MBX IP
Feature Package 2.0

Revision History

ISSUE	DATE	DESCRIPTION OF CHANGES
Preliminary Issue 1	2012 July	Initial Beta Field Trial draft

Table of Contents

1. RING TONES (DIFFERENTIAL RING)

Description

Differential Ring provides 15 or 8 different audible Ring signals to be assigned to a Digital or IP Phone, allowing users to determine which phone is ringing and the type of call (Intercom or CO/IP). When the phone receives an incoming call, the designated ring signal is provided over the speaker. Different selections are assigned for Intercom and CO/IP calls.

Operation

Digital Phone

To select the desired ring tone:
1. Press the **[PGM]** button.
2. Dial 2 (Ring Selection).
3. Dial 1 (Intercom) or 2 (CO/IP) ring.
4. Dial 1 (Ring Source).
5. Dial Ring Tone selection
   01-15:
   1-8: for 80xx IP phones
6. Ring Tone is presented.
7. Press the **[SAVE]** button.

Conditions

Programming

    Station Port Data   1. Intercom Differential Ring ID (PGM 124-Index3)

                                 2. CO Differential Ring ID (PGM 124-Index4)

                                 LDP = Digtial Telephones, LIP= 80xx IP Phones

2. EMERGENCY SUPERVISOR

Description

Emergency supervisor can access any busy station regardless of the station's privacy authority (Auto Privacy, Voice Over Rejection).

- Voice Over

- Override

- Override & Disconnect

Operation

Same as {Voice Over}, {Override-Hold}, {Override-Disconnect}

Conditions

1. This is not applied to the station setting data line security

Programming

Station Port Data	1. Emergency supervisor (PGM 123 – Index9)
Station Number Data	1. Voice Over Access (PGM 133-Index9)
	2. Rejection of Voice Over (PGM 133-Index10)
	3. Auto Privacy (PGM 134-Index11)
System Data	1. Intercom Busy One-digit Attributes (PGM 237)
Numbering Plan	1. Feature Numbering, Override & Disconnect (PGM 113)

3. OVERRIDE –DISCONNECT

Description

When a user calls to a station and receives a busy signal, the user can request Override-Disconnect.

A user makes a conversation with busy station directly and the party talking with busy station is disconnected.

Operation

With One Digit Service

To activate an Override -Disconnect while receiving Intercom busy tone:

1. Dial the digit programmed as Override-Disconnect, the called station will receive the Call Wait Alarm tone

2. The existing conversation is terminated and a conversation with overriding station will be established automatically.

With Feature Code

To activate an Override-Disconnect while receiving Intercom busy tone:

3. Press Hook Flash or {TRANS} button

4. Dial the feature code for Override(Disconnect), the called station will receive the Call Wait Alarm tone

5. The existing conversation is terminated and a conversation with overriding station will be established automatically.

Conditions

1. Override-Disconnect cannot be supported to SIP terminal.

Programming

Station Number Data	1. Voice Over Access (PGM 133-Index9)
	2. Rejection of Voice Over (PGM 133-Index10)
System Data	1. Intercom Busy One-digit Attributes (PGM 237)
Numbering Plan	1. Feature Numbering, Override & Disconnect (PGM 113)

4. CALL DURATION RESTRICTION

The System can be programmed to limit the length of calls at specified stations. The Administrator can make restriction rules in each ICM Call / Incoming Call / Normal Outgoing Call / Outgoing Call in Prefix Table (Local, Long, International Call) / Dedicated CO Line / Mobile Call.
In each case, a single alarm tone, repeated alarm tone, or forced release service can be set as a restriction rule after the restrict timer expires.

If the single alarm tone is assigned as restriction rule, the station will hear single alarm tone after restriction time.

If the repeated alarm tone is assigned as restriction rule, the station will hear alarm tone periodically in programmed cycle after restriction time.

If the forced disconnection rule is assigned as restriction, specific station will hear warning tone and then after timer, call will be released forcibly.

A maximum of 30 rules can be assigned in the MBX IP 100/300 system. Each station has to refer to one of these rules. And each station will follow one of assigned restriction rule.

Applicable Call Type:
1. ICM Call
2. Incoming Call
3. Normal Outgoing Call
4. Outgoing Call in Prefix Table (Local, Long, International Call)
5. Outgoing Call with Dedicated CO line
6. Outgoing Call to Mobile Phone Number

4.1.1 ICM Call Duration Restriction

Description
ICM Call Restriction rule can be defined from Call Restriction admin PGM284, 285.

Operation
System
Operation of this feature is automatic when assigned:

Conditions
1. ICM Call Duration Time Display to station's LCD option is added for ICM call conversation in PGM123.

Programming
Station   1. ICM Call Duration Time Display (PGM 123-Index13)

Station Number   1. Call Duration Restriction Table (PGM 134-Index4)

Table Data   1. Call Duration Restriction Table (PGM 284,285)

4.1.2 Incoming Call Duration Restriction

Description

 Incoming Call Restriction rule can be defined from Call Restriction admin PGM284, 285.

Operation

Operation of this feature is automatic when assigned:

Conditions

1. Call Duration Restriction…

Programming
Station Number   1. Call Duration Restriction Table (PGM 134-Index4)

Table Data   1. Call Duration Restriction Table (PGM 284,285)

4.1.3 Normal Outgoing Call Duration Restriction

Description

Normal Outgoing Call Restriction rule can be defined from Call Restriction admin PGM284, 285. Normal Outgoing Call means unmatched all of outgoing call from Local / Long / International Prefix table.

