

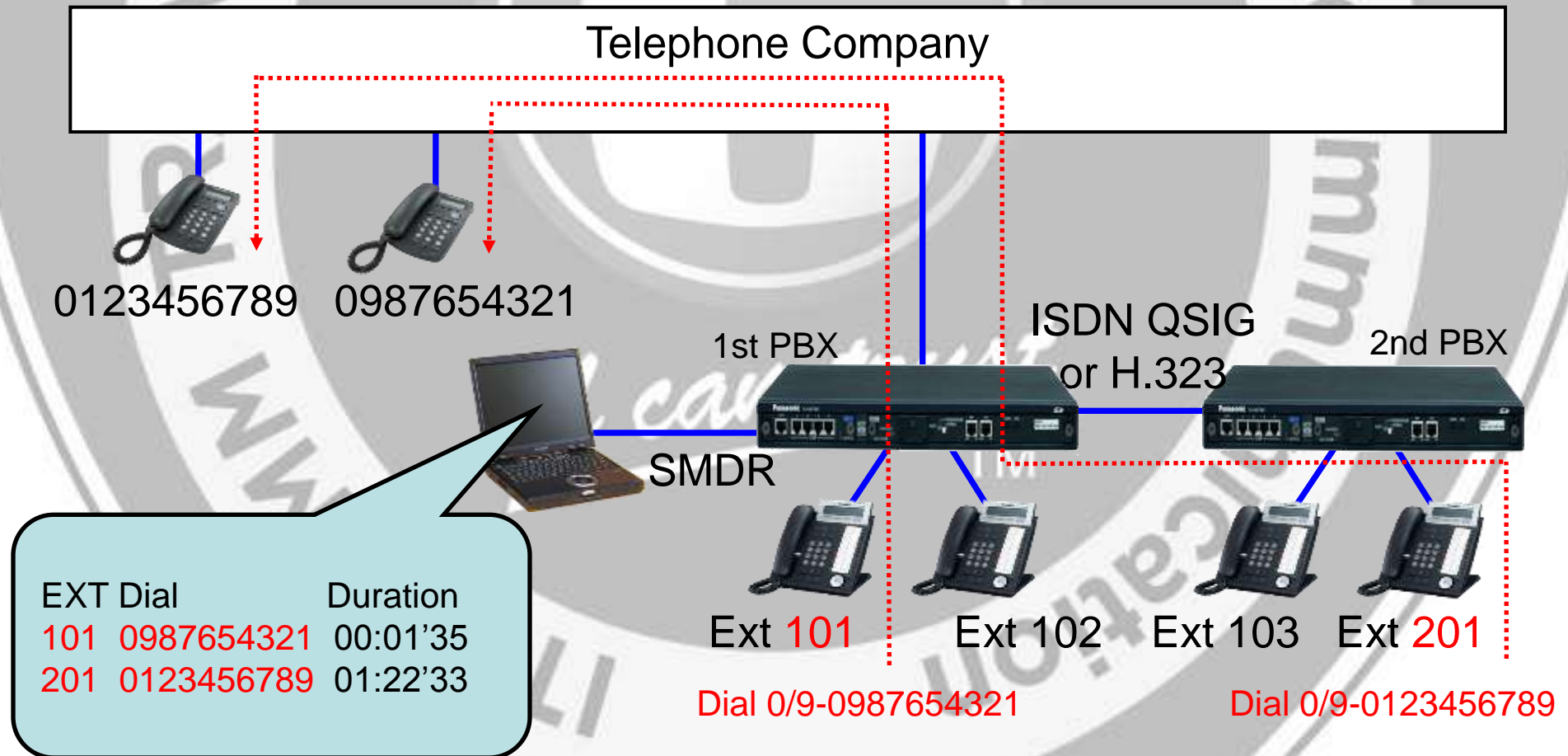
# KX-NS Step by Step Guide

# Centralized SMDR

Specifications are subject to change without notice.

