CISCO SYSTEMS

Cisco Unified CallManager 4.1-PBX Interoperability: Avaya Definity G3 MV1.3 PBX with 3745 T1 QSIG as a MGCP Gateway

Introduction

This is an application note for connectivity of Avaya Definity G3 MV1.3 PBX with Cisco Unified CallManager Release 4.1 using Cisco 3745-T1 QSIG as MGCP gateway.

The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with the Cisco Unified CallManager connected to the PBX via 3745-T1 QSIG link as MGCP gateway.
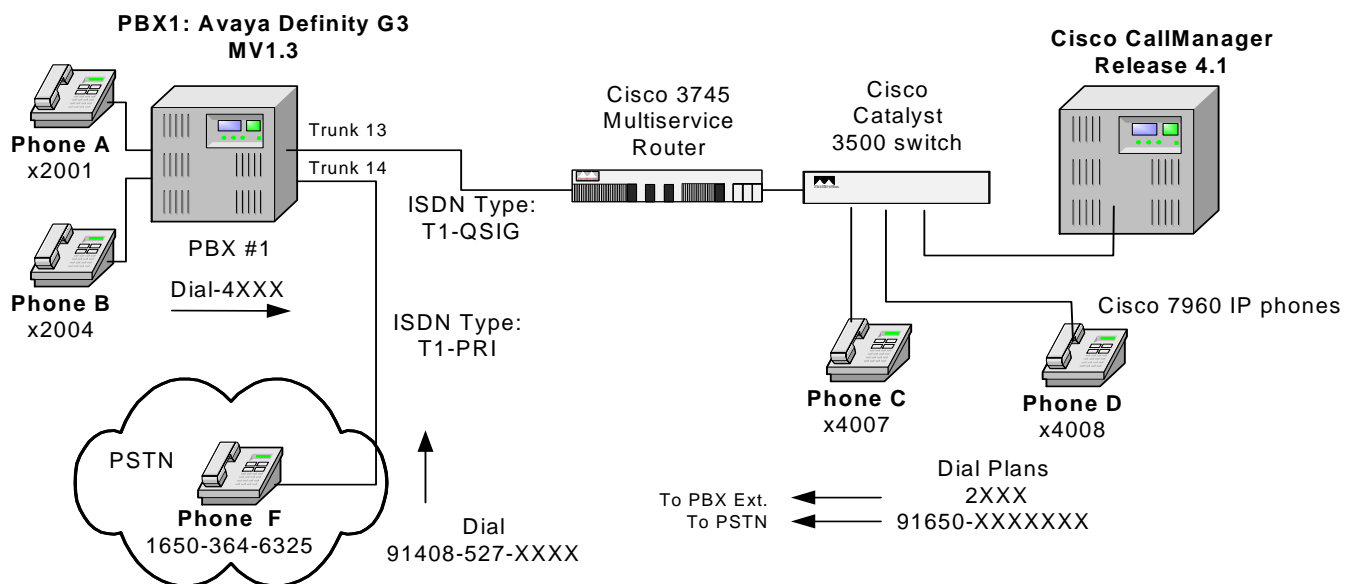
Connectivity is achieved by using the PRI ISO QSIG T1 protocol type on the MGCP gateway and ISO QSIG switch type on the Avaya Definity G3 MV1.3 PBX.

This Application Note uses the 3745-T1 voice gateway, however other Cisco voice gateways are also an option to use since Unified CallManager QSIG implementation does not depend on the physical interface.

Network Topology

Figure 1. Network Topology or Test Setup

Basic Call Setup End-to-End Configuration

Limitations

Additional Network Feature Path Replacement for Call Diversion

As of this round of testing, the Avaya Call Diversion by Reroute cannot be turned off. Thus, when testing Call Forwarding

(Unconditional, Busy or No Reply) by Join or Path replacement for forwarded calls (Unconditional, Busy or No Reply) over a QSIG

network, the Avaya automatically performs a Call Diversion by reroute method to obtain the best route. Path replacement method was

properly executed on an established call after a Call Transfer.

Additional Network Feature Path Replacement for Tromboned Connection after Call Transfer

For Path Replacement on tromboned calls to work, the destination local station on the Avaya (2XXX) must be listed in the isdn public-

unknown page. The numbering format for calling and called number must be set to UNKNOWN. Also, the Look Ahead Routing (LAR)

parameter under the route pattern must be set to NEXT.

System Components

Hardware Requirements

Cisco Hardware:

– Cisco Catalyst 3500 switch

– Cisco 3745 multiservice router

– Cisco Unified CallManager server

Lucent/Avaya Definity G3si MV1.3 PBX Hardware:

– TN464F, DS1 INTFC 24/32

Software Requirements

Cisco Unified CallManager release 4.1

PBX software release MV1.3

Features

List any features that are required, supported, not required or not supported.

CLIP-Calling Line (Number) Identification Presentation

CLIR-Calling Line (Number) Identification Restriction

CNIP-Calling Name Identification Presentation

CNIR-Calling Name Identification Restriction

COLP-Connected Line (Number) Identification Presentation

COLR- Connected Line (Number) Identification Restriction

CONP-Connected Name Identification Presentation

CONR- Connected Name Identification Restriction

Sending Alerting Name

CT-Call Transfer (by join)

CFU-Call Forwarding Unconditional (by join)

CFB-Call Forwarding Busy (by join)

CFNR-Call Forwarding No Reply (by join)

CFU-Call Forwarding Unconditional (by Reroute)

CFB-Call Forwarding Busy (by Reroute)

CFNR-Call Forwarding No Reply (by Reroute)

CCBS-Call Completion to Busy Subscriber

CCNR-Call Completion No Reply

ANF-PR-Additional Network Feature Path Replacement (for Call Transfer by join)

ANF-PR-Additional Network Feature Path Replacement (for Call Diversion by forward switching)

ANF-PR-Additional Network Feature Path Replacement (for Trombone connection)

MWI- Message Waiting Indication (lamp ON, lamp OFF)

Configuration

Configuration Sequence and Tasks

Configuring the Lucent/Avaya Definity G3si MV1.3 PBX

List the configuration sequence for software or hardware.

    Add the new circuit pack.
    Add the new signaling group.
    Add the new trunk group.
    Add Uniform Dialing Plan.

Configuration Menus and Commands

Show configuration menus, configuration commands or screen captures.

DS1 Circuit Pack

File Edit View System Action Tools Window Help

multivantage

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```
display ds1 a13                                          Page   1 of   2
                         DS1 CIRCUIT PACK

              Location: 01A13                  Name: QSIG to 3745
              Bit Rate: 1.544            Line Coding: b8zs
      Line Compensation: 5              Framing Mode: esf
         Signaling Mode: isdn-pri
               Connect: pbx                Interface: peer-master
      TN-C7 Long Timers? n          Peer Protocol: Q-SIG
   Interworking Message: PROGress                  Side: a
   Interface Companding: mulaw                     CRC? n
             Idle Code: 11111111
                             DCP/Analog Bearer Capability: 3.1kHz



          Slip Detection? n          Near-end CSU Type: other
```

Ready   NUM

Signaling Group

Avaya Site Administration - [multivantage Emulation: 513]

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```
display signaling-group 13
                           SIGNALING GROUP

  Group Number: 13              Group Type: isdn-pri
                        Associated Signaling? y        Max number of NCA TSC: 5
                          Primary D-Channel: 01A1324     Max number of CA TSC: 23
                                                        Trunk Group for NCA TSC: 13
            Trunk Group for Channel Selection: 13    X-Mobility/Wireless Type: NONE
                 Supplementary Service Protocol: b




Command:
```

General
Advanced

Create New Template
Use Template
Generate Call Account
Report
Export Data
Import Data
Find and Replace
Start Emulation

