Troubleshooting

Instructor Led Training
Copyright © 2008 Equitrac

Chapter 5-Exercise A

Steps for Troubleshooting

- How is the problem presenting itself?
- Who is effected?
- What has changed recently?
- Theory – most probable cause
- Suggest a solution
- Test solution from step 5
- Effects of solution
- Document what you have done

Have You Checked the Simple Stuff?

- Licensing
- Login procedure
- User rights
- Link lights
- Power switch
- Operator error

Hardware or Software Problem?

- Replace bad with good and good with bad
- Configuration (I/O, IRQ, DMA)
- Drivers
- Service packs and versions
- Error logs
- Virus
- Memory

Workstation or Server Problem?

- Does the problem affect one person of many?
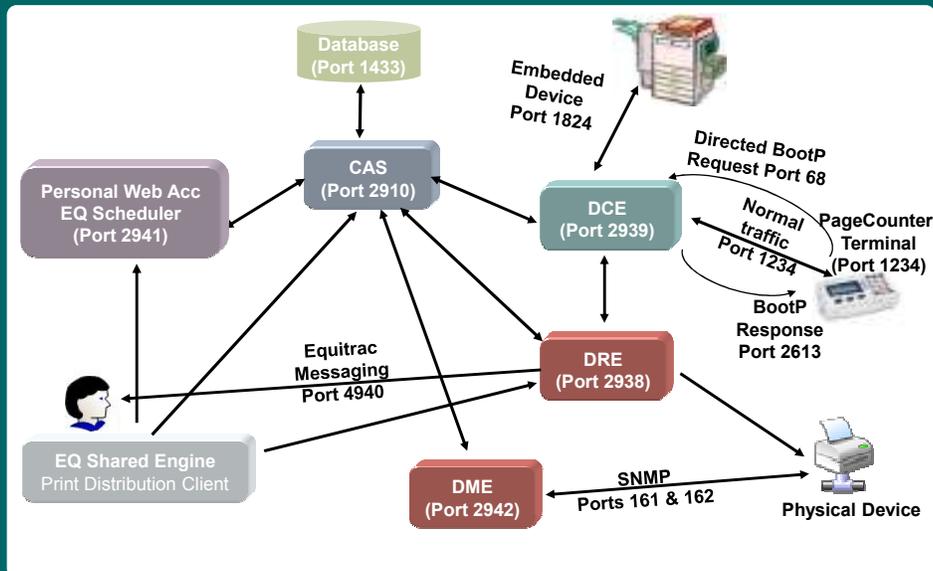- Can you reproduce the problem?

5

Which Segment Is Effected?

- Use TCP/IP tools
- Network address
- WAN, LAN, Wireless
- Routers
- Firewalls

6

Importance of Communication

Communication between all Equitrac components is important for the software to function properly. Ensure the network is configured and functioning correctly.

7

Equitrac Communication & Ports

Database
(Port 1433)

Embedded
Device
Port 1824

Directed BootP
Request Port 68

CAS
(Port 2910)

Personal Web Acc
EQ Scheduler
(Port 2941)

DCE
(Port 2939)

Normal
traffic
Port 1234

PageCounter
Terminal
(Port 1234)

BootP
Response
Port 2613

Equitrac
Messaging
Port 4940

DRE
(Port 2938)

EQ Shared Engine
Print Distribution Client

DME
(Port 2942)

SNMP
Ports 161 & 162

Physical Device

8

Report Displays No Data

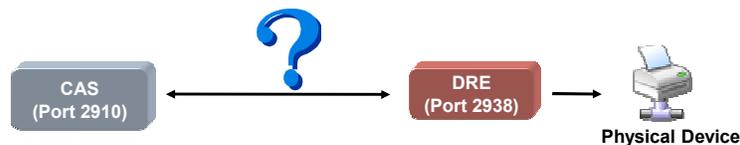| Actions	Notes
•Verify that all components are properly licensed	•Have licenses expired? •Were old license assignments not removed when the machine name was changed?
•Verify that each print device is on an EQ port	•System Manager>Devices •Windows Printer properties

9

Report Displays No Data

Actions	Notes
•Verify the is communication between the DRE and CAS servers	•Reporting information may be cached on DRE, but not written to CAS. •Cache is sent to the CAS when communication is reestablished.

