IT_Troubleshooting_Guide

Network Troubleshooting Guide



User Forgot Password



Reset the user's password following your organization's password reset procedures. Ensure the user receives the new password securely.

Reset the user's password.

**Run the following command as an administrator to reset the user's password:

```
net user [username] [new_password]
# net user johndoe newpassword123
```

`Ensure the user can log in successfully.

*Confirm with the user that they can log in using the new password.



Server Disk Space Full

(i) Info

Investigate and free up disk space by deleting unnecessary files or logs. Consider expanding storage or implementing a storage management plan to prevent future issues.

Troubleshooting Commands and Actions

1. **Check disk usage with wmic command.

*To check disk space on all drives:

```
wmic logicaldisk get caption, freespace
```

*To check a specific drive (e.g., C: drive):

```
wmic logicaldisk where "DeviceID='C:'" get caption, freespace
```

- 2. **Identify and delete unnecessary files.
 - *Manually locate and delete large or unnecessary files using Windows File Explorer.
- 3. **Implement disk cleanup procedures.
 - *Run the built-in Windows Disk Cleanup utility:

cleanmgr

- 4. **Consider adding more storage space.
 - *Plan to add more hard drives or expand storage as needed.

Warning

Slow Network Connection

(i) Info

Check network cables, switches, and routers for connectivity issues. Test network speed and consider bandwidth upgrades if necessary.

Troubleshooting Commands and Actions

- 1. **Use ping to test network connectivity.
 - *To ping a specific host or IP address:

```
ping [host_or_IP]
# Example: `ping google.com`
```

- 2. **Check cable connections.
 - *Ensure all network cables are securely connected to devices.
- 3. **Inspect network hardware for faults.
 - *Physically check routers, switches, and network devices for any visible issues.
- 4. **Monitor network traffic with tools like Wireshark.
 - *Install and run Wireshark to capture and analyze network traffic.

- 5. **Consider network infrastructure upgrades.
 - *Evaluate network capacity and consider upgrading equipment or increasing bandwidth.

Warning

Application Crashes Frequently

(i) Info

Examine application logs for error messages. Update the application or apply patches if available. Check system compatibility and hardware requirements.

Troubleshooting Commands and Actions

- 1. **Review application logs for error details.
 - *Locate application logs, usually found in the application's directory or in the Windows Event Viewer.
- 2. **Update the application to the latest version.
 - *Follow the application vendor's instructions for updating.
- 3. **Verify system compatibility.
 - *Check if the application is compatible with your Windows version.
- 4. **Check hardware resources (RAM, CPU) for sufficiency.
 - *Use the Windows Task Manager to monitor resource usage.

Warning

User Unable to Access Email

(i) Info

Verify user credentials and email server status. Check email client settings for accuracy. Troubleshoot email server issues or password problems if necessary.

Troubleshooting Commands and Actions

- 1. **Confirm user's login credentials.
 - *Verify that the user is using the correct username and password.
- 2. **Test email client settings.
 - *Check email client settings, including incoming and outgoing server details.

- 3. Verify email server status.
 - *Use telnet to test email server connectivity (if supported by your email server):

```
telnet mail.server.com 25
```

- 5. **Reset email password if necessary.
 - *Follow your organization's password reset procedures.
- 6. **Investigate email server logs for errors.
 - *Check email server logs for any error messages or issues.

Warning

Server Service Unavailable

(i) Info

Restart the server service. Monitor resource usage and investigate the root cause of the service failure. Consider service redundancy for critical services.

Troubleshooting Commands and Actions

- 1. **Restart the affected service.
 - *To restart a Windows service, use the following command (replace [service_name] with the actual service name):

```
net stop [service_name]
net start [service_name]
```

To find the service name for a specific service on a Windows system, you can use the **SC query** command followed by the service display name or part of the name (case insensitive). Here's the command to find the service name:

```
sc query type= service | find "SERVICE_NAME: [partial_service_name]"

# For example:
sc query type= service | find "SERVICE_NAME: Spooler"
```

- 2. **Monitor resource usage (CPU, memory).
 - *Use the Windows Task Manager (Ctrl+Shift+Esc) to monitor CPU and memory usage.
- 3. **Check logs for service failure details.
 - *Examine the Windows Event Viewer for service-related error logs.
- 4. **Investigate underlying server issues.

*Review system logs for potential hardware or software issues.



Printer Not Responding



Check printer connections and power. Clear print queues and restart the print spooler service. Update or reinstall printer drivers if needed.

Troubleshooting Commands and Actions

- 1. **Verify printer power and connectivity.
 - *Ensure the printer is powered on and connected to the computer.
- 2. **Clear print queues.
 - *To clear print queues on Windows, use the following command:

```
net stop spooler
del %systemroot%\System32\spool\printers\* /Q /F /S
net start spooler
```

- 3. **Restart the print spooler service.
 - *Use the following command to restart the print spooler service:

```
net stop spooler
net start spooler
```

- 4. **Update or reinstall printer drivers.
 - *Go to the printer manufacturer's website to download and install the latest drivers.
- 5. **Test printing with a sample document.
 - *Print a test page or document to verify if the printer is responding.



User Account Locked Out



Unlock the user's account and investigate the cause of the lockout. Look for suspicious activity or multiple failed login attempts.

Troubleshooting Commands and Actions

- 1. Unlock the user's account.
 - To unlock a user account on Windows, use the following command (replace [username] with the actual username):

```
net user [username] /active:yes
```

- 2. **Check logs for the source of the lockout.
 - *Review Windows Event Viewer or security logs for information on why the account was locked.

```
eventvwr.msc <- OPEN EventViewer
# Common Event IDs related to account lockouts include 4625 (failed logon) and 4740 (account lockout)</pre>
```

- 3. **Investigate unusual login attempts or security breaches.
 - *Look for multiple failed login attempts or any suspicious activity on the user's account.

⚠ Warning

Website Not Accessible

(i) Info

Verify DNS settings, check the web server's status, and examine firewall rules. Investigate serverside or DNS-related issues for the website's inaccessibility.

Troubleshooting Commands and Actions

- 1. **Check DNS settings and resolve any issues.
 - *Use nslookup to check DNS resolution and identify DNS-related problems:

```
nslookup [website_domain]
```

- 2. **Verify web server status and configurations.
 - *Check if the web server is running and review its configuration settings.
- 3. **Examine firewall rules and permissions.
 - *Review firewall rules and ensure they allow traffic to the web server.

- 4. **Investigate server logs for website-related errors.
 - *Examine server logs for any errors or issues related to the website.