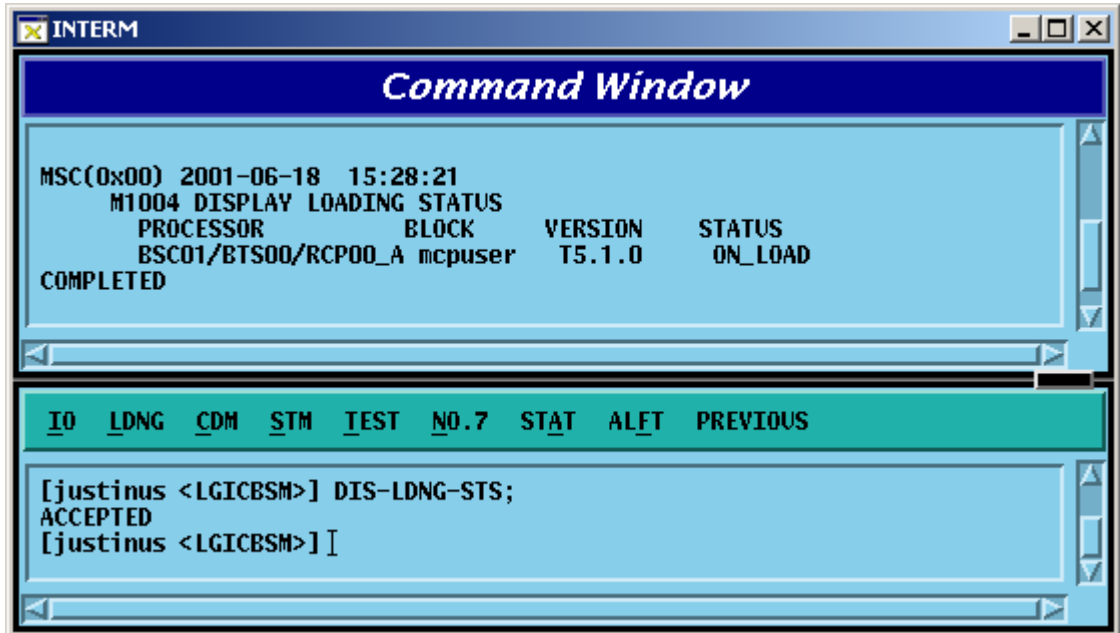


Fig. 4.2-7 Loading State Display Command Execution Result (When there is a processor that is performing loading)

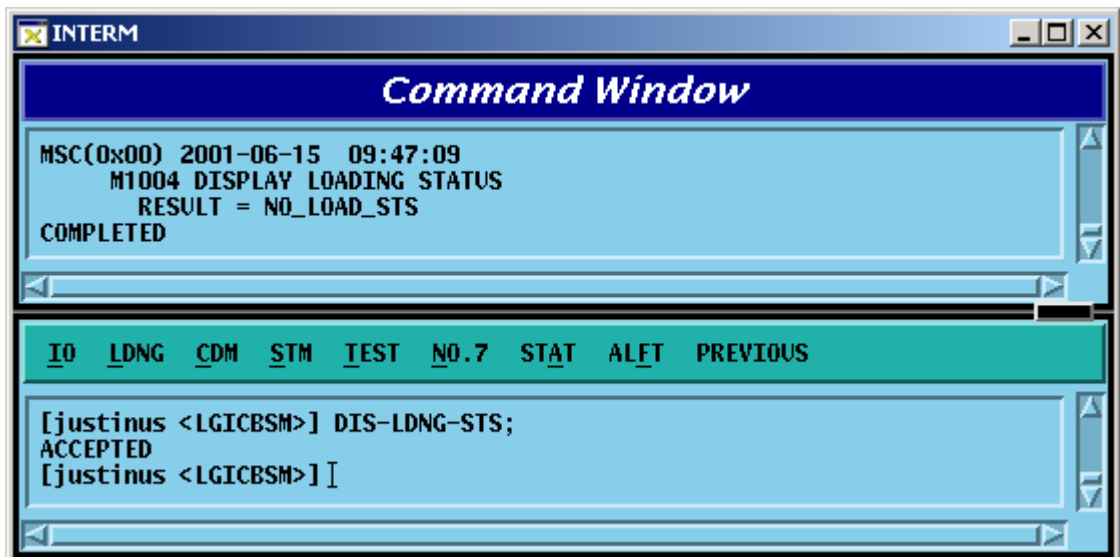


Fig. 4.2-8 Loading State Display Command Execution Result (When there is no processor that is performing loading)

#### 4.2.2.5. a.out Version Information Display (DIS-VER-INFO)

The command to display a.out version information is used to check the S/W block version that is downloaded from the BSM loading directory or target processor.

The target processors that can designate are as follows: BSM, CNP, PNP, PCP, PMP, NCP, CCP, SCP, BSP, ALP, SMP, VMP, and RCP.

- Command : DIS-VER-INFO:[BSC=a,][BTS=b,]PROC=c[,FILENAME=d];
  - a : BSC ID [ Number 0~11 ]
  - b : BTS ID [ Number 0~47 ]
  - c : Processor Name [ BSM,CNP,PNP,PCP0,PCP1,PCP2,PMP0,  
PMP1, PMP2, NCP, CCP, SCP, BSP, ALP,  
SMP0, SMP1, SMP2, SMP3, SMP4, VMP0,  
VMP1, VMP2, VMP3, VMP4, VMP5,  
VMP6,  
VMP7, RCP0, RCP1, RCP2, RCP3, RCP4,  
RCP5, RCP6, RCP7, RCP8, RCP9 ]
  - d : File Name [ String ]
  
- Input : DIS-VER-INFO:PROC=BSM,FILENAME=ccp\_cdl;  
DIS-VER-INFO:BSC=1,PROC=CCP,FILENAME=ccp\_cdl;
  
- Output :

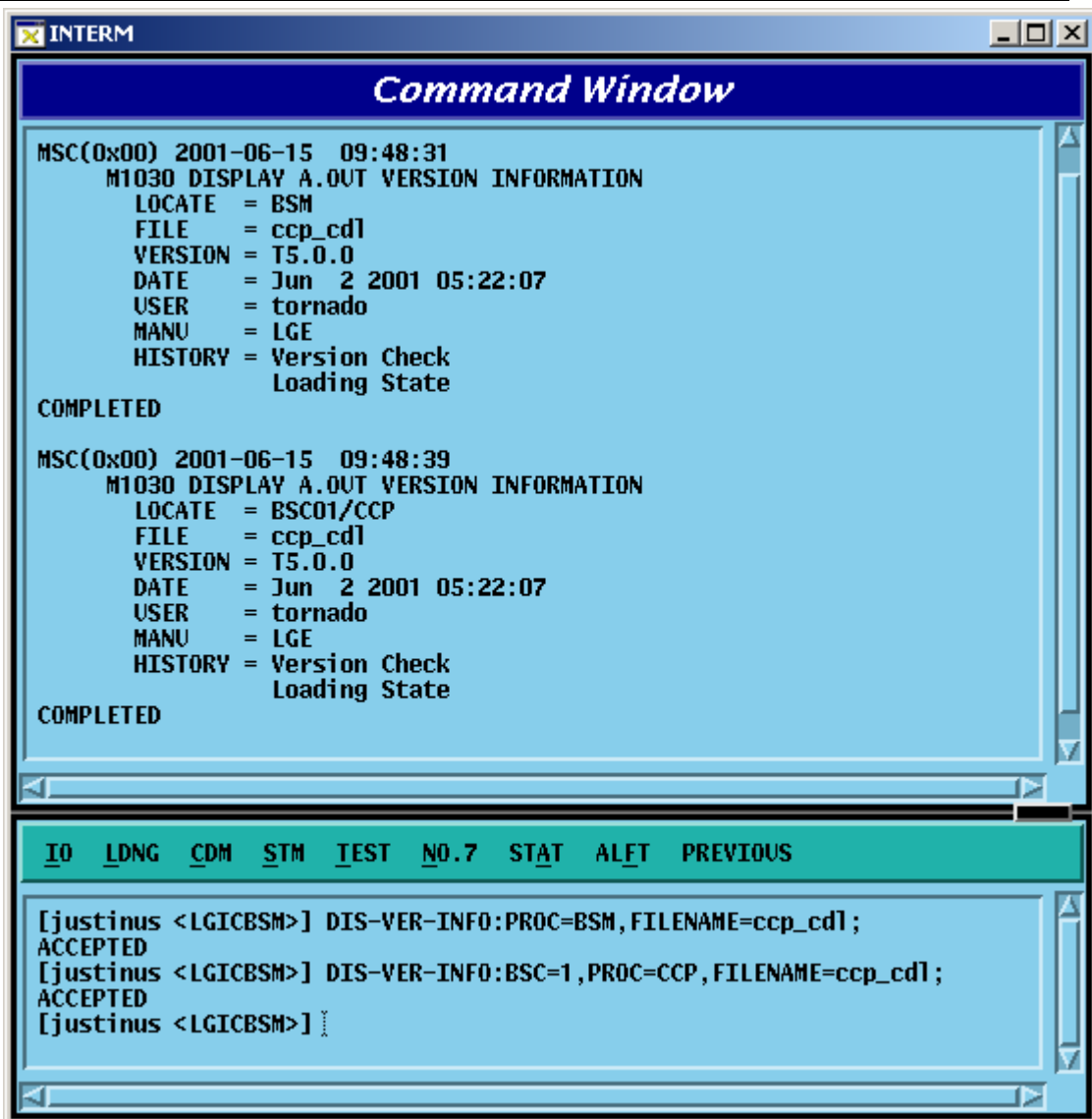


Fig. 4.2-9 Version Information Display Command Execution Result

## 4.3. Configuration Command

During the initialization, BTS and BSC download PDL (Programmable Loading Data) that contain the configuration and parameter information as well as the OS and Application.

This section describes the commands that help the user to manage the following efficiently and variably by displaying PLD and changing them online: BTS and BSC configuration, the parameter information, and the network configuration information. In particular, the system's flexibility is maximized by enabling BTS, Sector, FA, etc to be expanded by the parameter input by the user without any additional data.

### 4.3.1. Parameter Information Display Command

#### (Display\_Parameter\_Information\_1)

As a command that is used to inquire the parameter information that is currently stored in the PLD, its results are displayed on the OUTPUT WINDOW.

Table 1-1 Parameter Information Display Command I

DIS-BTS-DATA	BSC, BTS	BTS DATA verification
DIS-SECT-DATA	BSC, BTS, SECT	SECTOR DATA verification
DIS-CHAN-DATA	BSC, BTS, CDMACH	CDMA CHANNEL DATA verification
DIS-SYS-PARA	BSC, BTS, SECT, CDMACH	SYSTEM PARAMETER verification
DIS-EXT-SYS	BSC, BTS, SECT, CDMACH	EXTENDED SYSTEM PARAMETER verification
DIS-NGBR-DATA	BSC, BTS, SECT	Neighbor cell information verification
DIS-QOS-PARA	BSC, BTS	QOS verification
DIS-CHIP-PWR	BSC, BTS	CHIP power control parameter verification
DIS-TIC-DATA	BSC, BTS, SECT, CDMACH	TIC DATA verification
DIS-SECT-CHAN	BSC, BTS, SECT, CDMACH	SYSTEM SECTOR CDMA CHANNEL PARAMETER

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		verification
DIS-PWR-PARA	BSC, BTS, SECT, CDMACH	Power control parameter information display
DIS-AC-PARA	BSC, BTS, SECT, CDMACH, PC, AC	ACCESS CHANNEL PARAMETER verification
DIS-TXMS-PARA	BSC, BTS, SECT, CDMACH	TXMS PARAMETERS verification
DIS-GSRM-PARA	BSC, BTS, SECT	GSRM message verification
DIS-ACC-PARA	BSC, BTS, SECT, CDMACH, PC	ACCESS PARAMETER MESSAGE verification
DIS-PC-PARA	BSC, BTS, SECT, CDMACH, PC	PAGING CHANNEL parameter information verification
DIS-PICH-PARA	BSC, BTS, SECT, CDMACH	PILOT CHANNEL parameter information verification
DIS-SC-PARA	BSC, BTS, SECT, CDMACH	SYNC CHANNEL PARAMETER verification
DIS-QPC-PARA	BSC, BTS, SECT, CDMACH, QPC	QUICK PAGING CHANNEL parameter information verification
DIS-BCON-PARA	BSC, BTS, SECT	HOPPING PILOT BEACON CHANNEL parameter information verification
DIS-BTS-DATA	BSC, BTS	BTS DATA verification

### 4.3.1.1. BTS Parameter Information Display

The BTS parameters are composed of data that are used to manage the BTS and both BTS and BSC refer to this information.

- Command DIS-BTS-DATA:BSC=a,BTS\_GRP=b,BTS\_SUB=c;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number (0 ~ 3)
- Input DIS-BTS-DATA:BSC=0,BTS\_GRP=2,BTS\_SUB=0;
- Output

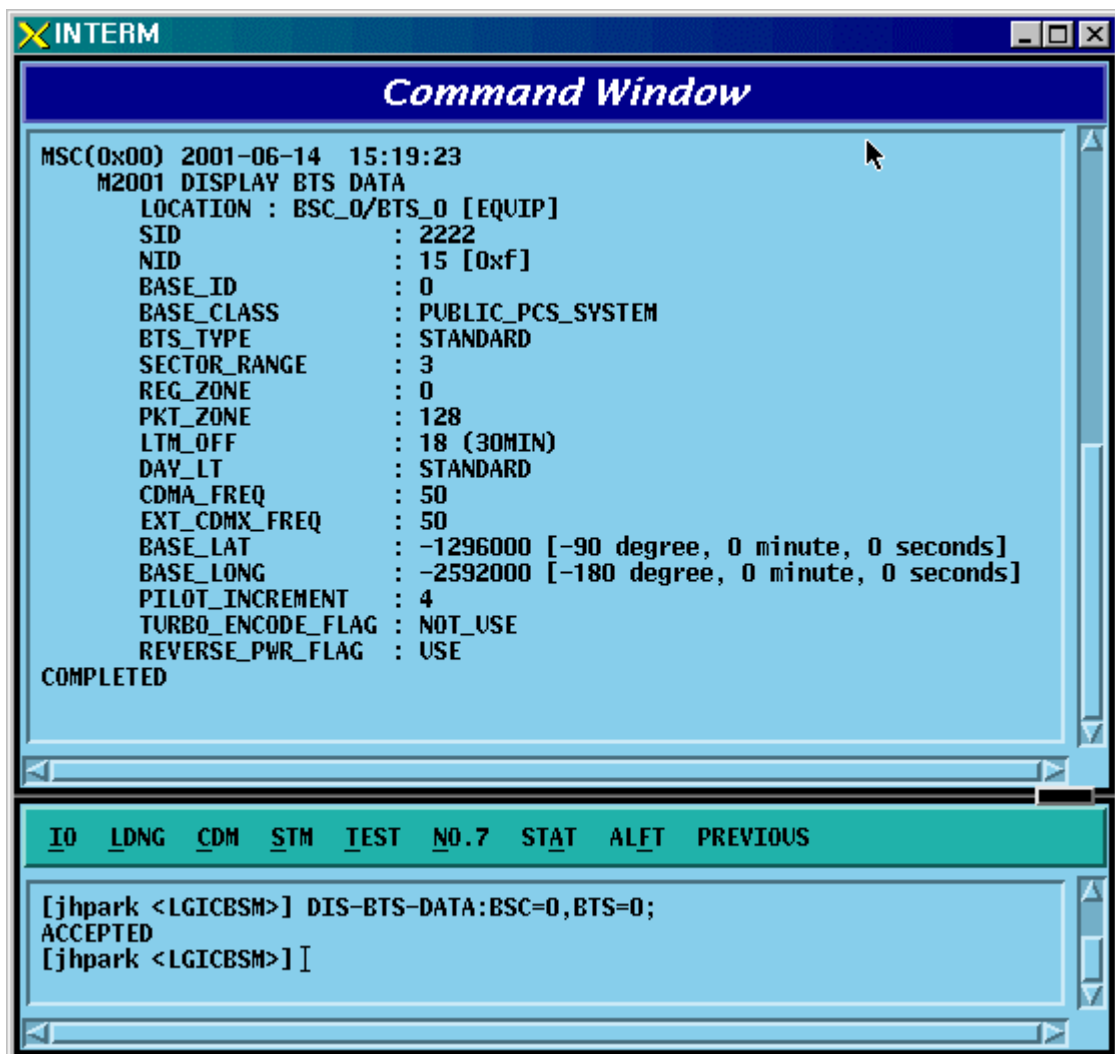


Fig. 4.3-1 BTS Parameter Display

### 4.3.1.2. Sector Parameter Information Display

The BTS can be divided into 1~3 sectors to accommodate more subscribers. The sector parameter information is composed of the information on each sector in BTS and both BTS and BSC refer to this information. The user can inquire the data by BTS Group, BTS Sub, and sector.

- Command DIS-SECT-DATA:BSC=a[,BTS\_GRP=b][,BTS\_SUB=c][,SECT=d];  
a : BSC Number (0 ~ 11)  
b : BTS Number (0 ~ 47)  
c : BTS Sub Number (0 ~ 3)  
d : Sector Number (ALPHA/BETA/GAMMA)
- Input DIS-SECT-DATA:BSC=0,BTS=0,SECT=ALPHA;
- Output

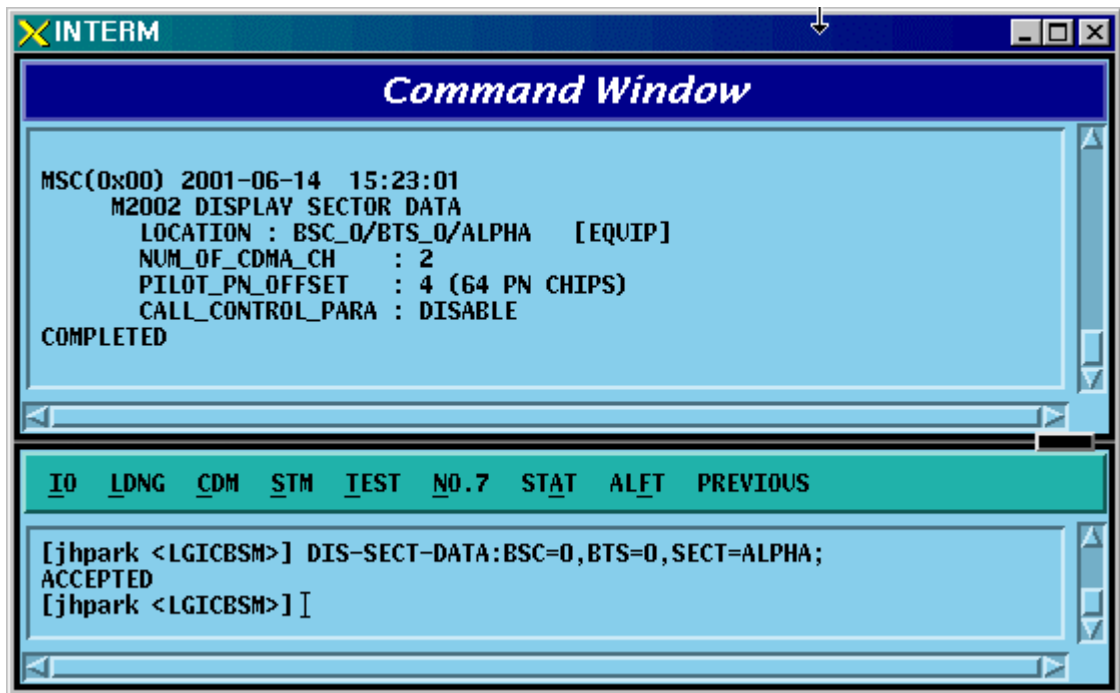


Fig. 4.3-2 Sector Parameter Information Display

### 4.3.1.3. CDMA Channel Parameter Information Display

The following command is used to display parameter information such as bandwidth of each CDMA channel, CDMA channel number, spare channel rate for Handoff(or Handover). This information is referred by both BTS and BSC.

- Command DIS-CHAN-DATA:BSC=a,BTS\_GRP=b,BTS\_SUB=c[,CDMACH=c];
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number(0 ~ 3)
  - d : CDMA Channel Number (0 ~ 7)
- Input DIS-CHAN-DATA:BSC=0,BTS\_GRP=2,BTS\_SUB=0;
- Output

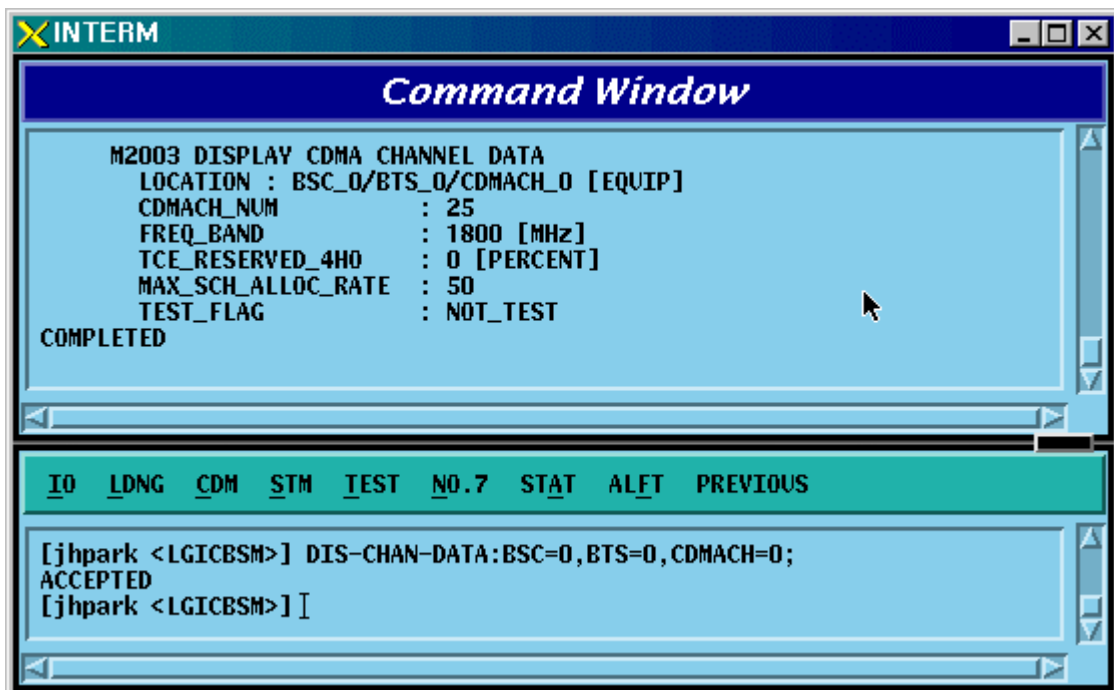


Fig. 4.3-3 CDMA Channel Parameter Information Display



#### 4.3.1.4. System Parameter Message Display

As an Overhead message that is transmitted from BTS to MS through the paging channel, the System Parameter Message contains the information to be used for the call processing, handoff procedures, registration, etc. The information is checked by using the following command and referred by both BTS and BSC.

- Command DIS-SYS-PARA:BSC=a,BTS\_GRP=b,BTS\_SUB=c,SECT=d,CDMACH=e;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number (0 ~ 3)
  - d : Sector Number (ALPHA/BETA/GAMMA)
  - e : CDMA Channel Number (0 ~ 7)
- Input DIS-SYS-PARA:BSC=0,BTS\_GRP=2,BTS\_SUB=0,SECT=ALPHA,CDMACH=0;
- Output

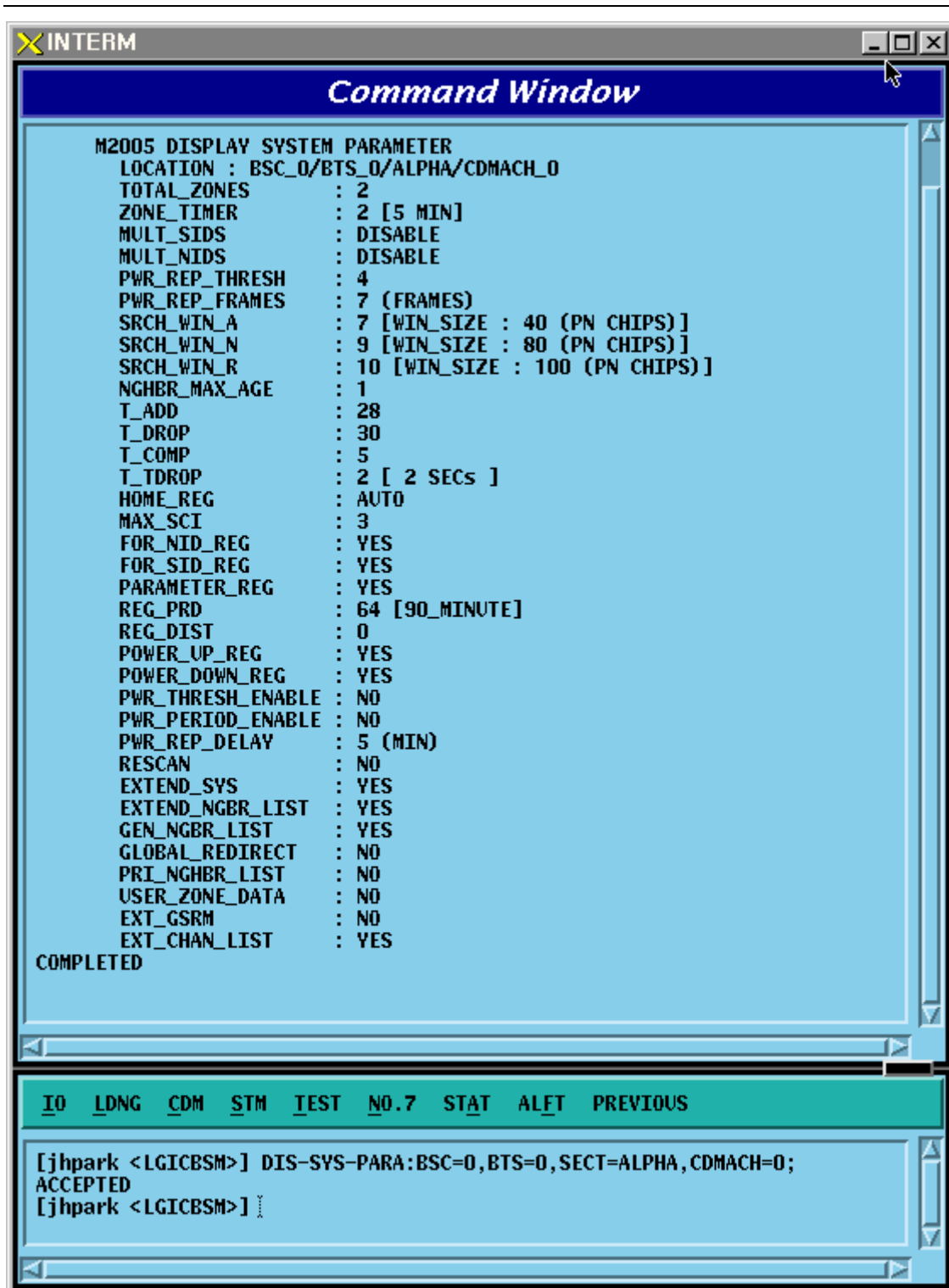


Fig. 4.3-4 System Parameter Message Display

#### 4.3.1.5. Extended System Parameter Message Display

As an overhead message that is transmitted from the BTS to MA through the paging channel, the Extended System Parameter Message is referred by BTS and BSC.

- Command DIS-EXT-SYS:BSC=a,BTS\_GRP=b,BTS\_SUB=c;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number (0 ~ 3)
- Input DIS-EXT-SYS:BSC=0,BTS\_GRP=2,BTS\_SUB=0;
- Output

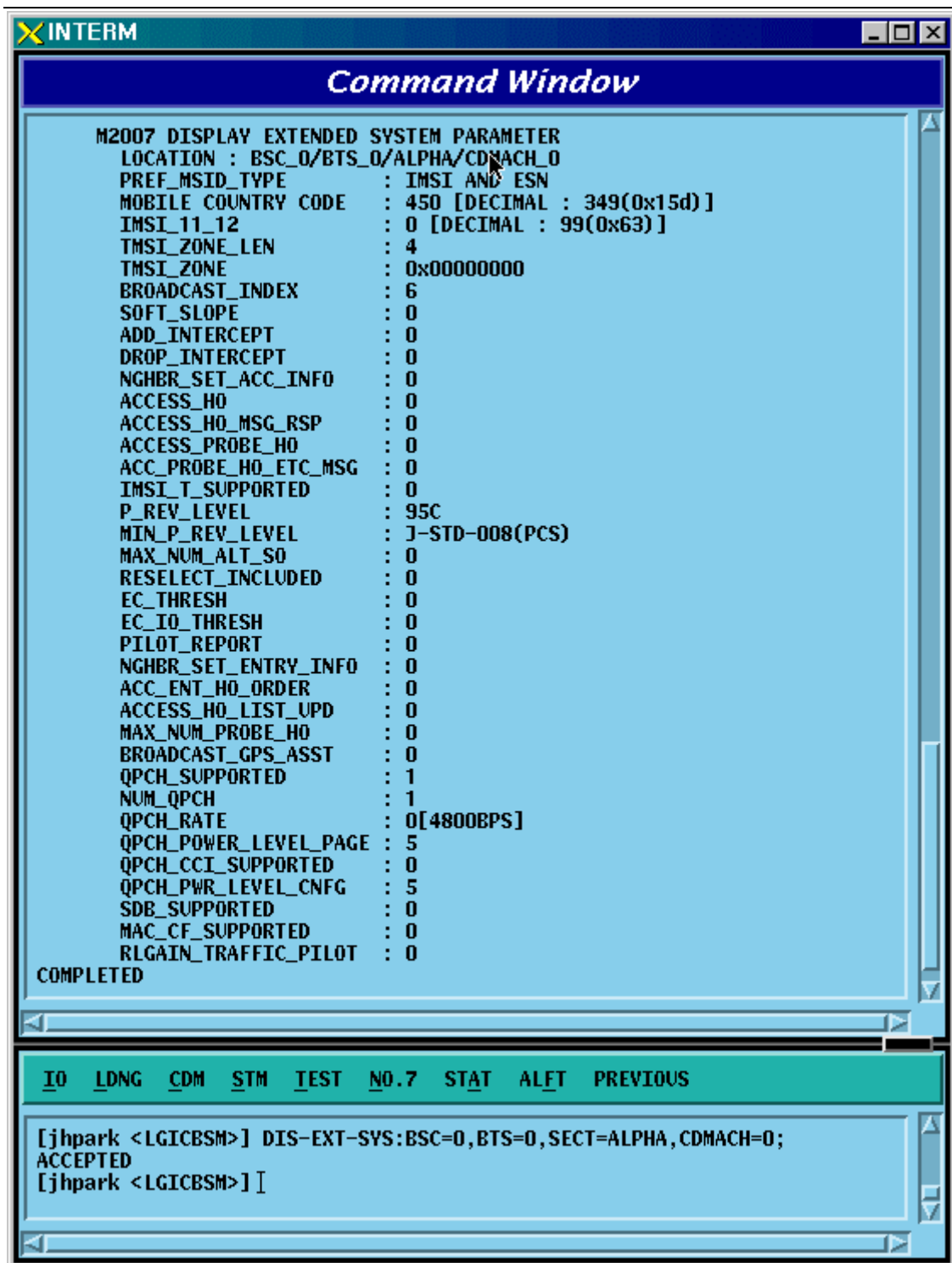


Fig. 4.3-5 Extended System Parameter Message Display

#### 4.3.1.6. Neighbor List Parameter Information Display

Neighbor list refers to a set of the information on neighbor sectors. Each sector can have up to 20 neighbor lists. When the MS, which is busy or idle, moves to other sectors, it has to switch over a call (this is called Handoff or Handover). At this time, handoff is carried out in reference to the neighbor list. The neighbor list is referred by BTS and BSC and can be inquired by using the following command:

- Command DIS-NGBR-DATA:BSC=aa,BTS\_GRP=b[,BTS\_SUB=c][,SECT=c];
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : BTS Sub Number (0 ~ 3)
  - d : Sector Number (ALPHA/BETA/GAMMA)
- Input DIS-NGBR-DATA:BSC=0,BTS\_GROUP=2,BTS\_SUB=0;
- Output

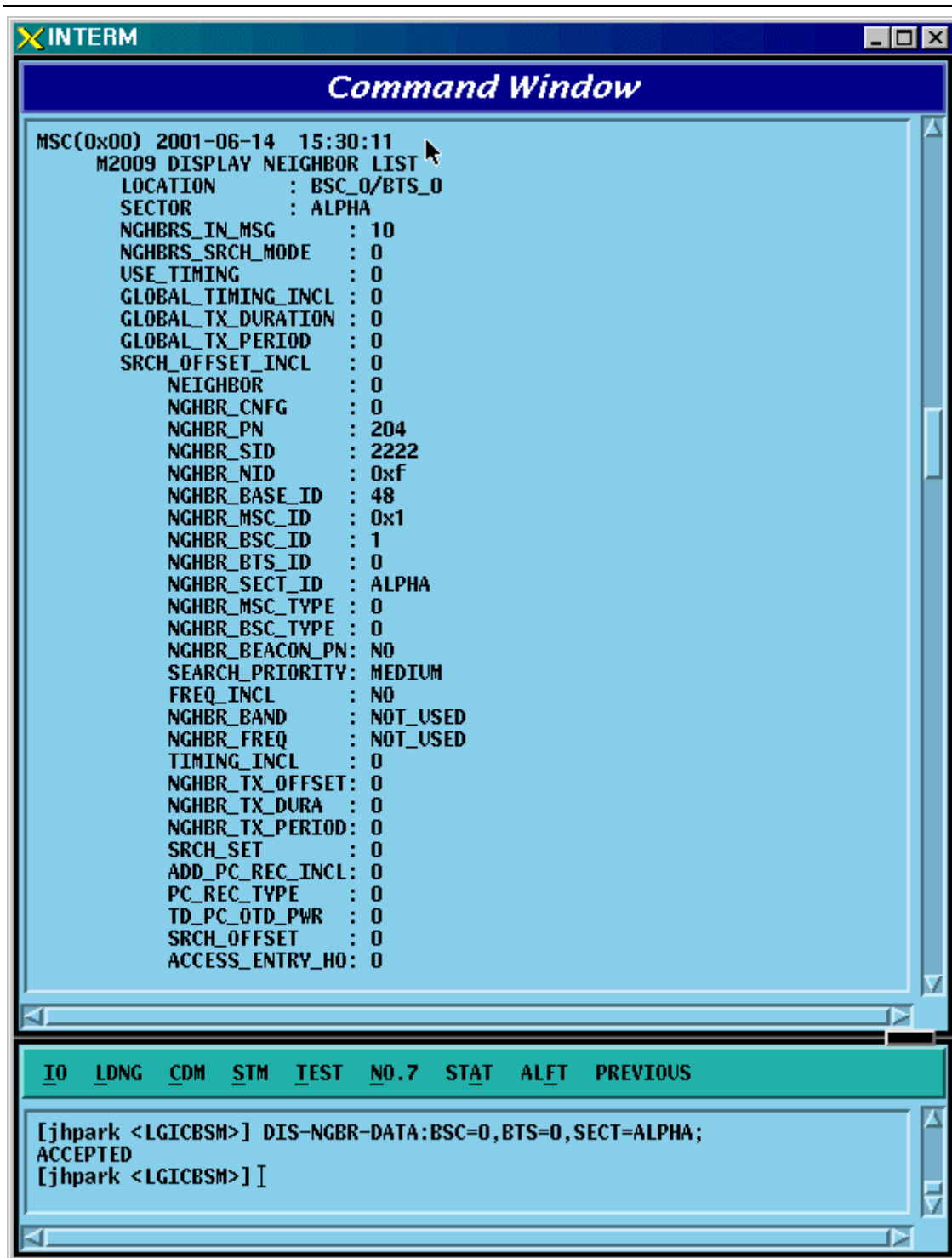


Fig. 4.3-6 Neighbor List Parameter Information Display

### 4.3.1.7. BTS QOS(Quality Of Service) Display

- Command DIS-QOS-PARA:BSC=a,BT=b;  
a : BSC Number (0 ~ 11)  
b : BTS Number (0 ~ 47)
- Input DIS-QOS-PARA:BSC=0,BTS=0;
- Output

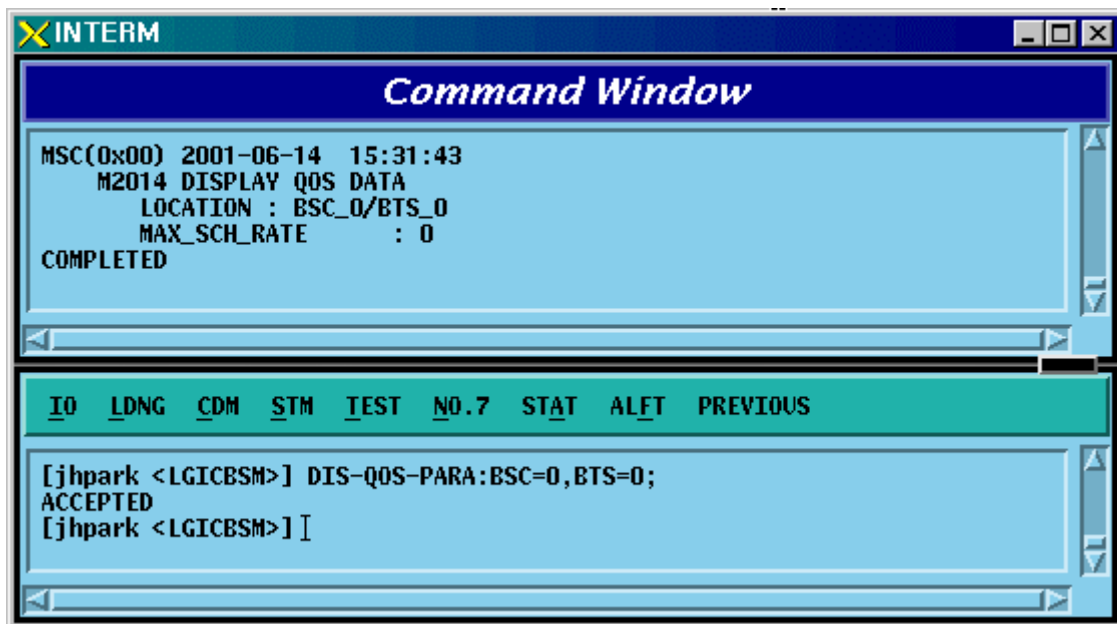


Fig. 4.3-7 BTS QOS(Quality Of Service) Display

### 4.3.1.8. CHIP Power Control Parameter Display

- Command DIS-CHIP-PWR:BSC=a,BTS=b;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
- Input DIS-CHIP-PWR:BSC=0,BTS=0;
- Output

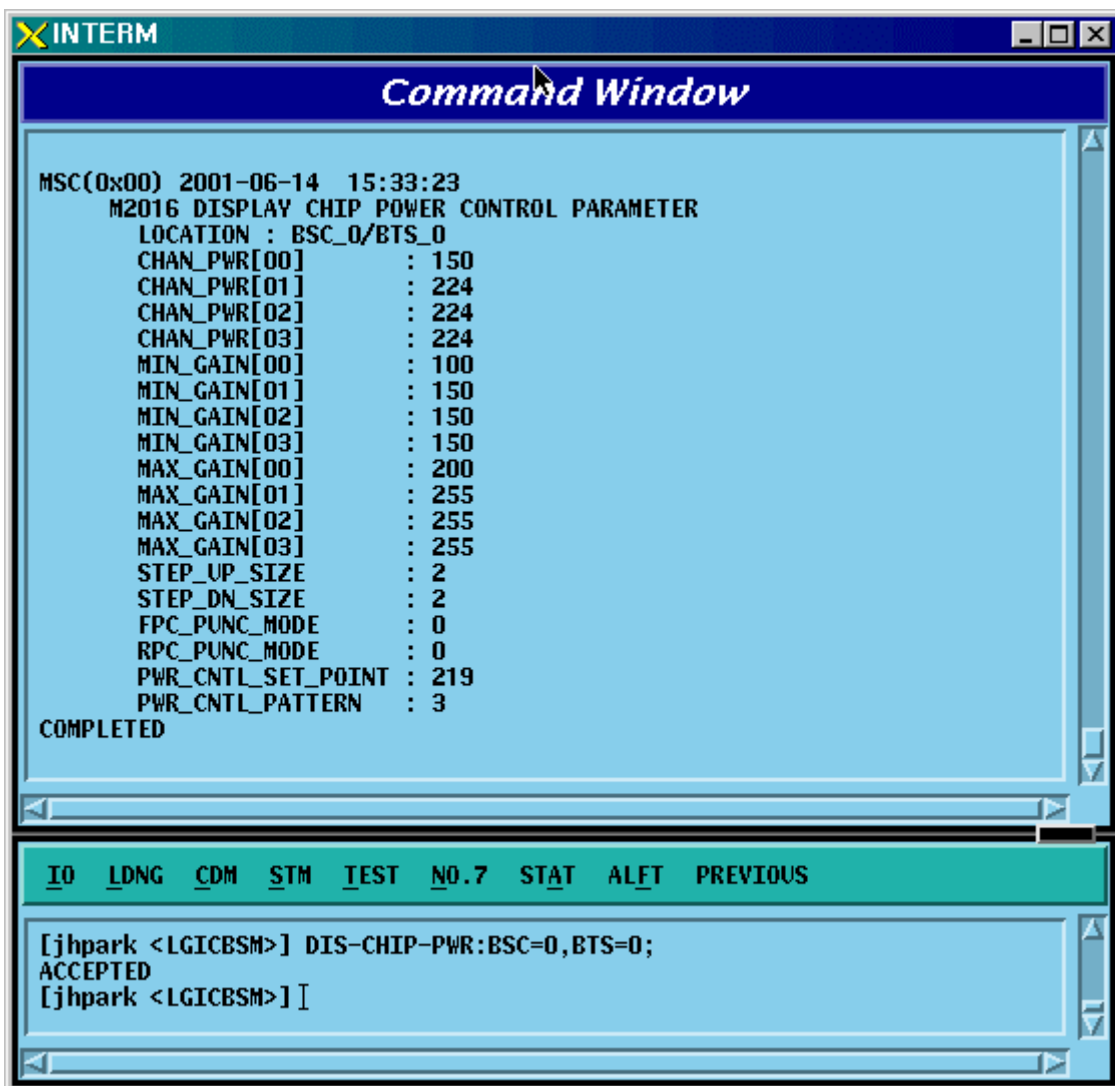


Fig. 4.3-8 Display of Parameter that Controls CHIP Power



### 4.3.1.9. OCNS State Display

Input the following commands to display transmit values, the parameter information used by BTS:

- Command DIS-OCNS-STS:BSC=a,BTS=b;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
- Input DIS-OCNS-STS:BSC=0,BTS=0;
- Output

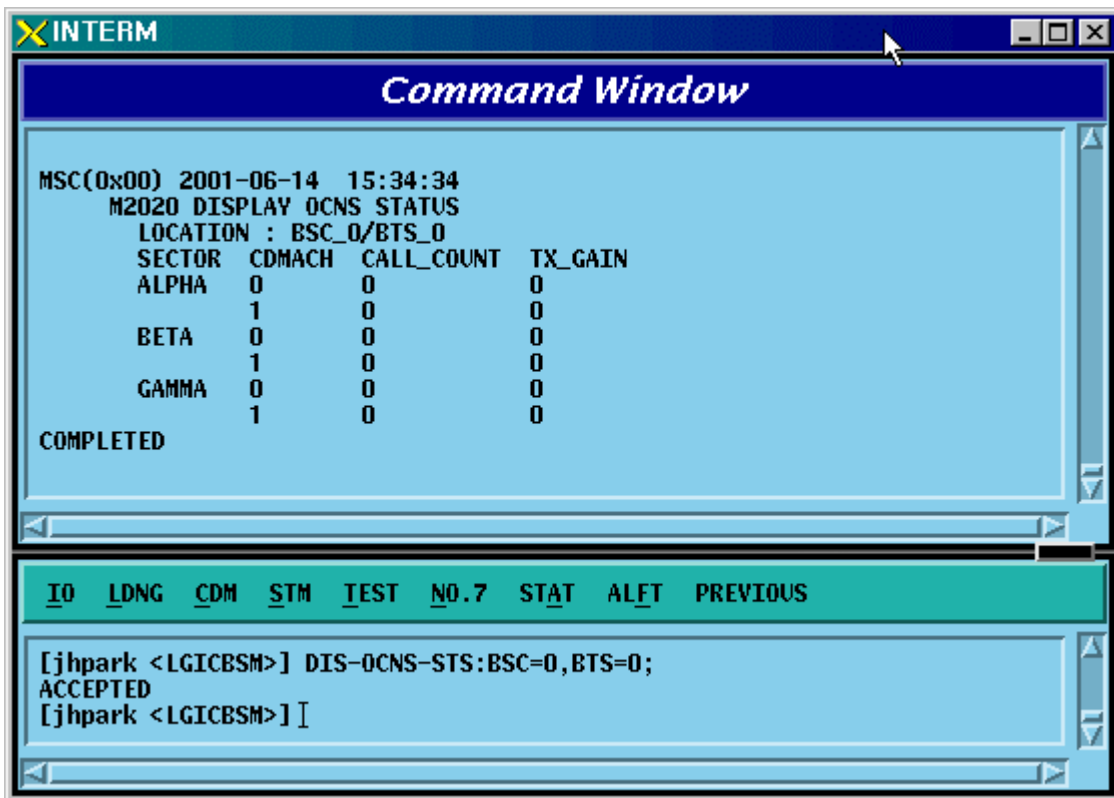


Fig. 4.3-9 OCNS State Display

#### 4.3.1.10. Current Power Control Display

- Command DIS-CUR-PWR:BSC=a,BTS=b, SECT=c, CDMACH=d;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c: SECT
  - d: CDMACH
- Input DIS-CUR-PWR:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;
- Output

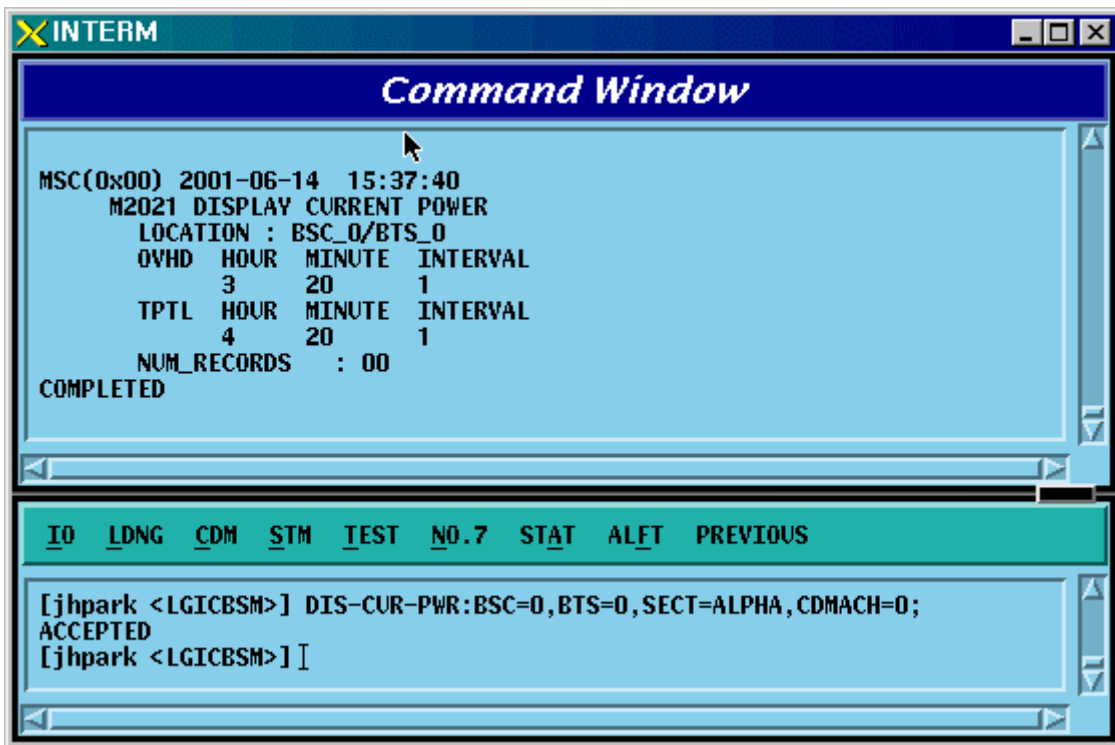


Fig. 4.3-10 Current Power Control Display

#### 4.3.1.11. TIC(Transceiver Interface Card) Data Display

Input the following commands to display transmit gain values, the parameter information used by the BTS:

- Command DIS-TIC-DATA:BSC=a,BTS\_GRP=b,BTS\_SUB=c,SECT=d,CDMACH=e;  
a : BSC Number (0 ~ 11)  
b : BTS Number (0 ~ 47)  
c : BTS Sub Number (0 ~ 3)  
d : Sector Number (ALPHA/BETA/GAMMA)  
e : CDMA Channel Number (0 ~ 7)
- Input DIS-TIC-DATA:BSC=0,BTS\_GRP=2,BTS\_SUB=0,SECT=ALPHA,CDMACH=0;
- Output

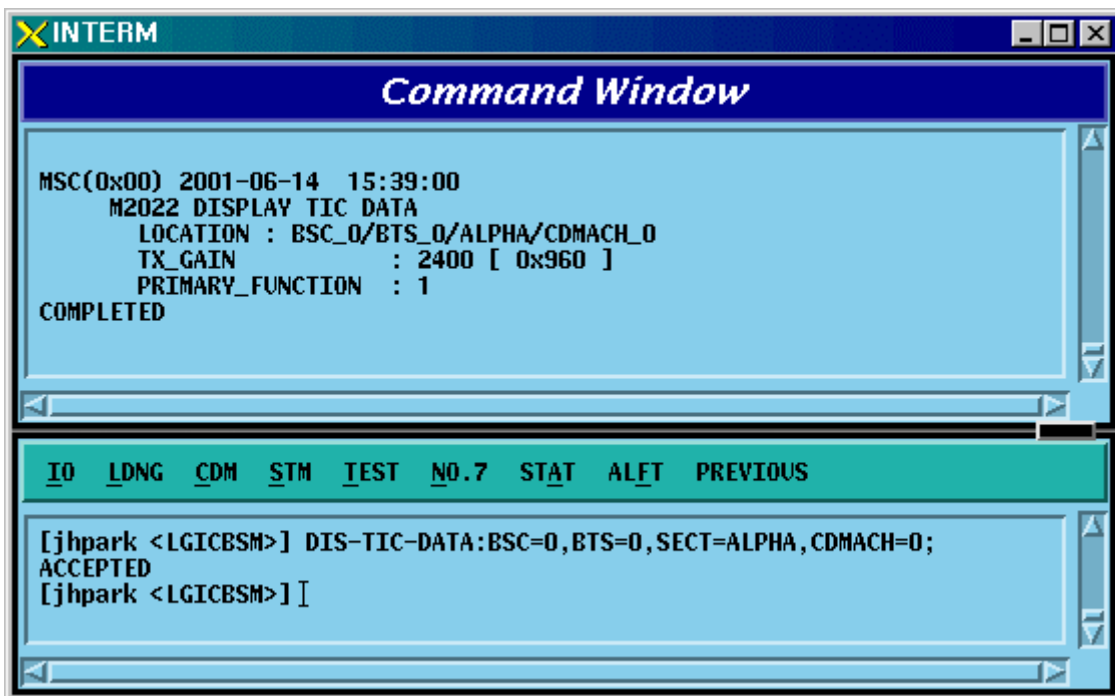


Fig. 4.3-11 TIC(Transceiver Interface Card) Data Display

### 4.3.1.12. OCNS Display

Input the following commands to display transmit gain values, the parameter information used by the BTS:

- Command DIS-OCNS-PARA:BSC=a,BTS=b,SECT=c,,CDMACH=d;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
- Input DIS-OCNS-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;
- Output

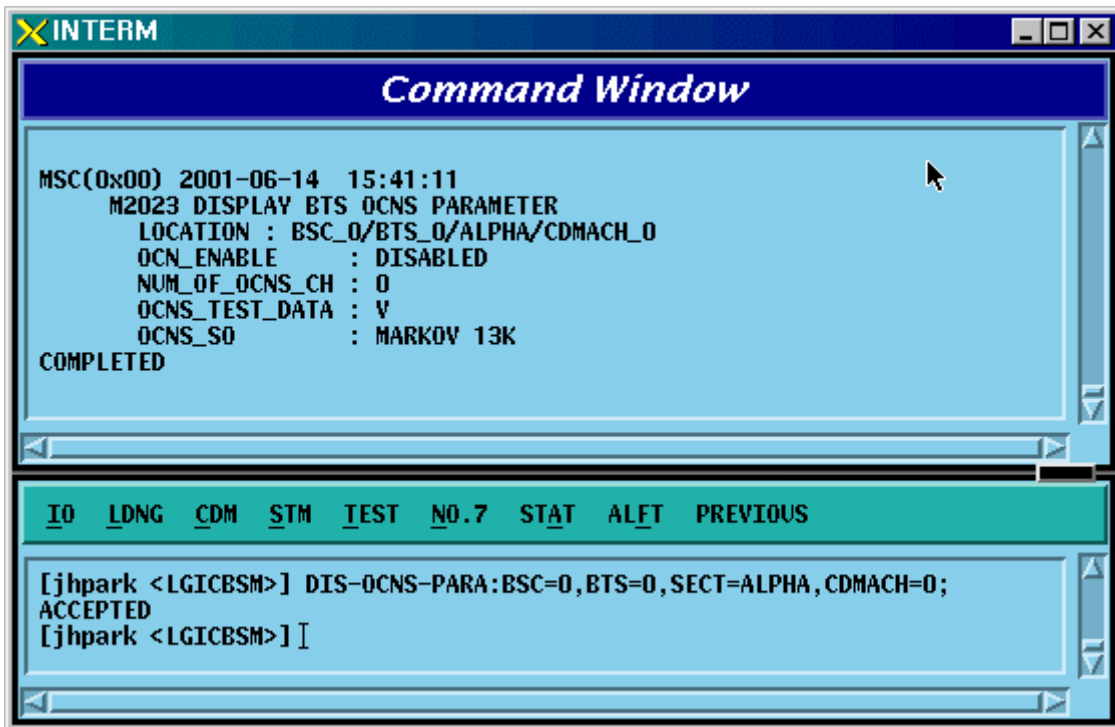


Fig. 4.3-12 OCNS Display

### 4.3.1.13. Power Management Parameter Information Display

- Command DIS-PWR-PARA:BSC=a,BTS=b,SECT=c,,CDMACH=d;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
- Input DIS-PWR-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;
- Output

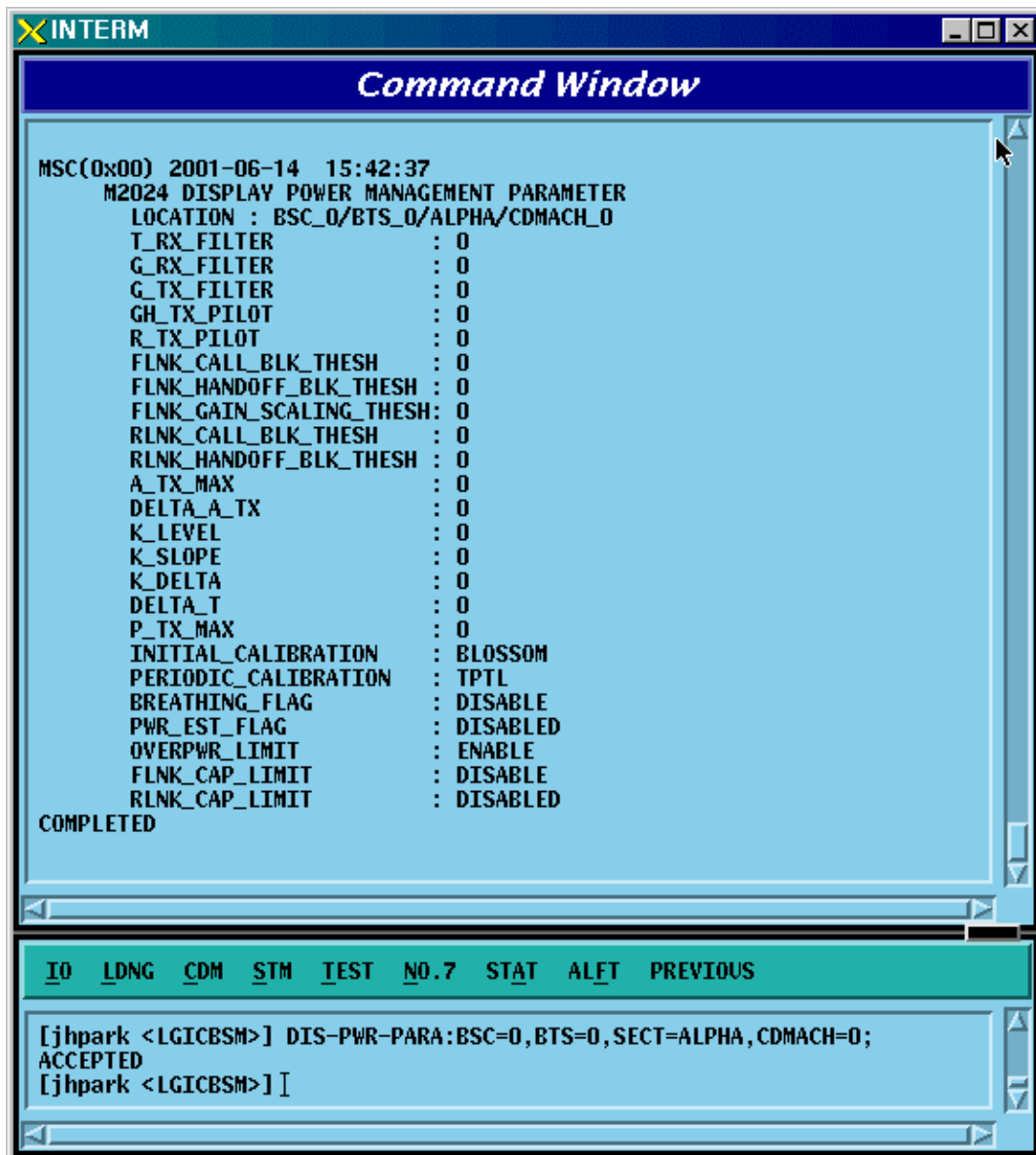


Fig. 4.3-13 Power Management Parameter Information Display

#### 4.3.1.14. Access Channel Parameter Information Display

Display the access channel parameter information.