Operation

Operation of this feature is automatic when assigned:

Conditions

1. Call Duration Restriction…

Programming
Station Number   1. Call Duration Restriction Table (PGM 134-Index4)

Table Data   1. Call Duration Restriction Table (PGM 284,285)

4.1.4 Local / Long / International Outgoing Call Duration Restriction

Description

Outgoing Call can be divided Local / Log / International Call with comparison between dialed digit from user and Local / Long / International Prefix table.

Each Local / Long / International Call can be set restriction rule from Call Restriction admin PGM284, 285. If call restriction is set, after restriction time, assigned restriction rule will be operated automatically

Operation

Operation of this feature is automatic when assigned:

Conditions

1. Call Duration Restriction…

Programming

Station Number	1. Call Duration Restriction Table (PGM 134-Index4)
Table Data	1. Call Duration Restriction Table (PGM 284,285)
Tenant Data	1. Local Call Prefix Table (PGM 286)
	2. Long Call Prefix Table (PGM 287)
	3. International Call Prefix Table (PGM 288)

4.1.5 Dedicated Line Call Duration Restrict

Description

CO line can be defined as Normal CO line or Dedicated Line in CO Access Mode admin in PGM162-Index1.

If CO line is dedicated line, all of outgoing call will be handled as dedicated line. And Outgoing Call through dedicated line can be set restriction rule from Call Restriction admin PGM284, 285. If call restriction is set, after restriction time, assigned restriction rule will be operated automatically.

Operation

Operation of this feature is automatic when assigned:

Conditions

1. Call Duration Restriction…

Programming

Station Number	1. Call Duration Restriction Table (PGM 134-Index4)
CO	1. CO Access Mode (PGM 162-Index1)
Table Data	1. Call Duration Restriction Table (PGM 284,285)

4.1.6 Mobile Call Duration Restrict

Description

In case of Mobile Call, restriction rule can be defined from Call Restriction admin PGM284, 285 in Tenant base admin. Administrator can define mobile call prefix digits in PGM289 Mobile Prefix Table.

If user seizes the CO line and dial defined mobile number in Mobile Prefix Table. Mobile Call Restriction rule will be applied. If call restriction is set, after restriction time, assigned restriction rule will be operated automatically.

Operation

Operation of this feature is automatic when assigned:

Conditions

1. Call Duration Restriction…

Programming

Station Number   1. Call Duration Restriction Table (PGM 134-Index4)

Table Data   1. Call Duration Restriction Table (PGM 284,285)

Tenant Data   1. Mobile Call Prefix Table (PGM 289)

5. VOICE MAIL SERVICE RETRIAL

Description

When there is no channel available in the VMIB to play a voice prompt, greeting or message, incoming CO calls can be put in the wait queue for the voice mail channel to be idle. Optionally, the call can be rerouted immediately to a busy destination (PGM 169)

Operation

Conditions

1. This feature is available only on CO lines.
   And this applies to all CO line types (normal, DID, or DISA)
2. The CO call is put on waiting queue and the caller will hear ring-back tone.
3. System will wait for 3 seconds and try again to start the VM service until the retry count (PGM 161 – Index 13) overflows.
4. The following features will support the retrial of services from CO line.
   - CCR (Customer Controlled Routing)
   - CCR Drop
   - VM Message Retrieve
   - VM Message Store
   - AME (Answering Machine Emulation)
   - System Greeting Recording
   - Company Directory

Programming

    CO Line Data   1. VM Service Retry Count (PGM 161 – Index 13)

                               2. Incoming CO Alternate Destination (PGM 169)

6. VIRTUAL SUBSCRIBER SERVICE

Description

This feature allows a CO incoming call with CLI (Calling Line Identification) to be as a virtual subscriber. The virtual subscriber is processed with day/night/timed class of service as well as tenant group number. The virtual subscriber can have specific destination. This feature is for transit exchange or intermediate exchange. This service is implemented for any trunk line types which can identify CLI number.

Virtual Subscriber

A subscriber which is not a MBX IP extension subscriber, but which can be identified by received CLI number and/or Called Number

Virtual Subscriber Table

This table contains incoming CLI, called number, incoming CO group, day/night/timed class, tenant, maximum virtual calls, Virtual CLI table index and destination. The incoming CLI can be assigned up to 24 digits. The table can be assigned up to **300** entries in an MPB 300 and **100** entries in an MPB 100.

Virtual CLI Table

This table contains numbers used for CLI when a virtual subscriber makes outgoing call.

Virtual Subscriber Service Option

This option contains whether to apply virtual subscriber service or not and how to apply virtual subscriber service.

Operation

The System will implement routing automatically based on database entries and the received CLI.

1. System receives a call from CO.
2. System processes a virtual subscriber with temporary day/night/timed class and tenant if CLI of incoming call fulfills the condition of virtual subscriber, and system sends the call to the specific destination of virtual subscriber.
3. If the destination of virtual subscriber is CO access code, system sends the CO access code and called party number incoming through CO.
4. If there is no destination of virtual subscriber, system just sends called party number incoming through CO.

1) Virtual Subscriber Service Option

- **NO**: Not to apply virtual subscriber service to incoming calls. It means normal CO incoming call process.

