Top 10 Questions to Ask a Digital Experience Monitoring Vendor

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Introduction

According to the Gartner® *Market Guide for Digital Experience Monitoring*, by 2026, at least 60% of I&O leaders will use digital experience monitoring to measure application, services, and endpoint performance from the user's viewpoint.[1] As employees increasingly work from home and remote locations, the demand for smoother, consistent experiences with the critical applications they rely on increases to ensure optimal productivity and business results.

Digital experience monitoring (DEM) solutions can help you proactively manage end-user experience and take measures to prevent problems, like application performance degradation, from inhibiting workforce productivity. Make sure to ask suppliers these 10 fundamental questions to help you select the best monitoring solution for your enterprise.

1. *Gartner Market Guide for Digital Experience Monitoring*, Mrudula Bangera, Padraig Byrne, Gregg Siegfried, 28th March 2022: https://start.paloaltonetworks.com/gartner-market-guide-for-dem.html.

1. Can your solution help me proactively isolate the cause of application performance degradation?

The Challenge

From an IT perspective, a cloud application used by staff looks great. Yet, end users describe it as unreliable and slow. When users experience application performance degradation, IT admins need a clear view of the contributing factors causing the problem in order to troubleshoot effectively. Users want resolutions fast, and the time spent searching and correlating measurements across disparate views and products increases the time it takes to resolve help tickets, frustrating both IT and end users.

Palo Alto Networks Advantage

Palo Alto Networks Autonomous Digital Experience Management (ADEM) for Prisma® SASE provides segment-wise insights across the entire application delivery path so you can understand the root cause of performance problems. Whether it's device performance, Wi-Fi signal strength, broadband WAN connectivity, a middle-mile internet service provider (ISP) introducing heavy latency or loss, or SaaS provider issues, ADEM will diagnose it. Quickly identify the cause of degradation with a visual indication of the problem and the number of impacted users at each hop in the service delivery path so you can understand the scale of a problem.

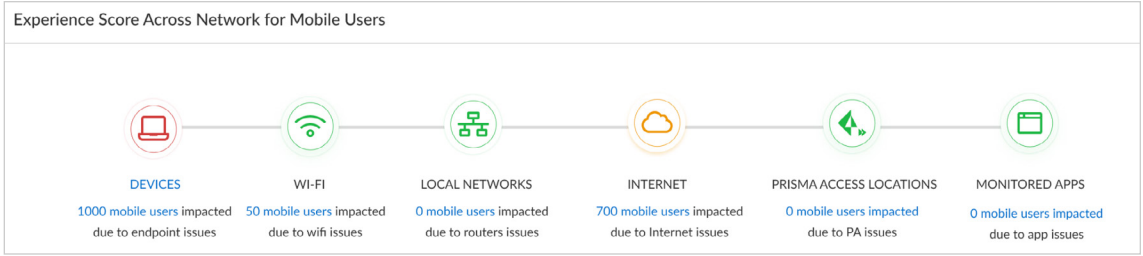

Figure 1: Segment-wise insights across the enterprise

For example, when a user experiences poor application performance, they submit an IT ticket. With the user dashboard surfacing the right insights, IT admins can instantly find the problem. The endpoint device is flagged as the source if a user's CPU utilization has been high over the last few hours. IT admins can proactively resolve a problem even before the first help ticket is submitted.

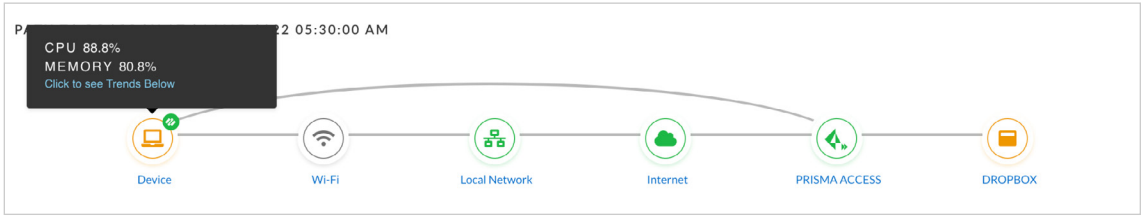

Figure 2: Proactive problem isolation

2. Does your solution present an aggregated application performance view to help me identify an enterprise-wide issue?

The Challenge

As IT admins resolve incidents, wading through raw individual measurements without context on how they deviate from normal conditions can result in false diagnoses and higher MTTR. Understanding how measurements change over time and across all layers is critical for quick resolutions.