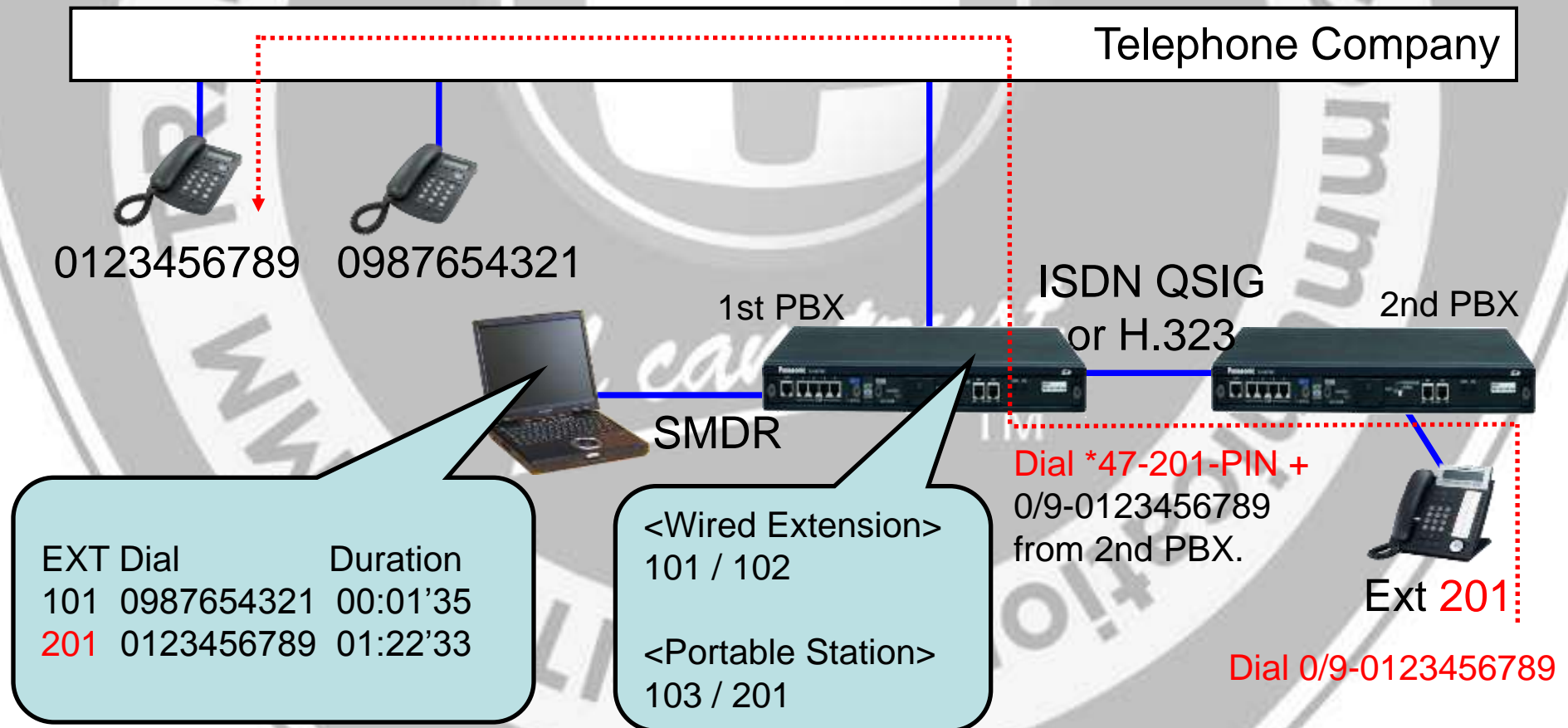
# 1. Overview

SMDR can be centralized for 2 or more PBXs.  
Maximum 1000 + 512 extensions are supported.  
Maximum 1512 + more 1000 extensions are also available conditionally.



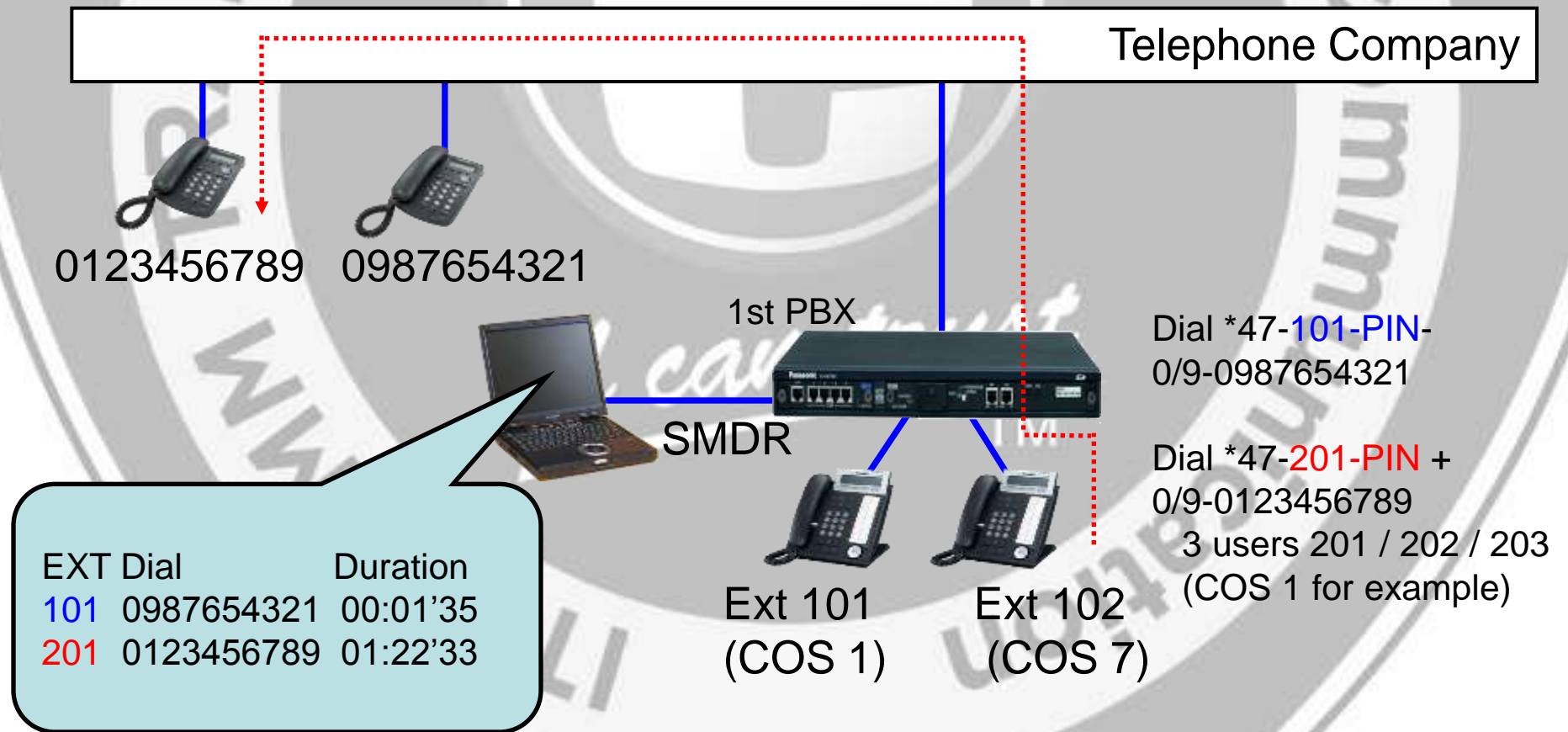
## 2. Concept of Programming

Private network (ISDN-QSIG or H.323) to trunk call is restricted by COS/TRS. Call is allowed by changing COS using **walking COS** feature. (Dial \*47)  
 Virtual extensions by **512 portable stations** are programmed in 1st PBX.  
 ARS are programmed in 2nd PBX to modify dial automatically.



