

# Call Routing Control v4.0

# Introduction

Call Routing Control is a special TCP connection to SpliceCom systems to allow for external routing of calls and additional special call handling. All of these only apply to calls being routed via departments.

To allow total control of department call routing, departments have a special distribution mode called "manual" holding all calls in the queue until an external 'manual' event occurs to distribute the call.

The Call Routing Control interface is accessed on TCP port 4005 and uses the Call Logging password.

All input is newline terminated (cr or lf) and does not rely on packet boundaries. There are a number of CSV (Comma Separated) Commands that can be executed and these are specified in "Commands".

A number of output messages can be generated and these are documented in "Outputs"

In general the <crid> should be treated as a string and reproduced exactly as output. The <call dbrec guid> is a GUID value that can be used as seen to access the LDAP database to find the CallRecord appropriate to this call. Each of the current targets can then be read from the database if required.

SpliceCom reserves the right to make alterations or amendments to the detailed specifications at its discretion.

© Copyright SpliceCom Limited, 2016

INTRODUCTION	1
OUTPUT	4
QUEUING	4
DISTRIBUTING	4
Connected	4
GONE	5
Login Ok	5
LOGGED OUT	5
SEND TO FAILED	5
SEND TO FAILED (TARGET NOT FOUND)	6
SEND TO FAILED (CALL NOT FOUND)	6
SEND TO CAMP	6
Redirected	6
REDIRECT FAILED (CALL NOT FOUND)	6
Cleared	7
CLEAR FAILED (CALL NOT FOUND)	7
Forced Answer	7
Forced Answer Failed (Target Not Found)	7
Forced Answer Failed (Call Not Found)	7
Recording	8
RECORDING FAILED (NO TARGET FOUND)	8
RECORDING FAILED (CALL NOT FOUND)	8
STOPPED	8
STOP FAILED (CALL NOT FOUND)	8
Not Understood	8
Announcement Set	9
Transfering	9
Transferring 2	9
Transferred	. 10
Transferred 2	. 10
Force Auto Conference	. 11
FORCED AUTO CONFERENCE FAILED (TARGET NOT FOUND)	. 11
FORCED AUTO CONFERENCE FAILED (CALL NOT FOUND)	. 11
Redirect To Auto	. 11
REDIRECT TO AUTO FAILED (CALL NOT FOUND)	. 12
AGENT LOGIN	. 12
AGENT LOGOUT	. 12
AGENT WRAP UP DONE	. 12
Queue Position	. 13
AGENT BUSY	. 13
AGENT GONE	. 13
KEEPALIVE OK	. 13
QUEUE STATUS	. 14
AGENT STATUS	. 14
Parked	. 14
Announcement Complete	. 15
Announcement Cancelled	. 15
SIGNAL	. 15
COMMANDS	16
LOGIN	
LOGOUT	
SEND TO	
REDIRECT TO	
CLEAR	. 16

FORCE ANSWER	17
Record	17
STOP	17
Announcement	17
FORCE AUTO CONF	18
REDIRECT TO AUTO	18
GET QUEUE POSITION	18
KEEPALIVE	18
Queue Status	18
AGENT STATUS	
SEND TO AUTO	19
Park A	19

# **Output**

#### Queuing

QUEUEING,<crid>,<call dbrec guid>,<target name>,<target num>,<source name>,<source num>

<crid> = Call record identifier for the switch <call dbrec guid> = GUID of Database record for this call

<target name> = Name of department / queue <target num> = Telephone number of the target

<source name> = Name of source if known (user/contact)

<source num> = CLI of the source

A call has been queued for this target.

## **Distributing**

DISTRIBUTING, <crid>, <call dbrec guid>, <target name>, <target num>, <source name>, <targetnum1>, <targetnum2>, <targetnum3>, <targetnum4>

<crid> = Call record identifier for the switch <call dbrec guid> = GUID of Database record for this call

<target name> = Name of department / queue <target num> = Telephone number of the target

<source name> = Name of source if known (user/contact)

<source num> = CLI of the source

<targetnumN> = Telephone number of targets being distributed to

A call is being distributed for this target. Normally this means it is ringing on one or more agent terminals.