- **ALLOW**: If received CLI fulfills digits condition of virtual subscriber and real incoming CO group is same with pre-assigned incoming CO group of virtual subscriber, virtual subscriber service would be applied to the incoming call. But if received CLI doesn't fulfill digits condition of virtual subscriber or real incoming CO group is not same with pre-assigned incoming CO group of virtual subscriber, the incoming call would be released.

- **DENY**: If received CLI fulfills digits condition of virtual subscriber and real incoming CO group is same with pre-assigned incoming CO group of virtual subscriber, the incoming call would be released. But if received CLI doesn't fulfill digits condition of virtual subscriber or real incoming CO group is not same with pre-assigned incoming CO group of virtual subscriber, the incoming call would be processed by normal CO incoming call.

- **MATCH**: If received CLI fulfills digits condition of virtual subscriber and real incoming CO group is same with pre-assigned incoming CO group of virtual subscriber, virtual subscriber service would be applied to the incoming call. But if received CLI doesn't fulfill digits condition of virtual subscriber or real incoming CO group is not same with pre-assigned incoming CO group of virtual subscriber, the incoming call would be processed by normal CO incoming call.

2) Virtual subscriber's CLI

Incoming CLI through CO should fulfill one of condition below and real incoming CO group should be same with pre-assigned incoming CO group of virtual subscriber.

- **Whole Numbers**: Whole received CLI should be same with pre-assigned digits of virtual subscriber. It has the highest priority. Ex) The case that assigned digits of virtual subscriber are '4504875' and received CLI is '4504875'.

- **Prefix Masked Numbers**: Length of CLI should be same with pre-assigned digits of virtual subscriber and fixed length end digits of CLI should be same with one of pre-assigned digits of virtual subscriber. Ex) The case that pre-assigned digits of virtual subscriber are 'XXX4875' and received CLI is '4504875'. 'X' means any one digit. Length of incoming CLI is 7. The last 4 digits of CLI are same with one of virtual subscriber and any beginning 3 digits are available.

- **Postfix Masked Numbers**: Length of CLI should be same with pre-assigned digits of virtual subscriber and fixed length beginning digits of CLI should be same with one of pre-assigned digits of virtual subscriber. Ex) The case that pre-assigned digits of virtual subscriber are '450XXXX' and received CLI is '4504875'. Length of incoming CLI is 7. The first 4 digits of CLI are same with one of virtual subscriber and any last 3 digits are available.

- **Length Matching**: Length of CLI should be same with one of virtual subscriber and any digits are available. Ex) The case that pre-assigned digits of virtual subscriber are 'XXXXXXX' and received CLI is '4504875'. Length of incoming CLI is 7.

- **Beginning Masked Numbers**: The last part of digits of CLI should be same with one of virtual subscriber and length of CLI should be same with or more than same digits of virtual subscriber. Ex) The case that pre-assigned digits of virtual subscriber are 'C4875'

and received CLI is '4504875'. 'C' means any one and more digits. Length of incoming CLI is more than 4. The last 4 digits are same with one of virtual subscriber.

- **End Masked Numbers**: The first part of CLI should be same with one of virtual subscriber and length of CLI should be same with or longer than virtual subscriber. Ex) The case that pre-assigned digits of virtual subscriber are '450C' and received CLI is '4504875'. Length of incoming CLI is more than 3. The first 3 digits are same with one of virtual subscriber.

- **No Number**: There is no CLI in incoming CO call. The case that pre-assigned digit of virtual subscriber is N. The priority is same with 'Whole Numbers'.

- Incoming CLI has numbers from 0 to 9 and *, #.

- In Admin programming, 'N', 'X' and 'C' can't be used in one CLI type at the same time. And 'N' and 'C' can't be assigned more than one in one CLI type.

- In Admin programming, 'C' can be only the first or last digit.

- In Admin programming, 'N' can't be programmed with other digits.

- If incoming CLI fulfills one more conditions above, selection of condition follows above priority. The order of priority is as next: Whole Numbers and No Numbers > Prefix Masked Numbers > Postfix Masked Numbers > Beginning Masked Numbers > End Masked Numbers > Length Matching.

3) Virtual subscriber's Called Party Number

The Called Party Number from incoming CO call should fulfill one of condition below and real incoming CO group should be same with pre-assigned incoming CO group of virtual subscriber.

- **Whole Numbers**: Whole received Called Party Number (CPN) should be same with pre-assigned digits of virtual subscriber. It has the highest priority. Ex) The case that assigned digits of virtual subscriber are '4504875' and received CPN is '4504875'.

- **Prefix Masked Numbers**: Length of CPN should be same with pre-assigned digits of virtual subscriber and fixed length end digits of CPN should be same with one of pre-assigned digits of virtual subscriber. Ex) The case that pre-assigned digits of virtual subscriber are 'XXX4875' and received CPN is '4504875'. 'X' means any one digit. Length of incoming CPN is 7. The last 4 digits of CPN are same with one of virtual subscriber and any beginning 3 digits are available.

- **Postfix Masked Numbers**: Length of CPN should be same with pre-assigned digits of virtual subscriber and fixed length beginning digits of CPN should be same with one of pre-assigned digits of virtual subscriber. Ex) The case that pre-assigned digits of virtual subscriber are '450XXXX' and received CPN is '4504875'. Length of incoming CPN is 7. The first 4 digits of CPN are same with one of virtual subscriber and any last 3 digits are available.