# 3. Walking COS

Walking COS is usually used as “Walking extension for one call only”.  
Extension 101 user makes a call using extension 102 in the meeting room but as extension 101 for example.  
Extension 102 is used by 3 users for other example.

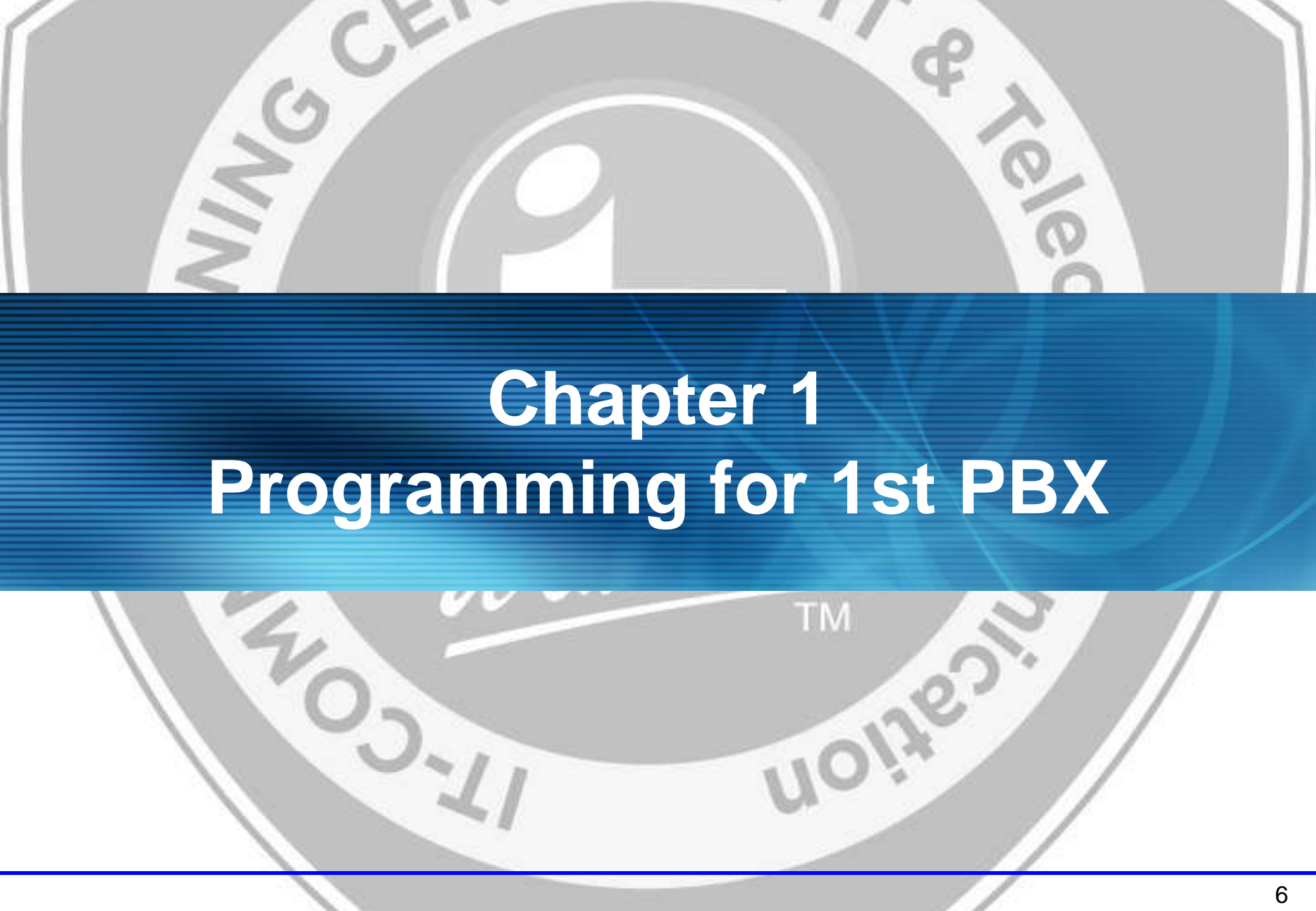




# 4. Table of Contents

Chapter	Explanation
1	Programming for 1st PBX
2	Programming for 2nd PBX : ARS Itemized code
3	Programming for 2nd PBX : ARS Basic
4	1512 + more 1000 extensions

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# Chapter 1

## Programming for 1st PBX

# 11. Flexible Numbering : Walking COS

Default is OK.

No.	Feature	Dial (4 digits)
13	Parallel Telephone (Ring) Mode Set / Cancel	*39
14	Group Call Pickup	*40
15	Directed Call Pickup	*41
16	TAFAS Answer	*42
17	Group Paging Answer	*43
18	Automatic Callback Busy Cancel	*46
19	User Remote Operation / Walking COS / Verification Code	*47
20	Wireless XDP Parallel Mode Set / Cancel	*48
21	Account Code Entry	*49
22	Call Hold / Call Hold Retrieve	*50

If H.323 is used instead of ISDN QSIG, change “\*47” to “7” for example because H.323 DN2IP table does not support “\*”.

