

6 CME Dial Plans

DNIS	
ANI	
POTS ports that connect to telephones, fax machines, etc.	
POTS ports that connect to the CO	
In voice port 0/0/0:1 what's the "1"	
In voice port 0/0/0:23 what's the 23	
Keyword for configuring CAS on T1	
Keyword for configuring CCS on T1	
DID acronym	
RSVP (What & When Used)	
Set of up to 15 number-changing rules created globally & applied to dial-peer(s)	
PLAR acronym	
Collection of Dial Peers, e.g. North America	
How handle overlapping dial plans, e.g. 551 and 5511	
Last resort inbound dial-peer with no DID, no QoS, and touch-tones (DTMF) in the audio stream	
Where is an incoming COR list applied?	
Where is an outgoing COR list applied?	
Default codec for VOIP dial-peers?	
Default dial peer preference	
Are lower or higher dial peer preferences preferred (e.g. for POTS fail-over)	

COR (Class of Restriction) Lists

Does the call go out?

Yes

No

Dial-peer has no COR list

Ephone-dn has no COR list

Command Line

Send all incoming calls from the PSTN on FXO port 0/0/0 to the receptionist at x5000	
See voice ports, one line each—fxo, fxs, & configured T1 timeslots	
Enter mode for configuring framing & linecode on T1 port 1/0/1	
Set US-style dial tones, busy signals, etc.	
Set a POTS (analog FXO or digital T1) interface to loop start	
Set an FXO / FXS port's on-net caller-ID number to 555-1212	
Set the rotary / touch-tone emulation choice on an FXO	
Set an FXO to answer on the third ring	
Set an FXO / FXS port's on-net caller-ID name to "First Floor Fax"	
See unconfigured VWIC cards (T1, etc.)	
Set home-style or payphone-style off-hook indication on FXO or FXS interface 0/0/0	
Automatically direct all incoming calls on interface 0/0/0 to the receptionist at 5000	
Display which dial plan will be chosen for the # 5551212	
What prompt is seen when configuring a collection of T1 timeslots/channels	
Set up the first 5 time slots of the T1 VWIC card in slot 1/0 for Robbed-bit signaling to the telco using loop-start, extended superframes, and B8ZS. The telco will provide clocking to the line.	
Set up the entire T1 in slot 1/0 for ISDN, where the ISDN switch is of type primary-5ess	

Digit Manipulation Methods—Order of Precedence

VOIP POTS

prefix-digits		
automatic digit-stripping		
forward-digits		
num-exp		
voice translation profiles		

Digit Manipulation Methods—Where Applied (scope can be derived from this)

i.e. each dial-peer affects one port, maybe >1 dial peer for a number!

Router

Port

Dial-Peer

prefix-digits			
automatic digit-stripping / "no digit-strip"			
forward-digits			
num-exp			
voice translation profiles			
PLAR			

Translation Profile Structure

Translation
Profiles

Translation
Rules

Dial-Peers

Composed of specific replacement rules like "rule 1 /6/ /5/"			
Composed of / Contain references to Translation Profiles			
composed of Translation rules			
Applied to Ports			
Applied to (referenced within) Dial-Peers			
Can be Applied to a Dial-Peer for inbound/outbound only			

T1 Channel / Time Slot Numbering

0-23

1-24

Channels		
Time Slots		
ds0-group # #-# (the group number)		
ds0-group # #-# (the time slots / channels)		
pri-group timeslots #-#		
show voice-port summary...(output notation 1/0:# where # is timeslot/ch)		

Inbound Dial Peer Order of Preference

dial-peer voice 52 pots destination-pattern 530552 [79] port 0/0/0 Match caller-ID (ANI) backward against destination pattern of an outbound DP	
Match the dialed number (DNIS) using an “incoming-dialed number” dial peer	
dial-peer voice 5500 pots destination-pattern 5500 port 0/0/0 ← Match backward against incoming port	
Dial Peer 0, an imaginary dial-peer	
Match the caller ID (ANI) against an “answer address” command in a dial peer	

Dial Peers from Command Line (wildcards are combined with CUCM wildcards in #)

3 commands for modifying digit-strip behavior on a POTS line	
Destination statement for a POTS dial peer	
Destination statement for a VOIP dial peer	
Send 5501 through 5599 to 10.0.0.1	
Show dial peers, one line each	
Turn on debugging to view each digit as dialed	
Send 5500 to the fax machine on the lowest-numbered port of the FXS card in slot 0/0	
What would be different if you were sending out the first or only ISDN line on a card in that slot?	

Dial Peer Digit Manipulation

Add a line to ensure that all 3 digits are sent to the PSTN: dial-peer voice 911 pots destination-pattern 911 port 0/0/0	
Add a line to only forward “911” to the PSTN dial-peer voice 9911 pots destination-pattern 9911 port 0/0/0	
Add a line to add “1530527” to the front of the 4 dialed digits before handing off to the telco: dial-peer voice 55 pots destination-pattern 55[1-9].	
Make port 0/0/0:1 a second-choice failover: dial-peer voice 55 pots destination-pattern 55[1-9]. port 0/0/0:1	

COR List Command Line (out of scope)

Create the COR tags 911 and LOCAL	
Inbound Assignment—Assign tags 911 and LOCAL to ephone-dn 1 (allow that DN to dial any number whose dial-peer requires those tags)	
Outbound Assignment—Assign tag 911 to a dial peer that sends 911 calls out POTS port 0/0/0	

Notes:

- Wildcards are combined with those of CUCM in 94_Wildcards

Out of Scope (+ todo: check if scenarios needed for notes Pp 6-1 and 6-2)

- Incoming Dial Peer Config
- Incoming Dial Peer Matching Methods & order of precedence (notes p. 6-4) (did it anyway)
- Voice Translation Profile Syntax & Examples (notes p. 6-6)
- COR List Command Line (Included above anyway)
- COR List in CCP Menus (page 10 of book notes)