

# How to Configure Loopbacks on the CESM

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## Introduction

This document contains a brief summary about loopbacks, which applies to all the service modules (SMs) in general.

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

This document is not restricted to specific software and hardware versions.

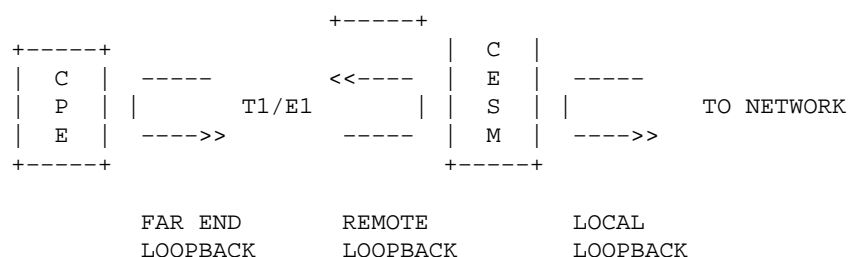
### Conventions

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

## Loopback Configuration

The Circuit Emulation Service Module (CESM) is a two-card set that consists of a CESM function module front card and either a 4-T1-line or a 4-E1-line module back card.

There are three types of loopbacks. This diagram explains how they work.



- You can configure all of these loopbacks from the AXIS Shelf Controller (ASC) with the use of the **cnfbert** command (Release 4).

**Note:** AXIS is the legacy product name for the MGX 8220.

- With far end loopback, the customer premises equipment (CPE) sends the bits back to the CESM. The two subtypes of far end loopbacks are Inband and ESF. They are different only in the way the loopback code is sent. Once established, both work the same way.
- With remote loopback, the CESM loops back all the data to the CPE. Another way you can configure remote loopback is to enable loopback code detection on a line with the **cnfln** command. Then send the loopback code from the CPE.
- With local loopback, the CESM loops back all the data to the network. Note that the data is internally looped back at the framer. This is the same as when you attach a cross-wired DB-15 loopback plug to the physical port. You can also configure this loopback with the **addlnloop** and **dellnloop** commands.
- The Service Resource Module (SRM) front card is not required for the configuration of loopbacks with the **cnfbert** command. It is required only when you run the actual Bit Error Rate Tester (BERT) pattern tests.

**Note:** Notify your network administrator before you run this test.

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## Related Information

- [Cisco WAN Switching Solutions](#)
- [Guide to New Names and Colors for WAN Switching Products](#)
- [Product Information for Cisco WAN Solutions](#)
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