

# **How to Connect CISCO CallManager v3.1 to RADVISION ECS v2.0**

## **RADVISION Application Notes**

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## Introduction

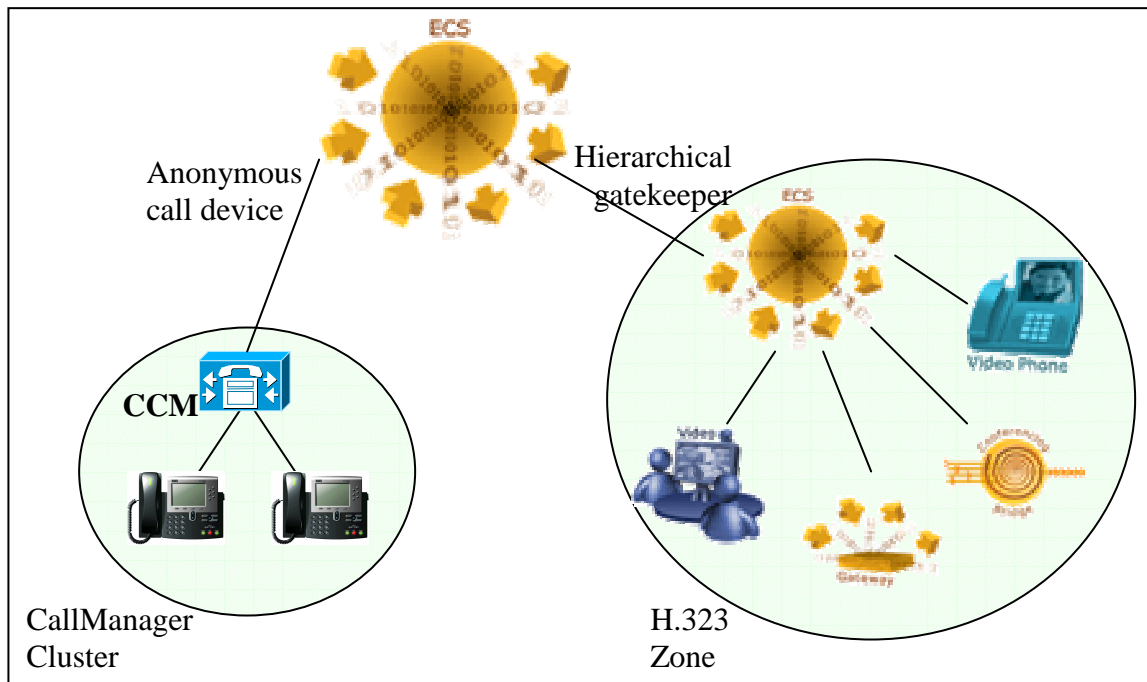
This document addresses interoperability issues between RADVISION's Enhanced Communication Server (ECS) managed H.323 zones and Cisco's CallManager (CCM) managed clusters. The motivation of this work is to provide an overview of the interoperability issues of multimedia conferencing products and to serve as a step-by-step guide for the configuration of the two management products.

## Integration principals

The integration concept is based on the registration of CallManager with the ECS as an H.323 Gateway and enabling it to act as an Anonymous Calls Device. By doing so, CallManager is able to send/receive H.323 calls to/from any "anonymous" H.323 device through Gatekeeper without having to know every H.323 devices.

## Network Topology

The following diagram represents a basic network topology of the system:



A CCM system manages a number of IP Phones within a cluster and registers with an ECS system as a H.323 Gateway (anonymous call device). The ECS itself manage its own H.323 zone and other H.323 zones in hierarchical fashion.

Each H.323 zone includes any combination of multimedia communication devices including MCU, gateway and H.323 voice and video end-points.

## Configuration Details

The following provides a detailed step-by-step guide for configuration of Cisco's CallManager version 3.1 package with RADVISION's ECS version 2.0

### Cisco Call Manager configuration:

1. Go to "Device" -> "Gatekeeper". In the "Gatekeeper Name" field enter the IP of RADVISION ECS.
2. Make sure that "Allow Anonymous Calls" checkbox is checked.
3. Click the "Update" button and "Reset Gatekeeper". A "Reset Device" message will appear. Select "reset".
4. Go to "Route Plan" -> "Route Pattern" -> "add a new route pattern". In the "Route Pattern" field, enter the prefix number to route calls to the ECS followed by the number of digits that users use as end-point number.  
For example: when we want the digit 5 to route calls to the ECS and users register the end-point number with 4 digits, the required pattern is: 5.XXXX (note the period after 5).
5. In the "Gateway/Route List" field, select "Anonymous Device".
6. Uncheck the "Provide Outside Dial Tone" option.
7. In the "Discard Digits" field, select the "PreDot" option.
8. Click "Insert" and "reset" the main GW (without resetting it, out side calls will be available).

You should now be able to call from a Cisco IP Phone to an H.323 endpoint.