#### **Connected**

CONNECTED, <crid>, <call dbrec guid>, <target name>, <target num>, <source name>, <source num>

<crid> = Call record identifier for the switch <call dbrec guid> = GUID of Database record for this call

<target name> = Name of department / queue <target num> = Telephone number of the target

<source name> = Name of source if known (user/contact)

<source num> = CLI of the source

<targetnum> = Telephone Number of target (agent) that answered

A call has been answered for this target.

#### Gone

GONE, <crid>, <call dbrec guid>, <target name>, <target num>, <source name>, <source num>, <reason>

<crid> = Call record identifier for the switch <call dbrec guid> = GUID of Database record for this call

<target name> = Name of department / queue <target num> = Telephone number of the target

<source name> = Name of source if known (user/contact)

<source num> = CLI of the source

<reason> = n

#### where;

n=1 means the call is being deleted from the system

n=2 means the call has been lost from the department

(i.e. the call gone somewhere else)

n=3 means the call was transferred

A call has been deleted / disconnected for this target. By implication if no CONNECTED had occurred then this call will have been abandoned.

#### **Login Ok**

**LOGINOK** 

A login has occurred successfully.

## **Logged Out**

**LOGGEDOUT** 

A session has successfully been terminated.

# Send to Failed

SENDTOFAILED, < crid>, < call dbrec guid>, < reason>

<crid> = Call record identifier for the switch <call dbrec guid> = GUID of Database record for this call

<reason> = 0

A call has failed to be sent to a target using the sendto command. This will rarely occur but may be because the terminal has become unavailable.

## Send to Failed (Target not Found)

SENDTOFAILED(TARGETNOTFOUND), < crid>, < target>

<crid> = Call record identifier for the switch

<target> =

A call has failed to be sent to a target, using the sendto command, because the target could not be found.

## Send to Failed (Call not Found)

SENDTOFAILED(CALLNOTFOUND), < crid>

<crid> = Call record identifier for the switch

<target> =

A call has failed to be sent to a target, using the sendto command, because the call could not be found.

## **Send to Camp**

SENDTOCAMP, < crid>, < call dbrec guid>, < reason>

<crid> = Call record identifier for the switch <call dbrec guid> = GUID of Database record for this call

<reason> = 0

A call is "camped" on to a target after being sent using the sendto command.

#### Redirected

REDIRECTED, < call record>

<crid> = Call record identifier for the switch

A call has been successfully re-directed.

# **Redirect Failed (Call Not Found)**

REDIRECTFAILED(CALLNOTFOUND), < call record>

<crid> = Call record identifier for the switch

An attempt to redirect a call failed as the call could not be found.

#### Cleared

CLEARED, < crid>

<crid> = Call record identifier for the switch

A call was successfully cleared.

#### **Clear Failed (Call Not Found)**

CLEARFAILED(CALLNOTFOUND), < crid>

<crid> = Call record identifier for the switch

An attempt to clear a call failed as the call was not found.

## **Forced Answer**

FORCEDANSWER, < crid>

<crid> = Call record identifier for the switch

A call has been automatically answered after being sent using the forceanswer command.

## **Forced Answer Failed (Target Not Found)**

FORCEDANSWERFAILED(TARGETNOTFOUND), < crid>

<crid> = Call record identifier for the switch

An attempt to force a call to be answered automatically using the forceanswer command has failed because the target could not be found.

# **Forced Answer Failed (Call Not Found)**

FORCEDANSWERFAILED(CALLNOTFOUND), < call record>

<crid> = Call record identifier for the switch

An attempt to force a call to be answered automatically using the forceanswer command has failed because the call could not be found.

#### Recording

RECORDING, < crid>

<crid> = Call record identifier for the switch

A call is being recorded.

# **Recording Failed (No Target Found)**

RECORDINGFAILED(NOTARGETFOUND),<crid>

<crid> = Call record identifier for the switch

A call recording failed because no target could be found.

## **Recording Failed (Call Not Found)**

RECORDINGFAILED(CALLNOTFOUND),<crid>

<crid> = Call record identifier for the switch

A call recording failed because the call could be found.

#### **Stopped**

STOPPED, < call record>

<crid> = Call record identifier for the switch

A call was successfully stopped, i.e. no targets were being targeted.

## **Stop Failed (Call Not Found)**

STOPFAILED(CALLNOTFOUND), <call record>

<crid> = Call record identifier for the switch

An attempt to stop a call failed as the call could not be found.

