A P P E N D I X **E**

Local Gateway Supported Call Scenarios

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This document describes the Local Gateway supported call scenarios in Cisco Hosted UCS. In the Hosted UCS 7.1.1 lite release, following call flows are supported:

Outgoing PSTN Calls

This section has the following topics:

Non-Emergency calls (CgPN and CdPN NOA setting)

For all of the Non-Emergency calls the CgPN and CdPN can be sent to the PSTN differently depending on how the trunk is configured to handle NOA. Therefore, following Non-Emergency outgoing PSTN calls are supported:

- CgPN NOA is set (Yes), CdPN is set (Yes)
- CgPN NOA is set (Yes), CdPN is not set (No)
- CgPN NOA is not set (No), CdPN is set (Yes)
- CgPN NOA is not set (No), CdPN is not set (No)

IP Phone -> PSTN (Any Non-Emergency PSTN Call, CdPN NOA - Yes; CgPN NOA - Yes)

In this call scenario:

- CdPN NOA is set (Yes)

- CgPN NOA is set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, for example with DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 (Dialed number: PAP1 + NAC1 + E164N3)

Figure E-1   IP Phone -> PSTN (CdPN NOA - Yes; CgPN NOA - Yes)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: SLC1 + EXT1	CdPN: 90 + E164N3 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: E164N3 (Nat) CgPN: E164N1 (Nat)
CdPN: 9 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 CgPN: 220 + 0010 + 9 + 431 + 00	CdPN: 314-5550003 (Nat) CgPN: 212-5550001 (Nat)

IP Phone -> PSTN (Any Non-Emer PSTN Call, CdPN NOA - Yes; CgPN NOA - No)

In this call scenario:

CdPN NOA is set (Yes)

CgPN NOA is not set (No)

IP Phone (Internal Number: SLC1 + EXT1, for example with DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 (Dialed number: PAP1 + NAC1 + E164N3)

Figure E-2   IP Phone -> PSTN (CdPN NOA - Yes; CgPN NOA - No)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: SLC1 + EXT1	CdPN: 90 + E164N3 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: E164N3 (Nat) CgPN: NAC1 + E164N1 (Unk)
CdPN: 9 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 314-5550003 (Nat) CgPN: 1 + 212-5550001 (Unk)

IP Phone -> PSTN (Any Non-Emer PSTN Call, CdPN NOA - No; CgPN NOA - Yes)

In this call scenario:

CdPN NOA is not set (No)

CgPN NOA is set (Yes)

IP Phone (Internal Number: SLC1 + EXT1, for example with DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 (Dialed number: PAP1 + NAC1 + E164N3)

Figure E-3   IP Phone -> PSTN (CdPN NOA - No; CgPN NOA - Yes)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: SLC1 + EXT1	CdPN: 90 + E164N3 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: NAC1 + E164N3 (Unk) CgPN: E164N1 (Nat)
CdPN: 9 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 1 + 314-5550003 (Unk) CgPN: 212-5550001 (Nat)

IP Phone -> PSTN (Any Non-Emer PSTN Call, CdPN NOA - No; CgPN NOA - No)

In this call scenario:

- CdPN NOA is not set (No)

- CgPN NOA is not set (No)

- IP Phone (Internal Number: SLC1 + EXT1, for example with DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 (Dialed number: PAP1 + NAC1 + E164N3)

Figure E-4   IP Phone -> PSTN (CdPN NOA - No; CgPN NOA - No)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: SLC1 + EXT1	CdPN: 90 + E164N3 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: NAC1 + E164N3 (Unk) CgPN: NAC1 + E164N1 (Unk)
CdPN: 9 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 1 + 314-5550003 (Unk) CgPN: 1 + 212-5550001 (Unk)

Non-Emergency Calls (With and Without DDI)

For all of the above calls the CgPN is processed differently depending on whether the line has an E.164 number associated with the internal number. Therefore, following Non-Emergency outgoing PSTN calls are supported:

- User line configured with DDI,

- User line configured without DDI.

