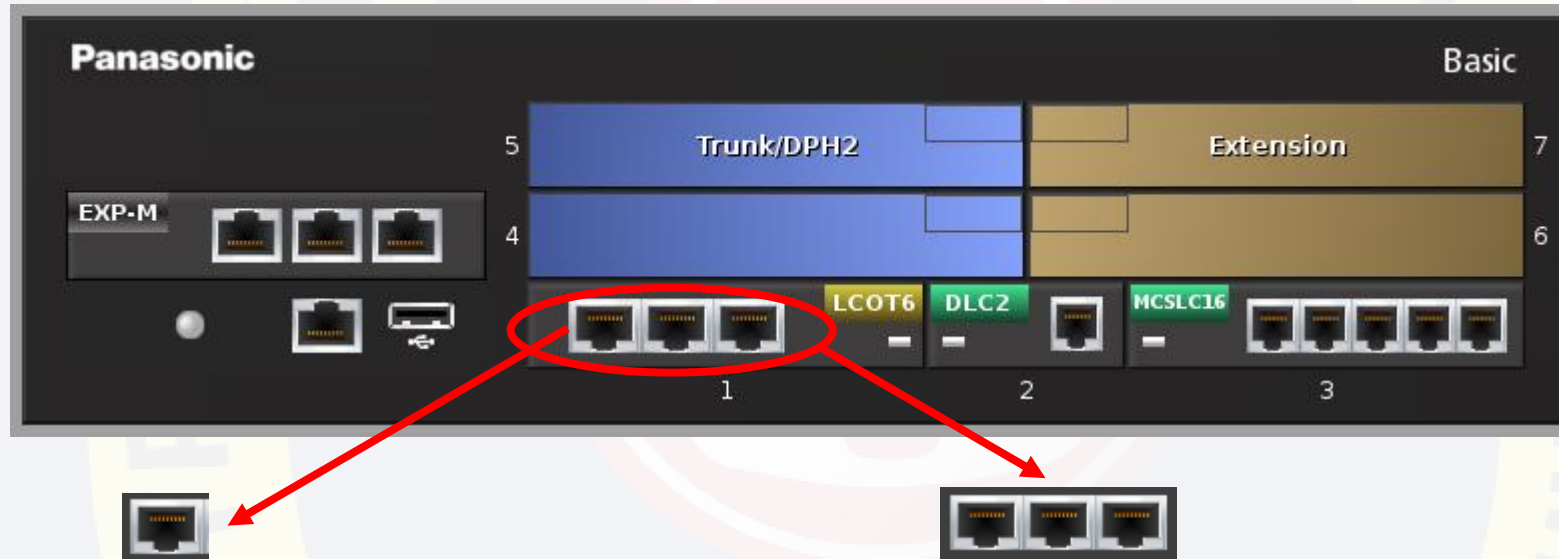


KX-NS Step by Step Guide  
**BGM and Paging**

Specifications are subject to change without notice.

# 1. Overview



One RJ45 supports 2 Analog CO.  
This can be changed to

- 2 BGM port
- 2 Paging port
- 1 BGM + 1 Paging port

Followings are not available.

- 1 Analog CO + 1 BGM
- 1 Analog CO + 1 Paging

For example, followings are available.

- 6 Paging
- 2 BGM + 4 Analog CO
- 1 BGM + 3 Paging + 2 Analog CO

Paging and BGM are supported only by factory built-in LCOT6 in main cabinet.