- **Length Matching**: Length of CPN should be same with one of virtual subscriber and any digits are available. Ex) The case that pre-assigned digits of virtual subscriber are 'XXXXXXX' and received CPN is '4504875'. Length of incoming CPN is 7.

- **Beginning Masked Numbers**: The last part of digits of CPN should be same with one of virtual subscriber and length of CPN should be same with or more than same digits of virtual subscriber. Ex) The case that pre-assigned digits of virtual subscriber are 'C4875'

and received CPN is '4504875'. 'C' means any one and more digits. Length of incoming CPN is more than 4. The last 4 digits are same with one of virtual subscriber.

- **End Masked Numbers**: The first part of CPN should be same with one of virtual subscriber and length of CPN should be same with or longer than virtual subscriber. Ex) The case that pre-assigned digits of virtual subscriber are '450C' and received CPN is '4504875'. Length of incoming CPN is more than 3. The first 3 digits are same with one of virtual subscriber.

- **No Number**: There is no CPN in incoming CO call. The case that pre-assigned digit of virtual subscriber is N. The priority is same with 'Whole Numbers'.

- Incoming CPN only has numbers from 0 to 9 and *, #.

- In Admin programming, 'N', 'X' and 'C' can't be used in one CPN type at the same time. And 'N' and 'C' can't be assigned more than one in one CPN.

- In Admin programming, 'C' can be only the first or last digit.

- In Admin programming, 'N' can't be programmed with other digits.

- If incoming CPN fulfills one more conditions above, selection of condition follows above priority. The order of priority is as next: Whole Numbers and No Numbers > Prefix Masked Numbers > Postfix Masked Numbers > Beginning Masked Numbers > End Masked Numbers > Length Matching.

4) Incoming CO Group

This is an incoming CO Group for Virtual Subscriber Service. If CO Group is equal with current call group, Virtual Subscriber Service will be checked.

5) Virtual Subscriber's Day/Night/Timed Class

It is used for regular class services. For example, class base O/G digits allow/deny service, CO outgoing service.

6) Virtual Subscriber's Tenant

It is used for regular tenant services. For example, inter tenant connection allow/deny service, class base O/G digits allow/deny service and so on.

7) Virtual Subscriber's Maximum virtual calls

Maximum number of CO incoming calls that virtual subscriber service is applied to simultaneously. If the number isn't assigned, there is no limit of incoming calls. Otherwise, the number can be assigned from 0 to 254. If this value is 0 and Virtual Subscriber Service Option value is ALLOW or MATCH, the matched virtual subscriber's call should be released.

8) Digit Conversion Table

After checking the condition for virtual subscriber service, this Digit Conversion Table is used for toll restriction with temporary Virtual Subscriber's COS.

9) Virtual CLI

- Type : There are two types to make Virtual CLI.

  + ALL - The assigned Virtual CLI is applied for all CO groups and extension.

  + IND (Individual) - The system can make CLI for extensions, CO groups (max. 6) and the others.

- O/G CO Group Number : If the type ALL is selected, the assigned Virtual CLI is used for all Outgoing CO groups. In case of IND, user is able to assign the Virtual CLI for each Outgoing CO groups up to 6. And "Station" is used only for extension display and "Others" is used for all other Outgoing CO groups which are not assigned in O/G CO groups.

- Table Index : Index of virtual CLI table for the outgoing CO groups and extension. When virtual subscriber makes a call, this Virtual CLI is used. But real incoming CLI is be used if virtual CLI table index is not assigned.

10) Virtual Subscriber's Destination

If virtual subscriber has specific destination number, received called party number (or incoming number) is ignored. The call goes to the destination. Destination number can be extension number, ATD code, group number, outside subscriber number and CO access code. Length of number is 32 digits. If destination is CO access code, system processes the CO access code and called party number. For example, if there is CO access code '9', destination number is '9' and called party number is '8451274', '98451274' will be processed

11) Virtual CLI Table

Table used for CLI when a virtual subscriber makes outgoing call. Length of number is 24 digits. The maximum of index is **300(MG-300)/100(MG-100)**.

- **Whole CLI**: Assigned virtual CLI is sent whatever CLI comes in. Ex) The case that assigned virtual CLI is '2793914' and received CLI is '4504875'. CLI for O/G call is virtual CLI '2793914'.

- **Begin Copied CLI**: Virtual CLI includes some beginning digits of received CLI. Ex) The case that assigned virtual CLI is '12BXXXX0' and received CLI is '4504875'. CLI for O/G call is '1245040'. B means to copy digits from the beginning of CLI.

- **End Copied CLI**: Virtual CLI includes some end digits of received CLI. Ex) The case that assigned virtual CLI is 'EXXX1234' and received CLI is '4504875'. CLI for O/G call is '8751234'. E means to copy digits from the end of CLI.

- **Combined Copied CLI**: Virtual CLI includes some beginning digits and some end digits of received CLI. Ex) The case that assigned virtual CLI is 'BXXXEX123' and received CLI is '4504875'. CLI for O/G call is '4505123'.

- In Admin programming, Virtual CLI is assigned up to 24 digits in case of not including 'B' and 'E', 25 digits in case of including 'B' or 'E' and 26 digits in case of including both 'B' and 'E'.

- In Admin programming, 'X' should be after the 'B' or 'E'. And, 'B', 'E' and 'X' can't stand alone.