IP Phone (with DDI) -> PSTN (Any non-Emergency PSTN Call)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 (Dialed number: PAP1 + NAC1 + E164N3)

Figure E-5   IP Phone (with DDI) -> PSTN

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: SLC1 + EXT1	CdPN: 90 + E164N3 CgPN: CPID1 + RID1 + 9 + SLC1 + EXT1	CdPN: E164N3 (Nat) CgPN: E164N1 (Nat)
CdPN: 9 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 314-5550003 (Nat) CgPN: 212-5550001 (Nat)

IP Phone (without DDI) -> PSTN (Any non-Emergency PSTN Call)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, without DDI Number) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 (Dialed number: PAP1 + NAC1 + E164N3)

Figure E-6   IP Phone (without DDI) -> PSTN

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: SLC1 + EXT1	CdPN: 90 + E164N3 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: E164N3 (Nat) CgPN: E164N0 (Nat)
CdPN: 9 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 314-5550003 (Nat) CgPN: 212-5550000 (Nat)

Non-Emergency Calls (CLIR/CLIP)

For all of the above calls the Presentation Indicator is setup differently depending on whether the user has made a call from a location configured as CLIR or CLIP, and whether the user has made a call using the CLIR or CLIP release code. Therefore, following Non-Emergency outgoing PSTN calls are supported:

- User dialing from a location configured as CLIR,
- User dialing from a location configured as CLIR and using CLIR release code,
- User dialing from a location configured as CLIP,
- User dialing from a location configured as CLIP and using CLIP release code.

IP Phone (CLIR) -> PSTN (Any non-Emergency PSTN Call)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 configured as LPS1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 (Dialed number: PAP1 + NAC1 + E164N3)

Figure E-7   IP Phone (CLIR) -> PSTN

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: SLC1 + EXT1 (CLIR)	CdPN: 90 + E164N3 (PI LPS1) CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: E164N3 (Nat) (PI LPS1) CgPN: E164N1 (Nat)
CdPN: 9 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 (PI restricted) CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 314-5550003 (Nat) (PI restricted) CgPN: 212-5550001 (Nat)

IP Phone (CLIR Release) -> PSTN (Any non-Emergency PSTN Call)

In this call scenario:

CdPN NOA is for example set (Yes)

CgPN NOA is for example set (Yes)

IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 configured as LPS1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 and using CCRC1 (Dialed number: PAP1 + CCRC1 + NAC1 + E164N3)

Figure E-8   IP Phone (CLIR Release) -> PSTN

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + CCRC1 + NAC1 + E164N3 CgPN: SLC1 + EXT1 (CLIR)	CdPN: 90 + E164N3 (PI LPS2) CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: E164N3 (Nat) (PI LPS2) CgPN: E164N1 (Nat)
CdPN: 9 + *82 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 (PI allowed) CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 314-5550003 (Nat) (PI allowed) CgPN: 212-5550001 (Nat)

IP Phone (CLIP) -> PSTN (Any non-Emergency PSTN Call)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 configured as LPS2 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 (Dialed number: PAP1 + NAC1 + E164N3)

Figure E-9   IP Phone (CLIP) -> PSTN

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: SLC1 + EXT1 (CLIR)	CdPN: 90 + E164N3 (PI LPS2) CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: E164N3 (Nat) (PI LPS2) CgPN: E164N1 (Nat)
CdPN: 9 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 (PI allowed) CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 314-5550003 (Nat) (PI allowed) CgPN: 212-5550001 (Nat)

IP Phone (CLIP Release) -> PSTN (Any non-Emergency PSTN Call)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 configured as LPS2 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Non-Emergency call, for example a National (Long-distance) call to E164N3 and using CCRC2 (Dialed number: PAP1 + CCRC2 + NAC1 + E164N3)

Figure E-10   IP Phone (CLIP Release) -> PSTN

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + CCRC2 + NAC1 + E164N3 CgPN: SLC1 + EXT1 (CLIR)	CdPN: 90 + E164N3 (PI LPS1) CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: E164N3 (Nat) (PI LPS1) CgPN: E164N1 (Nat)
CdPN: 9 + *67 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 (PI restricted) CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 314-5550003 (Nat) (PI restricted) CgPN: 212-5550001 (Nat)

Non-Emergency Calls (Nat, Int, Premium, Service, Free, Loc)

Following Non-Emergency outgoing PSTN calls are supported:

- National,
- International,
- Premium,
- Service,
- Free Phone,
- Local.

IP Phone -> PSTN (National Call)

In this call scenario:

CdPN NOA is for example set (Yes)

CgPN NOA is for example set (Yes)

IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a National (Long-distance) call to E164N3 (Dialed number: PAP1 + NAC1 + E164N3)

Figure E-11   IP Phone -> PSTN (National Call)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: SLC1 + EXT1	CdPN: 90 + E164N3 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: E164N3 (Nat) CgPN: E164N1 (Nat)
CdPN: 9 + 1 + 314-5550003 CgPN: 431 + 0001	CdPN: 90 + 314-5550003 CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 314-5550003 (Nat) CgPN: 212-5550001 (Nat)

IP Phone -> PSTN (International Call)

In this call scenario:

CdPN NOA is for example set (Yes)

CgPN NOA is for example set (Yes)

IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making an International call to E164I5 (Dialed number: PAP1 + IAC1 + E164I5)

Figure E-12   IP Phone -> PSTN (International Call)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + IAC1 + E164I5 CgPN: SLC1 + EXT1	CdPN: 900 + E164I5 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: E164I5 (Int) CgPN: E164N1 (Nat)
CdPN: 9 + 011 + 44-1632-123456 CgPN: 431 + 0001	CdPN: 900 + 44-1632-123456 CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 44-1632-123456 (Int) CgPN: 212-5550001 (Nat)

IP Phone -> PSTN (Premium Call)

In this call scenario:

- CdPN NOA is for example set (Yes)

- CgPN NOA is for example set (Yes)

- IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Premium call to PREM (Dialed number: PAP1 + NAC1 + PREM)

Figure E-13   IP Phone -> PSTN (Premium Call)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + PREM CgPN: SLC1 + EXT1	CdPN: 90 + PREM CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: PREM (Nat) CgPN: E164N1 (Nat)
CdPN: 9 + 1 + 900-NXXXXXX CgPN: 431 + 0001	CdPN: 90 + 900-NXXXXXX CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 900-NXXXXXX (Nat) CgPN: 212-5550001 (Nat)

IP Phone -> PSTN (Service Call)

In this call scenario:

CdPN NOA is for example set (Yes)

CgPN NOA is for example set (Yes)

IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Service call to N11S (Dialed number: PAP1 + N11S)

Figure E-14   IP Phone -> PSTN (Service Call)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + N11S	CdPN: 9090000 + N11S	CdPN: N11S (Unk)
CgPN: SLC1 + EXT1	CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CgPN: E164N1 (Nat)
CdPN: 9 + 411	CdPN: 9090000 + 411	CdPN: 411 (Unk)
CgPN: 431 + 0001	CgPN: 220 + 0010 + 9 + 431 + 0001	CgPN: 212-5550001 (Nat)

IP Phone -> PSTN (Toll-free Call)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a Toll-free call to FREE (Dialed number: PAP1 + NAC1 + FREE)

Figure E-15   IP Phone -> PSTN (Toll-free Call)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + FREE	CdPN: 90 + FREE	CdPN: FREE (Nat)
CgPN: SLC1 + EXT1	CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CgPN: E164N1 (Nat)
CdPN: 9 + 1 + 800-NXXXXXX	CdPN: 90 + 800-NXXXXXX	CdPN: 800-NXXXXXX (Nat)
CgPN: 431 + 0001	CgPN: 220 + 0010 + 9 + 431 + 0001	CgPN: 212-5550001 (Nat)

IP Phone -> PSTN (7-digit Local Call, send NDC)

In this call scenario:

- LGW Trunk is configured to set the NDC for Local Calls
- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC2 + EXT1, DDI Number: NDC3 + SN3) in Location 2 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID2) is making a 7-digit local call to SN4 (Dialed number: PAP1 + SN4)

Figure E-16   IP Phone -> PSTN (7-digit Local Call, send NDC)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + SN4	CdPN: 90 + NDC3 + SN4	CdPN: NDC3 + SN4 (Sub)
CgPN: SLC2 + EXT1	CgPN: CPID1 + RID2 + CT + SLC2 + EXT1	CgPN: NDC3 + SN3 (Sub)
CdPN: 9 + 5550004	CdPN: 90 + 314 + 5550004	CdPN: 314 + 5550004 (Sub)
CgPN: 432 + 0001	CgPN: 220 + 0100 + 9 + 432 + 0001	CgPN: 314 + 5550003 (Sub)

IP Phone -> PSTN (7-digit Local Call, don't send NDC)

In this call scenario:

- LGW Trunk is configured not to set the NDC for Local Calls
- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC2 + EXT1, DDI Number: NDC3 + SN3) in Location 2 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID2) is making a 7-digit local call to SN4 (Dialed number: PAP1 + SN4)

Figure E-17   IP Phone -> PSTN (7-digit Local Call, don't send NDC)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + SN4	CdPN: 90 + NDC3 + SN4	CdPN: SN4 (Sub)
CgPN: SLC2 + EXT1	CgPN: CPID1 + RID2 + CT + SLC2 + EXT1	CgPN: SN3 (Sub)
CdPN: 9 + 5550004	CdPN: 90 + 314 + 5550004	CdPN: 5550004 (Sub)
CgPN: 432 + 0001	CgPN: 220 + 0100 + 5 + 432 + 0001	CgPN: 5550003 (Sub)

IP Phone -> PSTN (10-digit Local Call)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, DDI Number: NDC1 + SN1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a 10-digit local call to NDC1 + SN2 (Dialed number: PAP1 + NDC1 + SN2)