1	Operator Call	9
2	Idle Line Access (Local Access)	0
3	Trunk Group Access	8
4	TIE Line Access	7
19	User Remote Operation / Walking COS / Verification Code	*47

None

7

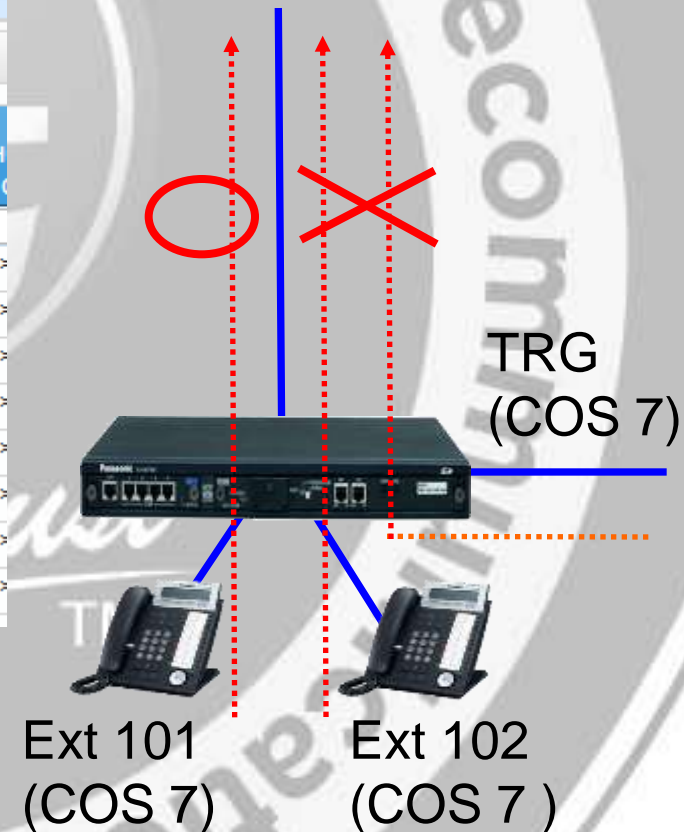
# 12. Disable Call from Private Network

Default is OK.

**TRG Settings**

Main | Tone Detection | Host PBX Access Code

Trunk Group	Group Name (20 characters)	COS	H
		ALL	ALL
1		7	High ->
2		7	High ->
3		7	High ->
4		7	High ->
5		7	High ->
6		7	High ->
7		7	High ->
8		7	High ->



Caller with TRS 7 (default of COS 7) cannot make a call to trunk.



# 13. Virtual Extension using PS

Portable Station

Registration De-registration Forced De-registration

Personal Identification Number : 1234

Index	Extension No.	Extension Name	Status
1	103		None
2	201		None
3	202		None
4	203		None
5			None

1st PBX

2nd PBX



# 14. PIN for Virtual Extension using PS

Assign "1234" as PIN for example.

!! Too simple PIN is not recommended. Other extension user in 1st PBX may use it.

The screenshot shows the 'Extension Settings' interface. On the left is a navigation tree with 'PBX Configuration' > '4. Extension' > '2. Portable Station' > '1. Extension Settings' selected. The main area has tabs for 'Main', 'Intercept Destination', 'Intercept No Answer Time', 'CLIP', 'UM', 'Option 1', 'Option 2', and 'Option 3'. Below the tabs is a table of extension settings:

No.	Extension Number	Extension Name (20 characters)	Property	User Group	COS	Extension PIN
1	103		Portable Station	1	1	Edit
2	201		Portable Station	1	1	Edit
3	202		Portable Station	1	1	Edit
4	203					
5						
6						
7						
8						
9						
10						

An 'Extension PIN' dialog box is open, prompting for a new PIN and its confirmation. The dialog has two input fields with masked characters (dots) and 'OK' and 'Cancel' buttons.

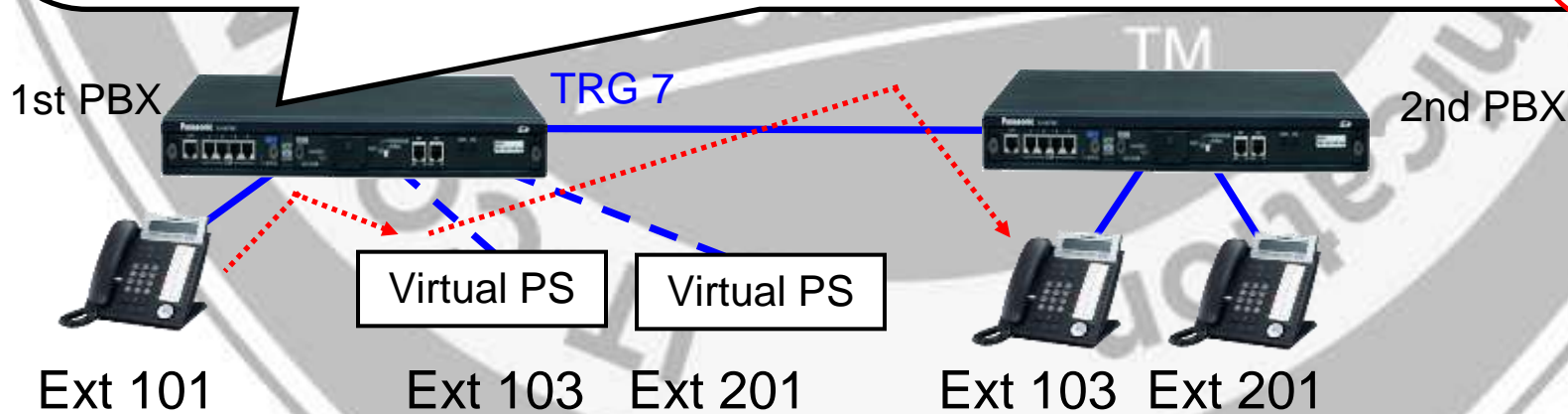
At the bottom, a 'Copy' button is visible next to the extension number '103'.