- Command DIS-AC-PARA:BSC=a,BTS=b,SECT=c,,CDMACH=d,PC=e,AC=f;;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
  - e : Paging Channel ID (0 ~ 6)
  - f : Access Channel ID (0 ~ 6)
- Input DIS-OCNS-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0,PC=0,AC=0;
- Output

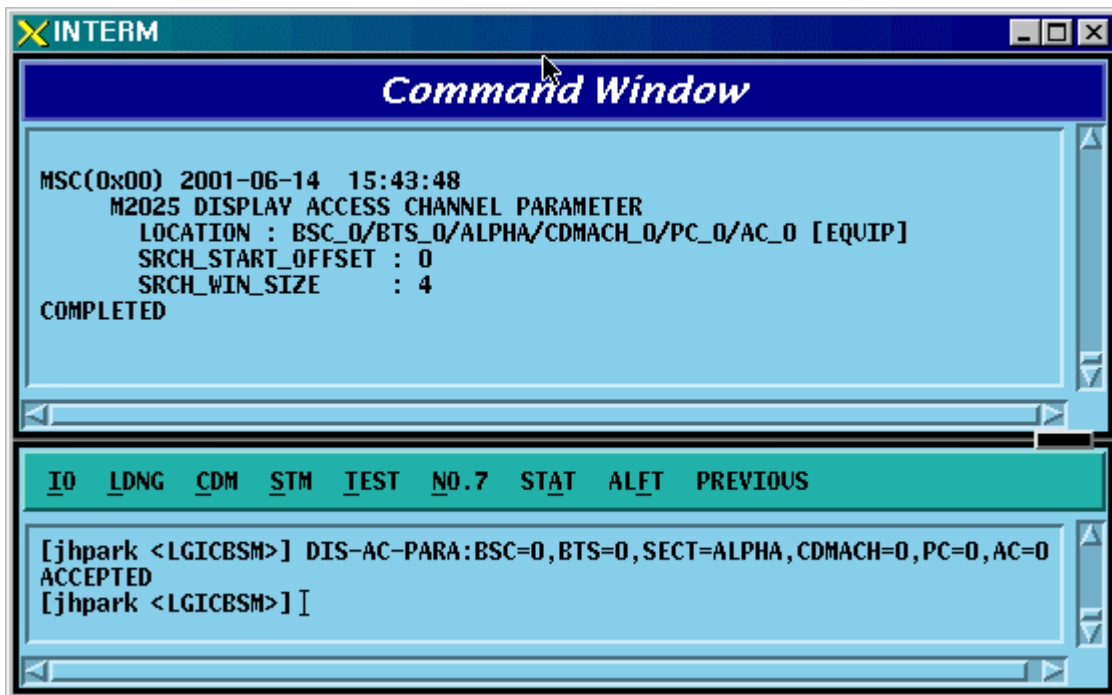


Fig. 4.3-14 Access Channel Parameter Information Display

### 4.3.1.15. TXMS Display

- Command DIS-TXMS-PARA:BSC=a,BTS=b,SECT=c,,CDMACH=d;  
a : BSC Number (0 ~ 11)  
b : BTS Number (0 ~ 47)  
c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)  
d : CDMA Channel Number (0 ~ 11)
- Input DIS-TXMS-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;
- Output

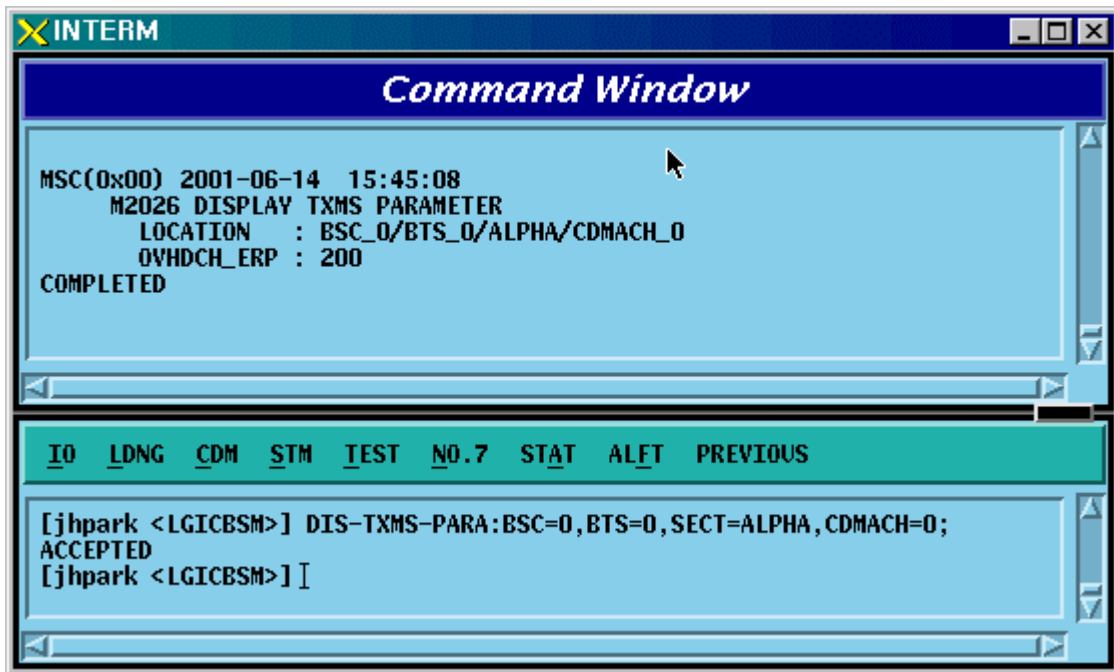


Fig. 4.3-15 TXMS Display

#### 4.3.1.16. GSRM Parameter Information Display

GSRM(Global Service Redirect Message) is the parameter information that determines the system where a call is to be tried after MS power is on. It can be inquired using the following commands:

- Command DIS-GSRM-PARA:BSC=a,BTS=b,SECT=c;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
- Input DIS-GSRM-PARA:BSC=0,BTS=0,SECT=ALPHA;
- Output

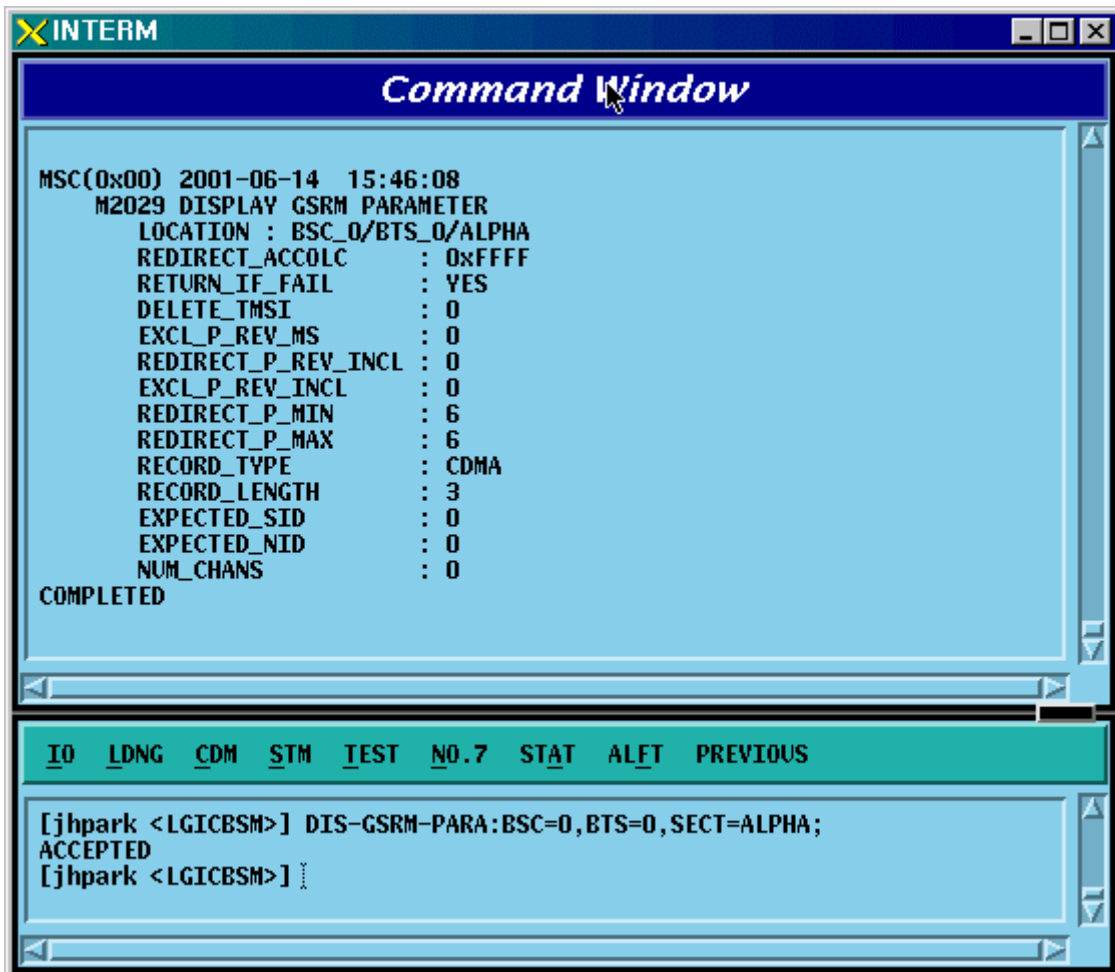




Fig. 4.3-16 GSRM Parameter Information Display

#### 4.3.1.17. Access Parameter Message Display

As an Overhead message that is transmitted from BTS to MS through the paging channel, the Access Parameter Message indicates the way for MS to access BTS through Access channel contains the information to be used for the call processing, handoff procedures, registration, etc. Input the following command to display the Access Parameter Message.

- Command DIS-ACC-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d, PC=e;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
  - e : Paging Channel ID
- Input DIS-ACC-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0,PC=0;
- Output

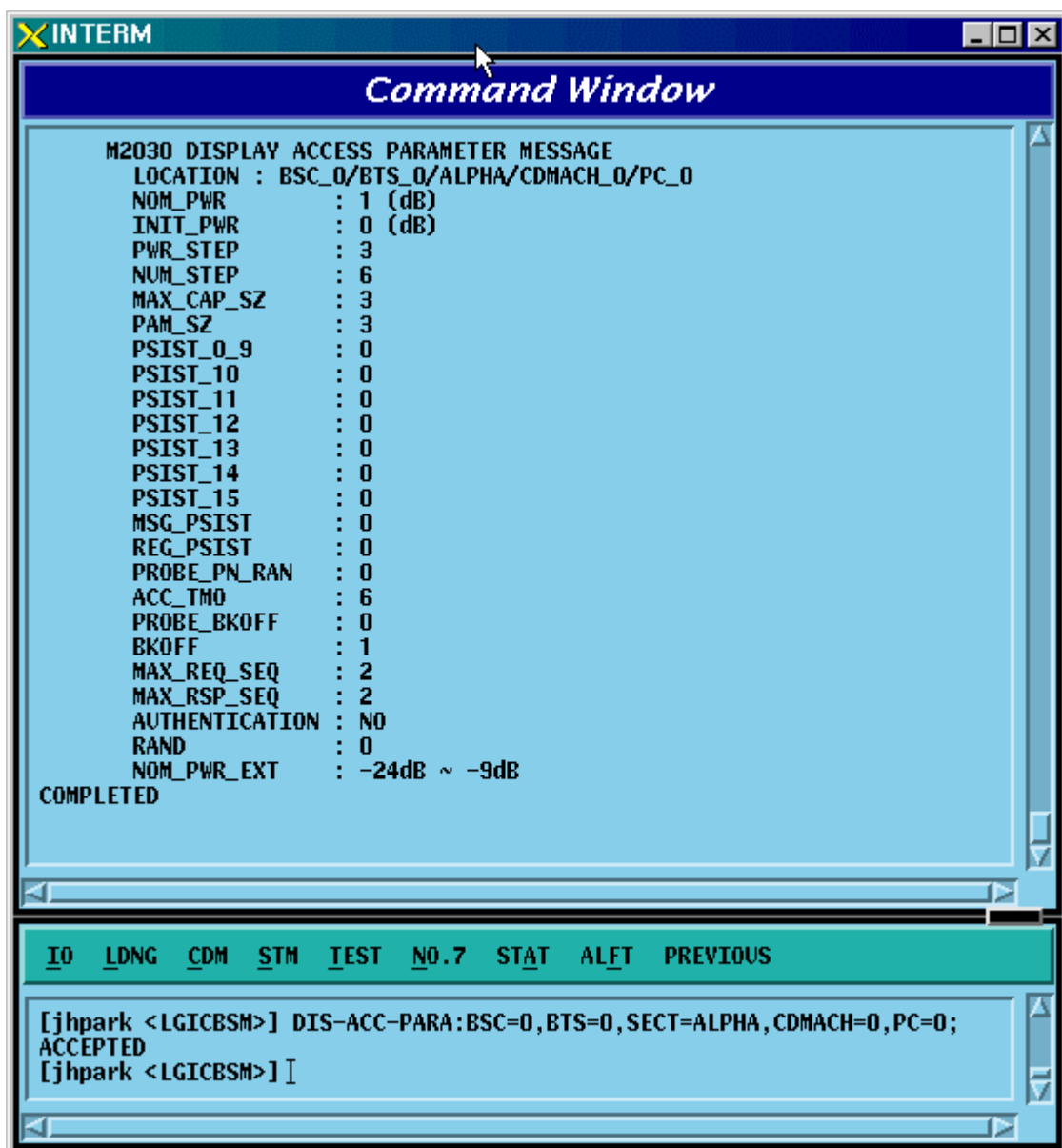


Fig. 4.3-17 Access Parameter Message Display

### 4.3.1.18. Paging Channel Parameter Information Display

Use the following command to display the transmit value of the paging channel:

- Command DIS-PC-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d, PC=e;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
  - e : Paging Channel ID
- Input DIS-PC-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0,PC=0;
- Output

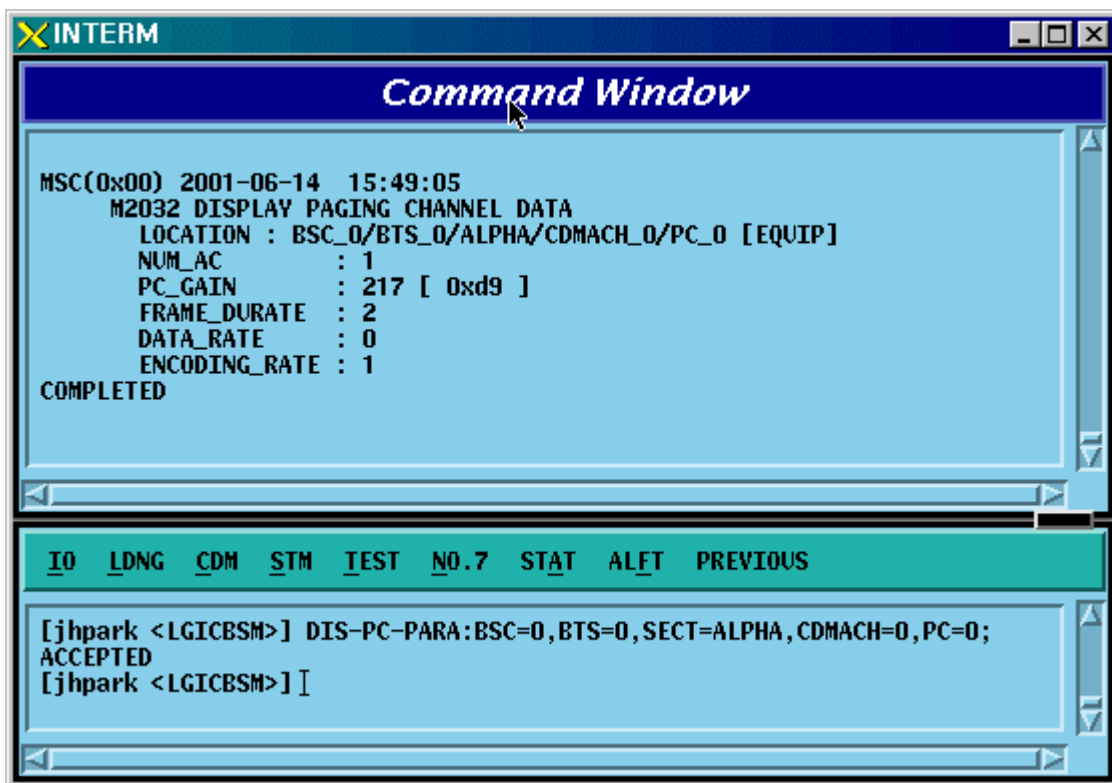


Fig. 4.3-18 Paging Channel Parameter Information Display

### 4.3.1.19. Pilot Channel Parameter Information Display

Use the following command to display the gain value of the pilot channel:

- Command DIS-PICH-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d;  
a : BSC Number (0 ~ 11)  
b : BTS Number (0 ~ 47)  
c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)  
d : CDMA Channel Number (0 ~ 11)
- Input DIS-PICH-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;
- Output

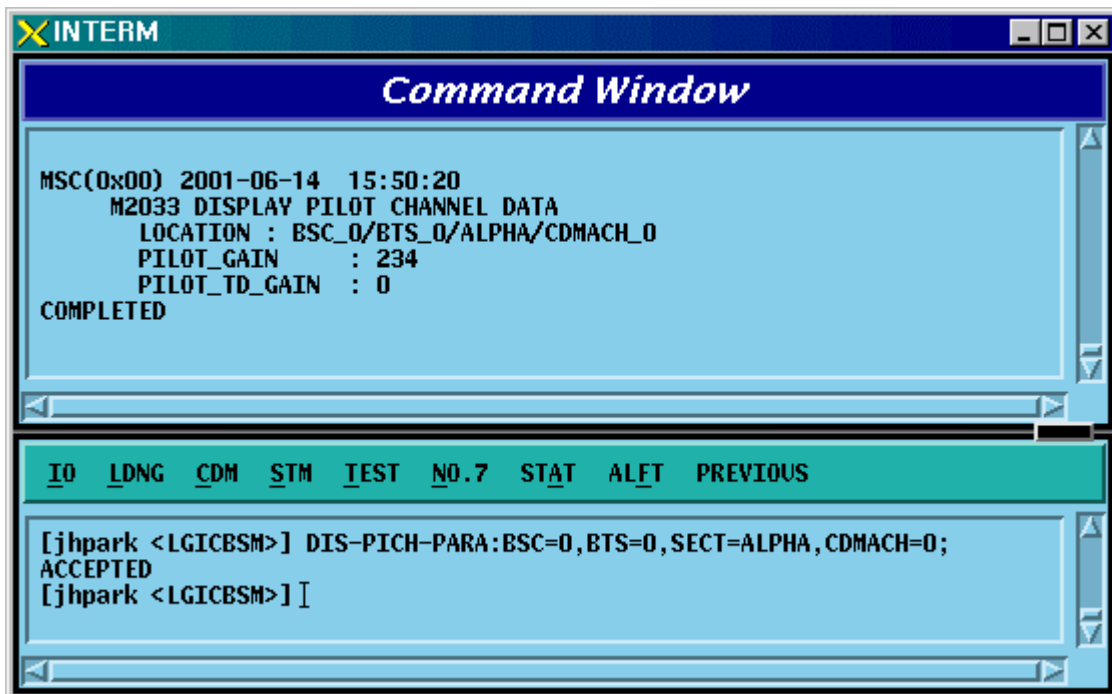


Fig. 4.3-19 Pilot Channel Parameter Information Display

### 4.3.1.20. Sync. Channel Parameter Information Display

Use the following command to display the gain value of the sync. channel:

- Command DIS-SC-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d;  
a : BSC Number (0 ~ 11)  
b : BTS Number (0 ~ 47)  
c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)  
d : CDMA Channel Number (0 ~ 11)
- Input DIS-SC-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0;
- Output

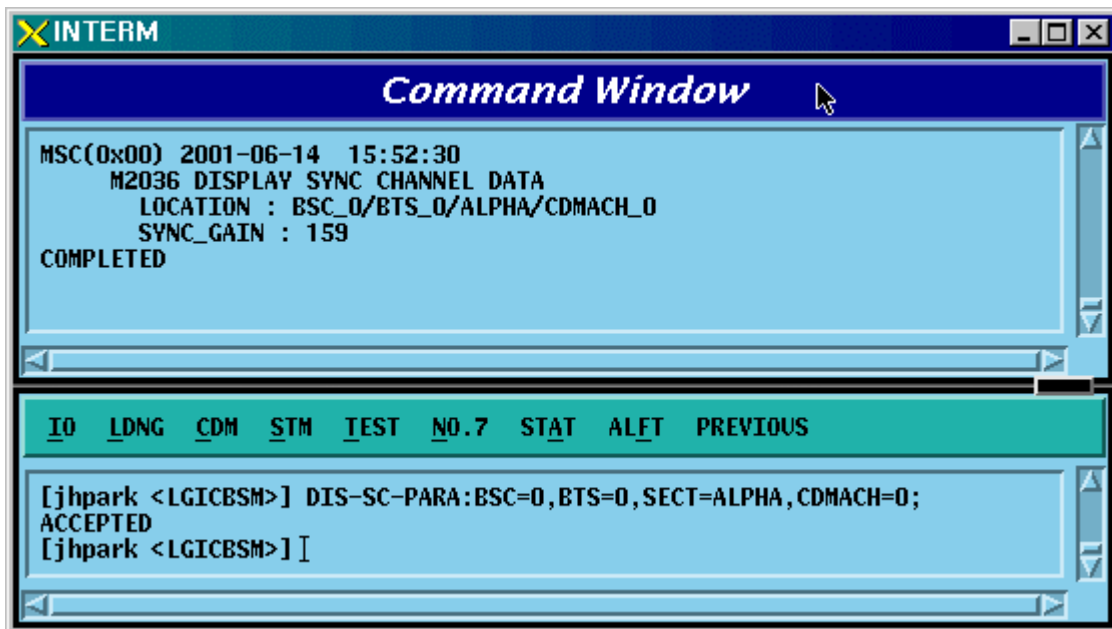


Fig. 4.3-20 Sync. Channel Parameter Information Display

### 4.3.1.21. Quick Paging Channel Parameter Information Display

Use the following command to display the gain value of the quick paging channel:

- Command DIS-QPC-PARA:BSC=a,BTS=b,SECT=c,CDMACH=d, QPC=e;
  - a : BSC Number (0 ~ 11)
  - b : BTS Number (0 ~ 47)
  - c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
  - d : CDMA Channel Number (0 ~ 11)
  - e : Quick Paging Channel ID
- Input DIS-QPC-PARA:BSC=0,BTS=0,SECT=ALPHA,CDMACH=0, QPC=0;
- Output

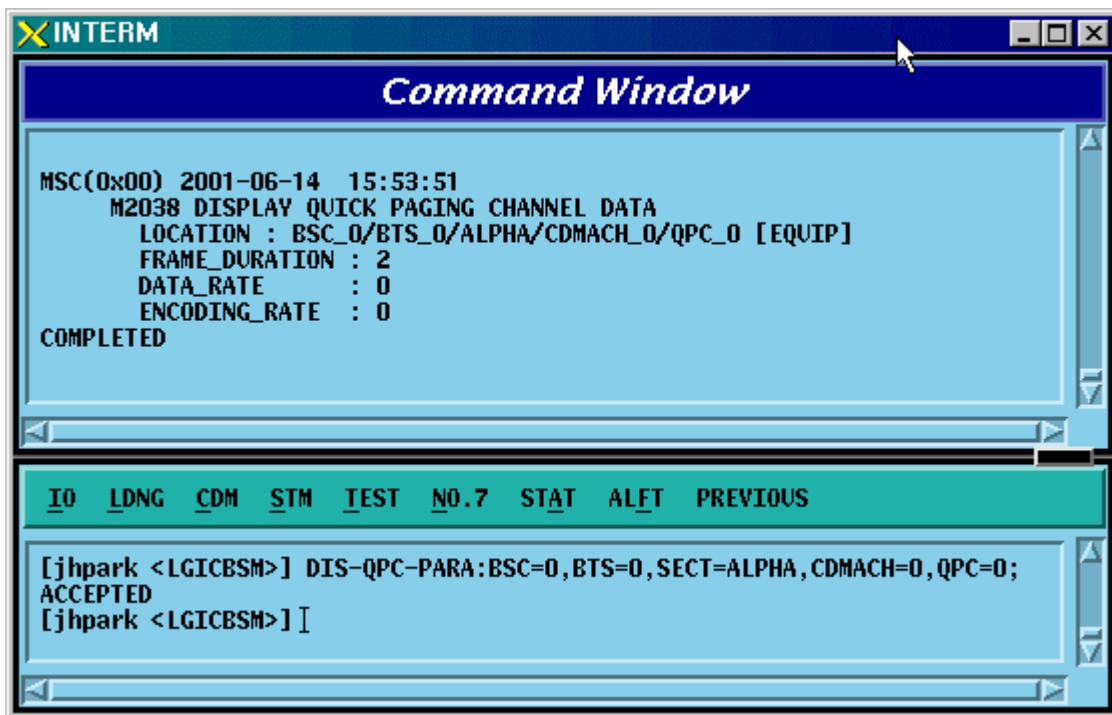


Fig. 4.3-21 Quick Paging Channel Parameter Information Display

### 4.3.1.22. Hopping Pilot Beacon Channel Parameter Information Display

- Command DIS-BCON-PARA:BSC=a,BTS=b,SECT=c;  
a : BSC Number (0 ~ 11)  
b : BTS Number (0 ~ 47)  
c : Sector Number (ALPHA/BETA/GAMMA/DELTA/EPSILON/ZETA)
- Input DIS-BCON-PARA:BSC=0,BTS=0,SECT=ALPHA;
- Output

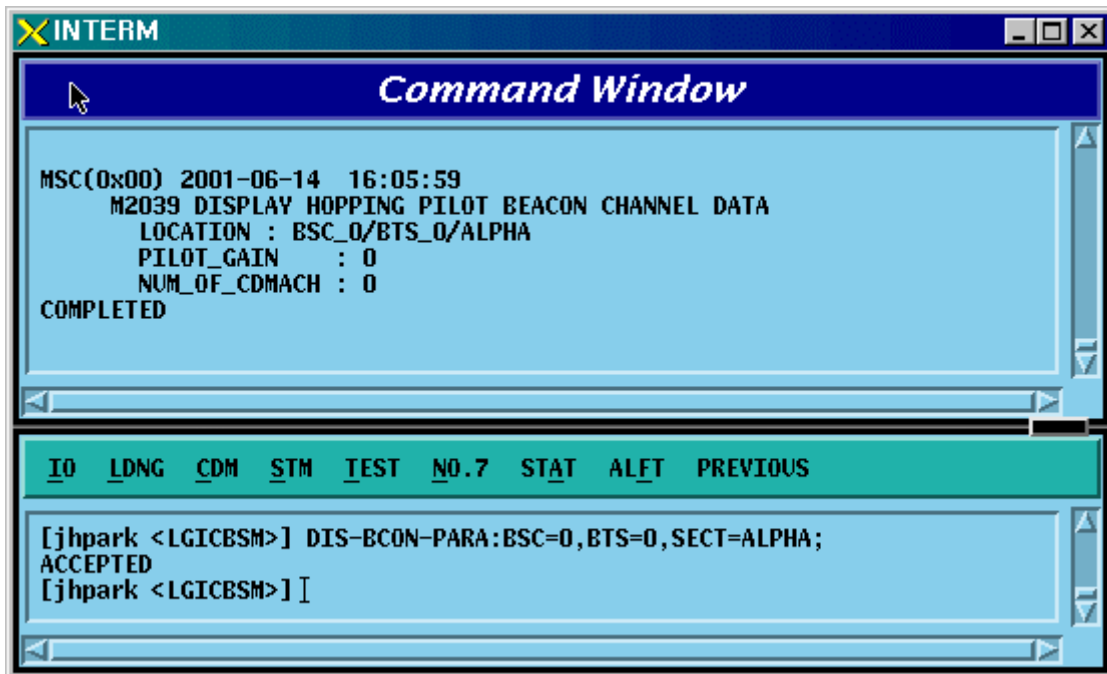


Fig. 4.3-22 Hopping Pilot Beacon Channel Parameter Information Display



4.3.2. Parameter Information Display  
(Display\_Parameter\_Information\_2)

4.3.2.1. BSC Information Verification

- Command DIS-BSC-DATA: BSC=a;  
a : BSC Number(0~11)
- Input DIS-BSC-DATA: BSC=0;
- Output

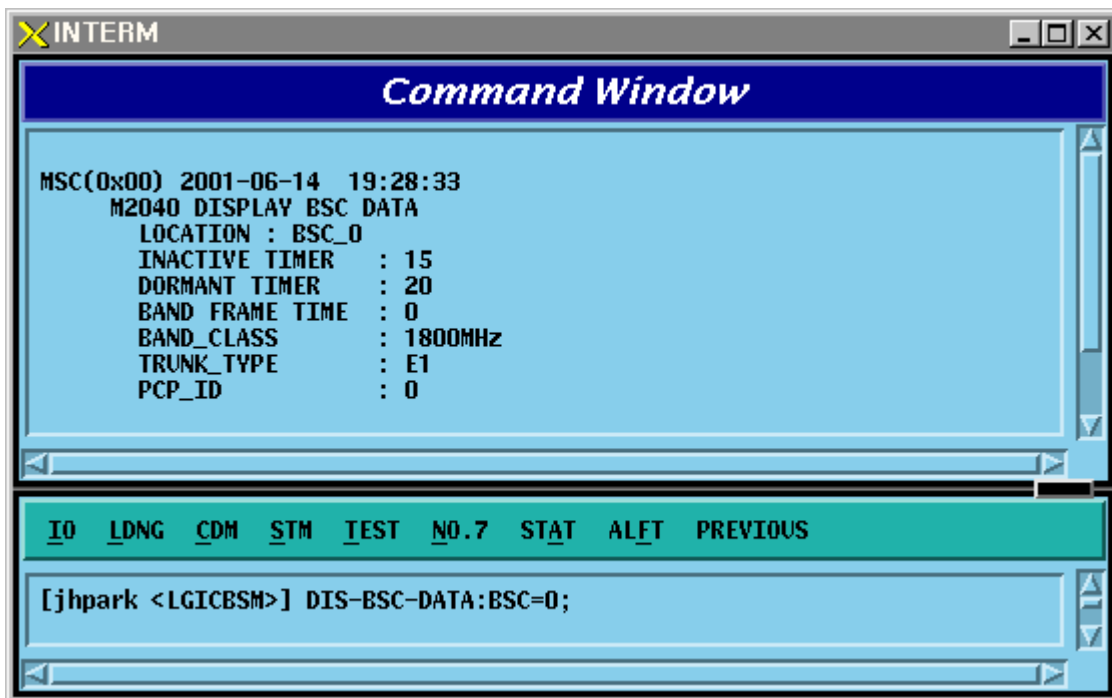


Fig. 4.3-23 BSC Information Verification

### 4.3.2.2. IOS Parameter Verification

- Command DIS-**IOS-PARA**: BSC=**a**;  
a : BSC Number(0~11)
- Input DIS-**IOS-PARA**: BSC=0;
- Output

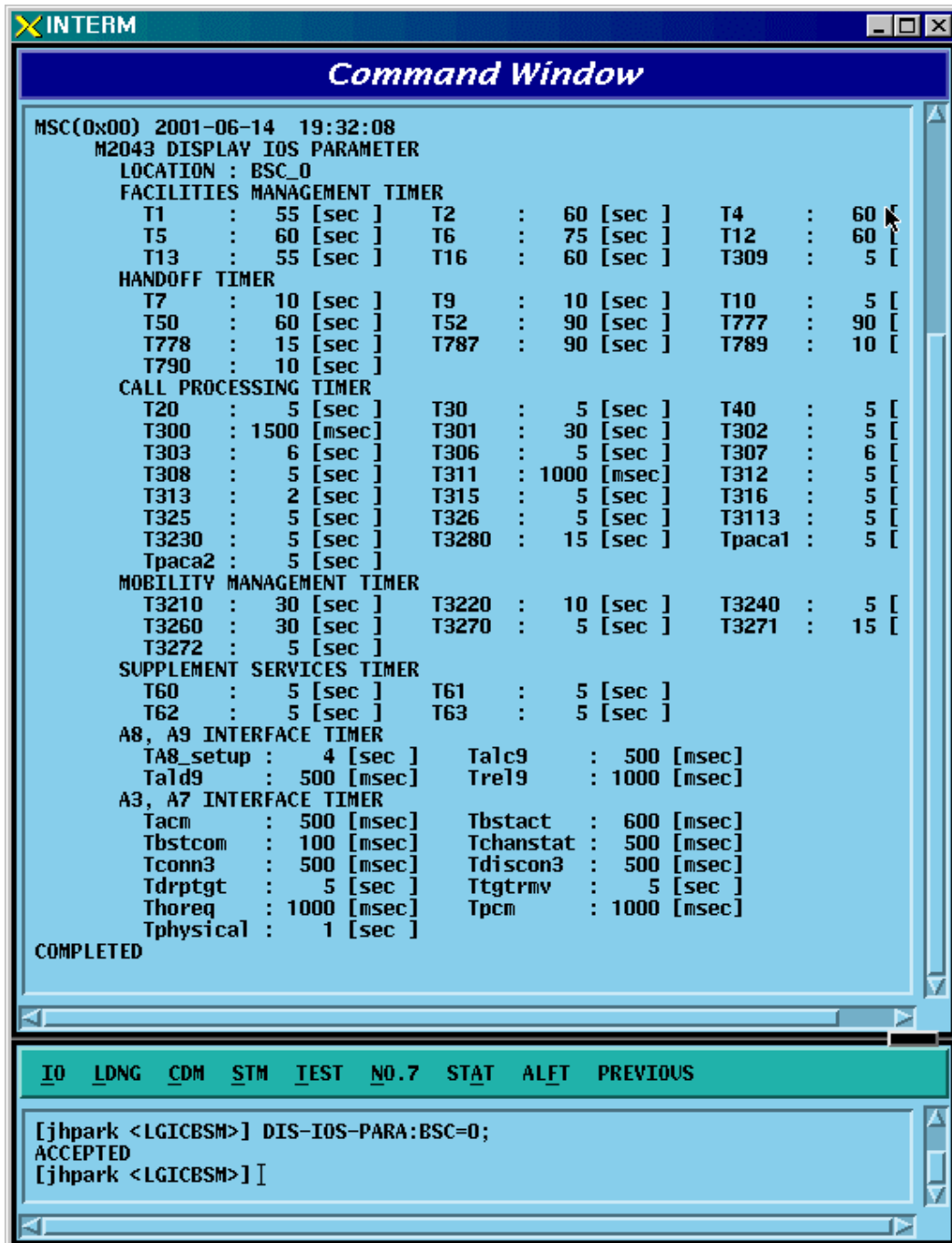


Fig. 4.3-24 IOS Parameter Verification

### 4.3.2.3. Forward Link Power Management Information (RS1) Verification

Rate Set 1 transmits data at the speed of 9600,4800,2400,1200 bps. Input the following command to check the parameter information for RS1 Forward Link Power Management. Among the input values, FER (Frame Error Rate) has the value ranging from 0.5%, 1 to 5%.

- Command DIS-RS1-FWDP: BSC=a, BTS=b, FER=c;
  - a : BSC Number(0~11)
  - b: BTS Number(0~47)
  - c:FER

(POINT\_5/PERCENT\_1/PERCENT\_2/PERCENT\_3/PERCENT\_4/PERCET\_5)

- Input DIS-RS1-FWDP: BSC=0, BTS=0, FER=POINT\_5;
- Output

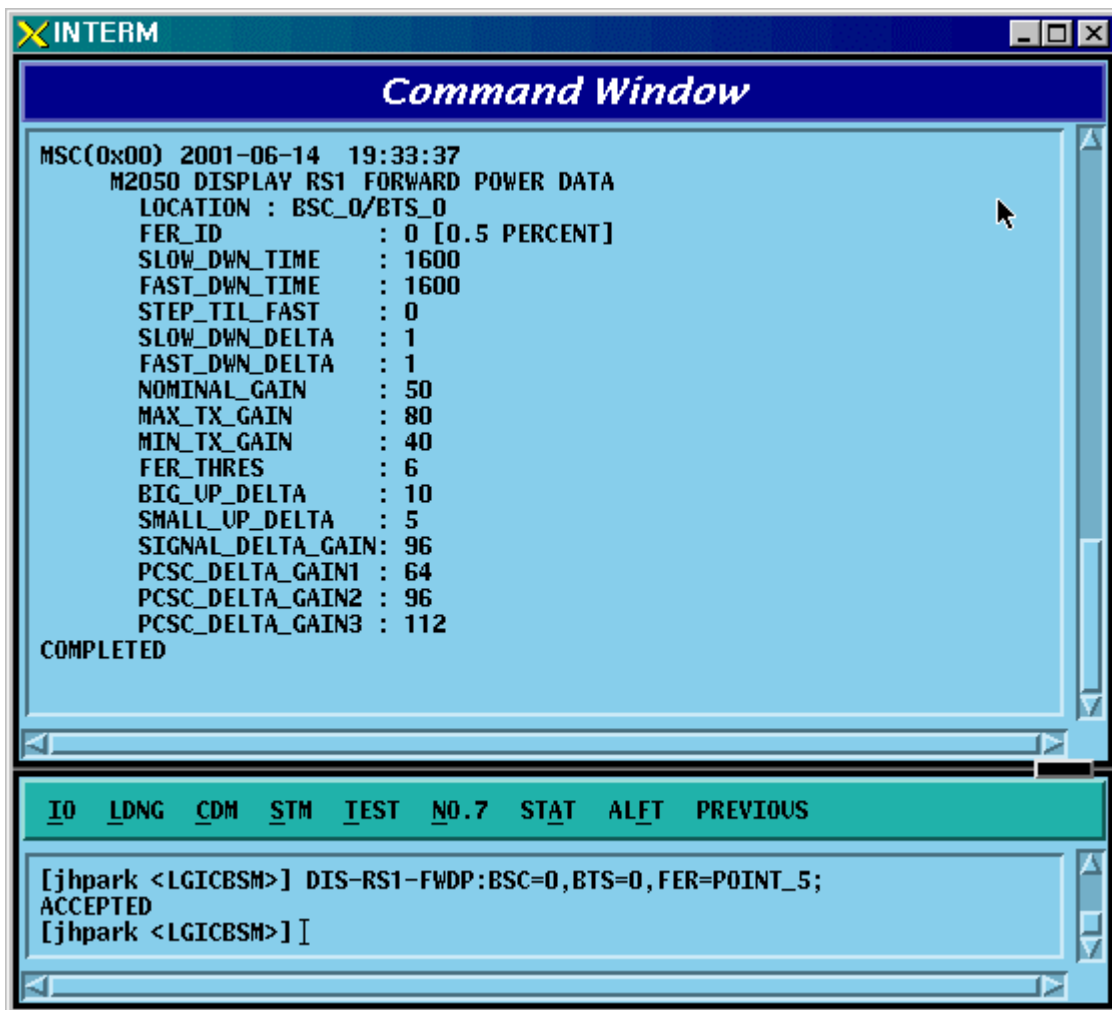


Fig. 4.3-25 Forward Link Power Management Information (RS1) Verification

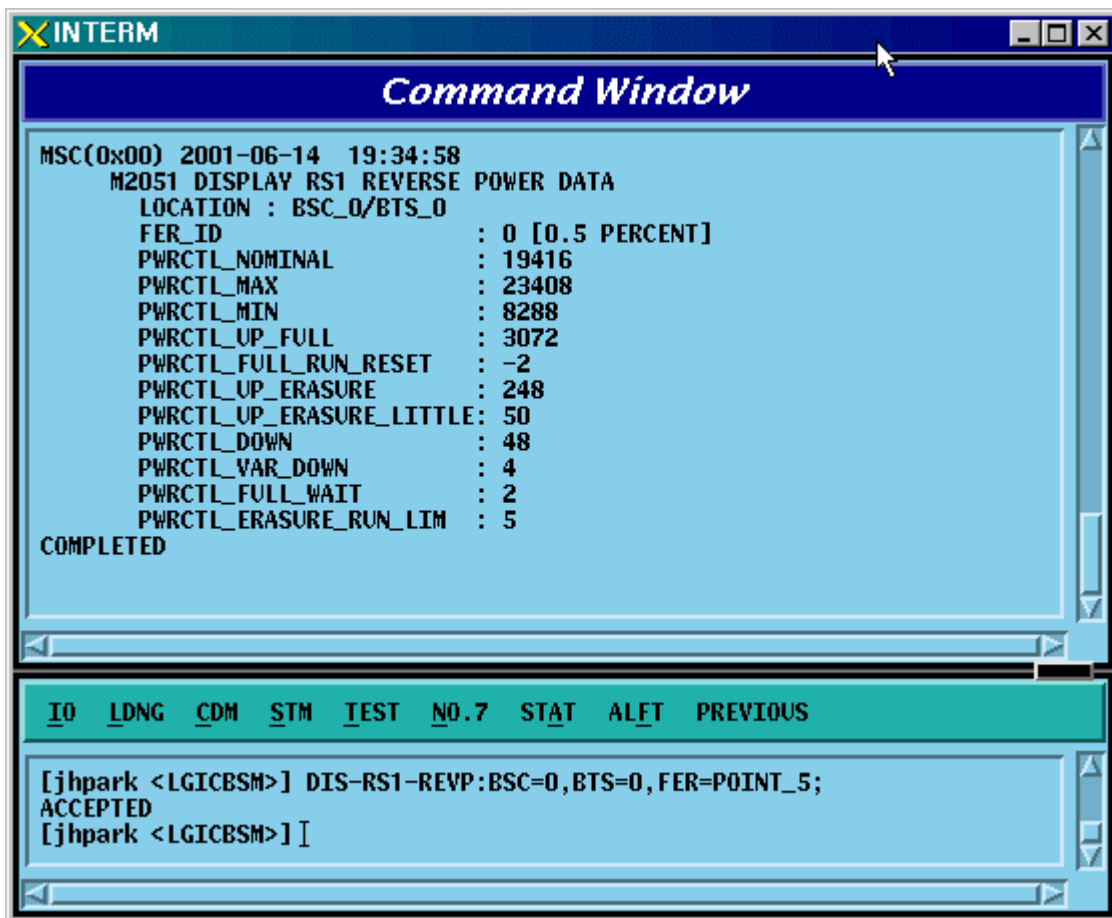
#### 4.3.2.4. Backward Link Power Management Information (RS1) Verification

Rate Set 1 transmits data at the speed of 9600,4800,2400,1200 bps. Input the following command to check the parameter information for RS1 backward Link Power Management. Among the input values, FER (Frame Error Rate) has the value ranging from 0.5%, 1 to 5%.

- Command DIS-RS1-REVP: BSC=a, BTS=b, FER=c;
  - a : BSC Number(0~11)
  - b: BTS Number(0~47)
  - c:FER

(POINT\_5/PERCENT\_1/PERCENT\_2/PERCENT\_3/PERCENT\_4/PERCET\_5)

- Input DIS-RS1-REVP: BSC=0, BTS=0, FER=POINT\_5;
- Output



---

Fig. 4.3-26 Backward Link Power Management Information (RS1) Verification

#### 4.3.2.5. Forward Link Power Management (RS2) Verification

Rate Set 2 transmits data at the speed of 14400,7200,3600,1800 bps. Input the following command to check the parameter information for RS2 Forward Link Power Management. Among the input values, FER (Frame Error Rate) has the value ranging from 0.5%, 1 to 5%.

- Command DIS-RS2-FWDP: BSC=a, BTS=b, FER=c;

a : BSC Number(0~11)

b: BTS Number(0~47)

c:FER

(POINT\_5/PERCENT\_1/PERCENT\_2/PERCENT\_3/PERCENT\_4/PERCET\_5)

- Input DIS-RS2-FWDP: BSC=0, BTS=0, FER=POINT\_5;
- Output

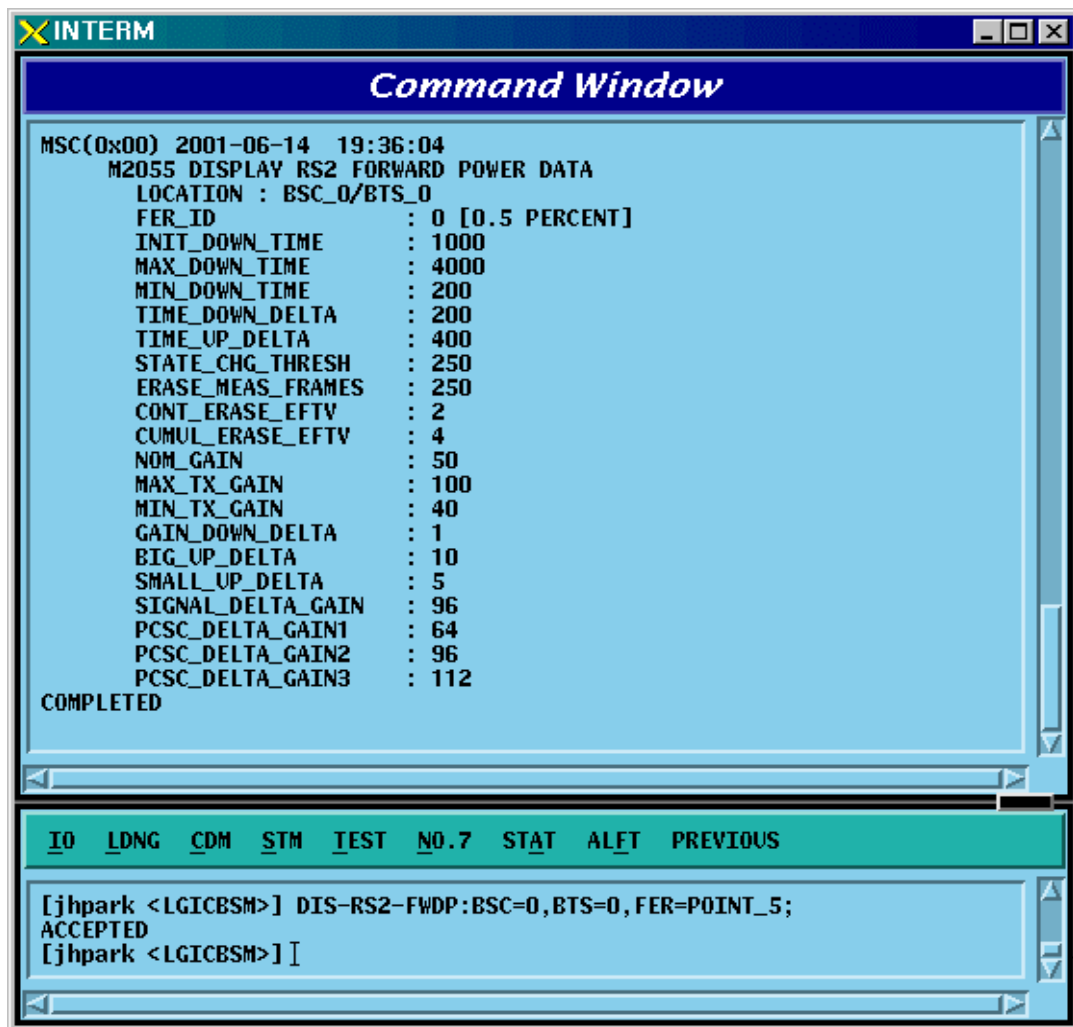


Fig. 4.3-27 Forward Link Power Management Information (RS2) Verification



#### 4.3.2.6. Backward Link Power Management Information (RS2) Verification

Rate Set 2 transmits data at the speed of 14400,7200,3600,1800 bps. Input the following command to check the parameter information for RS2 Backward Link Power Management. Among the input values, FER (Frame Error Rate) has the value ranging from 0.5%, 1 to 5%.

- Command DIS-RS2-REVP: BSC=a, BTS=b, FER=c;

a : BSC Number(0~11)

b: BTS Number(0~47)

c:FER

(POINT\_5/PERCENT\_1/PERCENT\_2/PERCENT\_3/PERCENT\_4/PERCET\_5)

- Input DIS-RS2-REVP: BSC=0, BTS=0, FER=POINT\_5;
- Output

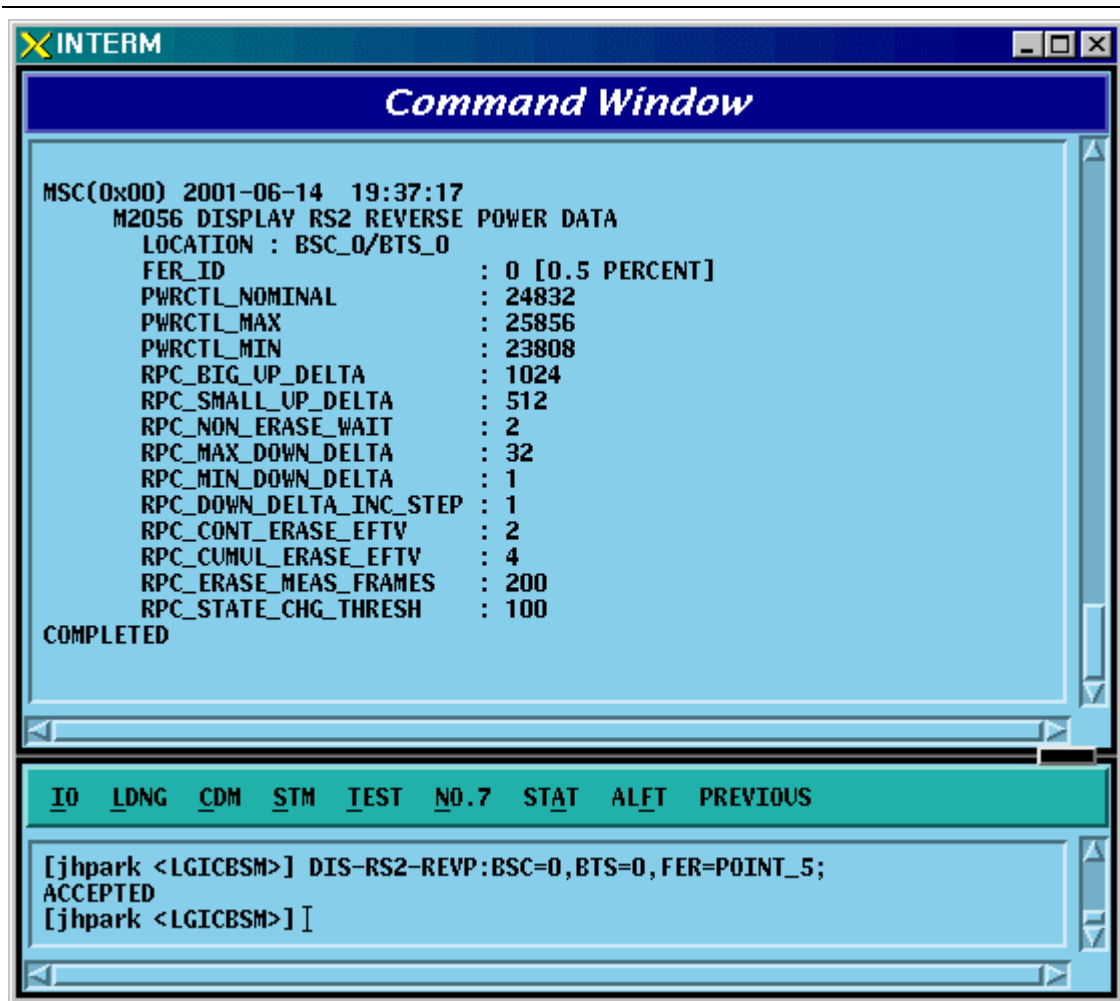


Fig. 4.3-28 Backward Link Power Management Information (RS2) Verification

#### 4.3.2.7. Service Option FER Verification

Target FER can be designated by the Service Option. Input the following command to display this information. In the next display, 1% Target FER is applied for the "8K VOICE" Service Option and for this, the following power management information is used: RS1 forward link power management information, RS1 backward link power management information, RS2 forward link power management information, and RS2 backward (or reverse-direction) link power management information.

