

# Home Office

Implications & experience from one year working from home

# Agenda (1)

**1** Who am I?

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**2** Personal Workspace

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**3** Online Meetings

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**4** Home Network

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# Agenda (2)

**5** Monitoring

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**6** Access to company network

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**7** Social interaction

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**8** Conclusion

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# Who am I?

- > Martin Maurer
- > working with Linux since 1997
- > work as a Web Operation Engineer
- > [m.maurer@netconomy.net](mailto:m.maurer@netconomy.net)
- > Twitter: @querendus





# Personal Workspace



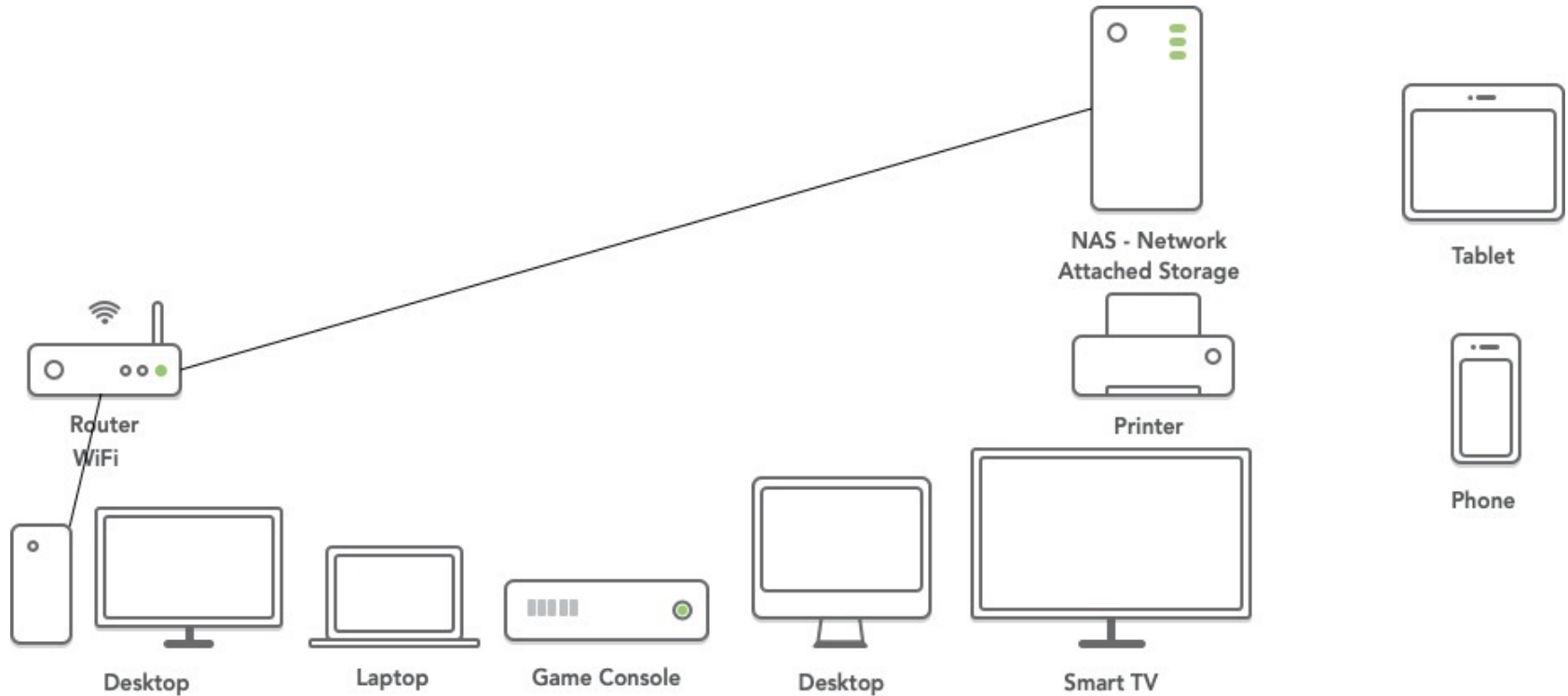
# Personal Workspace

- > Desk
- > Chair
- > Monitor
- > Keyboard
- > Mouse
- > Network connection
- > Camera
- > Microfon

