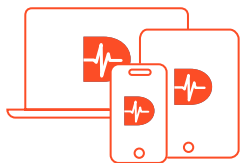


# Performance Analytics & Diagnostics

## Measuring and maximizing the impact of your mobile investment

Performance Analytics and Diagnostics deliver constant real-time analytics on mobile devices (Windows, iOS, and Android), applications and networks – private and public. The robust data offers a true picture of how workers, devices and applications are using bandwidth, allowing IT to make smarter decisions to tune and enhance the user experience and productivity. And since it is often difficult to tell whether apparent connection problems are caused by the multiple networks (cellular, WiFi, Ethernet, etc.), applications or device hardware, complete troubleshooting information allows IT to respond quickly and get the worker productive again. With the analytics and real-time integration with SIEM and BI analysis tools available (e.g., the NetMotion Mobile Deployment application in Splunkbase), responsible business managers are better equipped for decision making regarding their investments in and operation of mobile technologies.



### Specific troubleshooting and root cause analysis information

Business workers aren't IT experts and should not be expected to diagnose connection issues or performance problems. Enabling IT with the ability to do comprehensive, in-field diagnosis based on real-time data from the devices means IT can identify the root cause of the problem quickly, without relying on workers to run tests and answer questions. This translates into more productive mobile workers and IT staff.



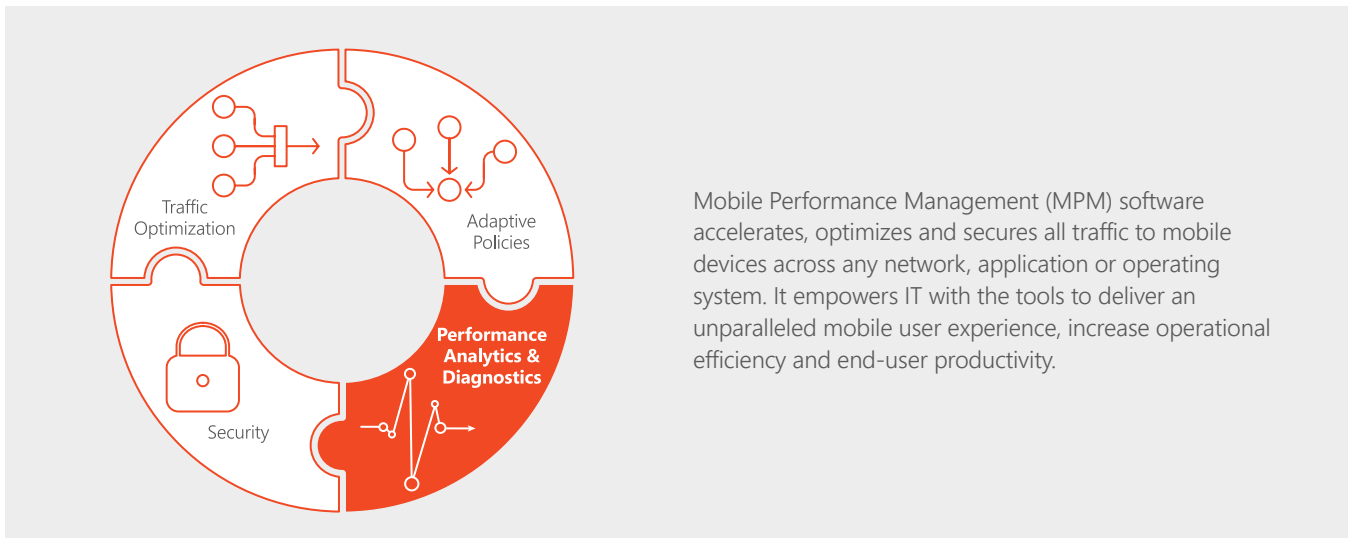
### Location-system information

Enterprises with workers that are on-the-move throughout the workday increasingly make use of GPS and Wi-Fi location data for more-efficient scheduling, route-planning and controlling fuel consumption. Constantly updating reports on Wi-Fi location and whether the GPS capability is working means businesses can fully utilize this data for improving operational efficiency. Data collected are automatically geo-tagged when location services are available.



### A real-time picture of network conditions and usage

Analytics produces an accurate picture of coverage drawn from near real-time location data and statistics. This data is gathered and updated within minutes by devices in the field. It includes network conditions, connections and consumption of bandwidth by users, devices and applications. These reports reveal when expensive cellular data is over- or under-consumed, allowing IT to adjust policies to support more productive use of the devices and connections along with the ability to right-size their investment in connectivity.



Mobile Performance Management (MPM) software accelerates, optimizes and secures all traffic to mobile devices across any network, application or operating system. It empowers IT with the tools to deliver an unparalleled mobile user experience, increase operational efficiency and end-user productivity.

## Intelligence for improving productivity — from root-cause analysis for troubleshooting to performance tuning

Performance analytics and diagnostics deliver real-time data and alerts on a myriad of information crucial for the IT management of mobile devices. The ability to perform a complete battery of diagnostics on remote devices in the field, quickly zeroing in on the probable root causes of failures, results in hours of troubleshooting time saved by IT. Constantly updated analytics on the mobile user experience also allow IT to make smarter decisions to control costs, fine-tune policies, enhance user experience and productivity. Alerts, diagnostic reports and analytics may also be streamed in real time via syslog to NetMotion, Splunk, IBM, or other SIEM and BI tools.

### Root cause analysis

When the client cannot contact the server due to coverage gaps or connectivity issues, policies may be configured to launch diagnostics automatically. Diagnostics sends the captured report directly to the help desk, including interfaces available, statistics, settings and configuration of the active interface, results of tests run including standard tests of Internet connectivity, and symptoms reported by the user if available. Additionally, Diagnostics identifies the most probable root cause such as a d

### Mobile experience analytics

Since the productivity of mobile workers is affected by the availability and speed of their network connections, analytics reveal the frequency and patterns of dropped connections, trends in data usage, and other measures of how well networks are performing.

### Wi-Fi vs WWAN

Enterprises often rely on Wi-Fi networks as a critical adjunct to cellular connections. But Wi-Fi channels are becoming

increasingly congested. NetMotion analytics and diagnostics capability is equally applicable to Wi-Fi networks, whether internal to the enterprise, or third-party Wi-Fi access points in homes, coffee shops, airports or municipal networks.

### Performance reports

Technology-availability trends over time visualize network capability by technology generation (for example, 4G, 3G, and 2G) and network technology (1xRTT, EDGE, and so on). The time trends are displayed in different stacked area charts for each carrier. Observing these technology trends allows IT to gauge how well each network is performing, and the extent to which slow connections are affecting productivity.

### Network & app usage reports

Usage by carrier, user, device, or phone number aids in understanding which users, devices or applications are using which carriers, on an hourly, daily, weekly or monthly basis. This intelligence reveals where costly bandwidth is being overused, and where little-used plans can be cancelled to save on data costs.

### Inventory analysis

Inventory analysis of the wireless hardware provides proactive intel-ligence on utilization and whether devices need to be upgraded. It includes modems and adapters used by platform, manufacturer, user, device, or phone number, complete with firmware version.

### Coverage and device maps

Regional maps color-coded by average signal quality, technology type and generation deliver a true picture of coverage for carriers and networks, gathered by devices in the field. Device maps use GPS to trace the path followed by a user or device, and to drill down to see specific points where connection drops or other problems occurred.