

Unprecedented Visibility for Mobile Environments

Multi-language/Locale Support

The Diagnostics server software is now available in English and Japanese. The setup/installation program runs in the locale of the Windows operating system. The Diagnostics console runs in the locale based on the user locale and the system locale at the time the server boots. If the locale is unrecognized or not supported, the software automatically defaults to English.

The Diagnostics client software is now available in English, French, German, Italian, Japanese and Spanish on Android, iOS and Windows. The client software runs in the locale that is currently set. In the case of Windows, if the locale is changed, the user must logout out of Windows and back in for the locale change to take effect in the Client software. If the locale is unrecognized or not supported, the software automatically defaults to English.

Server

The 'Home Carrier' value now updates reliably in reports. Changing SIMs in a device could previously cause the value to be incorrect. (13407)

Fixed server certificate checking in Diagnostics Connect setup wizard. (12840)

Client - Android

Added SINR (RSSNR) reporting for Android devices on LTE networks. For LTE networks, RSSI (RSSNR) is a useful measurement to determine signal quality on an LTE network. This data is now collected and reported in the signal quality reported on device maps and is included in the device sample data. (13659)

Client – Windows

Fixed multiple, redundant notifications when using the /notify command when launching Diagnostics from the command line. Now only one notification message is issued instead of many. (13285)

The Diagnostics Client API now reports the Active Backhaul interface when using a trunk modem or when there are multiple backhaul interfaces on a single device. (13098)

Improved port sharing driver installation for smoother Windows operating system upgrades. (12805)

Adapters

Added support for the Bittium SD-41 Android Phone (FirstNet/Band 14)

Added support for the AT&T Unite Explore MiFi (13594, 13565)

Added support for Sierra MC745x adapters. (12838)

Added supported-but-untested status for the HP HS3110 HSPA+ adapter. (12789)

Added GX450 Modem to the supported but untested list (13506)

Added support for the Motorola VML700 trunk mounted modem (12967)

Resolved several issues with the Motorola VML750 data reporting. (12844)

Fixed a bug where the Diagnostic client would not recognize Verizon as the home carrier on the Sierra GX440. (12994)

Documentation

Client documentation moved to the web, reducing the installation footprint on mobile devices. (13596, 12971)

Fixes

Fixed database corruption due to tablespace id collision (13310)

Locality Renamed Diagnostics

To provide more clarity and better alignment with the product's features and direction, we changed the name of Locality to Diagnostics. In conjunction with the new product name, the server and client interfaces, including graphics and icons, have a fresh look and feel. Although the product has a new name, all the same features and functionality are available, and we have carried the version numbering forward from Locality into Diagnostics.

Customers previously subscribed to the Locality Cloud service (<instance>.localitycloud.com) will continue to access their SaaS deployment using the localitycloud.com domain. New customers will access Diagnostics Cloud from the new NetMotionCloud.com domain. We can migrate your domain if you like, but doing so requires each client to reenter their security token.

Improved Performance

Performance in many different areas of the Diagnostics server has been improved in version 3.20:

- The time required to display Diagnostic reports has been significantly reduced, twice as fast on average.
- Database maintenance activities, which occur throughout each day and at the end of each day, complete up to 10 times faster, preserving system performance for users viewing reports.
- On average, system backups are up to 6 times faster and restores are up to 20 times faster. In addition, backups consume only about 1/3 of the disk space as previous versions.

The speed improvements are most dramatic in larger deployments with thousands of client devices.

Client Operating Systems

Diagnostics 3.20 adds support for the following client operating system versions

- Google Android 6 (Marshmallow)
- Apple iOS 9
- Microsoft Windows 10.

The chart below summarizes the minimum and latest supported client operating system versions.

Operating System	Minimum Supported Version	Latest Supported Version
Apple iOS	8	9
Google Android	4 (ice cream sandwich)	6 (marshmallow)
Microsoft Windows	7	10

Supported Network Adapters

FirstNet band 13 / 14 modems

Diagnostics 3.20 provides support for two trunk-mount modems involved in regional FirstNet trials—the Motorola VML 750 vehicle modem and the Harris Corp MBC-200 LTE mobile router. This support allows our first-responder customers involved in trials to begin monitoring and diagnosing the coverage and signal quality of their network fabric, consisting of both FirstNet and public data networks.

The following new adapters and modems are supported in Diagnostics 3.20 client software:

Mfg	Model	Name	Form Factor	GPS Auto-start	Interface	Carrier
CalAmp	Fusion	Multi-Network LTE Router	Vehicle-mounted	No	Web Interface	AT&T, Verizon, Sprint
Cypress	Chameleon CMT 200	Mobile Gateway	Vehicle-mounted	No	Web Interface	AT&T, Verizon, Sprint, Bell, Rogers, Telus
Dell*	DW5808e	Venue Pro 11	Embedded	No	Windows Mobile Broadband	Multi-carrier LTE capable (AT&T, Sprint, Verizon)
Franklin	MHS800	Jetpack 4G LTE Ellipsis	WiFi Hotspot	No GPS	Web Interface	Verizon
Harris	MBC-200	LTE Mobile Router	Vehicle-mounted	No	Web Interface	Verizon & FirstNet
Microsoft	Surface 3 LTE	Surface 3 Modem Device	Embedded	No	Windows Mobile Broadband	Multi-carrier LTE capable (AT&T, Sprint, Verizon)
Motorola	VML750	LTE Vehicle Modem	Vehicle-mounted	No	Web Interface	AT&T, Verizon, Sprint, FirstNet
Netgear	AC779S	Fuse	WiFi Hotspot	No GPS	Web Interface	Sprint
Novatel	U620L	Verizon MiFi 4G LTE Global USB Modem	External USB	Yes	Web Interface	Verizon
ZTE	MF923	Velocity	WiFi Hotspot	No GPS	Web Interface	AT&T

