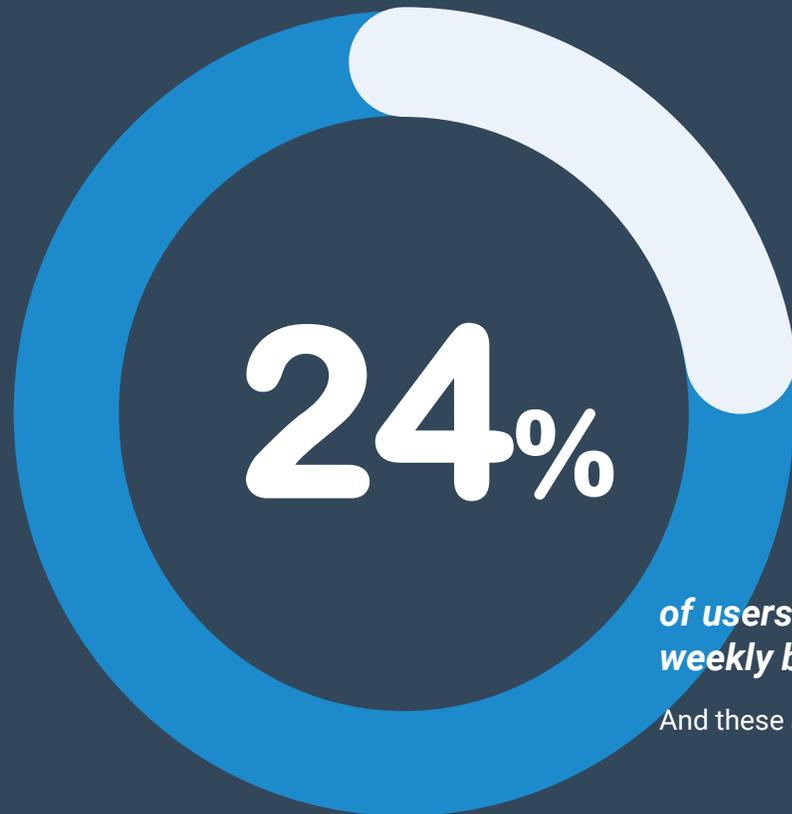




OfficeExpert TrueDEM

End to End User Experience Monitoring
for Microsoft 365 & Microsoft Teams

Challenges for adequate Microsoft Teams users Support



of users report experiencing call quality issues on a weekly basis while using Microsoft Teams.

And these are rarely caused by the Microsoft cloud

- ✓ **Legacy** monitoring tools are not designed for hybrid workforces
- ✓ Lack of visibility for **Home Office** user experience
- ✓ Unable to monitor endpoint **performance** issues
- ✓ **Blind** spots make troubleshooting impossible

What customers tell us they need...

Troubleshooting

- Immediate insight into all relevant data
- In-depth telemetry for voice call performance
- End-to-end networking details
- Hardware performance issues
- Identify processes running on computers causing problems