- Command DIS-FER-PARA: BSC=a;  
a : BSC Number(0~11)
- Input DIS-FER-PARA: BSC=0;
- Output

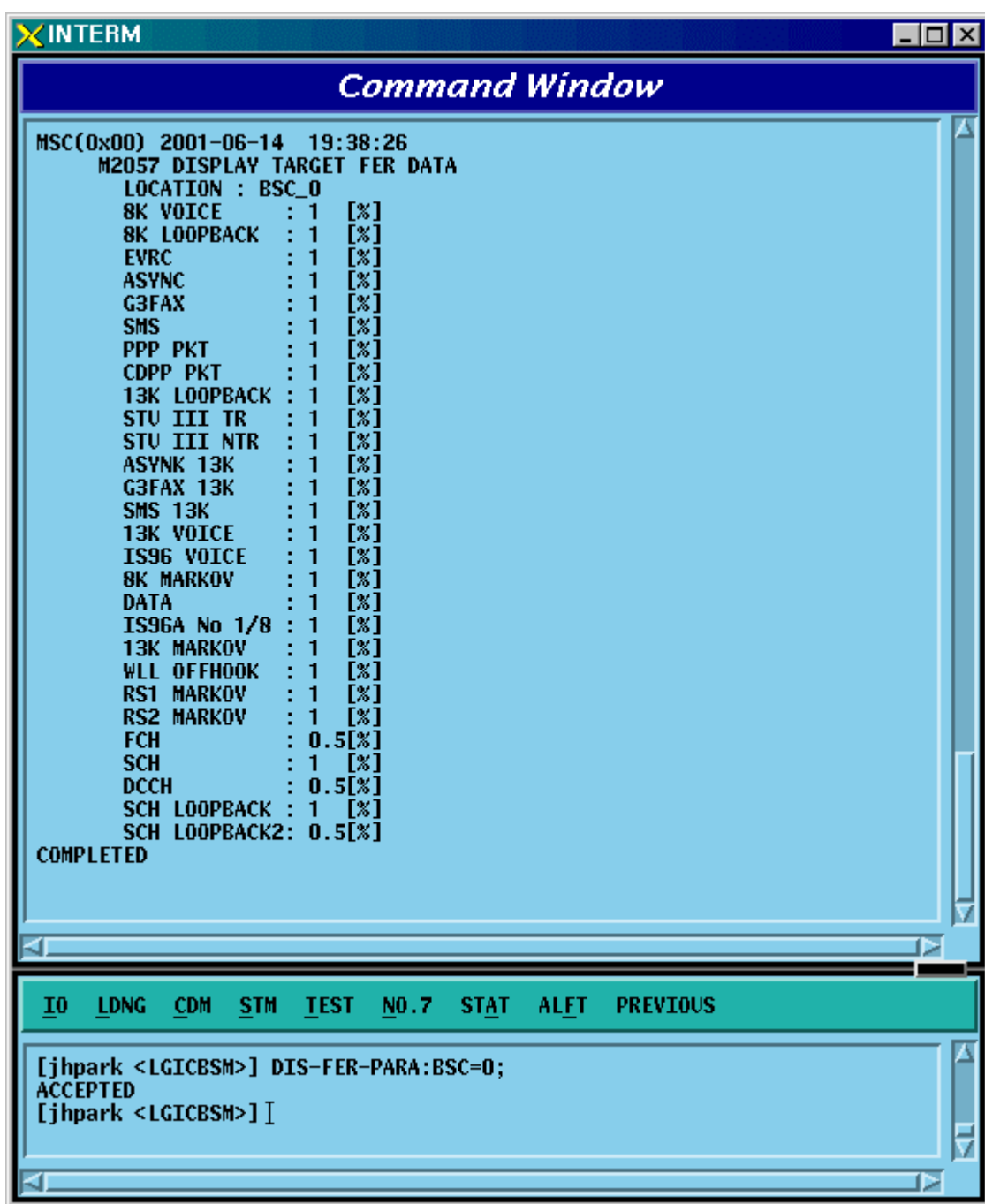


Fig. 4.3-29 Service Option FER Verification

### 4.3.2.8. MAHHO Verification

- Command DIS-MAHH-PARA: BSC=a, BTS=b, SECT=c;
  - a : BSC Number(0~11)
  - b: BTS Number(0~47)
  - c: Sector Id .(ALPHA/BETA/GAMMA)
- Input DIS-MAHH-PARA: BSC=0,BTS=0,SECT=ALPHA;
- Output

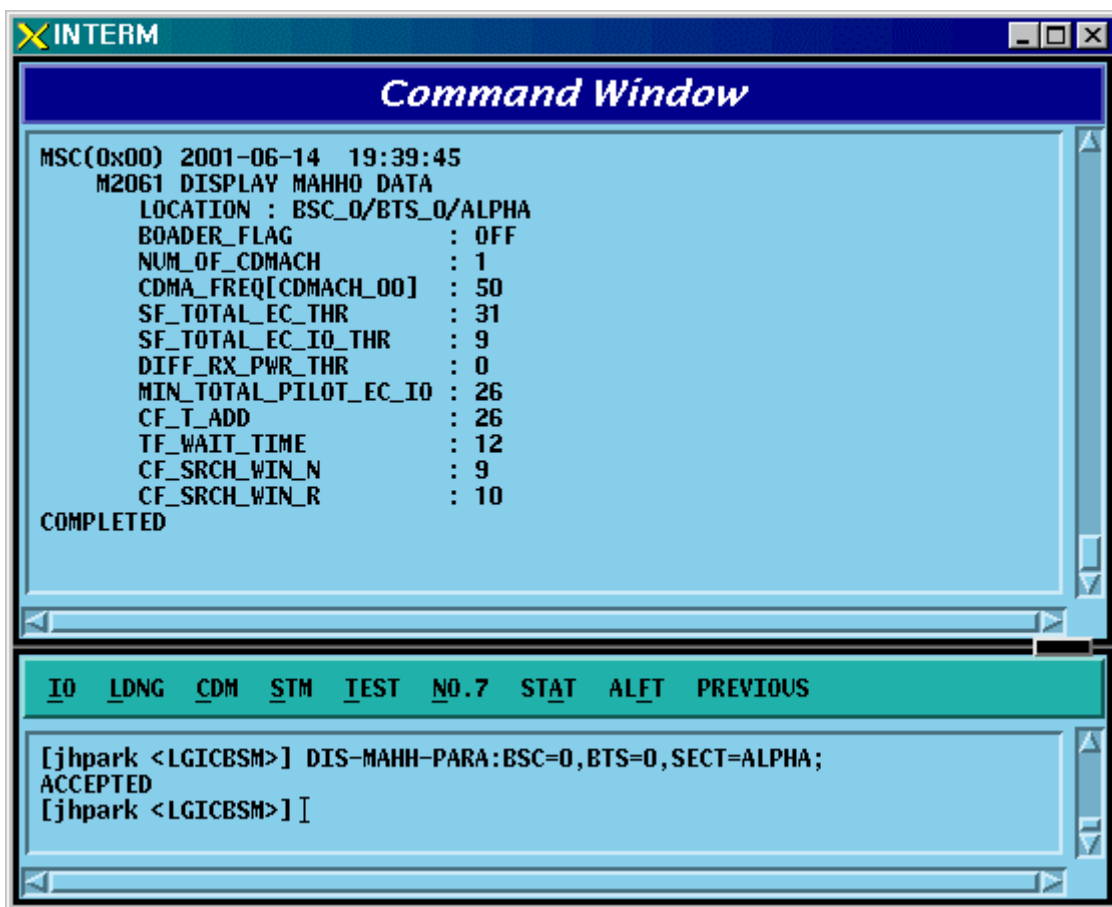


Fig. 4.3-30 MAHHO Verification

### 4.3.2.9. LOCATION Verification

- Command DIS-LOC-PARA: BSC=a, BTS=b, SECT=c;
  - a : BSC Number(0~11)
  - b: BTS Number(0~47)
  - c: Sector Id .(ALPHA/BETA/GAMMA)
- Input DIS-LOC-PARA: BSC=0,BTS=0,SECT=ALPHA;
- Output

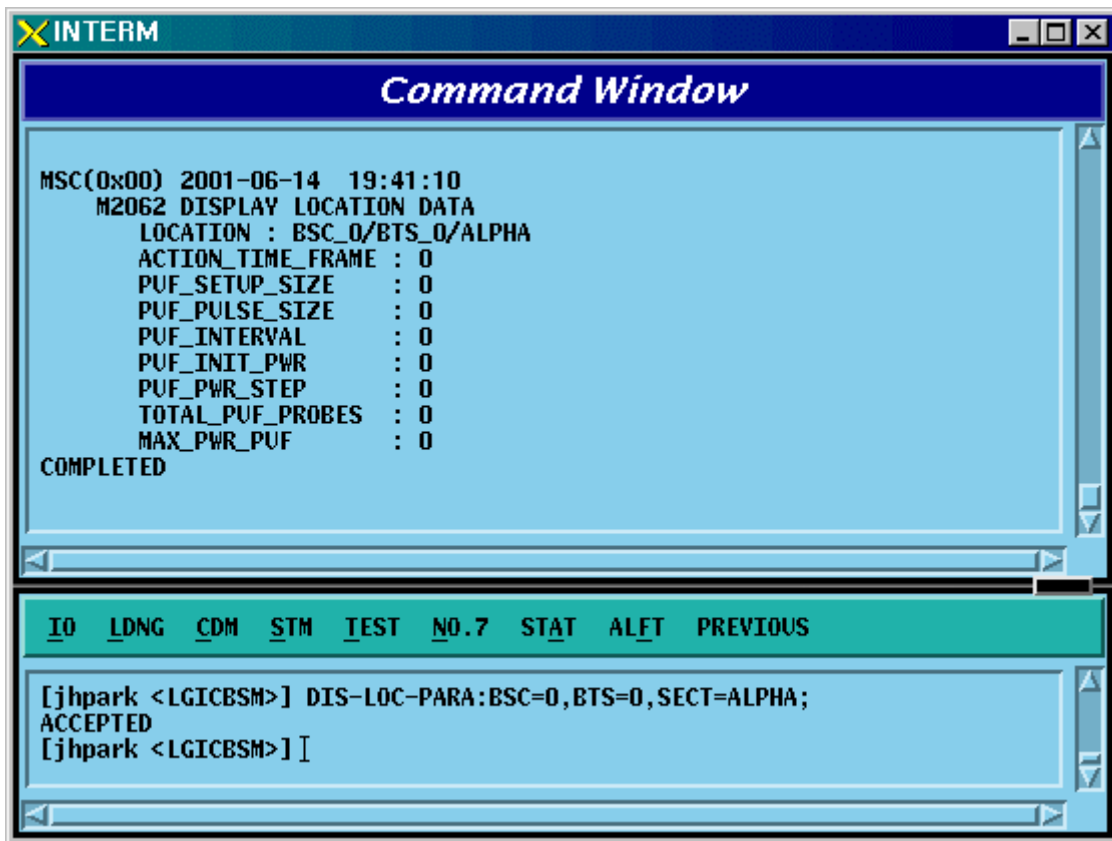


Fig. 4.3-31 LOCATION Verification

### 4.3.2.10. SCH Verification

- Command DIS-SCH-PARA: BSC=a, BTS=b, SECT=c;
  - a : BSC Number(0~11)
  - b: BTS Number(0~47)
  - c: Sector Id .(ALPHA/BETA/GAMMA)
- Input DIS-SCH-PARA: BSC=0,BTS=0,SECT=ALPHA;
- Output

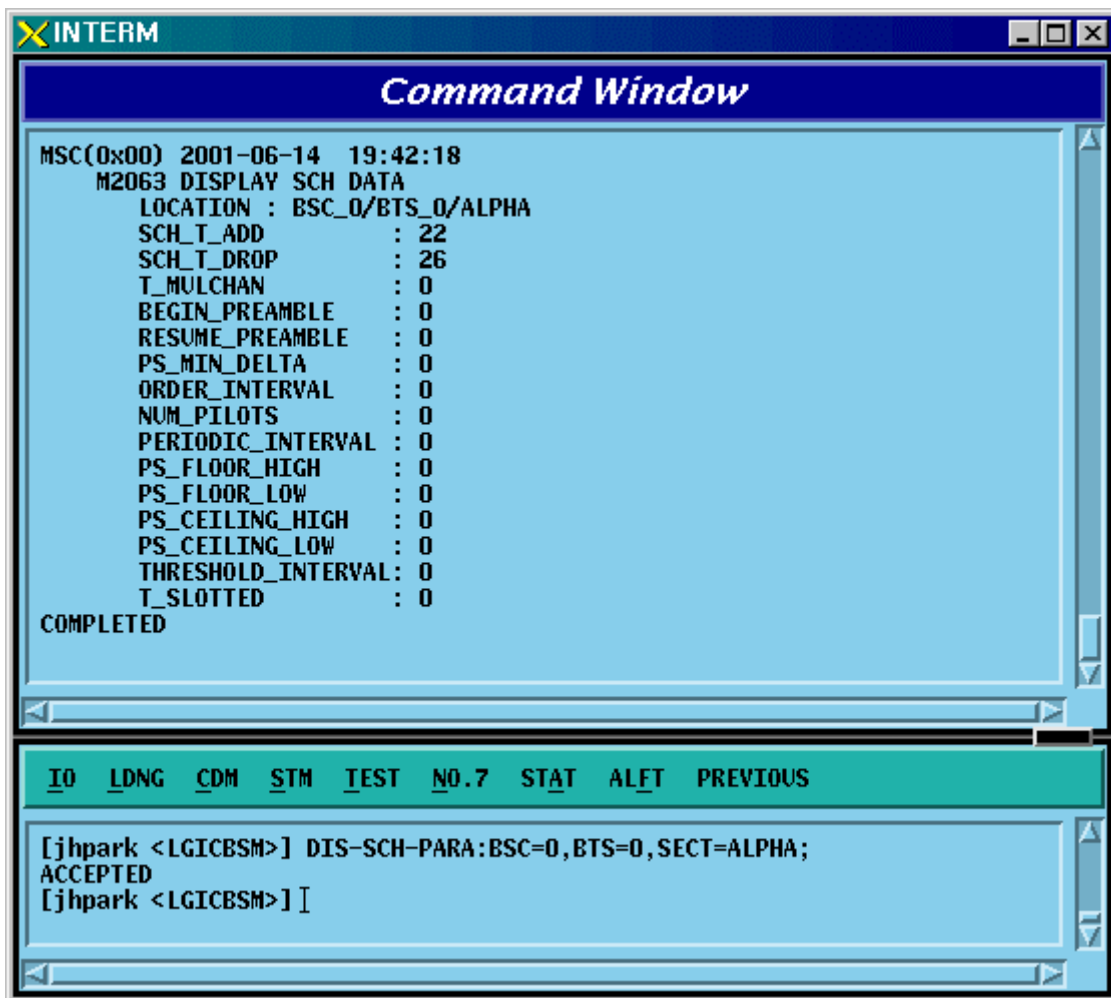


Fig. 4.3-32 SCH Verification

### 4.3.2.11. Power Control Data Verification

- Command DIS-PWR-CTRL: BSC=a, BTS=b, FER=c;
  - a : BSC Number(0~11)
  - b: BTS Number(0~47)
  - c: FER (0~30)
- Input DIS-PWR-CTRL: BSC=0, BTS=0,FER=0;
- Output

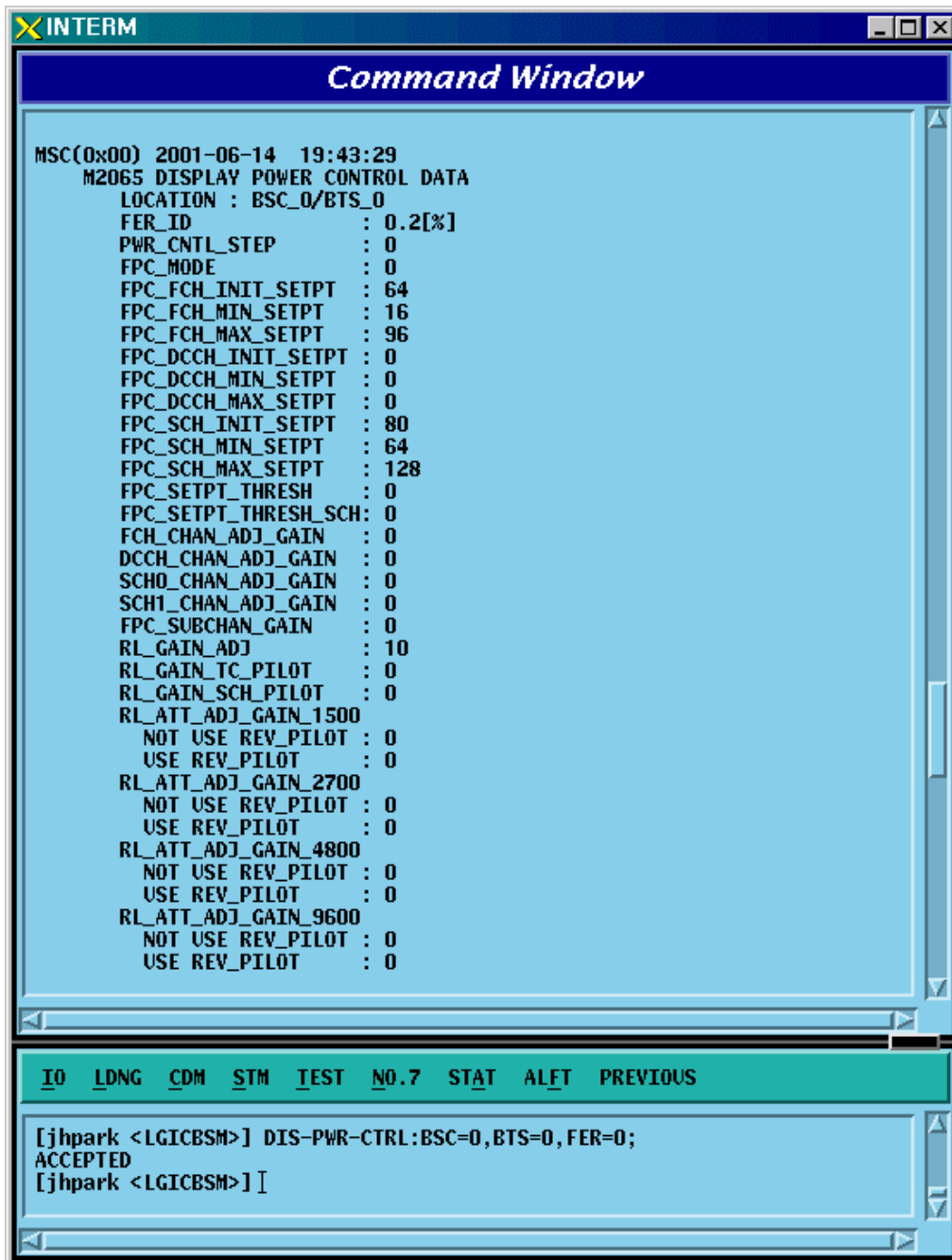




Fig. 4.3-33 Power Control Data Verification

### 4.3.2.12. BTS Name Display

Input the following command to display the BTS name:

- Command DIS-BTS-NAME: BSC=a, BTS=b;  
a : BSC Number(0~11)  
b: BTS Number(0~47)
- Input DIS-BTS-NAME: BSC=0, BTS=0;
- Output

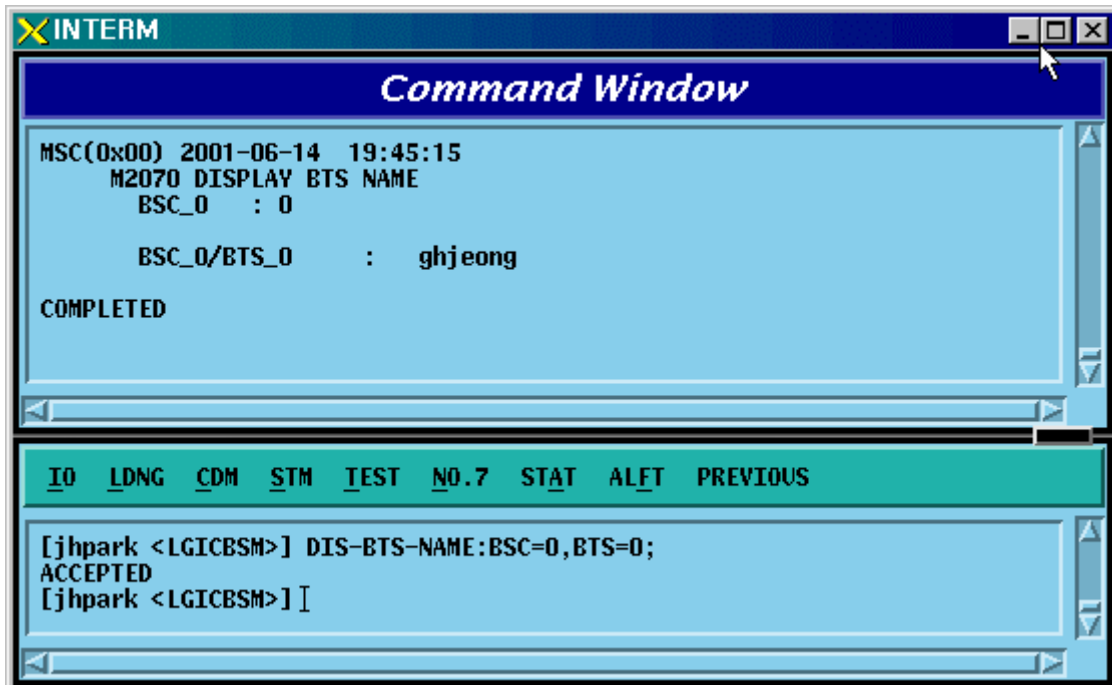


Fig. 4.3-34 BTS Name Display

### 4.3.2.13. PCP Timer Information Verification

- Command DIS-PCF-TIMER:PCP =a;  
a : PCP Number(0~2)
- Input DIS-PCF-TIMER: PCP=0;
- Output

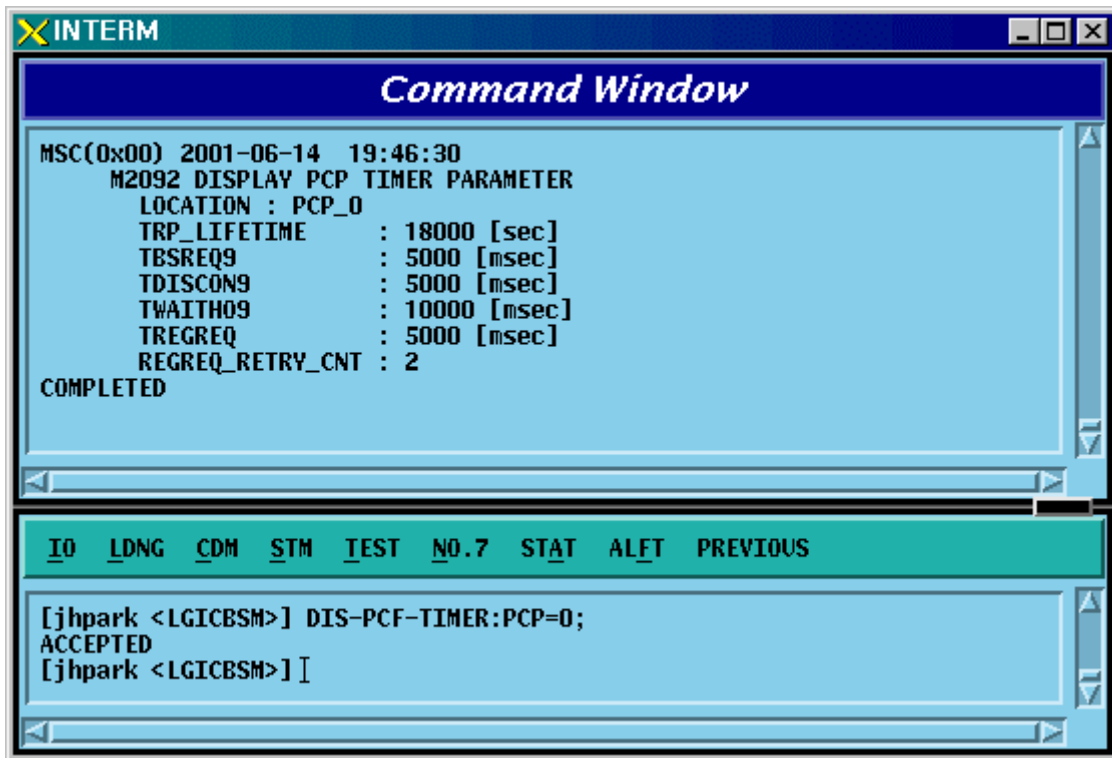


Fig. 4.3-35 PCP Timer Information Verification

#### 4.3.2.14. PCF Parameter Information Verification

- Command DIS-PCF-PARA :PCP =a;  
a : PCP Number(0~2)
- Input DIS-PCF-PARA: PCP=0;
- Output

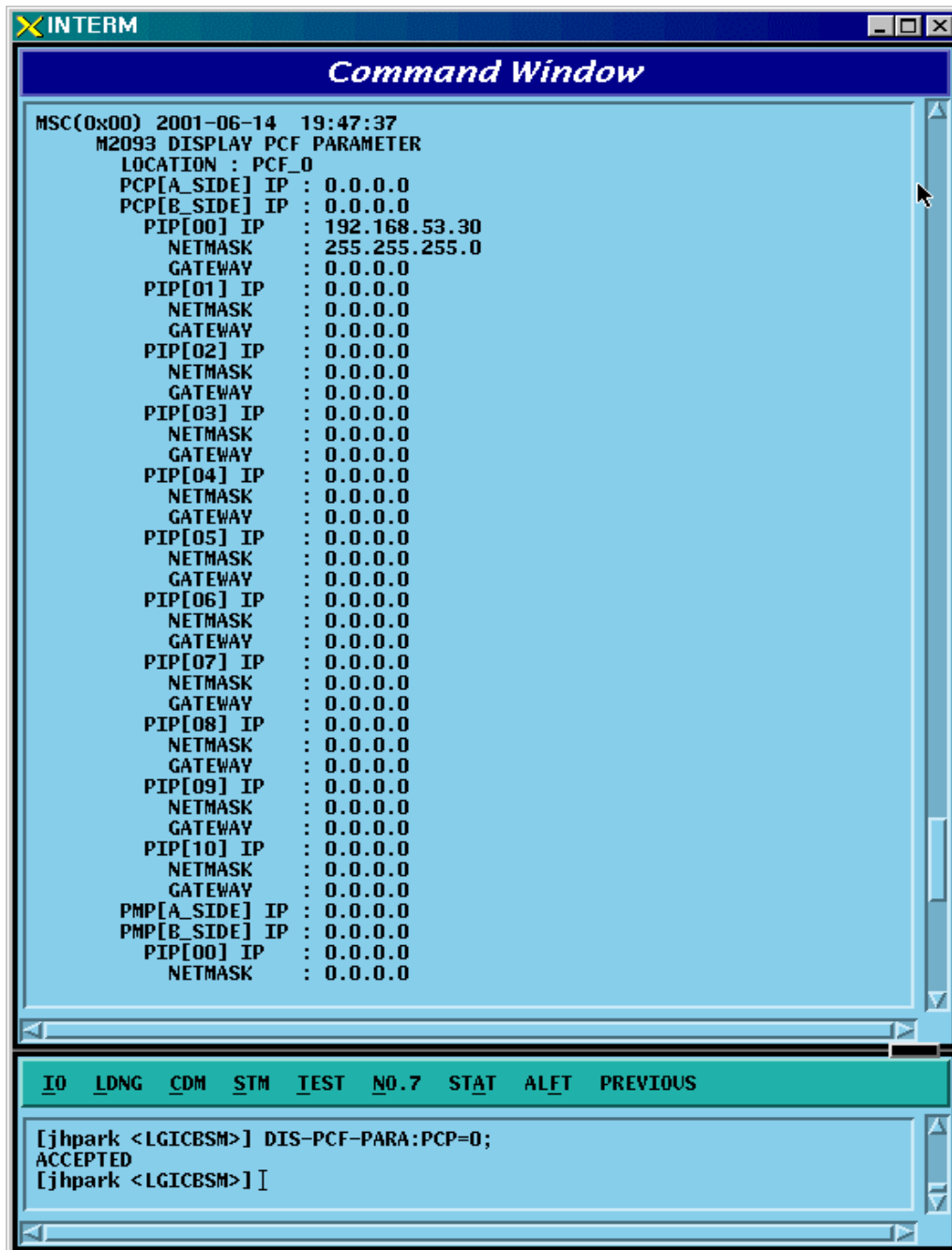


Fig. 4.3-36 PCF Parameter Information Verification

### 4.3.2.15. PCF MAC ADDRESS Information Verification

- Command DIS-PCF-MAC :PCP =a;  
a : PCP Number(0~2)
- Input DIS-PCF-MAC: PCP=0;
- Output

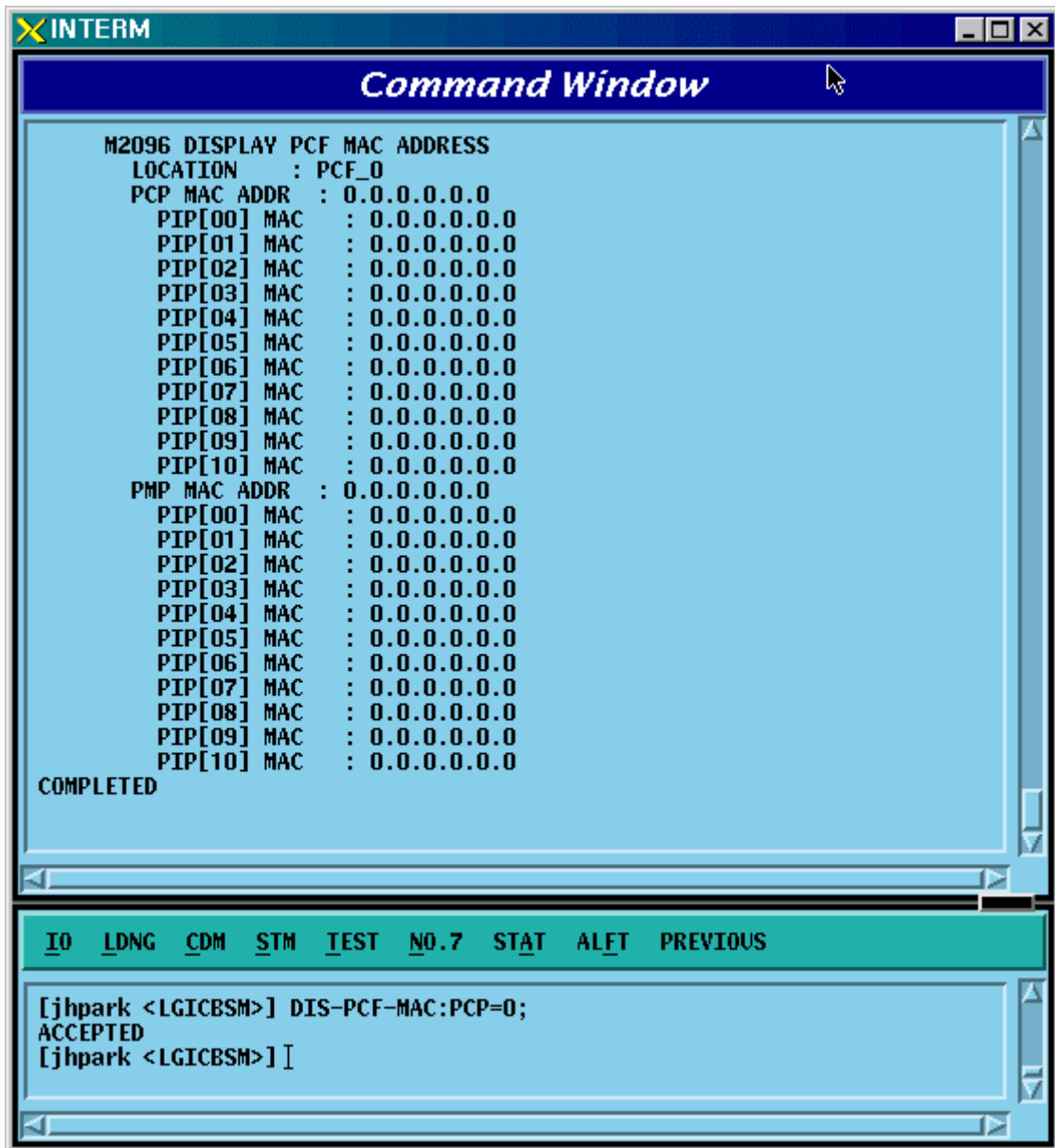


Fig. 4.3-37 PCF MAC ADDRESS Information Verification

### 4.3.3. NETWORK Information Display (Display\_Parameter\_Information\_3)

#### 4.3.3.1. CAN ATM NODE Information Display

- Command DIS-CAN-NODE;
- Output

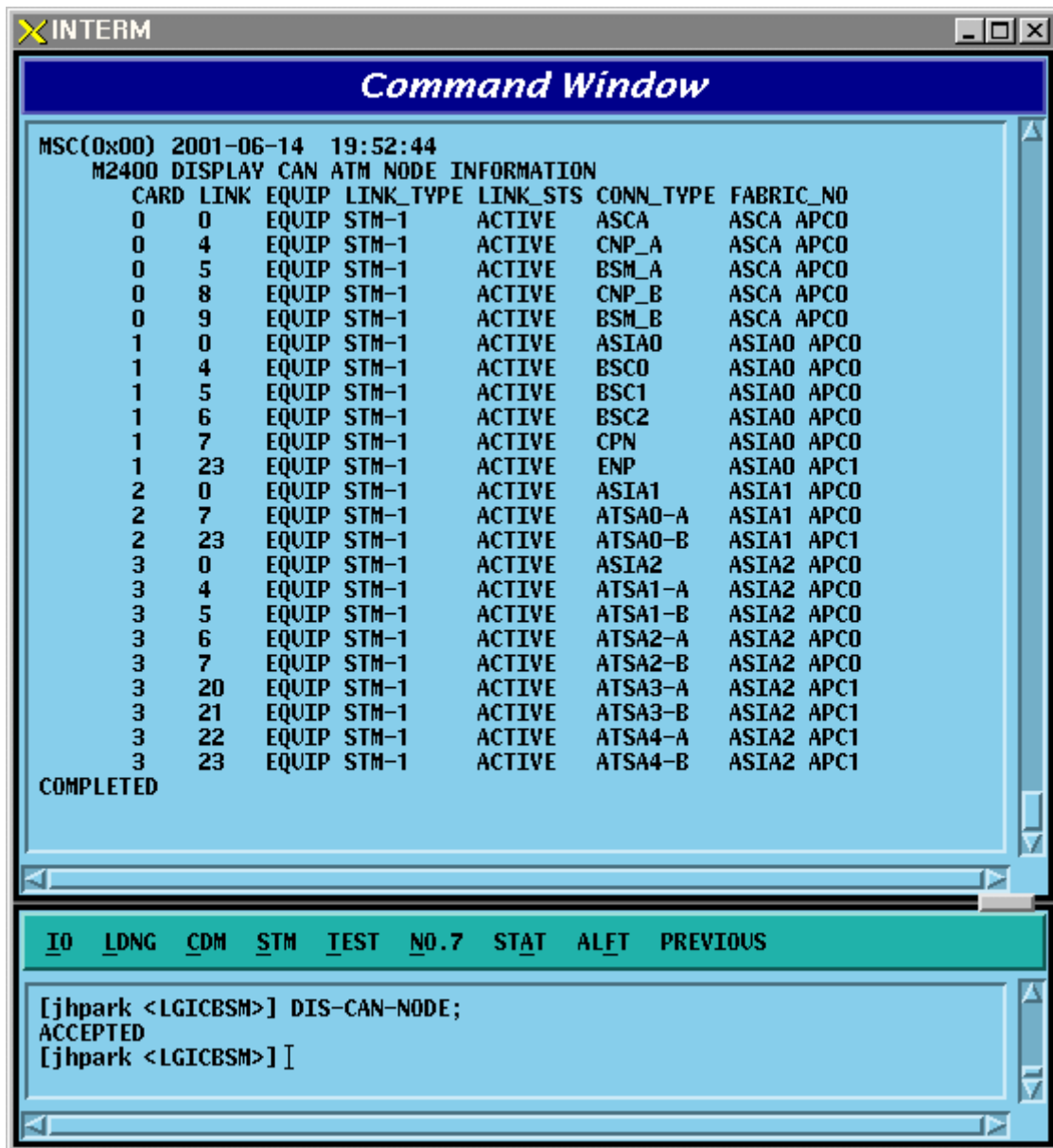


Fig. 4.3-38 CAN ATM NODE Information Display

4.3.3.2. CAN PVC SETTING Information Display

- Command DIS-CAN-PVC;NODE\_A=a;
- Input DIS-CAN-PVC: NODE\_A=BSM\_A;  
a: BSM\_A,BSM\_B, BSC (0~11)
- Output

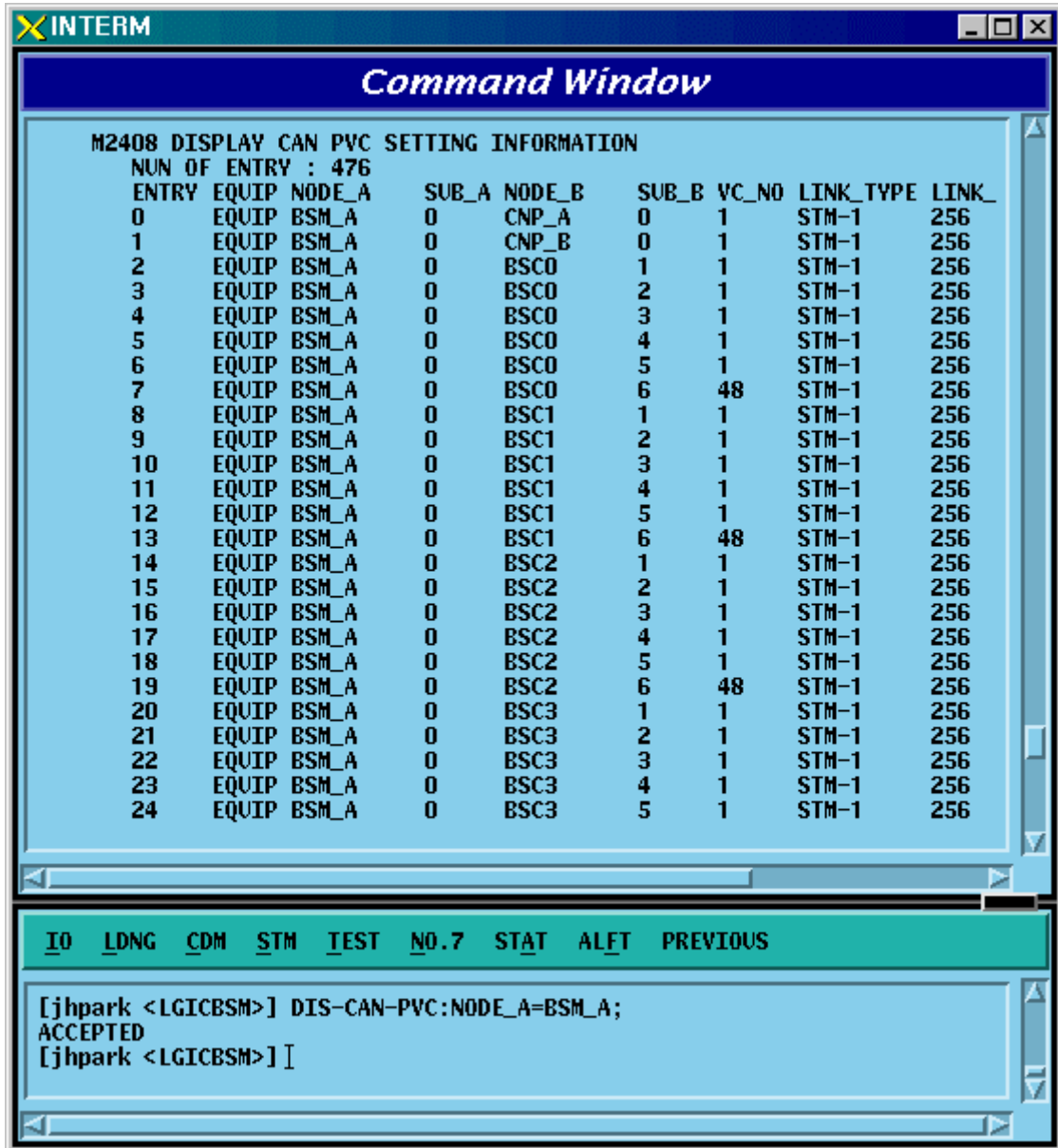


Fig. 4.3-39 CAN PVC SETTING Information Display



### 4.3.3.3. CAN NETWORK PARAMETER Information Display

- Command DIS-CAN-NETP;
- Input DIS-CAN-NETP;
- Output

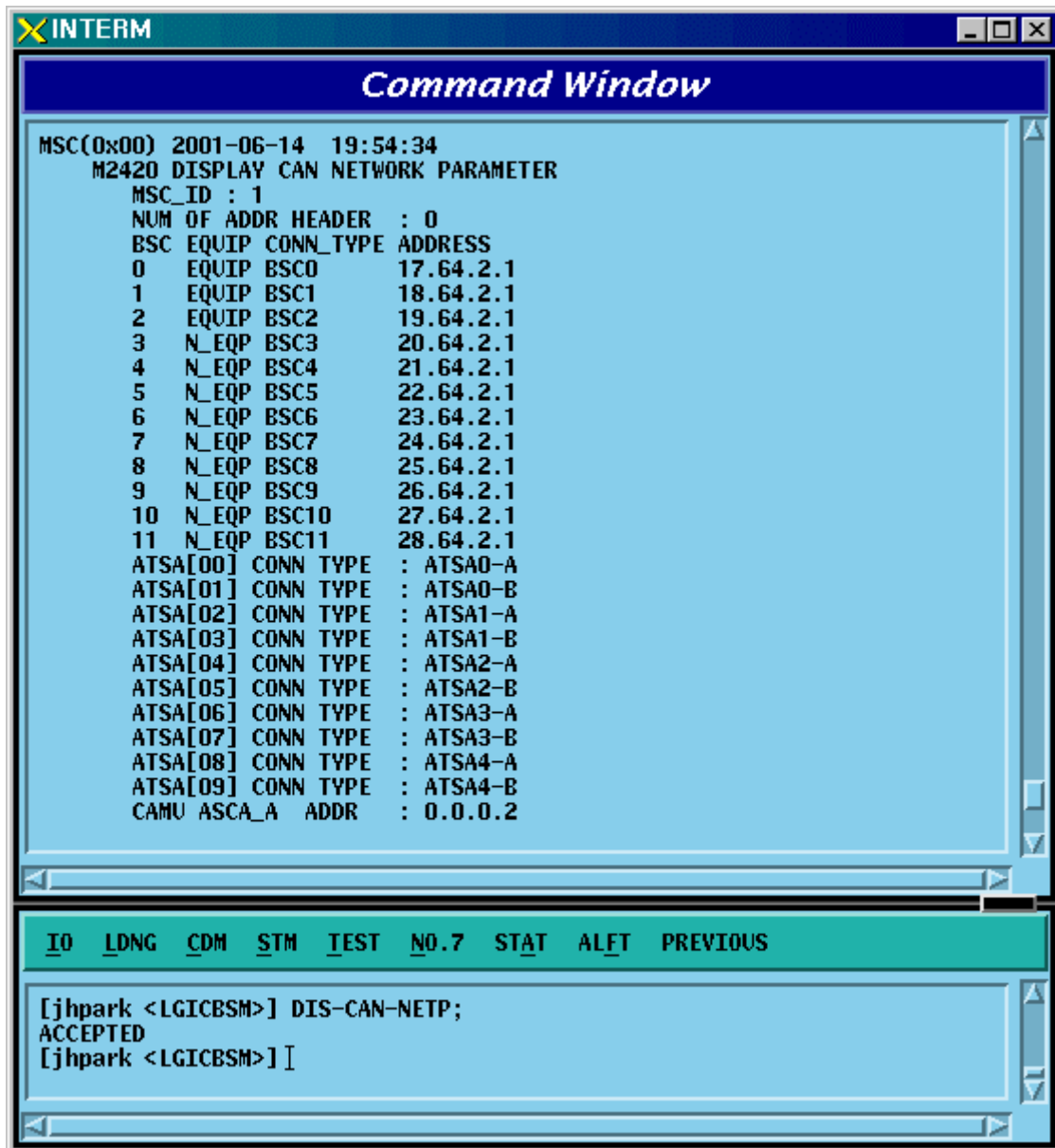


Fig. 4.3-40 CAN NETWORK PARAMETER Information Display

#### 4.3.3.4. CAN INTER BSC AAL2 Setting Information Display

- Command DIS-CAN-IUR:BSC=a;  
a:BSC Number (0~11)
- Input DIS-CAN-IUR:BSC=0;
- Output