Fault & Performance

Tasks   Tree

Ready   NUM

Trunk Group

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General
Advanced

Create New Template
Use Template
Generate Call Account
Report
Export Data
Import Data
Find and Replace
Start Emulation

```
display trunk-group 13                                    Page   1 of   10
                             TRUNK GROUP

Group Number: 13                    Group Type: isdn        CDR Reports: y
  Group Name: QSIG trunk to Jupiter       COR: 1      TN: 1       TAC: 613
    Direction: two-way          Outgoing Display? y     Carrier Medium: PRI/BRI
 Dial Access? y              Busy Threshold: 99          Night Service:
Queue Length: 0
Service Type: tie                       Auth Code? n          TestCall ITC: rest
                       Far End Test Line No:
TestCall BCC: 4
TRUNK PARAMETERS
          Codeset to Send Display: 0     Codeset to Send National IEs: 7
         Max Message Size to Send: 260   Charge Advice: during-on-request
      Supplementary Service Protocol: b   Digit Handling (in/out): enbloc/enbloc

          Trunk Hunt: ascend                       QSIG Value-Added? n
                                              Digital Loss Group: 13
Calling Number - Delete:      Insert:            Numbering Format: lev0-pvt
             Bit Rate: 1200     Synchronization: async    Duplex: full
 Disconnect Supervision - In? y  Out? y
 Answer Supervision Timeout: 0
```

Fault & Performance

Tasks   Tree

Delete the selection   NUM

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General
Advanced

Create New Template
Use Template
Generate Call Account
Report
Export Data
Import Data
Find and Replace
Start Emulation

Fault & Performance

Tasks   Tree

```
display trunk-group 13                                        Page   2 of  10
TRUNK FEATURES
            ACA Assignment? n              Measured: none       Wideband Support? n
                                      Internal Alert? n        Maintenance Tests? y
                                    Data Restriction? n      NCA-TSC Trunk Member: 1
                                        Send Name: y        Send Calling Number: y
              Used for DCS? n            Hop Dgt? n
     Suppress # Outpulsing? n     Numbering Format: private
Outgoing Channel ID Encoding: preferred      UUI IE Treatment: service-provider
          Charge Conversion: 1
             Decimal Point: none               Replace Restricted Numbers? y
            Currency Symbol:                  Replace Unavailable Numbers? n
               Charge Type: units                 Send Connected Number: y

               Send UUI IE? n
               Send UCID? n
     Send Codeset 6/7 LAI IE? y                     Ds1 Echo Cancellation? n

  Path Replacement with Retention? n
  Path Replacement Method: better-route
                    SBS? n  Network (Japan) Needs Connect Before Disconnect? y
```

Ready   NUM

The title bar: Avaya Site Administration - [multivantage Emulation: 513]

Menu: File Edit View System Action Tools Window Help

Toolbar with "multivantage" dropdown.

Command buttons: cancel refresh enter clear help go to page next page prev page

Left panel: General, Advanced, Create New Template, Use Template, Generate Call Account, Report, Export Data, Import Data, Find and Replace, Start Emulation, Fault & Performance, Tasks Tree

Main terminal content.
```
Avaya Site Administration - [multivantage Emulation: 513]
```

File Edit View System Action Tools Window Help

[multivantage]

cancel | refresh | enter | clear | help | go to page | next page | prev page

Left panel:

- General
- Advanced
- Create New Template
- Use Template
- Generate Call Account
- Report
- Export Data
- Import Data
- Find and Replace
- Start Emulation
- Fault & Performance
- Tasks Tree

Terminal screen:

```
display trunk-group 13                                    Page   4 of  10
                             TRUNK GROUP
                             Administered Members (min/max):   1/23
GROUP MEMBER ASSIGNMENTS          Total Administered Members:  23

       Port    Code Sfx Name       Night        Sig Grp
 1: 01A1301   TN464  F                             13
 2: 01A1302   TN464  F                             13
 3: 01A1303   TN464  F                             13
 4: 01A1304   TN464  F                             13
 5: 01A1305   TN464  F                             13
 6: 01A1306   TN464  F                             13
 7: 01A1307   TN464  F                             13
 8: 01A1308   TN464  F                             13
 9: 01A1309   TN464  F                             13
10: 01A1310   TN464  F                             13
11: 01A1311   TN464  F                             13
12: 01A1312   TN464  F                             13
13: 01A1313   TN464  F                             13
14: 01A1314   TN464  F                             13
15: 01A1315   TN464  F                             13
```

Ready   NUM

Uniform Dialing Plan

```
Avaya Site Administration - [multivantage Emulation: 513]                    _ □ ×
File  Edit  View  System  Action  Tools  Window  Help                        _ ⊟ ×

  [toolbar icons]    multivantage                    ▼ 

  cancel │ refresh │  enter  │  clear  │  help  │ go to page │ next page │ prev page

display uniform-dialplan 0                                    Page   1 of   2
                     UNIFORM DIAL PLAN TABLE
                                                      Percent Full: 0


Matching              Insert         Node    Matching              Insert         Node
Pattern   Len Del Digits Net Conv Num     Pattern   Len Del Digits Net Conv Num
10         4   0   998   aar  n                                              n
2005       4   0   777   aar  n                                              n
2012       4   0   333   aar  n                                              n
30         4   0   666   aar  n                                              n
31         4   0   310   aar  n                                              n
4          4   0   222   aar  n                                              n
4003       4   0   666   aar  n                                              n
4006       4   0   510   aar  n                                              n
5          4   0   555   aar  n                                              n
5050       4   0   777   aar  n                                              n
51         4   0   510   aar  n                                              n
52         4   0   520   aar  n                                              n
53         4   0   530   aar  n                                              n
54         4   0   999   aar  n                                              n
7          4   0   777   aar  n                                              n
                               n                                              n



                                                                          NUM
```

AAR Analysis

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display aar analysis 1   Page   1 of   2

AAR DIGIT ANALYSIS TABLE

Percent Full: 2

Dialed String	Total Min	Max	Route Pattern	Call Type	Node Num	ANI Reqd
111	7	7	111	aar		n
123	7	7	11	aar		n
2	7	7	254	aar		n
214	4	10	12	aar		n
222	7	7	104	lev0	2	n
223	7	7	12	aar		n
3	7	7	254	aar		n
310	7	7	15	aar		n
333	7	7	14	aar		n
444	7	7	104	lev0	2	n
555	7	7	105	lev0	3	n
777	7	7	13	aar		n
998	7	7	11	aar		n
999	7	7	98	aar		n
						n

Ready   NUM

Dialplan Analysis

Avaya Site Administration - [multivantage Emulation: 513]

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multivantage

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```
display dialplan analysis                                    Page   1 of   3
                       DIAL PLAN ANALYSIS TABLE
                                                 Percent Full:      2

      Dialed   Total  Call      Dialed  Total  Call      Dialed  Total  Call
      String   Length Type      String  Length Type      String  Length Type
        0        1    attd
       16        4    ext
       20        4    ext
       22        4    dac
        3        4    ext
        4        4    ext
        5        4    ext
        6        3    dac
        7        5    ext
        8        1    fac
        9        1    fac
        *        3    fac
```

Ready   NUM

Dialplan Parameter


```
display dialplan parameters
                        DIAL PLAN PARAMETERS

             Local Node Number: 1
               ETA Node Number:
            ETA Routing Pattern:
     UDP Extension Search Order: udp-table-first
   6-Digit Extension Display Format: xx.xx.xx
   7-Digit Extension Display Format: xxx-xxxx
```

Command:

Route Patterns

Avaya Site Administration - [multivantage Emulation: 513]

File   Edit   View   System   Action   Tools   Window   Help

multivantage

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```
display route-pattern 104
                  Pattern Number: 104 Pattern Name: QSIG - 13 First

   Grp FRL NPA Pfx Hop Toll No.   Inserted                          DCS/ IXC
   No          Mrk Lmt List Del   Digits                            QSIG
                            Dgts                                     Intw
1: 13   0                    3                                        n   user
2: 14   0                    3                                        n   user
3:                                                                    n   user
4:                                                                    n   user
5:                                                                    n   user
6:                                                                    n   user

     BCC VALUE  TSC CA-TSC    ITC BCIE Service/Feature BAND  No. Numbering LAR
     0 1 2 3 4 W     Request                                 Dgts Format
                                                      Subaddress
1: y y y y y n  y  as-needed bothept                        lev0-pvt  none
2: y y y y y n  y  as-needed bothept                        lev0-pvt  none
3: y y y y y n  n            rest                                     none
4: y y y y y n  n            rest                                     none
5: y y y y y n  n            rest                                     none
6: y y y y y n  n            rest                                     none


Command:
```