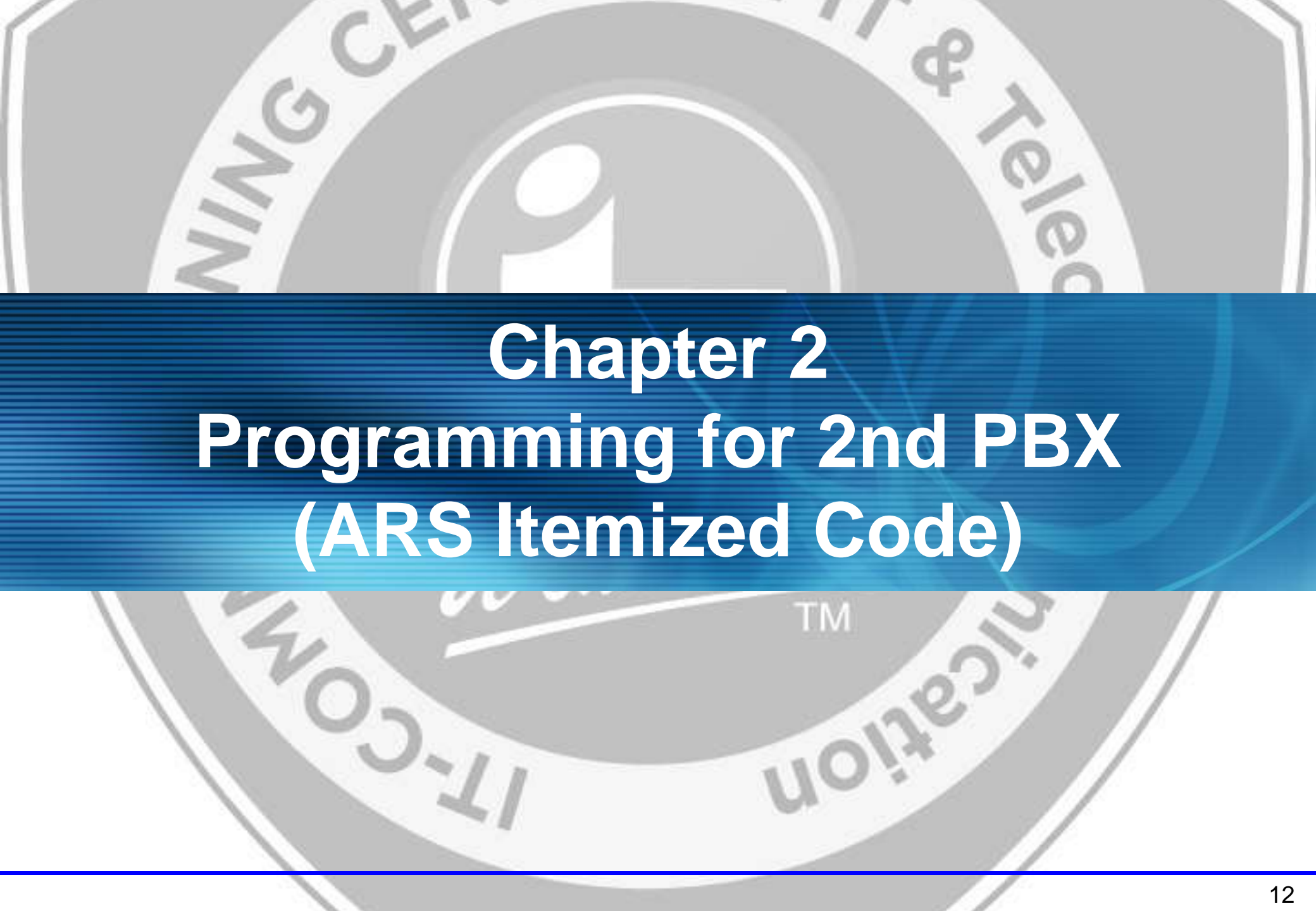
Copy is not available for PIN.

# 15. Intercept busy (fault) to 2nd PBX

Assign 807(TRG7 for example) + Ext number for intercept busy destination.  
“No PS registration” or “PS out of area” is treated as “busy”.

No.	Extension Number	Extension Name (20 characters)	When called party does not answer - Day	When called party does not answer - Lunch	When called party does not answer - Break	When called party does not answer - Night	When Called Party is Busy
1	103						807103
2	201						807201
3	202						807202





# Chapter 2

## Programming for 2nd PBX (ARS Itemized Code)



# 21. ARS Itemized Code

ARS itemized code provides different dial modification for each extension.

No.	Extension Number	Extension Name (20 characters)	Wireless XDP / Shared Extension	Ring Pattern Table	Programmed Mailbox No.	Transfer Recall Destination	ARS Itemised Code (10 digits)
1	103			ALL			1031234
2	201			1			2011234

Dial \*47 201 1234 0/9-0123456789

Dial \*47 103 1234 0/9-0987654321



# 22. ARS Carrier Code + Itemized Code

ARS carrier code and itemized code are added as follows.  
ARS itemized code is programmed for each extension.

Carrier	Carrier Name (20 characters)	Removed Number of Digits	Modify Command	CLIP Table No	Carrier Access Code (32 digits)
1	via 1st PBX	0	CI0H	1	*47
2		0	CH	1	
3		0	CH	1	

CI0H

C : \*47

I : Itemized code

0 (or 9) : Dial 0 (or 9)