## 2. BGM



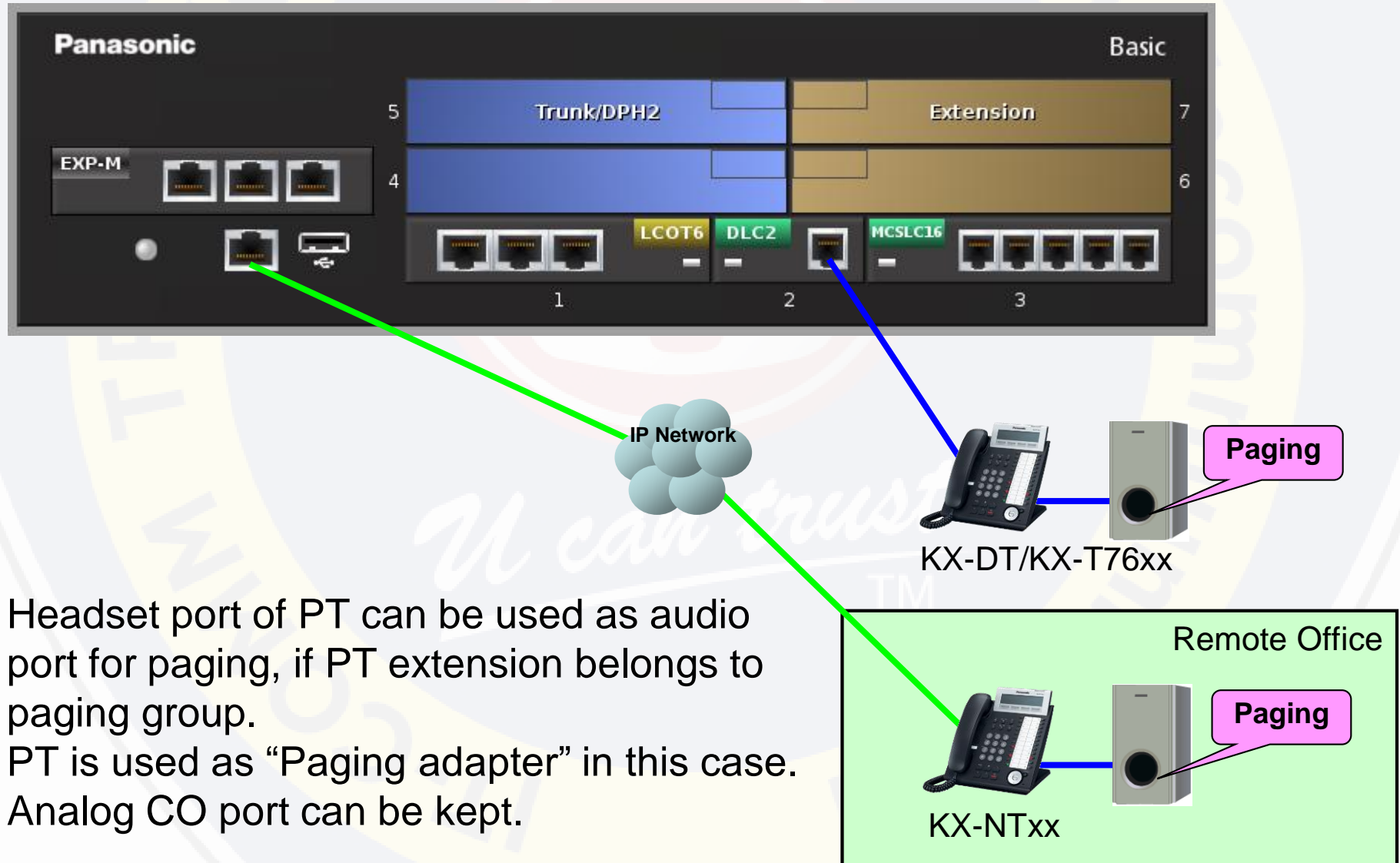
Audio player is connected for external BGM port usually. Music file is copied to audio player.

KX-NS PBX supports 2 **internal BGM**.  
**WAV file** can be copied to internal BGM.  
So usually external BGM port is NOT required.  
Analog CO can be kept.

BGM1	Internal
BGM2	Internal
BGM3	From Analog CO-1
BGM4	From Analog CO-2
BGM5	From Analog CO-3
BGM6	From Analog CO-4
BGM7	From Analog CO-5
BGM8	From Analog CO-6

8-BGM is useful for tenant.