Palo Alto Networks Advantage

ADEM collects both network and application performance metrics. These metrics, including DNS lookup time, TCP connect time, SSL handshake time, and HTTP latency, are available for a 30-day retention period, providing a baseline for organization-wide application experience. This allows IT to make meaningful inferences on where in the L3/L4/L7 stack the application performance is compromised.

For example, an enterprise's DNS resolution introduces intermittent latency during peak hours. This causes users to experience intermittent performance degradation across all applications. The ADEM dashboard will clearly indicate the degradation in performance across all monitored applications for all users in the enterprise.

In figure 4, the experience score trend metric represents decreased performance in situations where the DNS latency has been observed in the application transaction path. In addition, this information can be compared to historical trend data, which allows IT to study data patterns in application performance metrics.

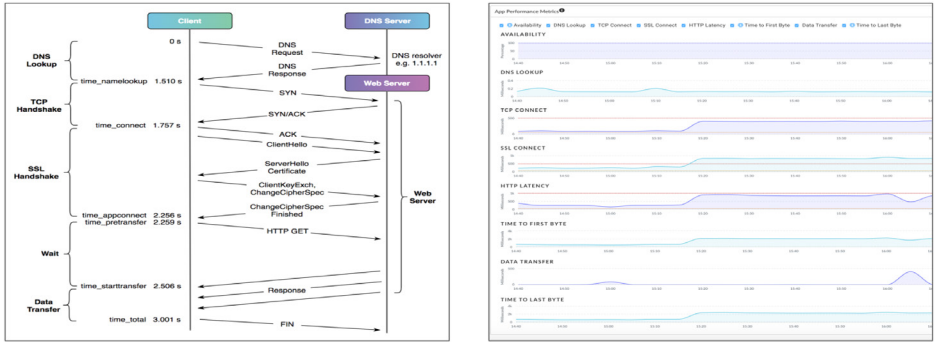

Figure 3: Comprehensive application performance metrics

Figure 4: Clear correlation of application performance with the metrics collected

3. Does your solution require separate software installation, agents, or containers for every device?

The Challenge

DEM solutions make decisions based on collected data. They look for patterns and deviations in application performance across the entire service delivery path. If a solution lacks data, it won't be able to make correct, if any, determinations. Products using independent software are complex to manage, as the installation is an additional task. The exclusive configuration required and lifecycle management of the software will add to the operational complexity of the solution.

Palo Alto Networks Advantage

ADEM is natively integrated with GlobalProtect™, Prisma Access and Prisma SD-WAN, making it easy to roll out to every user, regardless of location. In just a few clicks, you have all the performance metrics you need without the overhead of additional software and complex installation procedures.

Prisma SD-WAN appliances and GlobalProtect endpoints can provide real-time and historical measurements without any manual intervention or network downtime.