#### **Not Understood**

NOTUNDERSTOOD, < command>

<command> = Received Command.

The issued command was not understood.

#### **Announcement Set**

ANNOUNCEMENTSET

The Announcement command was successfully set.

#### **Transfering**

TRANSFERING,<crid>,<call guid>,<new crid>,<new call guid>,<new target name>,<new A end name>,<new A end num>,<new B end onbehalfof number>

<crid> = Original call record identifier for the switch
<call guid> = Original call guid/reference as discovered via

ldap

<new crid> = The call record identifier for the transferred

call

<new call guid> = Call guid/reference for the transferred call as

discovered via Idap

<new target name> = Name of user, contact or department / queue

<new target num> = Telephone number of the target

<new A end name> = Name of A end if known (user/contact)

<new A end num> = CLI of the A end

<new B end onbehalfof num> = The number of the object that caused a call to

be forwarded by the B end (if any)

A call is in the process of being transferred.

## **Transferring 2**

TRANSFERRING2,<crid>,<call guid>,<new crid>,<new call guid>,<new target name>,<new A end name>,<new A end num>,<new B end onbehalfof number>

<crid> = Original call record identifier for the switch
<call guid> = Original call guid/reference as discovered via

ldap

<new crid> = The call record identifier for the transferred

call

<new call guid> = Call guid/reference for the transferred call as

discovered via Idap

<new target name> = Name of user, contact or department / queue

<new target num> = Telephone number of the target

<new A end name> = Name of A end if known (user/contact)

<new A end num> = CLI of the A end

<new B end onbehalfof num> = The number of the object that caused a call to

be forwarded by the B end (if any)

A call is in the process of being transferred in a multi-Call Server environment. Used to "rename" the call's confld

e.g. original call ref and new will be the same but the confld and other info may have changed (remote transfer)

# **Transferred**

TRANSFERRED, <crid>, <call guid>, <new crid>, <new call guid>, <new target name>, <new A end name>, <new A end num>, <new B end onbehalfof number>

<crid> = Original call record identifier for the switch
<call guid> = Original call guid/reference as discovered via

Idap

<new crid> = The call record identifier for the transferred

call

<new call guid> = Call guid/reference for the transferred call as

discovered via Idap

<new target name> = Name of user, contact or department / queue

<new target num> = Telephone number of the target

<new A end name> = Name of A end if known (user/contact)

<new A end num> = CLI of the A end

<new B end onbehalfof num> = The number of the object that caused a call to

be forwarded by the B end (if any)

A call has been successfully transferred.

#### **Transferred 2**

TRANSFERRED2,<crid>,<call guid>,<new crid>,<new call guid>,<new target name>,<new A end name>,<new A end num>,<new B end onbehalfof number>

<crid> = Original call record identifier for the switch
<call guid> = Original call guid/reference as discovered via

ldap

<new crid> = The call record identifier for the transferred

call

<new call guid> = Call guid/reference for the transferred call as

discovered via Idap

<new target name> = Name of user, contact or department / queue

<new target num> = Telephone number of the target

<new A end name> = Name of A end if known (user/contact)

<new A end num> = CLI of the A end

<new B end onbehalfof num> = The number of the object that caused a call to

be forwarded by the B end (if any)

A call has been successfully transferred in a multi-Call Server environment. Used to "rename" the call's confid

e.g. original call ref and new will be the same but the confld and other info may have changed (remote transfer)

#### **Force Auto Conference**

FORCEAUTOCONF, < crid>

<crid> = Call record identifier for the switch

A call has been automatically conferenced after being sent using the forceautoconf command.

## **Forced Auto Conference Failed (Target Not Found)**

FORCEAUTOCONFFAILED(TARGETNOTFOUND), < crid>

<crid> = Call record identifier for the switch

An attempt to force a call to be conferenced automatically using the forceautoconf command has failed because the target could not be found.

#### Forced Auto Conference Failed (Call Not Found)

FORCEDAUTOCONFFAILED(CALLNOTFOUND), < call record>

<crid> = Call record identifier for the switch

An attempt to force a call to be conferenced automatically using the forceautoconf command has failed because the call could not be found.

# **Redirect To Auto**

REDIRECTTOAUTO, < call record>

<crid> = Call record identifier for the switch

A call has been successfully re-directed and auto answered or auto conferenced.