Proactive Support

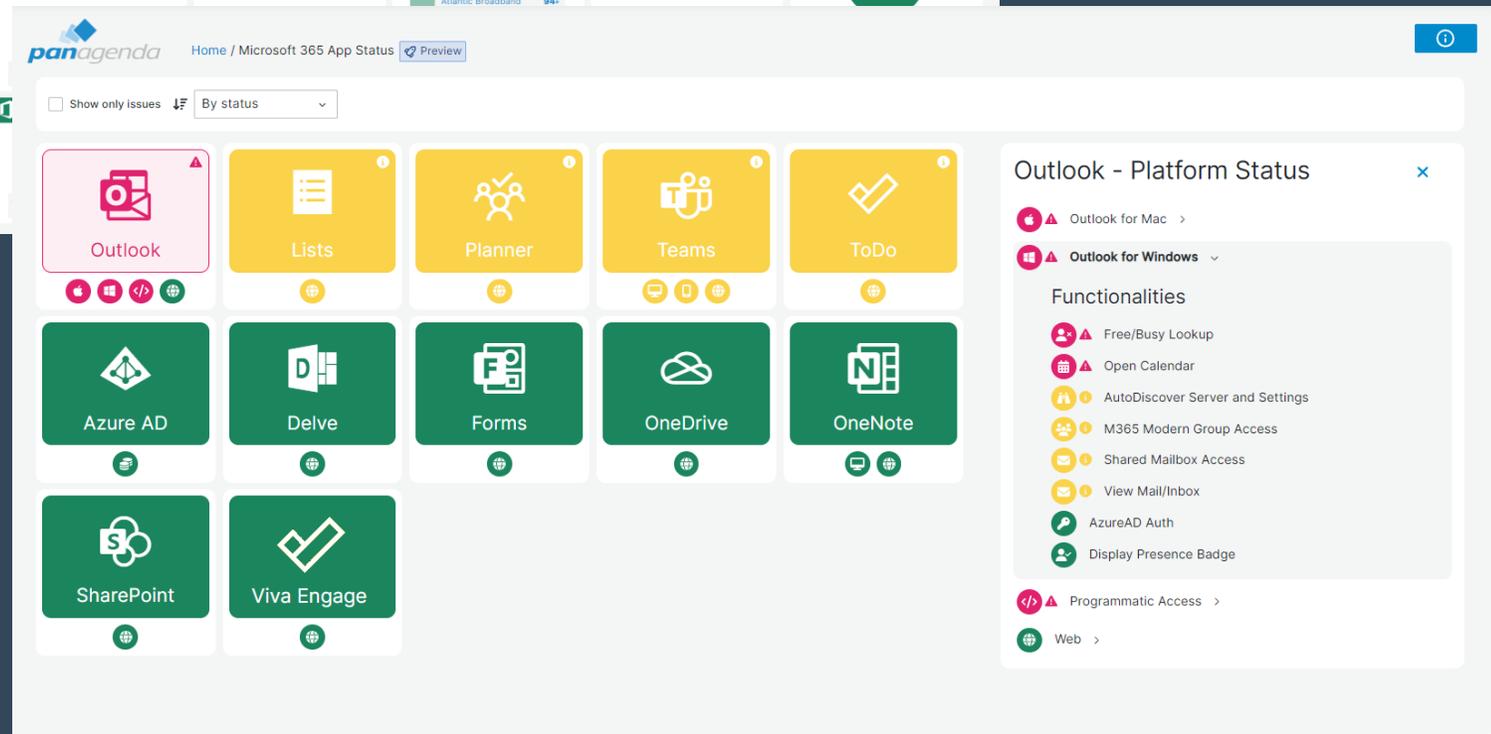
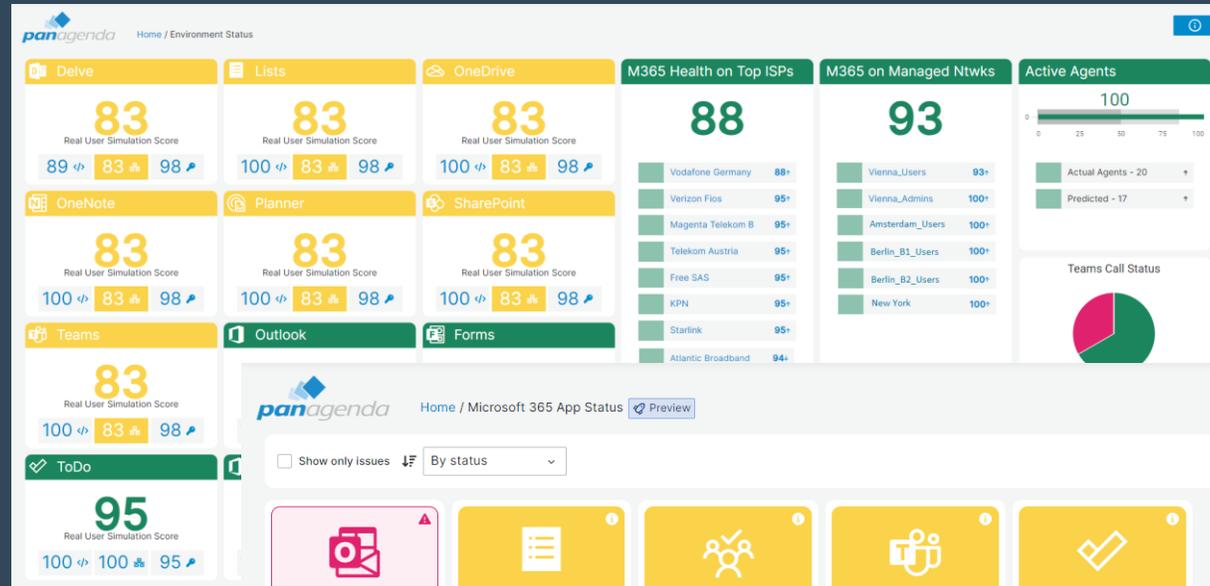
- Replace slow, legacy computers
- Review usage of unsupported headsets & webcams
- Identify home/office WiFi networks that are subpar for Teams Calls
- Data driven ISP replacements
- software & updates impact

