

Reasons for the Queue Node Failure

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Introduction

This document describes three reasons for the failure of the Queue node in a Cisco Intelligent Contact Management (ICM) Enterprise or IP Contact Center (IPCC) Enterprise environment.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco ICM Enterprise
- Cisco IPCC Enterprise
- ICM Script

Components Used

The information in this document is based on these software and hardware versions:

- Cisco ICM version 5.x and later

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

Background Information

You can place a call in queue at a Voice Response Unit (VRU) for one or more:

- Skill groups
- Enterprise skill groups
- Scheduled targets that use the Queue node

If an agent becomes available in one of the skill groups or scheduled targets, the system routes the call to that agent.

You cannot reference two types of targets (for example, skill groups and scheduled targets) within a single Queue node. However, you can execute multiple Queue nodes sequentially to queue a call to different target types.

Reasons for the Queue Node Failure

This section explains the reasons for the failure of the Queue node.

Reason 1: Failure to Transfer the Call to a VRU

When you issue the Queue node, the call must be transferred to the VRU. If the call fails to reach the VRU, the Queue node fails.

Perform these actions in order to check whether the call-transfer to the VRU fails:

- Run the RTRTRACE utility to turn on the Route Requests trace.
- Run the RTRTRACE utility to turn on the Network VRU trace.
- Investigate the log of the rtr process.
- Examine the Route Call Detail (RCD).

Reason 2: Routing Targets are not in the Same MRD

The Queue node also fails when the routing targets that exist in the Queue node do not belong to the same Media Routing Domain (MRD). MRD is a collection of skill groups and services that you associate with a medium. ICM software uses the MRD to route a task to an agent whom you associate with a skill group and a particular medium. If the routing targets in the Queue node do not belong to the same MRD, the Queue node fails.

Check the configuration to make sure that the Dialed Number (DN) that caused the Queue node failure belongs to the same MRD as one of the routing targets.

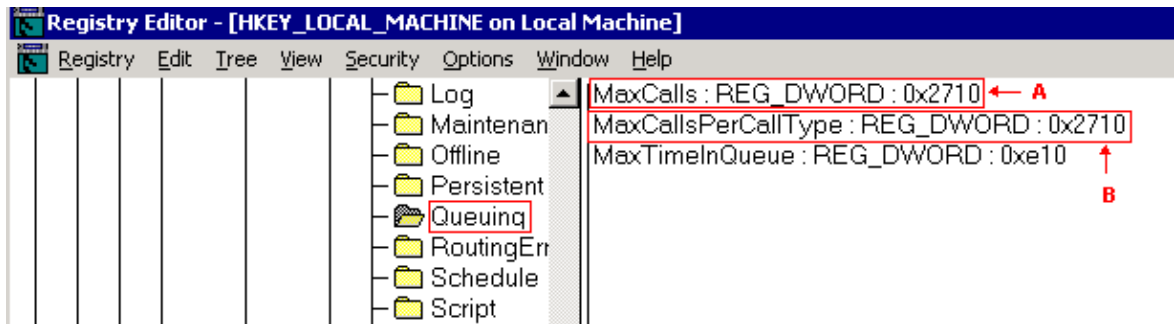
Reason 3: Queue Reaches the Maximum Queue Length

If no queue space is available, the Queue node fails. When one of these conditions is met, you can infer that the queue space is full:

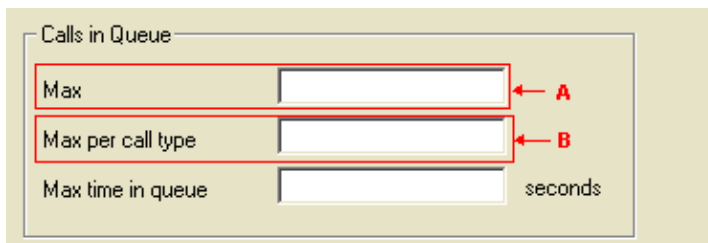
- The sum of the total calls currently in the CallRouter queue, and the total calls transferred to the VRU to join the queue in the CallRouter is equal to or greater than the value of the MaxCalls registry key (see arrow A in Figure 1).
- The sum of the total calls currently in a call type queue, and the total calls of that call type transferred to the VRU is equal to or greater than the value of the MaxCallsPerCallType registry key (see arrow B in Figure 1).

Note: You can locate the MaxCalls and MaxCallsPerCallType registry keys in this path:

```
HKEY_LOCAL_MACHINE/SOFTWARE/Cisco Systems, Inc/ICM/<cust_inst>/Router<A/B>/
```

Figure 1 MaxCalls and MaxCallsPerCallType Registry

- The sum of the total calls currently in the MRD queue, and the total calls transferred to VRU to join the MRD queue is equal to or greater than the value set in the Max field for the MRD in the MRD List (see arrow A in Figure 2).
- The sum of the total calls of a particular call type in the MRD queue and the total calls transferred to VRU to join the MRD queue is equal to or greater than the value set in the Max per call type field for the MRD in the MRD List (see arrow B in Figure 2).

Figure 2 Media Routing Domain List (Call in Queue Section)

If either the RouterQueueCallTypeLimitToHalf field or the RouterQueueGlobalLimitToHalf field in the Cal_Type_Half_Hour table exceeds 0 for the used call type, you experience one of the max queued calls limits.

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Related Information

- [How to Use the RTRTRACE Utility](#)
- [Technical Support & Documentation – Cisco Systems](#)