## **RADVISION ECS configuration:**

1. In the “Endpoints” tab double click the Call Manager that is now registered as a terminal. Click the “Edit Predefined Data” button and add a “Phone Number” value under “Aliases” (the digit 5 in our case). Click “Upload”.
2. In the “Services” tab, click the “Add” button. In the “Prefixes” field, add a service with the same value as used in the “Endpoints” tab. Under “Aliases” Under “Prefix Type” select “Phone Number”. Make sure that “Conference hunting” option is checked.
3. Go back to the “Endpoints” tab and double click Call Manager. Click the “Services” button and make sure that the new service appears under “supported Services”.
4. Go to “Settings” tab -> “Basics” and check the “Merge predefined and online aliases upon registration”.

You should now be able to call from an H.323 endpoint to a Cisco IP Phone.

## **Call Scenarios**

### **Call between IP phone within CCM cluster and video endpoint within ECS zone**

- A phone device in CCM cluster is calling a video end-point in H.323 zone identified by the number 9876.
  - The CCM phone device dial the number 59876
  - CallManager strip the number 5 from the number and identify that the destination is the ECS system.
  - CallManager passes the number 9876 to ECS
  - ECS identify the end-point 9876 and pass the call to this end-point to complete the call.
- A phone device in H3.23 zone is calling a video end-point in CCM cluster identified by the number 2345.
  - The H.323 end-point dial the number 52345
  - ECS strip the number 5 from the number and identify that the destination is the CCM system.
  - ECS passes the number 2345 to CCM
  - CCM identify the end-point 2345 and pass the call to this end-point to complete the call.

**Call between IP phone within CCM cluster and a POTS device on the PSTN network (Call passing through the gateway device on the H.323 zone)**

- A phone device in CCM cluster is calling a POTS device on the PSTN network with the number (201) 567-2210.
  - The CCM phone device dial the number 5612015672210
  - CallManager strip the number 5 from the number and identify that the destination is the ECS system
  - CallManager passes the number 612015672210 to ECS
  - ECS identify that the number is targeted to ECS service number 61 which is the gateway device in the H.323 zone
  - ECS strip the number 61 and pass the string 2015672210 to the gateway device
  - The gateway device in the H.323 zone dial the number 2015672210 over the regular PSTN network to complete the call

**Multipoint call between IP phone within CCM cluster and video end-points on the H.323 zone (Call terminates in the MCU device on the H.323 zone)**

- A phone device in CCM cluster is calling a conference bridge session on the H.323 zone identified as session number 33376. The MCU service is identified as service 78.
  - The CCM phone device dial the number 57833376
  - CallManager strip the number 5 from the number and identify that the destination is the ECS system
  - CallManager passes the number 7833376 to ECS
  - ECS identify that the number is targeted to ECS service number 78 which is the MCU device in the H.323 zone
  - ECS strip the number 78 and pass the string 33376 to the MCU device
  - The MCU device in the H.323 zone enters the CCM call into the video conference session

## About RADVISION

RADVISION is a leading provider of products and technology for real-time voice, video, and data communications over packet networks. Recognized universally as the experts in real-time voice and video over IP (V<sup>2</sup>oIP), RADVISION offers the broadest and most complete set of enabling technology and networking systems needed to enable enterprises and service providers to migrate their voice and video communications from traditional telephone networks to new converged networks. Today, hundreds of thousands of end-users around the world communicate over next-generation networks, using IP-centric products and solutions built around RADVISION products and technology. RADVISION's V<sup>2</sup>oIP videoconferencing network products include: gateways for communication between IP and ISDN networks, conferencing bridges, and gatekeeper applications. RADVISION's enabling technology includes developer toolkits for SIP, MEGACO/H.248, MGCP, and H.323 and the ProLab™ Test Management Suite.

For more information, please visit our website at [www.radvision.com](http://www.radvision.com).

USA/Americas  
575 Corporate Drive  
Mahwah, NJ USA 07430  
Tel 201.529.4300  
Fax 201.529.3516

Europe  
24 Raul Wallenberg  
Tel Aviv, Israel 69719  
Tel +972.3.767.9300  
Fax +972.3.767.9313

United Kingdom/Middle  
East  
Abbey House  
Wellington Way  
Weybridge, Surrey  
Tel +44.1932.268315  
Fax +44.1932.268318

Hong Kong  
Suite F, 17/F  
China Overseas Bldg.  
139 Hennessy Road  
Wanchai, Hong Kong  
Tel +852.2801.4070  
Fax +852.2801.4071

China  
Beijing Representative Office  
Unit 301, Tower B, COFCO Plaza  
No.8 Jianguomennei Avenue  
Beijing 100005, China  
Tel +86.10.65249484  
Fax +86.10.65260794

[info@radvision.com](mailto:info@radvision.com)

[infointernational@radvision.com](mailto:infointernational@radvision.com)

[infoUK@radvision.com](mailto:infoUK@radvision.com)

[apacinfo@radvision.com](mailto:apacinfo@radvision.com)

[apacinfo@radvision.com](mailto:apacinfo@radvision.com)

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