Cost Optimization

- Reduce MTTR by 40-60%
- Reduce L2 & L3 support by 70-90%
- Implement Usage & Need based Hardware Refresh Strategy
- Remove the need for multiple solutions

M365 is more than Teams alone

Monitor M365 services and applications to ensure quality of service and detect problems that impact your users.



Microsoft 365 Status @MSFT365Status
 We're investigating an issue where some users in the UK and Germany may be unable to access Microsoft 365 services. We're looking at diagnostic data to identify the underlying cause. For more details please look for MO688737 in the admin center.

Microsoft 365 Status @MSFT365Status
 We've identified some anomalies within our network infrastructure and are working to isolate the cause of these. For more details please look for MO688737 in the admin center or visit status.cloud.microsoft.

As it happens, when it happens!



Behind the curtain of OfficeExpert TrueDEM



Client App

Accurately monitor all your devices



Network/ISP/MSFT

The entire path



Quality of M365 services

True User Experience



Call Quality

Ensure your SLAs are consistently met

OfficeExpert TrueDEM

Digital Experience Monitoring



TrueDEM M365



TrueDEM Advanced

"...at least 60% of infrastructure and operations leaders will use DEM to measure application, services and endpoint performance from the user's viewpoint."

Gartner

OfficeExpert TrueDEM – Client App

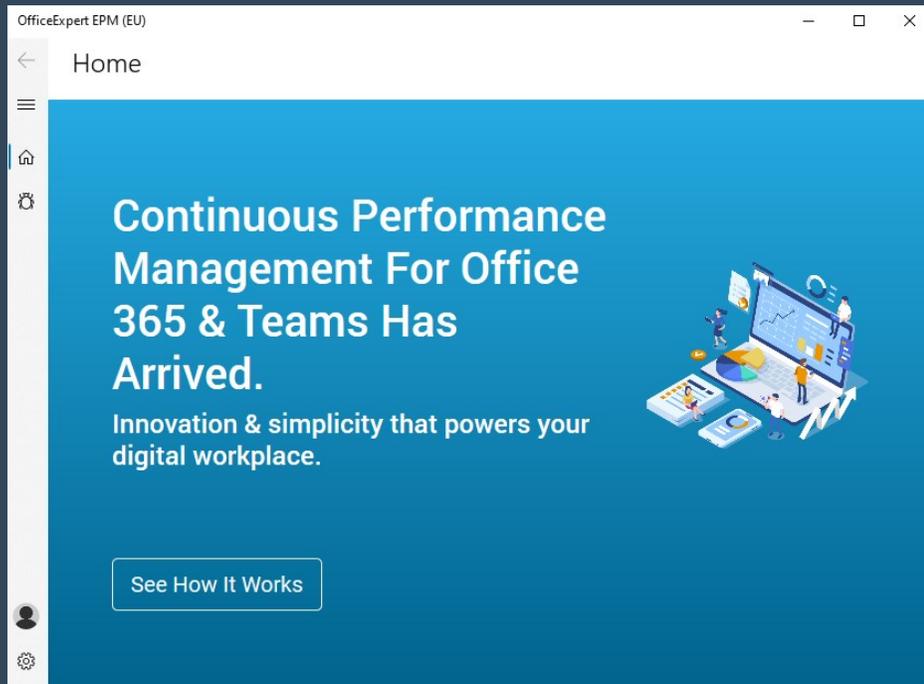
Microsoft Store App

Signed and verified by Microsoft

No admin privileges required

Runs in user context

Lightweight (small) application



Complete End-to-End coverage of Call Quality

What Microsoft sees:

Call Records

**What OfficeExpert
TrueDEM sees
additionally:**

Real Time Data

incl. data coming directly from the
Teams Client

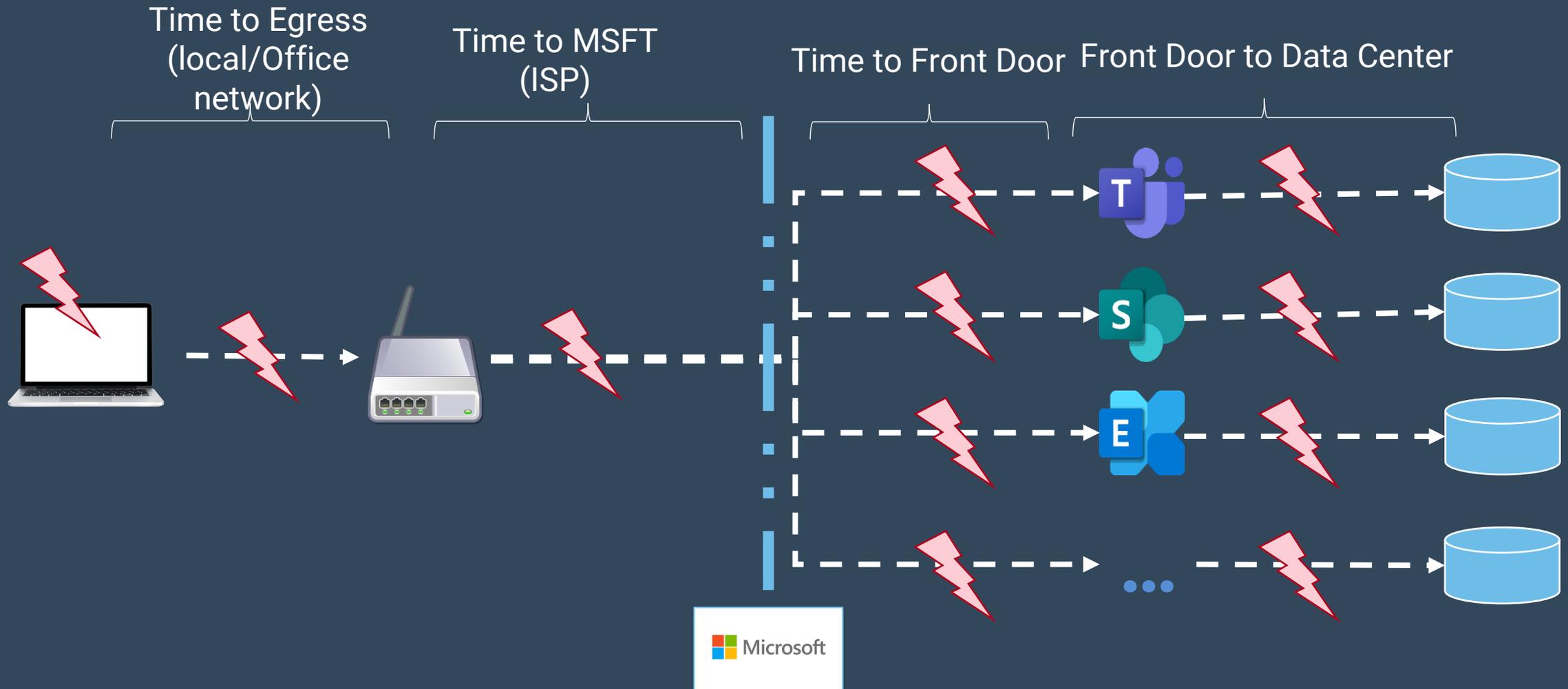
Retrieval of Client/System Data

Operating System Data
Network Statistics
System Performance
Processes
Teams Sessions
and more....

