TECHMENTOR
IN-DEPTH TRAINING FOR IT PROS

Simple Home Assistant Server Can Make Your IT Life Better

Mike Nelson

Technology Evangelist
Pure Storage

Level: Beginner

#TECHMENTOR

Session Survey

- Your feedback is very important to us
- Please take a moment to complete the session survey found in the mobile app
- Use the QR code or search for “Converge360 Events” in your app store
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- Thank you!

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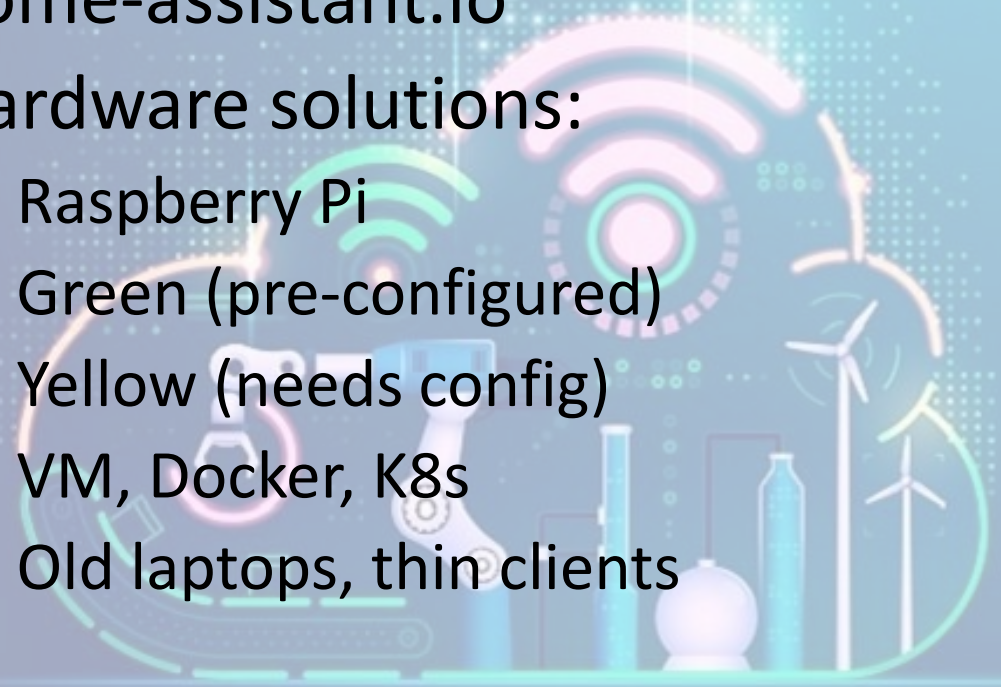
Why Home Assistant?

- Vendor independence
- Multiple installation options
- Free software (hardware required)
- 4k+ integrations/blueprints/helpers
- Multiple protocols
- Community driven and supported
- Local and/or remote management