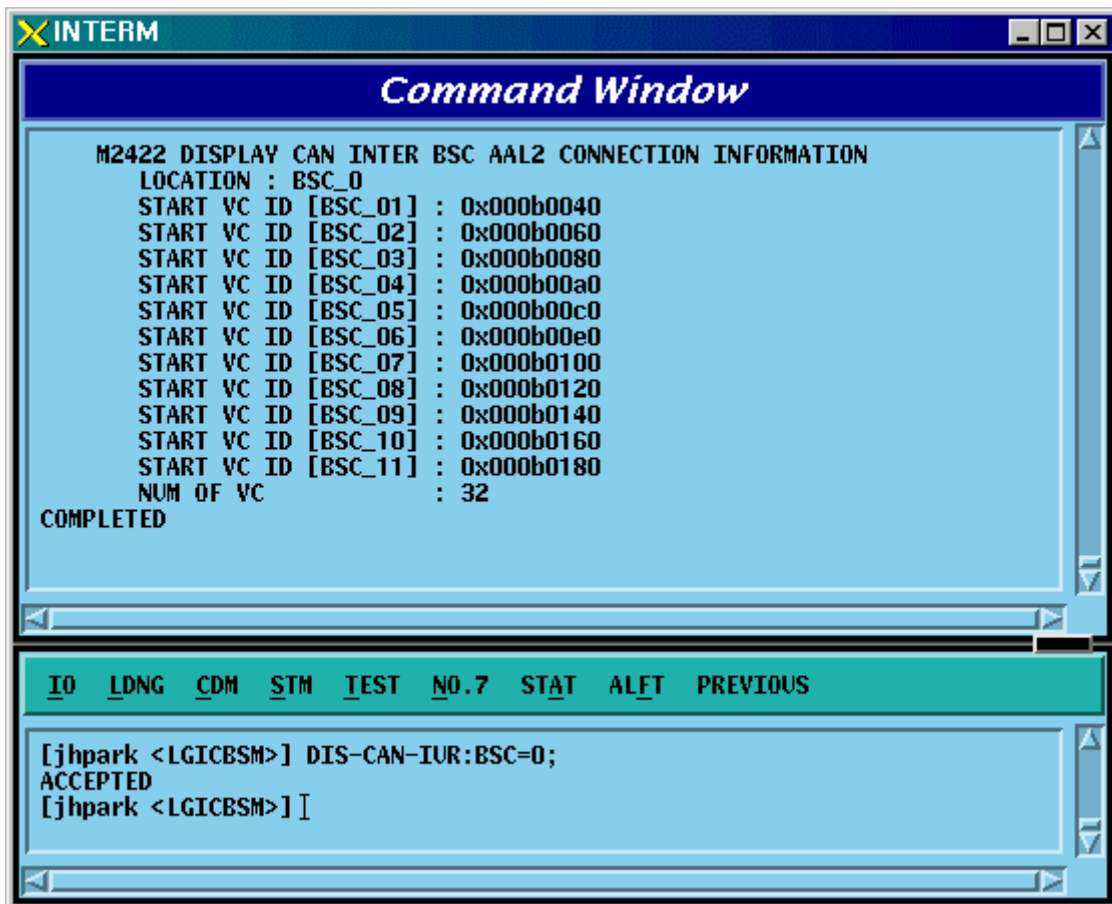


Fig. 4.3-41 CAN INTER BSC AAL2 Setting Information Display

#### 4.3.3.5. CAN INTER BSC AAL5 Setting Information Display

- Command DIS-CAN-BSC;
- Output

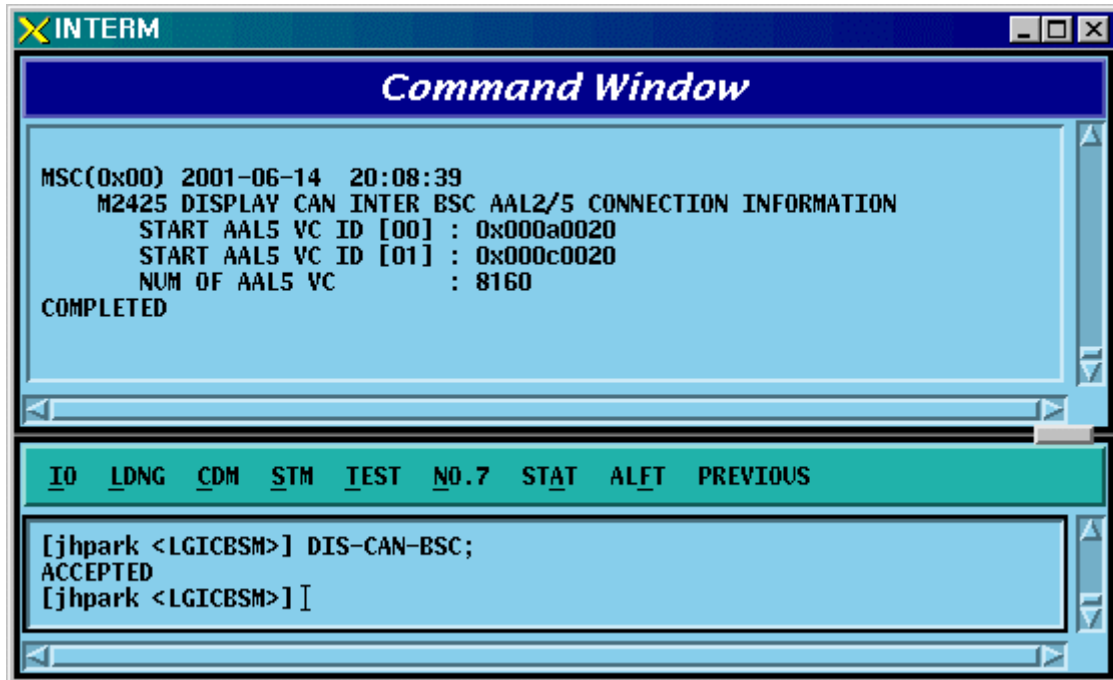


Fig. 4.3-42 CAN INTER BSC AAL5 Setting Information Display

4.3.3.6. CAN ATM NODE Information Display

- Command DIS-CPN-NODE;
- Output

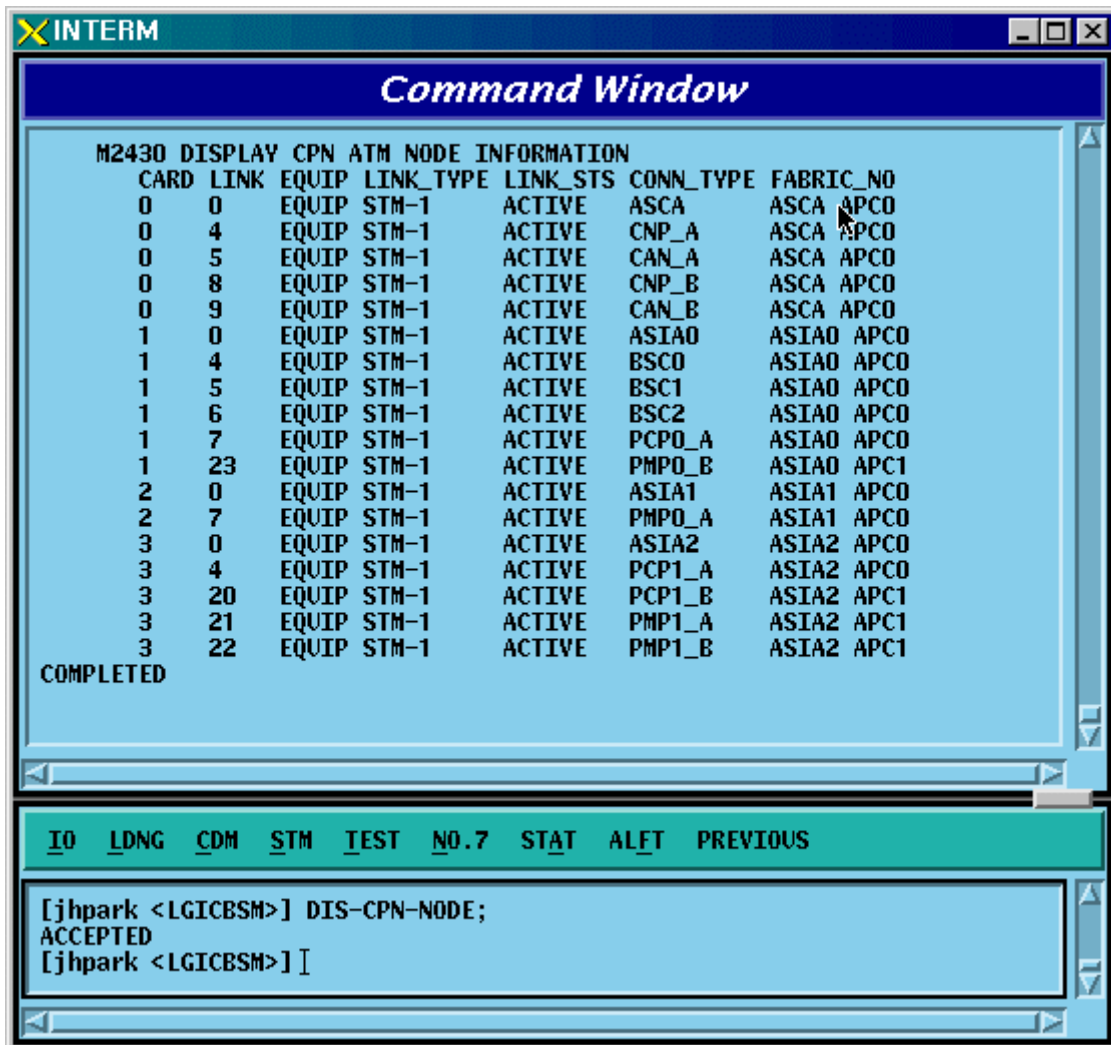


Fig. 4.3-43 CAN ATM NODE Information Display

4.3.3.7. PCF ATM NODE Information Display

- Command DIS-PCF-NODE
- Output

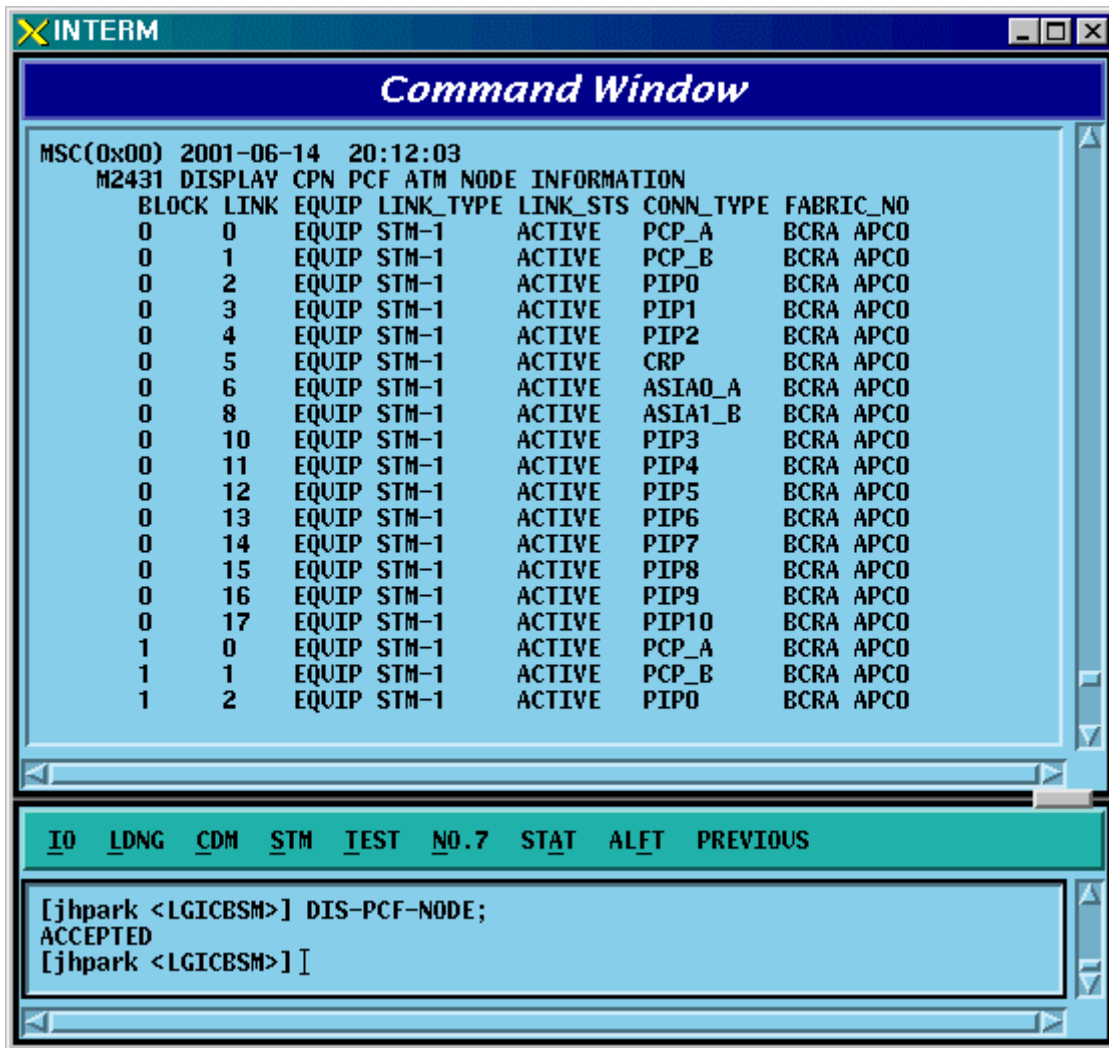


Fig. 4.3-44 PCF ATM NODE Information Display

4.3.3.8. CAN PVC SETTING Information Display

- Command DIS-CPN-PVC
- Output

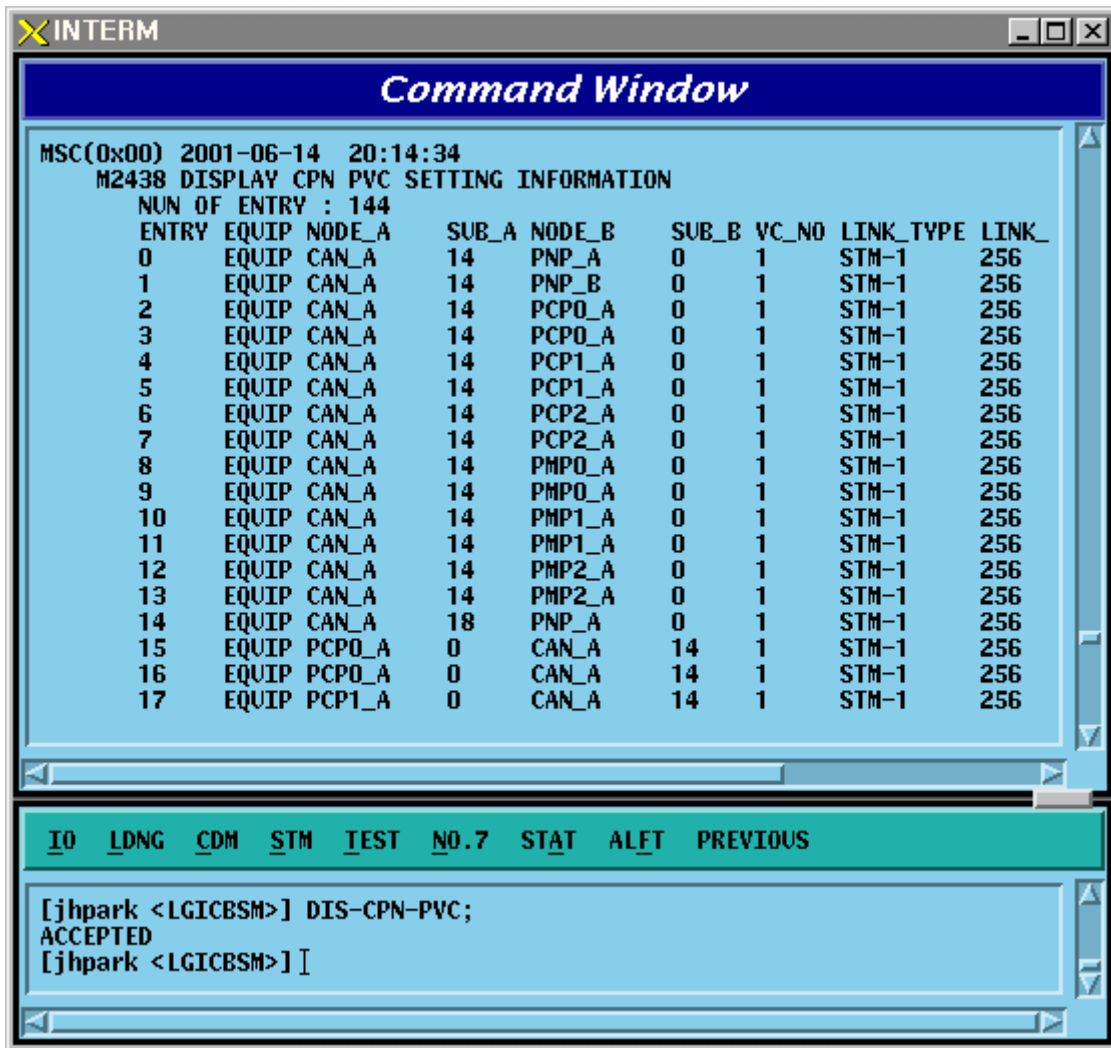


Fig. 4.3-45 CAN PVC SETTING Information Display

4.3.3.9. CAN PCF PVC SETTING Information Display

- Command DIS-PCF-PVC
- Output

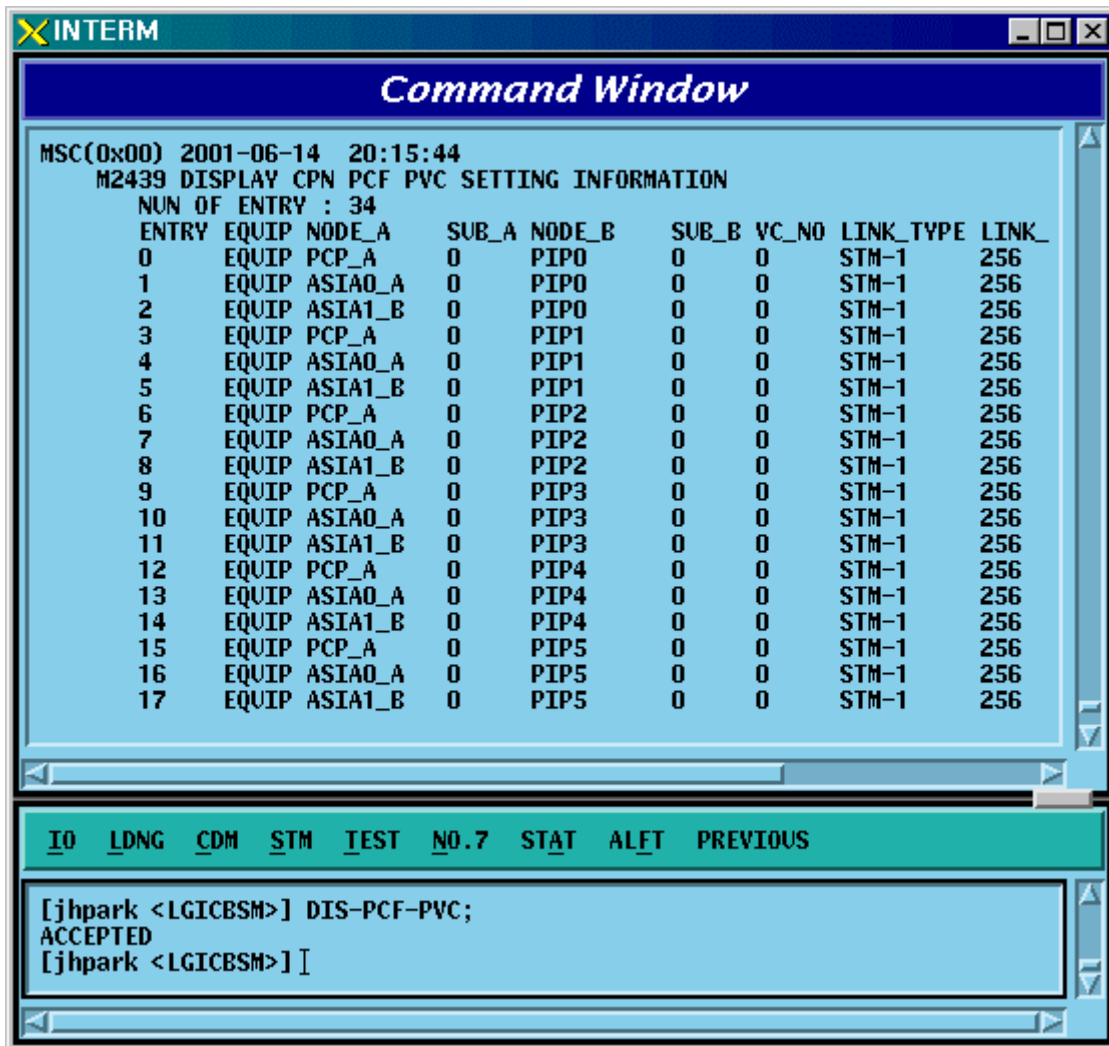


Fig. 4.3-46 CAN PCF PVC SETTING Information Display

4.3.3.10. CPN NETWORK PARAMETER Information Display

- Command DIS-CPN-NETP
- Output

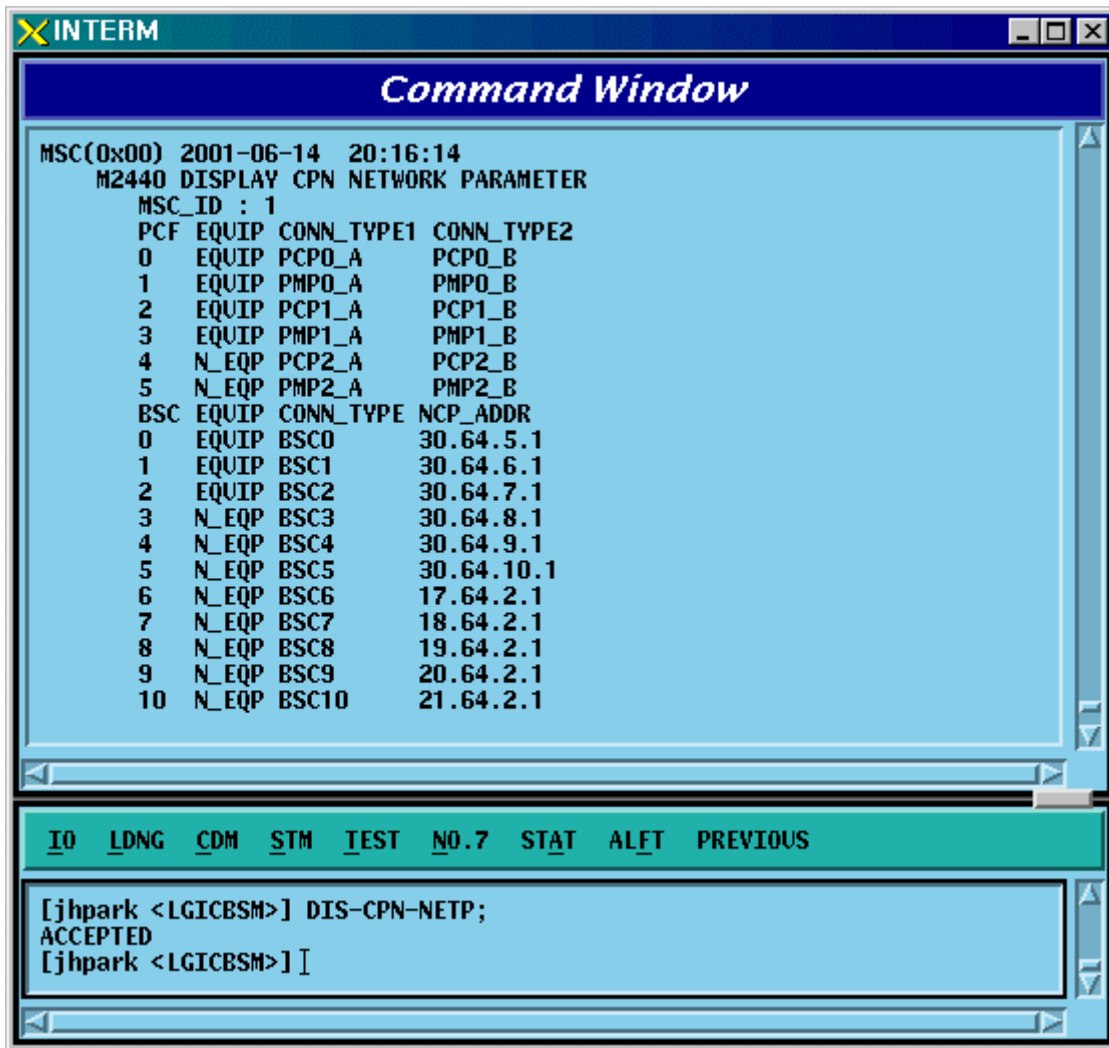


Fig. 4.3-47 CPN NETWORK PARAMETER Information Display



### 4.3.3.11. CPN DATA AAL2/5 Connection Information Display

- Command DIS-CPN-DATA;
- Output

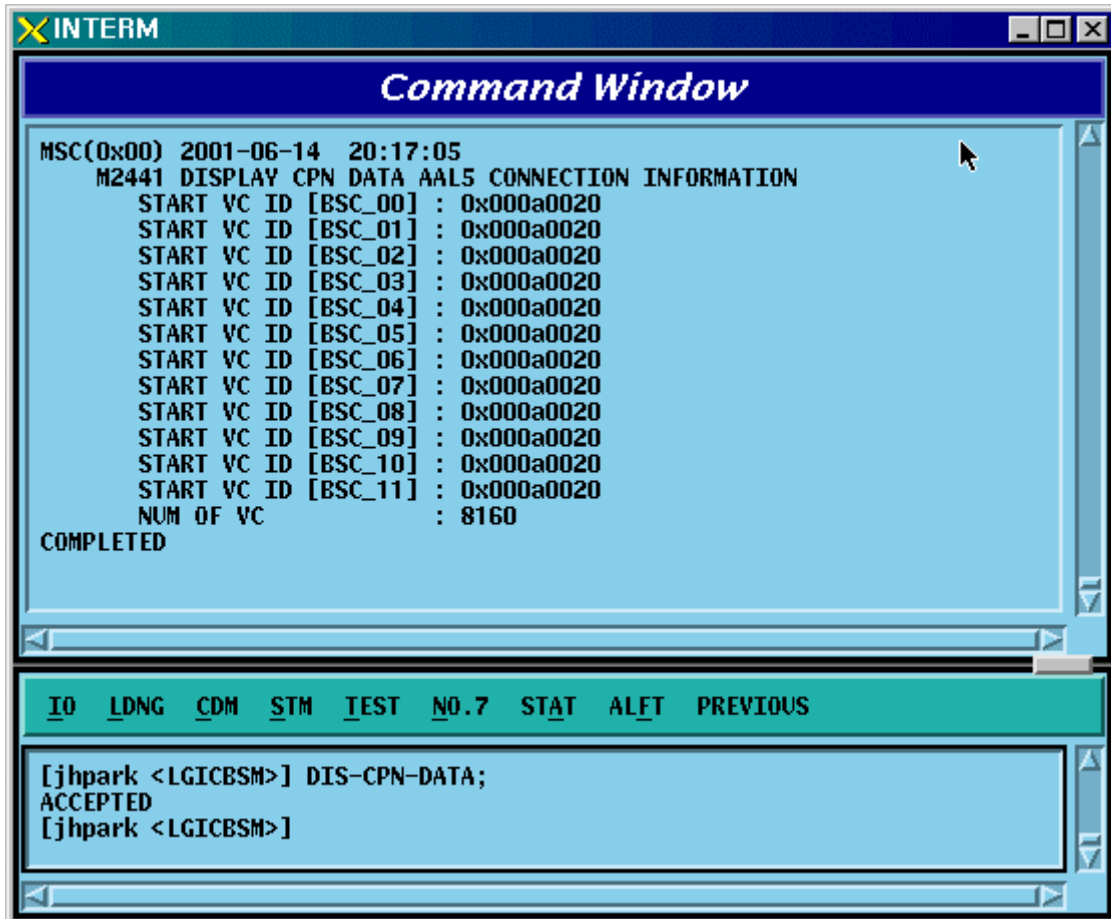


Fig. 4.3-48 CPN DATA AAL2/5 Connection Information Display

### 4.3.3.12. CPN PCF AAK2/5 Connection Information Display

- Command DIS-CPN-PCF;
- Output

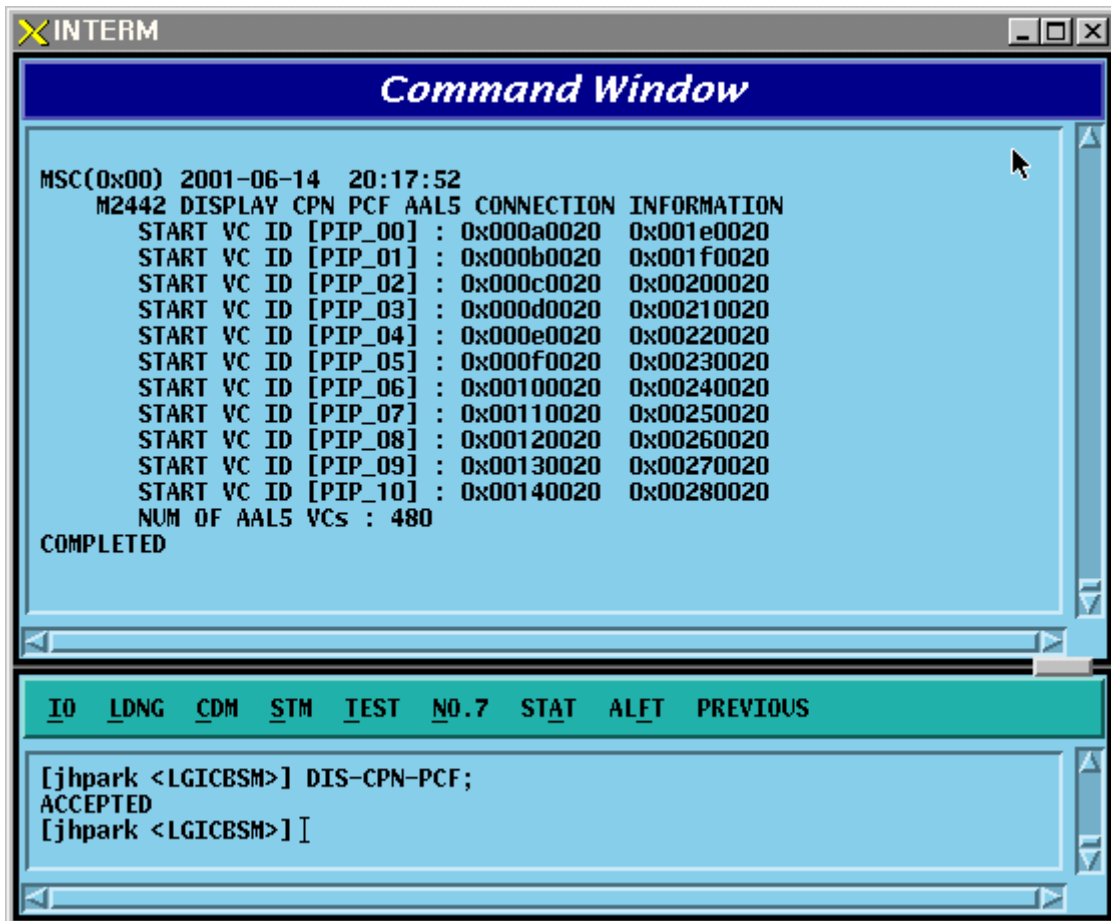


Fig. 4.3-49 CPN PCF AAK2/5 Connection Information Display

### 4.3.3.13. BSC ATM NODE Information Display

- Command DIS-BSC-NODE: BSC=a;  
a: BSC Number (0~11)
- Input DIS-BSC-NODE: BSC=0;
- Output

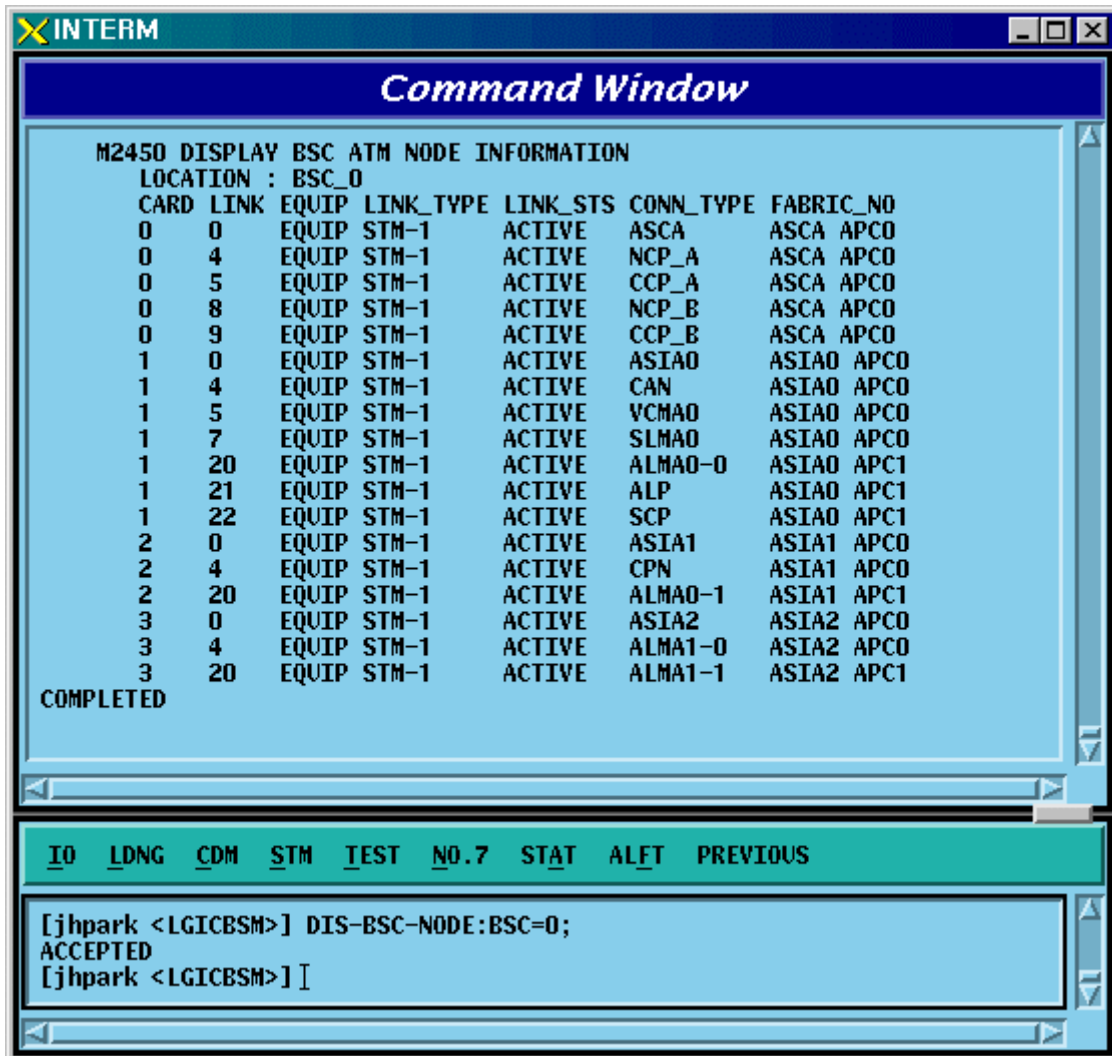


Fig. 4.3-50 BSC ATM NODE Information Display

#### 4.3.3.14. SLB ATM NODE Information Display

- Command DIS-SLB-NODE: BSC=a;  
a: BSC Number (0~11)
- Input DIS-SLB-NODE: BSC=0;
- Output

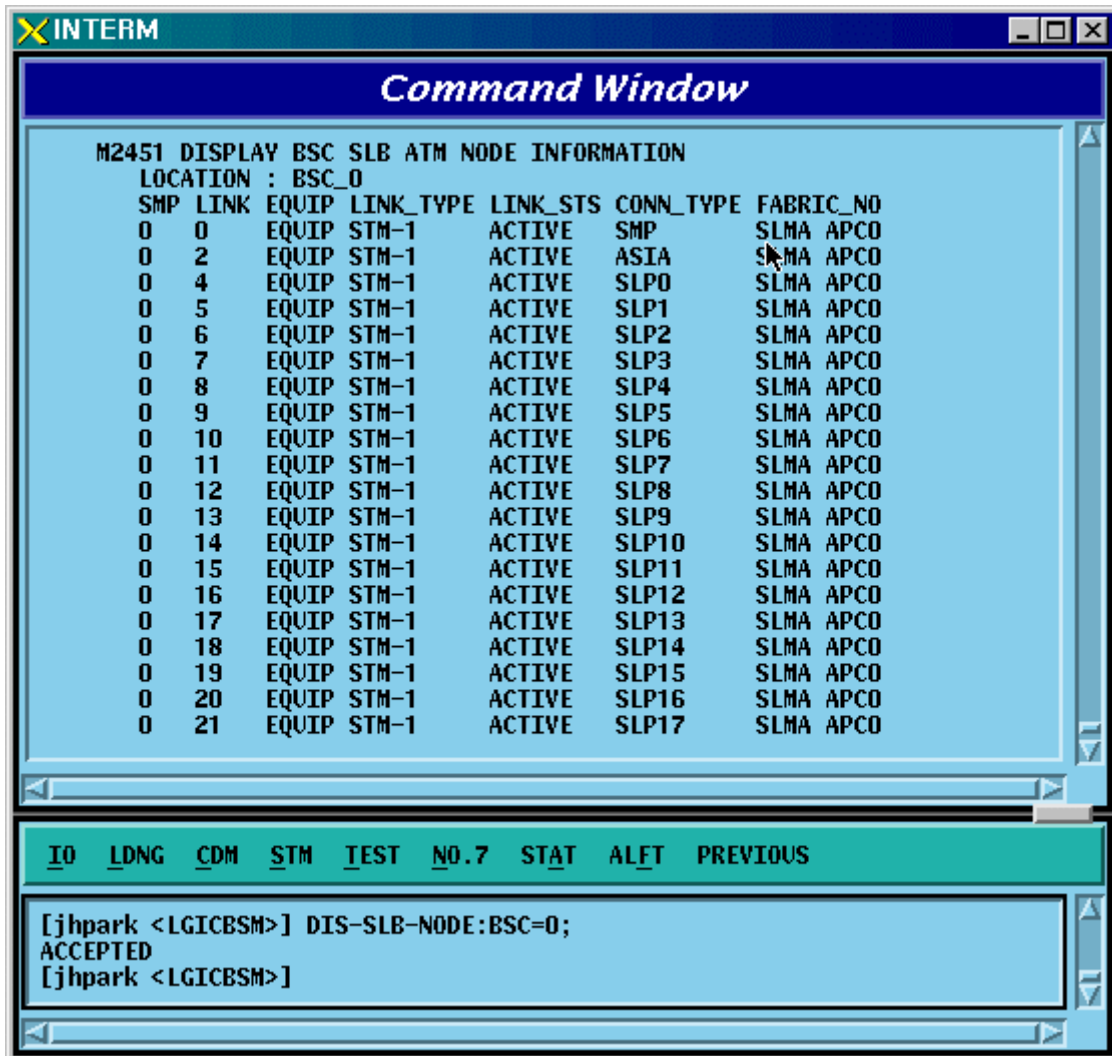


Fig. 4.3-51 SLB ATM NODE Information Display

### 4.3.3.15. VCB ATM NODE Information Display

- Command DIS-VCB-NODE: BSC=a;  
a: BSC Number (0~11)
- Input DIS-VCB-NODE: BSC=0;
- Output

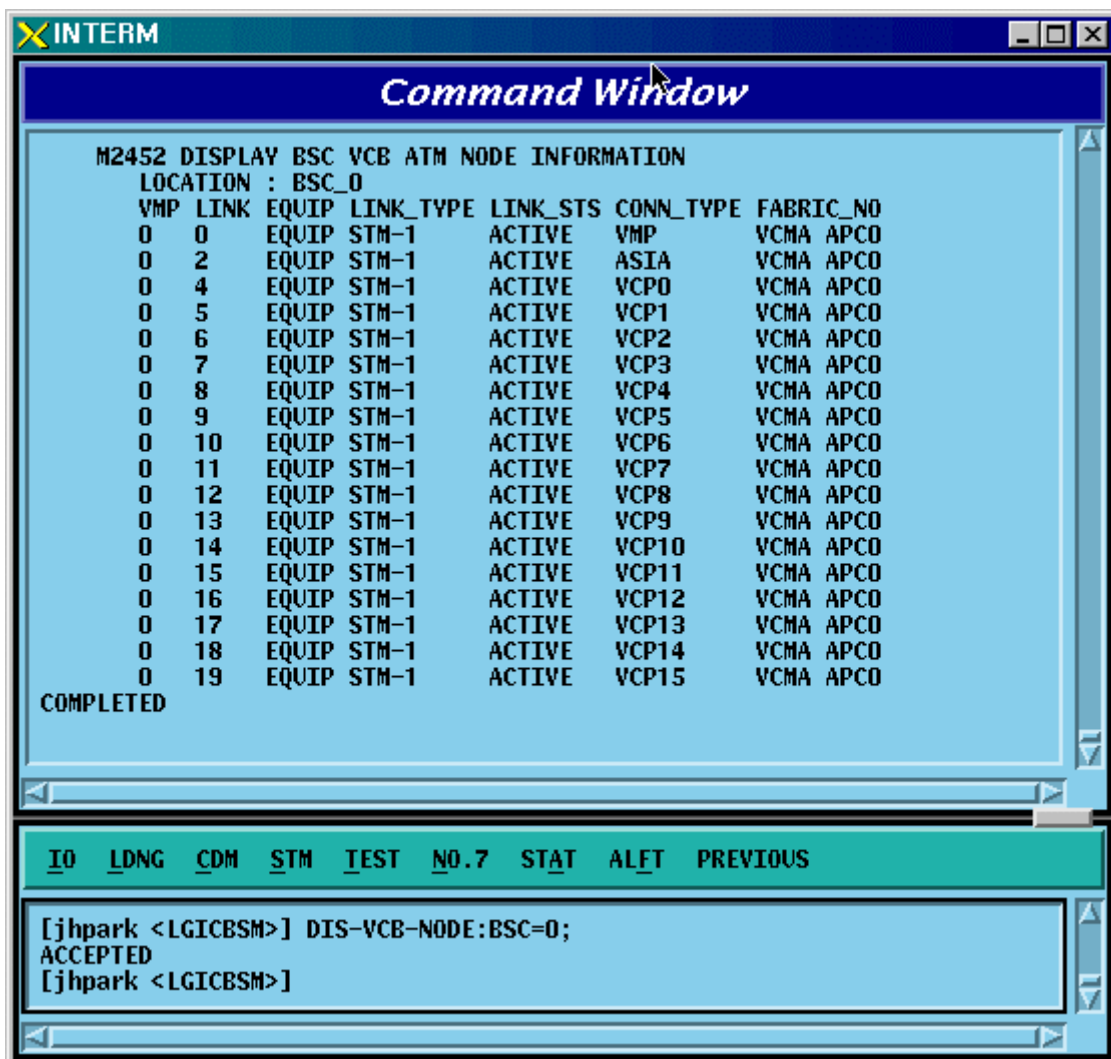


Fig. 4.3-52 VCB ATM NODE Information Display

4.3.3.16. ALB ATM NODE Information Display

- Command DIS-ALB-NODE: BSC=a;  
a: BSC Number (0~11)
- Input DIS-ALB-NODE: BSC=0;
- Output

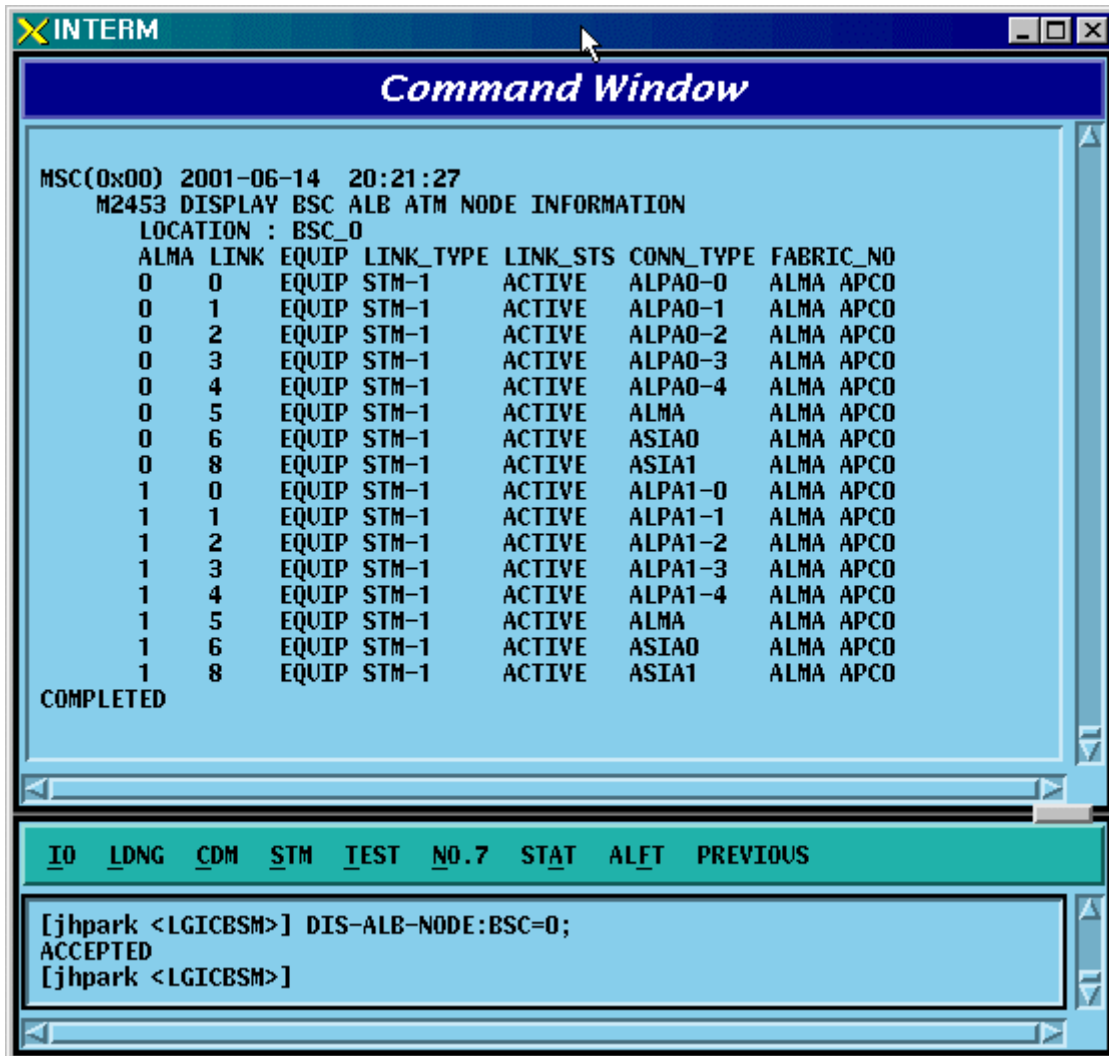


Fig. 4.3-53 ALB ATM NODE Information Display

### 4.3.3.17. BTS ATM NODE Information Display

- Command DIS-BTS-NODE: BSC=a ,BTS=b;  
 a: BSC Number (0~11)  
 b: BTS Number (0~47)
- Input DIS-BSC-NODE: BSC=0,BTS=0;
- Output

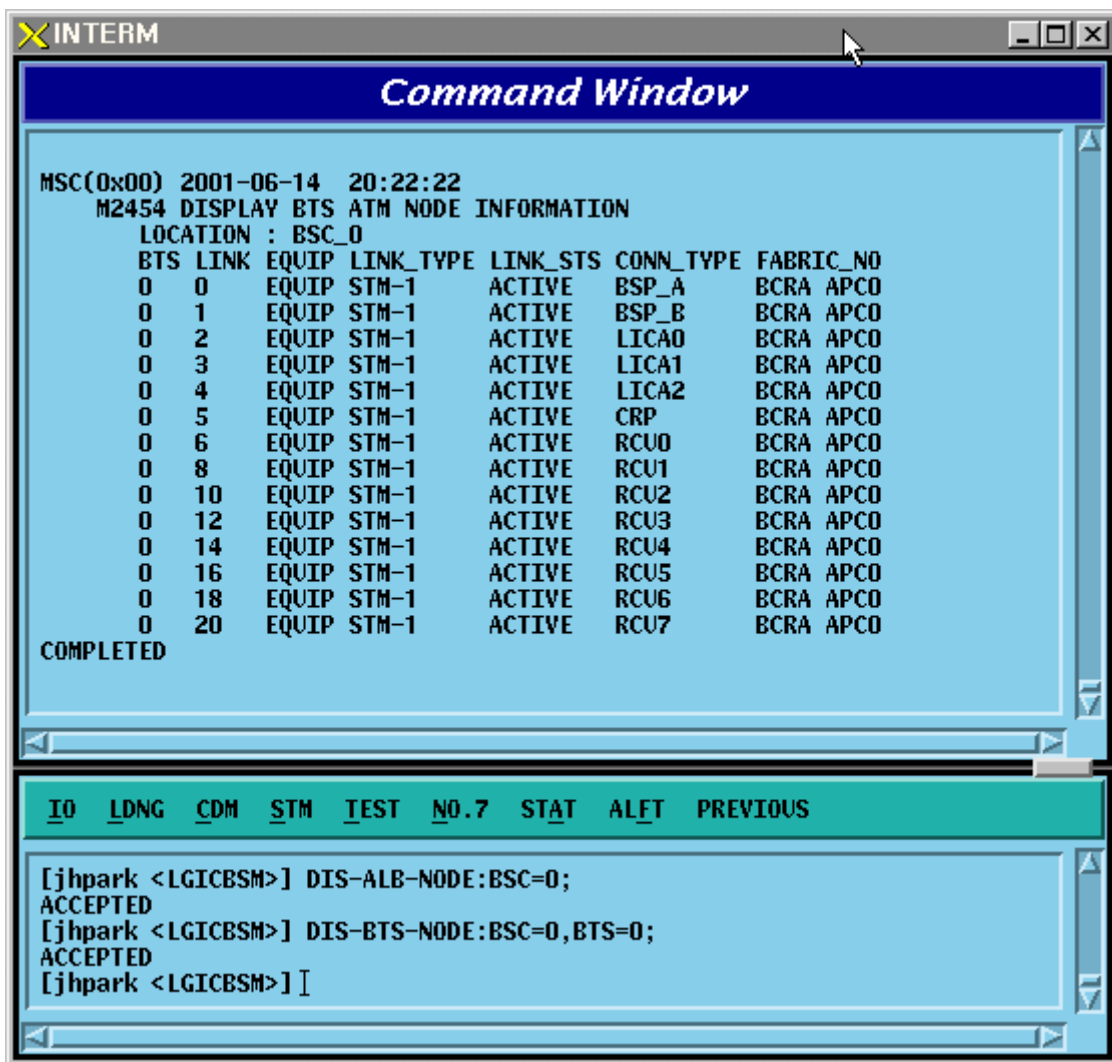


Fig. 4.3-54 BTS ATM NODE Information Display

### 4.3.3.18. BSC-BTS TRUNK Information Display

- Command DIS-TRNK-DATA: BSC=a;  
a: BSC Number (0~11)
- Input DIS-TRNK-DATA: BSC=0;
- Output

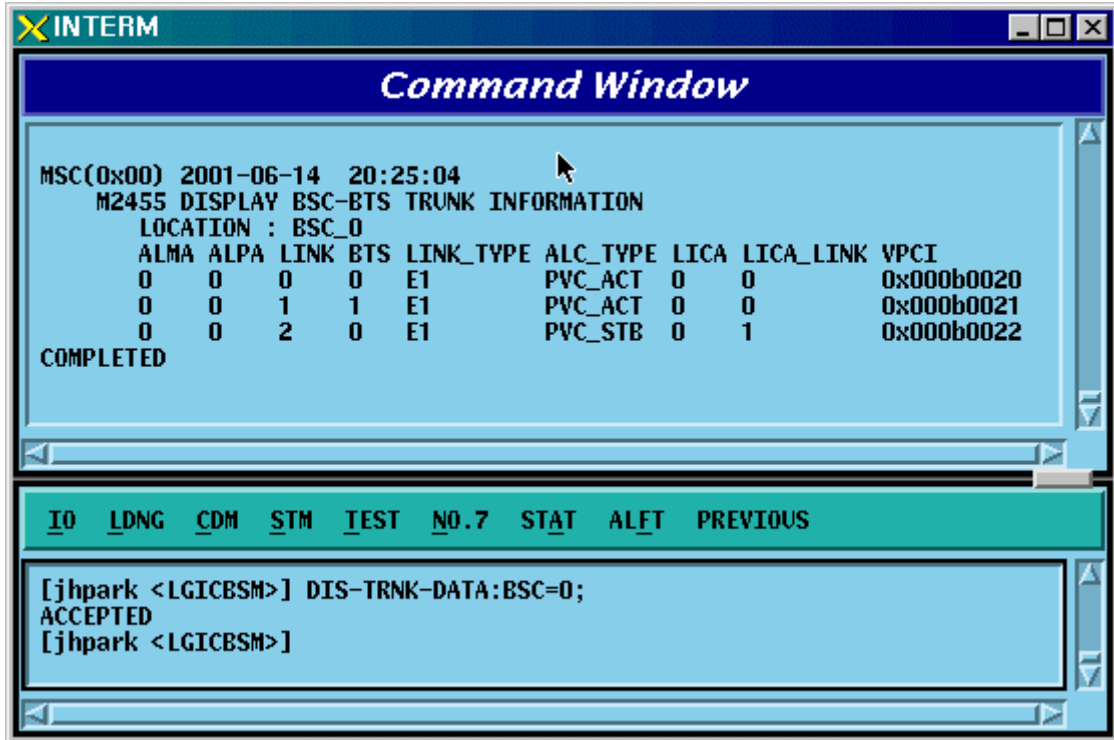


Fig. 4.3-55 BSC-BTS TRUNK Information Display



### 4.3.3.19. BSC PVC SETTING Information Display

- Command DIS-BSC-PVC: BSC=a,NODE\_A=b;  
 a: BSC Number (0~11)  
 b: NCP\_A, NCP\_B, CCP\_A, CCP\_B, ALMA0\_0 , ALMA0\_1, ALMA1\_0 , ALMA1\_1,CAN,CPN,ALP
- Input DIS-BSC-PVC: BSC=0,NODE\_A=NCP\_A;
- Output

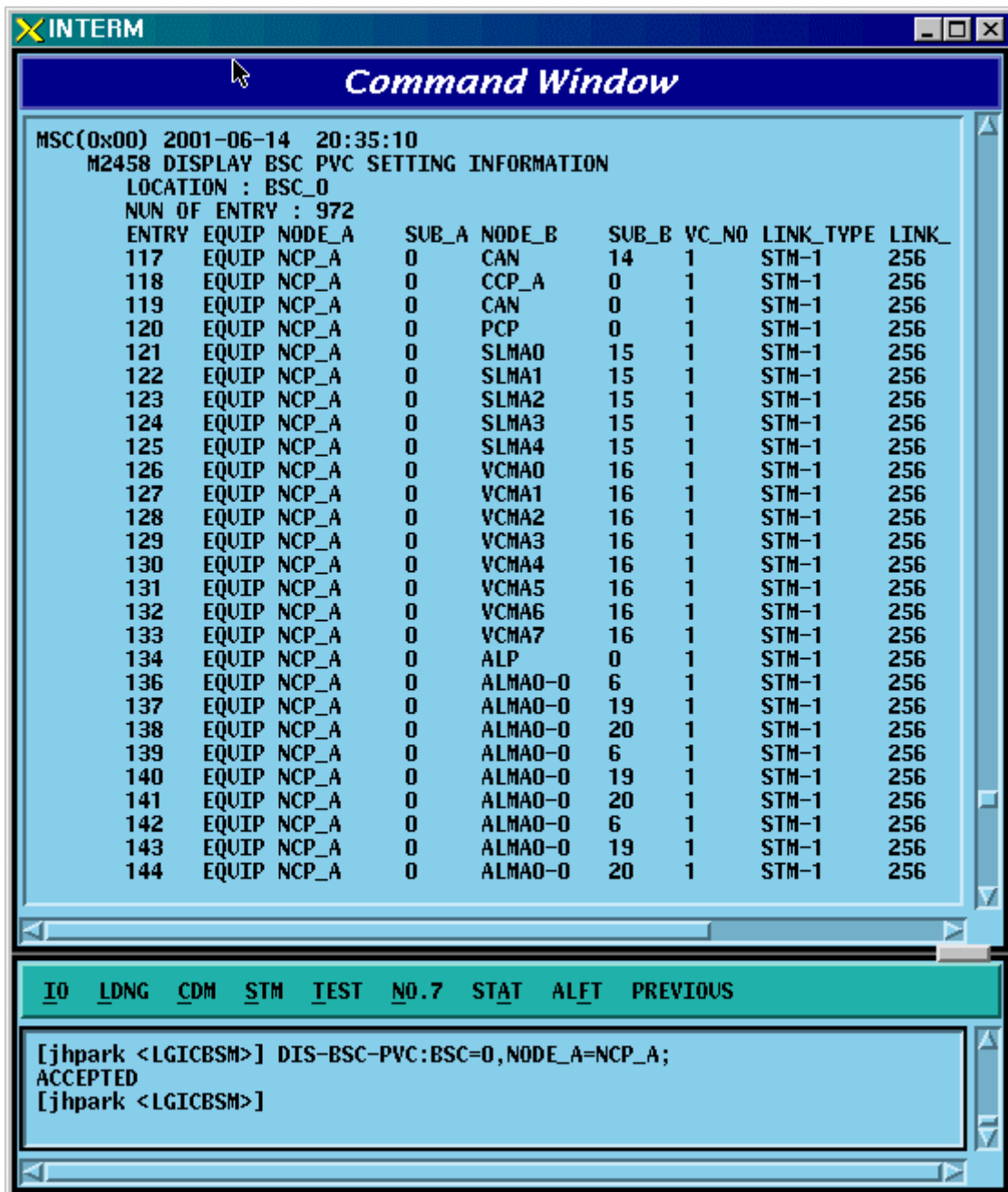


Fig. 4.3-56 BSC PVC SETTING Information Display

### 4.3.3.20. BSC SLB PVC SETTING Information Display

- Command DIS-SLB-PVC: BSC=a;  
a: BSC Number (0~11)
- Input DIS-SLB-PVC: BSC=0;
- Output

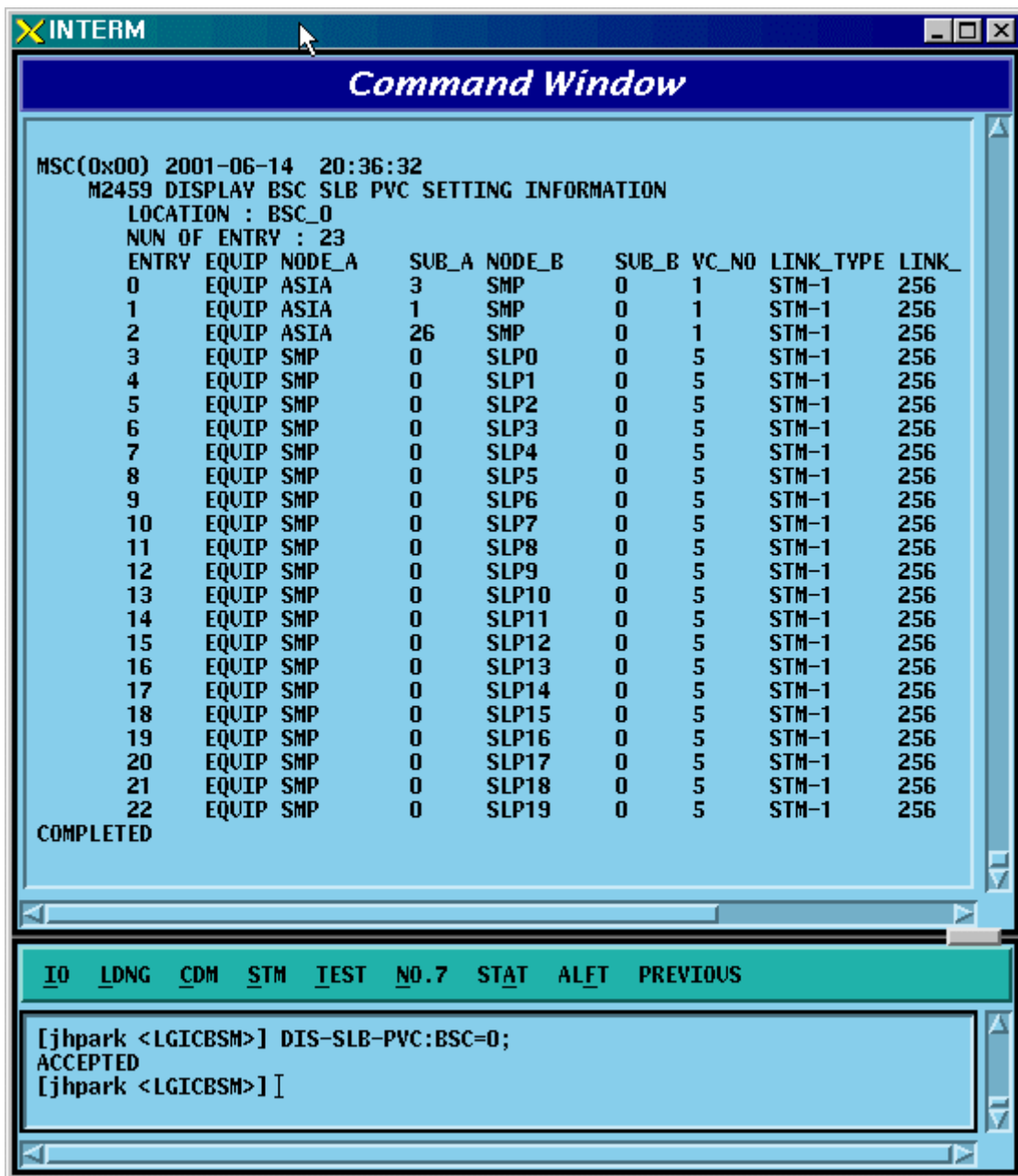


Fig. 4.3-57 BSC SLB PVC SETTING Information Display

### 4.3.3.21. BSC VCB PVC SETTING Information Display

- Command DIS-VCB-PVC: BSC=a;  
a: BSC Number (0~11)
- Input DIS-VCB-PVC: BSC=0;
- Output

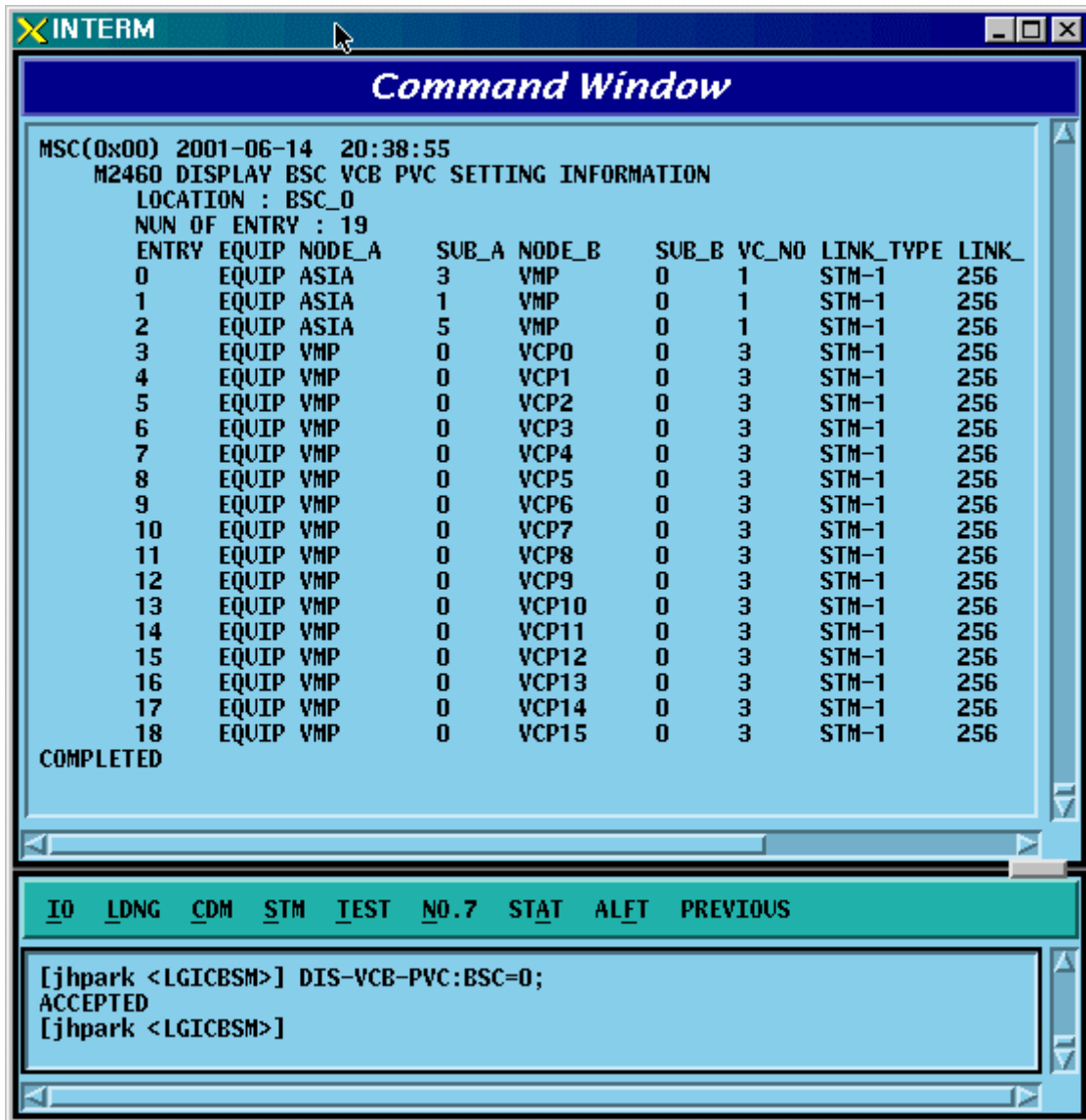


Fig. 4.3-58 BSC VCB PVC SETTING Information Display

### 4.3.3.22. BSC ALB PVC SETTING Information Display

- Command DIS-ALB-PVC: BSC=a;  
a: BSC Number (0~11)
- Input DIS-ALB-PVC: BSC=0;
- Output

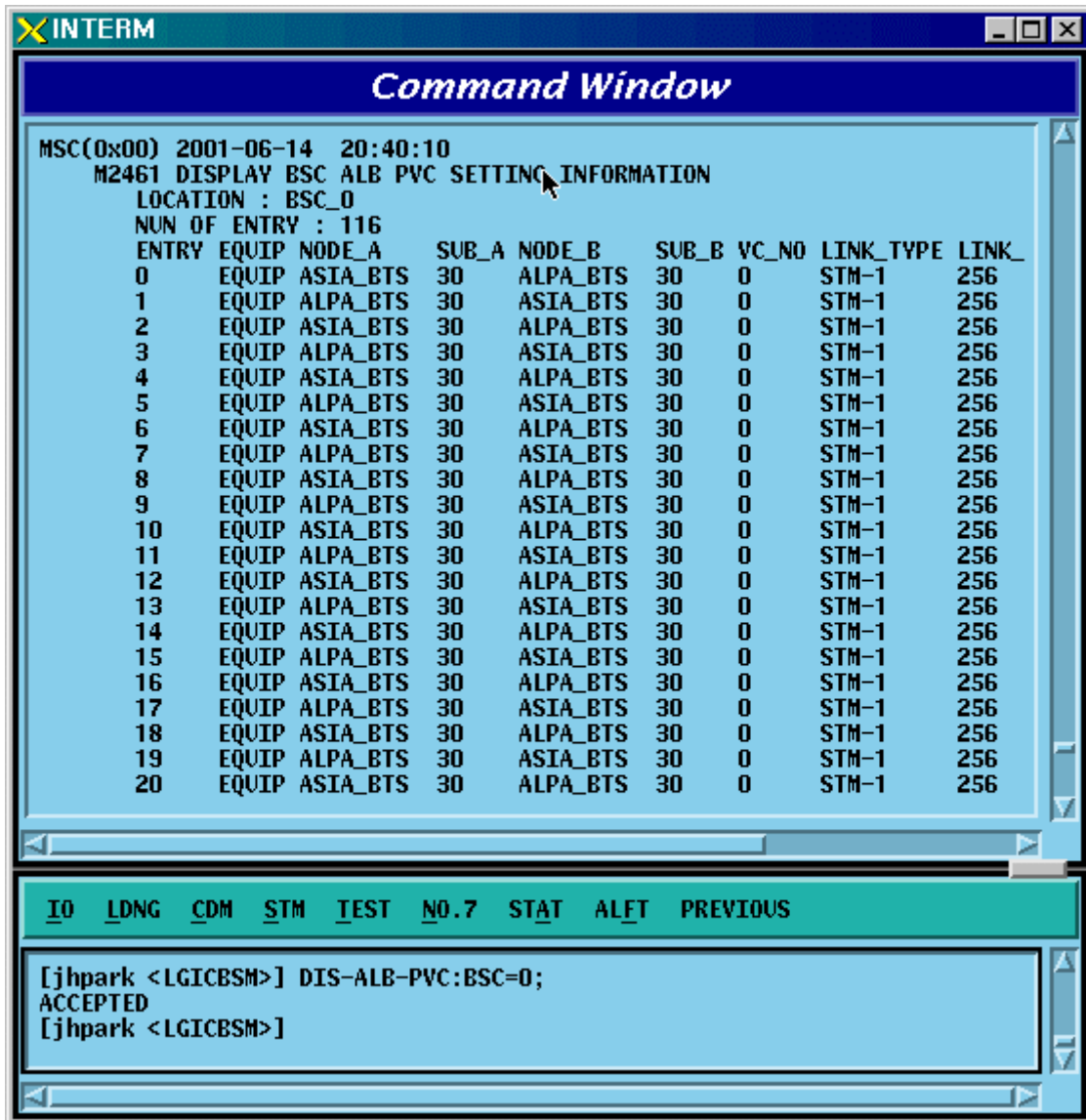


Fig. 4.3-59 BSC ALB PVC SETTING Information Display

### 4.3.3.23. BTS LOCAL PVC SETTING Information Display

- Command DIS-BTS-LPVC: BSC=a;  
a: BSC Number (0~11)
- Input DIS-BTS-LPVC: BSC=0;
- Output

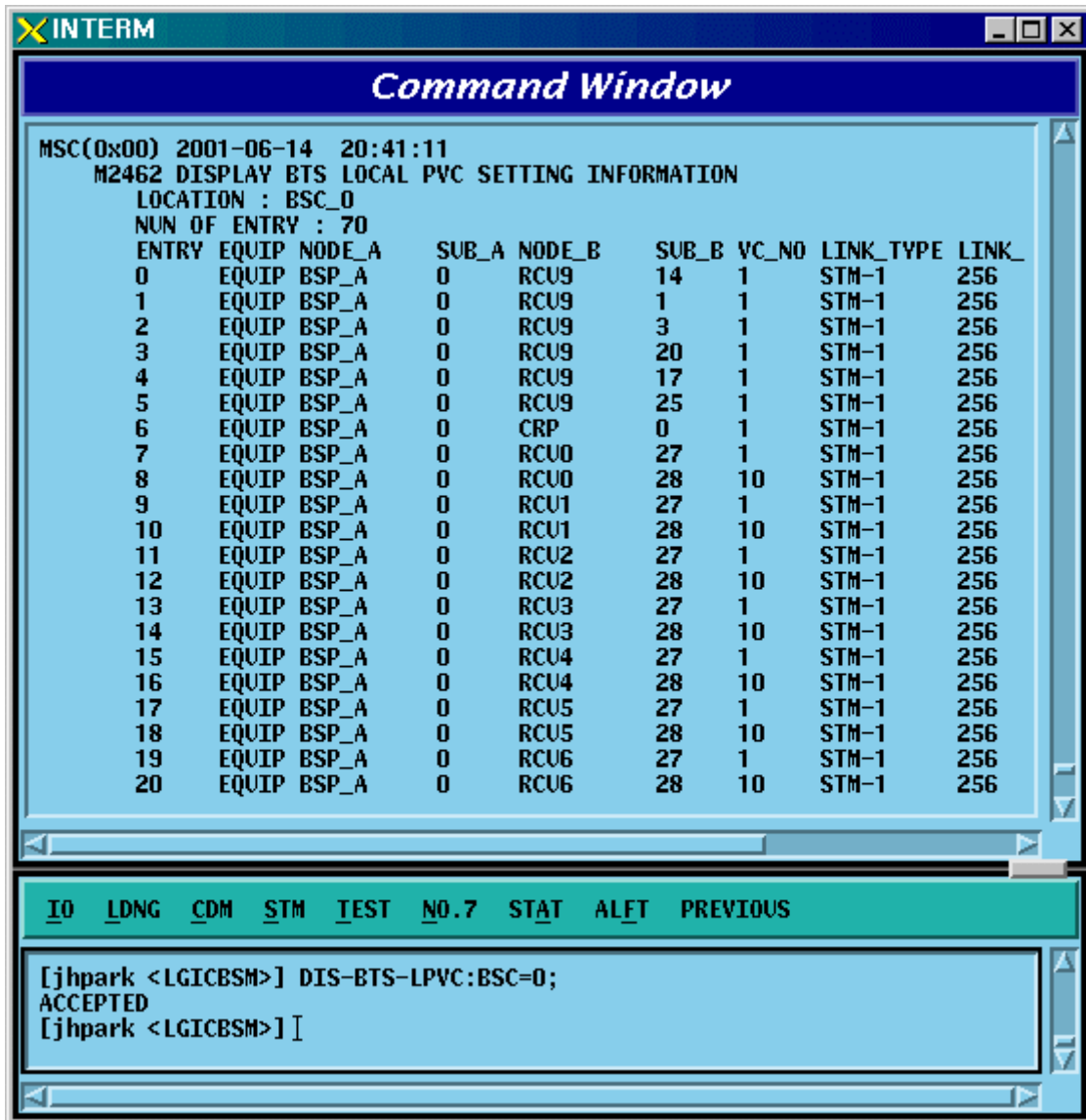


Fig. 4.3-60 BTS LOCAL PVC SETTING Information Display

#### 4.3.3.24. BTS OUTER PVC SETTING Information Display

- Command DIS-BTS-OPVC: BSC=a, BTS=b;  
 a: BSC Number (0~11)  
 b: BTS Number(0~47)
- Input DIS-BTS-OPVC: BSC=0, BTS=0;
- Output

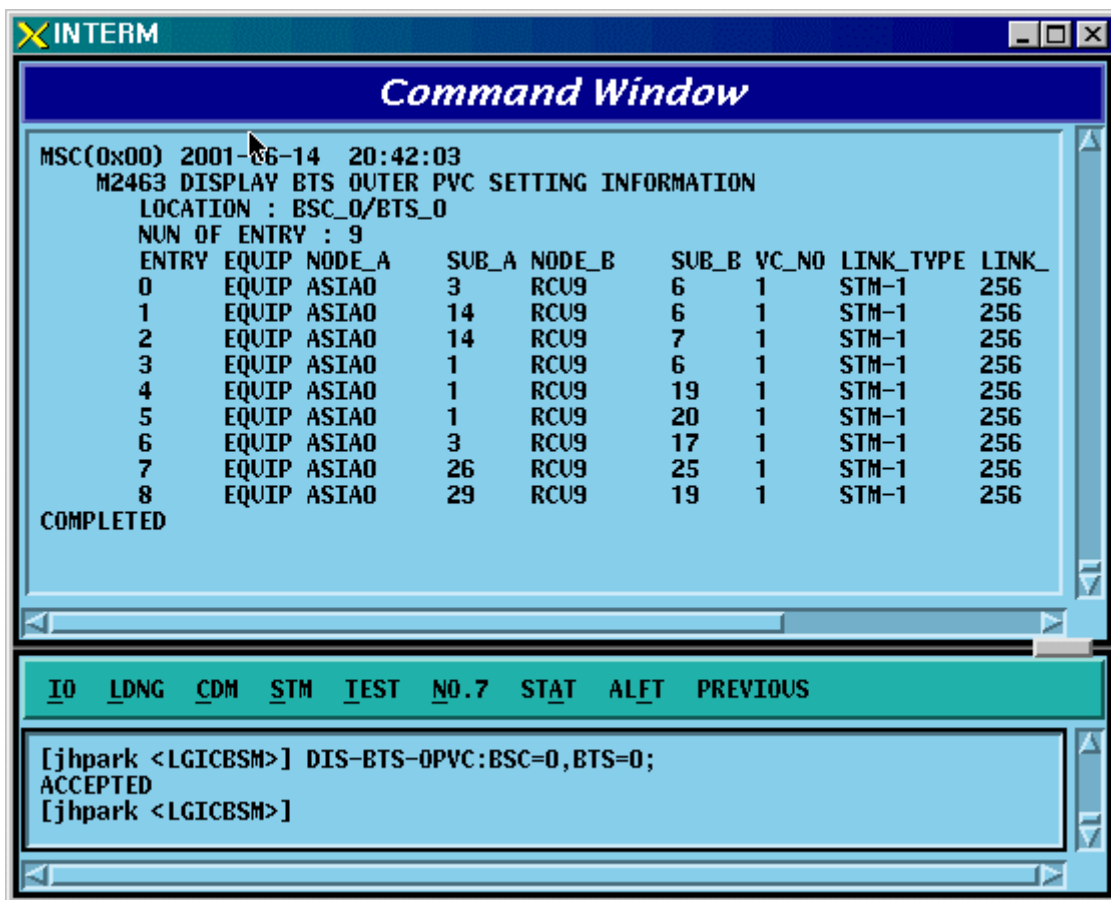


Fig. 4.3-61 BTS OUTER PVC SETTING Information Display

### 4.3.3.25. BSC NETWORK PARAMETER Information Display

- Command DIS-BSC-NETP: BSC=a;  
a: BSC Number (0~11)
- Input DIS-BSC-NETP: BSC=0;
- Output