H : Dial by user after 0/9

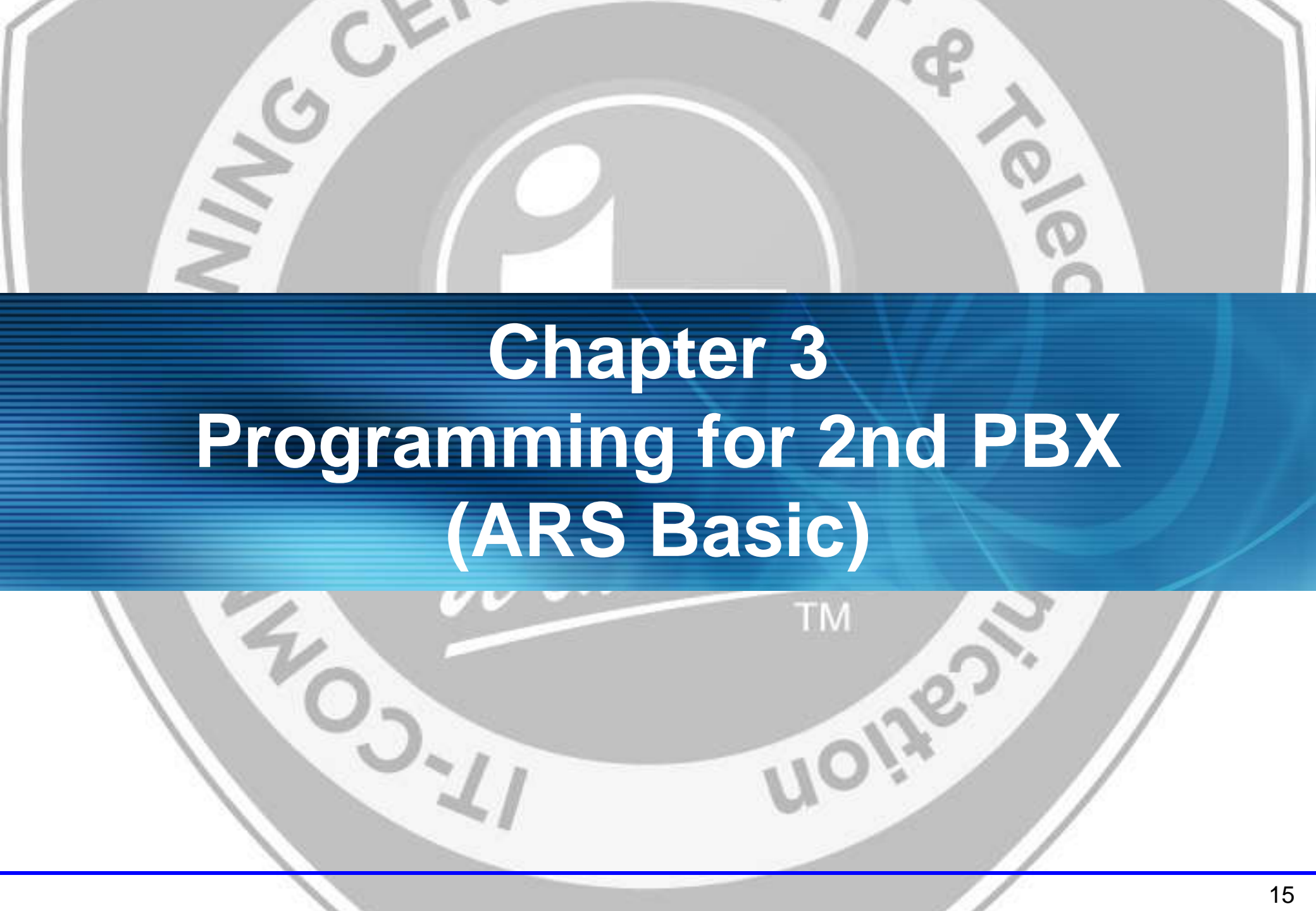
Dial \*47 201 1234 0/9-0123456789

Dial \*47 103 1234 0/9-0987654321



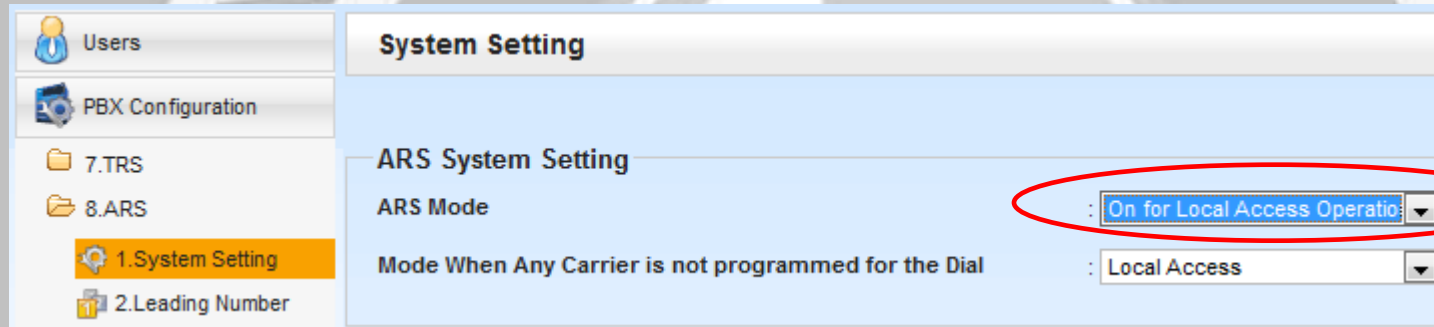
Dial 0/9-0987654321

Dial 0/9-0123456789



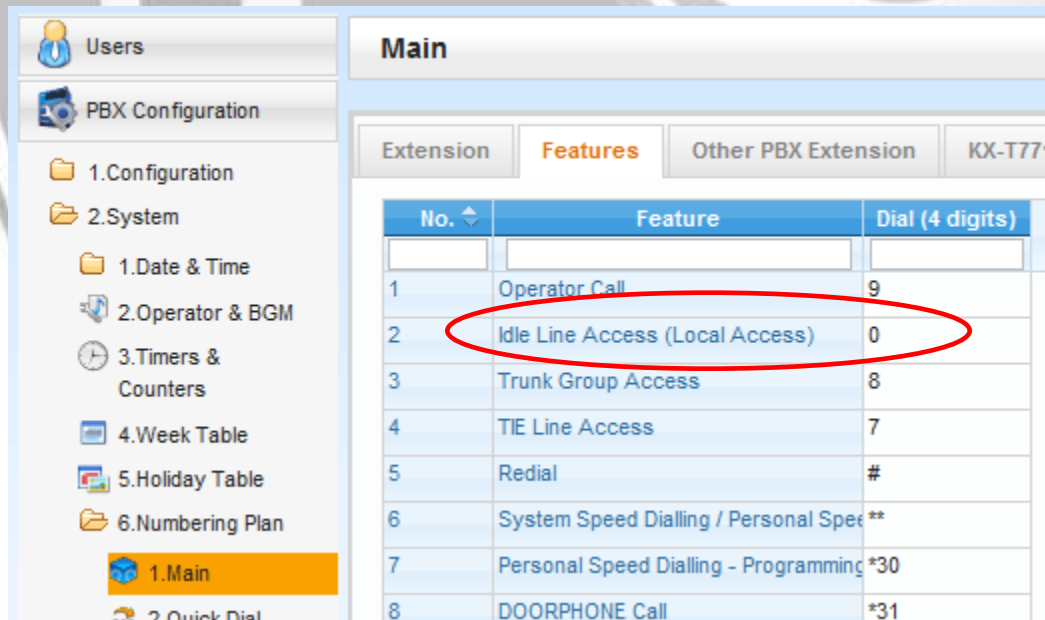
**Chapter 3**  
**Programming for 2nd PBX**  
**(ARS Basic)**