## **Redirect To Auto Failed (Call Not Found)**

REDIRECTTOAUTOFAILED(CALLNOTFOUND), < call record>

<crid> = Call record identifier for the switch

An attempt to redirect a call to be auto answered or auto conferenced failed as the call could not be found.

#### **Agent Login**

AGENTLOGIN,<cn>,<hardware>,<ipaddress>,<controlport >,<user\_guid>,<hardware\_guid>

<cn> = Common Name

<hardware> = Registered Hardware id

<ipaddress> = IP address of the phone that the Agent has registered with

<controlport> = Control port of the phone above

<user\_guid> = GUID of the User <hardware\_guid> = GUID of the Hardware

A call centre agent has successfully logged in to the system.

#### **Agent Logout**

AGENTLOGOUT, <cn>

<cn> = Common Name

A call centre agent has successfully logged out of the system.

## **Agent Wrap Up Done**

AGENTWRAPUPDONE, <cn>, <no.of active calls>, <no.of real calls>

<cn> = Common Name

<no.of active calls> = Number of calls this agent currently has

<no.of real calls> = Number of telephone calls, excluding Conference,

Recording, etc.

A call centre agent has automatically or manually completed a wrap up of a task after the previous call and is now available to take another call.

#### **Queue Position**

QPOS,<qpos>

<qpos> = Position in queue (or 0 for distributing)

Position of call in queue. Output in response to a GetQueuePosition command.

#### **Agent Busy**

AGENTBUSY, <dn>, <no.of active calls>, <no.of real calls>

<dn> = Name of Agent

<no.of active calls> = Number of calls this agent currently has

<no.of real calls> = Number of telephone calls, excluding Conference,

Recording, etc.

A call centre agent is busy.

#### **Agent Gone**

AGENTGONE, <crid>, <call dbrec guid>, <target name>, <target num>, <source name>, <source num>, <reason>, <dn>

<crid> = Call record identifier for the switch <call dbrec guid> = GUID of Database record for this call

<target name> = Name of department / queue <target num> = Telephone number of the target

<source name> = Name of source if known (user/contact)

<source num> = CLI of the source

<dn> = Agent that rejected the call

A call has been deleted / disconnected for this target by the Agent. This output will ONLY be sent from Manual distribution groups and indicates that the AGENT cleared the call.

#### **Keepalive Ok**

**KEEPALIVEOK** 

A Keepalive request has been validated successfully.

#### **Queue Status**

QUEUESTATUS, <crid>, <call dbrec guid>, <target name>, <target num>, <source name>, <source num>

<crid> = Call record identifier for the switch <call dbrec guid> = GUID of Database record for this call

<target name> = Name of department / queue <target num> = Telephone number of the target

<source name> = Name of source if known (user/contact)

<source num> = CLI of the source

Status of Department/Queue showing each call currently queuing or distributed but not answered. One message per call.

#### **Agent Status**

AGENTSTATUS, <dn>, <no.of active calls>, <no.of real calls>, <regaddr>

<dn> = Name of agent

<no.of active calls> = Number of calls this agent currently has

<no.of real calls> = Number of telephone calls, excluding Conference,

Recording, etc.

<regaddr> = Value of the IP Address (in Hex) where the Aaent is

registered. 0 indicates NOT registered.

Status details for a call centre agent.

#### **Parked**

PARKED,<crid>,<confid>,<name>,<number>,<parkslot>,<parkedToName>,<parkedToLabel>

<crid> = Call record identifier for the switch <confid> = Globally Unique Identifier for this call

<name> = Name associated with the A end of the call (if known)
<number> = CLI associated with the A end of the call (if known)
<parkslot> = The number of the Park Slot where the call is now held
<parkedToName> = GUID for the Company to which this call belongs (or a

NULL GUID [all 0's] if no Company has been set)

<parkedToLabel> = Name of the parked caller, or an alternative label

A call has been successfully parked.

## **Announcement Complete**

ANNOUNCECOMPLETE, < crid > , < confid >

<crid> = Call record identifier for the switch <confid> = Globally Unique Identifier for this call

An announcement has finished playing.

