Pi Toolkit Menu with ARP and Network Scanning

Date: June 7, 2025

Category: Raspberry Pi Toolkit / Network Scanning

Backlink: [Pi 5 System Summary Script with AWK](#)

📖 Overview

This entry documents the setup of a modular Raspberry Pi 5 toolkit with a main menu and submenu for essential system tasks and network scanning. It enables quick access to system updates, resource summaries, and LAN device discovery using both ping-based and ARP-based tools.

📂 Script Overview

```
~/tskmenu.sh              # Main toolkit launcher
~/network-tools-menu.sh       # Submenu for network-related tools
~/network-scan.sh             # Ping-based sweep with hostnames
~/pi5-system-summary.sh       # Custom AWK system overview
~/update.sh               # Apt updater/cleaner
```

📋 Main Menu (`tskmenu.sh`)

```
figlet "Nates Pi Toolkit"
 0. Exit
 1. Update, Upgrade, and Auto-Remove
 2. System Summary
```

📟 3. Enter Network Tools Menu

Selecting option `3` brings up the network tools submenu.

🧰 Network Tools Menu `network-tools-menu.sh`)

```
figlet "Network Tools Menu"
1. 📡 Network IP Scan (Ping + Hostnames)
2. 📶 ARP-Scan (MAC Vendors)
0. 🔙 Back to Main Menu
```

- Option `1` runs `~/network-scan.sh`
- Option `2` runs `sudo arp-scan --localnet --interface=wlan0`

🛠️ Fixing arp-scan Vendor Lookup

Problem:

Default arp-scan install via `apt` gave:

- Permission denied errors on `ieee-oui.txt`
- "Unknown" MAC vendors

Solution:

1. **Removed default install**:

   ```
   sudo apt remove arp-scan -y
   ```

2. **Installed from source**:

   ```
   git clone https://github.com/royhills/arp-scan.git
   cd arp-scan
   ./configure
   make
   sudo make install
   ```

3. **Fetched updated vendor list**:

```
sudo get-oui
```

This downloads a clean vendor database to:

```
/usr/local/share/arp-scan/ieee-oui.txt
```

🖥 Example Output

`network-scan.sh` (ping + hostname):

```
🔹 192.168.1.1 (router.local)
🔹 192.168.1.101 (pi.hole)
🔹 192.168.1.185 (octopi)
```

`arp-scan`:

```
192.168.1.1    c8:7f:54:b5:b1:a8    Cisco Systems
192.168.1.99   b8:27:eb:79:c1:de    Raspberry Pi Foundation
```

Next Steps

- Auto-detect between `wlan0` and `eth0` interfaces
- Log outputs to `~/Logs/`
- Create a simple curses-style dashboard for top tools
- Add dynamic vendor filtering (e.g. filter by manufacturer name)

Revision #1
Created 8 June 2025 00:14:33 by Nate Nash
Updated 8 June 2025 00:16:10 by Nate Nash