

# Gain Network Visibility with Hardware Sensors

NetBeez Webinar





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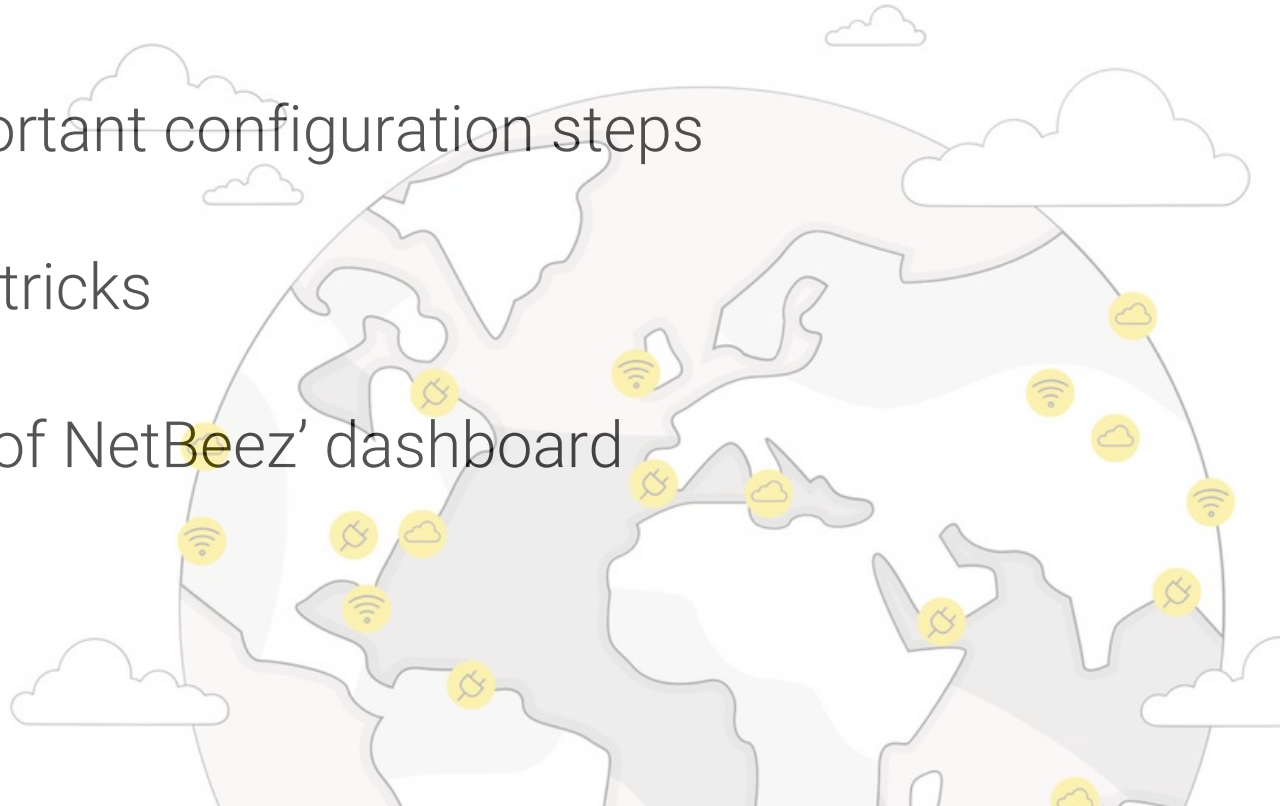


# Goal of the webinar

To review important configuration steps

Learn tips and tricks

Maximize use of NetBeez' dashboard



# Important steps to setup a NetBeez dashboard

- ✓ Deploy the agents
- ✓ Create monitoring targets
- ✓ Add scheduled tests
- ✓ Review anomaly detection settings
- ✓ Configure notification options
- ✓ Schedule reports
- ✓ Invite more users
- ✓ Review API and build your own service status dashboard

# Working with wired & WiFi sensors



## Wired FastE

- Raspberry Pi 3 B
- 1.2 GHz (quad-core)
- 1 GB RAM
- 8 GB Storage
- 10/100 Mbps NIC
  - Throughput 90 Mbps