CAS
(Port 2910)

?

DRE
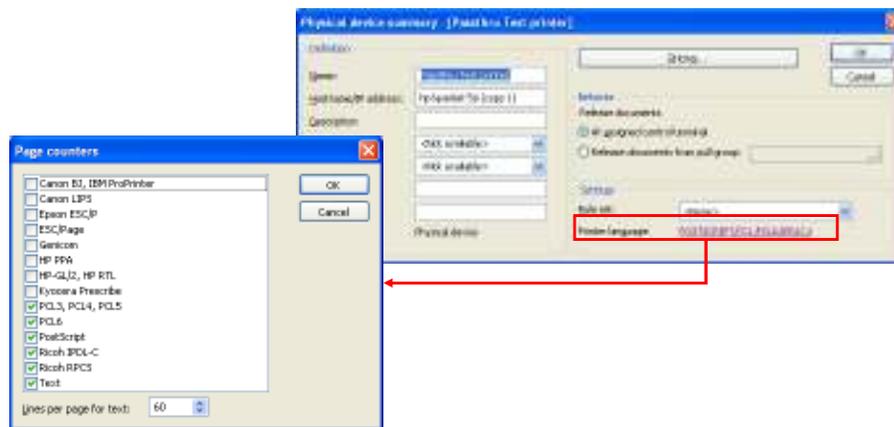(Port 2938)

Physical Device

10

Report Displays No Data

Possible Causes:

◖ Software not licensed

◖ Device not being tracked

◖ DRE server cannot communicate with CAS

◖ Wrong report is being viewed

Printer Language

◖ Check System Manager>Devices>Physical
Device>Printer Language settings

Report Displays Incorrect Page Information

Possible Causes:

- For example, 0 pages, 1000's of pages, or job misreported as black and white or color
- Printer language is not properly configured
- New device driver or application version has been installed
- Some banner/separator pages may cause this issue

13

Report Displays Incorrect Page Information

Actions	Notes
•Determine which printer model and driver and/or application is causing the problem	
•Verify banner/separator page is using the same printer language as the driver	•Windows Printer properties •Using a PCL6 print driver with a banner page

14

Report Displays Incorrect Page Information

Actions	Notes
•Verify printer language settings for the physical device	•Check Windows Printer for driver version •Check System Manager> Devices>Physical Device> Printer Language settings

Report Displays Incorrect Page Information

Actions	Notes
•Print the document to a file	•Print to a file from an application, or assign the printer to a FILE printer port. •To capture a banner page in a "Print to file," use a FILE port.

Report Displays Incorrect Prices

Possible Causes:

☾ Pricing schedule is not defined correctly

☾ Wrong pricing schedule is applied to device

☾ Regional settings have incorrect decimal place settings

17

Report Displays Incorrect Prices

Actions	Notes
•Verify Price lists	•System Manager>Price lists •Use Advanced Price List Type to differentiate color and black & white pages in the same document
•Verify the device has the correct Price list applied - Run Detailed Activity reports by Network User or Device	•System Manager>Devices

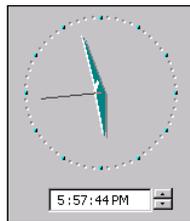18

Report Displays Incorrect Prices

Actions	Notes
•Verify that Equitrac and the server's Regional Settings have the same decimal settings defined	•System Manager> Configuration>Accounting Precision

19

Report Displays Incorrect Prices

◖ Take a screenshot of the Price list and then verify the settings
◖ If Price List requirements are not met then the default page price is charged
  Example: Configuration:
    Default page price: $.02
    Color / Letter size: $1.00
◖ If a color / Letter size document is printed, then $1.00 is charged (job matches requirement)
◖ If a color / Legal size document is printed, then $.02 is charged (job does not match requirements)