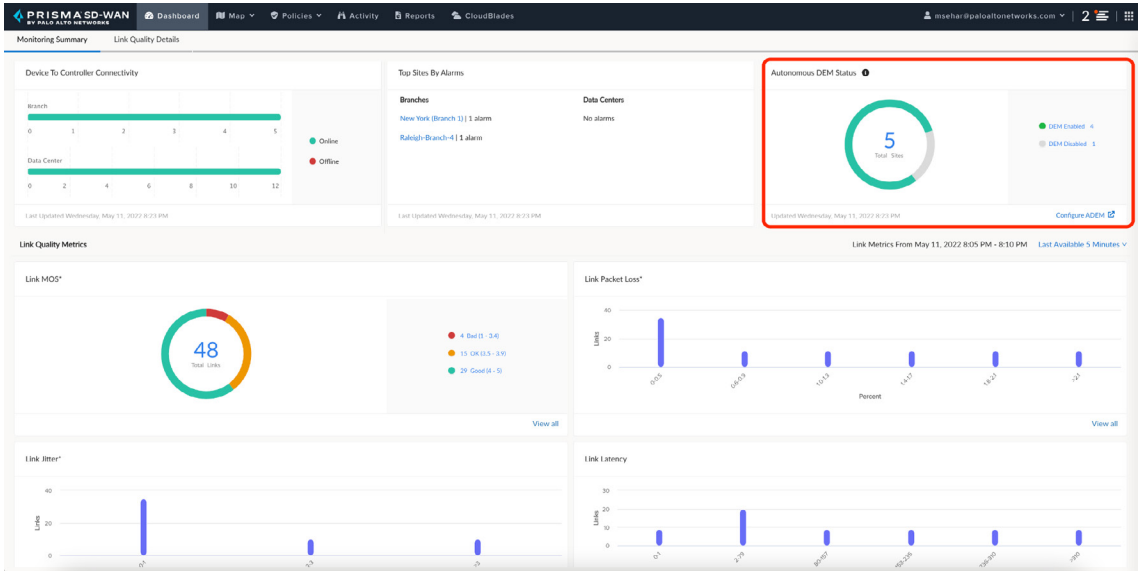

Figure 5: Automated installation and lifecycle management for remote networks

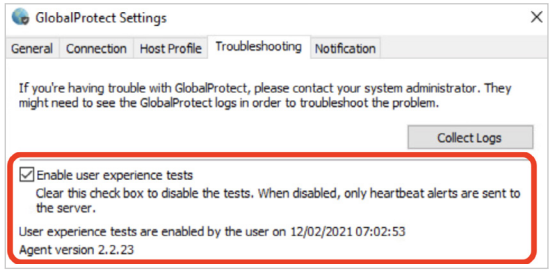

Figure 6: Automated installation and lifecycle management for mobile users

4. Does your solution require any Layer 3 configuration or IP address allocation planning to run active tests?

The Challenge

IT teams struggling with network incidents have an immediate need for tools to improve visibility and speed the diagnosis of incidents. There is often no time for tools that require long deployment times or major network infrastructure changes.

Palo Alto Networks Advantage

With ADEM, network modifications are not required. Since ADEM is natively integrated with Prisma SASE, network configuration changes aren't required to run application performance tests. A single click turns on the service without needing network pre-planning for service enablement.