Ready   NUM

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Avaya Site Administration - [multivantage Emulation: 513]                    _ □ ×
File  Edit  View  System  Action  Tools  Window  Help                        _ 8 ×

 [icons]                                    [multivantage ▼]

 cancel    refresh    enter    clear    help    go to page  next page  prev page

display route-pattern 105
                    Pattern Number: 105 Pattern Name: QSIG - 14 First

     Grp FRL NPA Pfx Hop Toll No.   Inserted                    DCS/ IXC
     No          Mrk Lmt List Del   Digits                      QSIG
                              Dgts                               Intw
 1: 14   0                    3                                   n   user
 2: 13   0                    3                                   n   user
 3:                                                               n   user
 4:                                                               n   user
 5:                                                               n   user
 6:                                                               n   user


     BCC VALUE  TSC CA-TSC      ITC BCIE Service/Feature BAND  No. Numbering LAR
     0 1 2 3 4 W     Request                                   Dgts Format
                                                               Subaddress
 1: y y y y y n  y  as-needed bothept                          lev0-pvt  none
 2: y y y y y n  y  as-needed bothept                          lev0-pvt  none
 3: y y y y y n  n            rest                                       none
 4: y y y y y n  n            rest                                       none
 5: y y y y y n  n            rest                                       none
 6: y y y y y n  n            rest                                       none


Command:




Ready                                                               NUM
```

ISDN Private Numbering Plan

```
Avaya Site Administration - [multivantage Emulation: 513]
File  Edit  View  System  Action  Tools  Window  Help

                                        multivantage

cancel   refresh   enter   clear      help   go to page  next page  prev page

display isdn private-numbering

                    ISDN NUMBERING - PRIVATE FORMAT

            Network Level: 0            PBX Identifier: 111
            Level 2 Code:               Deleted Digits: 0
            Level 1 Code:




Command:




Ready                                                          NUM
```

DS1 Circuit Pack to PSTN

```
Avaya Site Administration - [multivantage Emulation: 513]
File  Edit  View  System  Action  Tools  Window  Help

                                                    multivantage

cancel | refresh | enter | clear |  help  | go to page | next page | prev page

display ds1 a14                                              Page   1 of   2
                            DS1 CIRCUIT PACK

                   Location: 01A14                    Name: To PSTN
                   Bit Rate: 1.544            Line Coding: ami-zcs
           Line Compensation: 1              Framing Mode: esf
              Signaling Mode: isdn-pri
                    Connect: network
           TN-C7 Long Timers? n           Country Protocol: 1
        Interworking Message: PROGress    Protocol Version: b
        Interface Companding: mulaw                    CRC? n
                  Idle Code: 11111111
                            DCP/Analog Bearer Capability: 3.1kHz



              Slip Detection? n             Near-end CSU Type: other
```

General
Advanced

Create New Template
Use Template
Generate Call Account
Report
Export Data
Import Data
Find and Replace
Start Emulation

Fault & Performance
Tasks | Tree

Severity | Date/Time | System | Description

History / Schedule / Connection Status /

Ready   NUM

Signalling Group to PSTN

```
Avaya Site Administration - [multivantage Emulation: 513]
File  Edit  View  System  Action  Tools  Window  Help

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   General
   Advanced        cancel | refresh |  enter  |  clear  |   help  | go to page | next page | prev page

 Create New Template     display signaling-group 14                               Page   1 of   5
                                             SIGNALING GROUP
 Use Template
                         Group Number: 14              Group Type: isdn-pri
 Generate Call Account                    Associated Signaling? y          Max number of NCA TSC: 0
                                          Primary D-Channel: 01A1424        Max number of CA TSC: 0
 Report                                                                     Trunk Group for NCA TSC:
                              Trunk Group for Channel Selection: 14       X-Mobility/Wireless Type: NONE
 Export Data                        Supplementary Service Protocol: a

 Import Data

 Find and Replace

 Start Emulation




 Fault & Performance
  Tasks    Tree

 Severity     | Date/Time    | System    | Description


 History  Schedule  Connection Status
Ready                                                                                            NUM
```

Trunk Group to PSTN

Avaya Site Administration - [multivantage Emulation: 513]

File Edit View System Action Tools Window Help

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General
Advanced

Create New Template
Use Template
Generate Call Account
Report
Export Data
Import Data
Find and Replace
Start Emulation

Fault & Performance

Tasks Tree

```
change trunk-group 14                                      Page   1 of   10
                              TRUNK GROUP

Group Number: 14                 Group Type: isdn          CDR Reports: y
  Group Name: mv1.2 TIE TO V10             COR: 1     TN: 1       TAC: 614
   Direction: two-way        Outgoing Display? y      Carrier Medium: PRI/BRI
 Dial Access? y              Busy Threshold: 99        Night Service: _____
Queue Length: 0
Service Type: public-ntwrk          Auth Code? n           TestCall ITC: rest
                        Far End Test Line No: _____
TestCall BCC: 4
TRUNK PARAMETERS
          Codeset to Send Display: 0   Codeset to Send National IEs: 7
          Max Message Size to Send: 260   Charge Advice: during-on-request
       Supplementary Service Protocol: a   Digit Handling (in/out): enbloc/enbloc

          Trunk Hunt: ascend              QSIG Value-Added? n
                                      Digital Loss Group: 13
Calling Number - Delete: ___  Insert: _____  Numbering Format: _____
          Bit Rate: 1200        Synchronization: async    Duplex: full
Disconnect Supervision - In? y  Out? n
Answer Supervision Timeout: 0
```

Severity | Date/Time | System | Description

History Schedule Connection Status

Ready   NUM

New Voice System

General
Advanced

- Create New Template
- Use Template
- Generate Call Account
- Report
- Export Data
- Import Data
- Find and Replace
- Start Emulation

Fault & Performance

Tasks   Tree

multivantage

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```
change trunk-group 14                                    Page   2 of  10
TRUNK FEATURES
            ACA Assignment? n          Measured: none      Wideband Support? n
                                                          Maintenance Tests? y
                                  Data Restriction? n   NCA-TSC Trunk Member: __
                                      Send Name: y     Send Calling Number: y
                Used for DCS? n
        Suppress # Outpulsing? n   Numbering Format: public
Outgoing Channel ID Encoding: preferred    UUI IE Treatment: service-provider
            Charge Conversion: 1
               Decimal Point: none          Replace Restricted Numbers? n
              Currency Symbol: ___         Replace Unavailable Numbers? n
                 Charge Type: units          Send Connected Number: y

                 Send UUI IE? n
                 Send UCID? n
      Send Codeset 6/7 LAI IE? y                   Ds1 Echo Cancellation? n

                                      US NI Delayed Calling Name Update? n

                 SBS? n  Network (Japan) Needs Connect Before Disconnect? n
```

Severity | Date/Time | System | Description

History   Schedule   Connection Status

Create a new Voice System for administration

NUM

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```
cancel   refresh   enter   clear   help   go to page   next page   prev page

change trunk-group 14                                    Page   3 of  10
                    INCOMING CALL HANDLING TREATMENT
  Service/       Called    Called       Del  Insert              Per Call  Night
  Feature        Len       Number                                CPN/BN    Serv
  public-ntwrk    10   408527             6                      _____   _____
```

General
Advanced

Create New Template
Use Template
Generate Call Account
Report
Export Data
Import Data
Find and Replace
Start Emulation

Fault & Performance
Tasks   Tree

Severity	Date/Time	System	Description	

History   Schedule   Connection Status

Ready   NUM

File Edit View System Action Tools Window Help

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cancel   refresh   enter   clear   help   go to page next page prev page

