HOME LAB 101

JAMES GAMBLE – JAMES@JAMESGAMBLE.NET

WHAT IS A HOME LAB?

IT professionals, amateurs, and people who just really like computers use home labs for experimentation. They are sandbox environments where one can safely tinker with professional IT systems/applications for the purposes of education and general geekery.

USE CASES

- Blocking Ads/DNS Management

- Document Management

- File Server

- Home Automation

- Intranet

- Keeping Your Office Warm

- Learning

- Media Management/Sharing

- Network Services (Authentication, DHCP, DNS, FTP, NTP, Patch Management, Printer, SFTP)

HARDWARE

- CyberPower – Surge Protectors, UPS', etc.

- Raspberry Pi – Low-cost entry level home lab hardware.

- Synology – Home lab in a box.

- Ubiquiti – Like Meraki…. But not.

CLOUD SERVICES WITH A FREE TIER

- Action1 – Remotely manage your assets.

- Atlassian – Document your crap.

- Cloudflare – A WAF for the 99%.

- ImprovMX – E-mail forwarding for your domain.

- NextDNS – What OpenDNS should have been.

- No-IP – Like DynDNS, with less greed.

- SMTP2Go – Send e-mail like a boss.

- Spiceworks – Inventory and Connectivity Management/Monitoring

- SpryCloud (Hosted NextCloud) – Less creepy Google Docs.

- UptimeRobot – Do you like alerts?

FREE(MIUM) AND OPEN SOURCE APPLICATIONS

- KDE Neon – My favorite Linux distro.

- mRemoteNG – Connect to all your stuff in one place.

- pfSense – Secure your perimeter, with more typing…

- PRTG – Monitor your home lab infrastructure. Lots of charts and graphs.

- Sophos XG Firewall Home Edition – Secure your perimeter, with less typing…

- Veeam Community Edition – Backups foreverrrrr…

SPECIAL PROGRAMS

- Microsoft ActionPak - $550/Year (Must be a Microsoft Partner)

- VMware – VMug Advantage - $200/Year

TIPS AND TRICKS

- Browse /r/homelabs on Reddit.

- Focus on what you want to learn.

- If learning focused, spend time on industry standards (more beneficial to career).

- You don't have to spend a lot of money.

- You will fail. Rebuilding helps with confidence.