- If the incoming call's CLI is shorter than masking length of Virtual CLI, only existed digits are used for new CLI. The virtual CLI is 30BXXXXX and received CLI is 100. CLI for O/G call is 30100. The last XX are omitted.
- If there is no incoming call's CLI, only digits in virtual CLI are used for new CLI. For example, the virtual CLI is BXXXXX100 and no received CLI, CLI for O/G call is 100. The masking (BXXXXX) is ignored.

Conditions

1. Virtual Subscriber Service should be processed before Digit Conversion process and ICLID process.
2. Duplicated CLI can be entered in Virtual CLI Table.
3. It is not allowed to assign duplicated Virtual CLI table index in Virtual Subscriber's Table when virtual CLI type is IND. If a user wants to make same CLI in different O/G CO groups, duplicate the CLI in Virtual CLI Table and assign different index which has same CLI to Virtual Subscriber's Table.
4. The Virtual Subscriber Table and Virtual CLI Table can be assigned up to **300(MG300)/100(MG100)** tables.
5. The CLIP Number should be assigned at Virtual Subscriber Table. If only Called Number is assigned without CLIP number, this call is ignored. But, when CLIP is assigned, the Called Number can be omitted.

Programming

CO Line Data	1. Incoming CO Attributes(PGM 165 – Index17)
Table Data	1. Virtual CLI Table(PGM 750)
	2. Virtual Subscriber Table (PGM 751)

7. PRIVATE CO GROUP

Description

One or more users can be assigned exclusive use of a CO line or lines. These CO lines are programmed as Private lines for access. Each station can have a CO group access code and CO line(s) for Private CO.

Operation

Private CO usage : Private CO Only

If all private co line is busy, a user hears busy tone.

Private CO usage : Private & Normal CO

If all private co line is busy, a user can seize normal CO line related to CO group access code.

Private CO usage : Normal CO & Private

If all normal co line related to CO group access code is busy, a user can seize private CO line

Conditions

1. A private CO group access code should be one of CO group access codes.

2. 2 Private CO group can be assigned in each station number.

3. Max 5 CO line can be assigned in each CO group access code.

4. When a user makes a private CO group call, it can be operated with CO Group Access code attributes (PGM180).

Programming

Station Number Data   1. Private CO Attribute (PGM136)

CO Line Data   1. CO Group Access Code (PGM180)

8. VM PASSWORD INPUT

Description

Password input method on a per mailbox basis can be configured as follows:

1. DN number + password
2. Password
3. No password

Operation

DN number + password (authorization code)

Users can access to voice mailbox by dialing a DN number and its password.
With this mode, it is possible to access to other DN's voice mailbox if you know the password of the DN.

Password

To access to voice mailbox, users should enter only the password of DN which is active currently.

No Password

A user can access to only its own voice mailbox without entering password.

Conditions

1. If a password is not registered, you cannot access to voice mailbox in the configuration requesting authorization code or password.
2. Password should be entered when a voice mailbox of which VM password input is No Password is accessed through remote mode(by dialing '*' during user greeting).

Programming

PGM 147-5 : VM PASSWORD INPUT

9. VM SLOT NO ASSIGNMENT

Description

This feature allows voice messages for a specific mailbox to be stored on a specific VMIB board.

Operation

Conditions

Programming

PGM 147-4: VM SLOT NO

10. SMTP PORT FOR VM E-MAIL NOTIFICATION

Description

Each mailbox can have its own SMTP port number for VM E-mail notification.

Operation

Conditions

    1. If SMTP port number is not assigned, the default value 25 will be used for the port.

Programming
PGM 147-3 : SMTP PORT NUMBER

11. TENANT GROUP ACCESS

Description
Stations in a group are allowed or denied the ability to place intercom calls to Stations and CO calls in other groups on a Group-by-group basis.
There are four tables for Tenant group access.
1) CO tenant to CO tenant
2) CO tenant to Other types tenant
3) Other types tenant to Other types tenant
4) Other types tenant to CO tenant

Operation

Allow/Deny access to other group:

Enter Admin Programming mode.
Dial PGM number 283.
Dial the desired tenant number (1-5 for the iPECS-MG 100, 1~9 for the iPECS-MG 300)
Select accessing tenant type (1:CO, 2:Others) of selected tenant.
Select the tenant type(1:CO, 2:Others) to be accessed.
Press flex button to access or deny (toggle) tenant.

Conditions
1. The Tenant Group Access is one way access. To allow access from group 1 to group 2 it should be allowed 1→2 and 2→1.

Programming
Tenant Data   1. Tenant Group Access (PGM 283)

11.1 V2.0 ENHANCED DATABASE MANAGEMENT & COMPATIBILITY

Description

The database management controller is changed from under V1.7 version for V2.0 enhanced feature.

DB controller is redesigned for below 2 key points.
1. Extension feature
2. Compression for spacing

Compatibility
1. MPB S/W Upgrade
   When MPB S/W is upgraded from V1.7 to V2.0, all previous customer data is kept and can be re-used.

2. MPB S/W Downgrade
   In case of Downgrade from V2.0 to under V1.7 S/W, data of DB has to be initialized.

3. V1.7 DB file Upload to V2.0 MPB
   A complete saved V1.7 customer database file can upload to V2.0 system.

4. V2.0 DB file Upload to V1.7 MPB
    V2.0 DB file cannot upload to V1.7 System. V1.7 system cannot recognize V2.0 DB file.