## Wired GigE

- Intel UpBoard
- 1.9 GHz (quad-core)
- 8 GB Storage
- 2 GB RAM
- 10/100/1000 Mbps NIC
  - Throughput 930 Mbps



## WiFi FastE

- Raspberry Pi 3 B
- 1.2 GHz (quad-core)
- 1 GB RAM
- 8 GB Storage
- 10/100 Mbps NIC
  - Throughput 245 Mbps (5.0 GHz)
  - Throughput 160 Mbps (2.4 GHz)

## WiFi NIC

- Asus AC56
- Dual-Mode (2.4/5.0 GHz)
- 802.11ac

# Monitoring web and cloud applications

- Building blocks
  - Ping, DNS, HTTP, and Traceroute
- Targets
  - Web applications
  - DNS servers
  - Full-mesh
  - TCP-based applications
- Interactive console
- Define your monitoring strategy early on!

Test	Default Interval
PING	5 seconds
DNS	30 seconds
HTTP	60 seconds
Traceroute	120 seconds

# Configuring alerts

- Alert types
  - Generated by tests
  - Types: Up-down, baseline, and watermark
  - Percentile-based mean

Test	Metrics
PING	Packet loss, round-trip-time (RTT)
DNS	Lookup time, failed DNS lookups
HTTP	HTTP GET time, failed HTTP GETs
Traceroute	Failed test, mean hop count



Enable percentile-based mean!

# Configuring incident

- Incidents
  - Aggregate of alerts per agent or target basis
  - Network versus application problems
- Notifications
  - SNMP, SMTP, Syslog
  - Integrations with Splunk, Slack, PagerDuty
- Recommendation
  - Enable notification of incidents, opt out alerts

## Agent Incidents

Set alert percentage thresholds for Agent incidents:

Ping:



Incident threshold: 90% of Ping tests with alert status

DNS:



Incident threshold: 90% of DNS tests with alert status

HTTP:



Incident threshold: 90% of HTTP tests with alert status

Traceroute:



Incident threshold: 90% of Traceroute tests with alert status

## Target Incidents

Set alert percentage thresholds for Target incidents:

Ping:



Incident threshold: 80% of Ping test templates with alert status

DNS:



Incident threshold: 80% of DNS test templates with alert status

HTTP:



Incident threshold: 80% of HTTP test templates with alert status

Traceroute:

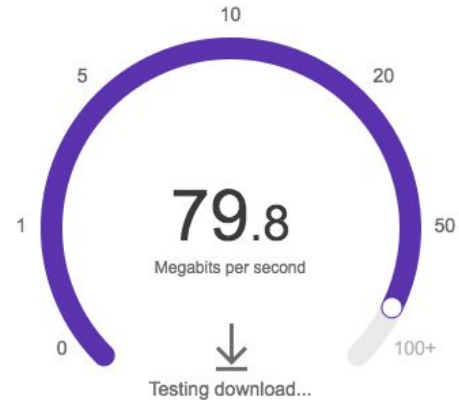


Incident threshold: 80% of Traceroute test templates with alert status



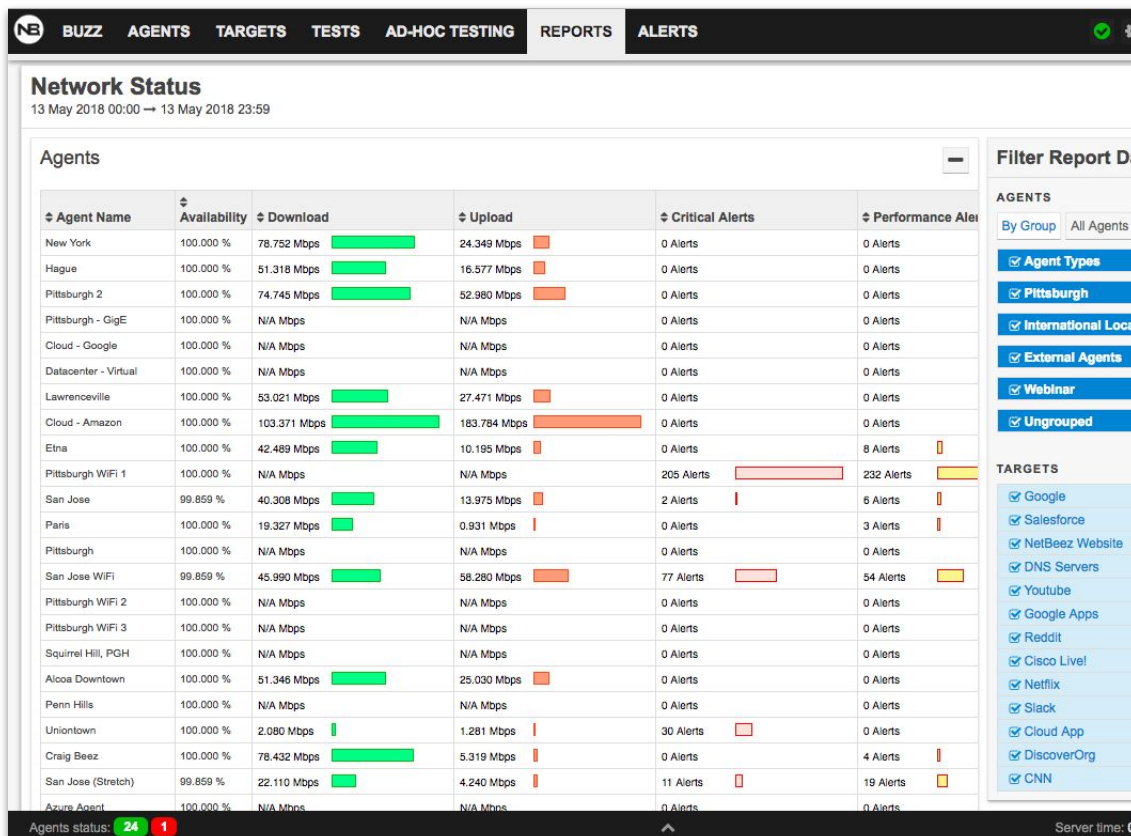
# Setting up network performance tests

- Iperf
  - Site-to-site throughput test
    - Packet loss, jitter, throughput
  - TCP, UDP, and Multicast
  - Agent to agent and many to server
  - Iperf version 2 and 3
- Speed Tests
  - Download and upload speed to Internet
  - Speedtest
  - NDT and Fast.com (coming up!)
- VoIP
  - Agent to agent
  - Mean Opinion Score (MOS)





# Reports!

- In-dashboard reports
  - Extract as PDF
  - Schedule periodic emails
  - Report types:
    - Network summary
    - Agents
    - Targets
    - Scheduled Tests



# API and service status dashboard



- Public API available
- Review endpoints on the dashboard
  - Generate API key
  - Swagger: [https://<INSTANCE\\_FQDN>/swagger/index.html](https://<INSTANCE_FQDN>/swagger/index.html)
  - Look for the  icon to inspect some endpoints
- Build your own service status dashboard
  - Start from the “public” dashboard
  - GitHub: <https://github.com/netbeez/public-dashboard>

