Improving Battery

Guide to Improving Battery Life on Linux Mint with TLP

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1. Introduction

This guide will walk you through the installation and usage of TLP, a tool that can help improve the battery life of your Linux Mint laptop. TLP optimizes power usage in the background, automatically adjusting settings based on power source.

2. Installing TLP

TLP is an advanced power management tool for Linux that runs in the background and automatically optimizes power settings.

To install TLP, open a terminal and run the following commands:

```
sudo add-apt-repository ppa:linrunner/tlp
sudo apt-get update
sudo apt-get install tlp tlp-rdw
```

3. Starting and Enabling TLP

This command will start TLP immediately. However, to ensure TLP starts automatically at boot, you need to enable it:

```
sudo systemctl enable tlp.service
```

After installing TLP, you can start it with the following command:

```
sudo tlp start
```

4. Understanding TLP Modes

TLP operates in two main modes: AC and Battery. When your laptop is plugged into a power source, TLP operates in AC mode, allowing for higher performance. When running on battery, TLP switches to Battery mode, aiming to minimize power consumption and extend battery life. This switch happens automatically.

5. Checking TLP Status

You can check the status of the TLP service at any time with the following command:

```
sudo systemctl status tlp.service
```

This will show whether the TLP service is active and running. For more detailed information about your system's power settings and status, you can use the `tlp-stat` command. This command outputs a variety of information, including current CPU settings, power settings for various devices, and more.

6. Conclusion

By using TLP, you can gain more control over your system's power usage and potentially extend your laptop's battery life. Remember to monitor your system's performance and stability as you make changes, and always back up your data before making significant system changes.