5. Individual Database
   Any individual V1.7 customer database file(system speed, station, etc.) cannot upload to V2.0 System
   Any individual V2.0 DB file cannot upload to V1.7 System

Operation

Conditions

12. ACD GROUP SUPERVISOR FEATURE

Description

The Supervisor and Sub-Supervisor can check and monitor an ACD agent's status as well as listen in on an ACD agent's conversation.

A Supervisor and Sub-Supervisor also can record agent's conversation during monitoring with two-way recording feature code or Record menu on a Soft-Button. When the supervisor records an agent's conversation, S-Monitor alert tone will be served to agent and called-party.

Supervisor and Sub-Supervisor can make conference with agent's conversation. And also during conference supervisor can release one of members of the conference.

Operation

Agent's call Recording:

1. Dial {ACD Supervisor Silent Monitor} feature code.
   Or
2. Press flex button registered as {ACD Supervisor Silent Monitor} feature code.
3. Dial desired Agent number
4. Press Two-way recording feature flex button during conversation monitoring.
   Or
5. Press Record menu on 3 Soft-Button
6. If supervisor want to stop recording,
7. Press again Two-way recording feature flex button
   Or
8. Press Record-Stop menu on 3 Soft-Button

Agent's call Conference:

1. Dial {ACD Supervisor Silent Monitor} feature code.
   Or
2. Press flex button registered as {ACD Supervisor Silent Monitor} feature code.
3. Dial desired Agent number
4. Press Conf menu on 3-soft button.

Conditions

1. Supervisor has to have Two-way recording authority.
2. If supervisor make conference during recording, recording feature will be stopped.

Programming
    Station Group　　　1. Main Supervisor (PGM212)
　　　　　　　　　　　　2. Sub Supervisor (PGM212)

13. SMDR OPTION

Description

1. Date Mode Print Option
   Printed Date type can be defined in SMDR data between DD/MM/YY and MM/DD/YY

2. Authorization. Number Print as Calling Station
   When a user makes outgoing call with password of one of DN number, after conversion SMDR data about this call will be printed. And in this SMDR data, DN number of password can be printed as calling party or not in Calling Station field according to this admin set.

3. Additional Information Filed
   Additional Information field is appended at SMDR data format. In this field Authorization DN number, Transferring number and Net number information can be printed as SDMR data.

4. Only Incoming / Outgoing Charging in each CO line
   Each CO line can be set no-charging or charging all call, or only incoming call, or only outgoing call as SMDR data.
   There are 4 type options for charge mode. (Free, all call charging, only Incoming Call charging, only Outgoing Call charging)

Operation
Operation of this feature is automatic when assigned:

Conditions

Programming

CO	1. Charge Mode (PGM160)
System	1. Date Mode Print Option (PGM232)
	2. Autho. Number Print as Calling Station (PGM232)
	3. Additional Information Filed Print (PGM232)

14. VMIB CHANGEABLE WEB PORT NUMBER

Description

Administrator can change the web page port number of VMIB board. The default WEB port number of all VMIB boards is 80.

This port number can be changed on a per board basis and after changing the VMIB will be restarted for adjusting port number.

Operation

Conditions

1. If port number is changed, target board will be restarted automatically.

Programming
    Board Data   1. WEB Port Number (PGM305)

15. DIRECT/INDIRECT HELD CO RETRIEVE

Description

Held CO lines can be retrieved by using feature codes. If the user knows the held CO line number, the desired held CO line can be retrieve by using {CO Line Access} feature code (ex. "88"). But if they don't know the number of held CO line, {Held CO Retrieve} feature code can be used. In this case, system will retrieve the oldest held CO first among those CO lines that were held by the retrieving station previously. If there's no CO line held by the retrieving station, the oldest held CO line in the system will be retrieved. But, CO lines held exclusively by other stations cannot be retrieved.

Operation

To retrieve a held CO directly by specifying the desired CO line:
1. Lift the handset or press **[SPEAKER]**.
2. Dial {CO Line Access} feature code. (ex. "88")
3. Dial the held CO line number (01 ~ 80 for MBX100, 001 ~ 240 for MBX300)
4. If successful, the held CO will be retrieved.
5. Otherwise, the station will hear error tone.

To retrieve a held CO indirectly:
1. Lift the handset or press **[SPEAKER]**.
2. Dial {Held CO Retrieve} feature code.
3. If successful, the held CO will be retrieved.
4. Otherwise, the station will hear error tone.

Conditions

1. The held CO line can be retrieved also by pressing the **{CO}** button or the associated **{LOOP-KEY}** button.
2. If there are multiple CO lines that were held by the retrieving station, the oldest held CO will be retrieved first regardless of the held mode (System Hold or Exclusive Hold).
3. If there's no CO line that were held by the retrieving station, the oldest held CO among those in system hold mode will be retrieved.
4. The CO lines exclusively held by other station cannot be retrieved.
5. If the station has no access privilege to a CO line group, the held CO lines in the group cannot be retrieved.

Programming

    Numbering Plan   1. CO Line Access Feature Code (PGM 113)
                                   2. Held CO Retrieve Feature Code (PGM 113)

16. VM PRIVATE MESSAGE

Description

When a caller leaves a voice mail message, the message can be marked as a private message. If the voice message is marked as private, the message cannot be transferred to another station.