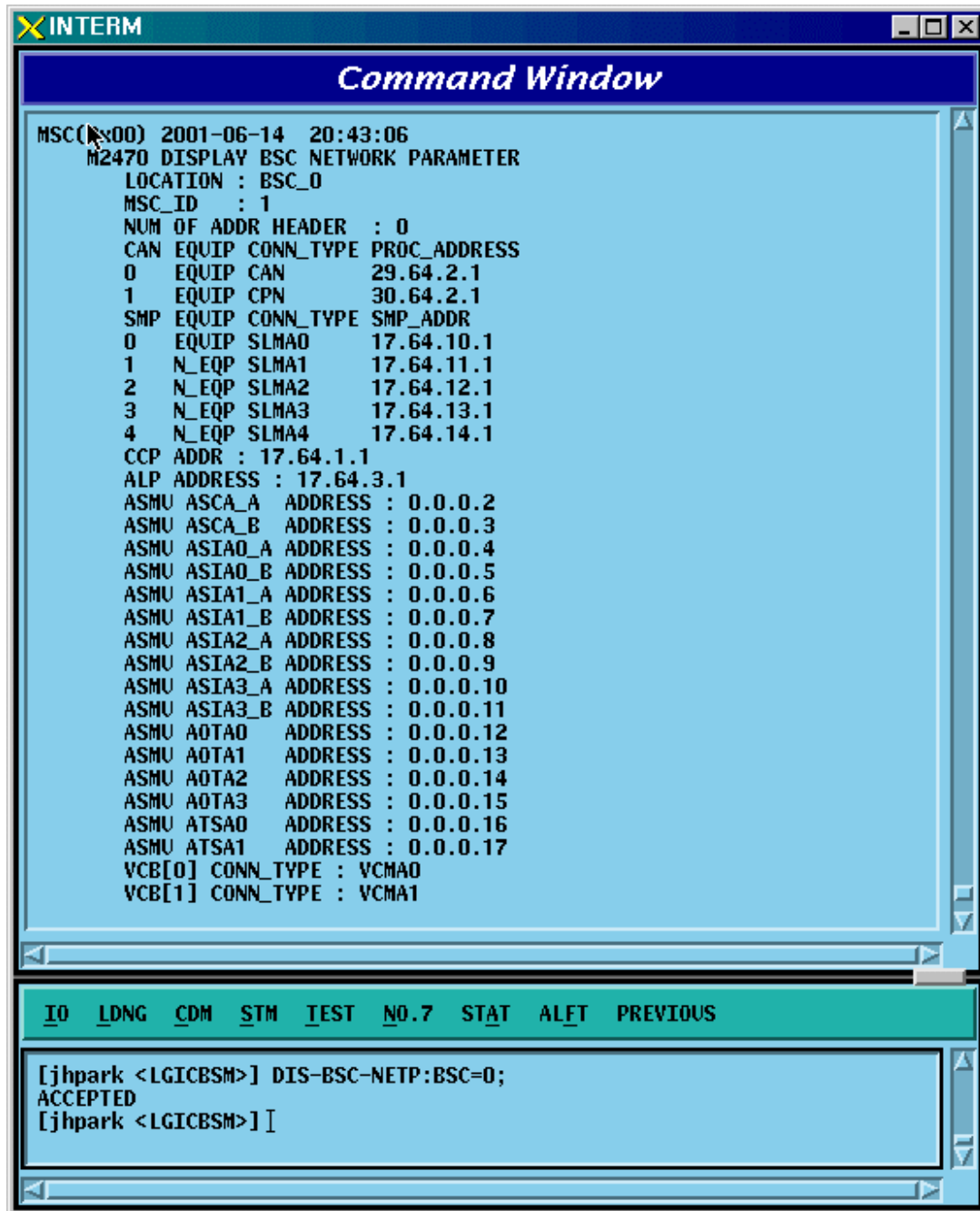


Fig. 4.3-62 BSC NETWORK PARAMETER Information Display



### 4.3.3.26. BSC ALP NETWORK PARAMETER Information Display

- Command DIS-ALS-NETP: BSC=a;  
a: BSC Number (0~11)
- Input DIS-ALS-NETP: BSC=0;
- Output

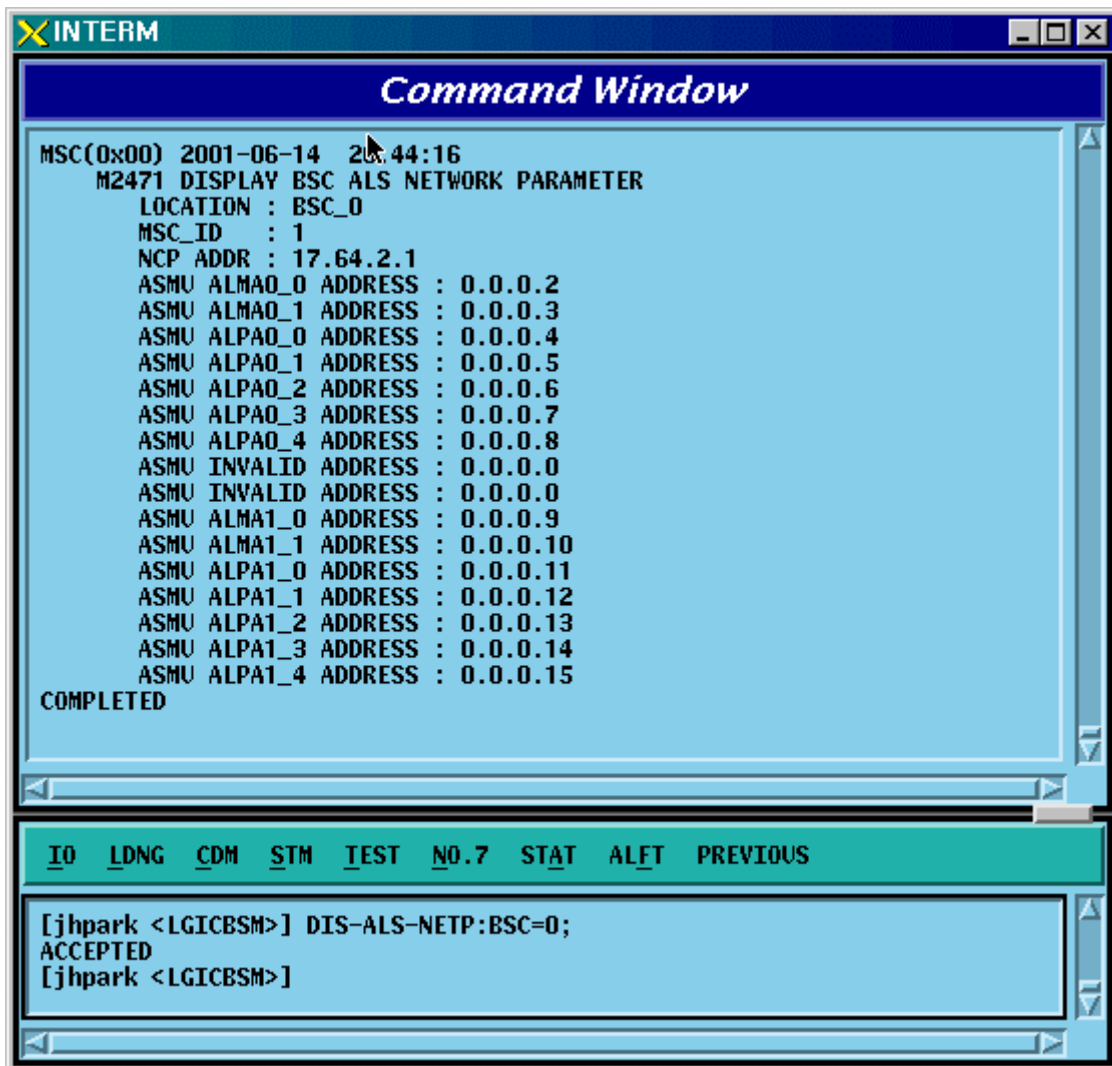


Fig. 4.3-63 BSC ALP NETWORK PARAMETER Information Display

### 4.3.3.27. BSC INTER BSC AAL2 Information Display

- Command DIS-BSC-IUR: BSC=a;  
a: BSC Number (0~11)
- Input DIS-BSC-IUR: BSC=0;
- Output

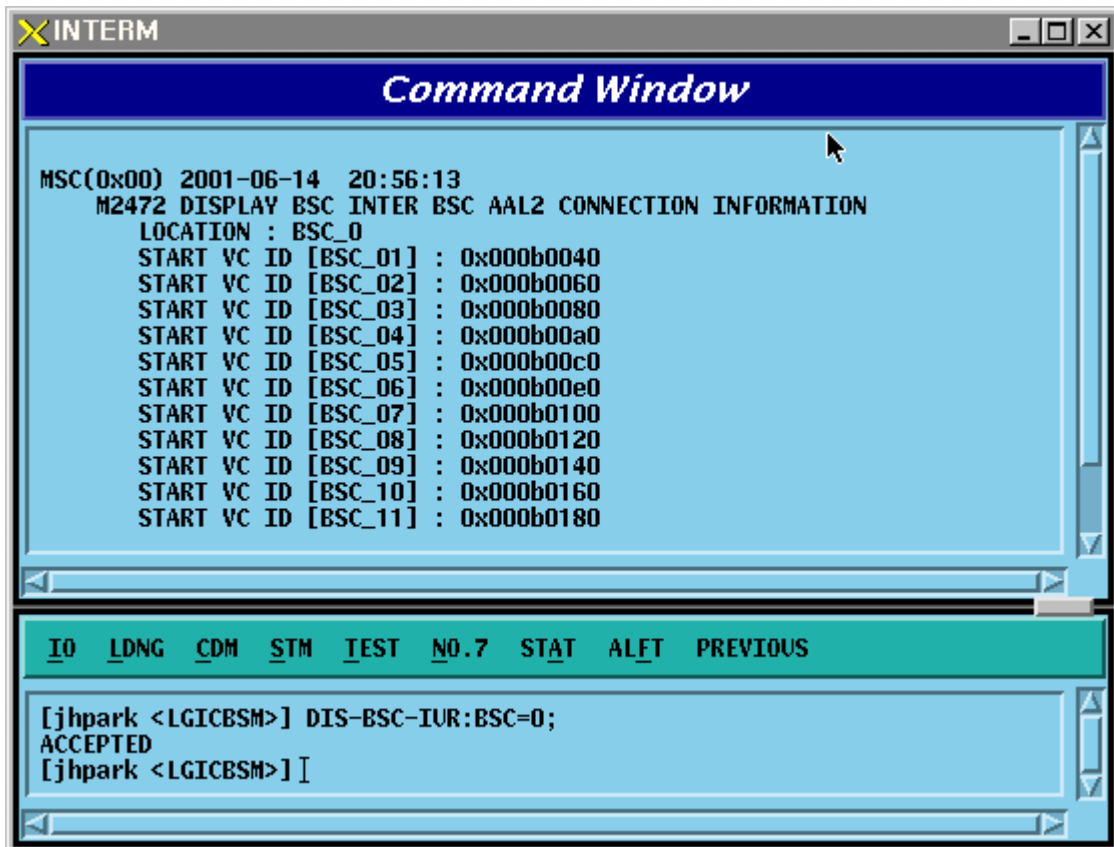


Fig. 4.3-64 BSC INTER BSC AAL2 Information Display

### 4.3.3.28. BSC INTER BTS AAL2 Information Display

- Command DIS-BSC-IUB: BSC=a, BTS=b;  
 a: BSC Number (0~11)  
 b: BTS Number(0~47)
- Input DIS-BSC-IUB: BSC=0, BTS=0;
- Output

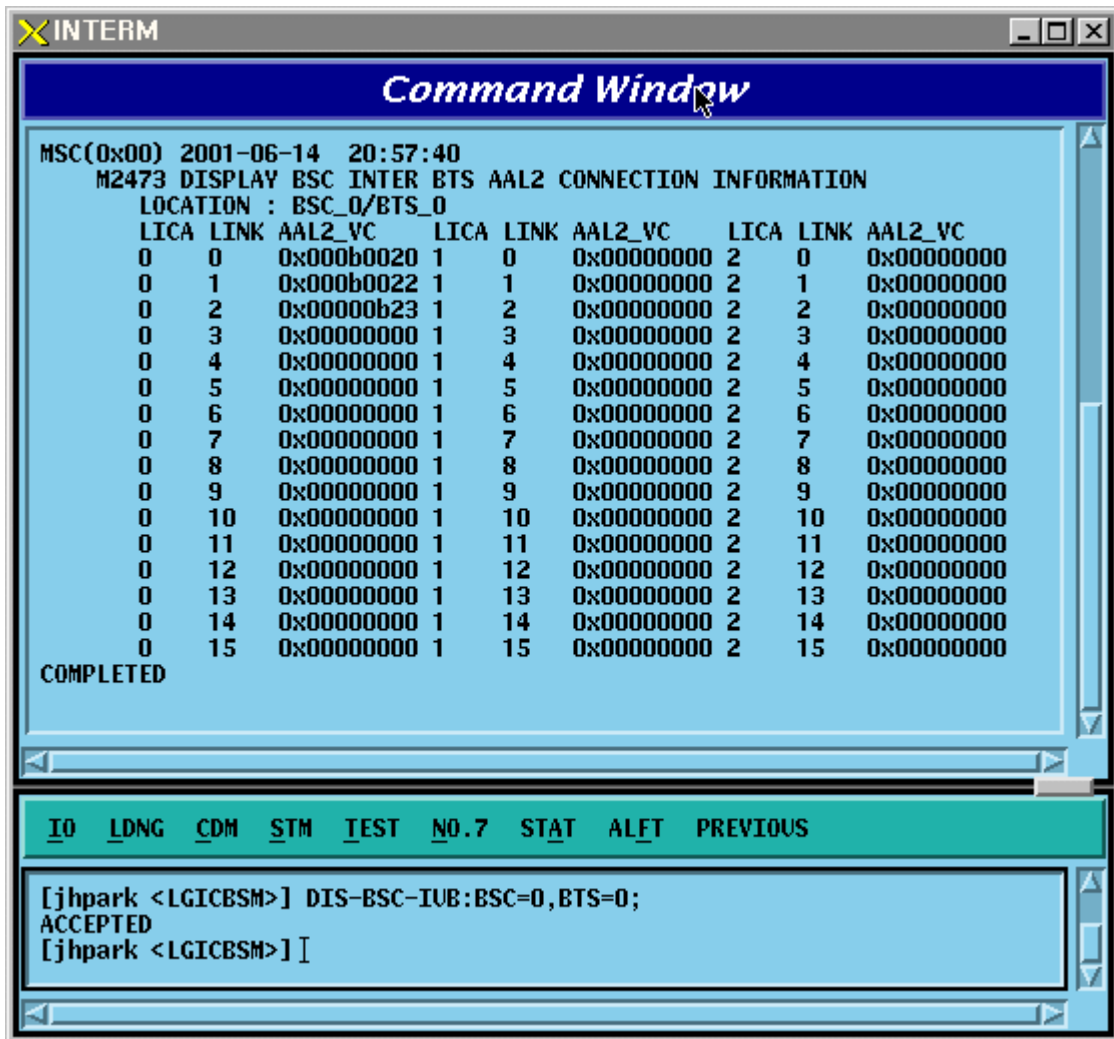


Fig. 4.3-65 BSC INTER BTS AAL2 Information Display

### 4.3.3.29. BSC INTER CAN AAL2/5 Information Display

- Command DIS-BSC-CAN: BSC=a;  
a: BSC Number (0~11)
- Input DIS-BSC-CAN: BSC=0;
- Output

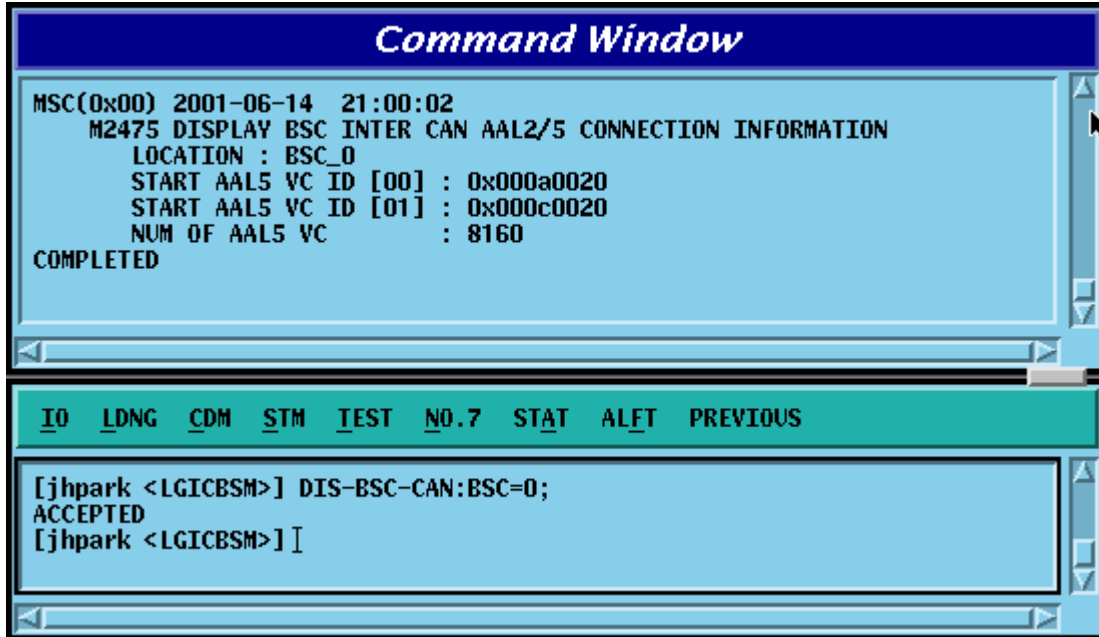


Fig. 4.3-66 BSC INTER CAN AAL2/5 Information Display

### 4.3.3.30. BSC INTER SLB AAL5 Information Display

- Command DIS-BSC-SLB: BSC=a;  
a: BSC Number (0~11)
- Input DIS-BSC-SLB: BSC=0;
- Output'

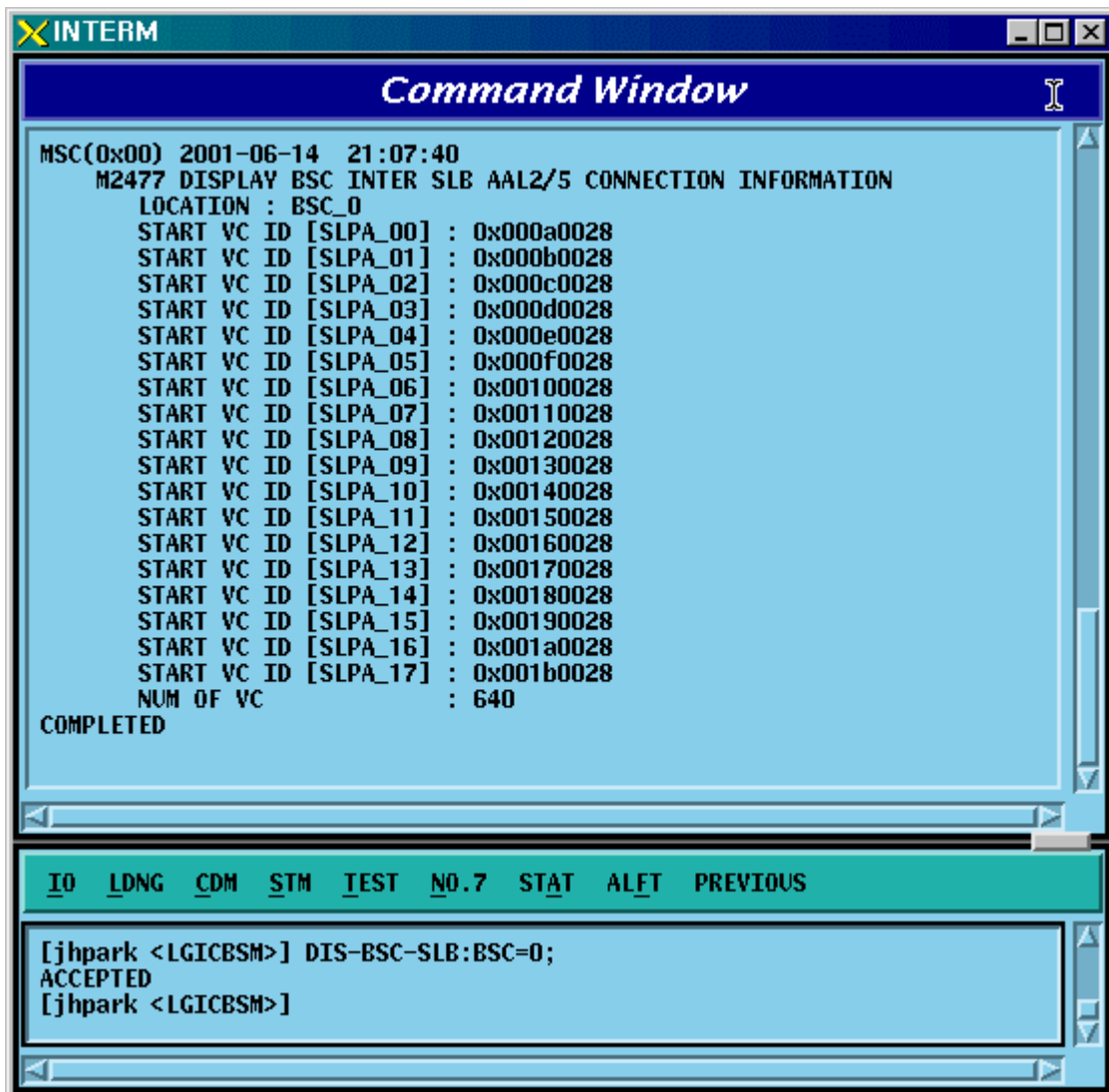


Fig. 4.3-67 BSC INTER SLB AAL5 Information Display

### 4.3.3.31. BSC INTER VCB AAL5 Information Display

- Command DIS-BSC-VCB: BSC=a;  
a: BSC Number (0~11)
- Input DIS-BSC-VCB: BSC=0;
- Output

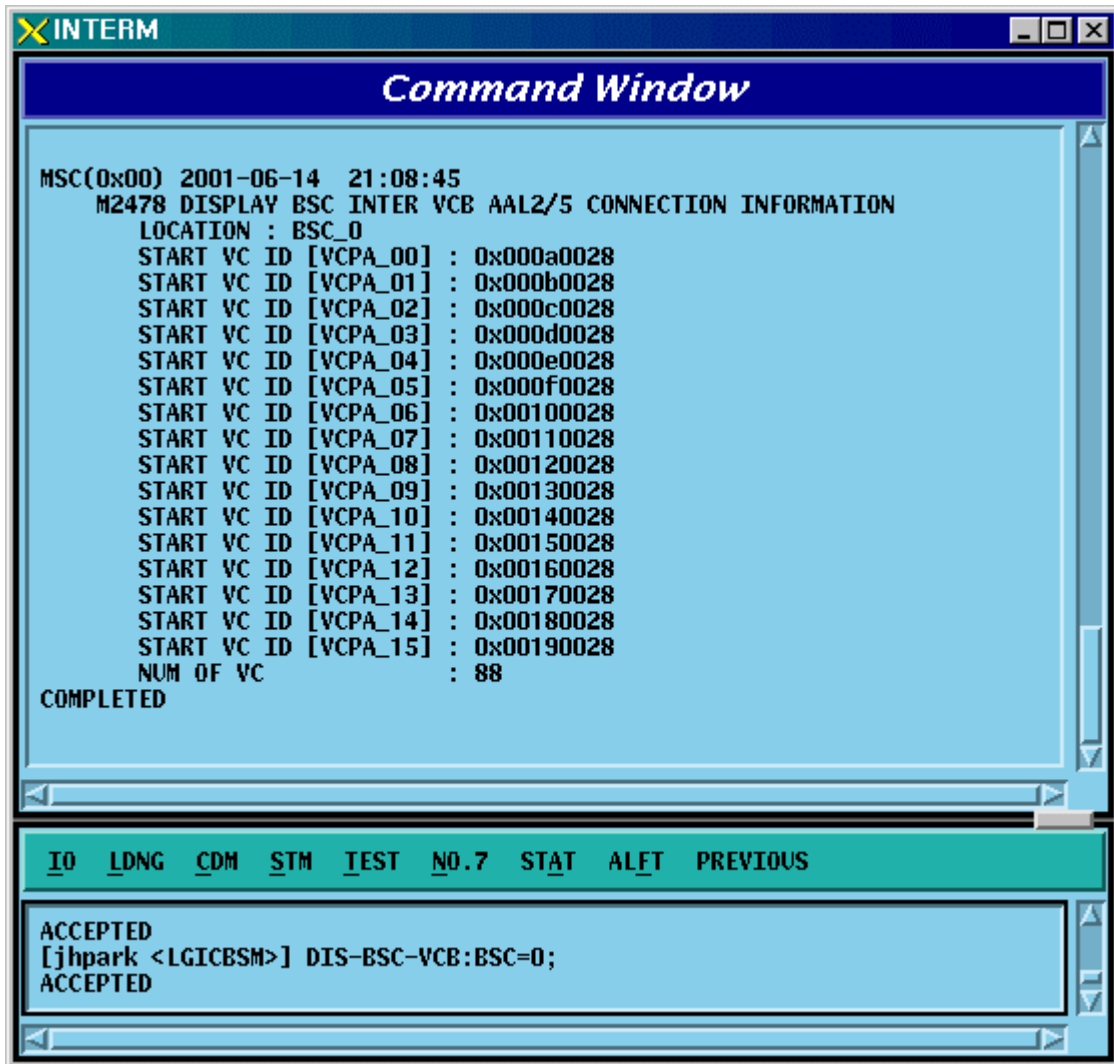


Fig. 4.3-68 BSC INTER VCB AAL5 Information Display

### 4.3.3.32. BSC INTER ALB AAL5 Information Display

- Command DIS-BSC-ALB: BSC=a;  
a: BSC Number (0~11)
- Input DIS-BSC-ALB: BSC=0;
- Output

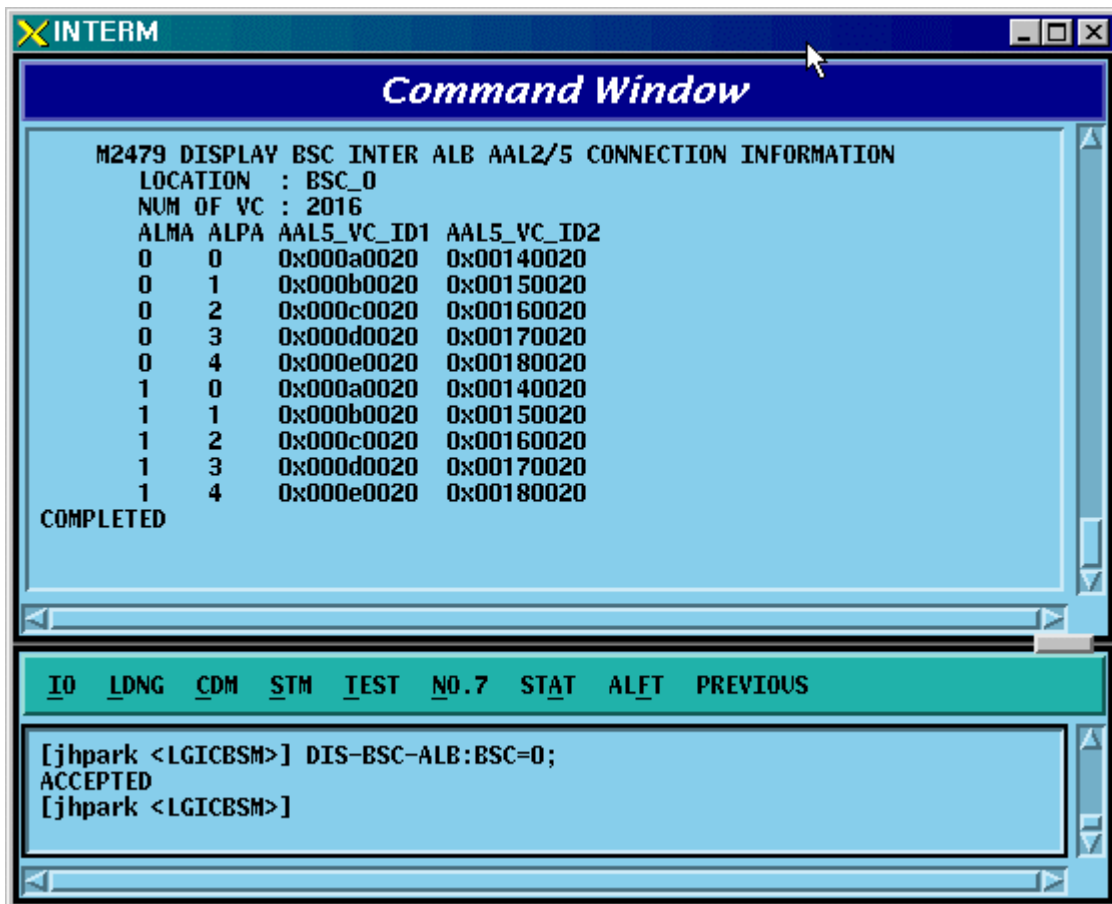


Fig. 4.3-69 BSC INTER ALB AAL5 Information Display

### 4.3.3.33. BTS NETWORK PARAMETER Information Display

- Command DIS-BTS-NETP: BSC=a ,BTS=b;  
a: BSC Number (0~11)  
b: BTS Number (0~47)
- Input DIS-BTS-NETP: BSC=0,BTS=0;
- Output

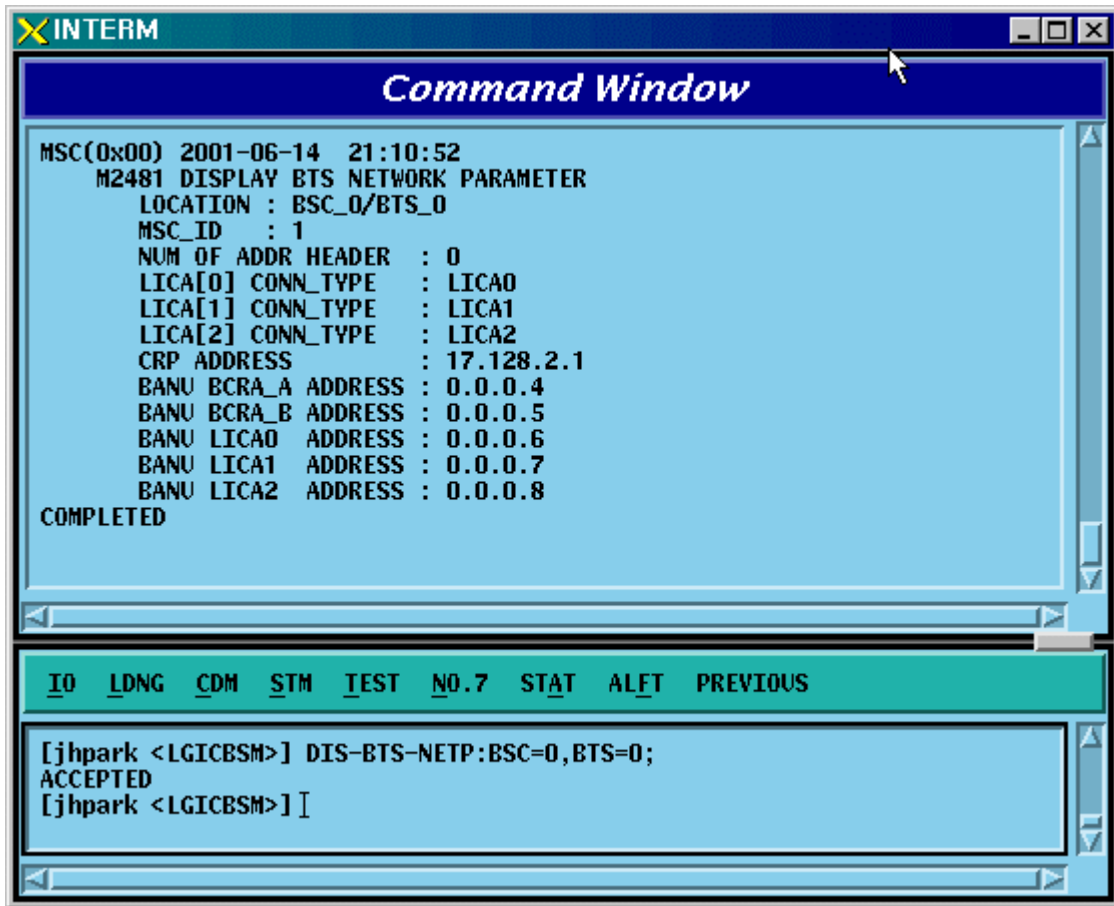


Fig. 4.3-70 BTS NETWORK PARAMETER Information Display



4.3.3.34. BTS INTER BTS AAL2 Information Display

- Command DIS-BTS-IUB: BSC=a ,BTS=b;  
 a: BSC Number (0~11)  
 b: BTS Number (0~47)
- Input DIS-BTS-IUB: BSC=0,BTS=0;
- Output

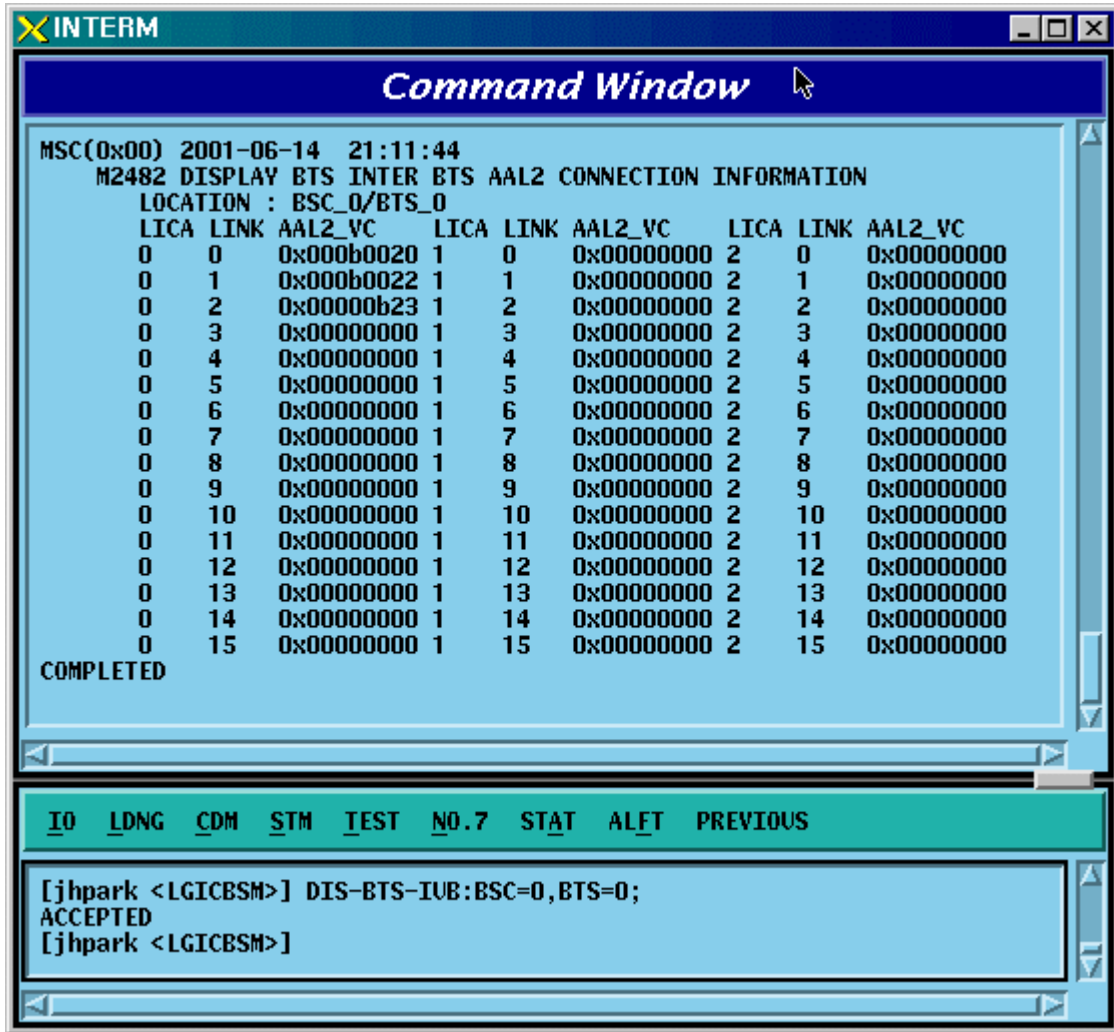


Fig. 4.3-71 BTS INTER BTS AAL2 Information Display

### 4.3.3.35. BTS INTER RCU AAL5 Information Display

- Command DIS-BTS-RCU: BSC=a ,BTS=b;
  - a: BSC Number (0~11)
  - b: BTS Number (0~47)
- Input DIS-BTS-RCU: BSC=0,BTS=0;
- Output

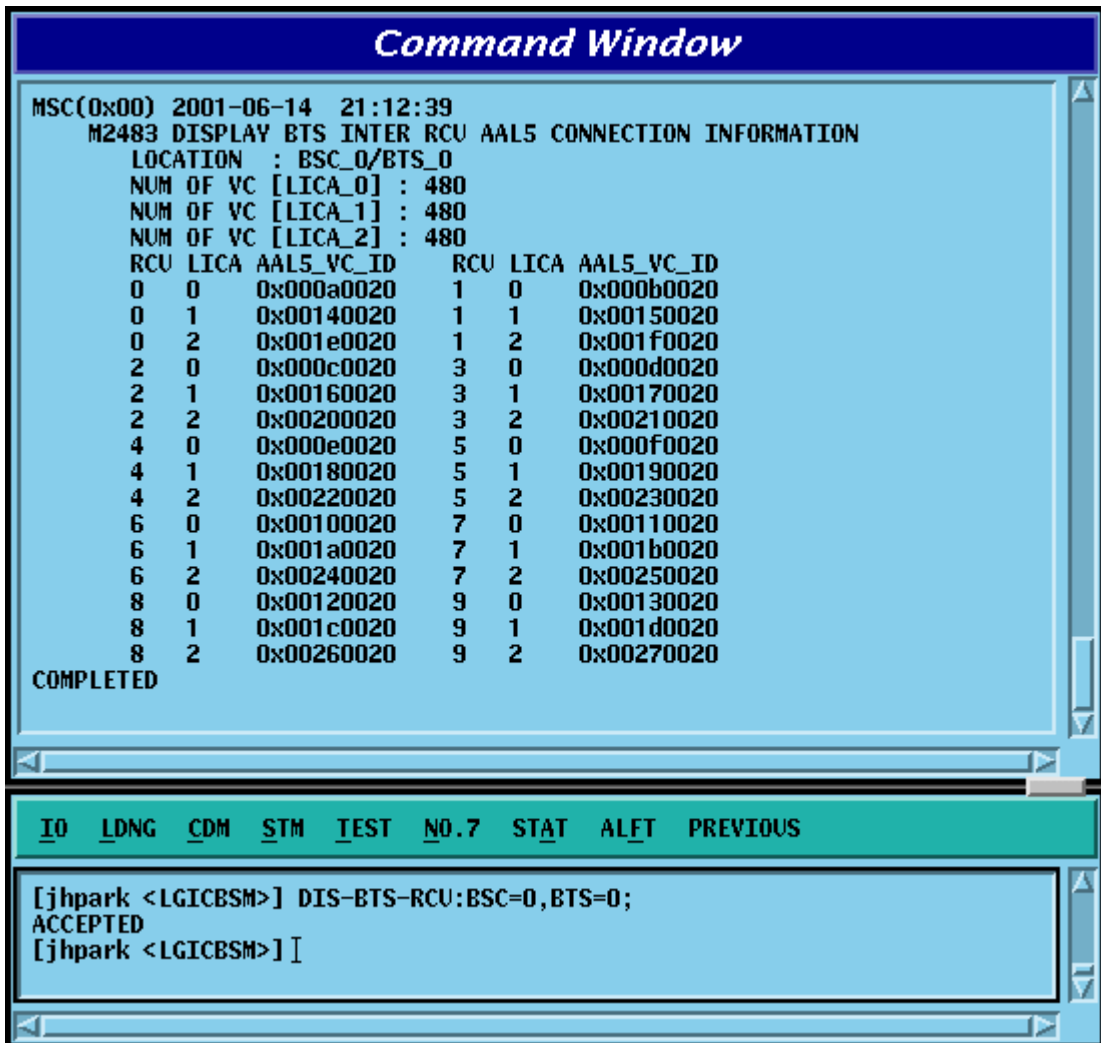


Fig. 4.3-72 BTS INTER RCU AAL5 Information Display

#### 4.3.4. Parameter Information Change Command

##### (Change\_Parameter\_Information\_1)

This section describes commands that are used to change the parameter information that is inquired. The command to change parameter information cannot be easily input by the keyboard since input parameter counts are too many. For this reason, this section will skip the command input in Text and demonstrate window input by mouse. Upon inputting the command, the part in blue is the parameter that the user can change and the user can change part or entire fields among them. For details of each parameter that is input, refer to Appendix.

Table 4.3-1 Parameter Data Change Command (1) List

2201	CHG-BTS-DATA	BTS parameter data change
2202	CHG-SECT-DATA	SECTOR Parameter data change
2203	CHG-CHAN-DATA	CDMA CHANNEL parameter data Change
2205	CHG-SYS1-PARA	SYSTEM PARAMETER(1) change
2206	CHG-SYS2-PARA	SYSTEM PARAMETER(2) change
2207	CHG-EXT1-SYS	EXTENDED SYSTEM PARAMETER(1) change
2208	CHG-EXT2-SYS	EXTENDED SYSTEM PARAMETER(2) change
2209	ADD-NGBR-DATA	Addition of Neighbor cell data
2210	RMV-NGBR-DATA	Deletion of Neighbor cell data
2211	CHG-NGBR-DATA	Neighbor cell data change
2213	CHG-NGBR-BCON	HOPPING BEACON PARAMETER change
2214	CHG-QOS-PARA	QOS parameter data change
2216	CHG-CHIP-PWR	Chip Power Control data change
2222	CHG-TIC-DATA	TIC parameter data change
2223	CHG-SECT-CHAN	Sector CDMA Channel change
2224	CHG-PWR-PARA	Power control parameter data change
2225	CHG-AC-PARA	ACCESS CHANNEL parameter information change
2226	CHG-TXMS-PARA	TXMS parameter data change
2227	START-BTS-CALB	BTS CALIBRATION start
2229	CHG-GSRM-PARA	PC GLOBAL REDIRECT parameter change
2230	CHG-ACC-PARA	ACCESS PARAMETER change
2232	CHG-PC-PARA	PAGING CHANNEL parameter data change
2233	CHG-PICH-PARA	PILOT CHANNEL parameter data change
2236	CHG-SC-PARA	SYNC CHANNEL parameter data change
2238	CHG-QPC-PARA	QUICH PAGING CHANNEL parameter data change
2239	CHG-BCON-PARA	HOPPING PILOT BEACON CHANNEL parameter data change

### 4.3.4.1. BTS Parameter Information Change

To change the BTS parameter information, click CDM->Change\_Parameter\_Information->Change BTS Data on the Command Window in order and input the value that the command wants to change in each field.

- Command CHG-BTS-DATA :BSC=a ,BTS=b [,SID=c] [,NID=d] [,BASE\_ID=e] [,BASE\_CLASS=f] [,REG\_ZONE=g] [,LTM\_OFF=h] [,DAY\_LT=i] [,BASE\_LAT=j] [,BASE\_LONG=k] [,TUB\_ENC=l] [,REV\_PWR=m];

- Input CHG-BTS-DATA :BSC=0 ,BTS=0 ,SID=3333;

- Output

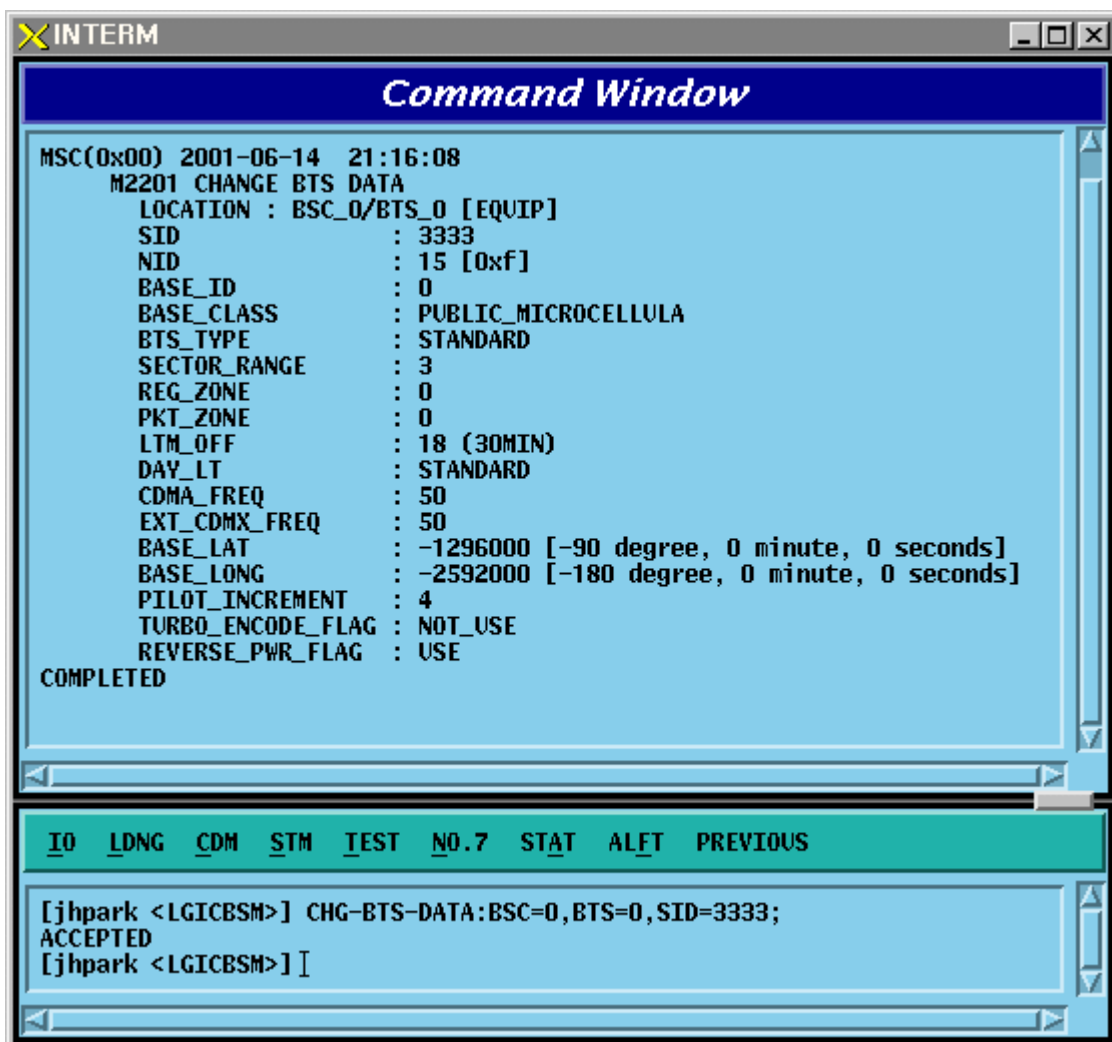


Fig. 4.3-73 BTS Parameter Information Display

#### 4.3.4.2. Sector Parameter Information Change

To change the sector parameter information, click CDM->Change\_Parameter\_Information\_1-> CHG-SECT-DATA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-SECT-DATA :BSC=a ,BTS=b ,SECT=c [,PN=d] [,CNTL\_PARA=e] ;
- Input CHG-SECT-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA ,PN=40;
- Output

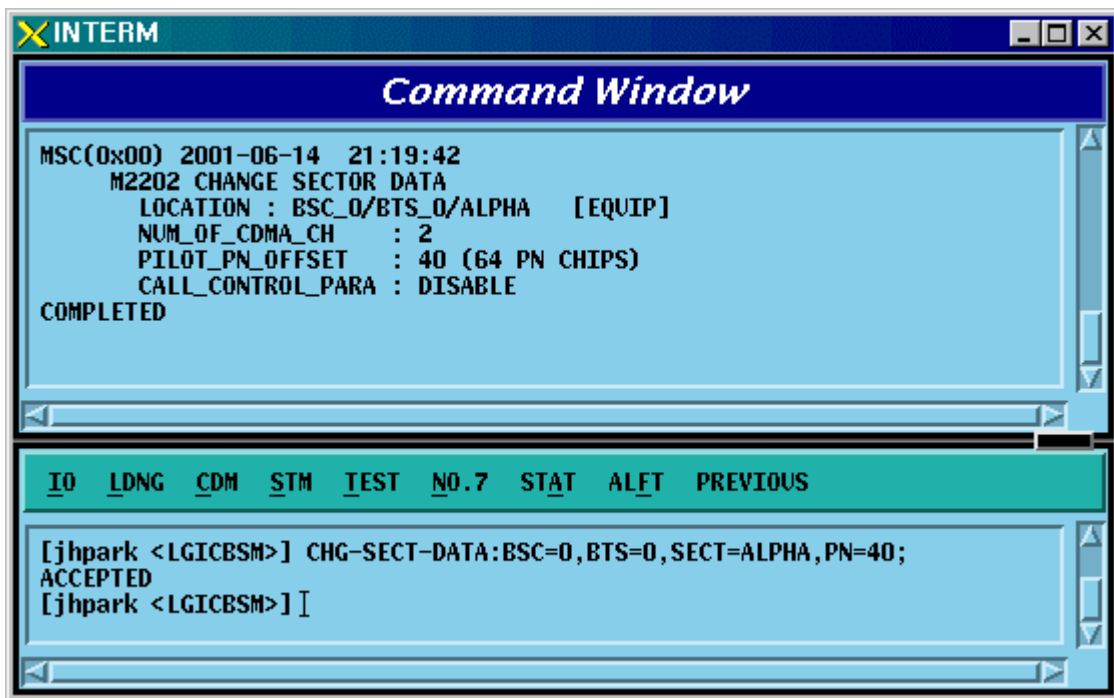


Fig. 4.3-74 Sector Parameter Information Change

#### 4.3.4.3. CDMA Channel Parameter Information Change

To change the CDMA parameter information, click CDM->Change\_Parameter\_Information\_1-> CHG-CHAN-DATA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-CHAN-DATA :BSC=a ,BTS=b ,CDMACH=c  
[,FREQ\_BAND=d] [,CH\_NUM=e] [,TCE\_4HO=f] [,MAX\_SCH=g];
- Input CHG-CHAN-DATA :BSC=0,BTS=0 ,CDMACH=0 ,FREQ\_BAND=2222;
- Output

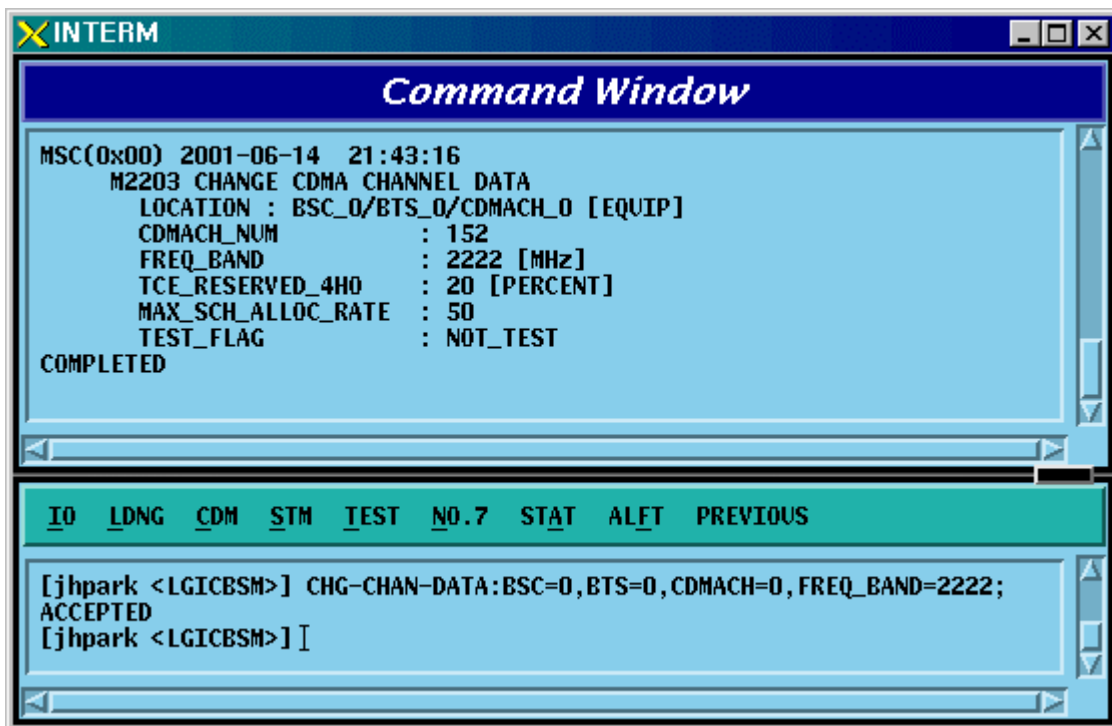


Fig. 4.3-75 CDMA Channel Parameter Information Display

#### 4.3.4.4. SYSTEM PARAMETER(1) Change

To change the system parameter message, click CDM-> Change\_Parameter\_Information\_1-> CHG-SYS1-PARA on the Command Window in order. As the System Parameter Message have many elements, they are divided into the three commands. The output format for each command is the same.

- Command CHG-SYS1-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,TOT\_ZONE=e] [,ZONE\_TIME=f] [,MULT\_SIDS=g] [,MULT\_NIDS=h] [,REP\_THSH=i] [,REP\_FRAM=j] [,SRCH\_WINA=k] [,SRCH\_WINN=l] [,SRCH\_WINR=m] [,NGHB\_MAGE=n] [,T\_ADD=o] [,T\_DROP=p] [,T\_COMP=q] [,T\_TDRP=r];
- Input CHG-SYS1-PARA :BSC=0,BTS=0 ,SECT=ALPHA,CDMACH=0,TOT\_ZONE=5
- Output

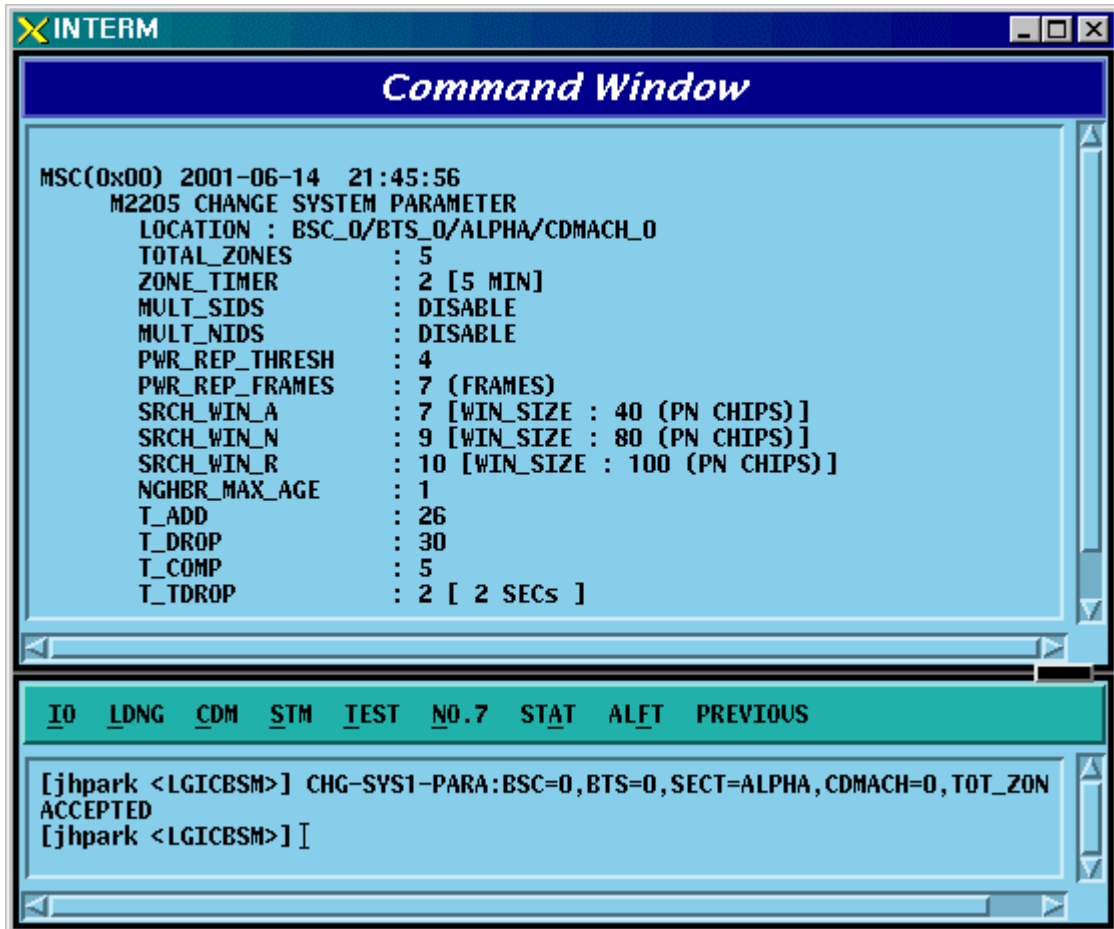




Fig. 4.3-76 System Parameter Change(1) Display

#### 4.3.4.5. SYSTEM

#### 4.3.4.6. PARAMETER(2) Change

To change the system parameter message, click CDM-> Change\_Parameter\_Information\_1-> CHG-SYS2-PARA on the Command Window in order. Since the System Parameter Message have many elements, they are divided into three commands. The output format for each command is the same.