```
change trunk-group 14                                    Page   4 of  10
                            TRUNK GROUP
                        Administered Members (min/max):   0/0
GROUP MEMBER ASSIGNMENTS     Total Administered Members:   0

         Port    Code Sfx Name       Night        Sig Grp
    1:  01a1401  TN464  F  _____   _____       14
    2:  01a1402  TN464  F  _____   _____       14
    3:  01a1403  TN464  F  _____   _____       14
    4:  01a1404  TN464  F  _____   _____       14
    5:  01a1405  TN464  F  _____   _____       14
    6:  _____             _____   _____       ___
    7:  _____             _____   _____       ___
    8:  _____             _____   _____       ___
    9:  _____             _____   _____       ___
   10:  _____             _____   _____       ___
   11:  _____             _____   _____       ___
   12:  _____             _____   _____       ___
   13:  _____             _____   _____       ___
   14:  _____             _____   _____       ___
   15:  _____             _____   _____       ___
```

General
Advanced

Create New Template
Use Template
Generate Call Account
Report
Export Data
Import Data
Find and Replace
Start Emulation

Fault & Performance

Tasks   Tree

Severity	Date/Time	System	Description	

History   Schedule   Connection Status

Ready   NUM

ARS ANALYSIS to route 1650 dialed string

Route Pattern Configuration

```
Avaya Site Administration - [multivantage Emulation: 513]
File  Edit  View  System  Action  Tools  Window  Help

                                          multivantage

car New Messaging System ter    clear    help    go to page  next page  prev page

change route-pattern 111                              Page    1 of    1
                    Pattern Number: 111 Pattern Name: _____

   Grp FRL NPA Pfx Hop Toll No.  Inserted                    DCS/ IXC
   No          Mrk Lmt List Del  Digits                      QSIG
                            Dgts                             Intw
1: 14   0   408  _   _    __  __  _____  n   user
2: __   _   ___  _   _    __  __  _____  n   user
3: __   _   ___  _   _    __  __  _____  n   user
4: __   _   ___  _   _    __  __  _____  n   user
5: __   _   ___  _   _    __  __  _____  n   user
6: __   _   ___  _   _    __  __  _____  n   user

   BCC VALUE  TSC CA-TSC    ITC BCIE Service/Feature BAND  No. Numbering LAR
   0 1 2 3 4 W     Request                                Dgts Format
                                                    Subaddress
1: y y y y y n   n           rest    _____  _  nat1-pub  none
2: y y y y y n   n           rest    _____  _  _____  none
3: y y y y y n   n           rest    _____  _  _____  none
4: y y y y y n   n           rest    _____  _  _____  none
5: y y y y y n   n           rest    _____  _  _____  none
6: y y y y y n   n           rest    _____  _  _____  none

Create a new Messaging System for administration                      NUM
```

Feature Access Configuration

```
Avaya Site Administration - [multivantage Emulation: 513]                                    _ |&|X|
File   Edit   View   System   Action   Tools   Window   Help                                 _ |&|X|

[toolbar icons]                    [ multivantage            ▼ ] [icons]

  cancel    refresh    enter    clear        help    go to page  next page  prev page

display feature-access-codes                          Page    1 of    7
                          FEATURE ACCESS CODE (FAC)
         Abbreviated Dialing List1 Access Code:
         Abbreviated Dialing List2 Access Code:
         Abbreviated Dialing List3 Access Code:
Abbreviated Dial - Prgm Group List Access Code:
                   Announcement Access Code:
                   Answer Back Access Code:
      Auto Alternate Routing (AAR) Access Code: 8
      Auto Route Selection (ARS) - Access Code 1: 9       Access Code 2:
                  Automatic Callback Activation:          Deactivation:
Call Forwarding Activation Busy/DA: *66     All: *67    Deactivation: *69
                     Call Park Access Code:
                   Call Pickup Access Code:
CAS Remote Hold/Answer Hold-Unhold Access Code:
              CDR Account Code Access Code:
                   Change COR Access Code:
              Change Coverage Access Code:

              Data Origination Access Code:
                  Data Privacy Access Code:
            Directed Call Pickup Access Code:




