NetMotion Diagnostics®
Unprecedented Visibility for Mobile Environments

NetMotion Diagnostics gives IT teams and business managers the real-time visibility and operational intelligence to productively manage, support and understand their investments in mobile technologies. It allows them to diagnose connectivity-related problems, whether on the mobile device, GPS unit, corporate servers, or across any of the private or public networks being used. It dramatically speeds resolution of issues with remote devices to ensure mobile users stay productive. Diagnostics can also export mobile information and event data to SIEM and BI systems for extending their visibility and value outside the firewall.

Quickly Identify Root Cause and Troubleshoot Chronic Connectivity Problems

- Minimize downtime by quickly identifying problems and solving with pinpoint accuracy.
- Reduce support costs by eliminating unnecessary work and accelerating mean-time-to-repair.
- Troubleshoot, diagnose and report across Cellular, Wi-Fi and Ethernet networks.

Mobile Security and Location

- NetMotion Diagnostics provides detailed information and alerting on who, what, when and where unsecured networks and rogue access points were accessed.
- Use GPS performance and location data to find devices, users and more accurately determine the level of mobile services required for a given user, or group of users.

Improve End User Experience and Productivity

- Ensure mobile workers have access to the best coverage and the fastest network technologies.
- Track and report geo-tagged data for driving better decision making regarding devices, networks, coverage plans and service level agreements.
- Use NetMotion Mobility policy controls to automatically launch and send Diagnostics reports.

Seamless Integration

- Export data to business intelligence and SIEM tools such as Splunk, IBM QRadar, etc.
- Report key big data such as: mobility status (connects/disconnects, location, failures), user and usage statistics (by bytes, networks, and applications), adapter information, security, GPS and other inventory information.

While the core of NetMotion's Mobile Performance Management software accelerates, optimizes and secures all traffic to mobile devices across any network, application or operating system (e.g., Windows, iOS, and Android) Diagnostics complements these abilities with tools for troubleshooting, monitoring and visualization.

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	• Device Tests – Network adapter status, local network (routing table, gateway), GPS, Mobility connection status. • Network Tests – Internet (DNS, speed, firewalls, etc.), captive portal, Mobility VPN. • Wi-Fi Security & Location - Network and access point usage/roaming, network security, and rogue access points. • Custom Defined Tests – HTTP/HTTPS, name resolution, ping (latency), TCP connect, traceroute, web resource.
Execution Control	• Automated launch on specified conditions via Policy module. • Programmatic launch by other applications. • Via menu in NetMotion Mobility system tray.
GPS Integration	• Supports integrated or external GPS and Wi-Fi assisted location. • Not required for diagnostics, but geo-tags text location if available.

Alerts and Reporting

Alerts	Configurable; based on diagnostics, adapter usage/inactivity (detects over or under-utilization), Wi-Fi security parameters.
Alerting Methods	Email, SMS, syslog, and export to tools (e.g., NetMotion, Splunk, QRadar, Elasticsearch, Kiwi and many others).
Reporting/Analytics	Comprehensive reports, including geo-tagged data if available, on: • User, device, network and application activity. • Analytics on devices, network performance and usage. • Dropped-connection analysis based on trend, hardware, software and user information.
Data Export	Geo-tagged data including analytics can be exported to enterprise operational intelligence, SIEM (Security, Information and Event Management), BI (Business Intelligence) and log analysis tools, including NetMotion's.
Syslog Integration	Syslog RFC 5425-supported key-value message export of: • Device samples & events (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: • 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.
Wi-Fi	• Network and access point usage/roaming. • Network security. • Rogue access points. • Optional location information (indoor & outdoor).
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.

Platform Support & System Requirements

Clients Supported	iPad and iPhone devices (iOS 8 and later), Android devices (Android 4.0 and later), Windows Pro Tablets, laptops and other devices running Windows 7, 8 and 10.
Supported Adapters	Cellular including embedded, USB, PC-Card, FirstNet, and trunk mount (see list of Supported Network Adapters on our website), Wi-Fi and Ethernet.
Client Distribution	Remotely installed in conjunction with NetMotion Mobility, or via clients available through app stores. Define and edit user profiles/settings on the server and push down to the clients.
Deployment Model	Hosted, cloud-based solution or installed on-premises.
Diagnostics Server Requirements	**Up to 1,500 clients – 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 clients - 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.

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