Connecting to UniFi with Debug Tools & SSH

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Logging into UniFi Devices via Debug Terminal (from UniFi Network Application)

The Debug Console is the recommended method for connecting directly to a UniFi console or other device.

Note: This requires an operational UniFi OS, so if your network is down, proceed to the SSH option below. Debug is also not recommended if pasting long commands in; be sure to check commands that you paste into it before pressing enter.

Simple Mode: Debug Console

Requirements:

- **UniFi Network Application Access:** You need to be logged into your UniFi Network Application (web interface).
- **Debug Tools Enabled:**

Steps to use the Debug Terminal:

1. **Enable Debug Tools:**
   - In your UniFi Network Application, navigate to **Settings** > **System** > **Advanced**.
   - Find the "Debug Tools" option and ensure it's turned **On**.

2. **Access the Device's Debug Terminal:**
   - Go to the **Devices** section in your UniFi Network Application.
   - Select the specific UniFi device (AP, Switch, etc.) you want to access.
   - In the device's properties panel that appears on the right, scroll down to the **Settings** tab.

- At the bottom of the Settings, you should see a **Debug** option. Click it.
- A terminal window will open within the UniFi Network Application, directly connected to the device.

Advanced Mode: SSH

SSH (Secure Shell) provides a command-line interface directly to the UniFi device. This is the most common and robust method for advanced tasks.

Requirements:

- **SSH Client:**
  - **Windows:** PuTTY is a popular free SSH client. PowerShell or the built-in Windows Subsystem for Linux (WSL) can also be used.
  - **macOS/Linux:** Open a terminal window; SSH is built-in.
- **UniFi Device IP Address:** You'll need the IP address of the specific UniFi device (AP, Switch, Dream Machine, etc.) you want to connect to. You can find this in your UniFi Network Application under the "Devices" section.
- **SSH Credentials:**
  - **For *adopted* devices (connected to a UniFi Controller):**The SSH username and password are set in your UniFi Network Application.
    - Navigate to **Settings** > **System** > **Advanced** > **Device SSH Authentication** (or similar path, as the UI can change slightly between versions). Here you'll find the username and password for adopted devices. For UniFi OS Consoles (UDM, UDM Pro, Cloud Key), the username is typically root. For other adopted devices (APs, Switches), the username is often a random string of characters or ui (newer firmware) or ubnt (older firmware), with the password being the one you set in the controller.
  - **For *unadopted* (factory default) devices:**
    - **Older UniFi Devices (APs, Switches):** Username: ubnt, Password: ubnt
    - **Newer UniFi Devices (APs, Switches) & UniFi OS Consoles (UDM, UDM Pro, Cloud Key):** Username: ui (for APs/Switches) or root (for Consoles), Password: ui (for all).
    - If these don't work, try ubnt/ubnt as default for older devices

Steps to SSH into a UniFi Device:

1. **Enable SSH on your UniFi Network Application (for adopted devices):**
   - Go to **Settings** > **System** > **Advanced** (or **Site** in older UIs).
   - Look for "Device SSH Authentication" or a similar setting.
   - Ensure "Enable SSH Authentication" is checked and note the username and password. If you need to change them, do so here.
   - For UniFi Consoles (UDM, UDM Pro, Cloud Key), you might also need to enable SSH specifically on the console via **OS Settings** > **Console Settings** > **SSH**.

2. **Open your SSH Client:**
    - **Windows (PuTTY):** Launch PuTTY, enter the device's IP address in the "Host Name (or IP address)" field, ensure "Port" is 22 and "Connection type" is SSH. Click "Open."
    - **macOS/Linux (Terminal):** Open a terminal and use the command:
    - Bash

ssh <username>@<device_ip_address>

Replace <username> with the SSH username from your UniFi controller (or the default ubnt/ui/root for unadopted devices) and <device_ip_address> with the device's IP.

Accept the Fingerprint (First Connection):

You might be prompted to accept the device's SSH fingerprint. Type yes and press Enter.

Enter the Password:

- You'll be prompted for the password. Type it carefully (it won't show characters as you type) and press Enter.

Common SSH Commands (after logging in):

- info: Displays device information (model, firmware, uptime, inform URL).
- set-inform http://<controller_ip>:8080/inform: Used to point an unadopted device to your UniFi controller for adoption.
- set-default: Factory resets the device.
- reboot: Reboots the device.
- upgrade <firmware_URL>: Manually upgrades firmware (requires a direct URL to the firmware file).
- help: Lists available commands.

Limitations of Debug Terminal:

- **Not available for UniFi Consoles (UDM, UDM Pro, Cloud Key) directly:** While you can SSH *from* an adopted AP *to* a UDM/Cloud Key via the debug terminal, you cannot open a debug terminal directly to the console itself. You need to SSH into the console directly from your computer.
- **Less robust for long outputs or pasting commands:** For extensive command-line work or pasting long commands, a dedicated SSH client is generally preferred.
- **Requires an operational UniFi Network Application:** If your controller or network is down, the debug terminal won't be accessible.

When to Use Which:

- **Debug Terminal:** Quick checks, simple reboots, basic troubleshooting, or when you don't have an SSH client readily available on your local machine.
- **SSH Client:** Advanced configurations, firmware upgrades (especially manual ones), scripting, when the UniFi Network Application is unavailable, or when you need a

more robust and persistent command-line connection.

Always exercise caution when making changes via SSH or the debug terminal, as incorrect commands can disrupt your network

Video Demonstration

Click the below link to watch the video how to access the debug console.

- 🌐 UniFi - How to access the debug console

Contact Us

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