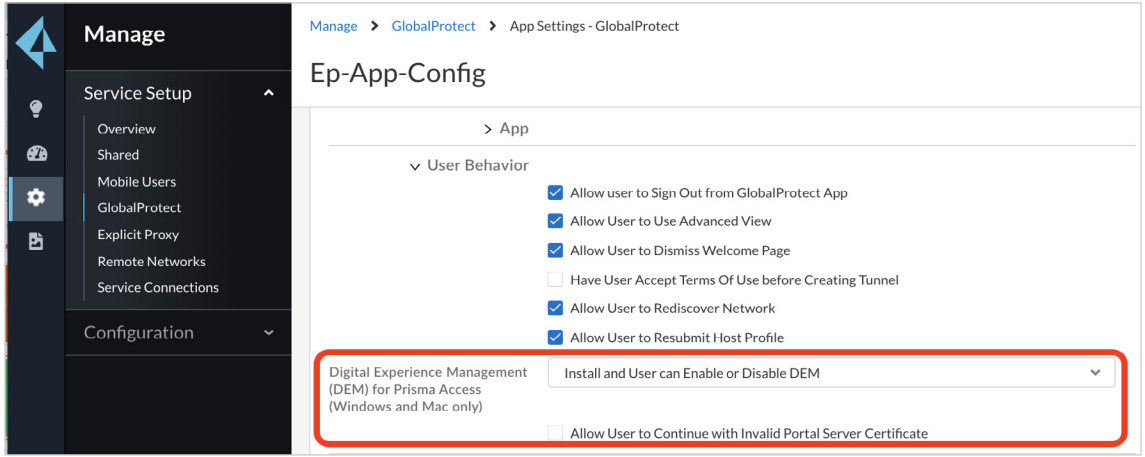

Figure 7: Single-click service enablement for mobile users

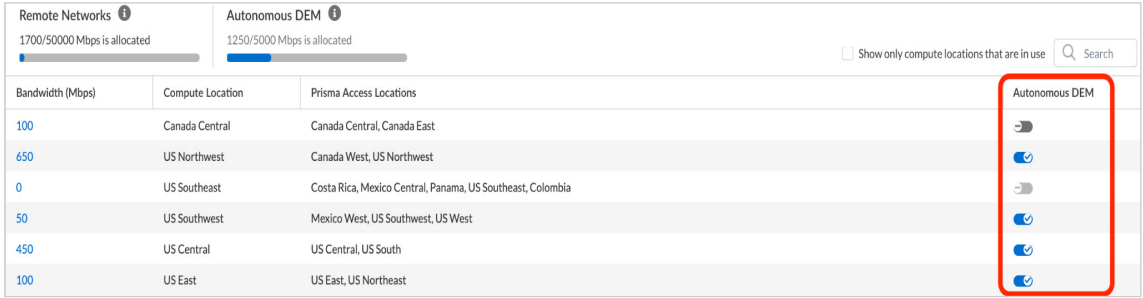

Figure 8: Single-click service enablement for remote networks

5. Does your solution provide visibility on both underlay and overlay paths?

The Challenge

Many IT teams manage a modern network with complex connections from branches and mobile clients. Having a view into all facets of the network is paramount. Monitoring only overlay topologies discards valuable information, often the key to quickly understanding user-impacting incidents.

Palo Alto Networks Advantage

ADEM provides underlay and overlay network performance visibility into the entire service delivery path for remote and branch office users. You can monitor all available paths for an application, both active and backup. ADEM sends active probes over private WAN and internet underlay paths, along with overlay paths to both Prisma Access and Prisma SD-WAN data centers. This provides IT with end-to-end visibility and segment-wise insights to proactively isolate the root cause of potential application performance degradation.

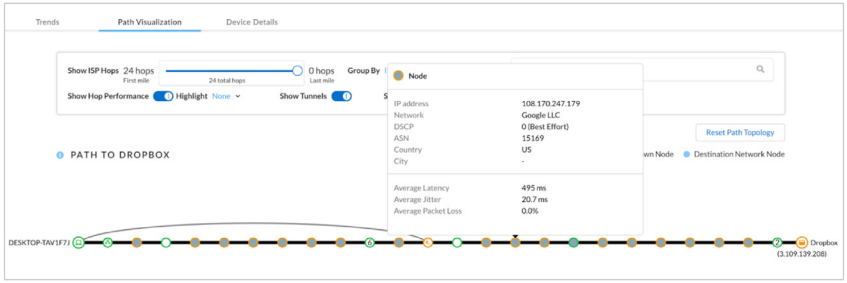

Figure 9: Hop-by-hop path visualization for mobile users

Figure 10: Hop-by-hop path visualization for remote networks on Prisma Access path

Figure 11: Hop-by-hop path visualization for remote networks on a direct access path

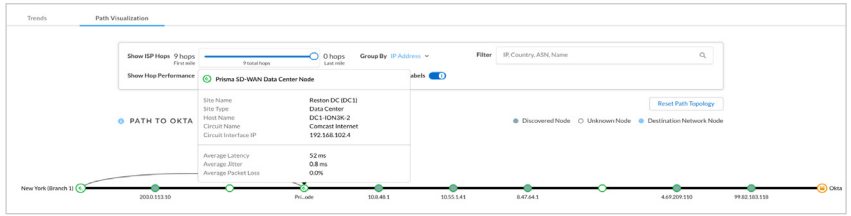

Figure 12: Hop-by-hop path visualization for remote networks on a Prisma SD-WAN path

6. Do you provide visibility into a user's home network?

The Challenge

Working from home is common for most enterprises. However, IT is often ill-equipped to mandate home network equipment or manage home networks. Solutions that intrinsically trust or expect these home networks to be functional and without issues keep IT in the dark about the true root cause of performance issues.