- Input CHG-SYS2-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,HOME\_REG=e] [,MAX\_SCI=f] [,NID\_REG=g] [,SID\_REG=h] [,PARAM\_REG=i] [,REG\_PRD=j] [,REG\_DIST=k] [,PWR\_UP=l] [,PWR\_DOWN=m] [,THSH\_EABL=n] [,PRID\_EABL=o] [,REP\_DELY=p] [,RE\_SCAN=q] [,EXT\_SYS=r] [,EXT\_NGHBR=s] [,GEN\_NGHBR=t] [,REDIRECT=u] [,PRI\_NGHBR=v] [,USER\_ZONE=w] [,EXT\_REDIRECT=x] [,EXT\_CHAN=y] ;
- Output CHG-SYS2-PARA :BSC=0 ,BTS=0,SECT=ALPHA ,CDMACH=0, HOME\_REG=MANUAL;
- Display

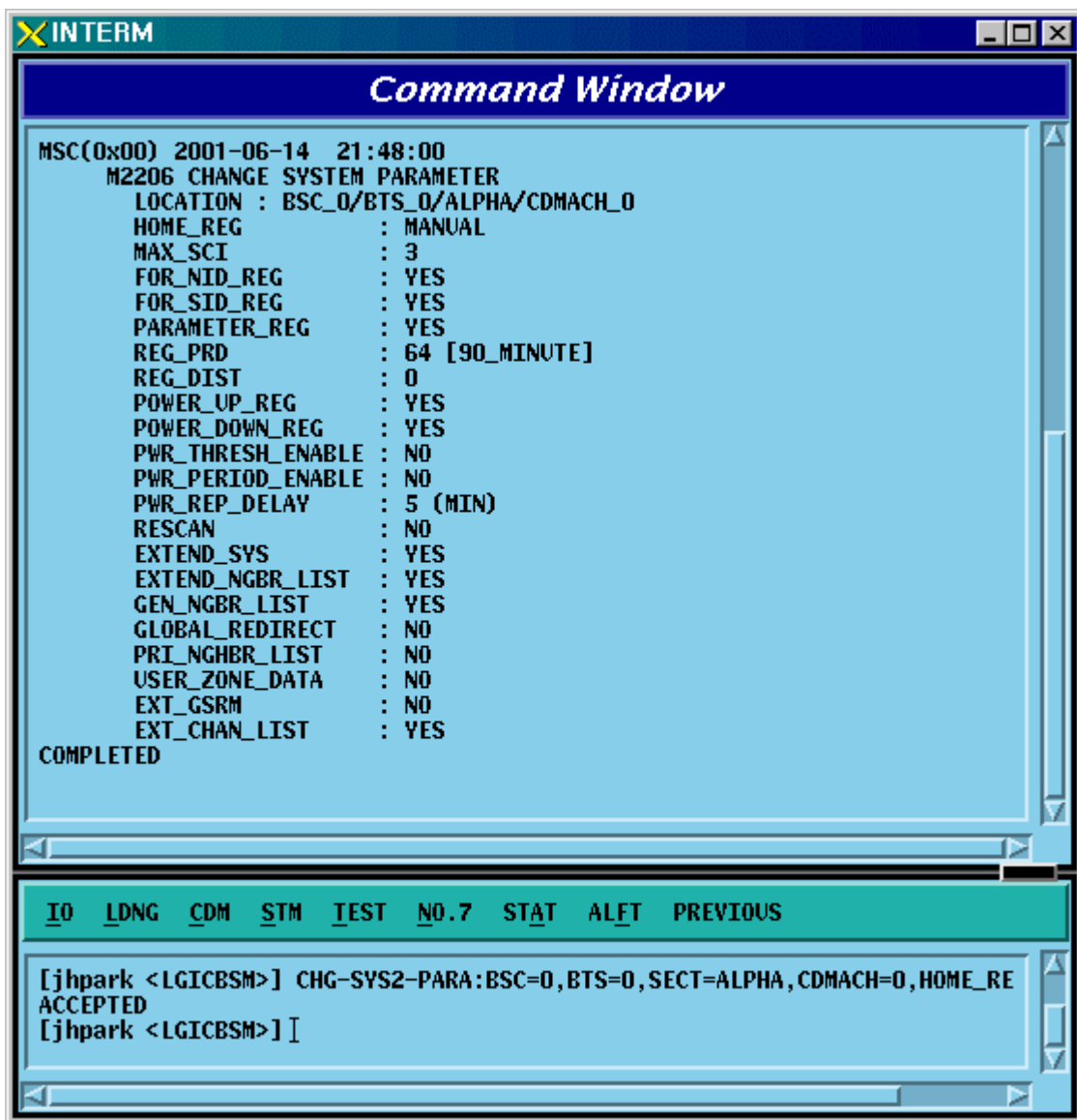


Fig. 4.3-77 System Parameter Change(2) Display

#### 4.3.4.7. EXTENDED SYSTEM PARAMETER(1) Change

To change the Extended System Parameter Message, click CDM-> Change\_Parameter\_Information\_1-> CHG-EXT1-SYS on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Change CHG-EXT1-SYS :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,PREF\_MSID=e]  
[,MCC=f] [,IMSI\_11\_12=g] [,TMSI\_LEN=h]  
[,TMSI\_ZONE\_1=i] [,TMSI\_ZONE\_2=j] [,TMSI\_ZONE\_3=k]  
[,TMSI\_ZONE\_4=l] [,TMSI\_ZONE\_5=m]  
[,TMSI\_ZONE\_6=n] [,TMSI\_ZONE\_7=o]  
[,TMSI\_ZONE\_8=p] [,BCAST\_IDX=q] [,SOFT\_SLOPE=r]  
[,ADD\_INT=s] [,DROP\_INT=t] [,NGBR\_SET=u]  
[,ACCESS\_HO=v] [,HO\_MSG\_RSP=w] [,ACC\_PRB\_HO=x] [,PRB\_HO\_OT=y] ;
- Input CHG-EXT1-SYS :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,  
PREF\_MSID=IMSI;
- Output

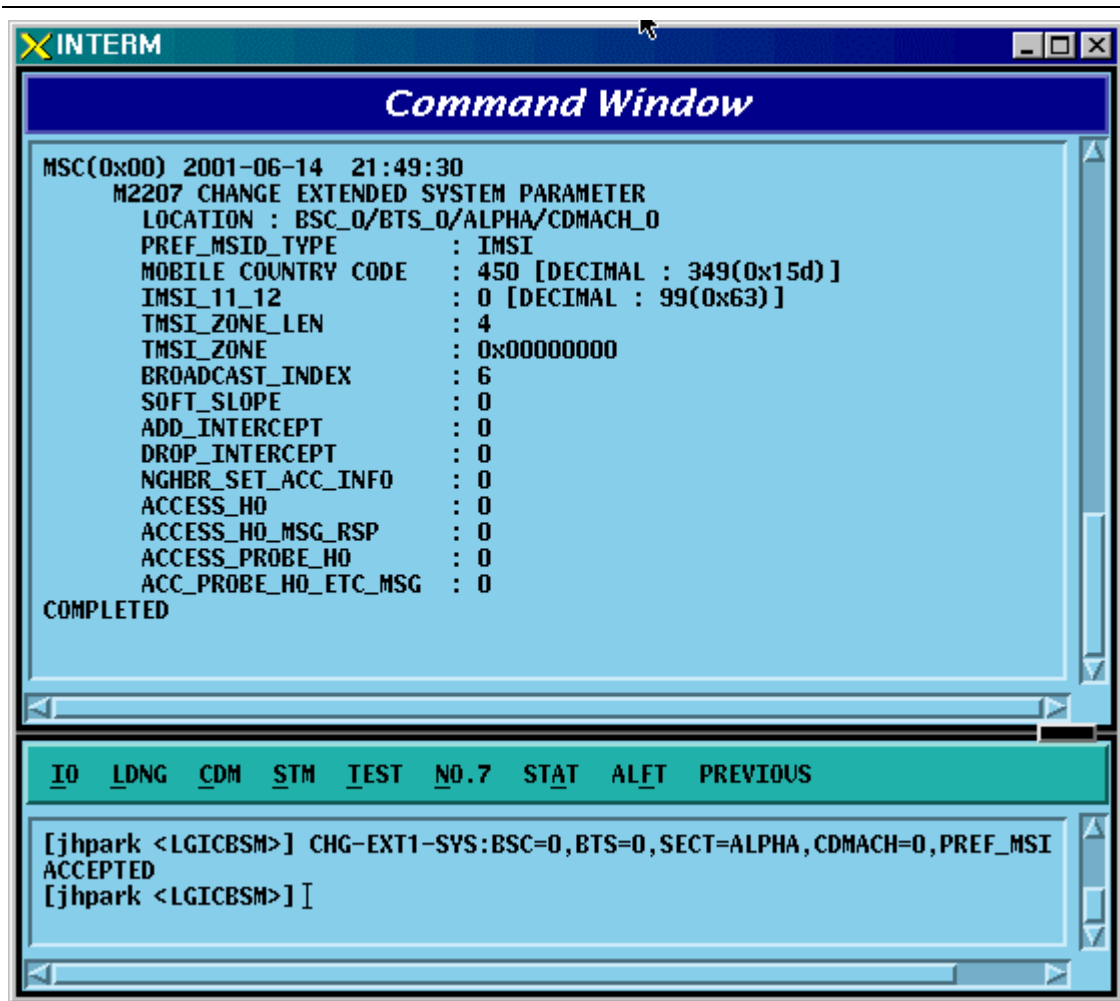


Fig. 4.3-78 Extended System Parameter Change(1) Display

#### 4.3.4.8. EXTENDED SYSTEM PARAMETER(2) Change

To change the Extended System Parameter Message, click CDM-> Change\_Parameter\_Information\_1-> CHG-EXT2-SYS on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-EXT2-SYS :BSC=a ,BTS=b ,SECT=c ,CDMACH=d  
[,IMSL\_T\_SUPRT=e]  
[,P\_REV=f] [,MIN\_P\_REV=g] [,MAX\_ALT\_SO=h]  
[,RESEL\_INCL=i] [,EC\_THRESH=j]  
[,EC\_IO\_THRESH=k] [,PILOT\_REPORT=l]  
[,NGBR\_SET\_INF=m] [,ACC\_HO\_ORD=n] [,HO\_LIST\_UPD=o]  
[,MAX\_PRB\_HO=p] [,BRD\_GPS\_ASS=q] [,QPC\_SUPPORT=r] [,NUM\_QPCH=s]  
[,QPCH\_RATE=t] [,QPC\_PWR\_LEV=u] [,QPC\_CCI=v] [,QPC\_PWR\_CFG=w]  
[,SDB\_SUPPORT=x] [,MAC\_CF\_SPRT=y] [,RLGAIN\_PICH=z];
- Input CHG-EXT2-SYS :BSC=0 ,BTS=0,SECT=ALPHA ,CDMACH=,IMSL\_T\_SUPRT=1;
- Output

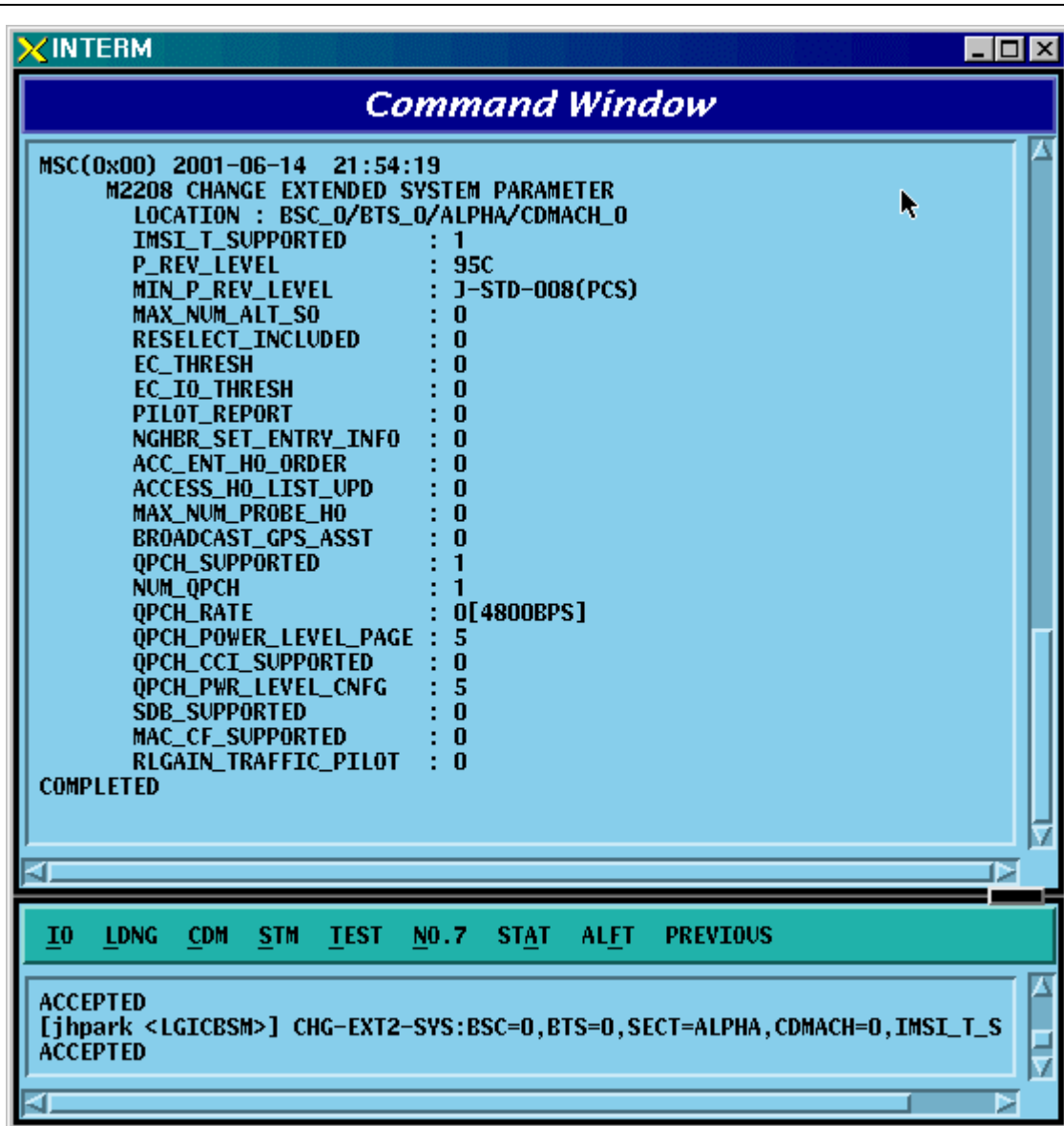


Fig. 4.3-79 Extended System Parameter Change(2) Display

#### 4.3.4.9. Neighbor Cell Information Addition

To add the neighbor list, click the CDM->Change\_Parameter\_Information\_1-> ADD-NGBR-DATA on the Command Window in order. If the next input window is displayed, then input the values to be changed.

- Command `ADD-NGBR-DATA :BSC=a ,BTS=b ,SECT=c ,INDEX=d ,NGBR_CNFG=e ,NGBR_PN=f ,NGBR_SID=g ,NGBR_NID=h ,NGBR_BASE=i ,NGBR_MSC=j ,NGBR_BSC=k ,NGBR_BTS=l ,NGBR_SECT=m ,NGBR_MSC_T=n ,NGBR_BSC_T=o,NGBR_BCON=p ,SRCH_PRIO=q ,FREQ_INCL=r [,NGBR_BAND=s] [,NGBR_FREQ=t] [,TIME_INCL=u] [,TX_OFFSET=v] [,TX_DURATION=w] [,TX_PERIOD=x] [,SRCH_SET=y] [,ADD_PICH_REC=z] [,PICH_REC=] [,OTD_PWR=] [,SRCH_OFFSET=] [,ACC_HO=] [,ACC_HO_ALW=];`
- Input `ADD-NGBR-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA ,INDEX=0 ,NGBR_CNFG=0 ,NGBR_PN=0 ,NGBR_SID=0 ,NGBR_NID=0 ,NGBR_BASE=0 ,NGBR_MSC=0 ,NGBR_BSC=0 ,NGBR_BTS=0 ,NGBR_SECT=ALPHA ,NGBR_MSC_T=LG_MSC ,NGBR_BSC_T=LG_BSC,NGBR_BCON=NO ,SRCH_PRIO=LOW ,FREQ_INCL=NO,NGBR_BAND=Mhz_800;`

- Output

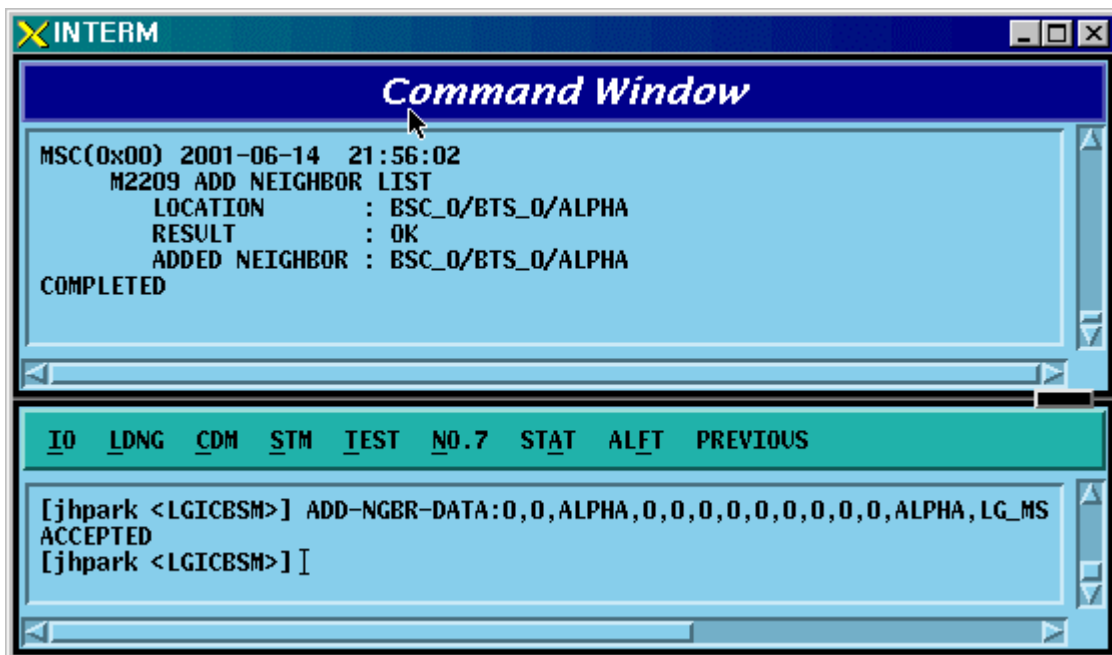


Fig. 4.3-80 Neighbor Cell Addition Display

#### 4.3.4.10. Neighbor Cell Information Deletion

To delete the neighbor list, click CDM->Change\_Parameter\_Information\_1-> RMV-NGBR-DATA on the Command Window in order. If the next window is displayed, then input the sector and PN value of the sector to be deleted.

- Command RMV-NGBR-DATA :BSC=a ,BTS=b ,SECT=c ,NGBR\_PN=d;
- Input RMV-NGBR-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA ,NGBR\_PN=0;
- Output

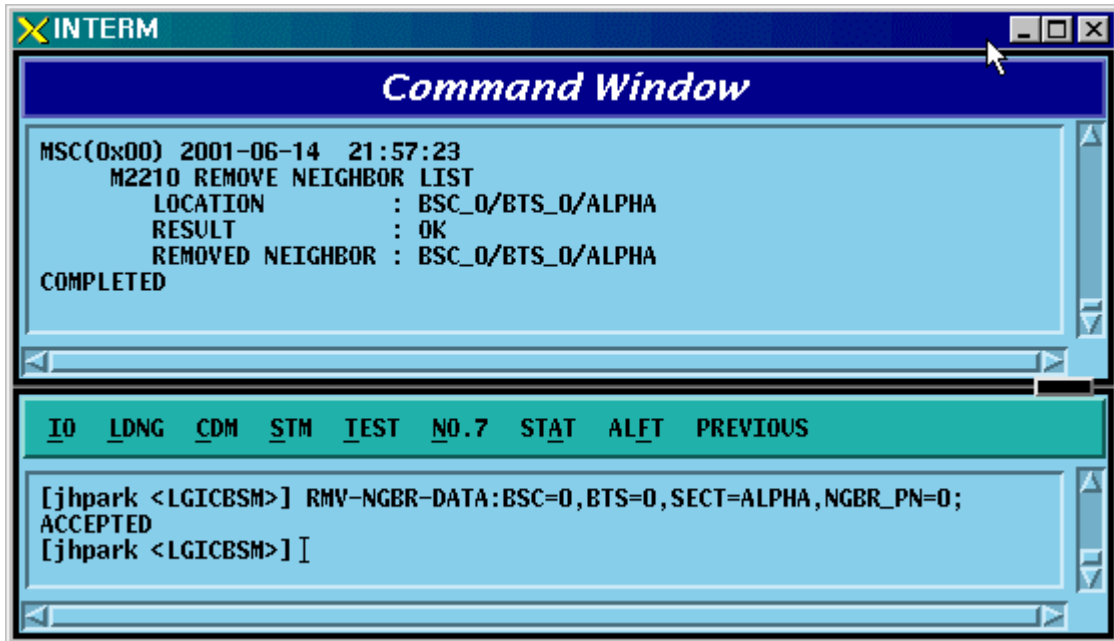


Fig. 4.3-81 Neighbor Cell Information Deletion Display



#### 4.3.4.11. Neighbor Cell Information Change

To change the neighbor list, click CDM->Change\_Parameter\_Information\_1-> CHG-NGBR-DATA on the Command Window in order. If the next input Window is displayed, input the sector and the PN value of the sector to be deleted.

- Command CHG-NGBR-DATA :BSC=a ,BTS=b ,SECT=c ,NGBR\_PN=d ,NEW\_INDEX=e

- Input

- Output

#### 4.3.4.12. HOPPING BEACON PARAMETER Change

To change Hopping Beacon Parameter, click CDM->Change\_Parameter\_Information\_1-> CHG-NGBR-BCON on the Command Window in order.

- Command CHG-NGBR-BCON :BSC=a ,BTS=b ,SECT=c ,CDMACH=d  
[,NGBR\_SRCH=e]  
[,USE\_TIMING=f] [,G\_TIME\_INCL=g] [,G\_TX\_DURATE=h]  
[,G\_TX\_PERIOD=i] [,SRCH\_OFF\_INC=j] ;
- Input CHG-NGBR-BCON :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,  
NGBR\_SRCH=255;
- Output

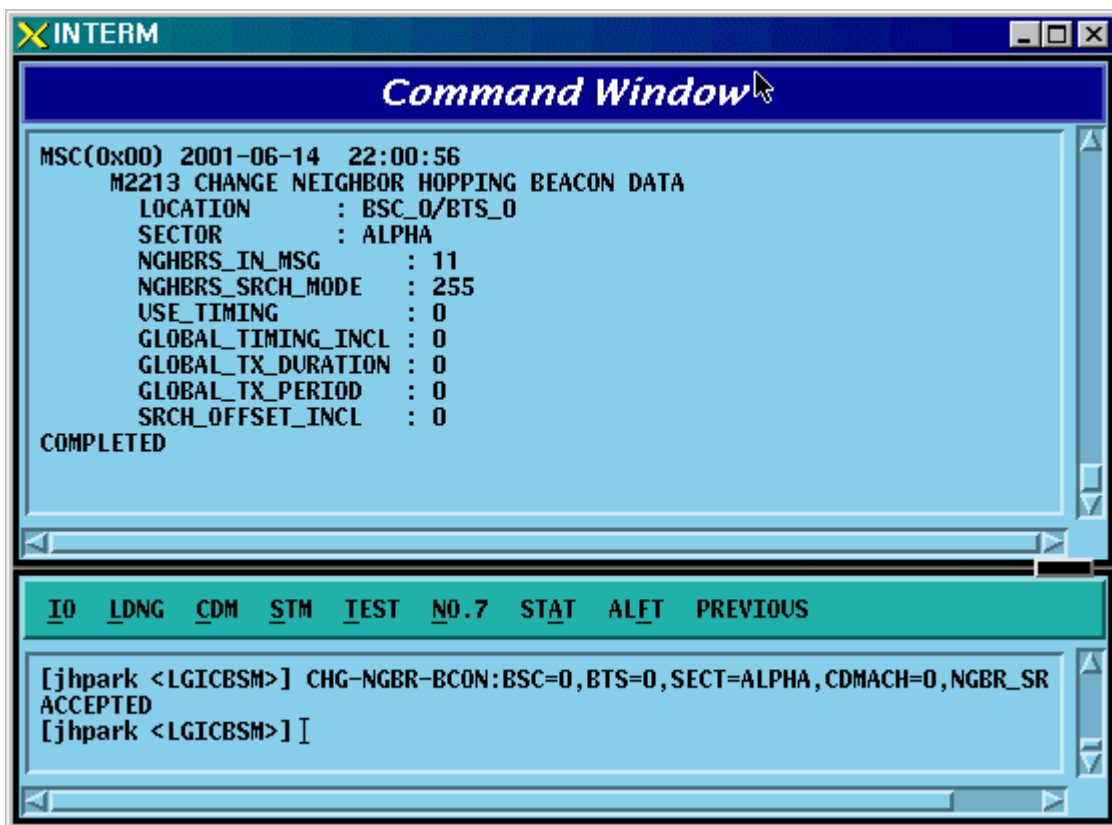


Fig. 4.3-82 Hopping Beacon Parameter Change Display

#### 4.3.4.13. QOS Parameter Change

To change Quality Of Service parameter information, click CDM->Change\_Parameter\_Information\_1-> CHG-QOS-PARA on the Command Window in order.

- Command CHG-QOS-PARA :BSC=a ,BTS=b [,MAX\_SCH\_RATE=c];
- Input CHG-QOS-PARA :BSC=0 ,BTS=0,MAX\_SCH\_RATE=255;
- Output

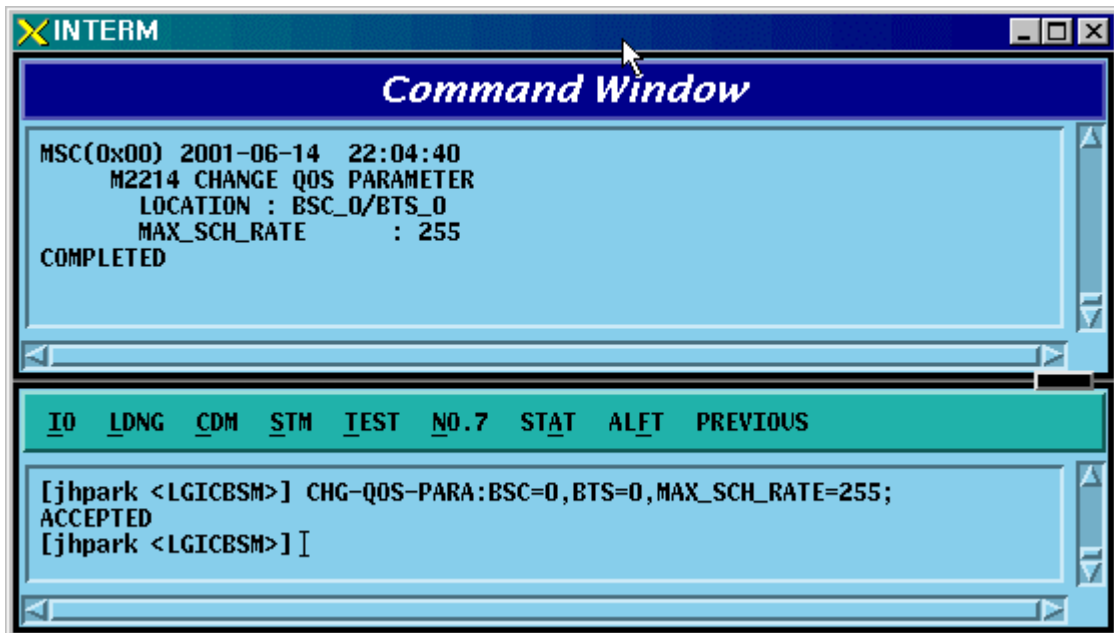


Fig. 4.3-83 QOS Parameter Information Change Display

#### 4.3.4.14. Chip Power Control Information Change

To change Chip Power Control information, click CDM->Change\_Parameter\_Information\_1-> CHG-CHIP-PWR on the Command Window in order.

- Command CHG-CHIP-PWR :BSC=a ,BTS=b [,CH\_PWR0=c] [,CH\_PWR1=d] [,CH\_PWR2=e] [,CH\_PWR3=f] [,MIN\_GAIN0=g] [,MIN\_GAIN1=h] [,MIN\_GAIN2=i] [,MIN\_GAIN3=j] [,MAX\_GAIN0=k] [,MAX\_GAIN1=l] [,MAX\_GAIN2=m] [,MAX\_GAIN3=n] [,STEP\_UP\_SIZE=o] [,STEP\_DN\_SIZE=p] [,FPC\_PUNC=q] [,RPC\_PUNC=r] [,PWR\_CNT\_PNT=s] [,PWR\_CNT\_PTN=t] ;
- Input CHG-CHIP-PWR :BSC=0 ,BTS=0 ,CH\_PWR0=255;
- Output

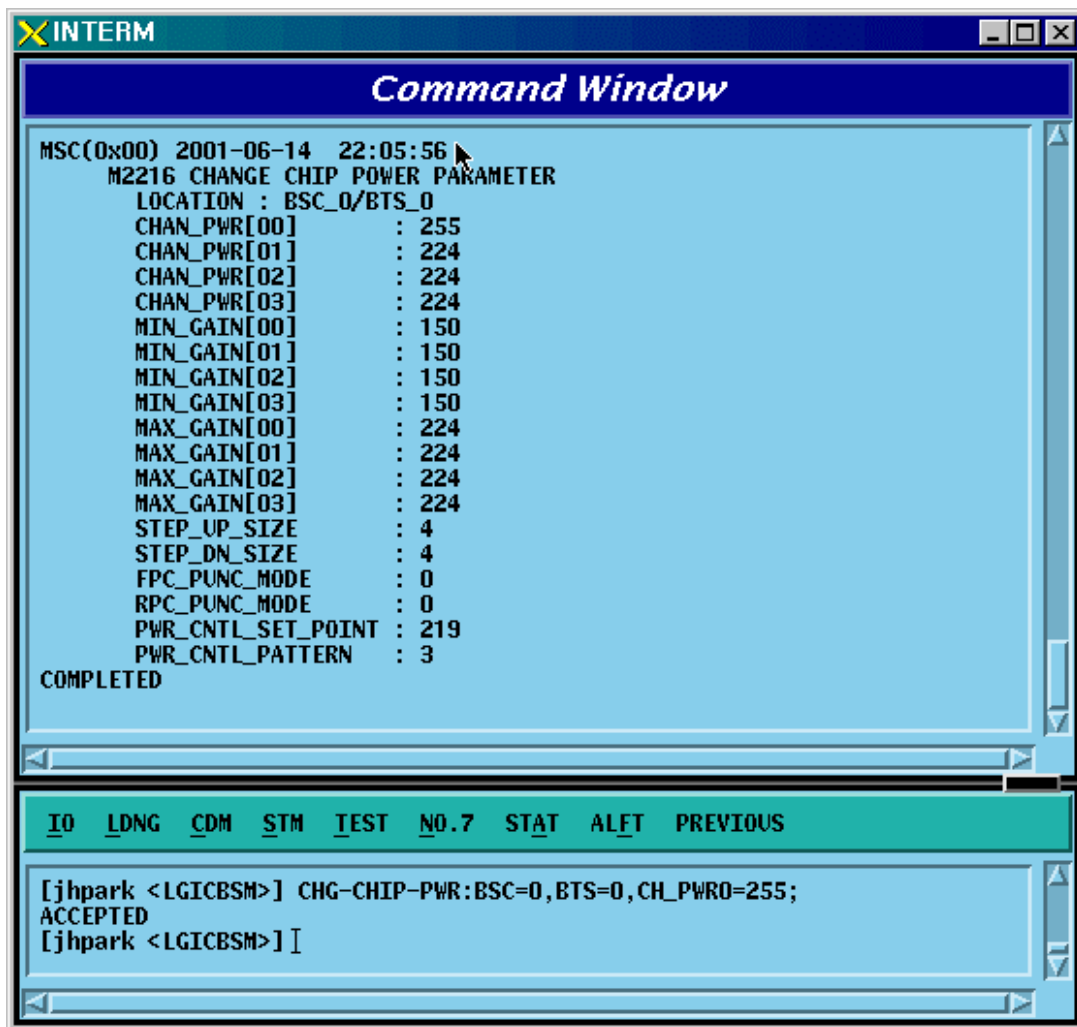


Fig. 4.3-84 Chip Power Control Information Change Display

#### 4.3.4.15. TIC Parameter Change

To change Tx Gain value, click CDM->Change\_ Parameter\_Information\_1-> CHG-TIC-DATA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-TIC-DATA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,TX\_GAIN=e] ;
- Input CHG-TIC-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,TX\_GAIN=255 ;
- Output

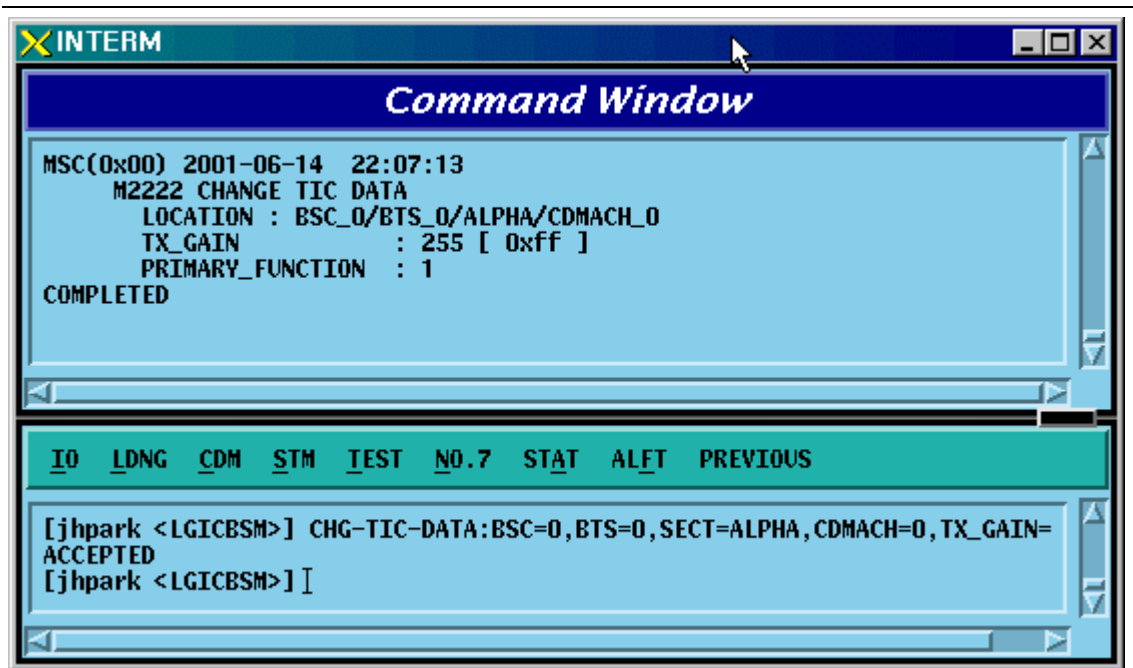


Fig. 4.3-85 TIC Parameter Information Change Display

#### 4.3.4.16. OCNS Parameter Change

To change OCNS Parameter value, click CDM->Change\_Parameter\_Information\_1->CHG-OCNS-PARA on the Command Window in order. If the next input Window is displayed, then input the value to be changed.

- Command CHG-OCNS-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d  
[,OCNS\_ENABLE=e]  
[,NUM\_OCNS\_CH=f] [,OCNS\_TEST=g] [,OCNS\_SO=h];
- Input CHG-OCNS-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,  
CDMACH=0 ,OCNS\_ENABLE=DISABLE,NUM\_OCNS\_CH=2;

- Output

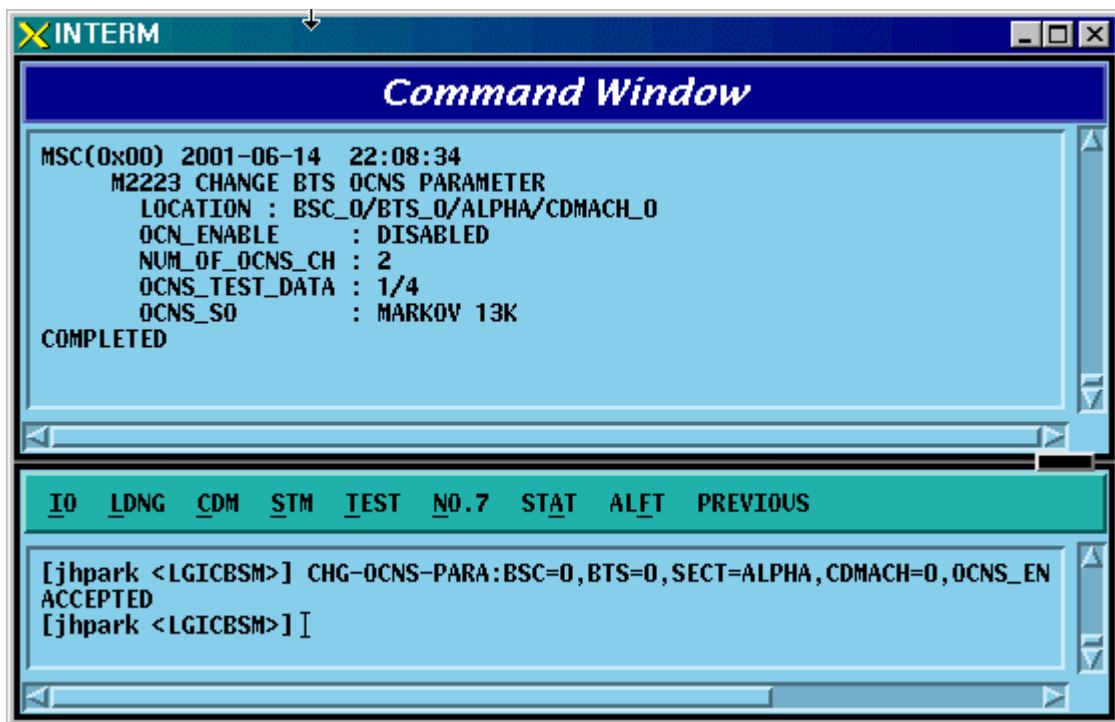


Fig. 4.3-86 OCNS Parameter Change Display

#### 4.3.4.17. Power Control Information Change

To change OCNS Parameter value, click CDM->Change\_Parameter\_Information\_1->CHG-PWR-PARA on the Command Window in order. If the next input Window is displayed, then input the value to be changed.

- Command CHG-PWR-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d  
[,T\_RX\_FILTER=e]  
[,G\_RX\_FILTER=f] [,G\_TX\_FILTER=g] [,GH\_TX\_FILTER=h]  
[,R\_TX\_PILOT=i] [,FLN\_BLK\_THSH=j] [,FLN\_HO\_THSH=k]  
[,FLN\_GAIN\_SCA=l] [,RLN\_BLK\_THSH=m] [,RLNK\_HO\_THSH=n]  
[,A\_TX\_MAX=o] [,DELTA\_A\_TX=p] [,K\_LEVEL=q] [,K\_SLOPE=r]  
[,K\_DELTA=s] [,DELTA\_T=t] [,P\_TX\_MAX=u] [,INIT\_CALB=v]  
[,PRD\_CALIB=w] [,BREATH\_FLAG=x] [,PWR\_EST\_FLAG=y]  
[,OVPWR\_LMT=z] [,FLN\_CAP\_LMT=] [,RLN\_CAP\_LMT=];
- Input CHG-PWR-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0,  
T\_RX\_FILTER=255;
- Output



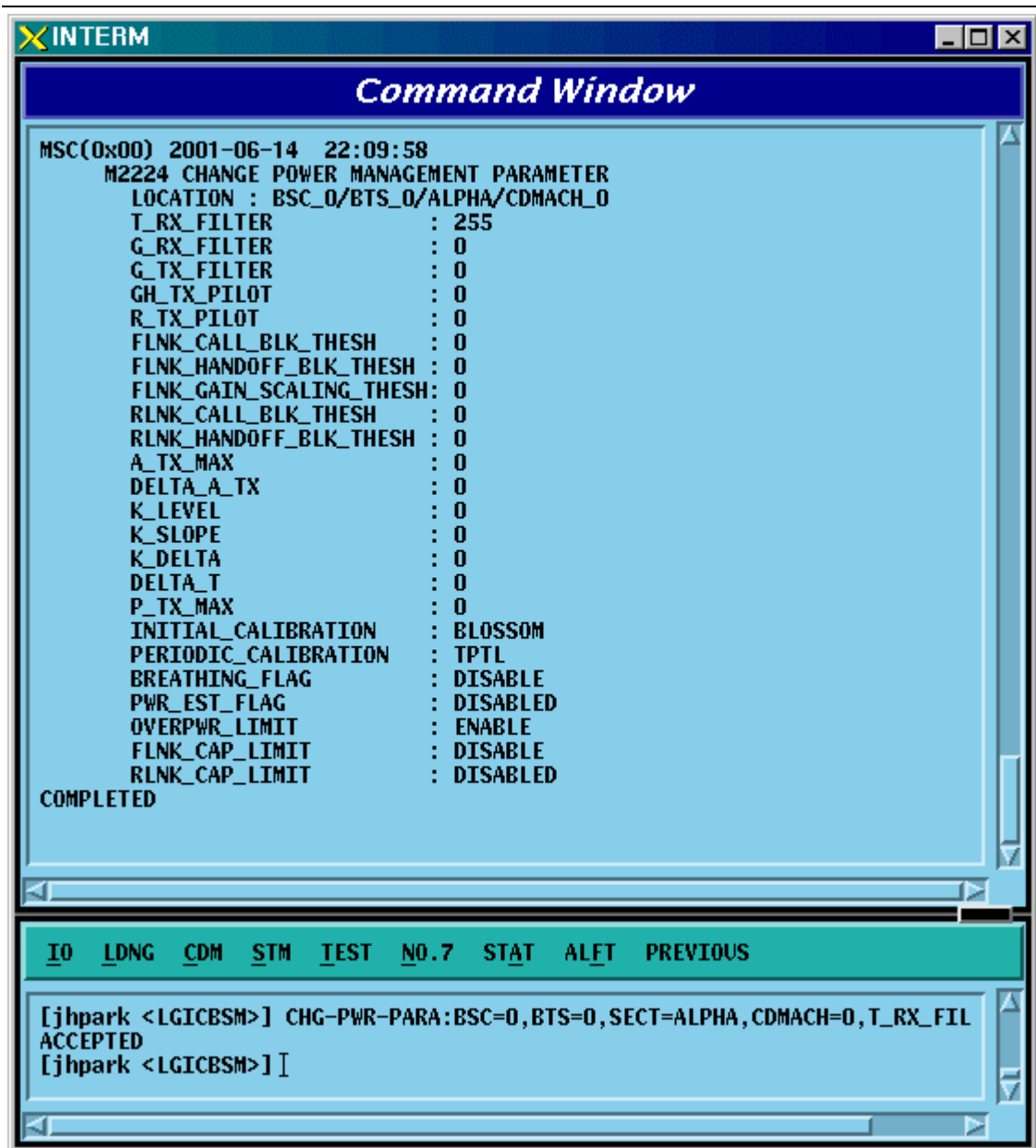


Fig. 4.3-87 Power Control Parameter Information Display

#### 4.3.4.18. ACCESS CHANNEL Parameter Information Change

To change Access Channel Parameter information, click CDM-> Change\_Parameter\_Information->CHG-AC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-AC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,PC=e ,AC=f [,SRCH\_OFFSET=g] [,SRCH\_WIN\_SZ=h];
- Input CHG-AC-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA , CDMACH=0 , PC=0, SRCH\_WIN\_SZ=32;
- Output

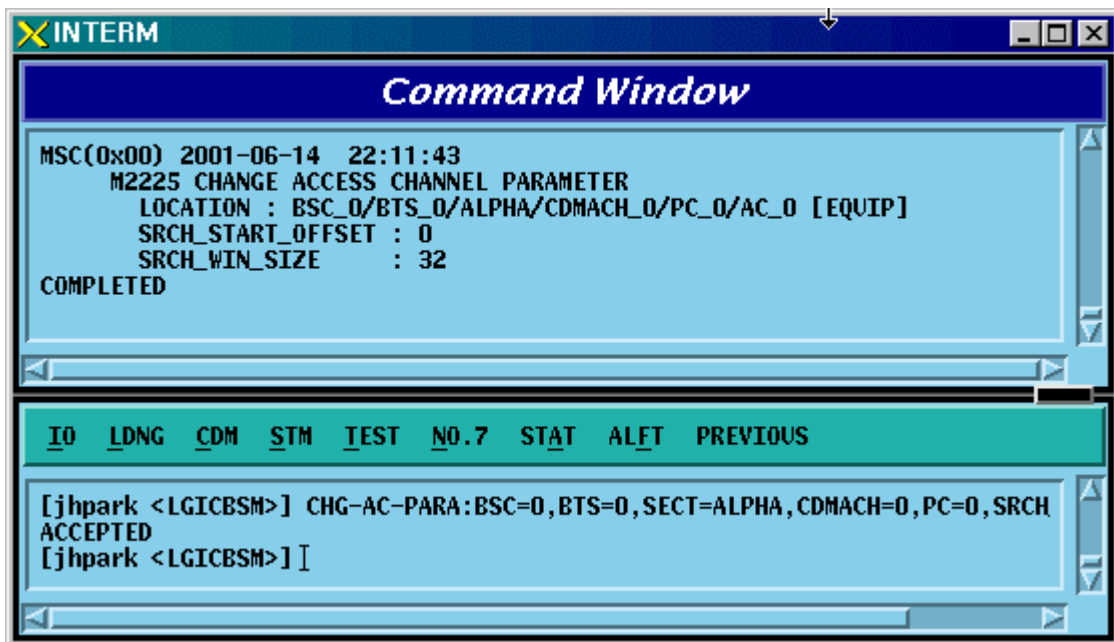


Fig. 4.3-88 Access Channel Parameter Information Change Display

#### 4.3.4.19. TXMS Parameter Information Change

To change TXMS Parameter information, click CDM-> Change\_Parameter\_Information->CHG-TXMS-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

•Command CHG-TXMS-PARA  
:BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,OH\_CH\_ERP=e ;

• Input CHG-TXMS-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,  
OH\_CH\_ERP=25000 ;

• Output

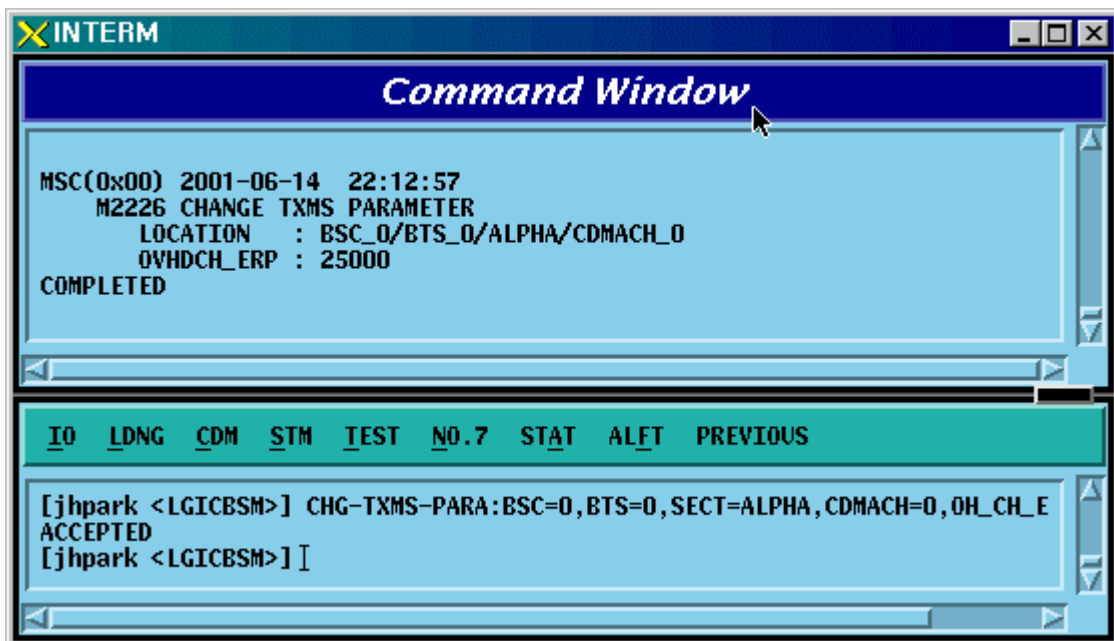


Fig. 4.3-89 TXMS Parameter Information Change Display

#### 4.3.4.20. BTS CALIBRATION Start

To start BTS Calibration, click CDM-> Change\_ Parameter\_Information->START-BTS-CALB on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command START-BTS-CALB :BSC=a ,BTS=b [,SECT=c] [,CDMACH=d] ,METHOD=e ;
- Input START-BTS-CALB :BSC=0 ,BTS=0 ,SECT=ALPHA,METHOD=OVHD ;
- Output

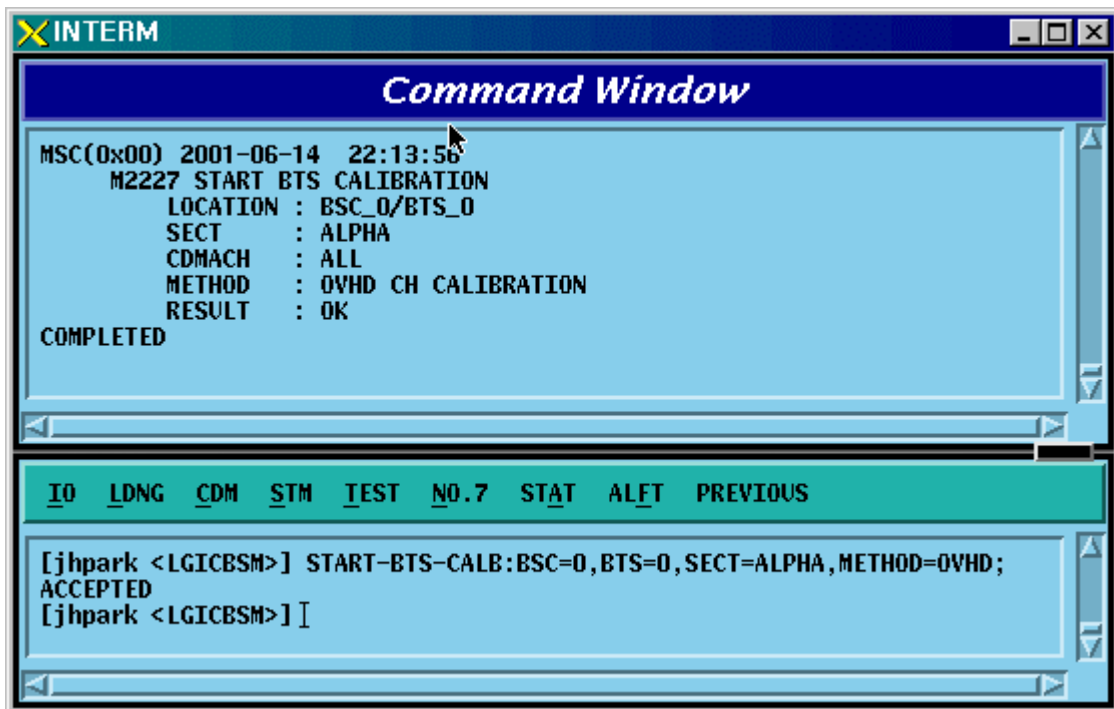


Fig. 4.3-90 BTS Calibration Start Display

#### 4.3.4.21. BTS Calibration Time Change

To change BTS Calibration time, click CDM-> Change\_ Parameter\_Information->CHG-CALB-TIME on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-CALB-DATA :BSC=a ,BTS=b ,HOUR=c ,MINUTE=d ,INTERVAL=e ,METHOD=f;
- Input CHG-CALB-DATA :BSC=0 ,BTS=0 ,HOUR=1 ,MINUTE=1 ,INTERVAL=1 ,METHOD=OVHD;
- Output

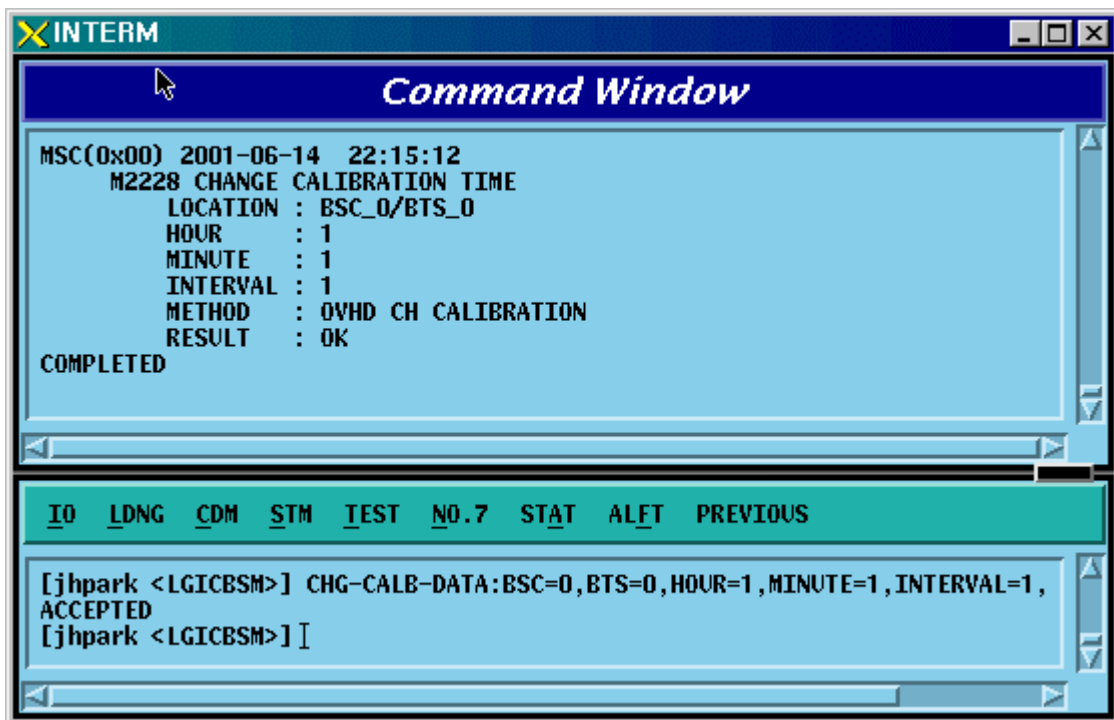


Fig. 4.3-91 BTS Calibration Time Change Display

#### 4.3.4.22. PC GLOBAL REDIRECT Parameter Information Change

To change Paging Channel Global Redirect information, click CDM-> Change\_Parameter\_Information->CHG-GSRM-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-GSRM-PARA :BSC=a ,BTS=b ,SECT=c [,ACCOLC=d] [,RET\_IF\_FAIL=e] [,P\_REV\_MS=f] [,RDIR\_P\_REV=g] [,EXCL\_P\_REV=h] [,RDIR\_P\_MIN=i] [,RDIR\_P\_MAX=j] [,RECORD\_TYPE=k] [,RECORD\_LEN=l] [,EXPECT\_A\_SID=m] [,IGNORE\_CDMA=n] [,SYS\_ORDER=o] [,BAND\_CLASS=p] [,EXPECT\_SID=q] [,EXPECT\_NID=r] [,NUM\_CHAN=s] [,CDMA\_CH\_0=t] [,CDMA\_CH\_1=u] [,CDMA\_CH\_2=v] [,CDMA\_CH\_3=w] [,CDMA\_CH\_4=x] [,CDMA\_CH\_5=y] [,CDMA\_CH\_6=z] [,CDMA\_CH\_7=] [,CDMA\_CH\_8=] [,CDMA\_CH\_9=];
- Input CHG-GSRM-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA,ACCOLC=255;
- Output

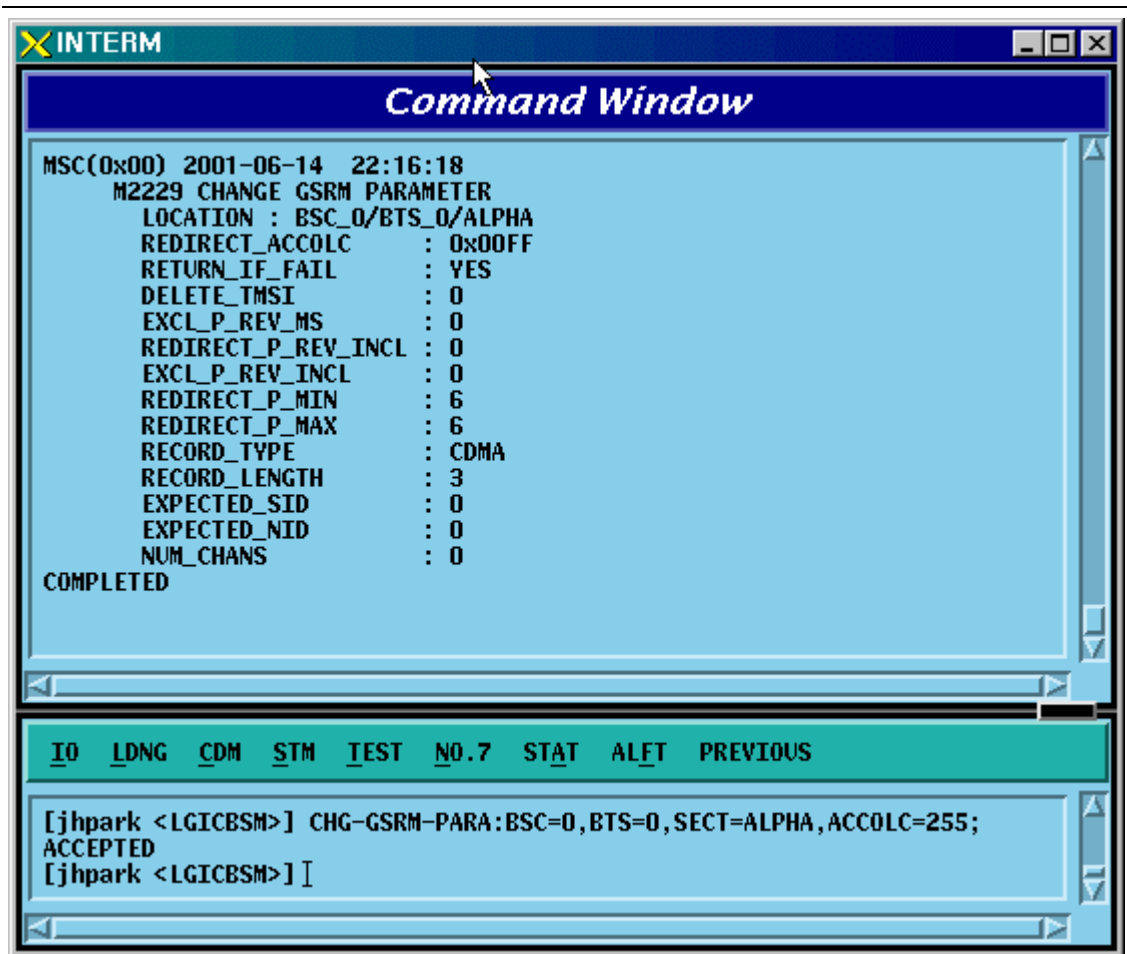


Fig. 4.3-92 PC Global Redirect Parameter Information Change Display

#### 4.3.4.23. ACCESS PARAMETER Change

To change Access Parameter information, click CDM-> Change\_Parameter\_Information->CHG-ACC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-ACC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,PC=e  
[,NOM\_PWR=f] [,INIT\_PWR=g] [,PWR\_STEP=h] [,NUM\_STEP=i]  
[,MAX\_CAP\_SZ=j] [,PAM\_SZ=k] [,PSST\_09=l] [,PSST\_10=m]  
[,PSST\_11=n] [,PSST\_12=o] [,PSST\_13=p] [,PSST\_14=q]  
[,PSST\_15=r] [,MSG\_PSST=s] [,REG\_PSST=t]  
[,PRBE\_RAN=u] [,ACC\_TMO=v] [,PRBE\_BKOF=w] [,BKOF=x]  
[,MREQ\_SEQ=y] [,MRSP\_SEQ=z] [,AUTH=] [,RAND=]  
[,NOM\_PWR\_EXT=];
- Input CHG-ACC-PARA :BSC=0 ,BTS=0,SECT=ALPHA ,CDMACH=0 ,PC=0  
[,NOM\_PWR=7];
- Output