Figure E-18   IP Phone -> PSTN (10-digit Local Call))

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NDC1 + SN2 CgPN: SLC1 + EXT1	CdPN: 90 + NDC1 + SN2 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: NDC1 + SN2 (Sub) CgPN: NDC1 + SN1 (Sub)
CdPN: 9 + 212 + 5550002 CgPN: 431 + 0001	CCdPN: 90 + 212+ 5550002 CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 212 + 5550002 (Sub) CgPN: 212 + 5550001 (Sub)

IP Phone -> PSTN (11-digit Local Call)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, DDI Number: NDC1 + SN1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1) is making a 11-digit local call to NDC1 + SN2 (Dialed number: PAP1 + NDC1 + SN2)

Figure E-19   IP Phone -> PSTN (11-digit Local Call)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + NDC1 + SN2 CgPN: SLC1 + EXT1	CdPN: 90 + NDC1 + SN2 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: NDC1 + SN2 (Sub) CgPN: NDC1 + SN1 (Sub)
CdPN: 9 + 1 + 212 + 5550002 CgPN: 431 + 0001	CdPN: 90 + 212+ 5550002 CgPN: 220 + 0010 + 9 + 431 + 0001	CdPN: 212 + 5550002 (Sub) CgPN: 212 + 5550001 (Sub)

IP Phone -> IntraSite -> IP Phone -> Call Forward -> PSTN

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone 1 (Internal Number: SLC1 + EXT1, DDI Number: E164N1)) is making an Intra-site call to IP Phone 2 (Internal Number: SLC1 + EXT2, DDI Number: E164N2) both in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1. IP Phone 2 has CFA set to E164N3

Note IP Phone > IntraSite > IP Phone call processing is not shown since there is no difference if Local PSTN Access is used

Figure E-20   IP Phone -> IntraSite -> IP Phone -> Call Forward -> PSTN)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: EXT1 RdN: SLC1 + EXT2	CdPN: 90 + E164N3 CgPN: CPID1 + RID1 + CT + SLC1 + EXT1 RdN: SLC1 + EXT2	CdPN: E164N3 (Nat) CgPN: E164N0 (Nat)
CdPN: 9 + 1 + 314-5550003 CgPN: 0001 RdN: 431 + 0002	CdPN: 90 + 314-5550003 CgPN: 220 + 0010 + 5 + 431 + 0001 RdN: 431 + 0002	CdPN: 314-5550003 (Nat) CgPN: 212-5550000 (Nat)

IP Phone -> InterSite -> IP Phone -> Call Forward -> PSTN

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone 1 (Internal Number: SLC1 + EXT1, DDI Number: E164N1)) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1 is making an Inter-site call to IP Phone 2 (Internal Number: SLC2 + EXT1, DDI Number: E164N3) in Location 2 on Unified CM cluster 1 (PSTN Published Number: E164N07, Unified CM ID: CPID1, Location RID: RID2. IP Phone 2 has CFA set to E164N2

> **Note**   IP Phone > InterSite > IP Phone call processing is not shown since there is no difference if Local PSTN Access is used

Figure E-21   IP Phone -> InterSite -> IP Phone -> Call Forward -> PSTN

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N2 CgPN: ISP + SLC1 + EXT1 RdN: SLC2 + EXT1	CdPN: 90 + E164N2 CgPN: CPID1 + RID2 + CT + SLC1 + EXT1 RdN: SLC2 + EXT1	CdPN: E164N2 (Nat) CgPN: E164N07 (Nat)
CdPN: 9 + 1 + 646-5550002 CgPN: 8 + SLC1 + 0001 RdN: 432 + 0001	CdPN: 90 + 646-5550002 CgPN: 220 + 0100 + 5 + 431 + 0001 RdN: 432 + 0001	CdPN: 646-5550002 (Nat) CgPN: 314-5550000 (Nat)

PSTN -> IP Phone -> Call Forward -> PSTN

In this call scenario:

- CdPN NOA is for example set (Yes)

- CgPN NOA is for example set (Yes)
- PSTN user (E.164 number: PSTN) is making a call to IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1)) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1. IP Phone has CFA set to E164N3

Note   PSTN > IP Phone call processing is not shown since as it is described in the next section