Operation

To mark a voice message as private:

1. Record the desired message after hearing the user greeting and beep tone.
2. Dial '#' after message recording is finished.
   Or
   Dial '*' for further options and then dial '#'.
3. The following prompt will be heard.
   "For regular delivery, press one. To mark urgent, press two.
    To mark private, press three. To mark urgent and private, press four"
4. Dial '3' for a normal delivery in private option
   Or
   Dial '4' for an urgent delivery in private option

Conditions

1. In addition, "Enhanced VM Features" must be enabled in System Attributes (PGM 223 – Index 20).
2. In case the caller is an internal station, "Private Message Mark" attribute must be set ON in VM COS (PGM 243 – Index 8). Otherwise, private message cannot be left.
3. If the caller is an external party, it is always possible to leave a private message.

Programming

Station Data	1. VM COS (PGM 145 – Index 20)
System	1. Enhanced VM Features (PGM 223 – Index 20)
	2. Private Message Mark (PGM 243 – Index 8)

17. VM MESSAGE DELIVERY CONFIRMATION

Description

This feature provides a way to allow a mailbox owner to mark a message for confirmation of delivery. When the user has listened to the sent message, a message is dropped in the sender's mailbox confirming listen receipt.

Operation

To mark a voice message as delivery confirmation:
1. Record the desired message after hearing the user greeting and beep tone.
2. Dial '#' after message recording is finished.
   Or
   Dial '*' for further options and then dial '#'.
3. The following prompt will be heard.
   "For regular delivery, press one. To mark urgent, press two.
    To mark private, press three. To mark urgent and private, press four
    To request delivery receipt of the message for future, press 5"
4. Dial '5' to set delivery confirmation on the message

When the voice message set for delivery confirmation is checked by the receiver:
1. A confirmation message is sent back to the sender's mailbox.
2. The sender will see the notification of message through LCD display or LED button.
3. If the sender accesses the mailbox, the following message will be played.
   "Message for XXX was listened to on HH:MM MM/DD".
   XXX stands for mailbox number or recorded name while HH:MM and MM/DD are the time and date information, respectively.

Conditions

1. This feature is available only if the caller is an internal party.
2. This feature needs recording of new VMIB prompts. In addition, "Enhanced VM Features" must be enabled in System Attributes (PGM 223 – Index 20).
3. "Confirm Message Receipt" attribute must be set ON in VM COS (PGM 243 – Index 7) for the sender's VM COS. Otherwise, it is not available and the corresponding prompt will not be heard.
4. The confirmation message is treated as a normal VM message and all options apply except for attach, pause, resume, rewind and fast forward.
5. The name of mailbox can be recorded by using the feature code {Record VM Subscriber Name}.

Programming

Numbering Plan	1. Record VM Subscriber Name Feature Code (PGM 113)
Station Data	1. VM COS (PGM 145 – Index 20)
System	1. Enhanced VM Features (PGM 223 – Index 20)
	2. Confirm Message Receipt (PGM 243 – Index 7)

18. VM MESSAGE FUTURE DELIVERY

Description
This allows a user to record a message and have it sent to another mailbox at a specific date/time.

Operation
To mark a voice message as future delivery:
1. Record the desired message after hearing the user greeting and beep tone.
2. Dial '#' after message recording is finished.
   Or
   Dial '*' for further options and then dial '#'.
3. The following prompt will be heard.
   "For regular delivery, press one. To mark urgent, press two.
     To mark private, press three. To mark urgent and private, press four
     To request delivery receipt of the message for future, press 5
     For future delivery, press 6"
4. Dial '6' to set future delivery on the message.
5. System will play the prompt like
   "Enter date and time and press one of the following options, 1 for AM, 2 for PM"
6. User dials 4 digits MM/DD and 4 digits HH:MM.
   Valid input ranges are like the following.
   Month: 01 ~ 12, Day: 01 ~31, Hour: 00 ~ 11, Minute: 00 ~ 59.
7. And finally, 1 digit for AM or PM should be dialed.
   For example, if user dials 0903 0830 1 for MM/DD, HH:MM, and AM or PM, it means Sep 3rd 8:30 AM.
8. If the user finishes dialing, message will be sent to the destination in future.

Conditions
1. This feature needs recording of new VMIB prompts. In addition, "Enhanced VM Features" must be enabled in System Attributes (PGM 223 – Index 20).
2. "Future Delivery Message" attribute must be set ON in VM COS (PGM 243 – Index 6) for the receiver's VM COS. Otherwise, it is not available and the corresponding prompt will not be heard.
3. If the call is finished without setting the delivery time properly, the voice message is sent to the called party immediately. But if the delivery time is not set correctly in sending message feature in mailbox, the recorded message is not sent to the destination.
4. If the caller doesn't dial a valid digit stream, invalid and retry prompt will be heard. And then the caller can try again. But there's no limitation in retrial count.

Programming
Station Data	1. VM COS (PGM 145 – Index 20)
System	1. Enhanced VM Features (PGM 223 – Index 20)
	2. Future Delivery Message (PGM 243 – Index 6)

19. VM MESSAGE FAST FORWARD/REWIND

Description

While listening to the voice message left to mailbox, the user can change the position of playback of voice message back and forth as needed.

Operation

To forward the voice message while hearing:
1. Dial '#' while the message is played.
2. System will fast forward the message as the programmed amount of time.

To rewind the voice message while hearing:
1. Dial '*' while the message is played.
2. System will rewind the message as the programmed amount of time.

Conditions
1. This feature is available only for the voice messages left in the mailbox. And only VMIB supports the feature.
2. Delivery confirmation message doesn't support fast forward and rewind features.
3. The amount of time for the voice message to be forwarded or rewound can be determined for each station in the Admin programming.