Let’s see some telemetry

https://analytics.home-assistant.io

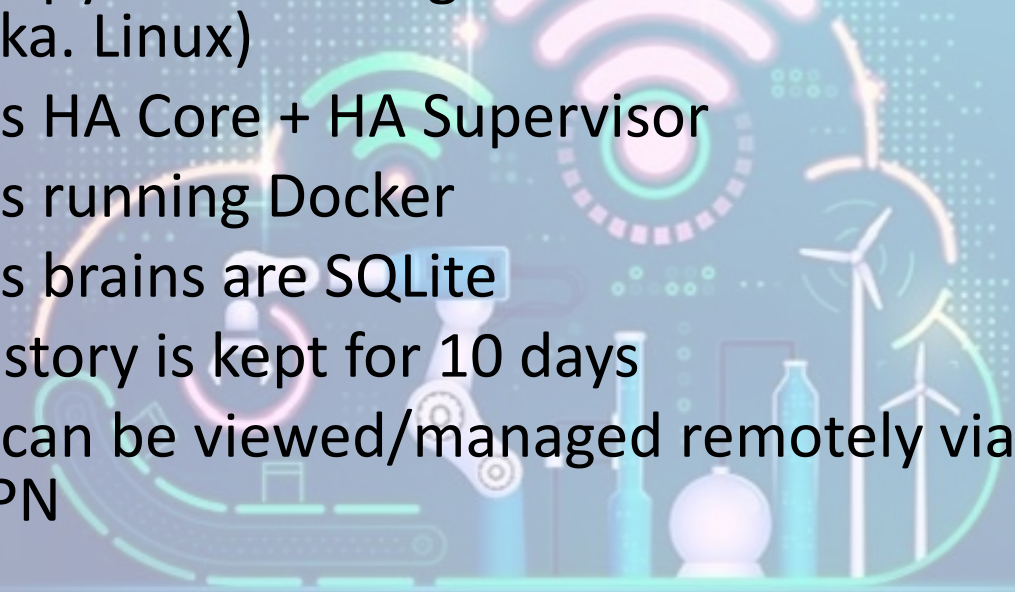
Hardware & Software



- home-assistant.io
- Hardware solutions:
  - Raspberry Pi
  - Green (pre-configured)
  - Yellow (needs config)
  - VM, Docker, K8s
  - Old laptops, thin clients

The brief deets on HASS

- Paulus Schoutsen in September 2013.
- It’s python running on Home Assistant Operating System (aka. Linux)
- It’s HA Core + HA Supervisor
- It’s running Docker
- It’s brains are SQLite
- History is kept for 10 days
- It can be viewed/managed remotely via Nabu Casa ($) or VPN



8:24

Home Assistant
Joe Zimmerman · 50m ·

Now that my mailbox has Ethernet, what should I put in here? I was thinking a POE esp32 with a door sensor minimum. Looking for better ideas. — looking for ideas.

65 110 comments

Like Comment Send Share

37.7
GateLight
ExteriorLight
PLCTemp

Home Control Panel
22 Oct 2022
16:36 10
Calendar
Chores
System
Alarm
Rainy
Bicester
16 °C
77 %
19:00 22:00 1:00 4:00 7:00
15° 14° 14° 14° 14°
19.2 °C
Indoor temp
Climate
Energy
Automations

Home Energy Usage

now/d +2m to now | 1m

Top 5 Devices Currently Running

Oven 1Min	Gas Furnace 1Min	Guest Bedroom 1Min	Office 1Min	Living Room 1Min
3.83 kW	380 W	269 W	231 W	176 W