Palo Alto Networks Advantage

ADEM provides visibility into the performance of home networks without requiring configuration changes or special equipment, detailed insights into LAN and WAN network performance, and extended Wi-Fi telemetry.

For Wi-Fi, ADEM collects and historically trends metrics over time. These include data like SSID/BSSID, channel, signal strength, and Wi-Fi Tx and Rx speeds. ADEM uses the insights to isolate any congestion in the user's Wi-Fi network or uncover issues with signal strength. Common issues such as low signal due to distance from an access point or continuous switching between two access points are clearly visible.

For LAN and WAN, ADEM can provide visibility into the performance of the home internet router. You can identify packet loss or latency introduced by the home router to quickly isolate issues with equipment.

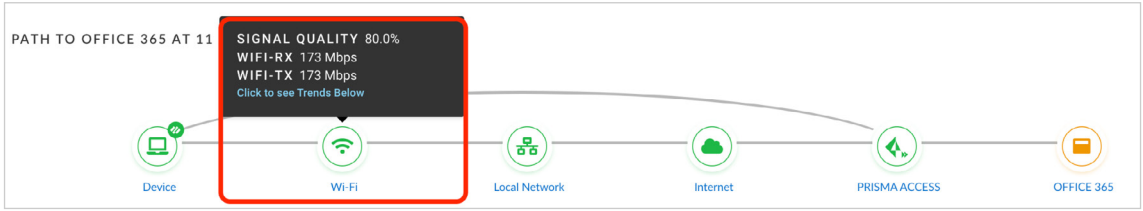

Figure 13: Single-click service enablement for mobile users

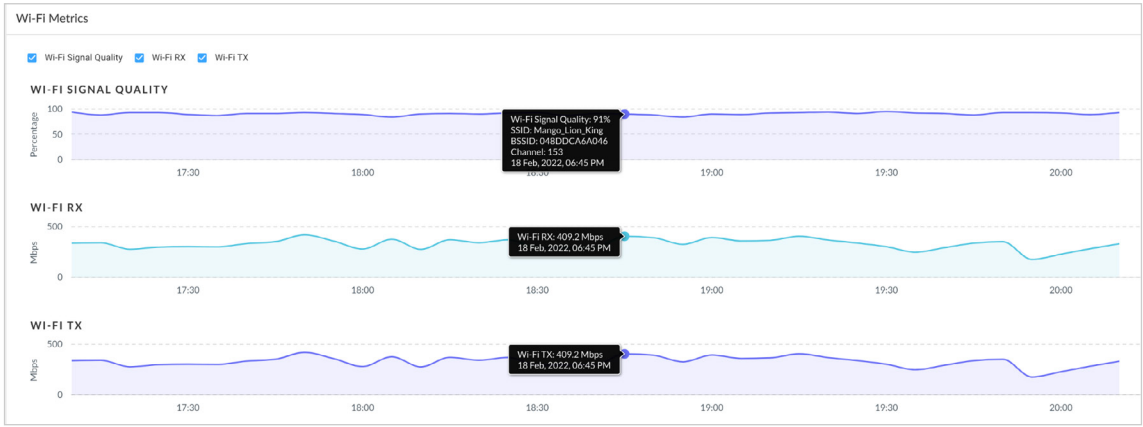

Figure 14: Visibility into users' home networks

7. Will your solution provide continuous performance monitoring in a hybrid work environment?

The Challenge

Distributed work environments are rapidly becoming the new norm as employees work from home, co-working spaces, branch offices and on the go. This new way of working presents challenges for IT as they are not equipped with the right tooling for a baseline of performance visibility across these work environments.

Palo Alto Networks Advantage

ADEM provides continuous application performance monitoring while the user moves between their home, branch office and on the go. This integrated performance visibility from a single dashboard allows IT teams to quickly identify the root cause of performance degradation while users transition across these various work environments.