# 3. Paging



Headset port of PT can be used as audio port for paging, if PT extension belongs to paging group.  
PT is used as "Paging adapter" in this case.  
Analog CO port can be kept.

The background features a large, semi-transparent logo for the Ning Center for IT-Communication & Telecommunication. The logo is circular with a yellow border and contains a stylized red and white figure. The text 'NING CENTER FOR IT-COMMUNICATION & TELECOMMUNICATION' is written around the inner edge of the circle. A blue horizontal band with a gradient and a subtle grid pattern is overlaid across the center of the slide.

# Chapter 1

# Programming

# 11. Set Out of Service to LCOT6 card.

The screenshot displays a web-based configuration interface for a Panasonic PBX system. The left sidebar contains a navigation menu with categories like 'Users', 'PBX Configuration', and '1. Configuration'. The main area is titled 'Slot' and includes tabs for 'System Property', 'Activation Key', 'IP Phone Registration', 'VoIP Property', and 'UM Property'. Two tables are visible: 'Trunk Slot Card' and 'Extension Slot Card'. The 'Trunk Slot Card' table lists LCOT6, PRI30, E1, and DPH2. The 'Extension Slot Card' table lists MCSLC16, MCSLC8, DLC16, DLC8, and DHLC4. Below these is a physical slot rack diagram with labels for 'EXP-M', 'Trunk/DPH2', 'Extension', 'E1', 'DLC16', 'DLC2', and 'MCSLC16'. A context menu is open over the rack, with the 'Ous' button circled in red.

Trunk Slot Card	
LCOT6	
PRI30	
E1	
DPH2	

Extension Slot Card	
MCSLC16	
MCSLC8	
DLC16	
DLC8	
DHLC4	

**Context Menu:**

- Card Property
- Port Property
- Status
- Ous**



# 12. Select MOH or Pager.

The screenshot shows a software interface for PBX configuration. On the left is a navigation tree with 'PBX Configuration' expanded to '1. Configuration' and '1. Slot' selected. The main area is titled 'Port Property - LCO Port' and contains a table with columns: No., Shelf, Slot, Port, Port Type, and Connection. A dropdown menu is open for the 'Port Type' of Port 6, showing options: CO, MOH (BGM 8), and Pager 6.

No.	Shelf	Slot	Port	Port Type	Connection
1	1	1	1	CO	OUS
2	1	1	2	CO	OUS
3	1	1	3	CO	OUS
4	1	1	4	CO	OUS
5	1	1	5	CO	OUS
6	1	1	6	CO	OUS

Paired port in same RJ45 is changed to same feature automatically.

- Port 1 and 2
- Port 3 and 4
- Port 5 and 6

1	1	1	1	CO	OUS
2	1	1	2	CO	OUS
3	1	1	3	CO	OUS
4	1	1	4	CO	OUS
5	1	1	5	MOH (BGM 7)	OUS
6	1	1	6	MOH (BGM 8)	OUS

# 13. Select other feature for paried port.

Users

PBX Configuration

- 1.Configuration
  - 1.Slot**
  - 2.Portable Station
  - 3.Option
  - 4.Clock Priority
  - 5.DSP Resources
- 2.System
- 3.Group
- 4.Extension

### Port Property - LCO Port

No.	Shelf	Slot	Port	Port Type	Connection	
	ALL			ALL	ALL	ALL
1	1	1	1	CO	OUS	Norma
2	1	1	2	CO	OUS	Norma
3	1	1	3	CO	OUS	Norma
4	1	1	4	CO	OUS	Norma
5	1	1	5	Pager 5	OUS	Norma
6	1	1	6	MOH (BGM 8)	OUS	Norma

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# 14. Set In Service to LCOT6 card.