Current Month Total Power Usage

940 kWh

Current Month Bill

$109.24

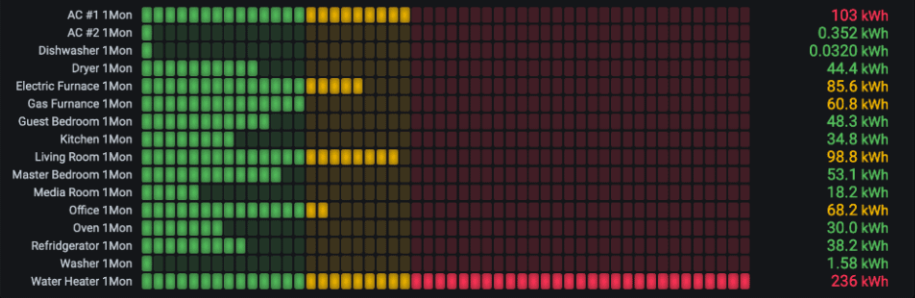
Current Day Power Total

11.1 kWh

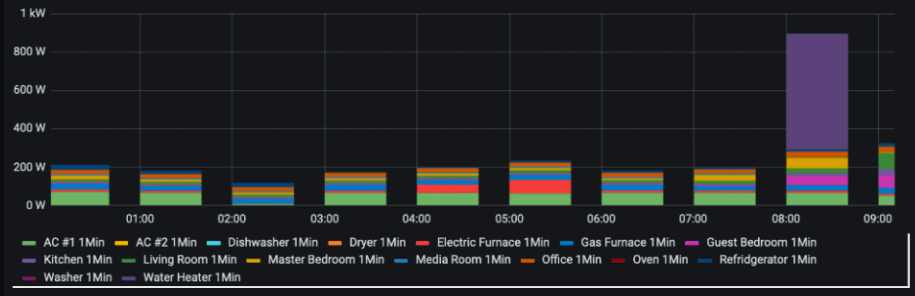
Current Day Power Cost

$1.07

Month Power Total



Hourly Power by Device



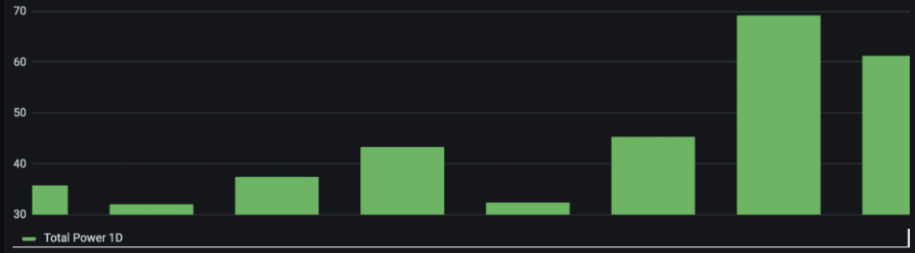
Top 5 Devices Last Week

Last 7 days

	total
Water Heater 1D	79 kWh
Electric Furnace 1D	37 kWh
AC #1 1D	34 kWh
Living Room 1D	32 kWh
Office 1D	21 kWh