Continuous proactive measuring of...

DNS, VPN and Network connectivity
ISP routing
Microsoft M365 Service quality (Exchange Online, Teams,
OneDrive, SharePoint, etc.)
...and more

Full visibility into the “User Journey”



(Currently) Monitored Microsoft 365 Workloads



What is OfficeExpert TrueDEM ?

ARCHITECTURE



100% SaaS – in Azure

ENDPOINT
INSTALL



**No admin rights required to run the App
PLUS install under 1 minute**

DYNAMIC DATA
COLLECTION



**Customizable, max. 15-minute frequency
AND real-time call data**

SERVICE
TELEMETRY



Crowdsourced service availability intelligence



Core Capabilities & Business Values

Overall OfficeExpert TrueDEM Capabilities



- ✓ M365 & Service Health Overview per Org, Network, ISP and User
 - ✓ Area of Responsibility detection – User Experience insights for M365 Apps
 - ✓ Post M365 Outage Reporting incl. affected Users

- ✓ Advanced Teams Analysis
 - ✓ Teams Call Analysis (Post-Mortem; Real Time)
 - ✓ Immediate access to Real Time Call Data

Teams Call Quality Analytics



- ✓ Real-time Teams Call Quality Analytics collected by our proprietary agent
- ✓ CQD data from Microsoft, combined with data from the endpoint
- ✓ Visual comparative analytics for fast, root-cause analysis

Business Value / ROI

- ✓ Reduces Mean time to repair (MTTR) for Call Quality tickets by 40-60%
- ✓ Increases first level resolution rate
- ✓ Increases end user satisfaction

Endpoint Monitoring

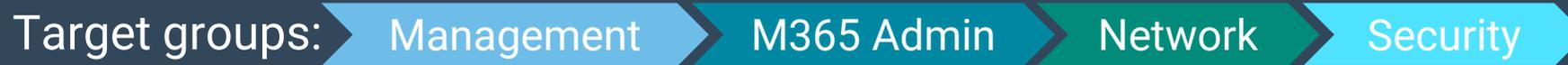


- ✓ Real time & Retrospective Endpoint performance data
- ✓ Holistic networking overview and point-in-time analysis
- ✓ CPU / Memory consumption details in a single pane of glass

Business Value / ROI

- ✓ Eliminates need for remote-session in 90% of cases, reduces effort of IT support
- ✓ Provides continuous data and tracking for strategic IT Asset management decisions

Network Monitoring



- ✓ Unique home office Wifi /Ethernet insights
- ✓ Detailed historic & real time ISP analytics
- ✓ Continuous monitoring of your managed networks

Business Value / ROI

- ✓ Better understanding of both office and home network performance & bottlenecks
- ✓ Visibility and tracking for Routing, VPN and Network data across the entire user population

TrueDEM Technology for True Digital Experience Monitoring



Cost effective and pragmatic

See the truth behind digital experiences

Push the boundaries of understanding user journeys

Stop guessing where performance issues start

Instantly analyze digital experience data with full context

TrueDEM technology uses weighted metrics

Catch issues before they impact your business

Do the right things

Real World Examples

Business Value Use Case

Driving Adoption for Teams

Expand Deployment of Teams Voice → Need Fast Troubleshooting

- ✓ Pending decision point to purchase additional E5 / Enterprise Voice licenses
- ✓ CIO hesitant to continue with Teams Voice deployment based on reported issues
- ✓ New security / virus scanning software deployed recently
- ✓ **Go-no-Go decision coming in 2 months**

EXAMPLE CUSTOMER

40,000

Seats (Large Organization)

50%

Deployment for Teams Voice so far



Problem Scenario

6 MONTHS

Before EA renewal and need to decide on upgrading more users to Teams Voice



Multiple Call Quality Issues

Teams issues for calls and meetings reported to IT helpdesk regularly, especially from Executives.



