

Troubleshooting Failure Caused by Incorrect Definition of TN3270 Data Stream

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Introduction

An incorrect Telnet 3270 (TN3270) data stream definition causes failures. This document describes how to troubleshoot the failure.

Before You Begin

Conventions

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

Prerequisites

There are no specific prerequisites for this document.

Components Used

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

Problem

The user cannot connect to the Channel Interface Processor (CIP) Cisco TN3270 server using an IRMA TN3270 client.

Note: IRMA is a 3270 terminal emulation program.

Solution

Use the **show ext c1/2 tn3270 pu puname lu locaddr history** command to begin to debug the problem, as shown below:

```
Router#show ext c1/2 tn3270 pu ppwcipa lu 1 history
lu    name    client-ip:tcp    state    model    frames in out    idle for
1    CIPA01    131.219.231.14:1058    ACTIVE    327802E    4        3        0:12:13

pu is PPWCIPA, lu is DYNAMIC type 2, negotiated TN3270
```

!--- This TN3270 client is set up for 3270DS.

bytes 155 in, 996 out; RuSize 0 in, 0 out; NegRsp 0 in, 0 out
pacing window 0 in, 0 out; credits 0 in, queue-size 0 in, 0 out
traces:

```
Client connect req
Reply PSID pos rsp
actlu req
Client disconnect req
notify resp
```

```
IN len=101 xxxxxxxxxxx5B0B820041038D000000
OUT len=12 2DxxxxxxxxE56B80000D0201
IN len=25 xxxxxxxxxxxE5EB80000D0201000000
```

The entry below is the USS message table number 10 (USS10) coming out from the host in an IBM Systems Network Architecture (SNA) character data stream (known as an SCS data stream). This client expects the TN3270 data stream (3270DS). The data stream type is coded in the host with the unformatted system services tables (USSTAB) and system services control point format (SSCPFM) parameters.

```
OUT len=972 2Cxxxxxxxx010380004015404040
```

You can either create another USSTAB file with the USS10 message coded in the Cisco TN3270 data stream, or use the automatic translation that is in the CIP Cisco TN3270 server code. Using a different USSTAB allows you to use highlighting.

Note: This feature is available in CIP ucode 22–15 or later.

If the client is using a Cisco TN3270 data stream and the mainframe is expecting an SCS data stream, the Cisco TN3270 server translates the 3270DS data stream from the client into an SCS data stream for the mainframe, and then translates the response into a 3270DS data stream. The Cisco TN3270 server cannot translate an SCS data stream from the client into a Cisco TN3270 data stream for the mainframe. You can specify an SSCPFM=USSSCS for all clients regardless of the type of client. This setting means that the mainframe will use SCS data stream format to communicate to the TN3270 client and the Cisco TN3270 server will convert the 3270DS data stream when required.

If you choose automatic translation, note the following:

- The automatic translation done by the Cisco TN3270 server cannot be guaranteed. The screen may look slightly different from the intended layout. It also uses some CIP CPU.
- You must configure SSCPFM=USSSCS on all Logical Units (LUs) and LUGROUP entries.

```
IN len=9 2C0000010001838000
IN len=20 xxxxxxxxxxx010B80008106200C0600
OUT len=12 2Cxxxxxxxx018B8000810620
TELNETIN len=1766 404040E6E6E6E64040D5
```

The remainder of the entries for the **show** command are shown below:

```
IN len=9 2C0000010001838000
IN len=20 xxxxxxxxxxx010B80008106200C0600
OUT len=12 2Cxxxxxxxx018B8000810620
TELNETIN len=1766 404040E6E6E6E64040D5
```

Related Information

- **Technical Support – Cisco Systems**
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