#### **Announcement Cancelled**

ANNOUNCECANCELLED, <crid>, <confid>

<crid> = Call record identifier for the switch <confid> = Globally Unique Identifier for this call

An announcement has been cancelled because the A end of a call has been parked (PARKA).

# Signal

SIGNAL, < crid > , < confid > , < digit >

<crid> = Call record identifier for the switch <confid> = Globally Unique Identifier for this call <digit> = The DTMF digit that was received

Confirmation that a DTMF digit has been received.

# **Commands**

# Login

login, < calllogger password>

Login / Authenticate for this session. The password must match the configured Call Logging password.

## Logout

logout

Logout remove authentication for this session. This command is not required if disconnecting.

#### Send to

sendto,<crid>,<target number>

<crid> = Call record identifier for the switch

<target number> = Telephone number of a user on the switch

Direct a call to be distributed to an agent.

#### Redirect to

redirectto, < crid >, < target number >

<crid> = Call record identifier for the switch

<target number> = Telephone number of a user on the switch

Redirect a call to be distributed to an alternative agent. Note: Call Logging will log the new target as being the only target.

#### Clear

clear, < crid> | < call guid>

<crid> = Call record identifier for the switch

<call guid> = Call guid/reference as discovered via Idap

Clear / Disconnect the specified call.

#### **Force answer**

forceanswer, < crid>

<crid> = Call record identifier for the switch

Direct a call to be automatically answered by the target. Should only be issued to DISTRIBUTING calls.

#### Record

record,<crid>,<mailbox>,<mailbox number>

<crid> = Call record identifier for the switch

<mailbox> = Name of a user or dept.

<mailbox number> = Telephone number of a user or dept.

Direct a call to be recorded by agent to the mailbox specified, if the mailbox is a dept. then the recording will be available in the departments mailbox, if a user then it will be a personal recording for the user.

#### **Stop**

stop,<crid>

<crid> = Call record identifier for the switch

To stop distributing a call (hangs up on all Bends), keeps the call ready for another sendto or redirect.

#### **Announcement**

announcement, < crid >, < now >, < target >

<crid> = Call record identifier for the switch <now> = 0 or 1 (1 = start announcing now)

<target> = announcement target

e.g. !AnnouncementRepeat, !Play:recording.wav,

or !EA:http://127.0.0.1/announce\_vxml.php?posinqueue=

10

Play a specific announcement for this call in place of the default Department one. This message can be played immediately or when next announcement is next due, it will automatically repeat.

#### Force auto conf

forceautoconf, < crid>

<crid> = Call record identifier for the switch

Direct a call to be automatically conferenced by the target. Should only be issued to DISTRIBUTING calls.

#### Redirect to auto

redirecttoauto, < crid>, < aa>, < ac>, < target number>

<crid> = Call record identifier for the switch

<aa> = Auto Answer (0 or 1) <ac> = Auto Conference (0 or 1)

<target number> = Telephone number of a user on the switch

Redirect a call to be distributed to an alternative agent and automatically answered or conferenced. <aa> and <ac> are mutually exclusive and must be set to 1 or 0. Enabling embeds the auto answer or auto conference functions and speeds them up. Note: Call Logging will log the new target as being the only target.

## Get queue position

getqpos,<crid>

<crid> = Call record identifier for the switch

Query to find the queue position of the call associated with the crid. Result is issued as QPOS (refer to Output section).

# **Keepalive**

keepalive

Session keepalive.

#### **Queue Status**

queuestatus, <dn>

<dn> = Department Name (i.e. Departments.Sales)

Query to obtain the queue status of a Department.

# **Agent Status**

agentstatus, <dn>

<dn> = Agent Name (i.e. Users.Peter Osgood)

Query to obtain the status of an Agent.

#### Send to Auto

sendtoauto, < crid > , < target number >

<crid> = Call record identifier for the switch

<target number> = Telephone number of a user on the switch

Direct a call to be distributed to an agent with AutoAnswer set to ON by default.

#### Park A

parka, < crid >, < parkslot >

<crid> = Call record identifier for the switch

<parkslot> = Number of the ParkSlot where the call will be parked

Park the A end of a call. The output PARKED is generated to denote success.

Issue 1.0 - March 2016



The Hall Business Centre, Berry Lane, Chorleywood, Herts, WD3 5EX t: 01923 287700 f: 01923 287722 e: info@splicecom.com w: splicecom.com