No Visibility for Remote User Experience

Most users reporting issues are working from home office. No visibility into background processes running on computers.



Root Cause May Be Security Software

Unable to view logs on employee computers to identify if background processes are impacting performance. Problems continue unresolved.



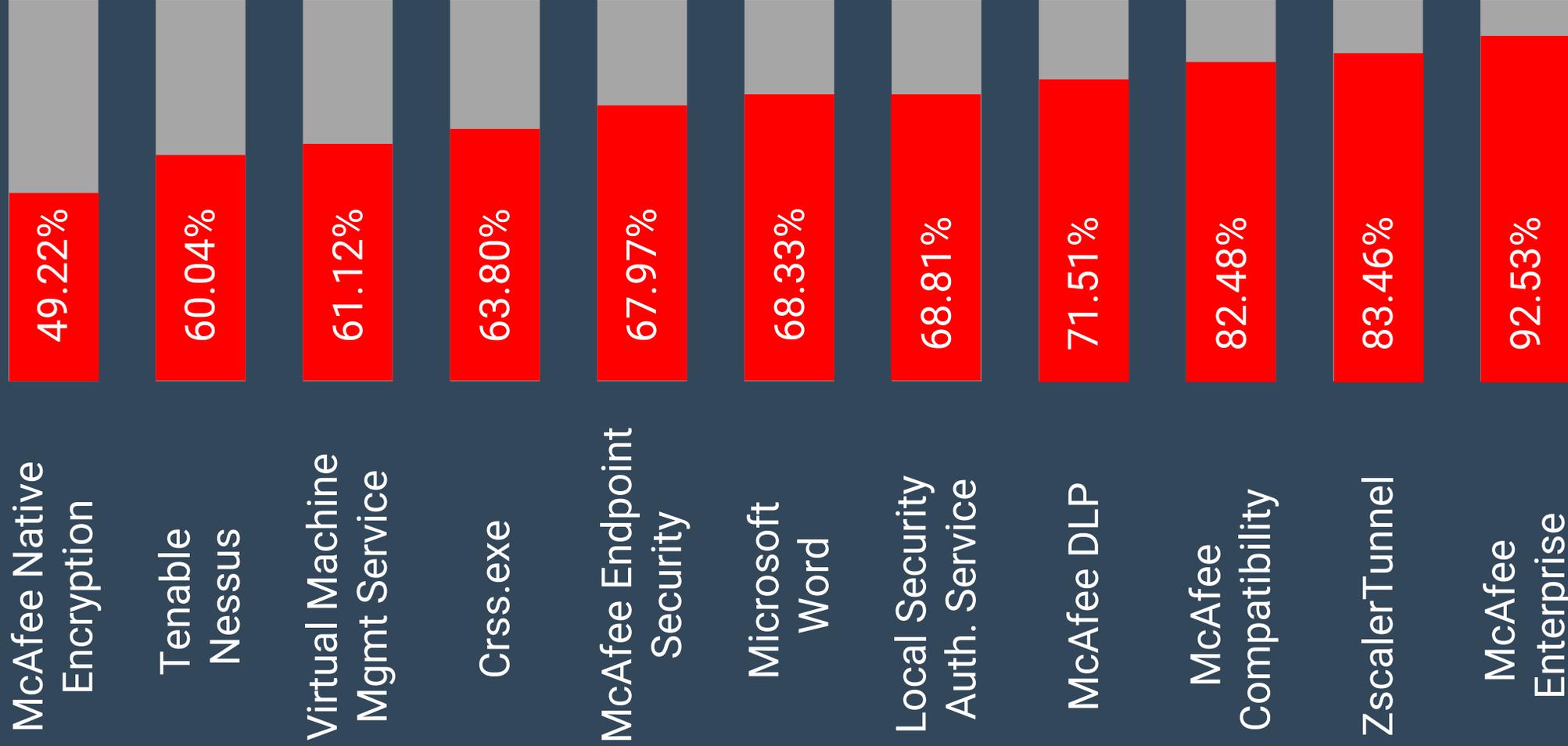
Frustrated IT Support Team

Too many blind spots in the end-to-end experience for users. Blame game between IT and Microsoft on what the true cause is for the ongoing issues.