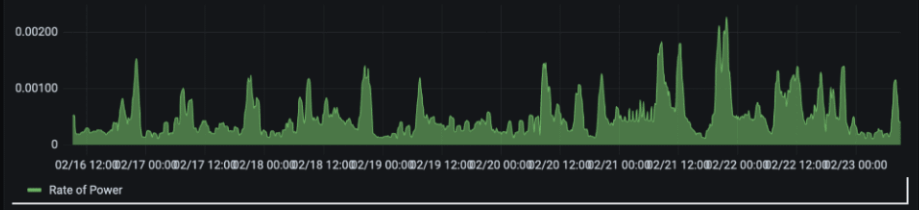
Last 7 days Power Usage

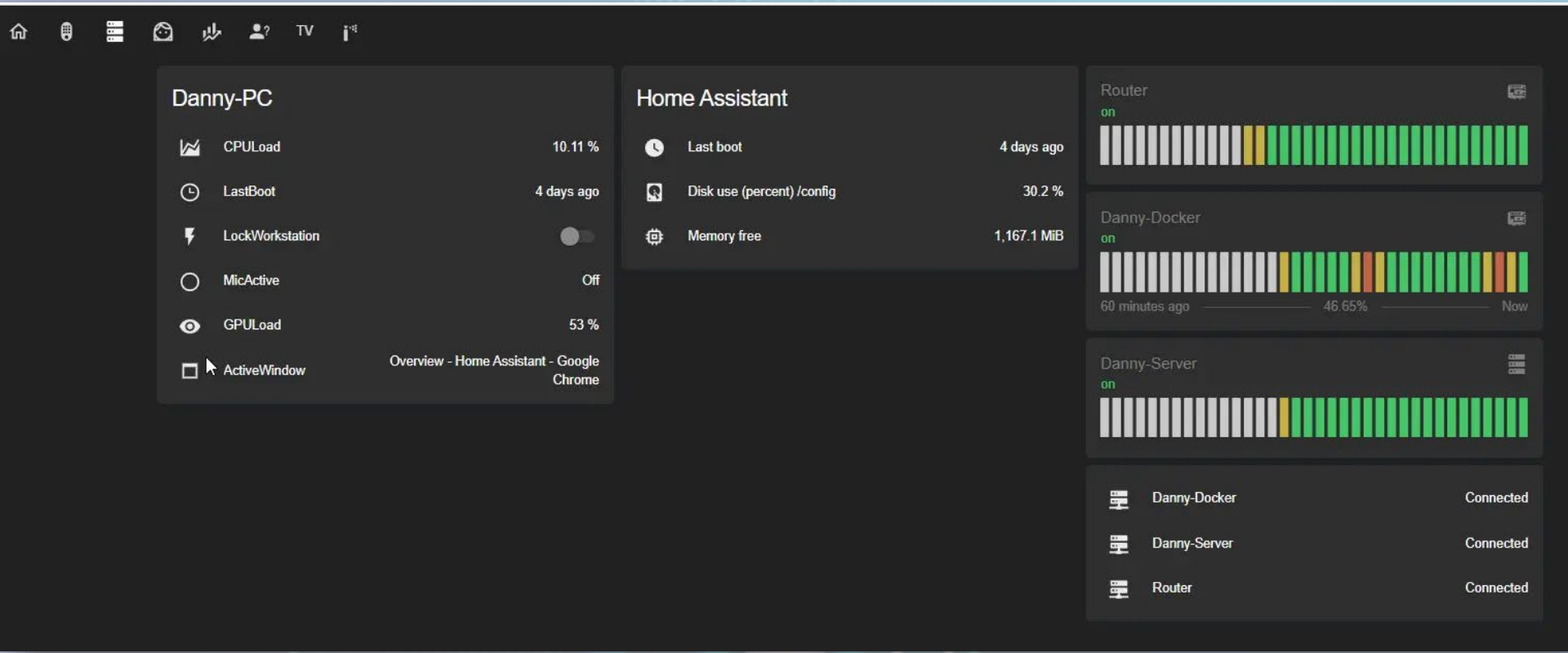
Last 7 days



Power Spikes This Week

Last 7 days

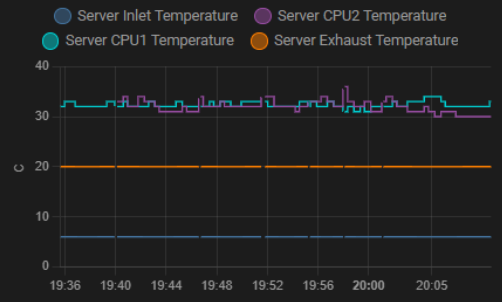



TV
Danny-PC
CPULoad
10.11 %
LastBoot
4 days ago
LockWorkstation
MicActive
Off
GPULoad
53 %
ActiveWindow
Overview - Home Assistant - Google Chrome
Home Assistant
Last boot
4 days ago
Disk use (percent) /config
30.2 %
Memory free
1,167.1 MiB
Router
on
Danny-Docker
on
60 minutes ago
46.65%
Now
Danny-Server
on
Danny-Docker
Connected
Danny-Server
Connected
Router
Connected

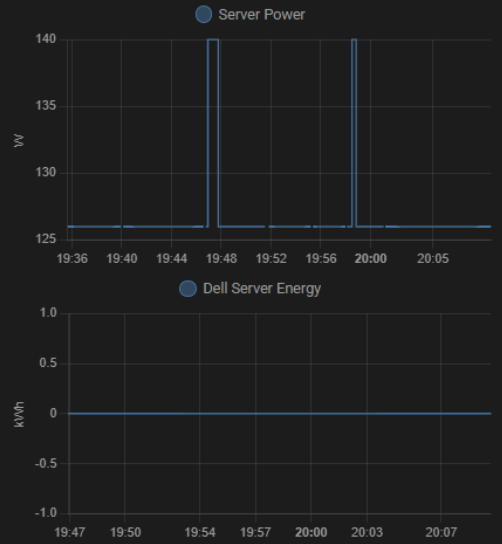
Dell Server

Server Power	126 W
Server Inlet Temperature	6.0 C
Server Exhaust Temperature	20.0 C
Server CPU1 Temperature	33.0 C
Server CPU2 Temperature	30.0 C
Server Fans Speed Avg	3,220 RPM