# Online Meetings

- > Use a camera in front of you
- > Use a microfon
- > Use headphones or speaker of your laptop
- > Use in smaller groups your camera
- > Mute your microfone in settings before you join a meeting
- > switch of your camera in settings before you join a meeting
- > Choose your background

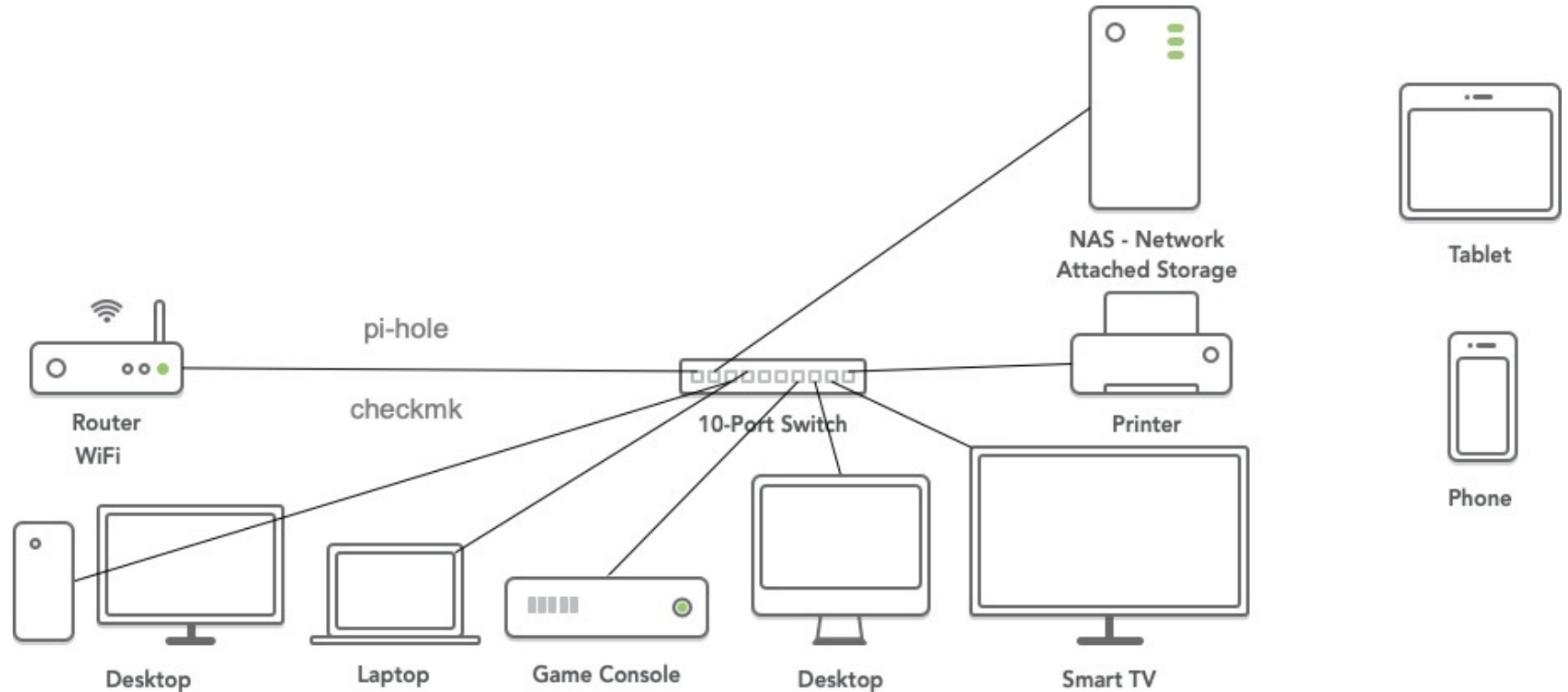
# Home Network





- > Connect via LAN if possible
- > Use DHCP and if you needed fixed IP addresses set it with DHCP
- > Use WLAN 2,4 GHz & 5 GHz
- > Use WLAN Guest
- > If you have setup Home automation, think about using a own vLAN for that
- > If you have a Smart TV, think about not connecting it to the internet (privacy)
- > Use extra vLAN for your office network (network separation)