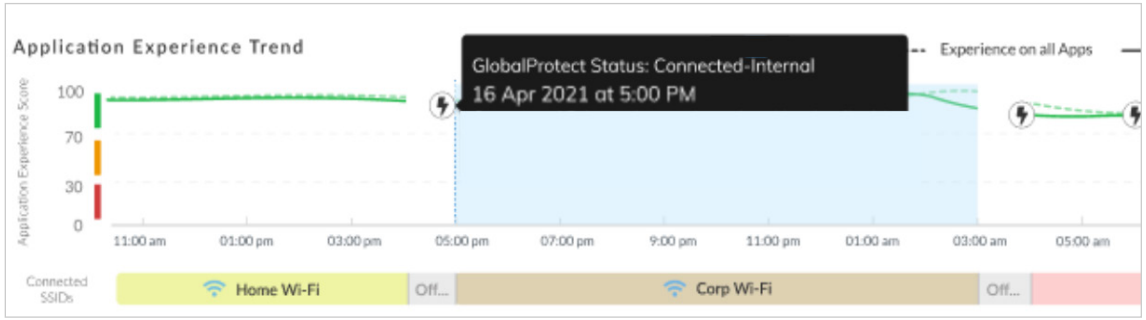

Figure 15: Visibility into security disengagements

8. Can your solution correlate application experience score with live real user traffic?

The Challenge

Most DEM solutions base decisions on using active, synthetic probes to extrapolate end-user experience for standard workloads. While these probes are very effective in showing how users "could" be impacted, they don't often show the magnitude those performance impacts are having across the organization. For example, if degradation of Office 365™ occurs and resolves while all users are asleep, should a priority incident be raised? A solution should be able to correlate and understand the magnitude of the incident using actual user activity to gauge the total impact of degradations.

Palo Alto Networks Advantage

ADEM provides volumetric analysis of real-time data along with application performance intelligence. This allows IT to easily identify and correlate the magnitude and impact of incidents. You can effectively manage business-critical applications for both mobile users and remote offices.