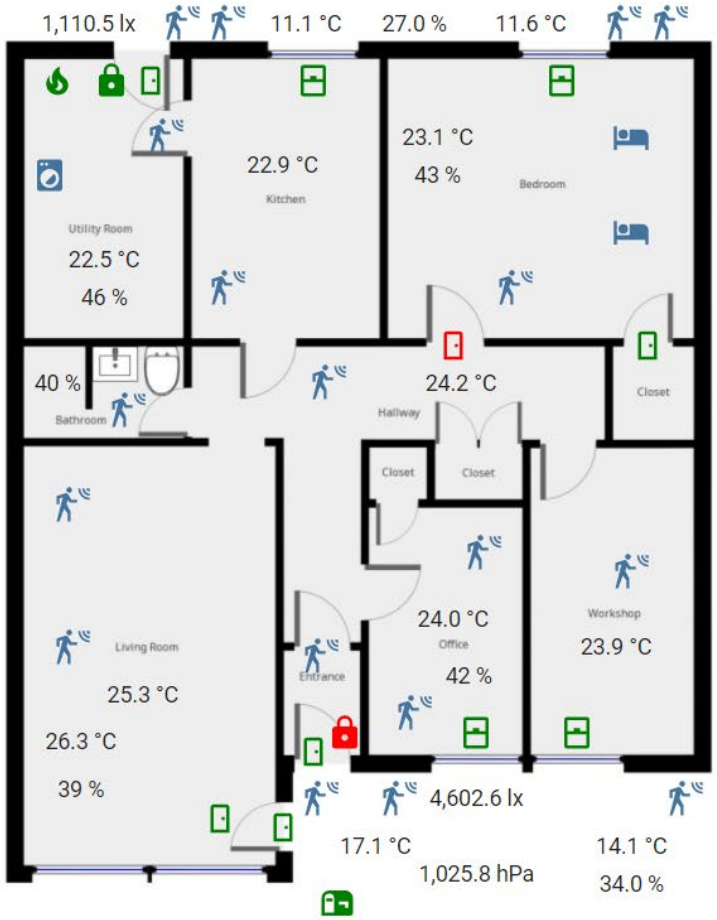
Thermals 24 Hours

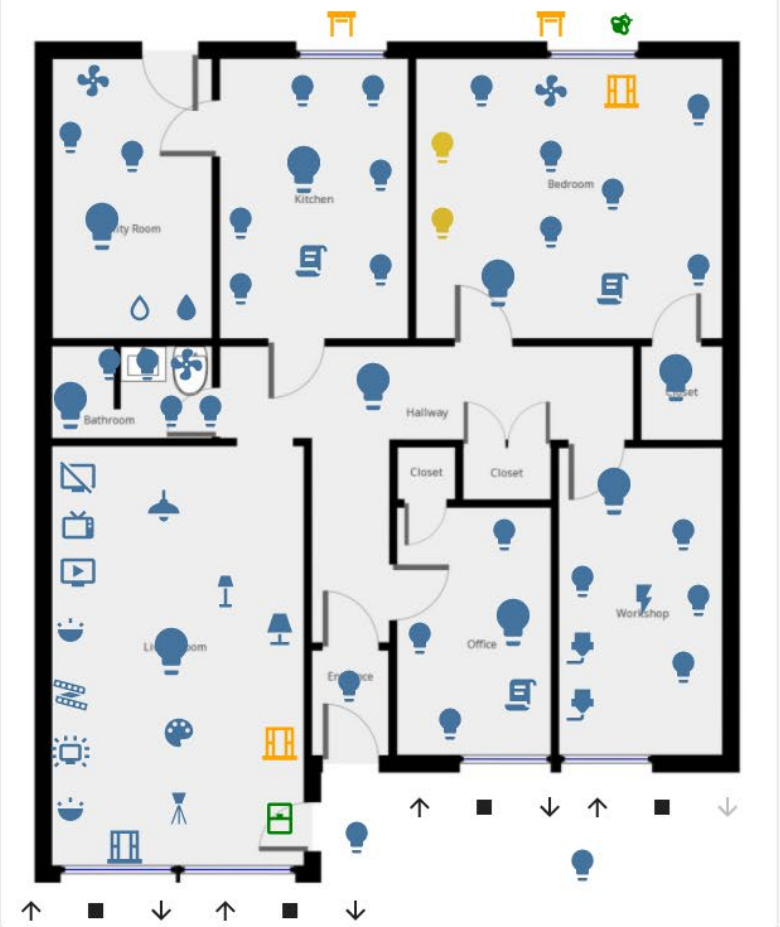


Power 24 Hours

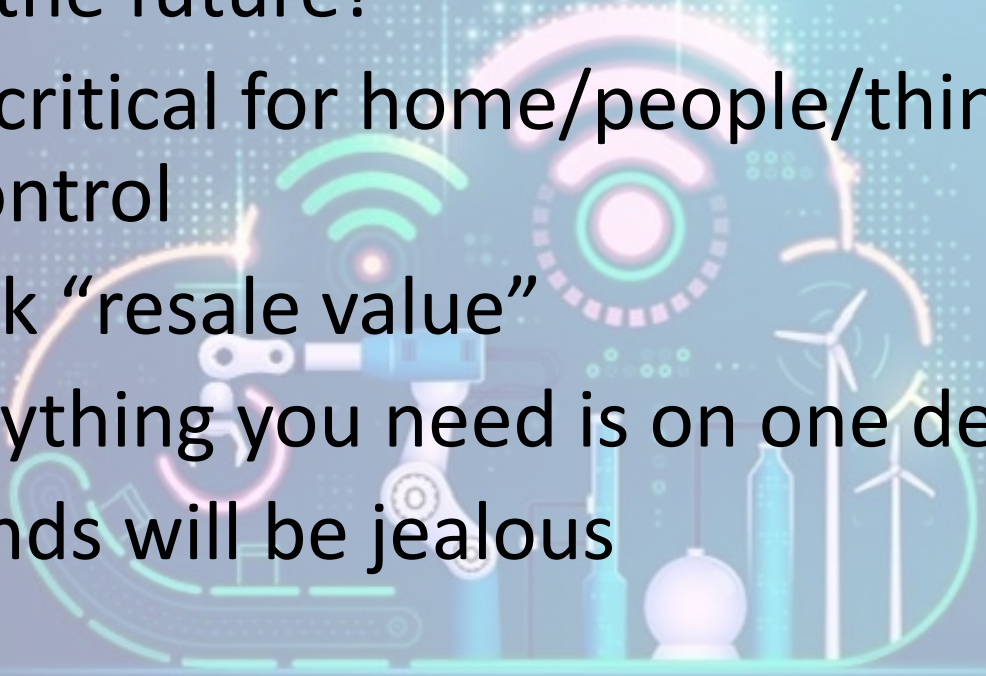


TEST TEST2


1,110.5 lx
11.1 °C
27.0 %
11.6 °C
22.9 °C
Kitchen
23.1 °C
43 %
Bedroom
Utility Room
22.5 °C
46 %
40 %
Bathroom
24.2 °C
Hallway
Closet
Closet
Closet
Living Room
25.3 °C
26.3 °C
39 %
Entrance
24.0 °C
Office
42 %
Workshop
23.9 °C
4,602.6 lx
17.1 °C
1,025.8 hPa
14.1 °C
34.0 %


Kitchen
Bedroom
Bathroom
Hallway
Closet
Closet
Office
Workshop

Selling it to the ~~Sp~~House



It is the future!

It is critical for home/people/thing management & control

Think “resale value”