Ready                                                                                    NUM
```

Configuring Cisco Unified CallManager

CM4.1-T1 Gateway Configuration

Cisco CallManager 4.1 Administration - Gateway Configuration - Microsoft Internet Explorer

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Address https://jupiter/CCMAdmin/gatewayconfig.asp?pkid={4C8B80D4-22F3-40C1-B7E5-41E9252241C6}&Action=Update&Type=52&iMGCP={DE17C386-7FF0-4B42-80DC-64F9F7838350}   ▼ Go   Links

Multilevel Precendence and Preemption (MLPP) Information

MLPP Domain (e.g., "0000FF")

MLPP Indication   Off   ▼

MLPP Preemption   Disabled   ▼

Interface Information

PRI Protocol Type*   PRI QSIG T1   ▼

Protocol Side*   User   ▼

Channel Selection Order*   Bottom Up   ▼

Channel IE Type*   Timeslot Number   ▼

PCM Type*   μ-law   ▼

Delay for first restart (1/8 sec ticks) 32

Delay between restarts (1/8 sec ticks)   4

☐ Inhibit restarts at PRI initialization

☐ Enable status poll

Call Routing Information
Inbound Calls

Significant Digits*   All   ▼

Calling Search Space   Incoming Trunk   ▼

AAR Calling Search Space   < None >   ▼

Prefix DN

Outbound Calls

Calling Line ID Presentation*   Default   ▼

Calling Party Selection*   Originator   ▼

Called party IE number type

Done   🔒 Local intranet

Cisco CallManager 4.1 Administration - Gateway Configuration - Microsoft Internet Explorer

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Address ⬧ https://jupiter/CCMAdmin/gatewayconfig.asp?pkid={4C8B80D4-22F3-40C1-B7E5-41E9252241C6}&Action=Update&Type=52&iMGCP={DE17C386-7FF0-4B42-80DC-64F9F7838350}   ▾ | ⬧Go   Links

Called party IE number type unknown*	National ▾
Calling party IE number type unknown*	National ▾
Called Numbering Plan*	Private ▾
Calling Numbering Plan*	Private ▾
Number of digits to strip*	0 ▾
Caller ID DN	
SMDI Base Port*	0

PRI Protocol Type Specific Information

☐ Display IE Delivery

☐ Redirecting Number IE Delivery – Outbound

☐ Redirecting Number IE Delivery – Inbound

☑ Send Extra Leading Character In DisplayIE***

☐ Setup non-ISDN Progress Indicator IE Enable****

☐ MCDN Channel Number Extension Bit Set to Zero**

☐ Send Calling Name In Facility IE

☐ Interface Identifier Present**

Interface Identifier Value**	0
Connected Line ID Presentation (QSIG Inbound Call)*	Default ▾

UUIE Configuration

☐ Passing Precedence Level Through UUIE

Security Access Level	2

Done   🔒 🖳Local intranet

MCDN Channel Number Extension Bit Set to Zero

☐ Send Calling Name In Facility IE

☐ Interface Identifier Present**

Interface Identifier Value**   [0]

Connected Line ID Presentation
(QSIG Inbound Call)*   [Default ▼]

UUIE Configuration

☐ Passing Precedence Level Through UUIE

Security Access Level   [2]

Product Specific Configuration   [i]

Line Coding*   [B8ZS ▼]

Framing*   [ESF ▼]

Clock*   [External ▼]

Input Gain (-6..14 db)*   [0]

Output Attenuation (-6..14 db)*   [0]

Echo Cancellation Enable*   [Enable ▼]

Echo Cancellation Coverage (ms)*   [Default ▼]

* indicates required item
** applicable to DMS-100 protocol only
*** applicable to DMS-100 protocol and DMS-250 protocol only
**** may be required to force ringback from some PBXs

Back to MGCP Configuration
Back to Find/List Gateways

Partitions Configuration

File Edit View Favorites Tools Help

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Address ☐ https://jupiter/CCMAdmin/routepartitionconfig.asp?iRoutePartition={4F597C74-059B-4FCD-A1AF-7D0C4AF0FFD1} ▼ ⌐Go Links

System   Route Plan   Service   Feature   Device   User   Application   Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Partition Configuration

Add a New Partition
Back to Find/List Partitions
Dependency Records

Partition: Incoming Trunk

Status: Ready

| Update | Delete | Restart Devices |

Partition Name*   Incoming Trunk

Description   Incoming Trunk

Time Schedule   < None > ▼

Time Zone   ⦿ Originating Device

             ○ Specific Time Zone   (GMT) Monrovia, Casablanca   ▼

* indicates required item

javascript:toggleMenuState(6);   🔒 ☐ Local intranet

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Address ⬜ https://jupiter/CCMAdmin/routepartitionconfig.asp?iRoutePartition={FD985216-6A08-49A3-9721-71FEE5F26D93}   ▾ ∂ Go Links

System   Route Plan   Service   Feature   Device   User   Application   Help

Cisco CallManager Administration
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CISCO SYSTEMS

Partition Configuration

Add a New Partition
Back to Find/List Partitions
Dependency Records

Partition: phones

Status: Ready

| Update | Delete | Restart Devices |

Partition Name*	phones
Description	phones
Time Schedule	< None > ▾
Time Zone	◉ Originating Device
	○ Specific Time Zone (GMT) Monrovia, Casablanca ▾

* indicates required item

Applet started   🔒 🖳 Local intranet

Calling Search Space

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Back to Cisco CallManager 4.1 Administration - Find and List Calling Search S...E-F6B0-40B4-8829-50A32C58395B}

System   Route Plan   Service   Feature   Device   User   Application   Help

Cisco CallManager Administration
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CISCO SYSTEMS

Calling Search Space Configuration

Add New Calling Search Space
Back to Find/List Calling Search Spaces
Dependency Records

Calling Search Space: Incoming Trunk (in use)
Status: Ready

[Copy]   [Update]   [Delete]

Calling Search Space Information

Calling Search Space Name*   `Incoming Trunk`

Description   `                    `

Route Partitions for this Calling Search Space

Find Partitions containing   `                    `   [Find]

Available Partitions   `phones`

▼▲

Selected Partitions*
(ordered by highest priority)   `Incoming Trunk`   ▲▼

* indicates required item

javascript:toggleMenuState(2);   🔒 ⧉ Local intranet

Cisco CallManager 4.1 Administration - Calling Search Space Configuration - Microsoft Internet Explorer

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Address   ⧉ https://jupiter/CCMAdmin/callingsearchspace.asp?pkid={F6781ED4-EEDD-4840-A95C-45D08BEE43FA}   ▼   ⌲Go   Links

System   Route Plan   Service   Feature   Device   User   Application   Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Calling Search Space Configuration

Add New Calling Search Space
Back to Find/List Calling Search Spaces
Dependency Records

Calling Search Space: PathReplacementCCS

Status: Ready

[Copy]   [Update]   [Delete]

Calling Search Space Information

Calling Search Space Name*	PathReplacementCCS
Description	

Route Partitions for this Calling Search Space

Find Partitions containing   [   ]   [Find]

Available Partitions   [   ]

▼▲

Selected Partitions*
(ordered by highest priority)   phones
Incoming Trunk   ▲▼

* indicates required item

Done   🔒 ⧉ Local intranet

Cisco CallManager 4.1 Administration - Calling Search Space Configuration - Microsoft Internet Explorer

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Address ⬡ https://jupiter/CCMAdmin/callingsearchspace.asp?pkid={B35CD303-4C87-4656-930A-720BC25CB93C}   ▾ ⬀ Go   Links

System   Route Plan   Service   Feature   Device   User   Application   Help

Cisco CallManager Administration
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CISCO SYSTEMS

Calling Search Space Configuration

Add New Calling Search Space
Back to Find/List Calling Search Spaces
Dependency Records

Calling Search Space: phones (in use)

Status: Ready

[Copy] [Update] [Delete]

Calling Search Space Information

Calling Search Space Name* [phones]

Description [   ]

Route Partitions for this Calling Search Space

Find Partitions containing [   ] [Find]

Available Partitions [Incoming Trunk   ]

▼▲

Selected Partitions*
(ordered by highest priority) [phones   ] ▲▼

* indicates required item

⬡ 🔒 ⬕ Local intranet

Enbloc Route Pattern Configuration

Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

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Address   https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={709094B4-277D-470B-B624-00E96105CFD0}

System   Route Plan   Service   Feature   Device   User   Application   Help

Cisco CallManager Administration
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CISCO SYSTEMS

Route Pattern Configuration

Add a New Route Pattern
Back to Find/List Route Patterns

Route Pattern: 111.2XXX

Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

[Copy]   [Update]   [Delete]

Pattern Definition

Route Pattern*	111.2XXX
Partition	< None >
Description	
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route List*	S3/DS1-0@3745_T1 (Edit)
Route Option	⦿ Route this pattern
	○ Block this pattern — Not Selected —
Call Classification*	OffNet ☐ Allow Device Override
☑ Provide Outside Dial Tone	☐ Allow Overlap Sending ☐ Urgent Priority
☐ Require Forced Authorization Code	
Authorization Level	0
☐ Require Client Matter Code	

Done   🔒 Local intranet

File   Edit   View   Favorites   Tools   Help

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Address   https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={709094B4-277D-470B-B624-00E96105CFD0}   ▼   Go   Links

Call Classification*   OffNet   ▼   ☐   Allow Device Override

☑   Provide Outside Dial Tone   ☐   Allow Overlap Sending   ☐   Urgent Priority

☐   Require Forced Authorization Code

Authorization Level   0

☐   Require Client Matter Code

Calling Party Transformations

☐   Use Calling Party's External Phone Number Mask

Calling Party Transform Mask   [   ]

Prefix Digits (Outgoing Calls)   [   ]

Calling Line ID Presentation   Default   ▼

Calling Name Presentation   Default   ▼

Connected Party Transformations

Connected Line ID Presentation   Default   ▼

Connected Name Presentation   Default   ▼

Called Party Transformations

Discard Digits   PreDot   ▼

Called Party Transform Mask   [   ]

Prefix Digits (Outgoing Calls)   [   ]

ISDN Network-Specific Facilities Information Element

Carrier Identification Code   [   ]

Network Service Protocol   — Not Selected —   ▼