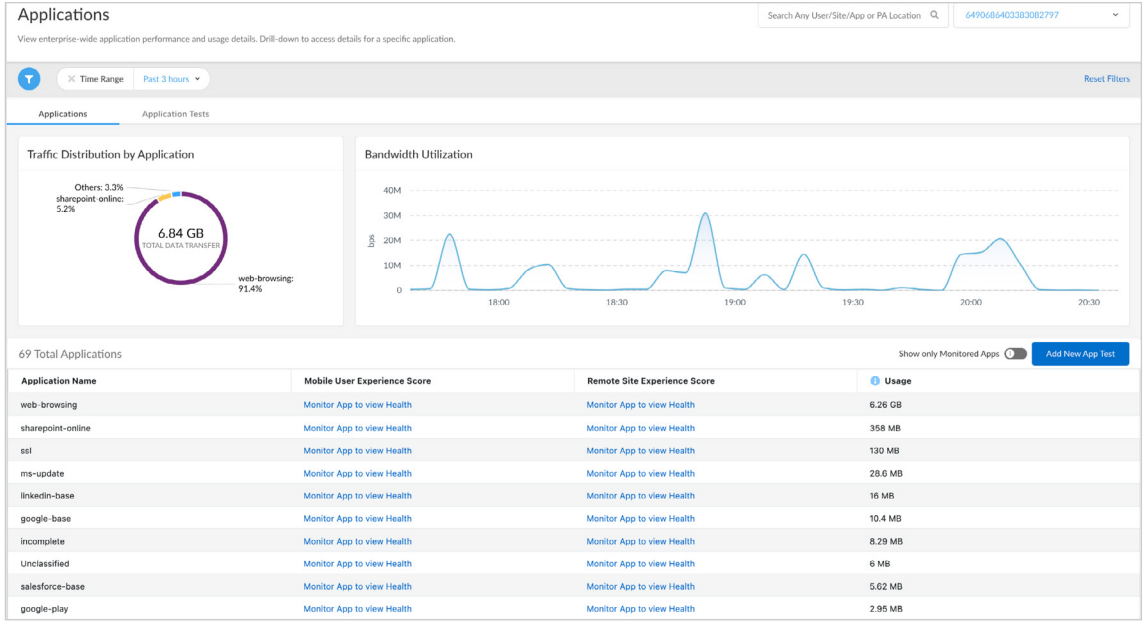

Figure 16: Real-time application monitoring and volumetric analysis

9. Can my service desk easily interpret the data and resolve problems without escalating to Tier 3 support teams?

The Challenge

When service desks or other IT support groups are tasked with troubleshooting problems without the tools to effectively diagnose the problem, admins often bounce the ticket over to more scarce and expensive level 2 or significantly more costly level 3 resources. Not only do costs rise when they require a higher level of expertise to resolve, but it also increases MTTR and frustrates end users.

Palo Alto Networks Advantage

ADEM provides the ability to not only resolve incidents efficiently but also to prevent their escalation. This is done by providing the right insights to act on the spot, as well as the ability to detect and solve issues before they even manifest themselves.

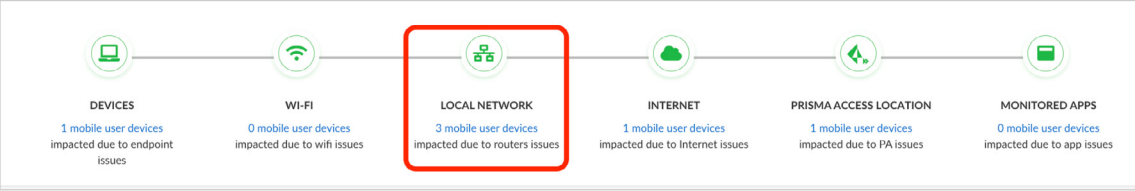

Figure 17: Segment-wise insights with proactive isolation of problem segments

10. Will I be able to monitor application performance across both mobile users and branch users/endpoints?

The Challenge

Many DEM solutions focus entirely on mobile user devices via an installed agent. However, many devices either do not or should not support agents. These devices, like servers, network equipment, HVAC/IoT, etc., are still critical components that need reliable, secure performance. The best solutions should support monitoring the performance of any corporate device or application, regardless of agent presence.

Palo Alto Networks Advantage

ADEM enables monitoring of mobile users and remote branch offices via a unified dashboard. This ensures performance scoring is available for all corporate assets and can be viewed and benchmarked in the same interface, so you don't have to switch between multiple management tools.

Users have high expectations that online tools and communication channels always operate flawlessly, regardless of where they work. In order to execute on this high standard of user experience, visibility into all aspects of experience and a single pane of glass to watch over them is critical. Diagnose and fix reported incidents in a flash, but also proactively resolve unreported issues and prevent them from happening in the first place with ADEM.

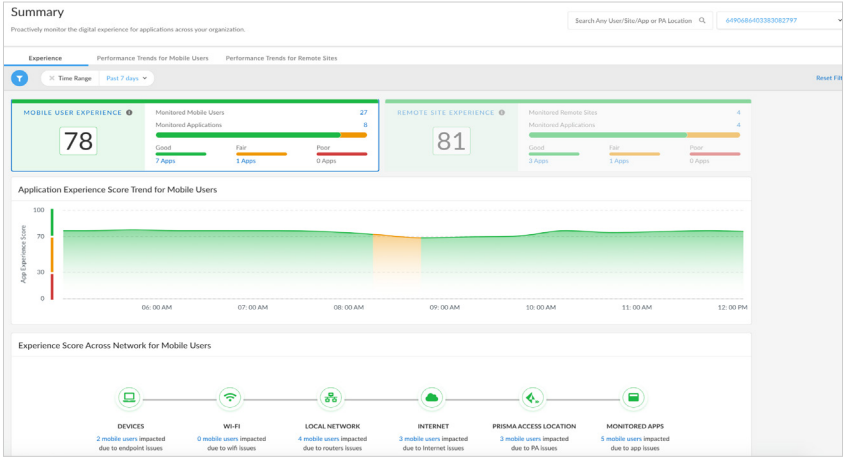

Figure 18: Remote users and corporate site performance at the same time

To learn more about ADEM, go to www.paloaltonetworks.com/sase/adem.

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