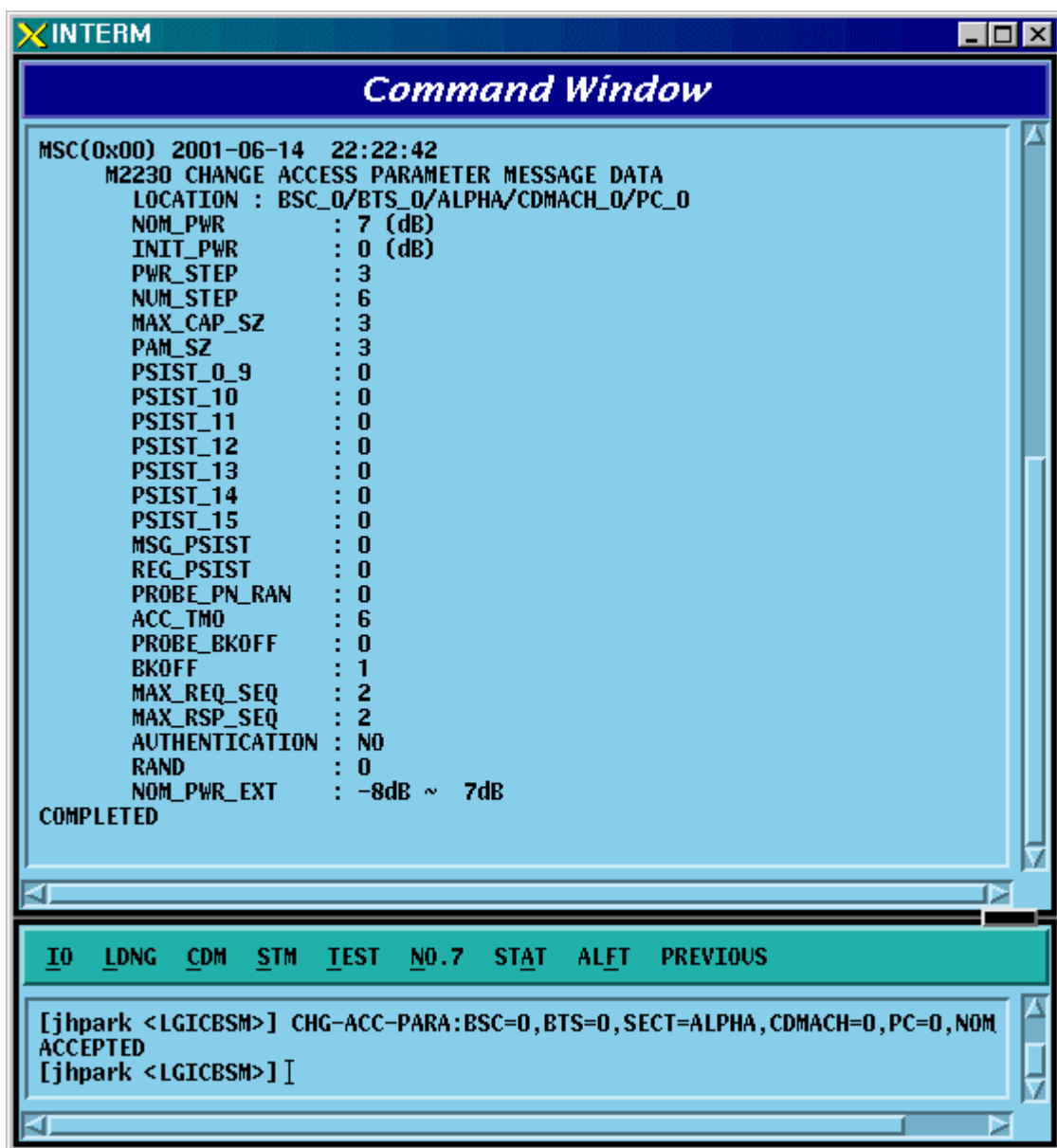


Fig. 4.3-93 Access Parameter Information Change Display

#### 4.3.4.24. PAGING CHANNEL Parameter Information Change

To change Paging Channel Parameter information, click CDM-> Change\_Parameter\_Information->CHG-PC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-PC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,PC=e  
[,PC\_GAIN=f] [,FRM\_DUR=g] [,DATA\_RATE=h];
- Input CHG-PC-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,PC=0  
,PC\_GAIN=255;
- Output

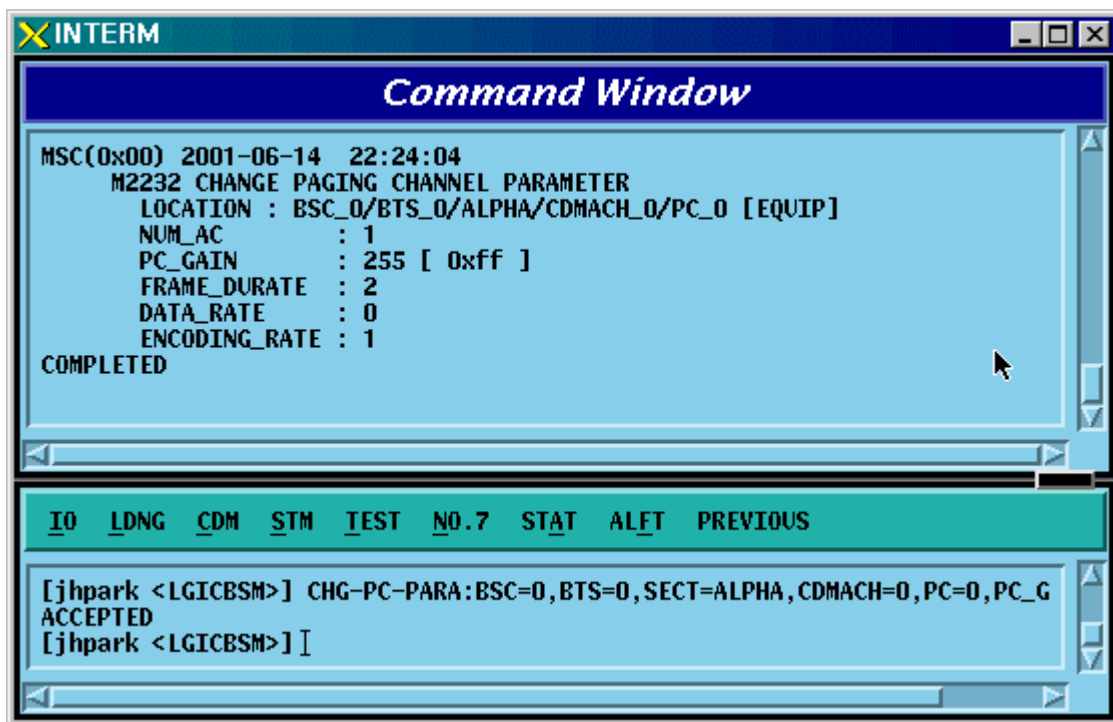


Fig. 4.3-94 Paging Channel Parameter Information Display

#### 4.3.4.25. PILOT CHANNEL Parameter Information Change

To change Pilot Channel Parameter information, click CDM-> Change\_Parameter\_Information->CHG-PICH-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-PICH-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,PLOT\_GAIN=e] [,PLOT\_TD\_GAIN=f];
- Input CHG-PICH-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA , CDMACH=0,PLOT\_GAIN=255;
- Output

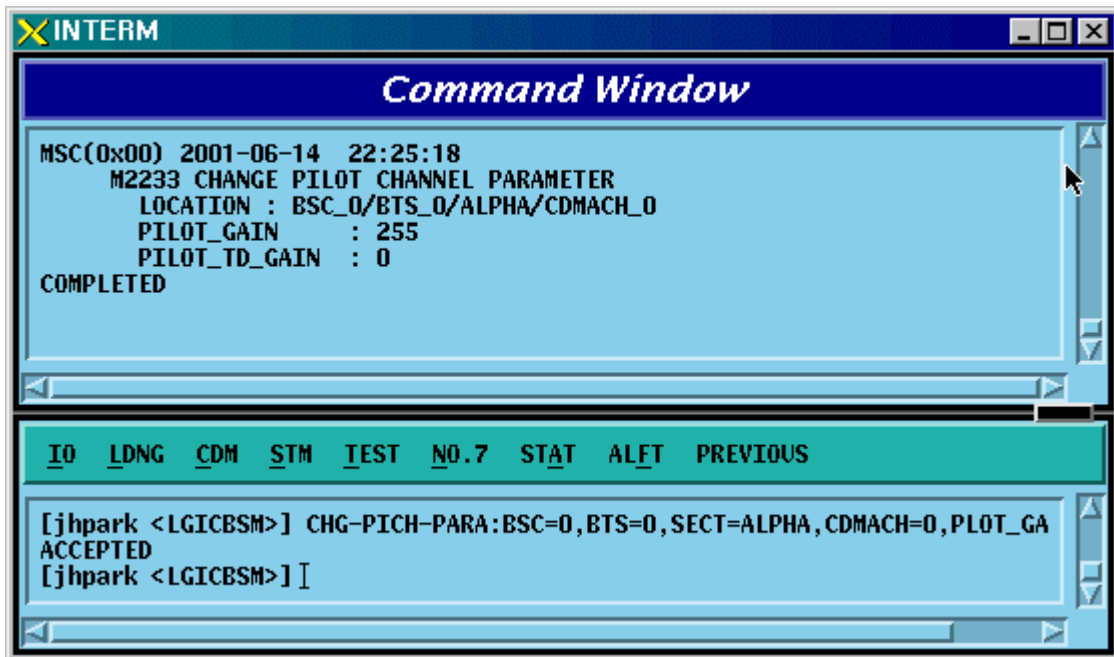


Fig. 4.3-95 Pilot Channel Parameter Information Change Display

#### 4.3.4.26. SYNC CHANNEL Parameter Information Change

To change Sync. Channel Parameter information, click CDM-> Change\_Parameter\_Information->CHG-SC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-SC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d [,SC\_GAIN=e];
- Input CHG-SC-PARA :BSC=0 ,BTS=b ,SECT=ALPHA ,CDMACH=0,SC\_GAIN=255;
- Output

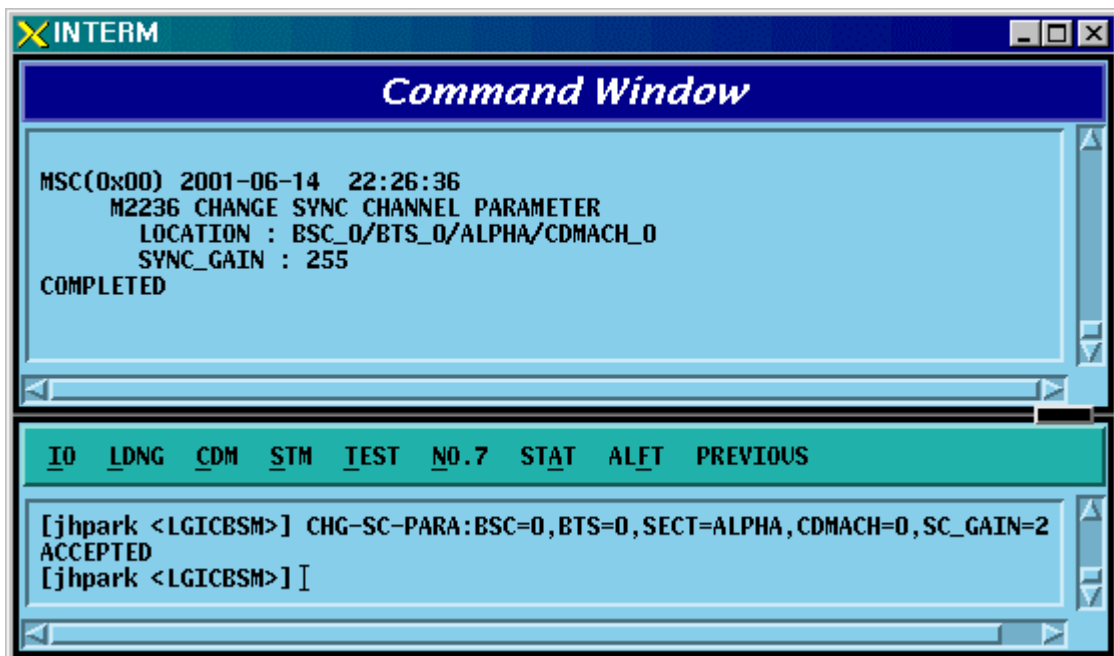


Fig. 4.3-96 Sync Channel Parameter Information Change Display

#### 4.3.4.27. QUICK PAGING CHANNEL Parameter Information Change

To change Quick Paging Channel Parameter information, click CDM-> Change\_Parameter\_Information->CHG-QPC-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-QPC-PARA :BSC=a ,BTS=b ,SECT=c ,CDMACH=d ,QPCH\_ID=e  
[,FRAME\_DUR=f] [,DATA\_RATE=g];
- Input CHG-QPC-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,CDMACH=0 ,QPCH\_ID=0  
,FRAME\_DUR=255;
- Output

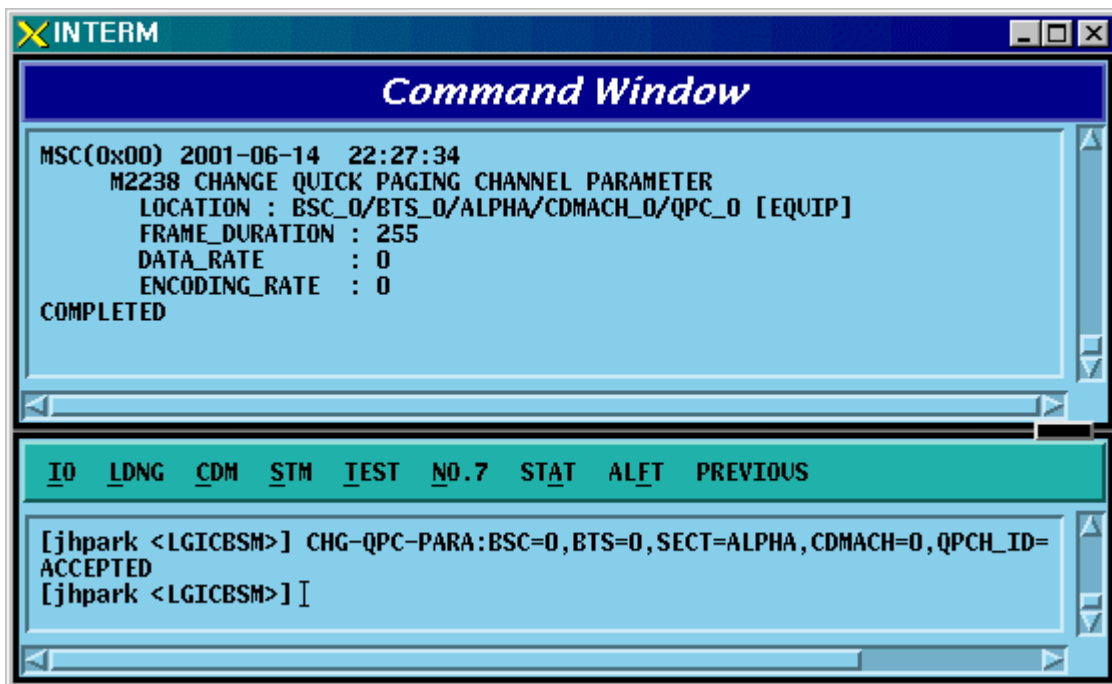


Fig. 4.3-97 Quick Paging Channel Parameter Information Change Display

#### 4.3.4.28. HOPPING PILOT BEACON CHANNEL Parameter Information Change

To change Hopping Pilot Beacon Channel Parameter information, click CDM->Change\_ Parameter\_Information->CHG-BCON-PARA on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command CHG-BCON-PARA :BSC=a ,BTS=b ,SECT=c [,PILOT\_GAIN=d] [,NUM\_CDMA\_CH=e] [,CDMA\_FREQ1=f] [,CDMA\_FREQ2=g] [,CDMA\_FREQ3=h] [,CDMA\_FREQ4=i] [,CDMA\_FREQ5=j] [,CDMA\_FREQ6=k] [,CDMA\_FREQ7=l] [,CDMA\_FREQ8=m] [,CDMA\_FREQ9=n] [,CDMA\_FREQ10=o] [,CDMA\_FREQ11=p] [,CDMA\_FREQ12=q];
- Input CHG-BCON-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA ,PILOT\_GAIN=255;

- Output

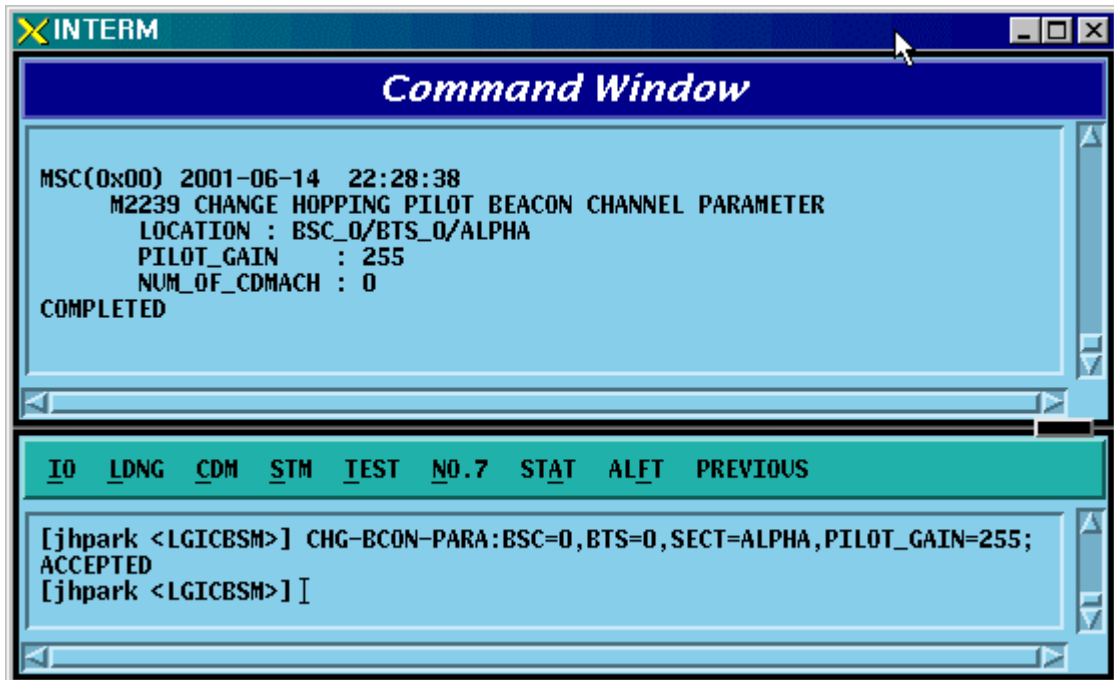


Fig. 4.3-98 Hopping Pilot Beacon Channel Parameter Information Change Display

#### 4.3.4.29. CDMA Channel FA Test Start

To start the CDMA Channel FA test, click CDM-> Change\_ Parameter\_Information->STRT-FA-TEST on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command STRT-FA-TEST :BSC=a ,BTS=b ,FA=c;
- Input STRT-FA-TEST :BSC=0 ,BTS=0 ,FA=0;
- Output

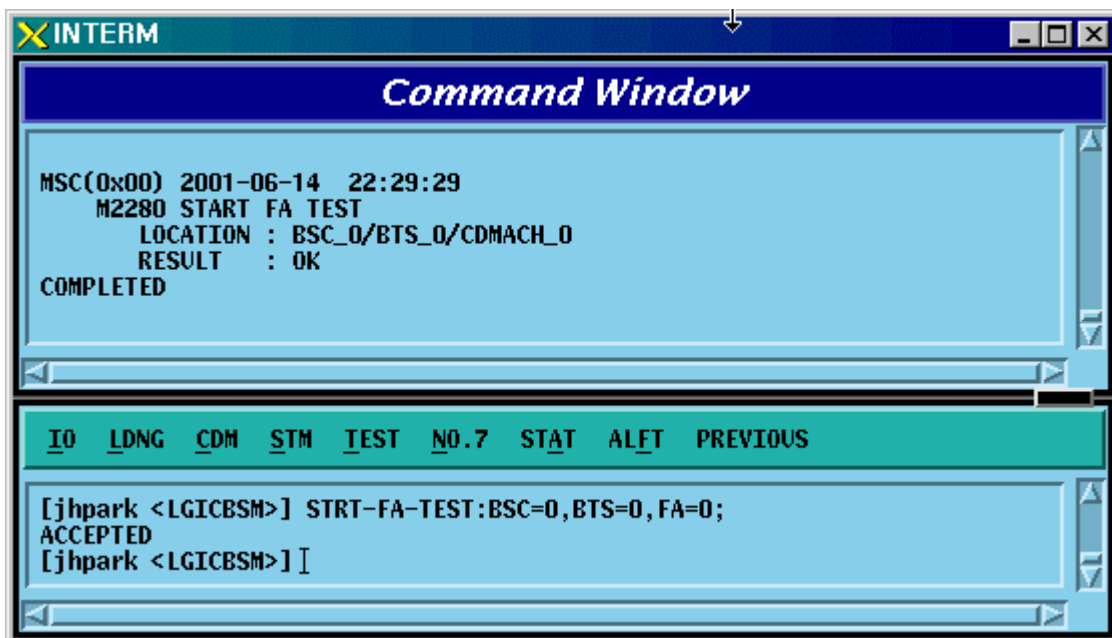


Fig. 4.3-99 CDMA Channel FA Test Start Display

#### 4.3.4.30. Termination of CDMA Channel FA Test

To stop the CDMA Channel FA test, click CDM-> Change\_ Parameter\_Information->STOP-FA-TEST on the Command Window in order. If the next input window is displayed, then input the value to be changed.

- Command STOP-FA-TEST :BSC=a ,BTS=b ,FA=c;
- Input STOP-FA-TEST :BSC=0,BTS=0 ,FA=0;

- Output

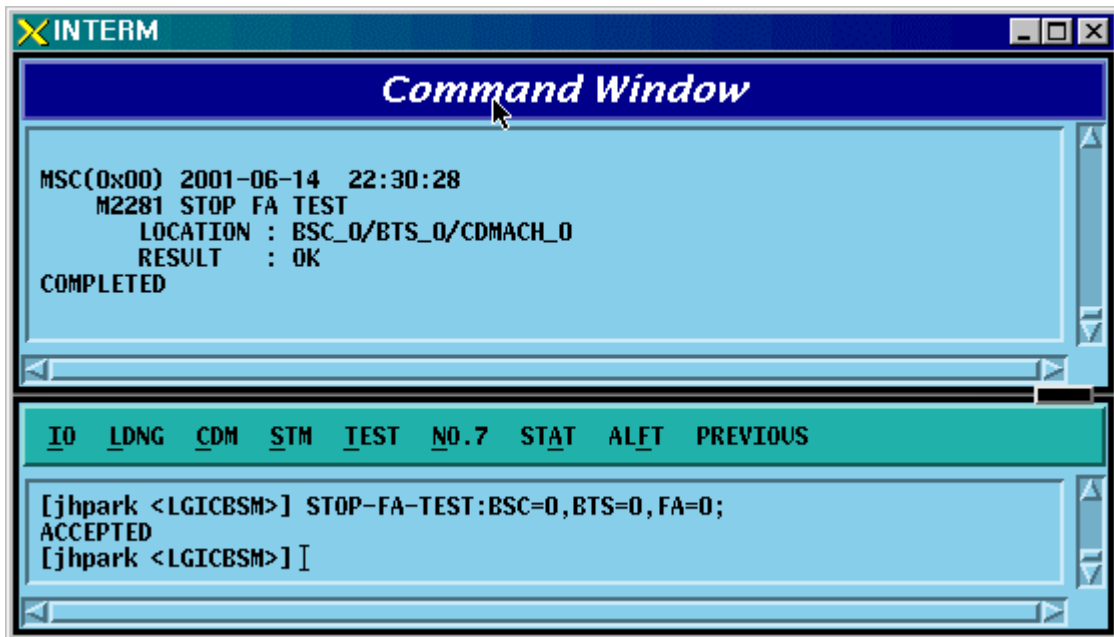


Fig. 4.3-100 CDMA Channel FA Test Termination Display



## 4.3.5. Parameter Information Change Command (Change\_Parameter\_Information\_2)

This section describes commands that are used to change the parameter information that is inquired (required). The command to change parameter information cannot be easily input by the keyboard since input parameter counts are too many. For this reason, this section will skip the command input in text and demonstrate window input by mouse. Upon inputting the command, the part in blue is the parameter that the user can change and the user can change part or entire fields among them. For more information on parameters for each command, refer to the test procedures.

Table 4.3-2 Parameter Information Change Command (2) List

CRN	MMC	Description
2240	CHG-DORM-DATA	Dormant Timer Change
2241	CHG-PKZN-DATA	PACKET ZONE DATA Change
2243	CHG-FAC-TIMER	FACILITIES MANAGEMENT TIMER Change
2244	CHG-HO-TIMER	HANDOFF TIMER Change
2245	CHG-SUP-TIMER	BSC SUPPLEMENT SERVICES TIMER Change
2246	CHG-CALL-TIMER	BSC CALL PROCESSING TIMER Change
2247	CHG-MOB-TIMER	BSC MOBILITY MANAGEMENT TIMER Change
2248	CHG-A89-TIMER	A8 A9 INTERFACE TIMER Change
2249	CHG-A37-TIMER	A3, A7 INTERFACE TIMER Change
2250	CHG-RS1-FWDP	Forward Link Power Management Information (RS1) change
2251	CHG-RS1-REVP	Backward (or Reverse) Link Power Management Information (RS1) change
2255	CHG-RS2-FWDP	Forward Link Power Management Information (RS2) change
2256	CHG-RS2-REVP	Backward (or Reverse) Link Power Management Information (RS2) change
2257	CHG-FER-PARA	Service Option FER Change
2261	CHG-MAHO-DATA	MAHHO DATA change
2262	CHG-LOC-PARA	LOCATION PARA information change
2263	CHG-SCH-PARA	SCH parameter information change
2265	CHG-PWR1-CTRL	POWER CONTROL parameter information (1) change

2266	CHG-PWR2-CTRL	POWER CONTROL parameter information (2) change
2267	CHG-PWR3-CTRL	POWER CONTROL parameter information (3) change
2271	CHG-BTS-NAME	BTS name change
2292	CHG-PCF-TIMER	PCF TIMER change
2294	CHG-PCP-ADDR	PCP/PMP ADDRESS change
2295	CHG-PIP-ADDR	PIP ADDRESS change
2296	CHG-PCF-PARA	PCF PARAMETER change

#### 4.3.5.1. Dormant Timer Change

To change Dormant Timer, click CDM->Change\_Parameter\_ Information\_2-> **CHG-DORM-DATA** on the Command Window in order. Input the value to be changed in each field.

- Command CHG-DORM-DATA :BSC=a [,DORMANT\_T=b] [,INACTIVE\_T=c] [,BAND\_FRAME\_T=d] [,BAND\_CLASS=e] ;

- Input CHG-DORM-DATA :BSC=0,DORMANT\_T=255;

- Command

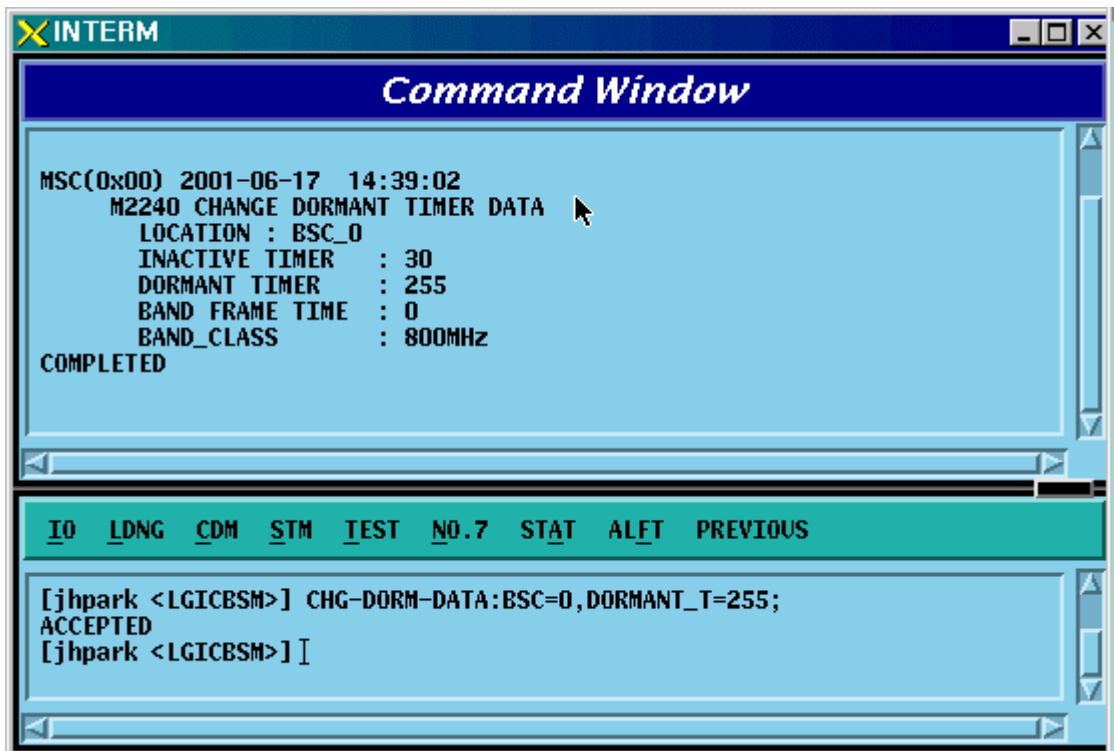


Fig. 4.3-101 Dormant Timer Change Display

### 4.3.5.2. PACKET ZONE DATA Change

To change PACKET ZONE DATA, click CDM->Change\_Parameter\_ Information\_2->CHG-PKZN-DATA on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PKZN-DATA :BSC=a [,PKT\_ZONE=b] [,PCP\_ID=c];
- Input CHG-PKZN-DATA :BSC=0,PKT\_ZONE=255;
- Output

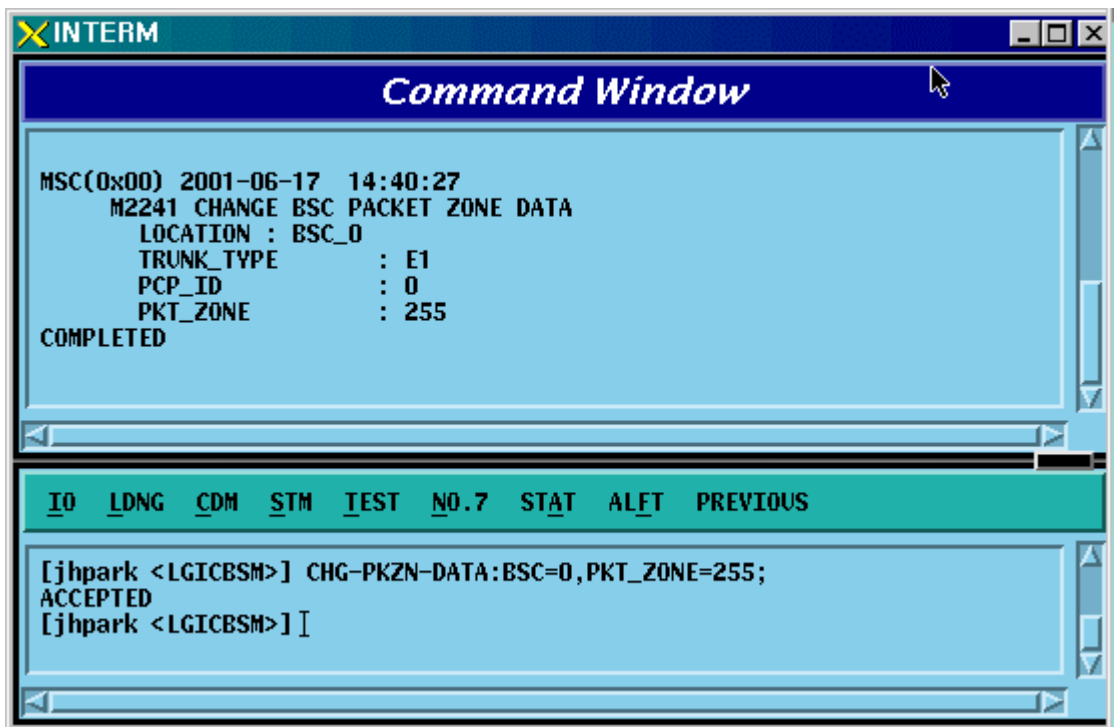


Fig. 4.3-102 Packet Zone Data Change Display

### 4.3.5.3. FACILITIES MANAGEMENT TIMER Change

To change FACILITIES MANAGEMENT TIMER, click CDM->Change\_Parameter\_Information\_2-> **CHG-FAC-TIMER** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-FAC-TIMER :BSC=a [,T1=b] [,T2=c] [,T4=d] [,T5=e] [,T6=f] [,T12=g] [,T13=h] [,T16=i] [,T309=j];
- Input CHG-FAC-TIMER :BSC=0,T1=255;
- Output

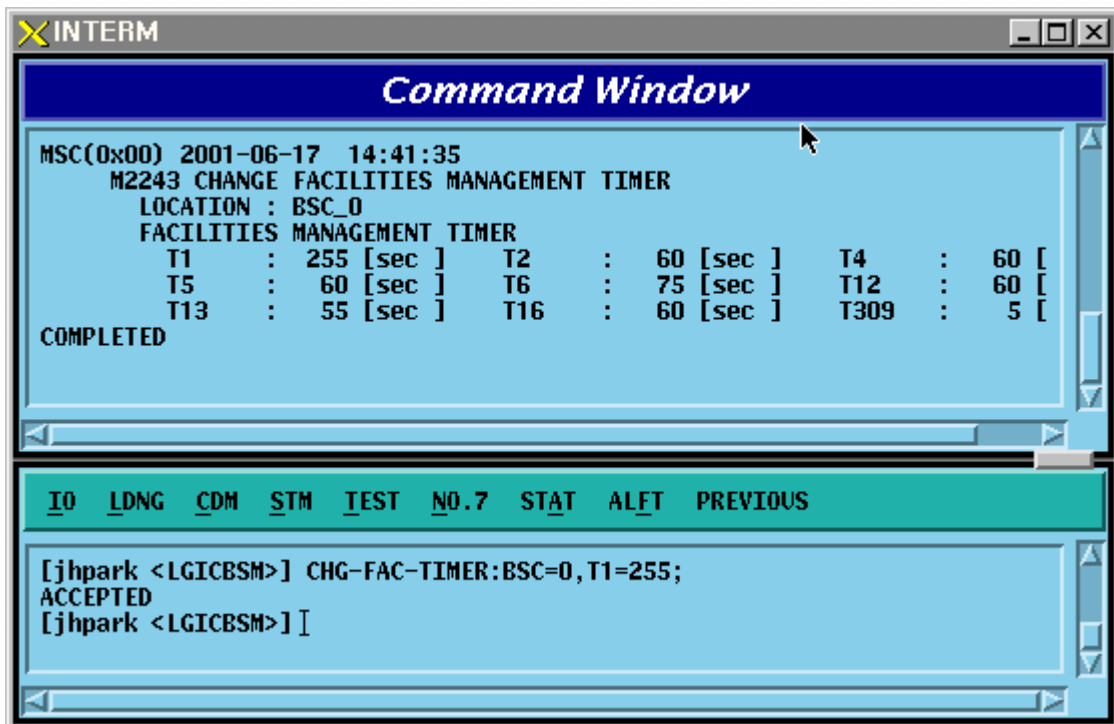


Fig. 4.3-103 Facilities Management Timer Change Display

#### 4.3.5.4. HANDOFF TIMER Change

To change HANDOFF TIMER, click CDM->Change\_Parameter\_Information\_2-> CHG-HO-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-HO-TIMER :BSC=a [,T7=b] [,T9=c] [,T10=d] [,T50=e] [,T52=f] [,T777=g] [,T778=h] [,T787=i] [,T789=j] [,T790=k];

- Input CHG-HO-TIMER :BSC=0,T7=255;

- Output

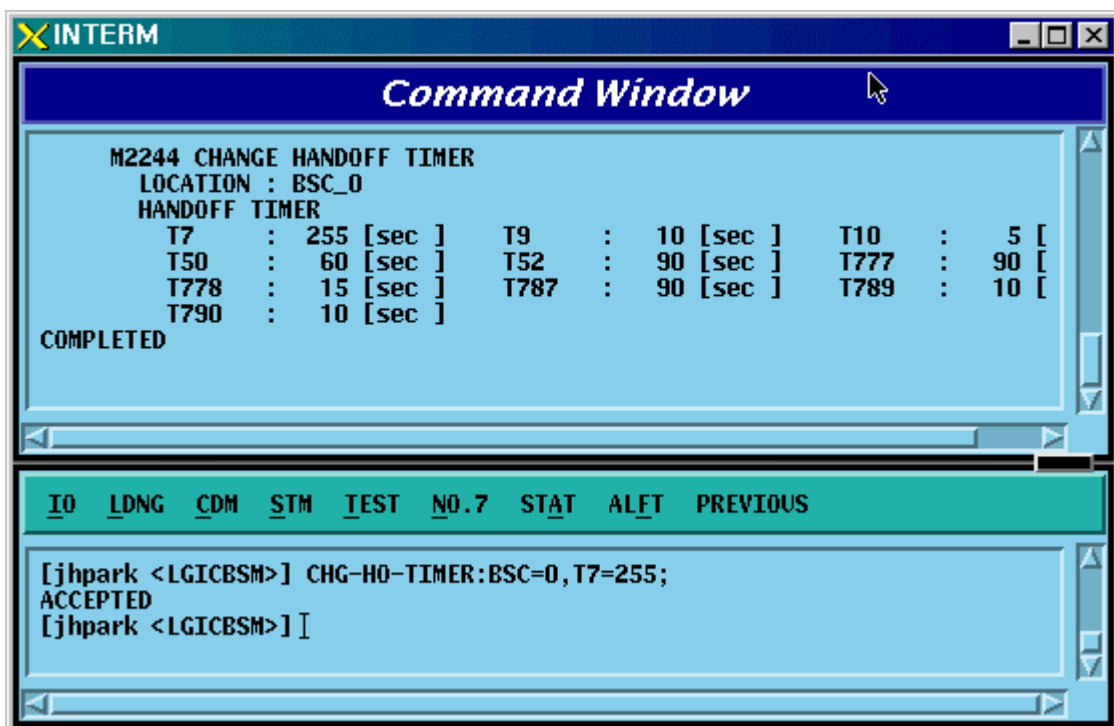


FIG 4.3-104 Handoff Timer Change Display

#### 4.3.5.5. BSC SUPPLEMENT SERVICES TIMER Change

To change BSC SUPPLEMENT SERVICES TIMER, click CDM->Change\_Parameter\_Information\_2-> CHG-SUP-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-SUP-TIMER :BSC=a [,T60=b] [,T61=c] [,T62=d] [,T63=e] ;
- Input CHG-SUP-TIMER :BSC=0,T60=99;
- Output

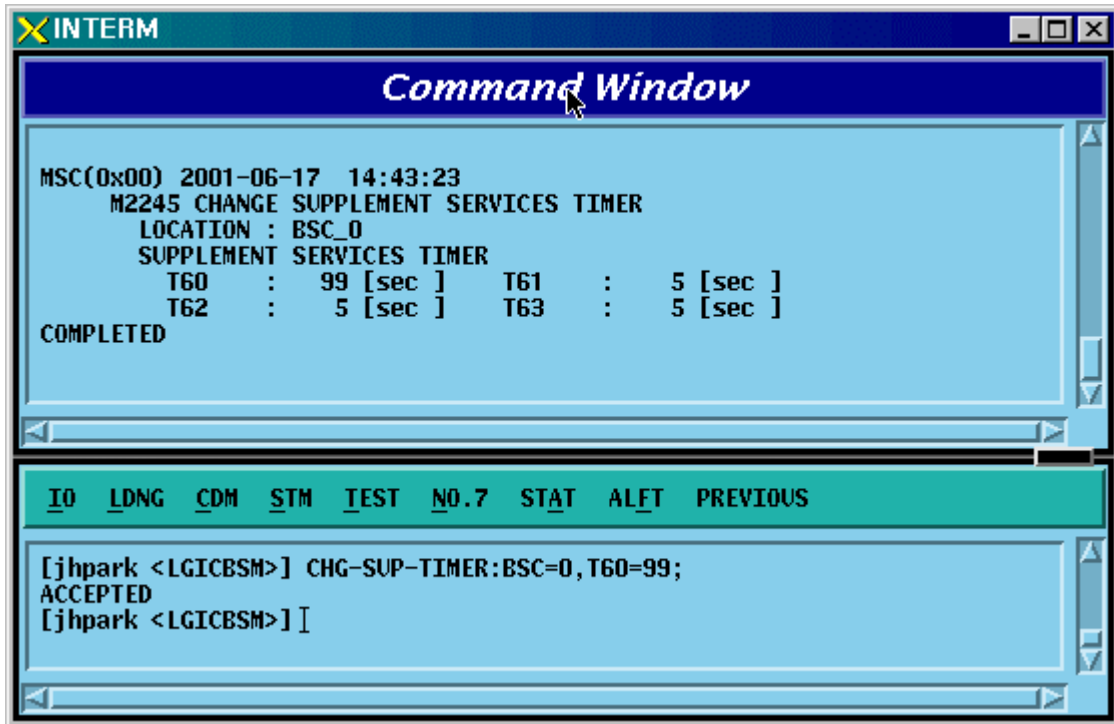


Fig. 4.3-105 BSC Supplement Services Timer Change Display

#### 4.3.5.6. BSC CALL PROCESSING TIMER Change

To change BSC CALL PROCESSING TIMER, click CDM->Change\_Parameter\_Information\_2-> **CHG-CALL-TIMER** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-CALL-TIMER :BSC=a [,T20=b] [,T30=c] [,T40=d] [,T300=e] [,T301=f] [,T302=g] [,T303=h] [,T306=i] [,T307=j] [,T308=k] [,T311=l] [,T312=m] [,T313=n] [,T315=o] [,T316=p] [,T325=q] [,T326=r] [,T3113=s] [,T3230=t] [,T3280=u] [,Tpaca1=v] [,Tpaca2=w];
- Input CHG-CALL-TIMER :BSC=0,T20=99;
- Output

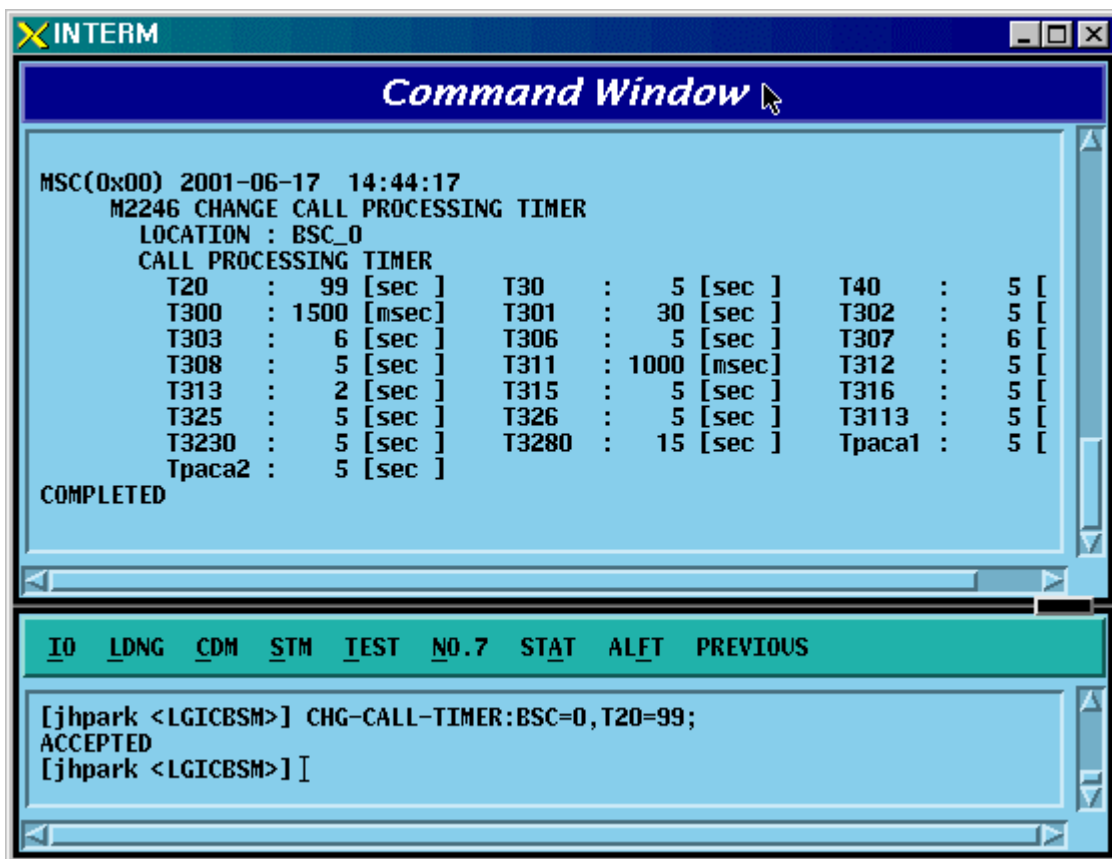


Fig. 4.3-106 BSC Call Processing Timer Change Display

### 4.3.5.7. BSC MOBILITY MANAGEMENT TIMER Change

To change BSC MOBILITY MANAGEMENT TIMER, click CDM->Change\_Parameter\_Information\_2-> **CHG-MOB-TIMER** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-MOB-TIMER :BSC=a [,T3210=b] [,T3220=c] [,T3240=d] [,T3260=e] [,T3270=f] [,T3271=g] [,T3272=h];
- Input CHG-MOB-TIMER :BSC=0,T3210=99;

- Output

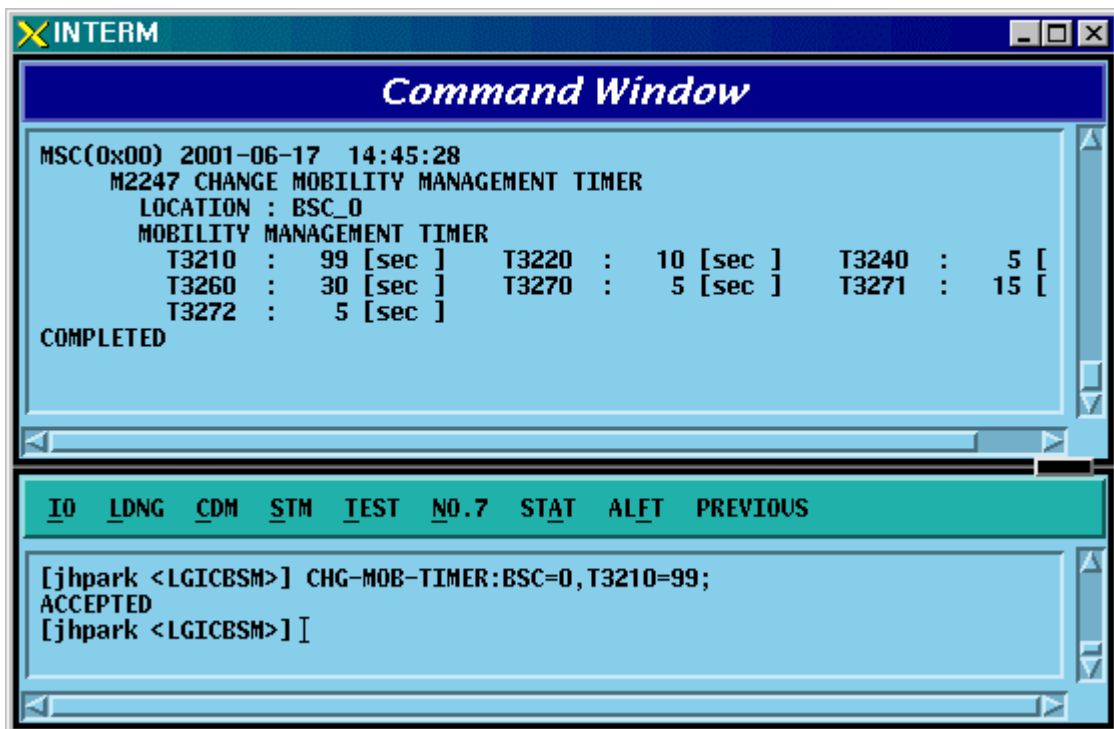


Fig. 4.3-107 BSC Mobility Management Timer Change Display



#### 4.3.5.8. A8 A9 INTERFACE TIMER Change

To change A8 A9 INTERFACE TIMER, click CDM->Change\_Parameter\_Information\_2\_2-> CHG-A89-TIMER on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-A89-TIMER :BSC=a [,TA8\_SETUP=b] [,Talc9=c] [,Tald9=d] [,Trel9=e];
- Input CHG-A89-TIMER :BSC=0,TA8\_SETUP=99;
- Output

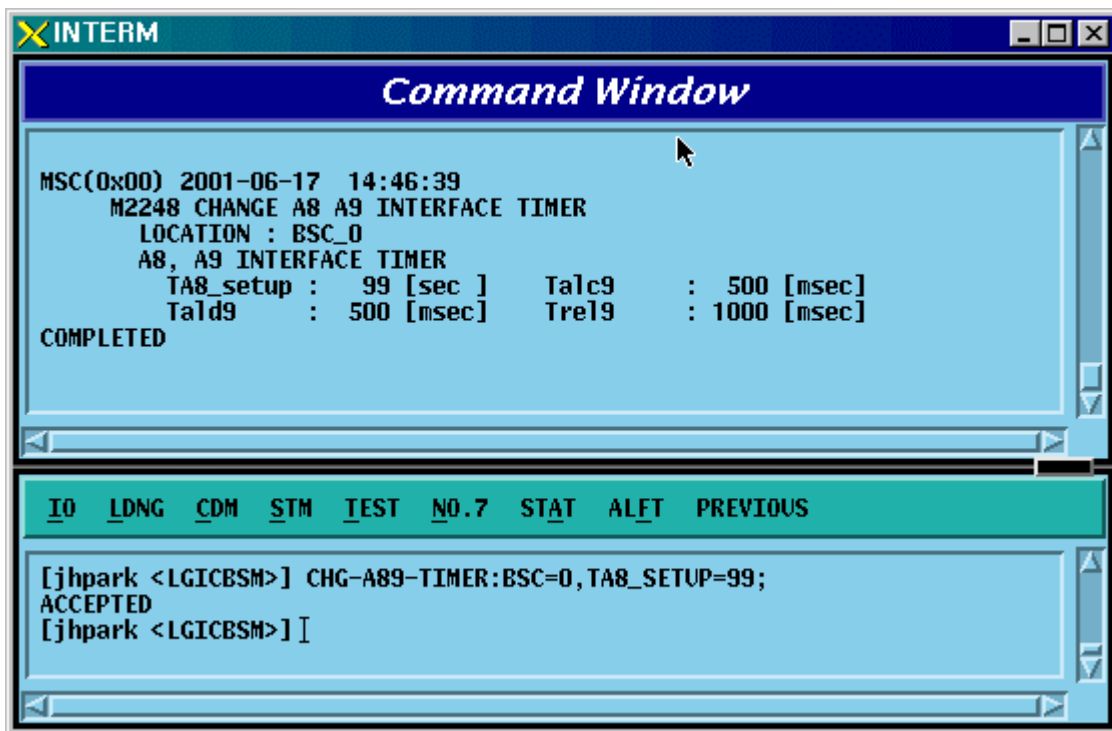


Fig. 4.3-108 A8 A9 INTERFACE TIMER Change

#### 4.3.5.9. A3, A7 INTERFACE TIMER Change

To change A3 A7 INTERFACE TIMER, click CDM->Change\_Parameter\_Information\_2\_2-> **CHG-A37-TIMER** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-A37-TIMER :BSC=a [,Tacm=b] [,Tbstact=c] [,Tbscom=d] [,Tchanstat=e] [,Tconn3=f] [,Tdiscon3=g] [,Tdrptgt=h] [,Ttgrmv=i] [,Thoreq=j] [,Tpcm=k] [,Tphysical=l];
- Input CHG-A37-TIMER :BSC=0,Tacm=1000;
- Output

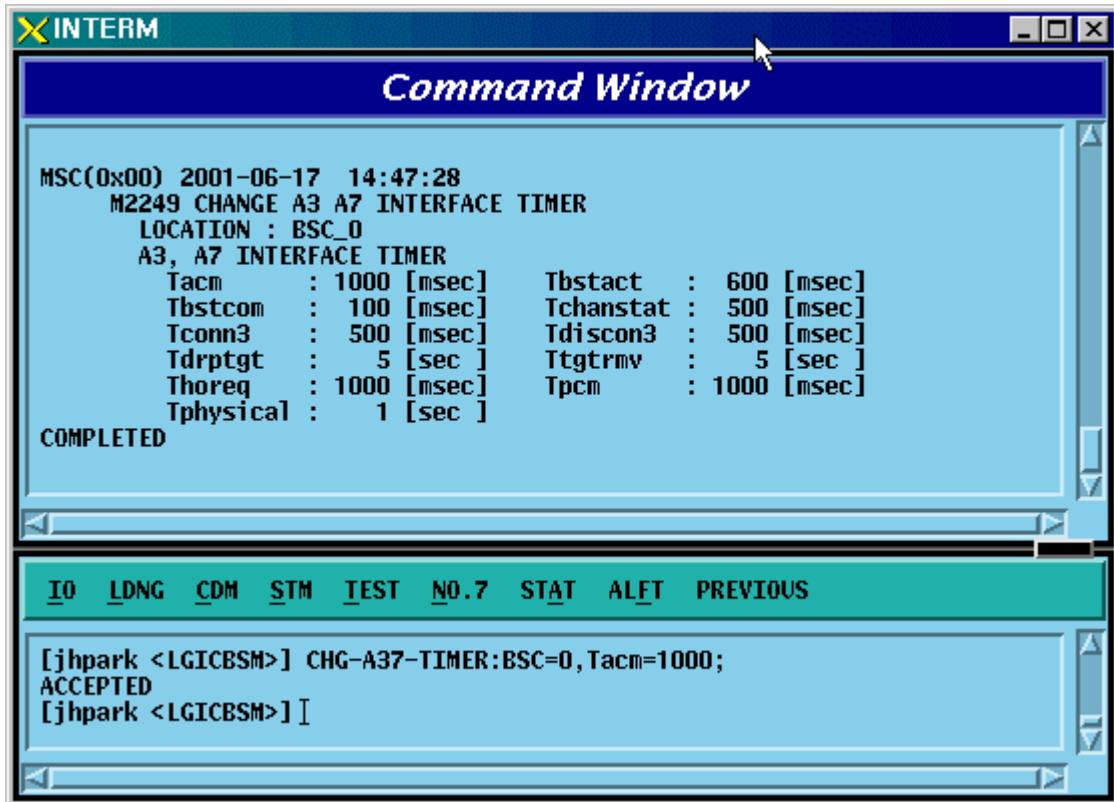


Fig. 4.3-109 A3, A7 INTERFACE TIMER Change

#### 4.3.5.10. Forward Link Power Management Information (RS1) Change

To change forward link power management information (RS1), click CDM->Change\_Parameter\_Information\_2\_2-> **CHG-RS1-FWDP** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command `CHG-RS1-FWDP :BSC=a ,BTS=b ,FER=c [,SLOW_TIME=d] [,FAST_TIME=e] [,STEP_FAST=f] [,SLOW_DLTA=g] [,FAST_DLTA=h] [,NOM_GAIN=i] [,MAX_TC_GAIN=j] [,MIN_TC_GAIN=k] [,FER_THRE=l] [,BGUP_DLTA=m] [,SMLL_DLTA=n] [,SIGL_DLTA=o] [,DLTA_GAN1=p] [,DLTA_GAN2=q] [,DLTA_GAN3=r];`
- Input `CHG-RS1-FWDP :BSC=0 ,BTS=0 ,FER=POINT_5,SLOW_TIME=20000;`
- Output