Real-world telemetry

Findings: Top process spikes destroying end-user call experience

- Fast Support / Troubleshooting
- Pattern Analysis



Office vs. HomeOffice

Consistently poor Teams calls reported by a lot of people

Good Performance at Home vs. Bad Performance in Offices

EXAMPLE SCENARIO

Multiple Offices

Multiple Office were affected

- ✓ No network hints
- ✓ Consistent Problems
- ✓ Less Device related issue
- ✓ Issues continue

- Microsoft recommendations was ignored
- Fast Support / Troubleshooting
- Same pattern found across multiple networks

3rd Party Software

A 3rd Party solution was recently deployed



OfficeExpert TrueDEM Findings

- Media Streams NOT bypassed Proxy / VPN
- Branch Offices should have used the local Internet egress, but the opposite was the case
- 3rd Party application routed users NOT to the closest Media Relay Location

Multiple Users

Complaints coming in multiple users

The Office

Consistently poor Teams calls reported by executive

Bad Performance During Calls / Meetings

EXAMPLE SCENARIO

- ✓ Executive always works at the office
- ✓ Consistent complaints
- ✓ IT ships new computer with 32GB of RAM
- ✓ Issues continue

Physical Office

Users rarely works from home

- Fast Support / Troubleshooting
- Pattern Analysis

New VPN Software

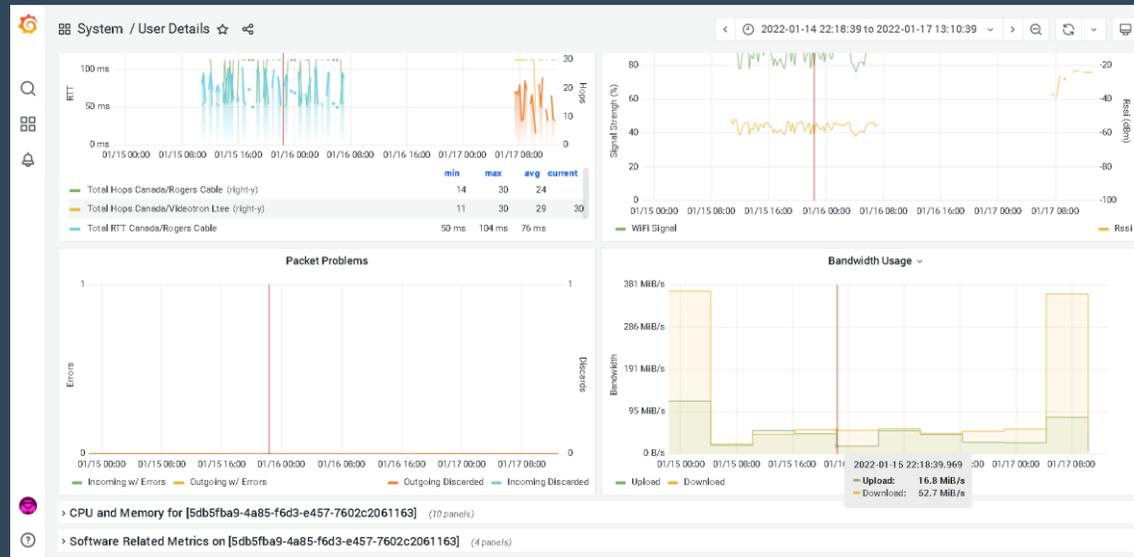
A new VPN solution was recently deployed



OfficeExpert TrueDEM Findings

Single User

Complaints coming in from just this one user



Business Value Use Case

Driving Adoption for Teams

EXAMPLE CUSTOMER

100,000

Seats (Large Government Organization)

100%

Fully Deployed on Microsoft 365

6 YEARS

Transitioned completely to the Microsoft cloud platform in 2017

Improve User Experience → Early Warning System for Outages

- ✓ Recently purchase additional E5 / Enterprise Voice licenses
- ✓ Majority of employees still working from home
- ✓ Distributed helpdesk in six different regions
- ✓ **No monitoring solution for Microsoft 365 service availability**



Problem Scenario



Support Calls Flooding Helpdesk

130 calls received by 7:00 AM at different helpdesk locations **all reporting issues about Teams access.**



CIO Receives Call from Executive

Angry call from executive who is trying to start his Teams meeting with important customer. Teams is apparently offline.