Everything you need is on one device

Friends will be jealous

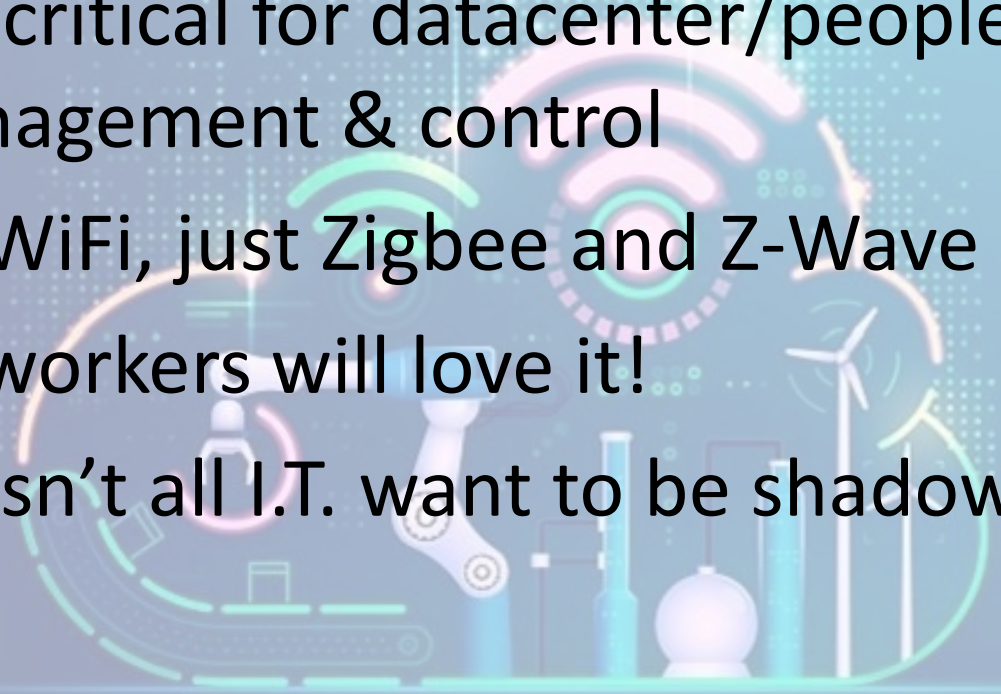
Selling it to the Boss

It is critical for datacenter/people/thing management & control

No WiFi, just Zigbee and Z-Wave

Co-workers will love it!

Doesn’t all I.T. want to be shadow-security?



How will this help my life??

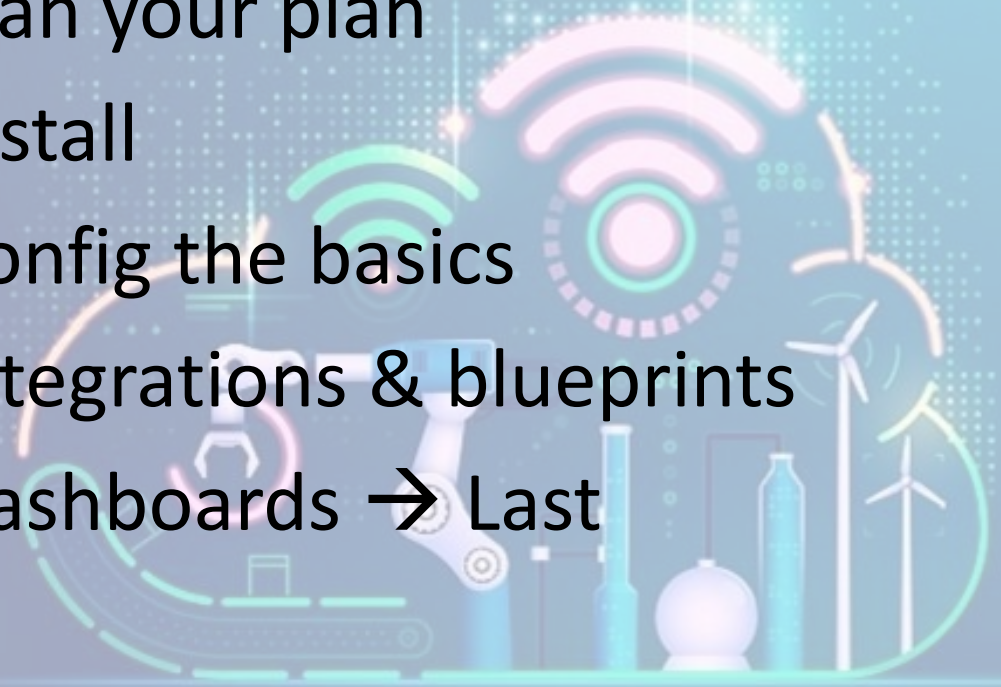
- Make tasks & routines easier
- Simplify what you do to accomplish X, & Y, & Z
- Explore new ways of automation
- Presence monitoring & triggers are way cool
- Creative and cool interfaces
- Tinkering

How will this help me in I.T.??

- Automations, monitoring, & alerting of
  - Datacenter infrastructure
  - Desktops, servers, apps
  - Things (IoT)
  - People
- Impress your boss, peers, & the Bob's

The Process

- Plan your plan
- Install
- Config the basics
- Integrations & blueprints
- Dashboards → Last



Let’s see a couple of demos

https://home-assistant.io/integrations/demo/

New Stuff

- Year of the voice
  - Local voice control, keep everything in the home
  - Google, Alexa, Siri control still available
- Smart watch, Carplay, Android Auto improvements
  - Complications (widgets)
- QNAP/Backup to network storage
- Media consumption with network storage devices
- Drag n’ Drop UI!
  - Need to basically start over on your dashboard
- Improvements to tiles
- Groups, Organization, Filtering improvements

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