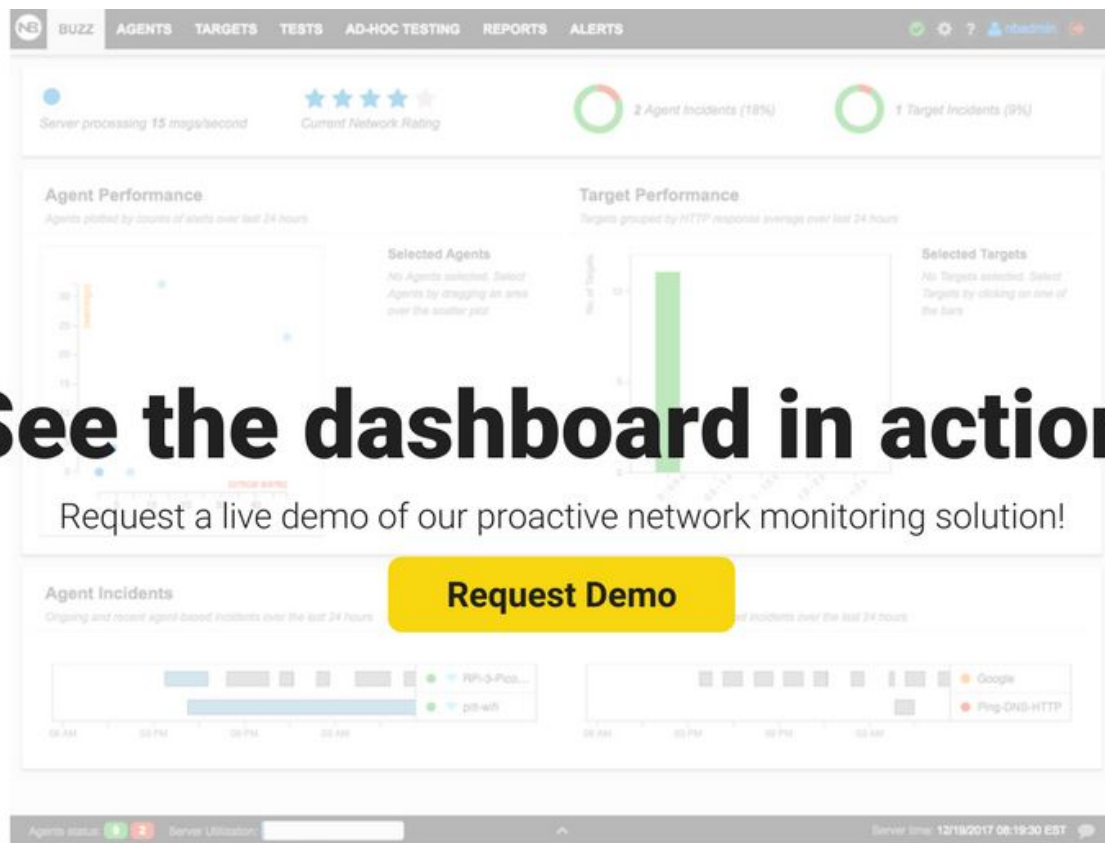
 **NetBeez Demo Network Status**  
A demo of the new network status dashboard! Learn more at [netbeez.net](https://netbeez.net)

Your Network Locations  
Click on a Location's name to see more information.

Name	Status	Availability	Download (mbps)	
Datacenter - Virtual	● Operational	100%	0 Mbps	0 Mbps
Azure Agent	● Operational	100%	0 Mbps	0 Mbps
Cloud - Amazon	● Operational	100%	98.7 Mbps	171.28 Mbps
San Jose (Stretch)	● Operational	99.23%	9.3 Mbps	9.5 Mbps
Cloud - Google	● Operational	100%	0 Mbps	0 Mbps
Penn Hills	● Operational	100%	0 Mbps	0 Mbps
San Jose WIFI	● Operational	99.23%	0 Mbps	0 Mbps
San Jose	● Operational	99.06%	28.66 Mbps	11.27 Mbps
Pittsburgh - GigE	● Operational	100%	0 Mbps	0 Mbps
San Jose (Stretch)-Router	● Operational	100%	7.04 Mbps	7.43 Mbps
Squirrel Hill, PGH	● Operational	100%	0 Mbps	0 Mbps
Lawrenceville	● Operational	100%	53.76 Mbps	27.53 Mbps
Alcoa Downtown	● Operational	100%	52.06 Mbps	24.73 Mbps
Hague	● Operational	100%	42.77 Mbps	14.41 Mbps
Uniontown	● Operational	99.8%	6.19 Mbps	1.76 Mbps
Pittsburgh 2	● Operational	100%	70.07 Mbps	44.67 Mbps
New York	● Operational	86.57%	78.32 Mbps	25.02 Mbps
Craig Beez	● Operational	100%	72.65 Mbps	5.12 Mbps

# Where to get help?

1. Online documentation: <https://netbeez.zendesk.com/hc/en-us>
  - a. Accessible via the dashboard (look for the  icon)
  - b. Link available on our website (Resources -> Documentation)
2. NetBeez community: <https://community.netbeez.net>
3. Chat in the dashboard (bottom right  icon)
4. Online support: support@netbeez.net



# See the dashboard in action.

Request a live demo of our proactive network monitoring solution!

[Request Demo](#)



# Q&A

