

Extend Network Performance Monitoring to the Home Office with NetBeez Work-From-Home Agent

An ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) White Paper
Prepared for NetBeez

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August 2020



IT & DATA MANAGEMENT RESEARCH,
INDUSTRY ANALYSIS & CONSULTING

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SURGE IN WORK-FROM-HOME POPULATION IS PERMANENT

Enterprises have experienced a massive surge in employees who are working from home due to the COVID-19 pandemic. Enterprise Management Associates (EMA) has observed enterprises realigning their network architecture by scaling up VPN capacity and expanding their use of the cloud for application delivery. EMA has also observed a commensurate realignment of operational monitoring tools to support this new architecture. More importantly, EMA projects that this surge of remote workers is somewhat permanent.

The pandemic was the trigger that led to a wave of change in network infrastructure and operations. Ongoing uncertainty about the pandemic will prolong the surge in remote workers. However, EMA expects that work-from-home populations will remain high after pandemic restrictions are eased. Many enterprises have experienced benefits from supporting remote workers. They have reported improved productivity, even with the obvious distractions created by the pandemic. They also perceive opportunities for cost reduction, as they can shrink their real estate expenses and scale back on-premises digital infrastructure.

EMA believes that today's work-from-home population will contract modestly after the pandemic, but it will remain much higher than it was in 2019. Thus, service assurance for remote users will be a bigger priority in both the short-term and long-term. Network operations teams should expand their visibility with tools that can monitor user experience at the home office.

WORK-FROM-HOME CHALLENGES NETWORK OPERATIONS

Visibility into home offices is limited. Most network monitoring tools rely on managed infrastructure to gain visibility. A router or switch can generate network flow records and respond to SNMP queries sent by existing monitoring tools. While some enterprises may deploy micro-branch infrastructure into the home offices of power users, such as C-suite executives, the vast majority of users will rely on equipment managed by their ISPs. Existing tools aimed at monitoring managed devices will be mostly useless.



Why NetOps Teams Struggle to Support Remote Workers

- Limited access to monitoring data
- Toolsets that focus on LAN and WAN, not home office
- Support model that doesn't scale

Furthermore, traditional network monitoring tools are often ill-suited for monitoring the intermittent problems that can plague the internet. For instance, SNMP monitoring tools usually rely on polling intervals of five minutes or more and summarize their data. Network problems that last only a few seconds can be invisible to these tools, even though they can crash a VPN session or disrupt an application transaction.

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Overall, the service-level agreements (SLA) that were attainable with traditional monitoring tools become impossible to support with remote users. IT organizations are facing a difficult support model for these remote workers. Without adequate visibility, user dissatisfaction will increase, productivity will drop, and upper management will pressure network operations to solve the problem.

Unfortunately, some network managers are taking only half measures to resolve this visibility issue. EMA recently spoke to multiple network managers whose best response has been to start monitoring their VPN concentrators. This allows them to monitor VPN capacity and availability, but it doesn't give them insight into user experience.

Their next step is to try to debug equipment that the IT organization doesn't own. System administrators and help desk technicians have to talk users through rebooting their modem and Wi-Fi router. If that doesn't resolve an issue, they direct the user to call his or her ISP for help.

Ultimately, it is impossible to get an end-to-end view of user experience with this fragmented support model. When one scales the problem out to hundreds or thousands of home offices, the problem becomes exponentially worse. In the traditional network, many support calls are often interrelated. A misconfigured Wi-Fi access point might generate 10 or 20 trouble tickets, and fixing those devices resolves them all. Furthermore, the pattern of user complaints tells you where to look. If all 20 users on one access point are complaining, the access point is the first place an engineer will look. Now, 20 tickets might be 20 separate problems in 20 home offices, and there isn't enough visibility to resolve even one efficiently.

HOW NETBEEZ WORK-FROM-HOME AGENT DELIVERS END-USER VISIBILITY

Network performance monitoring vendor NetBeez has introduced a new Work-From-Home Agent that extends granular, real-time visibility into end-user experience in any home office, thus closing the visibility gap created by the surge in remote workers.

NetBeez's core platform is an active monitoring solution with two core components. First, it uses distributed hardware and software probes deployed in enterprise locations to generate test traffic and measure the latency, jitter, packet loss, and connectivity status from various points on the network. Second, NetBeez's console server presents reports, dashboards, and drilldowns on the test data generated by NetBeez probes. The console server is deployable as an on-premises virtual machine, cloud instance, or hosted SaaS service. This solution actively measures Wi-Fi and wired LAN performance, WAN and internet performance, and cloud performance.

The new Work-From-Home Agent extends NetBeez's monitoring to the home office by enabling active monitoring from an end-user computing device. The agent software is simple to deploy on Windows, Linux, and Mac computers. System administrators can install the agent remotely using a central PC management tool, or they can instruct users on how to download and install the agents via email.

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The agents are also easy to configure and they can quickly start generating synthetic traffic to track user experience for internal applications, websites, and cloud applications.

NetBeez's central console presents high-level reports on user performance at all home offices with insight into real-time metrics. The console reveals second-by-second analysis rather than intervals of minutes or hours. It also supports drilldown workflows so that administrators can perform rapid root-cause analysis of individual user experience complaints.

By combining real-time visibility with workflows for root cause analysis, network managers can use NetBeez to rapidly identify which users are having trouble and identify potential causes. If everything is slow, they can narrow the problem down to the Wi-Fi or the local ISP. If only internal applications are problematic, they can focus on the VPN or the corporate data center. If only a SaaS application is the problem, they can call the SaaS provider.

Whether today's surge in the remote workforce is temporary or permanent, network operations teams need to support business continuity by adjusting their operational monitoring capabilities. An end-user experience monitoring tool like NetBeez can close the visibility gap and help the IT organization set new, realistic SLAs for home workers.

ABOUT NETBEEZ

NetBeez, Inc. is a network performance monitoring company that provides network engineers with data and intelligence to successfully manage the most complex network infrastructures. Dedicated hardware and software monitoring agents test LAN, WAN, and Wi-Fi networks from the user perspective, measuring and reporting KPIs of service quality. [NetBeez](#) helps distributed enterprises maximize the value of their network infrastructure, reducing network downtime and allowing IT to quickly detect, troubleshoot, and repair network issues. For more information, visit www.netbeez.net or follow us on Twitter at [@NetBeez](#).

About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help EMA's clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise line of business users, IT professionals and IT vendors at www.enterprisemanagement.com or blogs.enterprisemanagement.com. You can also follow EMA on [Twitter](#), [Facebook](#) or [LinkedIn](#).

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