DNIS	Dialed Number info
ANI	Caller ID
POTS ports that connect to telephones, fax machines, etc.	FXS (Foreign eXchange Station)
POTS ports that connect to the CO	FXO (Foreign eXchanger Office)
In voice port 0/0/0:1 what's the “1”	CAS Group number; the timeslot is mentioned in a different column
In voice port 0/0/0:23 what's the 23	CCS shared signaling chanel (for T1)
Keyword for configuring CAS on T1	ds0-group
Keyword for configuring CCS on T1	pri-group
DID acronym	Direct Inward Dialing
RSVP (What & When Used)	Resource Reservation Protocol—Used with IntServ to reserve bandwidth over entire path prior to flow
Set of up to 15 number-changing rules created globally & applied to dial-peer(s)	Voice Translation Profile
PLAR acronym	Private Line Automatic Ringdown
Collection of Dial Peers, e.g. North America	Dial Plan
How handle overlapping dial plans, e.g. 551 and 5511	use T, meaning "zero or more digits" (551T)
Last resort inbound dial-peer with no DID, no QoS, and touch-tones (DTMF) in the audio stream	Dial peer 0
Where is an incoming COR list applied?	ephone-dn
Where is an outgoing COR list applied?	dial-peer
Default codec for VOIP dial-peers?	G.729
Default dial peer preference	0
Are lower or higher dial peer preferences preferred (e.g. for POTS fail-over)	Lower

COR (Class of Restriction) Lists

Does the call go out?	**Yes**	**No**
Dial-peer has no COR list	X	
Ephone-dn has no COR list	X	

Command Line

Send all incoming calls from the PSTN on FXO port 0/0/0 to the receptionist at x5000	`voice-port 0/0/0` ` connection plar 5000`
See voice ports, one line each—fxo, fxs, & configured T1 timeslots	`show voice port summary`
Enter mode for configuring framing & linecode on T1 port 1/0/1	`controller t1 1/0` *`(whole card 1/0/0 and 1/0/1)`*
Set US-style dial tones, busy signals, etc.	`voice-port 0/0/0` ` cptone US`
Set a POTS (analog FXO or digital T1) interface to loop start	`voice-port 0/0/0` ` signal loopstart`
Set an FXO / FXS port's on-net caller-ID number to 555-1212	`voice-port 0/0/0` ` station-id number 5551212`
Set the rotary / touch-tone emulation choice on an FXO	`voice-port 0/0/0` ` dialtype { dtmf | pulse }`
Set an FXO to answer on the third ring	`ring number 3`
Set an FXO / FXS port's on-net caller-ID name to “First Floor Fax”	`voice-port 0/0/0` ` station-id name First Floor Fax`
See unconfigured VWIC cards (T1, etc.)	`show controllers t1`
Set home-style or payphone-style off-hook indication on FXO or FXS interface 0/0/0	`port 0/0/0` ` signal {loopstart | groundstart}`
Automatically direct all incoming calls on interface 0/0/0 to the receptionist at 5000	`voice-port 0/0/0` ` connection plar 5000`
Display which dial plan will be chosen for the # 5551212	`show dialplan number 5551212`
What prompt is seen when configuring a collection of T1 timeslots/channels	`R(config-controller)#`

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.	`controller t1 1/0`
	`  framing esf`
	`  linecode b8zs`
	`  clock source line`
	`  ds0-group 1 1-5 type fxo-loop-start`

Set up the entire T1 in slot 1/0 for ISDN, where the ISDN switch is of type primary-5ess	`isdn switch-type primary-5ess`
	`controller t1 1/0`
	`  pri-group timeslots 1-24`

Digit Manipulation Methods—Order of Precedence

	VOIP	POTS
prefix-digits	3	4
automatic digit-stripping	NO	2
forward-digits	4	5
num-exp	1	1
voice translation profiles	2	3

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

Translation Profile Structure

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

T1 Channel / Time Slot Numbering

	0-23	1-24
Channels	X	
Time Slots		X
`ds0-group #  #-# (the group number)`	X	
`ds0-group #  #-# (the time slots / channels)`		X
`pri-group timeslots #-#`		X
show voice-port summary…(output notation 1/0:# where # is timeslot/ch)	X	

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
	3

Match the dialed number (DNIS) using an "incoming-dialed number" dial peer	1

`dial-peer voice 5500 pots`
` destination-pattern 5500`
` port 0/0/0` ← Match backward against incoming port
	4

Dial Peer 0, an imaginary dial-peer	5
Match the caller ID (ANI) against an "answer address" command in a dial peer	2

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

3 commands for modifying digit-strip behavior on a POTS line	`no digit-strip`
	`forward-digits 3`
	`prefix 011`

Destination statement for a POTS dial peer	`port 0/0/0`
Destination statement for a VOIP dial peer	`session target ipv4:10.0.0.1`

Send 5501 through 5599 to 10.0.0.1	`dial-peer voice 550 voip`
	` destination-pattern 550[1-9]`
	` session target ipv4:10.0.0.1`
	`dial-peer voice 55 voip`
	` destination-pattern 55[1-9].`
	` session target ipv4:10.0.0.1`

Show dial peers, one line each	`show dial-peer voice summary`
Turn on debugging to view each digit as dialed	`debug voip dialpeer`

Send 5500 to the fax machine on the lowest-numbered port of the FXS card in slot 0/0	`dial-per voice 5500 pots`
	` destination-pattern 5500`
	` port 0/0/0`

What would be different if you were sending out the first or only ISDN line on a card in that slot?	` port 0/0/0:23`

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`
	` no digit-strip`

Add a line to only forward "911" to the PSTN
`dial-peer voice 9911 pots`
` destination-pattern 9911`
` port 0/0/0`
	`forward-digits 3`

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].`
	`no digit-strip`
	`prefix 1530527`

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`
	`preference 1`

COR List Command Line (out of scope)

Create the COR tags 911 and LOCAL	`dial-peer cor custom`
	` name 911`
	` name 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)	`dial-peer cor list 911-LOCAL`
	` member 911`
	` member LOCAL`
	`ephone-dn 1`
	` corlist incoming 911-LOCAL`

Outbound Assignment—Assign tag 911 to a dial peer that sends 911 calls out POTS port 0/0/0	`dial-peer cor list 911-CALL`
	` member 911`
	`dial-peer voice 911 pots`
	` corlist outgoing 911-CALL`
	` destination-pattern 911`
	` 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)