Troubleshooting "Broken Tools"

This document is intended to help Tier 3 Server Operations find the source of tools-related outages. Keep in mind, the goal of troubleshooting is to isolate the locations and/or processes in which the error might be occurring.

NOTE: The steps have been created in this order to better isolate more common problems first. Continue through these steps only if you DO NOT receive an error. If an error occurs, focus your efforts on determining its course, or the root of the error before proceeding.

For a PDF version of this document, click here.

Prerequisites

You must have have the following to proceed:

- MSO CTL account
- SecurID
- Web login for Customer Service Tools
- Web browser

Local

- 1. Check the NOC trouble ticket for the subscriber's logins and the tool believed to be broken. If this information is missing, return (de-escalate) the ticket back to the NOC, as you cannot proceed without it.
- 2. Open the Customer Support Tools http://www.support.home.net/ page in a Web browser.

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Member: guest Sign In Member Services Help Excite @Ho	me
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Whome Network.	
Welcome to the @Home Customer Support Tools Entryway.	
The @Home Customer Support Tools web server is a Secure Sockets Layer encrypted web server. As such your web client needs to accept the the encryption certificates this web server is using. These certificates are signed by the @Home Network certificate authority.	ption
Users of the @Home browser will experience a seamless transition to the encrypted SSL connection but other browsers may not automatically accept the certificate authority that has signed the cipher keys in use by this server. Your client may give you several dialogue boxes when you follow the link below to t secured server.	he
Your client should only present you with the certificate dialogue acceptance sequence for the @Home certificate authority once, since each of the customer support tool and knowledge base web server cipher keys are signed by the same @Home Network certificate authority. It is only that your browser may no already be set to recognize the @Home certificate authority that is an issue, and may result in you having to negotiate a sequence of dialogues before the clie accepts our certificate authority.	t nt
Be sure to permanently accept the certificate when your client asks you to either "reject", "accept for current session", or "accept forever". be certain, click <u>here</u> to intentionally download (and then manually accept) the cipher key authority. The nickname for the cipher key certificate should be "@Home Root CA".	To te
@Home Network.	
Enter <u>The @Home Tools</u> Webpage	-
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3. Click **The@Home Tools** link. The following screen displays:

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@ Home Network	
Customer Support Tools Login Page	
Please enter Login Name and Password.	
Login Name:	
Password:	
Submit Reset	
© Copyright 1998 @Home Network.	
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4. Log in as a Customer Support Representative. The following screen displays:



5. Click Network Diagnostics. The following screen displays:



6. Click Network Diagnostics (MSO version).NOTE: Sessions will not expire, but if the server is "kickstarted", you will have to log in again. The following screen displays:

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@ Home	Network		
Tools Network Diagnostics Service Configuration Lead Tracker	Find a Subscriber / Find Con Enter the unique Email User Name or any comb Computer information. Only one entry is require	mputer ination of the other Subscriber selection fields to find a subscri ed for Computer Information and no wildcard characters allowe	▲ ber. You may search on Subscriber information or d on Computer Information searches.
HHP by Node Report	Subscriber Information	Computer Information	
@Werk Tools Admin- istration Operations	Find Subscriber User Name: (Key field) First Name: Last Name: Street No: Street No: Street Name: All Apt/Floor: All City: State/Province: All Zip/Postal Code: Work Phone: Image: Image	Find Computer Wildcard searches not allowed for this category of search. @Work Account?: © No Omputer DNS Name: Computer IP Address:	
	Find Subscriber	Find Computer	
	Reset Help		
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- 7. Enter the subscriber's User Name, Modem Serial #, Computer DNS Name (Hostname), or Computer IP Address.
- 8. Click Find Subscriber or Find Computer. The following screen displays:

Home
search

9. Click the subscriber's login under **Subscriber Login**. The following screen displays:

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Lead Tracker										
HHP by Node Report	Select user	name:								
@Work Tools	Username	Subscriber Name	Primary Account							
Admin-	stanh32	STANLEY HORSPOOL	Primary							
istration	brianh321	BRIAN HORSPOOL								
Operations	land the second second									
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10. Select the appropriate account (This subscriber has a Multi-User Account). The following screen displays:

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@ Home	Network					
Tools		<i>a</i> 1 1 1	~ .	a 1 a		
Network Diagnostics		Subscriber'	s Comput	er Selectio	on List	
Service Configuration	Subscriber Name: STANLEY	HORSPOOL				
Lead Tracker	Number of active assets four	nd: 2				
HHP by Node Report						
@Work Tools	Get More Computer Informa	ation for:				
Admin- istration		Computer Status	TP Address	05	CPII	
Operations		C1178328-B COMPLETE	24.176.158.47	WIN 98	null	
		C1178328-A COMPLETE	24.19.129.204	NT 4.X SP 3+	P166 OR FASTER	
			1	1		
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11. Select the appropriate Subscriber's computer under **Computer** (the Subscriber in the example has multiple computers). The following screen displays:

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Tools Network Diagnostics	Networl	/Service Dia	gnostics	Request			-
Service	Subscriber's Na	me:	STANLEY HORSPO	DOL			
Lead	MSO:		TCI				
Tracker	Subscriber's Co	mputer Info	Modem Info				
Report	DNS Name:	C1178328-B	IP Address:	10.98.230.124			
@Werk Teels	Status:	COMPLETE	Stage Date:	10/25/00 08:28			
Admin	IP Address:	24.176.158.47	Serial No:	037497354			
istration	OS:	WIN 98	Manufacturer:	RCA			
Operations	DDC:	PDC1 SEPA HOME COM	Model:	DOM2D MONS 1			
	Headend	SMATEO1	DOCSIS Version:	DEFAILT			
	Laser Group:	SMATEO23/0/4	MAC Address	00:10:95:81:63:71			
	Node:	RCI	Gateway IP:	10.98.230.1			
	Subdomain:	smateol.sfba.home.com	NetMask:	255.255.254.0			
	Primary DNS:	24.1.4.12	Frequency(Rz/Tz):	21000000/495000000			
	Secondary DNS:	24.1.4.14					
	Gateway IP:	24.176.158.1					
	Netmask IP:	255.255.255.0					
	Stage Date:	12/08/00 22:14					
	Select Tool: Che	eck Dial-up					
	Submit He	lp Back Return t	o Find User				
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12. In the **Select Tool** drop-down menu, find the tool you want to run:

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Ø Home	Network					
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10015	Subscriber's Na	ame:	STANLEY HORS	POOL		-
Network Diagnostics	MSO:		TCI			
Service	Subscriber's Co	omputer Info	Modem Info			
Lead	DNS Name:	C1178328-B	IP Address:	10.98.230.124		
Tracker	Status:	COMPLETE	Stage Date:	10/25/00 08:28		
Report	IP Address:	24.1/6.158.47	Senal No:	037497354		
@Work Tools	OS:	WTN 28	Manufacturer:	KCA DCM016		
Admin-	CPU:	PDC1 SERA HOME COM	Model:	MCNS 1		
Operations	Headend:	SMATEO1	DOCSIS Version:	DEFAITT		
operations	Lacer Group	SMATEO2-3/0/4	MAC Address:	00-10-95-81-63-71		
	Node: Chu	ack Dialum	Gateway IP	10 98 230 1		
	Subdomain Che	eck DHCP Failures	NetMask:	255,255,254,0		
	Primary DN: Che	eck DHCP Install	Frequency(Rx/Tx):	21000000/495000000		
	Secondary D Che	eck Mail				
	Gateway IP: Che	eck Modem				
	Netmask IP: Che	eck WebSpace				
	Stage Date: De	lete Computer				
	Te	st Connectivity - Traceroute				
	Select Tool: Ch	eck Dial-up 💌				
	Submit Help	Back Return to Find Us	ser			-
🚨 Done					\bigcirc	search

NOTE: For a complete list of available tools, with descriptions, click Help.