Network Service   Service Parameter Name   Service Parameter Value

— Not Selected —   ▼   < Not Exist >   [   ]

* indicates required item.

Done   🔒 Local intranet

Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

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Address ⊜ https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={D9A27B6D-2688-4347-9D5C-6AC68CB7BD39}   ▼   ⌐Go   Links

System   Route Plan   Service   Feature   Device   User   Application   Help

Cisco CallManager Administration
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CISCO SYSTEMS

Route Pattern Configuration

Add a New Route Pattern
Back to Find/List Route Patterns

Route Pattern: 555.5XXX

Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

[Copy] [Update] [Delete]

Pattern Definition

Route Pattern*	555.5XXX
Partition	< None >
Description	
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route List*	S3/DS1-1@3745_T1 (Edit)
Route Option	⦿ Route this pattern
	○ Block this pattern — Not Selected —
Call Classification*	OffNet ☐ Allow Device Override
☑ Provide Outside Dial Tone	☐ Allow Overlap Sending ☐ Urgent Priority
☐ Require Forced Authorization Code	
Authorization Level	0
☐ Require Client Matter Code	

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Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

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Address ⬤ https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={D9A27B6D-2688-4347-9D5C-6AC68CB7BD39}   ▼   ⬀Go   Links

Call Classification*	OffNet ▼	☐ Allow Device Override
☑ Provide Outside Dial Tone	☐ Allow Overlap Sending	☐ Urgent Priority
☐ Require Forced Authorization Code		
Authorization Level	0	
☐ Require Client Matter Code		

Calling Party Transformations

☐   Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default ▼
Calling Name Presentation	Default ▼

Connected Party Transformations

Connected Line ID Presentation	Default ▼
Connected Name Presentation	Default ▼

Called Party Transformations

Discard Digits	PreDot ▼
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	

ISDN Network-Specific Facilities Information Element

Carrier Identification Code		
Network Service Protocol	— Not Selected — ▼	
Network Service	Service Parameter Name	Service Parameter Value
— Not Selected — ▼	< Not Exist >	

* indicates required item.

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Overlap Sending Route Pattern Configuration

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Address https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={00685693-DAF3-458F-BA28-D5B0C9FCBB21} Go Links

Call Classification*	OffNet ▼		☐ Allow Device Override
☐ Provide Outside Dial Tone	☑ Allow Overlap Sending		☐ Urgent Priority
▣ Require Forced Authorization Code			
Authorization Level	0		
▣ Require Client Matter Code			

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default ▼
Calling Name Presentation	Default ▼

Connected Party Transformations

Connected Line ID Presentation	Default ▼
Connected Name Presentation	Default ▼

Called Party Transformations

Discard Digits	PreDot ▼
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	

ISDN Network-Specific Facilities Information Element

Carrier Identification Code	
Network Service Protocol	— Not Selected — ▼

Network Service	Service Parameter Name	Service Parameter Value
— Not Selected — ▼	< Not Exist >	

* indicates required item.

Done   🔒 Local intranet

PSTN Route Pattern Configuration

Cisco CallManager 4.1 Administration - Route Pattern Configuration - Microsoft Internet Explorer

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CISCO SYSTEMS

Route Pattern Configuration

Add a New Route Pattern
Back to Find/List Route Patterns

Route Pattern: 91650XXXXXXX

Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

[Copy] [Update] [Delete]

Pattern Definition

Route Pattern*	91650XXXXXX
Partition	< None >
Description	
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route List*	S3/DS1-0@3745_T1 (Edit)
Route Option	⦿ Route this pattern
	○ Block this pattern — Not Selected —
Call Classification*	OffNet □ Allow Device Override

☑ Provide Outside Dial Tone   □ Allow Overlap Sending   □ Urgent Priority

□ Require Forced Authorization Code

    Authorization Level `0`

□ Require Client Matter Code

Done   🔒 Local intranet

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Address ▨ https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={129EF707-D8E3-4C20-8DD8-6EC7C12A0BF0} | ▾ ⌅Go | Links

Call Classification*	OffNet ▾	☐ Allow Device Override
☑ Provide Outside Dial Tone	☐ Allow Overlap Sending	☐ Urgent Priority
☐ Require Forced Authorization Code		
Authorization Level	0	
☐ Require Client Matter Code		

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	408527
Calling Line ID Presentation	Default ▾
Calling Name Presentation	Default ▾

Connected Party Transformations

Connected Line ID Presentation	Default ▾
Connected Name Presentation	Default ▾

Called Party Transformations

Discard Digits	< None > ▾
Called Party Transform Mask	
Prefix Digits (Outgoing Calls)	

ISDN Network-Specific Facilities Information Element

Carrier Identification Code		
Network Service Protocol	— Not Selected — ▾	
Network Service	Service Parameter Name	Service Parameter Value
— Not Selected — ▾	< Not Exist >	

* indicates required item.

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Translation Pattern for Incoming Calls

Cisco CallManager 4.1 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

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Address ⊞ https://jupiter/CCMAdmin/translationconfig.asp?pkid={6BB55024-B308-4893-962B-A910B5440A58}   ▼ ⊘Go Links

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Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Translation Pattern Configuration

Add a New Translation Pattern
Back to Find/List Translation Patterns

Translation Pattern: 4XXX

Status: Ready

[Copy]   [Update]   [Delete]

Pattern Definition

Translation Pattern	4XXX
Partition	Incoming Trunk ▼
Description	
Numbering Plan*	North American Numbering Plan ▼
Route Filter	< None > ▼
Calling Search Space	phones ▼
MLPP Precedence	Default ▼
Route Option	⦿ Route this pattern
	○ Block this pattern — Not Selected — ▼

☑ Provide Outside Dial Tone   ☑ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

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Address ⊜ https://jupiter/CCMAdmin/translationconfig.asp?pkid={6BB55024-B308-4893-962B-A910B5440A58}   ▼ ⏣Go Links

Numbering Plan*	North American Numbering Plan ▼
Route Filter	< None > ▼
Calling Search Space	phones ▼
MLPP Precedence	Default ▼
Route Option	⊙ Route this pattern
	○ Block this pattern — Not Selected — ▼

☑ Provide Outside Dial Tone   ☑ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	[ ]
Prefix Digits (Outgoing Calls)	[ ]
Calling Line ID Presentation	Default ▼
Calling Name Presentation	Default ▼

Connected Party Transformations

Connected Line ID Presentation	Default ▼
Connected Name Presentation	Default ▼

Called Party Transformations

Discard Digits	< None > ▼
Called Party Transform Mask	[ ]
Prefix Digits (Outgoing Calls)	[ ]

* indicates required item.

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CLIR and CNIR Route Pattern Configuration

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Address https://jupiter/CCMAdmin/routepatternconfig.asp?pkid={9C28A601-B88E-4545-911D-31ABEF210DD8}

Route Pattern: 2XXX

Status: Ready
Note: Any update to this Route Pattern automatically resets the associated gateway or Route List

| Copy | Update | Delete |

Pattern Definition

Route Pattern*	2XXX
Partition	< None >
Description	
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route List*	S3/DS1-0@3745_T1 (Edit)
Route Option	⦿ Route this pattern
	○ Block this pattern — Not Selected —
Call Classification*	OffNet ☐ Allow Device Override

☑ Provide Outside Dial Tone   ☐ Allow Overlap Sending   ☐ Urgent Priority

☐ Require Forced Authorization Code

   Authorization Level   0

☐ Require Client Matter Code

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Restricted
Calling Name Presentation	Restricted

Connected Party Transformations

Done   🔒 🖳 Local intranet

COLR and CONR Translation Pattern Configuration

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Translation Pattern: 4XXX
Status: Ready

[Copy] [Update] [Delete]

Pattern Definition

Translation Pattern	4XXX
Partition	Incoming Trunk
Description	
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
Calling Search Space	phones
MLPP Precedence	Default
Route Option	⦿ Route this pattern
	○ Block this pattern — Not Selected —

☑ Provide Outside Dial Tone   ☑ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default
Calling Name Presentation	Default

Connected Party Transformations

Connected Line ID Presentation	Restricted
Connected Name Presentation	Restricted

Called Party Transformations

Done   Local intranet

MWI lamp On/Off Configuration

MWI Deactivate Translation Pattern Configuration

Cisco CallManager 4.1 Administration - Translation Pattern Configuration - Microsoft Internet Explorer

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Address   https://jupiter/CCMAdmin/translationconfig.asp?pkid={39146D02-311D-4C31-8FC5-48C4A2D8BD0A}   ▼   ⬀Go   Links

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Cisco CallManager Administration
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CISCO SYSTEMS

Translation Pattern Configuration

Add a New Translation Pattern
Back to Find/List Translation Patterns

Translation Pattern: 7700

Status: Ready

[Copy]   [Update]   [Delete]

Pattern Definition

Translation Pattern	7700
Partition	phones ▼
Description	
Numbering Plan*	North American Numbering Plan ▼
Route Filter	< None > ▼
Calling Search Space	phones ▼
MLPP Precedence	Default ▼
Route Option	⦿ Route this pattern
	○ Block this pattern — Not Selected — ▼

☑   Provide Outside Dial Tone   ☑   Urgent Priority

Calling Party Transformations

☐   Use Calling Party's External Phone Number Mask