Figure E-22   IPSNT -> IP Phone -> Call Forward -> PSTN

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: PAP1 + NAC1 + E164N3 CgPN: PAP1 + NAC1 + PSTN RdN: SLC1 + EXT1	CdPN: 90 + E164N3 CgPN: CPID1 + RID1 + CT + PAP1 + NAC1 + PSTN RdN: SLC1 + EXT2	CdPN: E164N3 (Nat) CgPN: E164N0 (Nat)
CdPN: 9 + 1 + 314-5550003 CgPN: 9 + 1 + 214-5551234 RdN: 431 + 0001	CdPN: 90 + 314-5550003 CgPN: 220 + 0010 + 5 + 9 + 1 + 214-5551234 RdN: 431 + 0001	CdPN: 314-5550003 (Nat) CgPN: 212-5550000 (Nat)

Emergency calls

For outgoing Emergency calls:

- If the location is not configured to use the "Cisco Emergency Responder" or "DDI for Emergency" feature, the CgPN will always be replaced with the Location Emergency Published Number.
- If the location is configured to use the "Cisco Emergency Responder" feature, the CgPN number is modified to the Emergency Location Identification Number (ELIN).
- If the location is configured to use the "DDI for Emergency" feature, the CgPN will be replaced with an E.164 number of the line which originated the call (if the line is associated with an E.164 number) or with the Location Emergency Published Number (if the line is not associated with an E.164 number).

Therefore, following Emergency outgoing PSTN calls are supported:

- IP Phone -> PSTN (Emergency Call, Default handling),
- IP Phone -> PSTN (Emergency Call, Cisco ER configured),
- IP Phone (with DDI) -> PSTN (Emergency Call, "DDI for Emergency" enabled),
- IP Phone (without DDI) -> PSTN (Emergency Call, "DDI for Emergency" enabled)

For all of the above calls the Presentation Indicator is not setup differently regardless of whether the user has made a call from a location configured as CLIR or CLIP, and whether the user has made a call using the CLIR or CLIP release code.

IP Phone -> PSTN (Emergency Call, Default handling)

In this call scenario:

CdPN NOA is for example set (Yes)

CgPN NOA is for example set (Yes)

IP Phone (Internal Number: SLC1 + EXT1, for example with DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1, Default Emergency Call Handling) is making an Emergency call to EMER (Dialed number: EMER)

Figure E-23   IP Phone -> PSTN (Emergency Call, Default handling)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: EMER CgPN: SLC1 + EXT1	CdPN: 9 + EMER CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: EMER (Unk) CgPN: E164N0 (Nat)
CdPN: 911 CgPN: 431 + 0001	CdPN: 9 + 911 CgPN: 220 + 0010 + 4 + 431 + 0001	CdPN: 911 (Unk) CgPN: 212-5550000 (Nat)

IP Phone -> PSTN (Emergency Call, Cisco ER configured)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, for example with DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1, Cisco ER Configured) is making an Emergency call to EMER (Dialed number: EMER). IP Phone is for example in ERL1 (configured with ELIN1).

Figure E-24   IP Phone -> PSTN (Emergency Call, Cisco ER configured)

Unified CM IN	Unified CM OUT - CER IN	CER OUT - Unified CM IN
CdPN: EMER CgPN: SLC1 + EXT1	CdPN: EMER CgPN: SLC1 + EXT1	CdPN: CERID + ELIN1 + EMER CgPN: SLC1 + EXT1
CdPN: 911 CgPN: 431 + 0001	CdPN: 9 + 911 CgPN: 431 + 0001	CdPN: 1 + 212-9110000 + 911 CgPN: 431 + 0001
Unified CM IN	**Unified CM OUT - LGW IN**	**LGW OUT**
CdPN: CERID + ELIN1 + EMER CgPN: SLC1 + EXT1	CdPN: 9 + EMER CgPN: CPID1 + RID1 + CT + ELIN1	CdPN: EMER (Unk) CgPN: ELIN1 (Nat)
CdPN: 1 + 212-9110000 + 911 CgPN: 431 + 0001	CdPN: 9 + 911 CgPN: 220 + 0010 + 4 + 212-9110000	CdPN: 911 (Unk) CgPN: 212-9110000 (Nat)

IP Phone (with DDI) -> PSTN (Emergency Call, "DDI for Emergency" enabled)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, with DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1, "DDI for Emergency" enabled) is making an Emergency call to EMER (Dialed number: EMER)

Figure E-25   IP Phone (with DDI) -> PSTN (Emergency Call, "DDI for Emergency" enabled)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: EMER CgPN: SLC1 + EXT1	CdPN: 9 + EMER CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: EMER (Unk) CgPN: E164N1 (Nat)
CdPN: 911 CgPN: 431 + 0001	CdPN: 9 + 911 CgPN: 220 + 0010 + 4 + 431 + 0001	CdPN: 911 (Unk) CgPN: 212-5550001 (Nat)