13. Select the tool you want to run.

14. Click **Submit**. Below is an example of a results screen displayed when a tool check has been run.

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@ Home	Network						
Toole	Charle DCA Cable Madam						
Natwork	Check RCA Cable Modem						
Diagnostics	Subscriber: STANLEY HORSPOOL						
Service Configuration	Serial #: 037497354						
Lead Tracker	DOCSIS Version: MCNS 1						- 1
HHP by Node	Modem Details:						
@Werk Teals			QOS Level				
Admin-			Error				- 1
istration							
Operations	Server Details:						- 1
	Ping Status:						
	The Cable Modem is pingable						
	The Computer IP is pingable						
	DHCP Server Check Results:						
	DHCP Host	MAC Address	IP Address	Modem Configured?	Level of Service	Bootfile	
	dhep.SMATEO1.SFBA.HOME.COM	01:00:10:95:81:63:71	10.98.230.124	Yes	Default	67 smateo1_c1_mDCM215_v1_n6.mcns	
	SYSLOG Results:						_
		SysLog for: d	hep.SMATEO1.SI	BA.HOME.CON	I		
	laLease Granted: Wed Jan 3 12:51:09 2001 InLease Expired: Wed Jan 10 12:51:09 2001 InLease Extension: Sun Jan 7 00:51:09 2001 InLease Last Renewed: Wed Jan 3 12:51:09 2001						
	To update or create a trouble ticket, fill in the Tick	et Number and email address	and select the Upd	ate Ticket button.			
0	Tichet Mandese				P		-
Done						Sea	

Try to duplicate the error reported.

If you are unable to duplicate the error, de-escalate and gather more information.

If you were able to duplicate the error in the ccui, try to isolate the failure by running the command on the command line.

Remote from Local

To run the tool from the command line

- 1. From a Sun workstation, open a Terminal window.
- 2. Log in to fulcrum using a msoctl account. Type the command ssh -l <XX>msoctl www.support.home.net where XX = your initials.
- 3. Enter your securID.
- 4. Type the command **priv msoctlchroot**. You are now in the privileged environment.
- 5. Type **cd** /**tmp** to navigate to the temp directory.
- 6. Type **grep <subscriber>** where subscriber = the support tools login name you used to login at the web browser login page.

Example

7. Highlight the most recent log entry starting with "/tools" all the way to the end of the argument list, which always ends with -recordDelimiter '~'.

Example

- 8. Copy the highlighted command with arguments.
- 9. Open a new Terminal window (ssh session) following steps 1 to 5 in this section.
- 10. In the /tmp directory, use VI Editor to create a test file.

Example: vi run_modem_check.sh

- 11. Paste the copied command into the new, blank file.
- 12. Save the new file.
- 13. Run the new file from the command line.

Example

14. Compare the output of the new file against the log entry in the initial grep window. The results of the script should be the same as displayed in the second part of the output which starts: "Just called checkModem script,..." A successful result will say "is successful = true", an unsuccessful result will say "is successful = false".

Example

- 15. Note the error code, error text, and error severity, if any. Use this information to update the NOC ticket, then escalate.
- 16. Determine if there is an ssh command by viing the file.

Example

Example

- 17. If there is no error, then de-escalate with the reason "Not reproducible".
- 18. If there is an ssh command, navigate to the /tools/current directory to analyze the test script from the log.
- 19. See the next section to log in with ssh to the remote machine.

To determine if you can login with ssh to the remote machine

- 1. Run /usr/bin/ssh -l msotool <haname> where <haname> is determined by -rdc, such as ha1.RDC1.SFBA.HOME.COM for example.
- 2. If successful, you will see the \$ prompt from the remote machine.

Example

3. Run **cat** /etc/resolv.conf to verify you have the correct remote machine. Default will show machine name, such as: ha1.RDC1.SFBA.HOME.COM.

Example

- 4. CTRL-D to end the session.
- 5. The command line displays: connection to <remote machine> closed.
- 6. Run the remote script from the fulcrum command line.

To determine if you can run the remote script from the fulcrum command line

- 1. Repeat the mso tool login.
- 2. Determine the variables to pass to the ssh script by searching for the \$ prompt in the script to see the variables, script names and parameters listed.
- 3. vi the file. From the code find the <cable IP> set of parameters from the first grep window.
- 4. Copy the remote script.