



Commander 3-Way Call Detection System

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3-Way Call Detection System

Overview

Science Dynamics Corporation's (SciDyn) 3-Way Call Detection System is a highly-effective patented fraud deterrent for call control systems. It is integrated into the Commander call control system and provides the following advanced features:

- Fully digital DSP processing
- Dynamic calibration on each call
- Remote configuration and adjustment
- Multiple detection options
- Enable or disable detection feature for individual calls
- Record and store detection details for each call
- Customizable voice prompt on detection

SciDyn invested over three years of research and development in three-way call detection technology and developed a solution solid enough to warrant a U.S. Patent. Before integrating this technology into Commander in 1996, it was field tested by several major operating companies. Today, this product is online and operating in live systems that generate over four million calls per month.

Features

Fully digital DSP processing

The Commander uses an all digital processing system to analyze the characteristics and performance of each telephone call. Each port in the system provides a dedicated Digital Signal Processing (DSP) resource.

Dynamic calibration on each call

At the start of each call, the system adapts the three-way call process parameters based on the actual line and call conditions. Internally, the system has over 18 soft parameters that provide a fine level of precision to the call detection system.

Remote configuration and adjustment

Most installations are able to make use of the factory settings, which are the result of extensive field trials and analysis. If necessary, all Commander parameters can be remotely adjusted to obtain optimum system performance.

Several detection action options

Upon detection of a three-way call attempt, the system provides the following options to control how the system reacts to the event:

- Disconnect the call
- Play a single prompt
- Begin playing a prompt at random intervals during the call
- Take no external action and store the details in the call detail database

Enable or disable detection feature for individual calls

Each call processed by the Commander system can be classified and tagged to enable or disable three-way call detection. This feature makes it possible to disable three-way detection for calls to valid individuals, such as lawyers or public defenders, and enable it for calls to other numbers.

Record and store detection details for each call

Commander creates a Call Detail Record for each call. This record includes a field that indicates whether the system detected a three-way call attempt. System operators can retrieve information about three-way call attempts through the call detail reporting feature.

Customizable voice prompt on detection

The Commander system uses a completely digital voice announcement subsystem. As configured, each line in the system has a dedicated voice announcer channel. All announcements within the system can be customized to individual facility requirements. Customized voice prompts can be remotely downloaded and activated without

interrupting call activity. Additionally the Commander supports multiple languages, with a system capacity of 99 active languages.

Operation

When enabled during a call, the 3-Way Call Detection System analyzes the existing line conditions. This initial analysis is used as a baseline for the remainder of the call. The system monitors the call and looks for conditions indicating that the remote party has activated a three-way call or placed the call on hold. This is not just a silence detector as many systems employ. Silence detectors cannot account for the variations encountered on a per call basis.

When a possible three-way call attempt has been detected, the system takes action as programmed by the system administrator. A record of the event is stored with the call detail record. After the call is complete, the three-way call detection system resets itself and waits for the next call to begin.