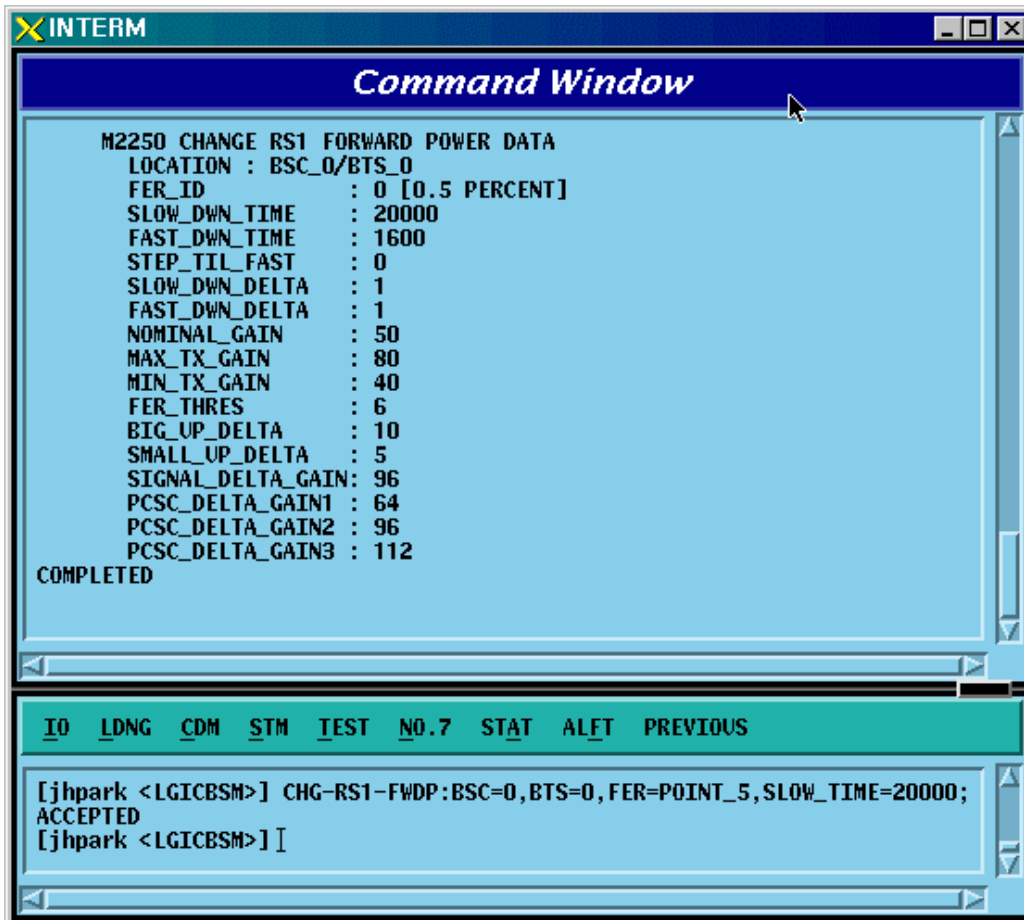


Fig. 4.3-110 Forward Link Power Management Information (RS1) Change

#### 4.3.5.11. Backward Link Power Management Information (RS1) Change

To change Backward link power management information (RS1), click CDM->Change\_Parameter\_Information\_2\_2-> **CHG-RS1-REVP** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command `CHG-RS1-REVP :BSC=a ,BTS=b ,FER=c [,PNOM=d] [,PMAx=e] [,PMin=f] [,PUPF=g] [,PFRR=h] [,PUPE=i] [,PUPEL=j] [,PD=k] [,PVD=l] [,PFW=m] [,PERL=n];`
- Input `CHG-RS1-REVP :BSC=0 ,BTS=0 ,FER=POINT_5,PNOM= 255;`
- Output

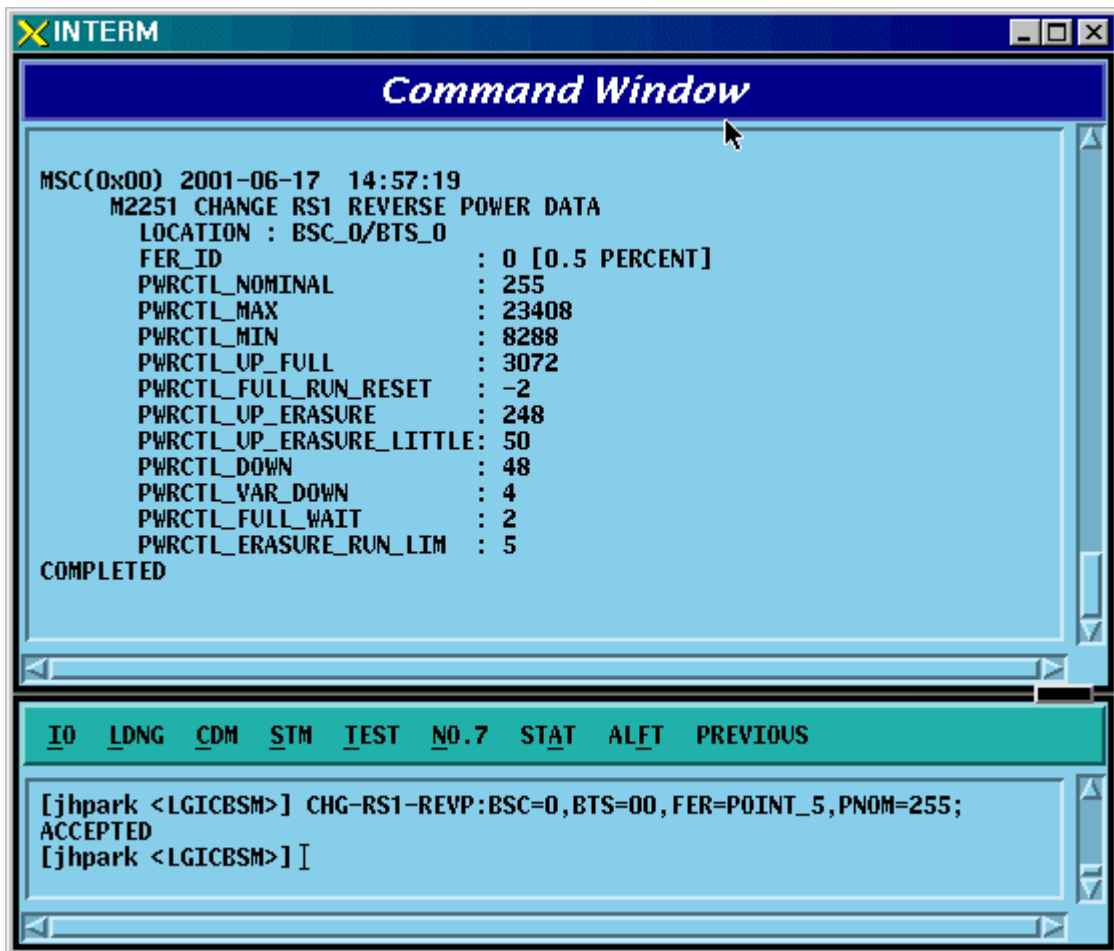


Fig. 4.3-111 Backward Link Power Management Information (RS1) Change

#### 4.3.5.12. Forward Link Power Management Information (RS2) Change

To change Forward link power management information (RS2), click CDM->Change\_Parameter\_Information\_2\_2-> **CHG-RS2-FWDP** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-RS2-FWDP :BSC=a ,BTS=b ,FER=c [,IN\_DWNT=d] [,MAX\_DWNT=e] [,MIN\_DWNT=f] [,TDWN\_DLT=g] [,TUP\_DLT=h] [,STT\_THS=i] [,ERA\_MSR=j] [,CONT\_ERA=k] [,CUMU\_ERA=l] [,NOM\_GAIN=m] [,MAX\_TX\_GAIN=n] [,MIN\_TX\_GAIN=o] [,GAIN\_DWN=p] [,BIG\_UP=q] [,SMALL\_UP=r] [,SIGL\_DLT=s] [,DLT\_GAN1=t] [,DLT\_GAN2=u] [,DLT\_GAN3=v];

- Input CHG-RS2-FWDP :BSC=0 ,BTS=0 ,FER=POINT\_5,IN\_DWNT=255;

- Output

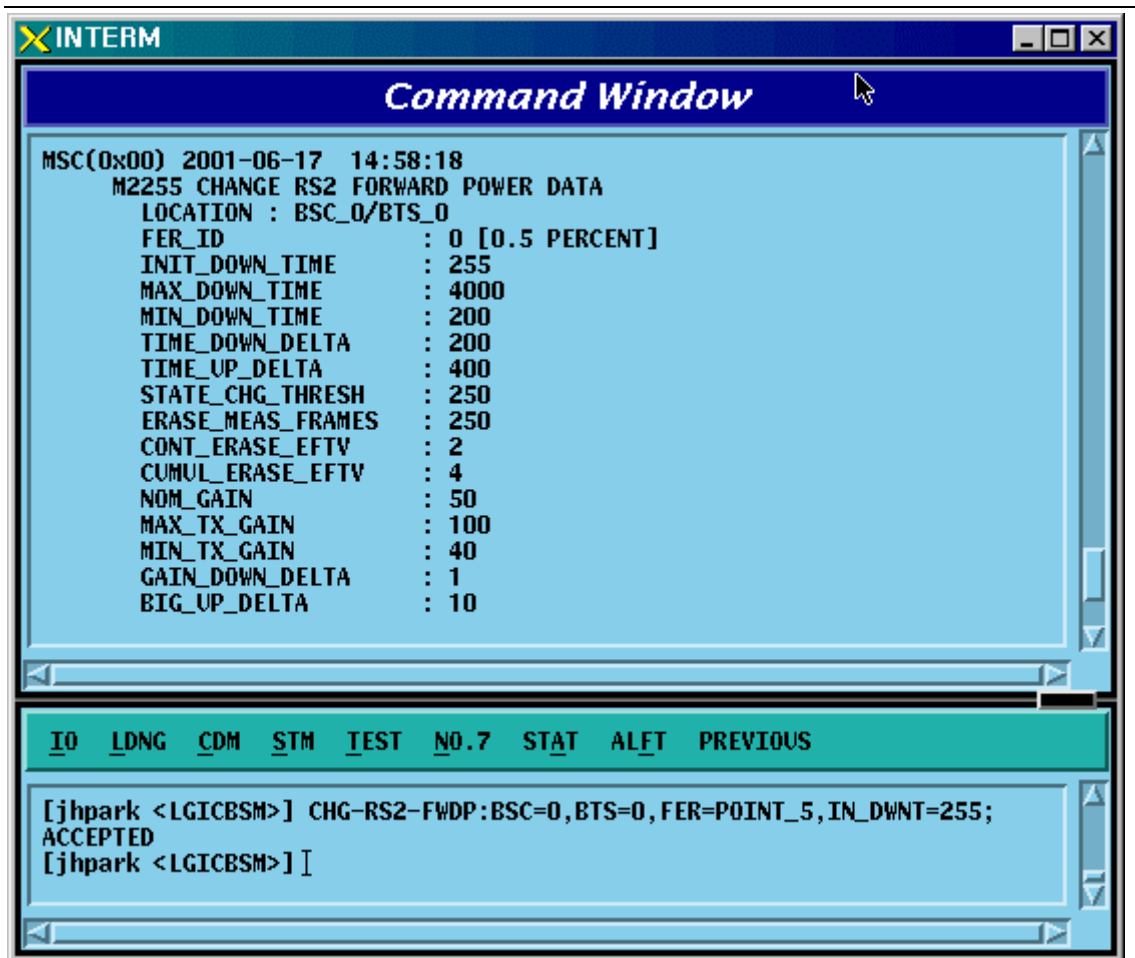


Fig. 4.3-112 Forward Link Power Management Information (RS2) Change

#### 4.3.5.13. Backward Link Power Management Information (RS2) Change

To change Backward link power management information (RS2), click CDM->Change\_Parameter\_Information\_2\_2-> CHG-RS2-REVP on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-RS2-REVP :BSC=a ,BTS=b ,FER=c [,PNOM=d] [,PMAx=e] [,PMin=f] [,RBUD=g] [,RSUD=h] [,RNEW=i] [,RMAXDD=j] [,RMINDD=k] [,RDDIS=l] [,RCONTEE=m] [,RCUMULEE=n] [,REMF=o] [,RSCT=p];
- Input CHG-RS2-REVP :BSC=0 ,BTS=0 ,FER=POINT\_5,PNOM=255;
- Output

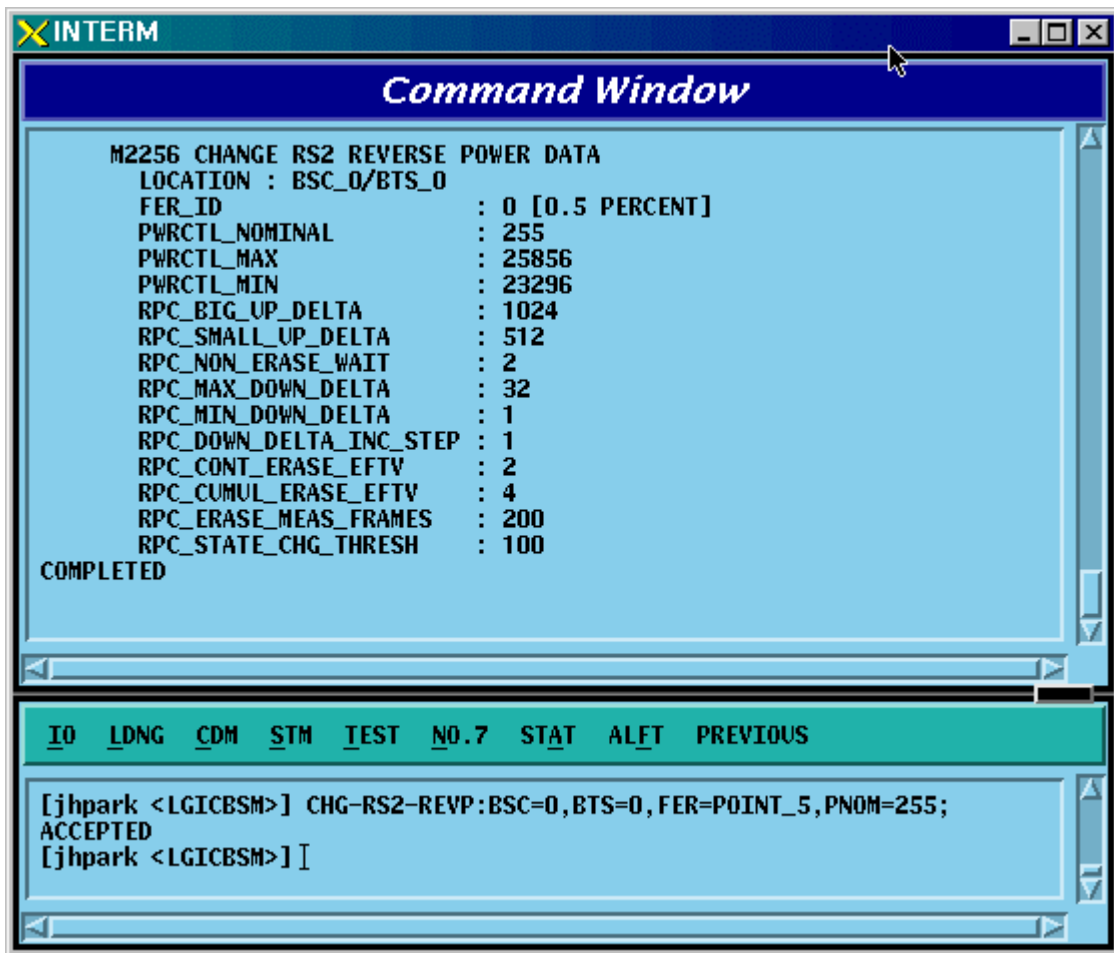


Fig. 4.3-113 Backward Link Power Management Information (RS2) Change

#### 4.3.5.14. Service Option FER Change

To change Service Option FER, click CDM->Change\_Parameter\_ Information\_2\_2->CHG-FER-PARA on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-FER-DATA :BSC=a [,VOICE\_8K=b] [,LOOPBK\_8K=c] [,EVRC=d] [,ASYNC=e] [,G3FAX=f] [,SMS=g] [,PPP\_PKT=h] [,CDPP\_PKT=i] [,LOOPBK\_13K=j] [,STU\_TR=k] [,STU\_NTR=l] [,ASYNC\_13K=m] [,G3FAX\_13K=n] [,SMS\_13K=o] [,VOICE\_13K=p] [,IS96\_VOICE=q] [,MARKOV\_8K=r] [,DATA=s] [,IS96A\_1BY8=t] [,MARKOV\_13K=u] [,WLL\_OFFHOOK=v] [,RS1\_MARKOV=w] [,RS2\_MARKOV=x] [,FCH=y] [,SCH=z] [,DCCH=] [,SCH\_LB=] [,SCH\_LB2=];

- Input CHG-FER-DATA :BSC=0,VOICE\_8K=P\_5;

- Output



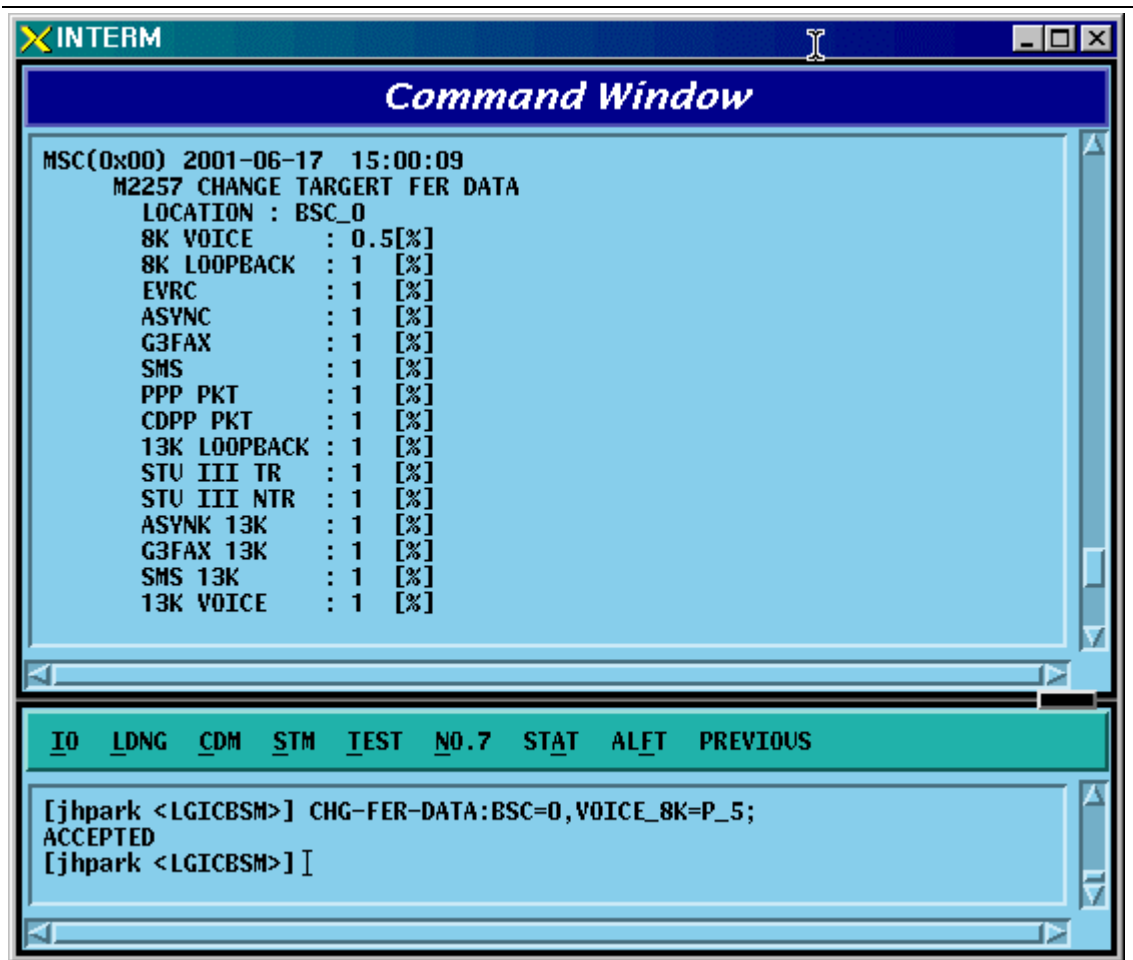


Fig. 4.3-114 Service Option FER Change

#### 4.3.5.15. MAHHO DATA Change

To change MAHHO DATA, click the CDM->Change\_Parameter\_ Information\_2->CHG-MAHO-DATA on the Command Window in order. Input the value to be changed in each file as shown below.

- Command CHG-MAHO-DATA :BSC=a ,BTS=b ,SECT=c [,BORDER\_FLAG=d] [,BD\_CLS=e] [,NUM\_CHAN=f] [,CDMA\_FREQ0=g] [,CDMA\_FREQ1=h] [,CDMA\_FREQ2=i] [,CDMA\_FREQ3=j] [,CDMA\_FREQ4=k] [,CDMA\_FREQ5=l] [,CDMA\_FREQ6=m] [,CDMA\_FREQ7=n] [,CDMA\_FREQ8=o] [,CDMA\_FREQ9=p] [,CDMA\_FREQ10=q] [,CDMA\_FREQ11=r] [,STET=s] [,STEIT=t] [,DRPT=u] [,MIN\_TOT=v] [,CF\_T\_ADD=w] [,TF\_WAIT\_TIME=x] [,SRCH\_N=y] [,SRCH\_R=z];
- Input CHG-MAHO-DATA :BSC=0 ,BTS=0 ,SECT=ALPHA,BORDER\_FLAG=ON;
- Output

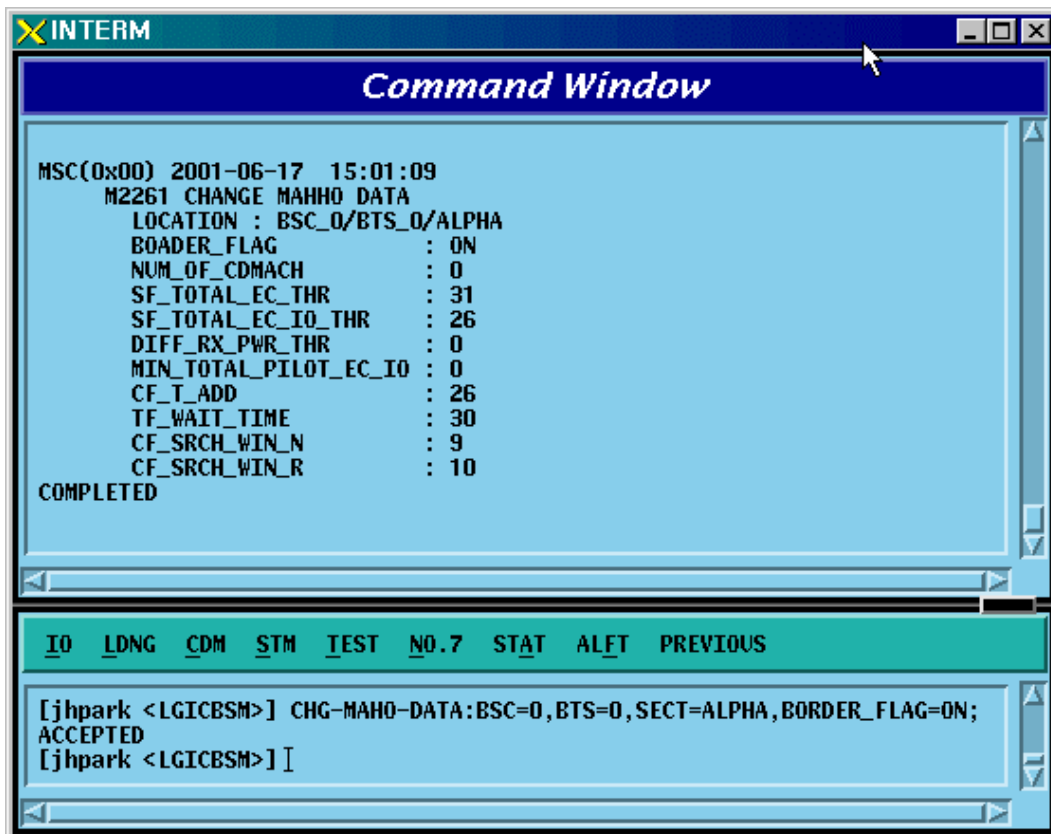


Fig. 4.3-115 MAHHO DATA Change

#### 4.3.5.16. LOCATION PARA Information Change

To change LOCATION PARA information, click CDM->Change\_Parameter\_Information\_2-> CHG-LOC-PARA on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-LOC-PARA :BSC=a ,BTS=b ,SECT=c [,ACT\_T\_FRM=d] [,PUF\_ST\_SZ=e][,PUF\_P\_SZ=f] [,PUF\_INTERVAL=g] [,PUF\_I\_PWR=h] [,PUF\_P\_STEP=i] [,TOT\_PUF\_P=j] [,MAX\_PWR\_PUF=k];
- Input CHG-LOC-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA,ACT\_T\_FRM=ON;
- Output

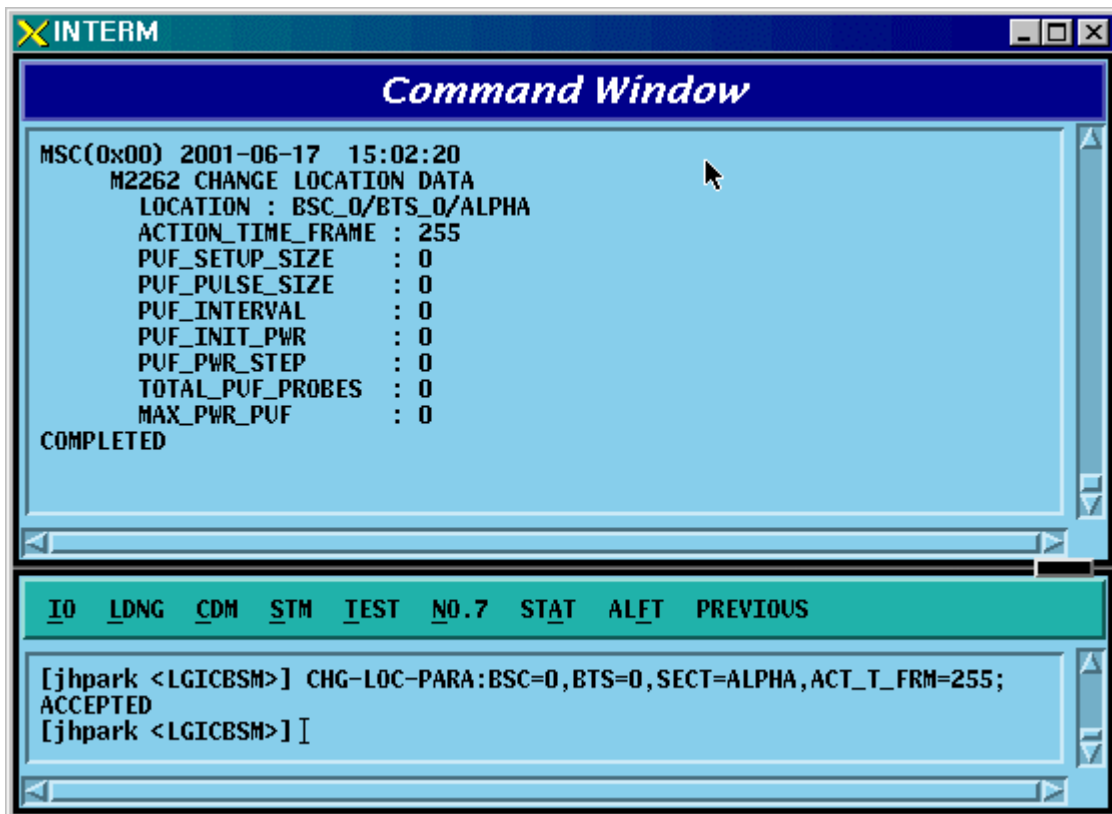


Fig. 4.3-116 LOCATION PARA Information Change

### 4.3.5.17. SCH Parameter Information Change

To change SCH PARA information, click CDM->Change\_Parameter\_Information\_2->CHG-SCH-PARA on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-SCH-PARA :BSC=a ,BTS=b ,SECT=c [,SCH\_T\_ADD=d] [,SCH\_T\_DROP=e] [,T\_MULCHAN=f] [,BEGIN\_PRMBL=g] [,RES\_PRMBL=h] [,PS\_MIN\_DELTA=i] [,ORD\_INTERVAL=j] [,NUM\_PILOTS=k] [,PRD\_INTERVAL=l] [,FLOOR\_HIGH=m] [,FLOOR\_LOW=n] [,PS\_CEIL\_HIGH=o] [,PS\_CEIL\_LOW=p] [,THSH\_INTERVAL=q] [,T\_SLOTTED=r];
- Input CHG-SCH-PARA :BSC=0 ,BTS=0 ,SECT=ALPHA,SCH\_T\_ADD=ON;
- Output

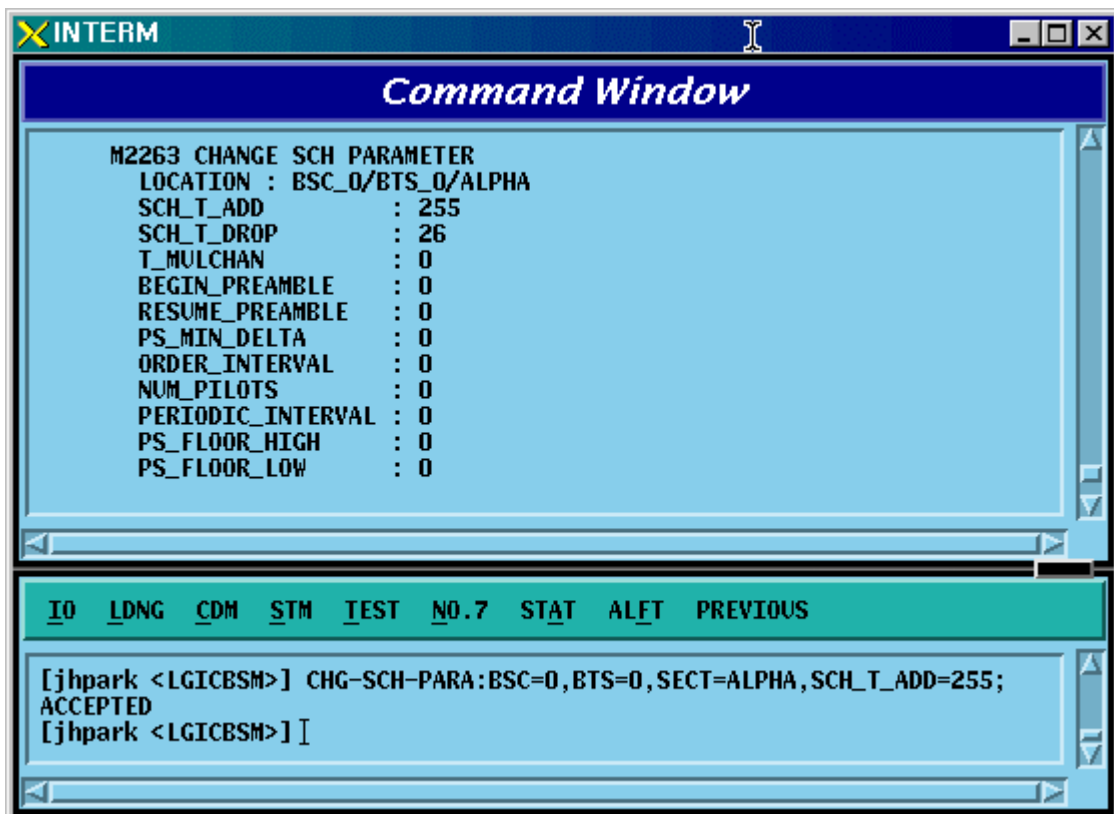


Fig. 4.3-117 SCH Parameter Information Change

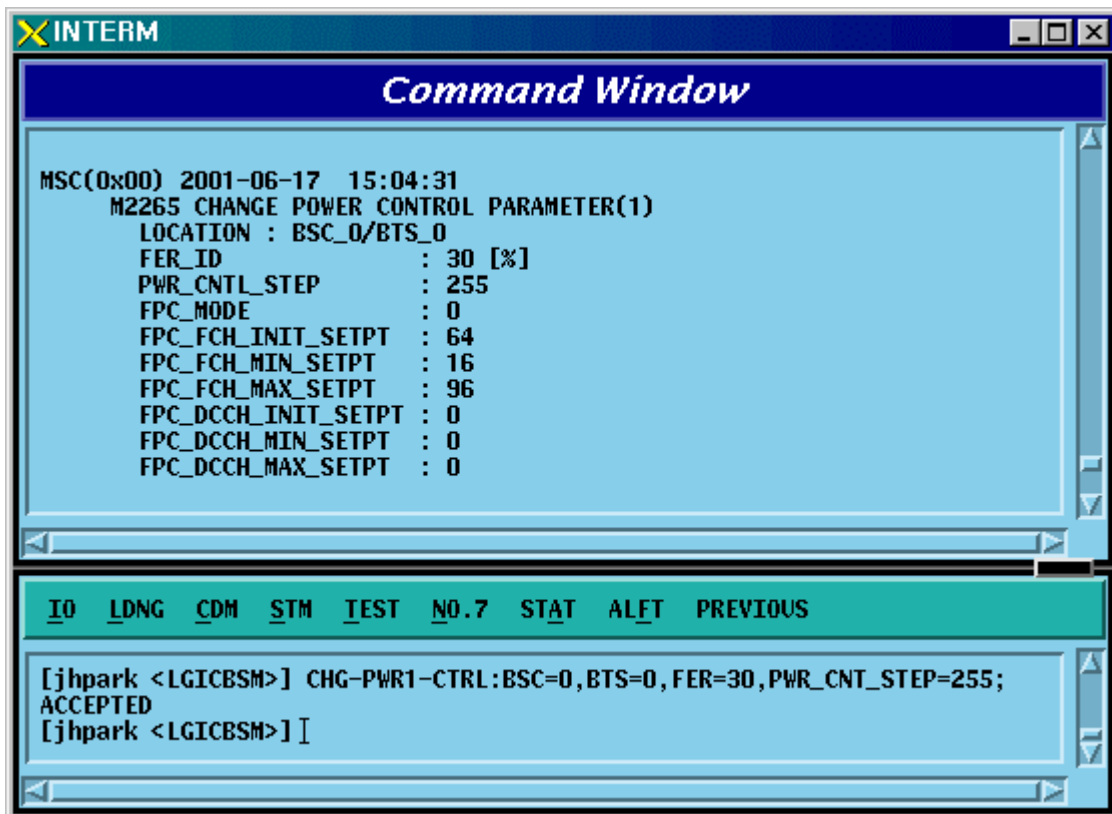
#### 4.3.5.18. POWER CONTROL Parameter Information (1) Change

To change POWER CONTROL Parameter information (1), click CDM->Change\_Parameter\_Information\_2-> **CHG-PWR1-CTRL** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PWR1-CTRL :BSC=a ,BTS=b ,FER=c [,PWR\_CNT\_STEP=d] [,FPC\_MODE=e] [,FPC\_FC\_INIT=f] [,FPC\_FC\_MIN=g] [,FPC\_FCH\_MAX=h] [,FPC\_DCC\_INIT=i] [,FPC\_DCC\_MIN=j] [,FPC\_DCC\_MAX=k] [,FPC\_SC\_INIT=l] [,FPC\_SC\_MIN=m] [,FPC\_SC\_MAX=n] [,FPC\_THRESH=o] [,FCH\_THSH\_SC=p] [,FCH\_ADJ\_GAIN=q] [,DCC\_ADJ\_GAIN=r] [,SCO\_ADJ\_GAIN=s] [,SC1\_ADJ\_GAIN=t] [,FPC\_SUBCH=u] [,RL\_GAIN\_ADJ=v] [,RL\_TC\_PICH=w] [,RL\_SC\_PILOT=x];

- Input CHG-PWR1-CTRL :BSC=0 ,BTS=0 ,FER=30,PWR\_CNT\_STEP=255;

- Output



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Fig. 4.3-118 POWER CONTROL Parameter Information (1) Change

#### 4.3.5.19. POWER CONTROL Parameter Information (2) Change

To change POWER CONTROL Parameter information (2), click CDM->Change\_Parameter\_Information\_2-> **CHG-PWR2-CTRL** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PWR2-CTRL :BSC=a ,BTS=b ,FER=c ,USE\_REV\_P=d  
[,GAIN\_1500=e]  
[,GAIN\_2700=f] [,GAIN\_4800=g] [,GAIN\_9600=h] [,GAIN\_1800=i]  
[,GAIN\_3600=j] [,GAIN\_7200=k] [,GAIN\_14400=l]  
[,NORM\_9600\_5MS=m];
- Input CHG-PWR2-CTRL :BSC=0 ,BTS=0 ,FER=c ,USE\_REV\_P=USE\_REV\_P,  
GAIN\_1500=255;
- Output

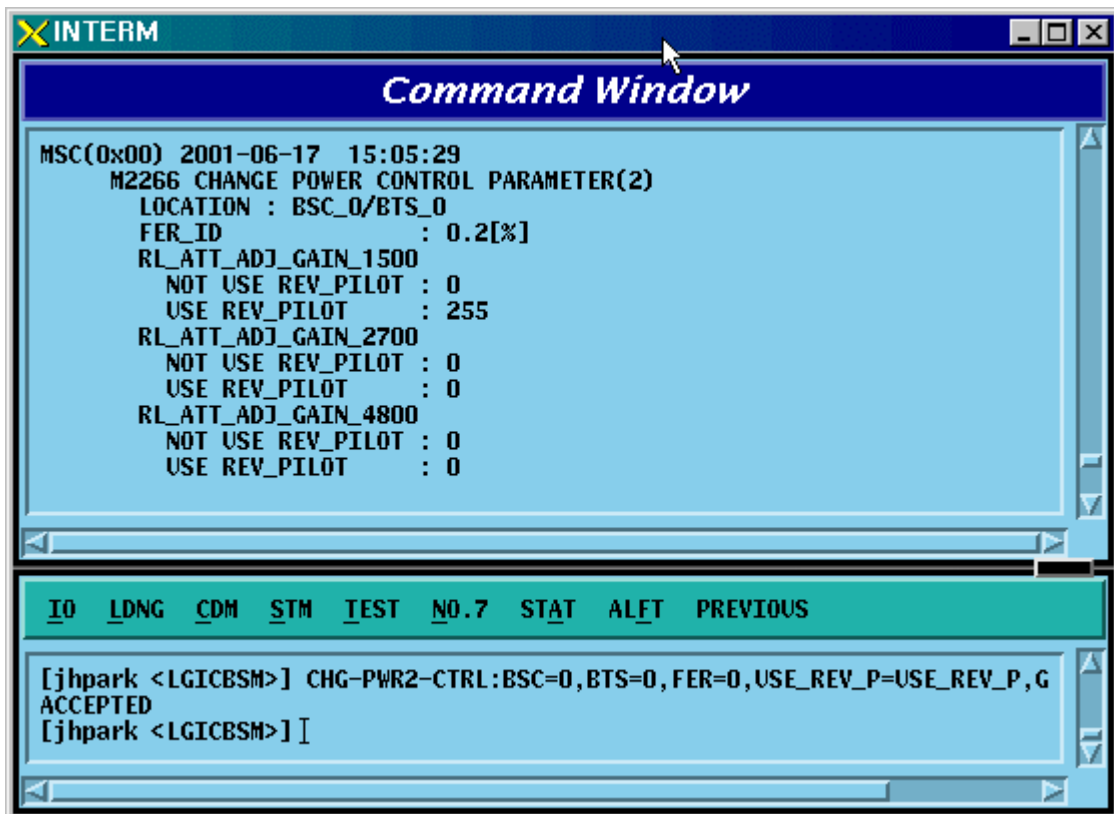


Fig. 4.3-119 POWER CONTROL Parameter Information (2) Change



#### 4.3.5.20. POWER CONTROL Parameter Information (3) Change

To change POWER CONTROL Parameter information (3), click CDM->Change\_Parameter\_Information\_2-> **CHG-PWR3-CTRL** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PWR3-CTRL  
 CTRL :BSC=a ,BTS=b ,FER=c ,USE\_REV\_P=d ,USE\_TUB\_ENC=e  
 [,GAIN\_19200=f] [,GAIN\_38400=g] [,GAIN\_76800=h] [,GAIN\_153600=i]  
 [,GAIN\_307200=j] [,GAIN\_614400=k] [,GAIN\_28800=l]  
 [,GAIN\_57600=m] [,GAIN\_115200=n] [,GAIN\_230400=o]  
 [,GAIN\_460800=p] [,GAIN\_1036800=q];
- Input CHG-PWR3-CTRL :BSC=0 ,BTS=0 ,FER=0 ,USE\_REV\_P=NOUSE\_REV\_P ,  
 USE\_TUB\_ENC=NOUSE\_TUB\_ENC,GAIN\_19200=255;
- Output

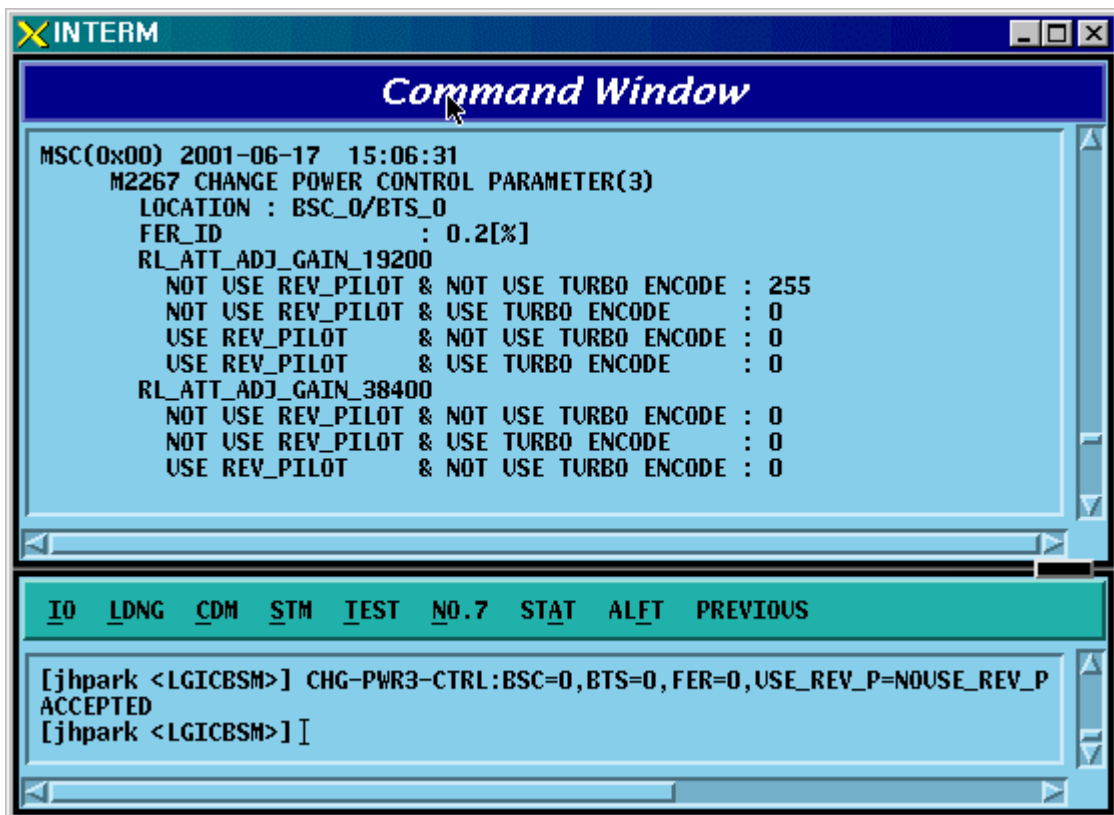


Fig. 4.3-120 POWER CONTROL Parameter Information (3) Change

#### 4.3.5.21. BTS Name Change

To change BTS name, click CDM->Change\_Parameter\_Information\_2-> **CHG-BTS-NAME** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-BTS-NAME :BSC=a ,BTS=b ,NAME=c;
- Input CHG-BTS-NAME :BSC=0 ,BTS=0 ,NAME=jhpark;
- Output

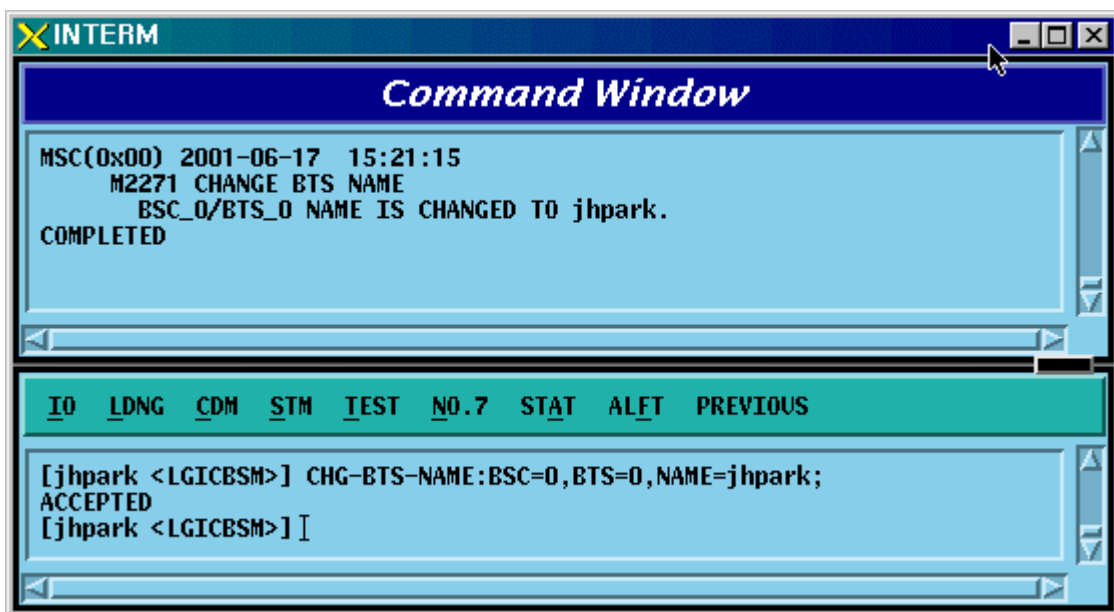


Fig. 4.3-121 BTS Name Change

#### 4.3.5.22. PCF TIMER Change

To change PCF TIMER, click CDM->Change\_Parameter\_Information\_2-> **CHG-PCF-TIMER** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command `CHG-PCF-TIMER :PCP=a [,TRP_LIFETIME=b] [,TBSREQ9=c] [,TDISCON9=d] [,TWAITH09=e] [,TREGREQ=f] [,RRQ_RETRY_CNT=g];`
- Input `CHG-PCF-TIMER :PCP=0,TRP_LIFETIME=255;`
- Output

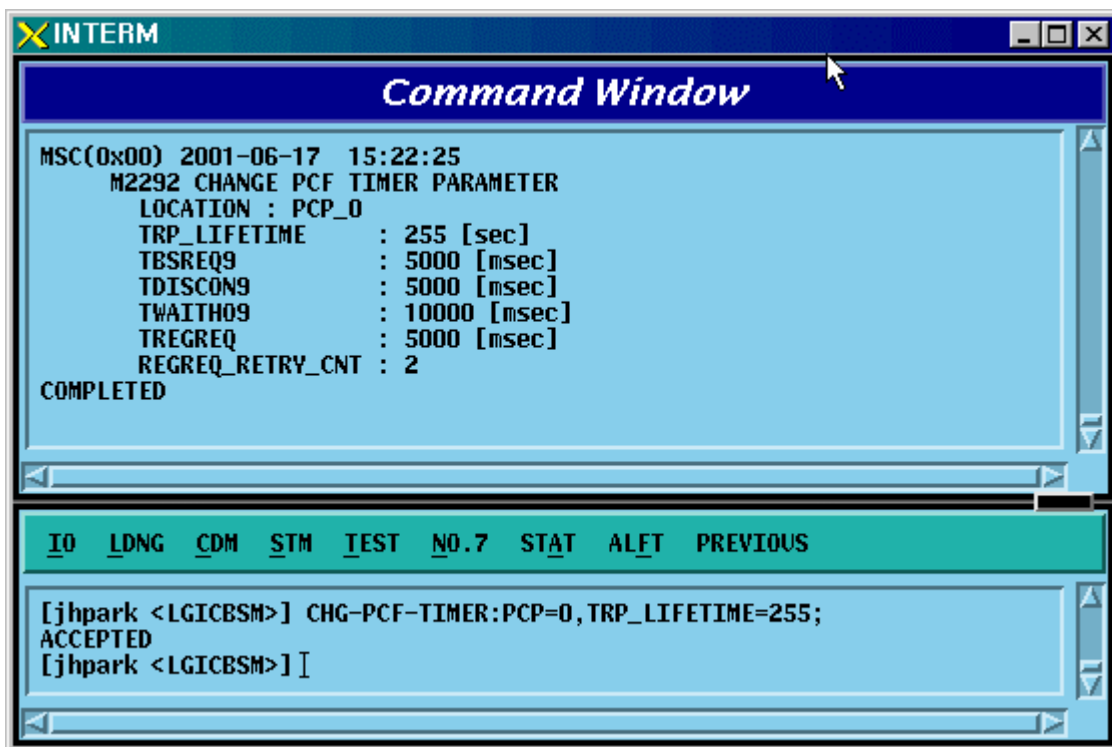


Fig. 4.3-122 PCF TIMER Change

### 4.3.5.23. PCP/PMP ADDRESS Change

To change PCP/PMP ADDRESS, click CDM->Change\_Parameter\_ Information\_2->CHG-PCP-ADDR on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PCP-ADDR :PCF=a ,SHELF\_ID=b ,SIDE=c ,IP\_ADDR=d;
- Input CHG-PCP-ADDR :PCF=0 ,SHELF\_ID=0 ,SIDE=A\_SIDE ,  
IP\_ADDR=255.255.255.255;
- Output

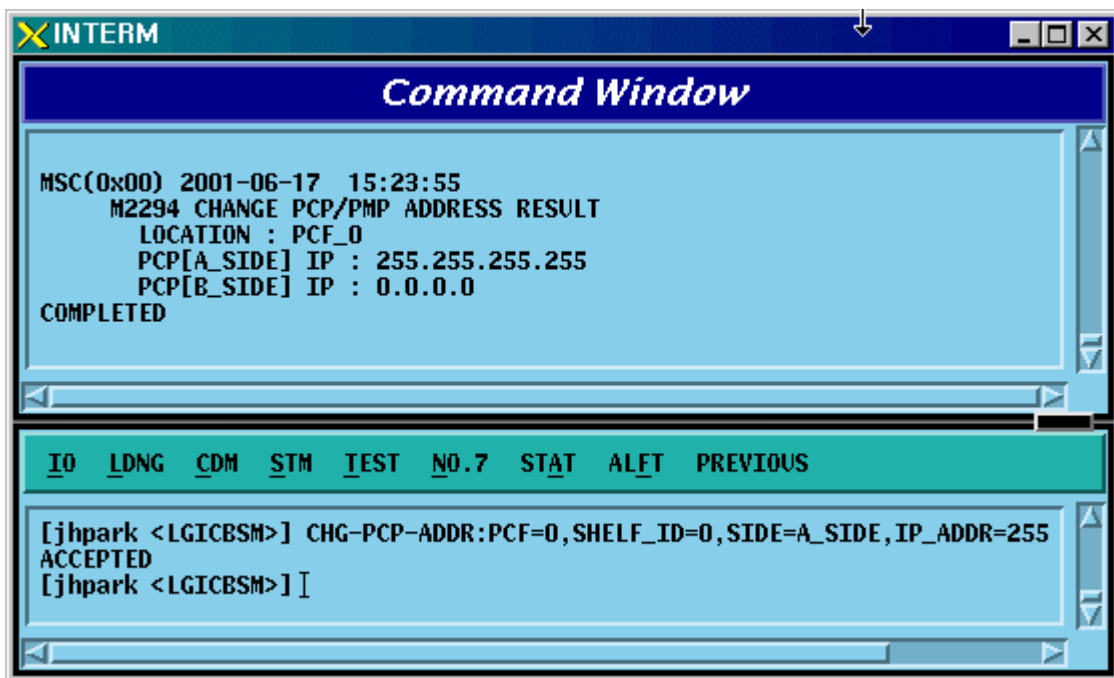


Fig. 4.3-123 PCP/PMP ADDRESS Change

#### 4.3.5.24. PIP ADDRESS Change

To change PIP ADDRESS, click CDM->Change\_Parameter\_ Information\_2-> **CHG-PIP-ADDR** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PIP-ADDR :PCF=a ,SHELF\_ID=b ,PIP\_ID=c [,IP\_ADDR=d] [,NETMASK=e]
- Input CHG-PIP-ADDR :PCF=0 ,SHELF\_ID=0 ,PIP\_ID=0, NETMASK=255.255.0.0;
- Output

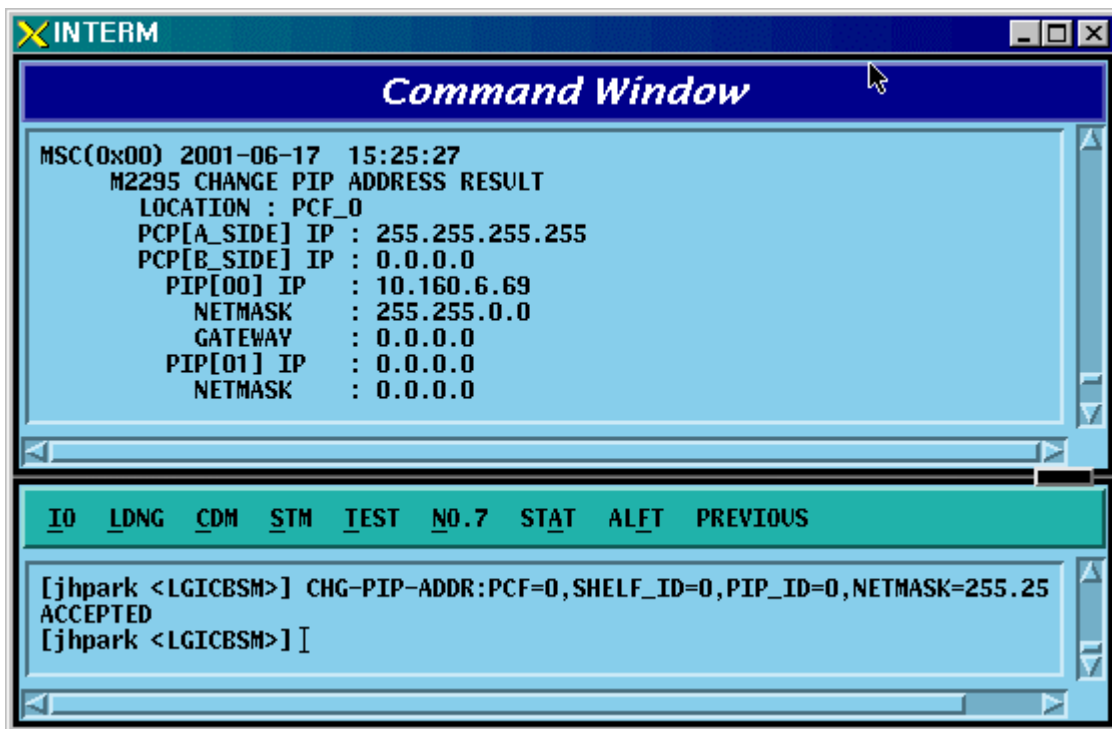


Fig. 4.3-124 PIP ADDRESS Change

#### 4.3.5.25. PCF PARAMETER Change

To change PCF PARAMETER, click CDM->Change\_Parameter\_Information\_2-> **CHG-PCF-PARA** on the Command Window in order. Input the value to be changed in each field as shown below.

- Command CHG-PCF-PARA :PCF=a [,AAA\_TYPE=b] [,SID=c] [,NID=d] [,LTM\_OFF=e] [,DAY\_LT=f] [,PKZN\_ID=g] [,ID\_TYPE=h] [,GRE\_SEQ=i] [,SEQ\_TIMER=j] [,MSID\_TYPE=k];

- Input CHG-PCF-PARA :PCF=0,AAA\_TYPE=255,SEQ\_TIMER=255;

- Output

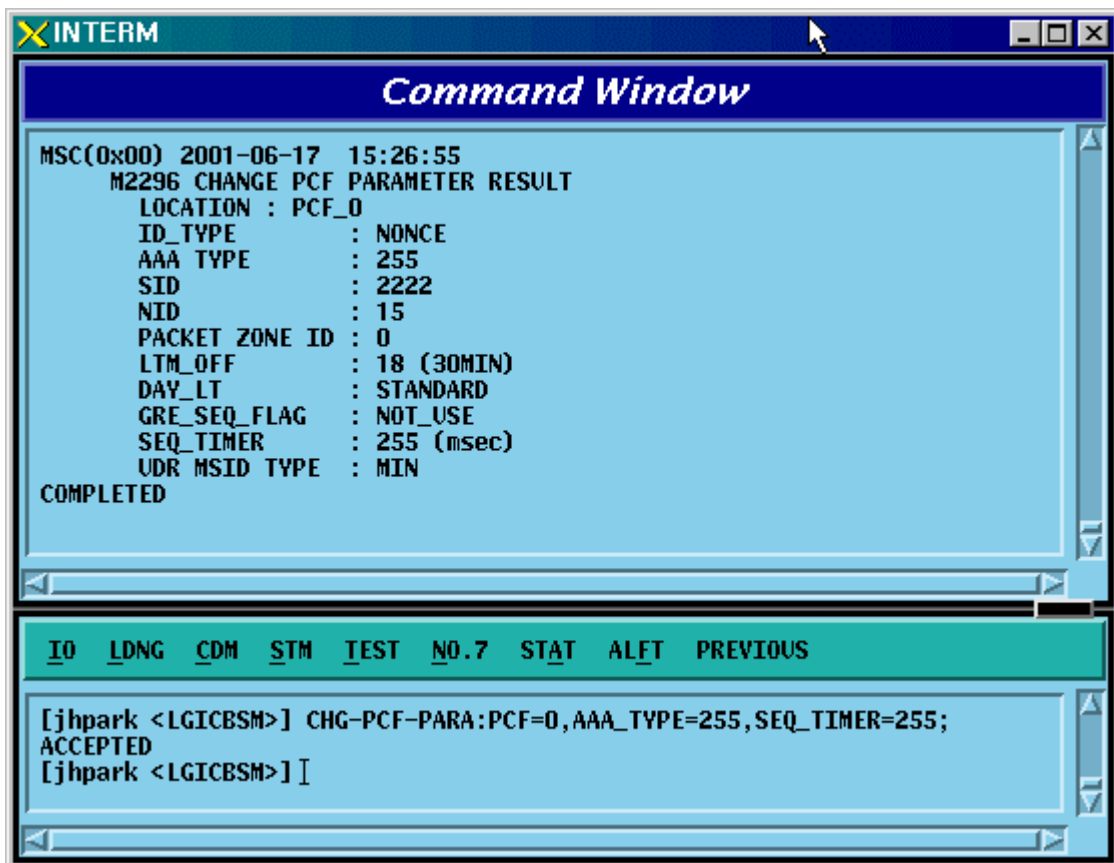


Fig. 4.3-125 PCF PARAMETER Change