The screenshot displays a web-based configuration interface for a PBX system. On the left is a navigation tree with categories like 'Users', 'PBX Configuration', and '1. Configuration'. The main area is titled 'Slot' and contains several tabs: 'System Property', 'Activation Key', 'IP Phone Registration', 'VoIP Property', and 'UM Property'. The 'System Property' tab is active, showing two lists of card types: 'Trunk Slot Card' (LCOT6, PRI30, E1, DPH2) and 'Extension Slot Card' (MCSLC16, MCSLC8, DLC16, DLC8, DHLC4). Below these is a 'Panasonic Basic' slot rack diagram with slots 2 through 7. Slot 2 contains an LCOT6 card, slot 3 contains an MCSLC16 card, and slot 4 contains an E1 card. A context menu is open over slot 2, with the 'Ins' button circled in red. The menu options are 'Card Property', 'Port Property', 'Status', and 'Ins'.

# 15. Select External Pager Port for Paging Group.

The screenshot shows the 'Paging Group' configuration interface. On the left is a navigation tree with '4. Paging Group' selected. The main area has two tabs: 'External Pager' (circled in red) and 'All Setting'. Below the tabs are two buttons: 'Paging Group 1 - 4' and 'Paging Group 5 - 8'. A table below shows the configuration for 11 paging groups. The table has columns for 'Paging Group' (1-11) and 'Paging Group Name'. To the right of the table is a section titled 'External Pager' with a grid of 6 columns (1-6) for selecting ports. The first row shows '1' selected as 'On' and '2' as 'Off'.

Paging Group	Paging Group Name	1	2	3	4	5	6
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