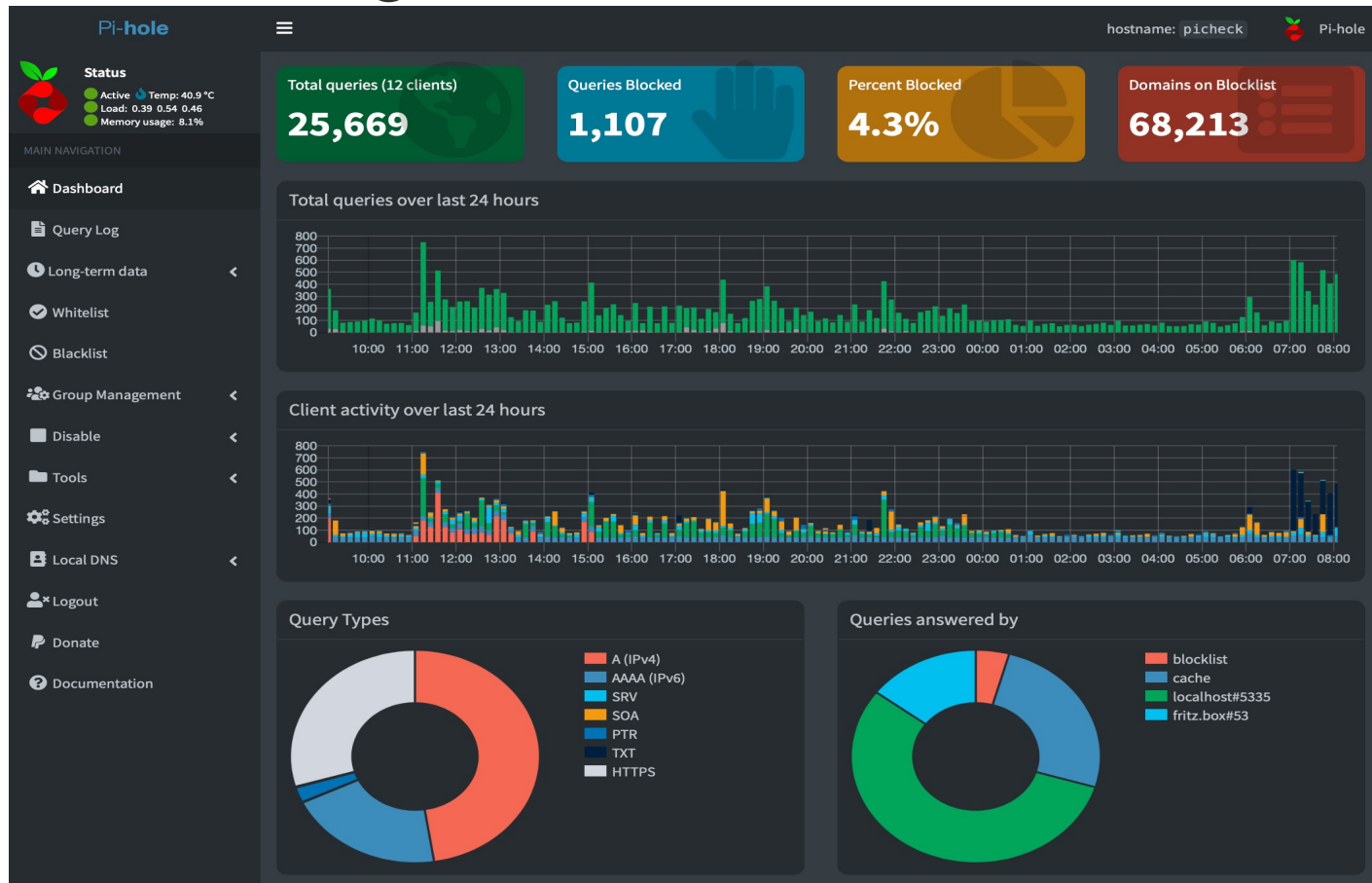
# Home Network



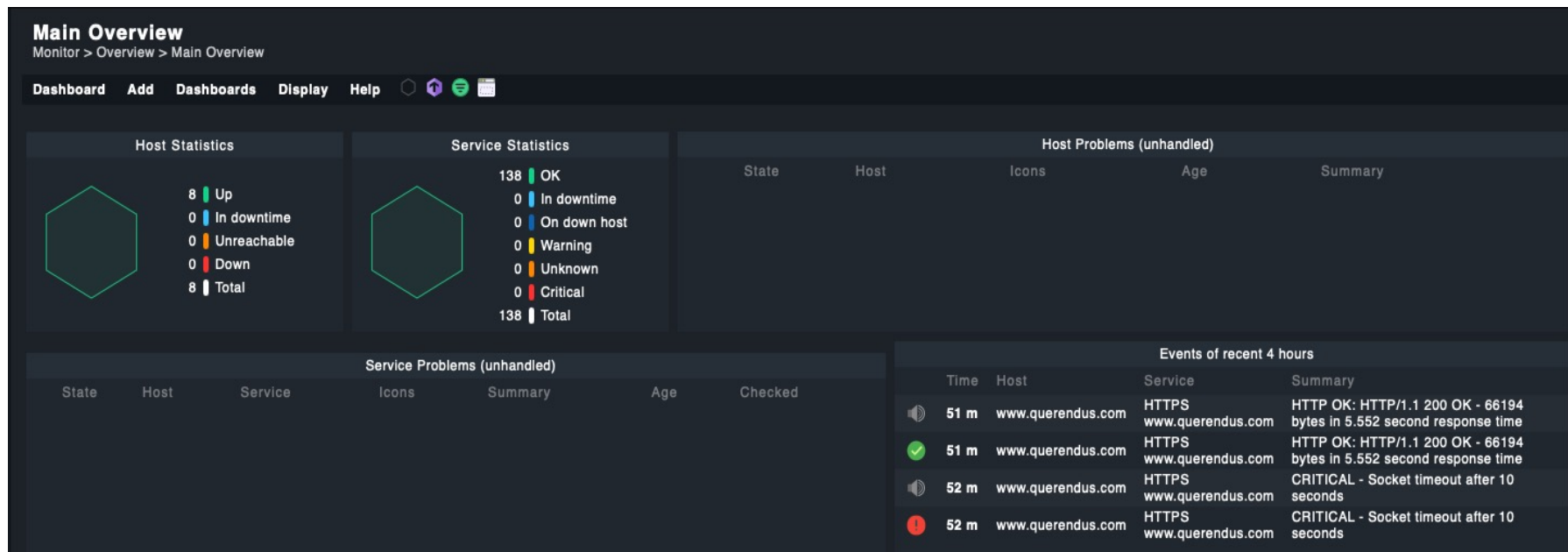
# Monitoring

- > Update your devices
  - Router
  - Managed switch
  - AP / ...
  - Smart Home Devices
- > Use Adblocker like pihole / unbound (dns)
- > Use non filtering DNS Server (<https://cuii.info/ueber-uns/> )
- > Monitoring Home Servers (checkmk)

# Monitoring



# Monitoring



# Monitoring

## Service fritz.box, Connection

Monitor > Overview > All hosts > Services of Host fritz.box > Service fritz.box, Connection

30

Commands Service Host Add to Export Display Help

Acknowledge problems Schedule downtimes Filter Show checkboxes Services of Host fritz.box

