

# MeetingPlace Server T1 Requirements

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## Introduction

This document explains T1 requirements and terminology for Cisco MeetingPlace servers.

## Prerequisites

## Requirements

There are no specific requirements for this document.

## Components Used

The information in this document is based on Cisco MeetingPlace server software (all versions).

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.

## Recommended T1 Signals

It is recommended that the T1s be configured with these signals:

## E&M

Ear and Mouth (E&M) is equivalent to receive and transmit.

## Wink Start

Wink Start provides positive answer/end disconnect supervision. For example, if a hang-up signal is given from Cisco MeetingPlace, the PBX or central office (CO) follows and hangs up (releases the port). The same happens if Cisco MeetingPlace answers the PBX or CO answers. Basically, an answer signal causes an answer, a hang-up signal causes a hang-up. Wink primarily swaps the voltage potential between the tip and ring. \*

**Note:** \* A tip is one side of the line. Loop Start and Ground Start have only one pair of wires (one is tip and one is ring). T1 has two pairs. One pair is used to transmit and one pair is used to receive. The transmit pair has a tip and a ring and the receive pair has a tip and a ring. Tip and ring have different voltage potentials.

## ESF

Extended Super Frame (ESF) takes 24 separate frames/circuits/ports for each T1.

## DTMF

Dual Tone Multiple Frequency (DTMF) is required. This signal executes the Cisco MeetingPlace prompts, similar to a Return or Enter key on a keyboard.

## Ground Start

Ground Start acts and is programmed just like the Loop Start trunks. This signal is used primarily on analog phones. It is the opposite of Wink Start. This type of signal is necessary because of the need to accommodate the CO trunks that are simulating analog, but the Ground Start signal provides positive disconnect supervisions. Ground Start provides better supervisions than Loop Start because Loop works by current flow, and if the line gets shorted, there is still current flow. Ground Start sends a disconnect signal by addition or subtraction of voltage. \*

**Note:** This signal is only needed when the telephone company (telco) is simulating two-way business trunk. This is to ensure that the customer's trunks do not get hung.

## Signals Not Recommended

It is recommended that the T1s *not* be configured with these signals:

### SF

Super Frame (SF), also known as D4, is not recommended. It takes 12 separate frames/circuits/ports per T1.

### AMI

Alternate Mark Inversion (AMI), also known as Jam Bit, is not recommended. The T1 source (from the distant end, not from the Cisco MeetingPlace server) gives false yellow alarms on the Cisco MeetingPlace Server. If these false yellow alarms occur frequently, this could bring the T1s down. The CO shuts off its equipment if a tolerant level is reached.

## Loop Start

The Loop Start signal, also known as Line Side T1, is not recommended. This signal is primarily used on analog phones. It is the opposite of Wink Start. Hung ports are common.

## T1 PIN Requirements

PINS 1, 2, 4, and 5 are required for the T1 connector hardware. What these PINS do is described below.

CO/PBX	MUST USE PINS	MeetingPlace
Tip Transmit	1	Record Tip
Ring Transmit	2	Record Ring
Tip Record	4	Transmit Tip
Ring Record	5	Transmit Rin

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## Related Information

- **Voice Technology Support**
- **Voice and Unified Communications Product Support**
- **Recommended Reading: Troubleshooting Cisco IP Telephony**
- **Technical Support – Cisco Systems**

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