IP Phone (with DDI) -> PSTN (Emergency Call, "DDI for Emergency" enabled)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- IP Phone (Internal Number: SLC1 + EXT1, with DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1, "DDI for Emergency" enabled) is making an Emergency call to EMER (Dialed number: EMER)

Figure E-26   IP Phone (with DDI) -> PSTN (Emergency Call, "DDI for Emergency" enabled)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: EMER CgPN: SLC1 + EXT1	CdPN: 9 + EMER CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: EMER (Unk) CgPN: E164N1 (Nat)
CdPN: 911 CgPN: 431 + 0001	CdPN: 9 + 911 CgPN: 220 + 0010 + 4 + 431 + 0001	CdPN: 911 (Unk) CgPN: 212-5550001 (Nat)

IP Phone (without DDI) -> PSTN (Emergency Call, "DDI for Emergency" enabled)

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)

- IP Phone (Internal Number: SLC1 + EXT1, without DDI Number) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1, "DDI for Emergency" enabled) is making an Emergency call to EMER (Dialed number: EMER)

Figure E-27   IP Phone (without DDI) -> PSTN (Emergency Call, "DDI for Emergency" enabled)

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT'
CdPN: EMER CgPN: SLC1 + EXT1	CdPN: 9 + EMER CgPN: CPID1 + RID1 + CT + SLC1 + EXT1	CdPN: EMER (Unk) CgPN: E164N0 (Nat)
CdPN: 911 CgPN: 431 + 0001	CdPN: 9 + 911 CgPN: 220 + 0010 + 4 + 431 + 0001	CdPN: 911 (Unk) CgPN: 212-5550000 (Nat)

Incoming PSTN Calls

The supported Incoming PSTN calls as follows:

PSTN (National Call) -> IP Phone

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- PSTN user (E.164 number: PSTN) is making a call to IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1)) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1.

Figure E-28   PSTN (National Call) -> IP Phone

LGW IN	LGW OUT - Unified CM IN	Unified CM OUT
CdPN: E164N1 (Nat) CgPN: PSTN (Nat)	CdPN: CPID1 + RID1 + SLC1 + EXT1 CgPN: PAP1 + NAC1 + PSTN	CdPN: SLC1 + EXT1 CgPN: PAP1 + NAC1 + PSTN
CdPN: 212-5550001 (Nat) CgPN: 214-5551234 (Nat)	CdPN: 220 + 0010 + 431 + 0001 CgPN: 9 + 1 + 214-5551234	CdPN: 431 + 0001 CgPN: 9 + 1 + 214-5551234

PSTN (International Call) -> IP Phone

In this call scenario:

- CdPN NOA is for example set (Yes)

- CgPN NOA is for example set (Yes)

- PSTN user in the UK (E.164 number: E164I5) is making a call to IP Phone (Internal Number: SLC1 + EXT1, DDI Number: E164N1)) in Location 1 on Unified CM cluster 1 in US (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1.

Figure E-29   PSTN (International Call) -> IP Phone

LGW IN	LGW OUT - Unified CM IN	Unified CM OUT
CdPN: E164N1 (Nat) CgPN: E164I5 (Int)	CdPN: CPID1 + RID1 + SLC1 + EXT1 CgPN: PAP1 + IAC1 + E164I5	CdPN: SLC1 + EXT1 CgPN: PAP1 + IAC1 + E164I5
CdPN: 212-5550001 (Nat) CgPN: 44-1632-123456 (Int)	CdPN: 220 + 0010 + 431 + 0001 CgPN: 9 + 011 + 44-1632-123456	CdPN: 431 + 0001 CgPN: 9 + 011 + 44-1632-123456

PSTN (Emergency, CER PSAP Callback) -> IP Phone

In this call scenario:

- CdPN NOA is for example set (Yes)

- CgPN NOA is for example set (Yes)

- PSAP Operator is making a call-back to an Emergency caller (the CgPN delivered to the PSAP operator was ELIN1). The Emergency call was made to EMER from an IP Phone (Internal Number: SLC1 + EXT1, for example with DDI Number: E164N1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1, Cisco ER Configured) IP Phone is in ERL1 (configured with ELIN1, which is associated with CPID1 + RID1 + SLCE + EXTE).