1 row

Site alias Local site checkmk

Hostname fritz.box

Service description Connection

Labels

Service icons

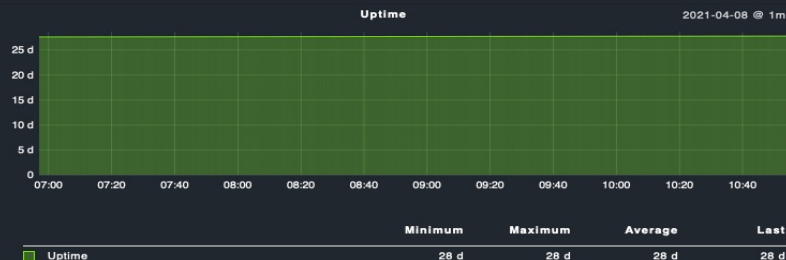
Service state OK

Summary Status: Connected, WAN IP Address: since Thu Mar 11 15:49:29 2021, uptime: 27 days, 18:07:14

Details Status: Connected  
WAN IP Address: :  
Up since Thu Mar 11 15:49:29 2021, uptime: 27 days, 18:07:14

Service Perf-O-Meter 28 d

Service Graphs



The last 4 hours

The last 25 hours

The last 8 days

The last 35 days

The last 400 days

Service Metrics Uptime: 28 d

Currently in downtime no

Current check attempt 1/1

The age of the current service state 2021-03-11 15:50:22

The time since the last check of the service 54.1 s

Cached agent data

The time of the next scheduled service check 2021-03-11 15:51:22

The last time the service was OK 54.1 s

# Monitoring

## Service fritz.box, Interface 0

Monitor > Overview > All hosts > Services of Host fritz.box > Service fritz.box, Interface 0

30

Commands Service Host Add to Export Display Help

Acknowledge problems Schedule downtimes Filter Show checkboxes Services of Host fritz.box

1 row

Site alias Local site checkmk  
Hostname fritz.box  
Service description Interface 0

### Labels

Service icons

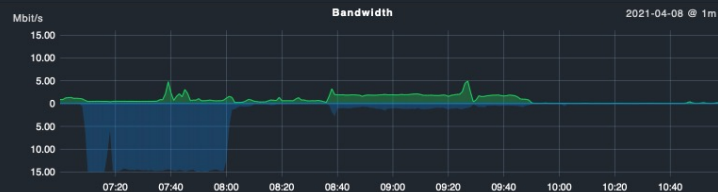
Service state OK

Summary [WAN], (up), Speed: 81.6 Mbit/s, In: 43.2 kbit/s (0.05%/81.6 Mbit/s), Out: 23.1 kbit/s (0.15%/15.3 Mbit/s)

Details [WAN]  
Operational state: up  
Speed: 81.6 Mbit/s  
In: 43.2 kbit/s (0.05%/81.6 Mbit/s)  
Out: 23.1 kbit/s (0.15%/15.3 Mbit/s)  
Errors in: 0%  
Multicast in: 0 packets/s  
Broadcast in: 0 packets/s  
Unicast in: 0 packets/s  
Non-unicast in: 0 packets/s  
Discards in: 0 packets/s  
Errors out: 0%  
Multicast out: 0 packets/s  
Broadcast out: 0 packets/s  
Unicast out: 0 packets/s  
Non-unicast out: 0 packets/s  
Discards out: 0 packets/s

### Service Perf-O-Meter

43.2 kbit/s / 23.1 kbit/s



	Minimum	Maximum	Average	Last
Output bandwidth	9.42 kbit/s	15.1 Mbit/s	3.46 Mbit/s	30.2 kbit/s
Input bandwidth	34.7 kbit/s	4.96 Mbit/s	923 kbit/s	46.3 kbit/s





# Monitoring

## Service picheck, TCP Connections

Monitor > Overview > All hosts > Services of Host picheck > Service picheck, TCP Connections

30

Commands Service Host Add to Export Display Help

Acknowledge problems Schedule downtimes Filter Show checkboxes Services of Host picheck

