

Unprecedented Visibility for Mobile Environments

NetMotion Diagnostics gives IT teams the real-time alerts, visibility and tools to diagnose connectivity-related problems, whether on the mobile device, GPS unit, corporate servers, or across any of the networks being used. It removes the need to rely on drive tests, third-party reports, or nontechnical field workers to troubleshoot connectivity issues.

Diagnostics runs as a module integrated with NetMotion Mobility, enabling the industry's only self-diagnosing intelligent VPN. NetMotion Diagnostics also runs as a standalone solution.



Diagnostics and Troubleshooting

Scope	End-to-end interrogation of network data path encompassing device, network, and corporate servers/resources (both on-premises and cloud-based)
Diagnostics Available	<ul style="list-style-type: none"> • Device Tests – Network adapter status, local network (routing table, gateway), GPS, Mobility connection status. • Network Tests – Internet (DNS, speed, firewalls, etc.), captive portal, Mobility Server pool. • Custom Corporate Resources – HTTP/HTTPS, name resolution, ping (latency), TCP connect, traceroute, web resource.
Execution Control	<ul style="list-style-type: none"> • Via menu in NetMotion Mobility system tray • Automated launch on specified conditions via integration with Policy module • Programmatic launch by other applications
GPS Integration	Not required for diagnostics, but geo-tags test location if available.

Alerts and Reporting

Alerts	Configurable; based on diagnostics, adapter usage/inactivity (detects over- or under-utilization), status, and other thresholds.
Alerting Methods	Email, SMS, syslog, and export to tools such as Splunk, Elasticsearch, Kiwi and others.
Reporting/Analytics	Comprehensive reports, including geo-tagged data if available, on: <ul style="list-style-type: none"> • User, device, network and application activity • Analytics on devices, network performance and usage • Dropped-connection analysis based on trend, hardware, software and user information • Device and user group membership counts and details over time
Data Export	Export including geo-tagged data for import into enterprise operational intelligence, SIEM (security, information and event management), BI (business intelligence) and log analysis tools.
Syslog Integration	Syslog RFC 5425-supported key-value message export of: <ul style="list-style-type: none"> • Device samples (coverage quality, network technology, location, etc.) • Mobile diagnostic test results (probable root cause, latency, page load times, etc.) • Mobility information (application usage, compression data)
Device Tracking/Inventory	Central repository of all mobile devices, with detailed information about each user's device configuration, including phone number, ESN and firmware.

Network Coverage, Technology, and Device Mapping

Network Performance Maps	Geo-located maps of: <ul style="list-style-type: none"> • Signal quality and network performance by carrier or technology • Availability of each network technology (2G, 3G, 4G, LTE) • Performance trends
Deployed-Device Maps	Detailed location information for an individual device showing signal quality, network technology and dropped connections.
GPS Monitoring	GPS unit performance: how often GPS unit sees a feed over a period of time and how often the unit drops the feed.

API Integration

.NET API	Access to diagnostics-module data gathered by the agent on each device, for use by in-house and custom programs to control functions or workflows. <ul style="list-style-type: none"> • WWAN adapter data — manufacturer, model, phone number, OS connection name, connection status, signal quality. • GPS adapter data — status, latitude, longitude, time GPS fix was acquired, accuracy (HDOP or meters).
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Platform Support & System Requirements

Clients Supported	iPad and iPhone devices (iOS 8 and later), Android devices (Android 4.0 or later), Windows Pro Tablets, laptops and other devices running Windows 7 or 8.
Supported Adapters	Cellular including embedded, USB, PC-Card, and trunk mount (see list of Supported Network Adapters), Wi-Fi and Ethernet.
Client Distribution	Remotely installed in conjunction with NetMotion Mobility, or via clients available through app stores.
Deployment Model	Hosted, cloud-based solution or installed on-premises.
Diagnostics Server Requirements	Up to 1,500 agents – Minimum configuration: 2.2 Ghz x64 compatible with 2 cores; 8 GB RAM; 250 GB free disk space; Windows Server 2012 R2 or 2008 R2 with .NET Framework 4 and ASP.NET 4.5 enabled. Up to 15,000 agents - Minimum configuration: 2.8 Ghz x64 compatible with 8 cores; 64 GB RAM; Disk 1 - 150 GB free space; Disk 2 - 1.5 TB free space RAID 10; Disk 3 – 1.5 TB free space RAID 10; Windows Server 2012 R2 or 2008 R2 with .NET Framework 4 and ASP.NET 4.5 enabled.