Done   🔒   Local intranet

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Address | https://jupiter/CCMAdmin/translationconfig.asp?pkid={39146D02-311D-4C31-8FC5-48C4A2D8BD0A} ▾ ⬚Go Links

Numbering Plan*	North American Numbering Plan ▾
Route Filter	< None > ▾
Calling Search Space	phones ▾
MLPP Precedence	Default ▾
Route Option	⦿ Route this pattern
	○ Block this pattern — Not Selected — ▾

☑   Provide Outside Dial Tone   ☑   Urgent Priority

Calling Party Transformations

☐   Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	2001
Prefix Digits (Outgoing Calls)	
Calling Line ID Presentation	Default ▾
Calling Name Presentation	Default ▾

Connected Party Transformations

Connected Line ID Presentation	Default ▾
Connected Name Presentation	Default ▾

Called Party Transformations

Discard Digits	< None > ▾
Called Party Transform Mask	7000
Prefix Digits (Outgoing Calls)	

* indicates required item.

Done   🔒 ⊞ Local intranet

MWI Activate Translation Pattern Configuration

CallBack Service Parameters

Softkey Template Comfiguration

CallBack Softkey Template Configuration

Path Replacement Service Parameters

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Address   https://jupiter/CCMAdmin/serviceparameters.asp?crNodeName=jupiter&crNodeID={445CA45F-51FA-4169-B4BB-37C889F09CDB}&crServiceType=0 | Go | Links

Parameter Name	Parameter Value	Suggested Value
Path Replacement Enabled*	True	False
Path Replacement on Tromboned Calls*	True	True
Start Path Replacement Minimum Delay Time (sec)*	0	0
Start Path Replacement Maximum Delay Time (sec)*	0	0
Path Replacement T1 Timer (sec)*	30	30
Path Replacement T2 Timer (sec)*	15	15
Path Replacement PINX Id		
Path Replacement Calling Search Space	PathReplacementCCS	

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Forward by Reroute Service Parameter

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Address ⬛ https://jupiter/CCMAdmin/serviceparameters.asp?crNodeName=jupiter&crNodeID={445CA45F-51FA-4169-B4BB-37C889F09CDB}&crServiceType=0

Clusterwide Parameters (Feature - Forward)

Parameter Name	Parameter Value	Suggested Value
Forward Maximum Hop Count*	12	12
Forward No Answer Timer (sec)*	12	12
Max Forward Hops to DN*	12	12
Retain Forward Information*	False	False
Forward By Reroute Enabled*	True	False
Forward By Reroute T1 Timer (sec)*	15	10

Some parameters in this group are hidden, click on Advanced button to see hidden parameters

Clusterwide Parameters (Feature - Path Replacement)

Parameter Name	Parameter Value	Suggested Value
Path Replacement Enabled*	True	False
Path Replacement on Tromboned Calls*	True	True
Start Path Replacement	0	0

IP Phone Configuration

Cisco CallManager 4.1 Administration - Phone Configuration - Microsoft Internet Explorer

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System   Route Plan   Service   Feature   Device   User   Application   Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Phone Configuration

Add a new phone
Add/Update Speed Dials
Subscribe/Unsubscribe Services
Dependency Records
Back to Find/List Phones

Directory Numbers

Base Phone

Line 1 - 4007 in phones

Line 2 - 2224007 in phones

Phone: SEP003094C28282 (Auto 4007)
Registration: Registered with Cisco CallManager jupiter
IP Address: 172.20.33.112

Status: Ready

| Copy | Update | Delete | | Reset Phone |

Phone Configuration (Model = Cisco 7960)

Device Information

MAC Address*	003094C28282
Description	Auto 4007
Owner User ID	(Select User ID)
Device Pool*	Default ▼ (View details)
Calling Search Space	< None > ▼
AAR Calling Search Space	< None > ▼
Media Resource Group List	< None > ▼
User Hold Audio Source	< None > ▼
Network Hold Audio Source	< None > ▼
Location	< None > ▼

Done   Local intranet

User Locale	< None > ▾
Network Locale	< None > ▾
Device Security Mode	Use System Default ▾
Signal Packet Capture Mode	None ▾
Packet Capture Duration	0
Built In Bridge	Default ▾
Privacy	Default ▾

☑ Retry Video Call as Audio

☐ Ignore Presentation Indicators (internal calls only)

Phone Button Template Information

Phone Button Template*	Standard 7960 ▾ (View button list)

Softkey Template Information

Softkey Template	Standard User CallBack ▾

Expansion Module Information

Module 1	< None > ▾
Module 2	< None > ▾

Firmware Load Information (leave blank to use default)

Phone Load Name	
Module 1 Load Name	(Module 1 selection required)
Module 2 Load Name	(Module 2 selection required)

Cisco IP Phone - External Data Locations (leave blank to use default)

Information	
Directory	

🔗 Done   🔒 🖳 Local intranet

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Messages	
Services	
Authentication Server	
Proxy Server	
Idle	
Idle Timer (seconds)	

Extension Mobility (Device Profile) Information

☐ Enable Extension Mobility Feature

Log Out Profile	— Not Selected —
Log In User ID	< None >
Log In Time	< None >
Log Out Time	< None >

Certification Authority Proxy Function (CAPF) Information

Certificate Operation	No Pending Operation
Authentication Mode	By Authentication String
Authentication String	Generate String
Key Size (bits)	1024
Operation Completes By**	[ ] : [ ] : [ ] : [ ] (YYYY : MM : DD : HH)
Certificate Operation Status : None	

Multilevel Precendence and Preemption (MLPP) Information

MLPP Domain	[ ] (e.g., "0000FF")
MLPP Indication	Default
MLPP Preemption	Default

Done   Local intranet

Cisco CallManager 4.1 Administration - Phone Configuration - Microsoft Internet Explorer

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Address 🔗 https://jupiter/CCMAdmin/phoneconfig.asp?pkid={41047EC1-DC38-483C-B958-FDE1F7362ADF}   ▾ ⟳Go   Links

Key Size (bits)   1024   ▾

Operation Completes By**   [   ] : [ ] : [ ] : [ ]   (YYYY : MM : DD : HH)

Certificate Operation Status : None

Multilevel Precendence and Preemption (MLPP) Information

MLPP Domain   [   ]   (e.g., "0000FF")

MLPP Indication   Default   ▾

MLPP Preemption   Default   ▾

Product Specific Configuration   ℹ️

Disable Speakerphone   ☐

Disable Speakerphone and Headset   ☐

Forwarding Delay*   Disabled   ▾

PC Port*   Enabled   ▾

Settings Access*   Enabled   ▾

Gratuitous ARP*   Enabled   ▾

PC Voice VLAN Access*   Enabled   ▾

Video Capabilities*   Disabled   ▾

Auto Line Select*   Disabled   ▾

Web Access*   Enabled   ▾

* indicates a required item.
** Indicates time on Publisher.

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Directory Number Configuration

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Address https://jupiter/CCMAdmin/directorynumber.asp?NumPlanMapID={14CAD3B6-6069-4A97-851E-FD2FE0177F7C}   ▾   Go   Links

No Answer Ring Duration |_____| (seconds)

Line Settings for all Devices

Alerting Name   [Aries ALerting   ]

Line Settings for this Device

Display (Internal Caller ID)   [Aries Connected   ]

Line Text Label   [   ]

External Phone Number Mask   [   ]

Message Waiting Lamp Policy   [Use System Policy ▾]

Ring Setting (Phone Idle)   [Use System Default ▾]

Ring Setting (Phone Active)**   [Use System Default ▾]

Multiple Call / Call Waiting Settings

Maximum Number of Calls*   [4   ] (1 - 196)

Busy Trigger*   [2   ] (<= Max. Calls)

Forwarded Call Information Display

☑ Caller Name   ☑ Caller Number

☑ Redirected Number   ☑ Dialed Number

* indicates required item; changes to Line or Directory Number settings require restart.

** Ring Setting (Phone Active) applies to this line when any line on the phone has a call in progress.

Note:
If you are using a language other than English for Display (Internal Caller ID) or Line Text Label text, make sure the correct character set (shown below) is selected. Text displays incorrectly if the wrong characterset is selected. (English characters are included in all character sets.)

Character Set   [Western European (Latin 1)   ▾]

🔒 📶 Local intranet
🔵 Done

DN for Path Replacement Configuration

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Address ⬦ https://jupiter/CCMAdmin/directorynumber.asp?NumPlanMapID={5529B92F-DFD6-4215-88D7-4801190AF5A6}   ▾   ⬡ Go   Links

Call Forward and Pickup Settings

	Voice Mail	Coverage/Destination	Calling Search Space
Forward All	☐		< None > ▾
Forward Busy Internal	☐		< None > ▾
Forward Busy External	☐		< None > ▾
Forward No Answer Internal	☐		< None > ▾
Forward No Answer External	☐		< None > ▾
Forward No Coverage Internal	☐		< None > ▾
Forward No Coverage External	☐		< None > ▾

No Answer Ring Duration   [   ] (seconds)

Call Pickup Group   < None > ▾

MLPP Alternate Party Settings

Target (Destination)   [   ]

Calling Search Space   < None >   ▾

No Answer Ring Duration   [   ] (seconds)

Line Settings for all Devices

Alerting Name   [Scorpio   ]

Line Settings for this Device

Display (Internal Caller ID)   [Scorpio   ]

Line Text Label   [   ]

External Phone Number Mask   [   ]

⬦ Done   🔒 ⬦ Local intranet

No Answer Ring Duration   (seconds)

Line Settings for all Devices

Alerting Name   Scorpio

Line Settings for this Device

Display (Internal Caller ID)   Scorpio

Line Text Label

External Phone Number Mask

Message Waiting Lamp Policy   Use System Policy

Ring Setting (Phone Idle)   Use System Default

Ring Setting (Phone Active)**   Use System Default

Multiple Call / Call Waiting Settings

Maximum Number of Calls*   4   (1 – 196)

Busy Trigger*   2   (<= Max. Calls)

Forwarded Call Information Display

☑ Caller Name   ☐ Caller Number

☐ Redirected Number   ☑ Dialed Number

* indicates required item; changes to Line or Directory Number settings require restart.

** Ring Setting (Phone Active) applies to this line when any line on the phone has a call in progress.

Note:
If you are using a language other than English for Display (Internal Caller ID) or Line Text Label text, make sure the correct character set (shown below) is selected. Text displays incorrectly if the wrong characterset is selected. (English characters are included in all character sets.)

Character Set   Western European (Latin 1)

Done   Local intranet

Configuring the Cisco 3745 Multiservice Router