# 16. Select BGM for MOH.

**Operator & BGM**

**PBX Operator**

Operator-Extension Number or Floating Extension  Automatic copy to UM Operator

Day : 101

Lunch : 101

Break : 101

Night : 101

**BGM and Music on Hold**

Music on Hold : BGM1

Sound on Transfer : BGM2

BGM3

BGM4

BGM5

BGM6

BGM7

BGM8

Tone

# 17. MOH for Tenant

**Users**

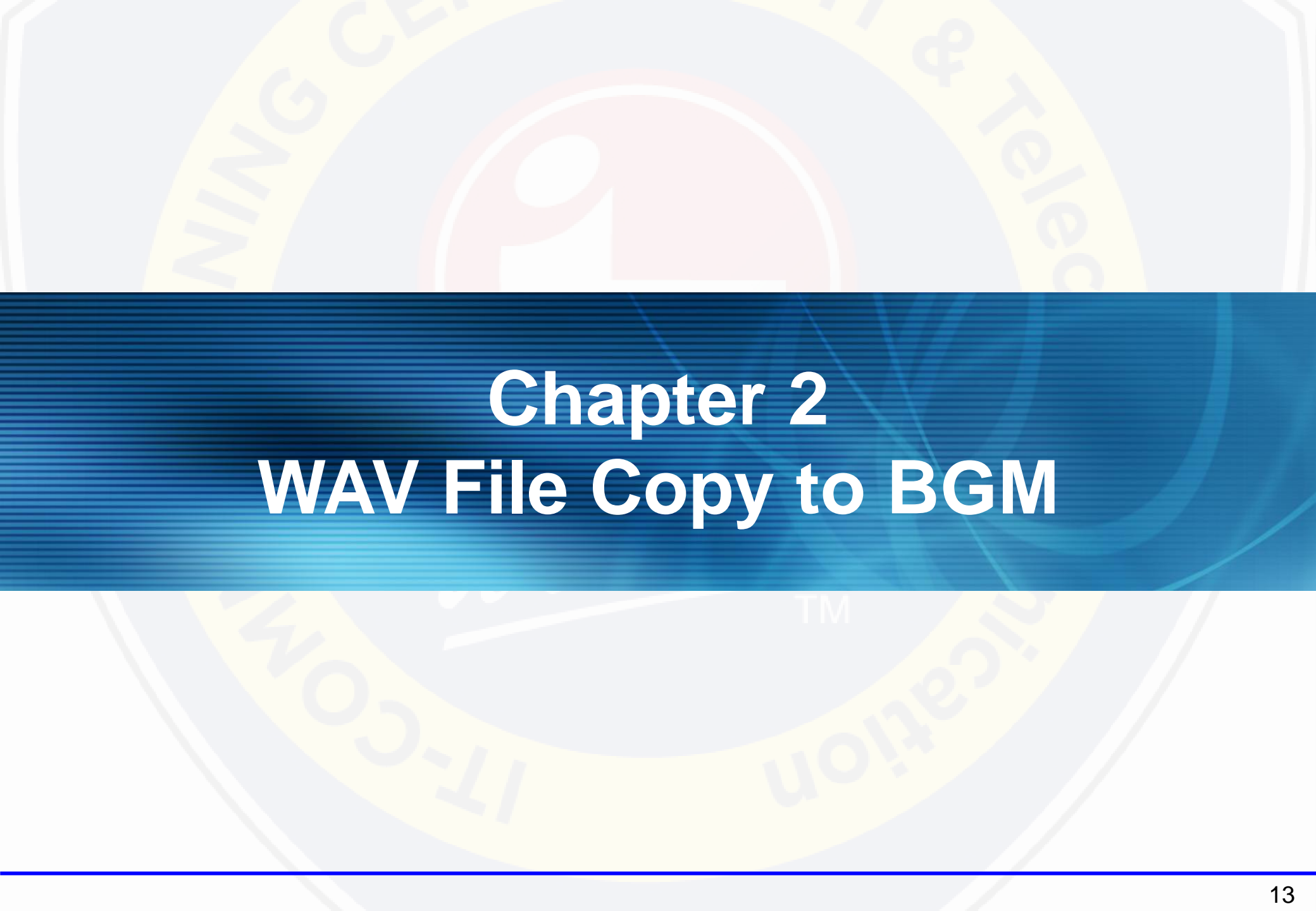
**PBX Configuration**

- 1. Configuration
- 2. System
- 3. Group
- 4. Extension
- 5. Optional Device
- 6. Feature
  - 1. System Speed Dial
  - 2. Hotel & Charge
  - 3. Verification Code
  - 4. Second Dial Tone
  - 5. Absent Message
  - 6. Tenant**

### Tenant

Extension No. Setting

Tenant Number	Music On Hold	Operator (Extension Number)	ARS Mode
	ALL		ALL
1	BGM2		Same as System Setting
2	BGM4		Same as System Setting
3	Same as System Setting		Same as System Setting
4	BGM1		Same as System Setting
5	Same as System Setting		Same as System Setting
6	Same as System Setting		Same as System Setting
7	BGM1		Same as System Setting
7	BGM2		Same as System Setting
8	BGM3		Same as System Setting
8	BGM4		Same as System Setting
	BGM5		
	BGM6		
	BGM7		
	BGM8		
	Tone		



# Chapter 2

## WAV File Copy to BGM

# 21. Select WAV file in your PC to copy.

The screenshot shows the 'Install' configuration window. On the left is a sidebar with 'System Control' options: 1. Program Update, 2. MOH, 1. Install (highlighted), 2. Delete, 3. Status / Backup, 3. System Reset, and 4. System Shutdown. Below this are 'Tool' and 'Utility' sections. The main area is titled 'Install' and contains a 'MOH file to upload' section with a file path field set to 'C:\Users\Public\Music\Samp' and a browse button. Below this is a table with columns: No, Site Name, Status, Schedule, Select, and Time Set. The table contains one row with '1' in the 'No' column, 'NS' in 'Site Name', 'Ready' in 'Status', '-' in 'Schedule', a checked checkbox in 'Select', and 'Now' in 'Time Set'. Below the table is a 'Select BGM No. to upload' section with a dropdown menu showing 'BGM 1' and 'BGM 2'. At the bottom right are 'Execute' and 'Cancel' buttons. Red annotations include a circle around the file path, a dashed circle around the checked checkbox, a circle around the BGM dropdown, and a circle around the Execute button. A red arrow points from the checkbox to the BGM dropdown.

No	Site Name	Status	Schedule	Select	Time Set
1	NS	Ready	-	<input checked="" type="checkbox"/>	Now

This selection is required only for KX-NS1000.  
KX-NS1000 supports 8 internal BGM.