Programming

    Station Data   1. MSG RR/FW Time (PGM 147 – Index 6)

20. VM MESSAGE PAUSE/START

Description

The playback of voice message in a mailbox can be paused and resumed later by dialing pause / start command.

Operation

To pause the playback of a voice message while being played:

1. Dial '8' while the message is played.

To resume the paused playback of a voice message:

1. Dial '8' in a paused status.

Conditions

1. This feature is available only for the voice messages left in the mailbox. And only VMIB supports the feature.
2. Delivery confirmation message doesn't support pause and start feature.
3. When the playback is paused, system does not resume the playback automatically. So, the user must resume or finish the playback manually.

Programming

21. OFF NET CALL FORWARD TONE

Description

The Off Net CFW Tone can be provided when a call is forwarded to Off Net.
There are 3 kinds of option to provide Off Net CFW Tone.
1. **No Tone:** a call can be routed to Off Net FWD Destination without any tone.
2. **Tone:** a call can be routed to Off Net FWD Destination with tone.
3. **After Tone:** a call can be routed to Off Net FWD Destination after a tone is finished

This can be set according to type of CO line (Normal CO, Digital CO-SIP)

Conditions
1. When Off Net CFW tone is set to TONE(Normal CO or R2 CO), it can be provided according to PSTN Type

Programming

    Tenant Data   1. Off Net CFW Tone Usage (PGM 281-Index13)
                                        2. Off Net Call Forward Tone (PGM 290-Index64)

22. TONE TABLE BASED ON CO LINE

Description

System can provide 9 for MPB300, 5 for MPB100 Tone tables and each tenant has 1 tone table.
If tone table index is programmed in each CO line, system provides tone according to tone table.
Or, system provides the tone with tone table for tenant.

Operation

When a user does not assign a tone table index in CO line

      1. System check tone table index for tenant.

      2. With tone table index, system provides TONE in PGM 290.

When a user assigns a tone table index in CO line

      1. System check tone table index with CO line

      2. With tone table index, system provides TONE in PGM 290.

Conditions

Programming

   CO LINE Data   1. Tone Table Index (PGM 161-Index 12)

   Tenant Data   1. Tenant Tone Table Index (PGM 280-Index9)

                         2. Tone Table (PGM 290)

23. MOBILE EXTENSION BUTTON PROGRAM

Description

System allows programming the activation button of the mobile extension feature. A user can activate/deactivate mobile extension feature by pressing the activation button.

Operation

To program a Mobile Extension Status Change Button

1.   Press [Trans/PGM] button and select the flexible button to program
3.   Dial '1' to program number
4.   Dial 'Mobile Extension Status Change' feature code
5.   Dial index of Mobile Extension to program.(1-2)
6.   Press [Hold/Save] button.

To activate/deactivate Mobile Extension feature.

1.   Press [Mobile Extension Status Change button

Conditions

1.   If [Mobile Extension Status Change] button is programmed without index of mobile extension, it is operated as first mobile extension index

Programming

24. STATION GROUP CALL DND

Description

Station Group Members can change Group Call DND state with Group Call DND state Change feature code. A group call DND member will not receive group call.

Operation

Activation about Group Call DND state:

1. Dial {Group Call DND state Change} feature code.
   Or
2. Press flex button registered as {Group Call DND state Change} feature code.
3. Dial desired Station Group Number
4. If station is member of dialed group, Group Call DND will be set after confirm tone.

Deactivation about Group Call DND state:

1. Dial {Group Call DND state Change} feature code.
   Or
2. Press flex button registered as {Group Call DND state Change} feature code.
3. Dial desired Station Group Number
4. If station is group call DND state of dialed group, Group Call DND will be reset after confirm tone.

Conditions

Programming

25. SYSTEM AUTHORIZATION CODES (PASSWORD)

Description

There are two types of Authorization Codes, Station and System. A Station Authorization Code is specifically related to a given station and intended for a single user. The System Authorization Codes are intended for use by any station in the system.

The System Authorization Code consists of 3 parts: "*", the associated ID, and the assigned Password.

There is 2000 entry in system authorization codes.

Each authorization code entry has ID, Password, COS (Day/Night/Timed), Digit Conversion Table, Tenant and CO Access.

Authorization Code Table							
Authorization Code		COS			Tenant	Digit Conv	CO Access
ID	PASSWORD	Day	Night	Timed			
1	113545	*******	0-15	0-15	0-15			
2								
3								
4								
5								
6								
7								
…								
…								
…								
…								
…								
1998								
1999								
2000								

Operation

Usage

<u>To enter an Authorization Code</u>

1. Dial the DN number for the Station Authorization code or, for a System Authorization Code, dial '*' and ID for a System Authorization code.
2. Dial the corresponding Authorization Code.(Password)
3. Dial "*" or, '#'

Conditions

1. A user may enter an Authorization Code from any station to place a CO/IP call using

Walking COS.

2. An Authorization code may include any dial pad digit except '*' and '#'.
3. When a user want to enter system authorization code, enter "*", ID, and Password.
4. If tenant is not assigned in authorization code, a user can use this regardless of tenant.
5. If CO access is set to OFF, this can not be used as CO feature such as DISA CO Access.

Programming

System Data   1. System Authorization Code (PGM225)

Related Features

Walking COS

DISA CO Access

Authorization code Table