Figure E-30   *PSTN (Emergency, CER PSAP CallBack) -> IP Phone*

LGW IN	LGW OUT - Unified CM IN	Unified CM OUT
CdPN: ELIN1 (Nat) CgPN: PSAP	CdPN: CPID1 + # + RID1 + SLCE + EXTE CgPN: PAP1 + NAC1 + PSAP	CdPN: 913 + ELIN1 CgPN: PAP1 + NAC1 + PSAP
CdPN: 212-9110000 CgPN: PSAP	CdPN: 220 + # + 0010 + 431 + 0911 CgPN: 9 + 1 + PSAP	CdPN: 913 + 212-9110000 CgPN: 9 + 1 + PSAP
CER IN	**CER OUT - Unified CM IN**	**Unified CM OUT**
CdPN: 913 + ELIN1 CgPN: PAP1 + NAC1 + PSAP	CdPN: SLC1 + EXT1 CgPN: PAP1 + NAC1 + PSAP	CdPN: SLC1 + EXT1 CgPN: PAP1 + NAC1 + PSAP
CdPN: 913 + 212-9110000 CgPN: 9 + 1 + PSAP	CdPN: 431 + 0001 CgPN: 9 + 1 + PSAP	CdPN: 431 + 0001 CgPN: 9 + 1 + PSAP

PSTN (7-digit Local Call, receive NDC) -> IP Phone

In this call scenario:

The CgPN and CdPN is received with the NDC

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- PSTN User (E.164 number NDC3 + SN4) is making a call to IP Phone (Internal Number: SLC2 + EXT1, DDI Number: NDC3 + SN3) in Location 2 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID2)

Figure E-31   *PSTN (7-digit Local Call, receive NDC) -> IP Phone*

LGW IN	LGW OUT - Unified CM IN	Unified CM OUT
CdPN: NDC3 + SN3 (Sub) CgPN: NDC3 + SN4 (Sub)	CdPN: CPID1 + RID2 + SLC2 + EXT1 CgPN: PAP1 + NDC3 + SN4	CdPN: SLC2 + EXT1 CgPN: PAP1 + NDC3 + SN4
CdPN: 314 + 5550003 (Sub) CgPN: 314 + 5550004 (Sub)	CdPN: 220 + 0100 + 432 + 0001 CgPN: 9 + 314 + 5550004	CdPN: 432 + 0001 CgPN: 9 + 314 + 5550004

PSTN (7-digit Local Call, no NDC) -> IP Phone

In this call scenario:

- The CgPN and CdPN is received without the NDC
- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)

- PSTN User (E.164 number NDC3 + SN4) is making a call to IP Phone (Internal Number: SLC2 + EXT1, DDI Number: NDC3 + SN3) in Location 2 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID2)

Figure E-32   *PSTN (7-digit Local Call, no NDC) -> IP Phone*

LGW IN	LGW OUT - Unified CM IN	Unified CM OUT
CdPN: SN3 (Sub) CgPN: SN4 (Sub)	CdPN: CPID1 + RID2 + SLC2 + EXT1 CgPN: PAP1 + SN4	CdPN: SLC2 + EXT1 CgPN: PAP1 + SN4
CdPN: 5550003 (Sub) CgPN: 5550004 (Sub)	CdPN: 220 + 0100 + 432 + 0001 CgPN: 9 + 5550004	CdPN: 432 + 0001 CgPN: 9 + 5550004

PSTN (10-digit Local Call) -> IP Phone

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- PSTN User (E.164 number NDC1 + SN2) is making a call to IP Phone (Internal Number: SLC1 + EXT1, DDI Number: NDC1 + SN1) in Location 1 on Unified CM cluster 1 (PSTN Published Number: E164N0, Unified CM ID: CPID1, Location RID: RID1).

Figure E-33   *PSTN (10-digit Local Call) -> IP Phone*

Unified CM IN	Unified CM OUT - LGW IN	LGW OUT
CdPN: NDC1 + SN1 (Sub) CgPN: NDC1 + SN2 (Sub)	CdPN: CPID1 + RID1 + SLC1 + EXT1 CgPN: PAP1 + NDC1 + SN2	CdPN: SLC1 + EXT1 CgPN: PAP1 + NDC1 + SN2
CdPN: 212 + 5550001 (Sub) CgPN: 212 + 5550002 (Sub)	CdPN: 220 + 0010 + 431 + 0001 CgPN: 9 + 212 + 5550002	CdPN: 431 + 0001 CgPN: 9 + 212 + 5550002

PSTN -> Voicemail

In this call scenario:

- CdPN NOA is for example set (Yes)
- CgPN NOA is for example set (Yes)
- PSTN user (E.164 number: PSTN) wants to check his Voicemail (Voicemail ID: VMCPID, VoiceMail RID: VMRID, Voicemail Pilot SLC: VMSLC, VoiceMail Pilot Ext: VMEXT, Voicemail DDI Number: E164NVM). The LGW is configured in Location 1 on Unified CM cluster 1 (Unified CM ID: CPID1, Location RID: RID1.