IT Group Scrambling to Find Issues

Spending time researching internal network and firewall gateways to verify if it is their problem or Microsoft's.



Finally, Microsoft Announces Outage

90-minutes after first calls come into the Helpdesk there is an announcement of service outage from Microsoft, but very few details on what services are affected.

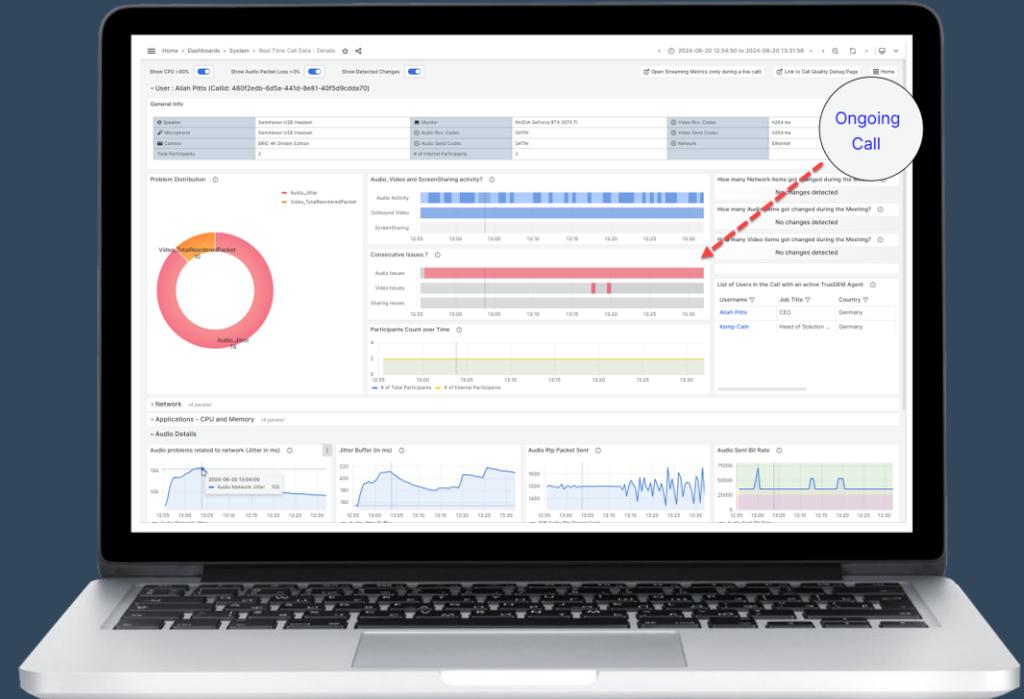
Microsoft Service Performance Monitoring

Findings: Outage Detection



- Proactive Monitoring
- Fast Support / Troubleshooting
- Cost savings

Live Demonstration



Thank you very much!



Headquarters, Austria:

panagenda GmbH (Ltd.)

Sonnenfelsgasse 13/9
AT 1010 Vienna, Austria

Phone: +43 1 89 012 89

Fax: +43 1 89 012 89-15

E-Mail: info@panagenda.com

Headquarters, Germany:

panagenda GmbH (Ltd.)

Lahnstraße 17
DE 64646 Heppenheim

Phone: +49 6252 67 939-00

Fax: +49 6252 67 939-16

E-Mail: info@panagenda.com

USA:

panagenda Inc.

60 State Street, Suite 700
MA 02109 Boston

Phone: +1 617 855 5961

Fax: +1 617 488 2292

E-Mail: info@panagenda.com

The Netherlands:

Trust Factory B.V.

11th Floor
Koningin Julianaplein 10
NL 2595 AA The Hague

Phone: +31 70 80 801 96

E-Mail: info@trust-factory.com