20

Time

℃ If the time difference on different computers is too great, this may result in communication problems between components

℃ Verify and synchronize the time on all computers

5:57:44 PM

21

User Does Not Receive Popup

℃ Communication between the workstation and server is unavailable

℃ Proper workstation licenses are not installed or all licenses are already assigned (in use)

22

Page 11

User Does Not Receive Popup

Actions	Notes
•Verify communication	
•Verify Client Billing licenses are installed	
•Verify availability of Client Billing licenses	•If licenses are invalid and no licenses are available, no popup appears

User Does Not Receive Popup

- Verify printing to an Equitrac managed printer
- Verify the configuration that enables popups

PageCounter Terminal Ports

☾ Required ports for PageCounter terminal communication

Port	Description
68	BootP request
2613	BootP response
1234	Ethernet communications for PCS and PC100
1235	Ethernet communications for XCP devices (old device)

 25

PageCounter Terminal Displays "sending boot message"

☾ Verify PageCounter terminal can communicate to the DCE service

☾ Verify that the DCE service is running

☾ Verify that a Device Server license has been entered

☾ Verify the server IP Address settings on the server

☾ Verify that the link lights on the PageCounter terminal show activity

 26

PageCounter Terminal Displays "sending boot message"

Actions	Notes
•Verify IP Address settings on the PageCounter terminal	•Should be correct DCE server IP address. •If DCE server IP address has changed, it will be out of sync with the IP Address in the PageCounter terminal.
•Verify communication from the server to the PageCounter terminal	•Ping the PageCounter terminal from the DCE server.

PageCounter Terminal Displays "sending boot message"

Actions	Notes
•Unplug the PageCounter terminal and test the communication – It should fail	•Success indicates a duplicate IP address •Use an alternate IP address for the PageCounter terminal

    Page 14

Document Fails to Print

- Port is not configured correctly
- Problem with the physical printer
- User does not have permissions to print to the printer
- Account is locked, invalid or out of funds

Document Fails to Print

Actions	Notes
•Verify the printer port IP Address	•System Manager>Devices, or Windows Printer properties
•Print a configuration page (supported for most printers)	•Configuration page includes the IP Address of the printer •Verify it against the IP address specified in Devices
•Verify that the printer port has the proper queue name configured	•System Manager>Devices, or Windows Printer properties

    Page 15

Document Fails to Print

Actions	Notes
•Verify the Printer language settings	•Incorrect printer languages can cause a print job to be deleted
•Verify the communication to the printer on the network	•Ping the printer from the DRE server

31

Document Fails to Print

Actions	Notes
•Convert the printer port to a non-Equitrac port (use a standard TCP/IP port) and then test printing	•If printing is successful, compare the non-Equitrac port configuration to the Equitrac port configuration and find/fix the mismatch

32

Document Fails to Print

Actions	Notes
•Test printing as an administrative and non-administrative user	•If it works for one user, but not the other, it is an machine account permissions issue – modify the user permissions as needed
•Verify that the user, billing code, and/or department account exists, is unlocked, and has an available balance	•Depends on the configuration options in Equitrac System Manger>Account Manager

User Is Unable to Perform Tasks

- ℂ User can not perform tasks or view information in Administrative or Auxiliary applications
- ℂ User does not have required the permissions
- ℂ An issue with network communication
- ℂ Required service is not running

User Is Unable to Perform Tasks

Actions	Notes
•Verify user is part of a group that has been granted access to the appropriate tools	
•Verify communication between the user's point of access and the server	•Ping and Telnet to the server.
•Verify that the Equitrac services are running	

35

Troubleshooting Network Problems

☾ Check to see if other clients or servers or subnets are experiencing the same problem