Figure E-34   PSTN -> Voicemail

LGW IN	LGW OUT - Unified CM IN
CdPN: E164NVM (Nat)	CdPN: VMCPID + VMRID + VMSLC + VMEXT
CgPN: PSTN (Nat)	CgPN: VMCPID + #1# + PAP1 + NAC1 + PSTN
CdPN: 212-5558888 (Nat)	CdPN: 300 + 0100 + 200 + 0000
CgPN: 212-5551234 (Nat)	CgPN: 300 + #1# + 9 + 1 + 214-5551234
Unified CM OUT' PGW IN	**PGW OUT ' Movius IN**
CdPN: VMCPID + VMRID + VMSLC + VMEXT	CdPN: VMCPID + VMRID + VMSLC + VMEXT
CgPN: VMCPID + #1# + PAP1 + NAC1 + PSTN	CgPN: PAP1 + NAC1 + PSTN
CdPN: 300 + 0100 + 200 + 0000	CdPN: 300 + 0100 + 200 + 0000
CgPN: 300 + #1# + 9 + 1 + 214-5551234	CgPN: 9 + 1 + 214-5551234

PSTN -> IP Phone -> CF IntraSite -> IP Phone

In this call scenario the first call leg PSTN > IP Phone has already been described in the above sections. For the second call leg (IP Phone -> CF IntraSite -> IP Phone) there is no difference whether the call arrived via Local or Central PSTN access, since the CgPN will be the same and is therefore not covered in this document.

PSTN -> IP Phone -> CF InterSite -> IP Phone

In this call scenario the first call leg (PSTN > IP Phone) has already been described in the above sections. For the second call leg (IP Phone > CF IntraSite > IP Phone) there is no difference whether the call arrived via Local or Central PSTN access, since the CgPN will be the same and is therefore not covered in this document.

The following abbreviations are used in this chapter

Abbreviations	Expansions
CC	Country Code. CC1 (1) - for US and CC2 (44) - for UK, are used in the examples
CPID	Unique Call Processing IDentifier for each Hosted UCS component (Unified CM, PGW, Movius Server, …). CPID1 (220) for Unified CM cluster 1, is used in the example
CT	Call Type.
CT=4	Emergency Call.
CT = 5	Forwarded Call to PSTN.
CT = 6	Forwarded IntraSite or InterSite call (to another location in the same customer.
CT = 8	InterSite call (to another location in the customer).

Abbrevations	Expansions
CT = 9	PSTN call.
E164N	E.164 National number, equal to NDC + SN. E164N0 (212-5550000), E164N07 (314-5550000), E164N1 (212-5550001), E164N2 (646-5550002), E164N3 (314-5550003) and E164N4 (314-5550004) - for the US and E164N5 (1632-123456) are used in the examples.
E164I	E164IE.164 International number for Geographic areas, equal to CC + NDC + SN. E164I0 (1-212-5550000) or (1-314-5550000), E164I1 (1-212-5550001), E164I2 (1-646-5550002), E164I3 (1-314-5550003) and E164I4 (1-314-5550004) - for the US and E164I5 (44-1632-123456) are used in the examples.
ELIN	Emergency Line Identification Number. ELIN1 (212-555911000) is used in the examples.
EMER	Emergency number. EMER (911) is used in the examples.
FREE	Toll-Free Phone Number. FREE (800-NXXXXXX) is used in the examples.
IAC	International Access Code. IAC1 (011) - for the US is used in the examples.
ISP	Customer InterSite Prefix. ISP1 (8) for Customer 1 on Unified CM cluster 1 is used in the examples.
LPS	Location CLIR/CLIP Presentation Setting. LPS1 (restricted) and LPS2 (allowed) are used is used in the examples.
N11	N11 codes, more formally known as service codes, are used to provide three-digit dialing access to special services. N11S (411) is used in the examples.
NAC	National Access Code. NAC1 (1) - for the US is used in the examples.
NDC	National Access Code. NAC1 (1) - for the US is used in the examples.
PAP	Location PSTN Access Prefix. PAP1 (9) for Location 1 on Unified CM cluster 1 is used in the examples.
PREM	Premium Phone Number. PREM (900-NXXXXXX) is used in the examples.
RID	Unique per-"Unified CM cluster" Location Route IDentifier. RID1 (0010) for Location 1 and RID2 (0100) for Location 2 on Unified CM cluster 1 are used in the examples.

Abbrevations	Expansions
SLC	Slate Location Code. SLC1 (431) and SLC2 (432) are used in the examples.
SN	Subscriber Number is a part of the E.164 National (significant) number for Geographic areas. SN0 (5550000), SN1 (5550001), SN2 (5550002), SN3 (5550003) and SN4 (5550004) - for the US and SN5 (123456) - for the UK are used in the examples.