1 row

Site alias Local site checkmk

Hostname picheck

Service description TCP Connections

Labels

Service icons

Service state OK

Summary Established: 3

Closed: 0  
Close wait: 0  
Closing: 0  
Established: 3  
Fin wait1: 0  
Fin wait2: 0  
Last ack: 0  
Listen: 12  
Syn recv: 0  
Syn sent: 0  
Time wait: 30

Details

Service Perf-O-Meter

TCP Connection States

2021-04-08 @ 1m



Service Graphs

	Minimum	Maximum	Average	Last
State TIME_WAIT	8.6	100.6	13.45	29.6
State ESTABLISHED	3	4.2	3.02	3
State LISTEN	12	12	12	12

The last 4 hours

The last 25 hours

The last 8 days

The last 35 days

The last 400 days

Service Metrics

State CLOSED: 0  
State CLOSE\_WAIT: 0  
State CLOSING: 0  
State ESTABLISHED: 3  
State FIN\_WAIT1: 0  
State FIN\_WAIT2: 0  
State LAST\_ACK: 0

# Monitoring

## Service picheck, CPU load

Monitor > Overview > All hosts > Services of Host picheck > Service picheck, CPU load

30

Commands Service Host Add to Export Display Help

 Acknowledge problems  Schedule downtimes  Filter  Show checkboxes  Services of Host picheck

1 row

Site alias Local site checkmk

Hostname picheck

Service description CPU load

Labels

Service icons 

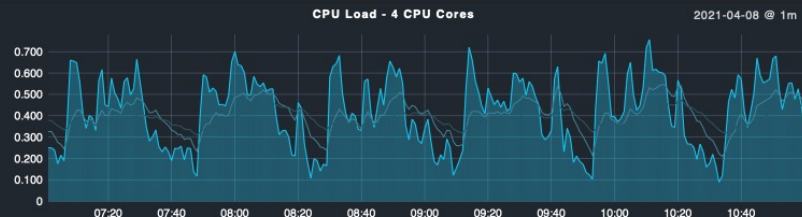
Service state OK






Summary 15 min load: 0.45 at 4 cores (0.11 per core)

Details 15 min load: 0.45 at 4 cores (0.11 per core)

Service Perf-O-Meter 0.430

Service Graphs



	Minimum	Maximum	Average	Last
 CPU load average of last 15 minutes	0.310	0.474	0.387	0.446
 CPU load average of last 5 minutes	0.210	0.546	0.403	0.462
 CPU load average of last minute	0.0900	0.756	0.421	0.394
 Warning				20.0
 Critical				40.0

The last 4 hours




The last 25 hours

The last 8 days

The last 35 days

The last 400 days

Service Metrics

 CPU load average of last 15 minutes: 0.450  
 CPU load average of last 5 minutes: 0.470  
 CPU load average of last minute: 0.430

# Access to company network

- > Use web access settings with authentication general webservices
  - time bookings
  - wiki pages
  - ticket systems
  - git server
- > Use 2FA
- > Use of Passwordmanager (bitwarden, keepass, ....)
- > For working with files, use automatic syncing tools (like synthing, nextcloud, ....)
  - P2P synthing
  - centralized syncing

# Access to company network

- > Use collaboration tools
- > Chat tools (mattermost, slack, teams,...)
- > Be aware of Phishing / Scams
  - clear and simple procedures
  - blameless culture (ask if you are not sure)
- > LDAP based access for projects
  - Only people working with this projects have access
  - additional passwords / secrets for projects
  - VPNs seperated from general company access

# Social Interaction

- > Social interaction with colleagues
  - video coffee time
  - online games
- > sport
- > daily routine
- > take time for yourself

# Conclusion

- > Working from home is not impossible
- > Be aware that you need social interaction (and your kids)
- > Home Office has to be organized and prepared
- > Home Office is based on trust
- > It needs rules
- > Gives employees more responsibility

# Questions?

**Thank you for your attention!**