## 22. Confirm Result of Copy.

The screenshot shows a software interface with a sidebar on the left and a main content area on the right. The sidebar contains the following items:

- Status
- System Control
  - 1. Program Update
  - 2. MOH
    - 1. Install
    - 2. Delete
    - 3. Status / Backup (highlighted)
  - 3. System Reset
  - 4. System Shutdown
- Tool
- Utility

The main content area is titled "Status / Backup" and shows "Remained Capacity Time" as 0' 45". Below this, it states "(Scheduled files are not included)". A table lists files for backup:

BGM No.	File Name	Size (s)	Select
1	Internal_MOH.WAV	70	Backup
2	Welcome(WB_UT).WAV	145	Backup

“Internal\_MOH.WAV” is factory built-in for BGM-1.  
Other WAV file can be copied to BGM-1.

When system is initialized (Default Clear), copied WAV file is deleted, and “Internal\_MOH.WAV” is appeared again.



## 23. Conditions : BGM

260 seconds can be recorded to BGM-1 and BGM-2 total.

If BGM-1 uses 70 seconds. maximum recording for BGM-2 is 190 seconds.

\*) KX-NS1000 supports 17 minutes.

WAV file format saved in KX-NS PBX is as follows.

G.711 , Mu-law , 8bit , Mono

If WAV file in PC (before copying to PBX) is using other format, format is **automatically converted** in PBX.

Recording file saved from KX-TDE/NCP cannot be copied to KX-NS PBX because it is not WAV file.

MOH is played repeatedly.

So MOH is not played from beginning, when call is held.

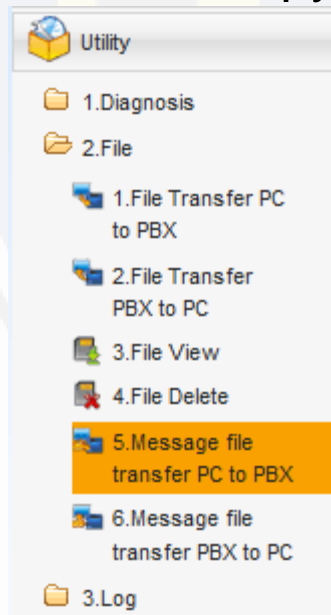
# 24. Conditions : OGM (DISA)

When OGM (DISA) is used instead of MOH for queuing message of ICD group, caller can listen to message such as **company advertisement from beginning during waiting.**

DSP-S can provide OGM (DISA) for 30 callers at the same time.

Maximum recording time of OGM is 20 minutes. (Independent memory form BGM)  
WAV file can be copied to OGM (DISA).

<WAV file copy to OGM>



<Queuing message>

A screenshot of a 'Queuing Time Table' interface. It has two tabs: 'Sequence 1 to 8' (selected) and 'Sequence 9 to 16'. Below the tabs is a table with columns: 'Queuing Table', 'Sequence 01', 'Sequence 02', 'Sequence 03', and 'Sequence 04'. The table has two rows of data. In the second row, the 'Sequence 02' cell contains 'Wait 60 s' and is circled in red. The 'Sequence 01' cell in the same row contains 'OGM 01' and is also circled in red.

Queuing Table	Sequence 01	Sequence 02	Sequence 03	Sequence 04
	ALL	ALL	ALL	ALL
1	OGM 01	Wait 60 s	OGM 03	Sequence 03
2	OGM 01	OGM 02	OGM 03	Sequence 03

OGM 01 : Hello this is ABC travel. Sorry all agents are on the phone. We are connecting by order.

OGM 02 : We are offering tour to Niseko snow resort in Japan at special price. Niseko is... (with music)

OGM 03 : Sorry still all agents are on the phone.



**Thank you !**

# Revision

Date	No.	Change
Dec 27	-	First edition
Jan 19	-	2nd edition
Feb 12	2 (Page 3)	8-BGM is useful for tenant.
	3 (Page 4)	Alternative solution using PT was added for paging.

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