ARS has to be enabled in 2nd PBX to modify dial automatically.



The screenshot shows the 'System Setting' configuration page. The left sidebar contains a tree view with '1. System Setting' selected. The main content area is titled 'ARS System Setting' and contains two settings:

- ARS Mode**: Set to 'On for Local Access Operatio...' (circled in red).
- Mode When Any Carrier is not programmed for the Dial**: Set to 'Local Access'.



The screenshot shows the 'Main' configuration page. The left sidebar contains a tree view with '1. Main' selected. The main content area is titled 'Main' and contains a table with the following data:

No.	Feature	Dial (4 digits)
1	Operator Call	9
2	Idle Line Access (Local Access)	0
3	Trunk Group Access	8
4	TIE Line Access	7
5	Redial	#
6	System Speed Dialling / Personal Speed	**
7	Personal Speed Dialling - Programming	*30
8	DOORPHONE Call	*31

The row for 'Idle Line Access (Local Access)' is circled in red.



# 32. ARS Leading Dial

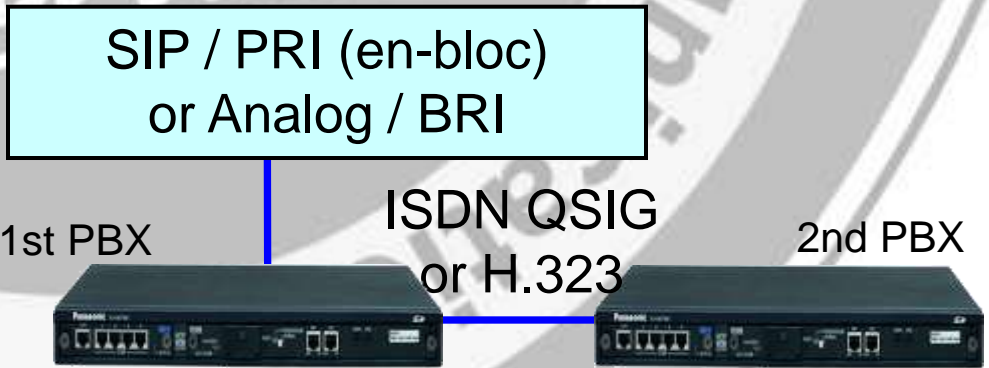
Dial after 0/9 has to be programmed correctly if trunk of 1st PBX is SIP or PRI.

No.	Leading Number (16 digits)	Additional Number of Digits	Routing Plan Number
1	00	15	1
2	090	8	1
3	0X	8	1
4	1XX	0	1
5		0	1
6		0	1
7		0	1
8		0	1

Any dial to routing plan 1.

If trunk of 1st PBX is analog,

No.	Leading Number (16 digits)	Additional Number of Digits	Routing Plan Number
1	X	0	1



# 33. ARS Routing Plan : Time Table

Default is OK.

**Routing Plan Time**

Routing Plan: 1

Time Setting

Time:

Time A Time B Time C Time D

	AM											PM												
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
Sunday	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B
Monday	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B
Tuesday	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B
Wednesday	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B
Thursday	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time A	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B	Time B

# 34. ARS Routing Plan : Priority

Default is OK.

Any dial to routing plan 1. Routing plan 1 to carrier 1 (via 1st PBX)

The screenshot shows the 'Routing Plan Priority' configuration window. On the left is a navigation tree with 'PBX Configuration' expanded and '4. Routing Plan Priority' selected. The main area shows a 'Routing Plan' dropdown set to '1'. Below this are tabs for days of the week (Sunday to Saturday). A table defines routing rules for different priorities and time slots.

Week	Time-A	Time-B	Time-C	Time-D
	ALL	ALL	ALL	ALL
Priority 1	001 : via 1st PBX	001 : via 1st PBX	001 : via 1st PBX	001 : via 1st PBX
Priority 2	None	None	None	None
Priority 3	None	None	None	None
Priority 4	None	None	None	None
Priority 5	None	None	None	None
Priority 6	None	None	None	None

# 35. ARS Trunk Group

Assign trunk group that is used for connection with 1st PBX.

The screenshot shows the 'Carrier' configuration page in a PBX system. The left sidebar lists various configuration options, with '5. Carrier' selected. The main area shows a 'Carrier' tab with a table of TRG for Carrier assignments. The table has columns for 'Carrier' and 'TRG for Carrier' (01-08). The 'TRG for Carrier 07' column is circled in red, and the cell at row 1, column 07 is highlighted in blue.