```
3745_T1#sh run

Building configuration...


Current configuration : 2755 bytes

!

version 12.3

service timestamps debug uptime

service timestamps log uptime

no service password-encryption

!

hostname 3745_T1

!

boot-start-marker

boot system slot0:c3745-ipvoice-mz.shamu_p2_18

boot-end-marker

!

logging buffered 1000000 debugging

!

no network-clock-participate slot 1

no network-clock-participate slot 2

no network-clock-participate slot 3

no network-clock-participate slot 4

no network-clock-participate wic 0

no network-clock-participate wic 1

no network-clock-participate wic 2

no network-clock-participate aim 0

no network-clock-participate aim 1

voice-card 2

 no dspfarm

!
```

```
voice-card 3

 no dspfarm

!

no aaa new-model

ip subnet-zero

ip cef

!

!

ip tcp synwait-time 13

!

!

ip host JUPITER 172.20.33.254

ip name-server 172.20.33.254

ip audit po max-events 100

no ftp-server write-enable

isdn switch-type primary-4ess

!

!

no voice call carrier capacity active

!

!

!

!

!

!

!

!

!

!

ccm-manager mgcp

ccm-manager music-on-hold

ccm-manager config server JUPITER
```

```
ccm-manager config

!

!

!

!

controller T1 3/0

 framing esf

 linecode b8zs

 pri-group timeslots 1-24 service mgcp

!

controller T1 3/1

 framing esf

 linecode b8zs

 pri-group timeslots 1-24 service mgcp

!

no crypto isakmp enable

!

!

!

!

interface FastEthernet0/0

 ip address 172.20.33.52 255.255.255.0

 duplex auto

 speed auto

!

interface FastEthernet0/1

 ip address 172.20.8.20 255.255.255.0

 shutdown

 duplex auto

 speed auto

!

interface Serial3/0:23
```

```
 no ip address

 no logging event link-status

 isdn switch-type primary-qsig

 isdn incoming-voice modem

 isdn incoming-voice voice

 isdn bind-l3 ccm-manager

 no cdp enable

!

interface Serial3/1:23

 no ip address

 no logging event link-status

 isdn switch-type primary-qsig

 isdn protocol-emulate network

 isdn incoming-voice modem

 isdn incoming-voice voice

 isdn bind-l3 ccm-manager

 no cdp enable

!

ip classless

ip route 0.0.0.0 0.0.0.0 172.20.31.1

ip route 0.0.0.0 0.0.0.0 FastEthernet0/0

ip route 0.0.0.0 0.0.0.0 172.20.33.1

!

ip http server

no ip http secure-server

!

!

!

!

!

!

control-plane
```

```
!

!

!

voice-port 3/0:23

!

voice-port 3/1:23

!

voice-port 4/0/0

!

voice-port 4/0/1

!

mgcp

mgcp call-agent jupiter 2427 service-type mgcp version 0.1

mgcp dtmf-relay voip codec all mode out-of-band

mgcp rtp unreachable timeout 1000 action notify

mgcp package-capability rtp-package

no mgcp package-capability res-package

mgcp package-capability sst-package

no mgcp package-capability fxr-package

no mgcp timer receive-rtcp

mgcp sdp simple

mgcp fax t38 inhibit

mgcp rtp payload-type g726r16 static

!

mgcp profile default

!

!

!

dial-peer cor custom

!

!

!
```

```
dial-peer voice 1 pots

 application mgcpapp

 port 3/0:23

!

dial-peer voice 2 pots

 application mgcpapp

 port 3/1:23

!

!

!

line con 0

line aux 0

line vty 0 4

 login

!

!

end
```

Acronyms

Acronym	Definitions
ANF-PR	Additional Network Feature Path Replacement
CCM	Cisco Unified CallManager
CCBS	Call Completion to Busy Subscriber
CCNR	Call Completion on No Reply
CFB	Call Forwarding on Busy
CFNR	Call Forwarding No Reply

CFU	Call Forwarding Unconditional
CLIP	Calling Line (Number) Identification Presentation
CLIR	Calling Line (Number) Identification Restriction
CMM	Communication Media Module (CMM) is a Cisco Catalyst® 6500 Series and Cisco 7600 Series line card that provides flexible and high-density T1/E1 gateways
CNIP	Calling Name Identification Presentation
CNIR	Calling Name Identification Restriction
COLP	Connected Line (Number) Identification Presentation
COLR	Connected Line (Number) Identification Restriction
CONP	Connected Name Identification Presentation
CONR	Connected Name Identification Restriction
CT	Call Transfer
MWI	Message Waiting Indicator
PSTN	Public Switched Telephone Network
ANF-PR	Additional Network Feature Path Replacement
CCM	Cisco Unified CallManager
CCBS	Call Completion to Busy Subscriber
CCNR	Call Completion on No Reply
CFB	Call Forwarding on Busy
CFNR	Call Forwarding No Reply
CFU	Call Forwarding Unconditional
CLIP	Calling Line (Number) Identification Presentation
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CNIP	Calling Name Identification Presentation
CNIR	Calling Name Identification Restriction
COLP	Connected Line (Number) Identification Presentation
COLR	Connected Line (Number) Identification Restriction

CONP	Connected Name Identification Presentation
CONR	Connected Name Identification Restriction
CT	Call Transfer
MWI	Message Waiting Indicator
PSTN	Public Switched Telephone Network

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