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8.6.3 Printer Troubleshooting Facts

There are many situations and problems you could potentially run into while managing printers. Below are a few guidelines for troubleshooting printer related issues.

This lesson covers the following topics:

- Printer doesn't print
- Driver issues
- Printout quality issues
- Laser printer considerations

Printer Doesn't Print

If a printer does not print, try the following troubleshooting techniques:

- Check to make sure that the printer is turned on and is online.
- Make sure that the printer is not paused.
- Verify that the cable is connected on both ends and that it is the correct cable for that printer.
- For network printers, make sure that the printer is configured with correct TCP/IP settings for the network.
- Ensure that there is paper in the feed tray and that the tray, feed, and rollers are all in their correct positions. Verify that the correct paper tray was selected when sending the print job.
- Look for a paper jam. If a jam is found, clear it and then check any feed and roller mechanisms nearby and confirm that they are clean and operating correctly.
- Check the ink and toner levels.
- Perform a test print from the workstation.
 - Open an application and try to print directly from the application.
 - If this does not work, access the printer properties in Devices and Printers and then click Print Test Page. This option bypasses the application. If it works, troubleshoot the printing configuration in the application.
- Perform a test print from the printer console.
 - If successful, the problem is with the workstation or the connection to the printer.
 - If unsuccessful, the problem is with the printer itself.
- Check the printer console or workstation for any error messages or error codes. Use the printer documentation or the manufacturer website to look up specific codes displayed on the printer.
- On the workstation, verify that the Print Spooler service is started.
- Check the print queue. Sometimes a large document might be first in the queue and is stalling or otherwise preventing other documents from printing. Move the document down in the queue, or delete the document from the queue if necessary.
- If a problem cannot be found, try restarting the printer and the computer.

Driver Issues

It is important to make sure that the following driver issues are addressed when troubleshooting printers:

- Verify that the latest version of the driver for the specific make and model of the printer has been installed. If the incorrect driver is installed, this can lead to post-script text, garbled text, and other irregular activity.
- Incorrectly configured network printing often leads to users installing the wrong driver on their machine. Make sure to configure your network so that users don't have to install the driver on their machine, especially without supervision.
- On occasion, driver files may become corrupted. If this is the case, you should reinstall the latest version of the driver from the manufacturer's website.

Printout Quality Issues

If the printer prints, but the printout quality is poor, check the following:

- Check ribbon, ink, and toner levels.
 - For dot matrix printers, printer images become faint when the ribbon needs to be replaced. Also, ensure that there is not too much gap between the printer head and the paper.
 - For inkjet printers, if pages have missing lines, use the printer's automatic cleaning feature. If this doesn't work, replace the printer cartridge. For missing or incorrect colors, verify ink levels.
 - For laser printers with missing lines, try shaking the toner cartridge to distribute the toner evenly. If lines are still missing, or if extra characters appear, you might need to have the printer cleaned or some internal components replaced.
- For laser printers:
 - If faint images from previous printouts appear on subsequent pages, the fluorescent lamp and rubber scraper might not be removing remaining toner from the drum prior to starting a new print job.
 - A dirty primary corona wire can cause a vertical stripe down the print job because that part of the OPC drum is not being charged by the charge corona.
 - A dirty secondary corona wire could cause the same problem because the charge is not being applied to part of the paper.
 - A dirty drum or roller can create lines or splotches at regular intervals on the print job.
 - If toner is not sticking to the paper, check the transfer (fuser) rollers.

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- A faulty static eliminator strip might cause paper jams because the paper will stick to the components inside the printer.
- For newer laser and inkjet printers, calibrate the printer (perform a self-test). Often the printer uses the self-test to check the printed image and make minor adjustments automatically. Calibration fixes blurry text, misalignment (jagged lines), or incorrect colors.
- If the text appears garbled, make sure the proper printer driver is used. If necessary, upgrade to the latest version or reinstall the driver.
- If the page prints only part way through (and the rest of the page is blank), you might need to upgrade the memory on the printer or check the print server settings.
- Check the pickup rollers if paper is not being fed through the printer properly.
- Use the correct paper type for the printer. Most paper will be labeled as appropriate for a specific type of printer. For example:
 - Using glossy paper in inkjet printers could lead to smeared ink because the ink is not being absorbed into the paper.
 - Using glossy paper could cause the paper to not be pulled into the rollers correctly.
 - Be careful when using thick paper or cardstock in a laser printer; they can cause paper jams. The weight of laser printer paper should generally be between 70 and 130 grams per square meter (GSM). On some laser printers, you can change the paper path for thick paper so it is fed through the printer in a straight line (rather than curling the paper up to the top of the printer). Such straight line paper paths can help prevent paper jams with thick paper.

Laser Printer Considerations

When working with laser printers, be aware of the following:

- A laser printer's fuser operates at a high temperature and can burn you.
- Because an OPC drum is sensitive to light, it can lose its effectiveness if it is over-exposed.
- Do not put any materials in a laser printer that melt below 180 degrees Fahrenheit. When they pass through the fuser, they can melt and permanently damage the laser printer.
- Do not attempt to print on paper with photocopied or laser printed images already on it. The images can come off onto parts of the laser printer and smear your print jobs.
- To clean up toner spills, scoop up large quantities of toner or use a damp cloth to wipe up lesser quantities. Use toner vacuums that are specially designed to clean up toner spills. Never use a household vacuum to clean up a toner spill. Because toner is very fine, it is likely to pass through a household vacuum's filter and be blown into the air. Also, it can be attracted to magnets in the motor and ruin the vacuum or cause a fire.

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