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Tech Notes

# Compatible Systems Tech Notes: Debugging a Compatible Systems Router Log

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(256 character limit)

## Introduction

This document contains information on debugging a compatible systems router log.

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

This document is not restricted to specific software and hardware 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

Refer to [Cisco Technical Tips Conventions](#) for more information on document conventions.

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### PPP Protocol Values

	PPP Protocol Name	Value	CP Data
Internet Protocol	IPCP	8021	0021
DECnet Phase IV	DNCP	8027	0027
Appletalk	ATCP	8029	0029
Novell IPX	IPXCP	802B	002B
VJ Compressed TCP/IP			002D
VJ Uncompressed TCP/IP			002F
Bridging PDU	BCP	8031	0031
NetBIOS Frame Protocol	NBFCP	803F	003F
Compression	CCP	80FD	00FD
Link Control Protocol	LCP	C021	
Password Authentication Protocol	PAP	C023	
Link Quality Protocol	LQM	C025	
Call-Back Control Protocol	CBCP	C029	
Challenge-Handshake Authentication Protocol	CHAP	C223	

### PPP Negotiation Packets

Logs	Name	Description
src()	Send-Configure-Request	Send our list of desired options.
sca()	Send-Configure-Ack	We accept the options in his conf-req.
scn()	Send-Configure-Nak	We did not like some of his objects and suggest alternatives.
scj()	Send-Configure-Reject	We do not want to negotiate the listed options.

str()	Send-Terminate-Request	We want to terminate the connection of this protocol.
sta()	Send-Terminate-Ack	We agree to terminate the connection of this protocol.
sdj()	Send-Code-Reject	We do not understand this code, do not send it anymore.
spj()	Send-Protocol-Reject	We do not understand this protocol, do not send it anymore.
ser()	Send-Echo-Request	Send a diagnostic packet.
sey()	Send-Echo-Reply	We reply to a diagnostic packet.
sdr()	Send-Discard-Request	Send a one way diagnostic packet.
sid()	Send-Identification	Information about our implementation—not implemented.
stm()	Send-Time-Remaining	Time remaining in this sessions—not implemented.
srr()	Send-Reset-Request	Used to tell the other side that there is a decompression failure. They reset their compressor. Valid with CCP only.
sra()	Send-Reset-Ack	Used to tell the other side that we reset our compressor and that compression can start again. Valid with CCP only.
rcr()	Receive-Config-Request	His list of desired options.
rca()	Receive-Configure-Ack	He accepts our list of options.
rcn()	Receive-Configure-Nak	He does not like some of our options and suggests alternatives.
rcj()	Receive-Config-Reject	He does not want to negotiate the listed options.
rtr()	Receive-Terminate-Req	He wants to terminate this protocol's connection.
rta()	Receive-Terminate-Ack	He agrees to terminate this protocol's connection.
rdj()	Receive-Code-Reject	He does not understand this protocol, we no longer send it.

rpj()	Receive-Protocol-Reject	He does not understand this protocol, we no longer send it.
rer()	Receive-Echo-Request	He sends a diagnostic packet.
rey()	Receive-Echo-Reply	He replies to a diagnostic packet.
rdr()	Receive-Discard-Request	Got a one-way diagnostic packet.
rid()	Receive-Identification	Information about his implementation—not implemented.
rtm()	Receive-Time-Remaining	Information about time remaining in this session—not implemented.
rrr()	Receive-Reset-Request	The other side tells us there is a decompression failure. We reset our compressor. Valid with CCP only.
rra()	Receive-Reset-Ack	The other side has reset its compressor and compression can start again. Valid with CCP only.
open()	administrative open	Allow this protocol to be negotiated.
close()	administrative close	Do not allow this protocol to be negotiated.
up()		This protocol is available for use and option negotiation can begin.
down()		This protocol is not available for use.
timeout()		A response to a PPP request is not received within 4 seconds. Retry up to 10 times, then fail.
tlu()	This-Layer-Up	The PPP negotiation for this protocol is successful. Traffic can now be carried.
tld()	This-Layer-Down	This protocol is unavailable and can no longer carry traffic.
tls()	This-Layer-Starting	PPP is ready to negotiate when the link comes up.
tlf()	This-Layer-Finished	PPP is done with this protocol.
	init restart	Initialize the PPP retry counter to

irc()	counter	10.
zrc()	zero restart counter	Force the PPP retry counter to zero.

## Option Abbreviations

- accm—Async Character Control Map
- pfc—Protocol Field Compression
- acfc—Address & Control Field Compression
- mru—Maximum Receive Unit
- vj—Van Jacobson TCP Header Compression

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