Carrier	TRG for Carrier 01	TRG for Carrier 02	TRG for Carrier 03	TRG for Carrier 04	TRG for Carrier 05	TRG for Carrier 06	TRG for Carrier 07	TRG for Carrier 08
1								
2								
3								
4								
5								
6								
7								
8								

1st PBX

ISDN QSIG  
or H.323

2nd PBX



TRG 7



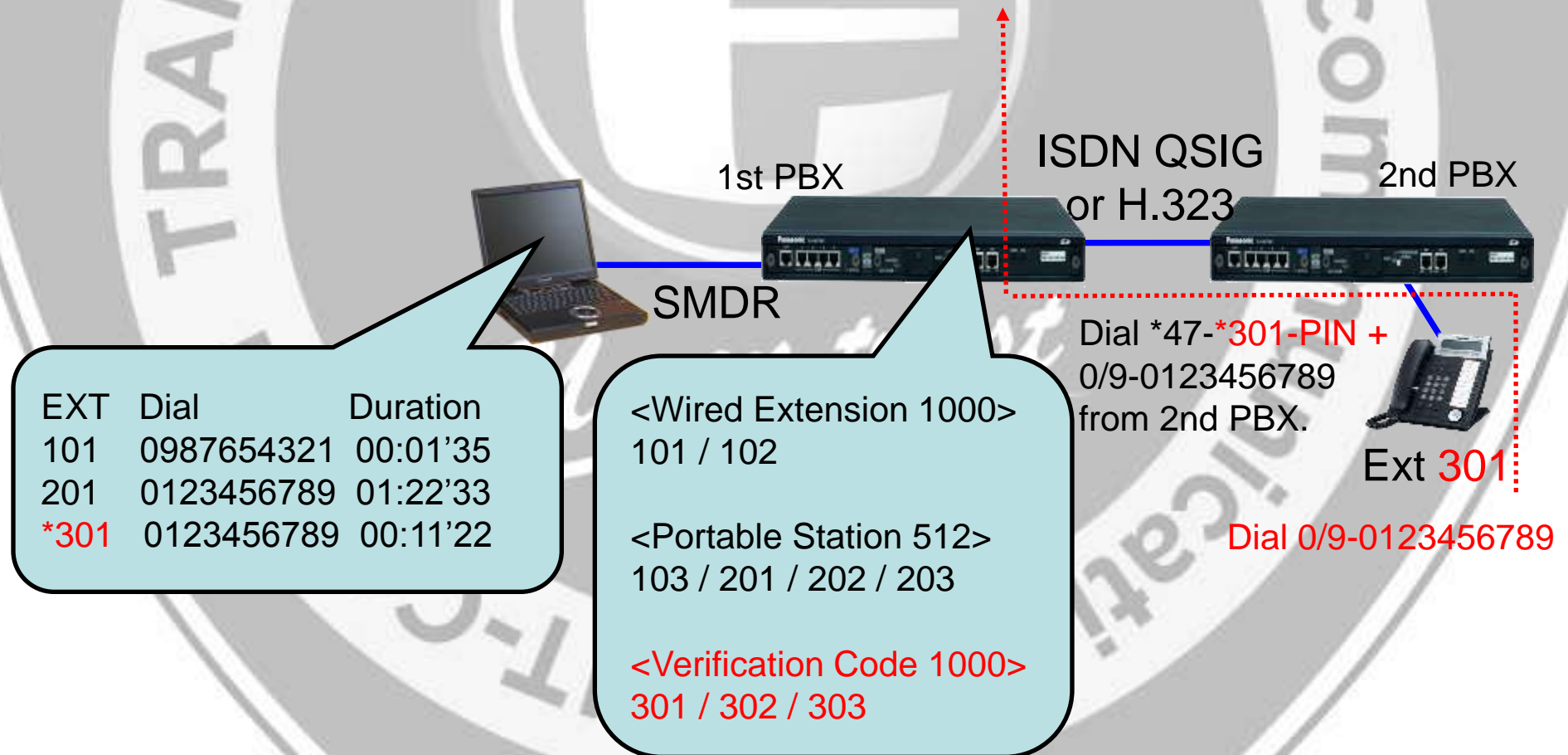


# Chapter 4

## 1512 + more 1000 Extensions

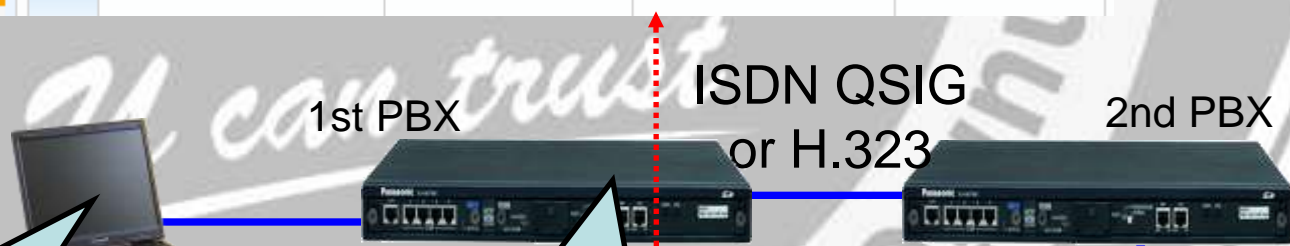
# 41. Verification Code

More 1000 extensions can be supported by verification code.  
Verification code also changes COS.  
“\*” + “Verification code” is informed to SMDR as extension number.



# 42. Verification Code Programming

ID	Verification Code (4 digits)	User Name (20 characters)	Verification Code PIN (10 digits)	COS Number
1	301		1234	1
2	302		1234	1
3	303		1234	1
4				1
5				1
6				1
7				1
8				1



EXT	Dial	Duration
201	0123456789	01:22'33
*301	0123456789	00:11'22

<Verification Code 1000>  
301 / 302 / 303

Dial \*47-\*301-PIN +  
0/9-0123456789  
from 2nd PBX.  
Ext 301  
Dial 0/9-0123456789

The background features a large, semi-transparent watermark logo. It consists of a circular emblem with a stylized human figure in the center. The text "TRAINING CENTER" is written along the top inner edge of the circle, and "IT-Communication" is written along the bottom inner edge. A trademark symbol (TM) is located to the right of the central figure. The entire logo is rendered in a light gray color.

**Thank you !**



# Revision

Date	No.	Change
Feb 17	-	First edition

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