☾ Check physical network connections

☾ Check protocol settings

☾ Reboot the system

☾ Verify that the NIC drivers are properly installed

☾ Verify the domain/workgroup membership of the client

36

Page 18

Troubleshooting Printer Problems

Network Printing Problem	Solutions
Pages print, but only a single character appears on each page. --or-- Pages print but they include control codes. --or-- Pages print, but they show random characters instead of the desired document.	1. If the job has not completed printing, delete it from the print queue to prevent wasting more paper. 2. Remove and reinstall the logical printer and/or the printer driver on the client (if only a single workstation experiences the problem) or on the server (if all workstations experience the problem). 3. Verify that the data type set in the logical printer is correct for the application used, printer driver installed, and capabilities of the physical print device. 4. Stop and restart the spooler service.
An access denied or no access available message is displayed when a print job is submitted.	This is typically caused by improper permissions defined on the printer share. Double-check the permission settings. You may also need to review the group memberships of the affected users if you are employing any Deny permissions on the printer share.
A network attached printer shows an error light on the network interface.	A network communication or identification error has occurred. Cycling the power on the printer may resolve the problem. If not, try disconnecting then reconnecting the network media while the printer is powered off.

Troubleshooting Network Problems

Network Printing Problem	Solutions
No documents are being created by the physical print device, but the print queue shows that the job is printing.	1. View the print queue to see if a print job is stalled or paused. If so, delete or resume the print job. 2. If no other print job is present, delete the current print job and resubmit it from the original application. 3. Stop and restart the spooler service.
The printer share is not visible from a client (i.e., does not appear in Network Neighborhood or My Network Places).	1. The client system may not be properly connected to the network. Shut down the client, check all physical network connections, reboot. Test whether you can access any other network resources. 2. Check the installed protocol and its settings, especially if TCP/IP is being used. 3. Check the domain/workgroup membership of the client.
On larger print jobs, pages from the end of the print job are missing from the printed document.	This can occur when insufficient space is available on the drive hosting the spooler file. Either free up space on the host drive or move the spooler file to a drive with more available space.

Troubleshooting Network Problems

Connectivity Problem	Solutions
The client does not seem to connect to the network (i.e., no objects are visible in the Network Neighborhood). --or-- The client is unable to authenticate with the domain.	1. Use the Event Viewer to look for errors in the System log. Resolve any issues discovered. 2. Check the physical network connections, including the NIC, media, and local network devices. 3. Check the NIC driver; update or replace if necessary. 4. Check the installed protocol and its configuration settings. 5. Check the domain/workgroup membership. 6. Reboot the client.
A system disconnects from the network randomly or when other computers boot onto the network.	1. Check to see that you are not violating the length, segments, or nodes-per-segment limitations on the network media in use. 2. Verify that all systems have unique address assignments and system computer names. 3. Check for breaks in the network media or the proximity of electrical or magnetic interference.
Shared network resources, such as folders and printers, cannot be accessed from a client.	1. Check the assigned permissions on the share itself and on the object (if applicable). 2. Check group memberships for Deny permissions. 3. Attempt to access the resources using a different user account or client. 4. Check that the computer is connecting to the network.

39

Uninstalling the Server

◌ Choose a method to restore the printer ports prior to uninstalling:

- Printer Conversion Port

- Manually

◌ Use the registry key (if exported) to restore the printers

> HKEY_LOCAL_MACHINE\System\CurrentControlSet\
> Control\Print\Printers

◌ Is the database going to be kept or deleted? You will be prompted during the uninstall.

40

Getting Help

- Equitrac provides assistance for all registered users via e-mail or telephone, employing a sophisticated call ticketing system, that ensures all Service Requests are dealt with in a timely manner.

- When you call for support, please ensure you have a complete description of your problem, your environment, and have access to the various server components.

Getting Help

- Equitrac front-line support staff provide prompt service, with answers to common problems, and access to a tiered support process where they can escalate calls as needed.
- Hours of Support:
    8am-8pm EST
- Contact us:
    Phone: 1-877-378-4872
    Email: Support@equitrac.com

Getting Help

- Operating System Support
- Manufactures website
- Search the net

Questions?