VCO/4K − How To Prevent E&M Ports from Getting Hung

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Introduction

This document addresses a problem where E&M ports on the VCO can get into a hung state.

Note: Although this document is applicable to all versions of VCO 5.x generic, Cisco did not provide a protocol tool that enabled changing the guard time until version 5.1.4. Cisco Technical Support can provide the protocol tool for systems with earlier versions.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

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

- All versions of VCO 5.x generic

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

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Problem

This kind of problem occurs in scenarios where the network experiences a delay when it sends an answer and the host application tears down the call.

Solution

Adjust the guard timing to solve this problem. Guard time is the length of time that a port is held in guard state, after the port is abandoned. If the port state is off hook, it remains in this state until on hook is detected. The port goes on hook after guard timing is being performed. Guard timing is performed for the port as a result of an on hook, or the port being activated via the Card Maintenance screen **P** command or the Change Port Status **($90)** command. The default guard time on E&M ports is 200 ms (100 ms in versions below 5.2). In those call scenarios, the generic state machine can cause the port to get hung on some networks. An examination of the port using a Tberd or other monitoring device shows the port with its transmit A/B bits high.

The solution to this problem is to use the Cisco protocol generator to create a custom Universal Protocol Generator (UPG) file with a longer guard time. The Interface Controller Card (ICC) UPG Update Tool can be used to create a custom UPG file with a longer guard time. It allows users to modify the default .upg files in order to create custom ICC protocol data files for E&M protocols. A value between 250 and 300 ms should solve the problem. The actual value will be dependent on the amount of delay in the network sending answer to the VCO.

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Related Information

- **Customized Signaling and Span Types**
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