We added provisional, untested compatibility for the Sierra Wireless MC8805 (DW5570/DW5570e)

We also improved support for the Cradlepoint IBR1100 (firmware 5.4.1) so that it reports correctly when two network SIMs are installed.

For a comprehensive list of all supported adapters, check Supported Network Adapters and GPS Receivers.

Improved GPS Data Configuration

- We simplified the method used to collect GPS data on Mifi devices. For most devices, Diagnostics retrieves GPS data without requiring the user to install the MiFi's GPS driver software.
- The Diagnostics status screen on the mobile device shows more detail about the external modem that is providing GPS information.

International Support

Diagnostics now supports servers and devices running localized versions of our supported operating systems. Any combination of clients running in different locales can connect to a Diagnostics server running in a single locale. Data elements like phone numbers, country prefixes, and data/time values are shown in formats appropriate for Japanese, French, Italian, German, and Spanish locales.

The clients and server have also been prepared to support localization (translation) into foreign languages. Stay tuned for additional localization new in 2016.

Updated Splunk Application

NetMotion's application for Splunk has been updated to reflect the new look and feel of the Diagnostics branding. Some of the example applications now use base searches to improve overall performance. Dashboards have been updated to include new visualizations available in Splunk 6.3.

Server Configuration Requirements

The system requirements for Diagnostics servers—physical and virtual machine—have been clarified and streamlined so that they are easier to understand and follow. See the Hardware and Software Requirements help topic for details.

Server software includes the latest versions and security patches for Microsoft .NET, DevExpress, and MySQL.

Minor Changes and Fixes

Here are the other notable changes and fixes in Diagnostics 3.20.

LOC-2631 System Backup page explains how to fix errors

On the System > Status page, the system now displays instructions to help correct problems and errors with system backup.

LOC-4921 The number of current console sessions logged as INFO messages in the console log

Every time a user logs in or out of the Diagnostics console, the system now logs an INFO message indicating the number of current console sessions.

LOC-5642 Improved console notification if Analytics health is poor

If the connection to Mobility Analytics module is broken (e.g. web service is down, or no recent communication), the Status page in the Diagnostics console now posts an informative banner message.

LOC-7189 Downloading the current day's Coverage Data Export file is now supported

Instructions for retrieving the current day's (partial) data export file from the Diagnostics server are available now in online help.

LOC-9593 Cloud User Administration settings can now use different values for SMTP username and email address

In previous versions, Locality Cloud user administration required the SMTP server username and the email address to be the same. Now they can be different, and the SMTP server username does not have to be an email address.

LOC-10605 Updated worldwide list of carriers

The worldwide list of carriers used throughout reports the Diagnostics console has been updated so that it is more accurate. We also improved our ability to provide timely updates to this data for all customers in the future.

LOC-11293 Fixed automatic backup failures due to a non-default MySQL port

The Diagnostics backup service would fail if a non-default MySQL port was configured. Now using the Configuration Wizard to change the default MySQL port will not disrupt automatic daily database backups.

LOC-11295 Fixed the need to manually reboot database services when changing the default MySQL port

Changing the MySQL port prevented communication with the database until a manual reboot of the services. Now changing the database port using the Configuration Wizard automatically stops and starts the appropriate system services; no manual restart is necessary.

LOC-11296 Added Syslog key/value pair for Diagnostics version number

The Diagnostics version number was added to the available data in Syslog messaging.

LOC-11309 / LOC-8026 Improved installation error message related to IIS installation failure

When attempting a Diagnostics server setup fails to install IIS either because it cannot access the Internet or an internal Windows Update Service, we added a more helpful error message.

LOC-11485 Make IMEI, MEI, and ESN searchable for devices on device map

The values for IMEI (International Mobile Station Equipment Identifier), MEI (Mobile Equipment Identifier), and ESN (Electronic Serial Number) are now available to search on the device map, making it easier to find a specific device.

LOC-11934 IMEI added to System > Licensing page

The IMEI (International Mobile Station Equipment Identifier) field is now available on the System > Licensing page so that customers can confirm whether a specific device has been licensed.

LOC-11665 Improved mobile hotspot logging / troubleshooting

To aid in troubleshooting, we improved logging for mobile diagnostic tests to indicate when a mobile hotspot responds but is not recognized.

LOC-11700 Added support for client re-licensing

The system now supports re-licensing clients without requiring the user to switch Diagnostic servers to initiate re-licensing. Re-licensing a client was required after restoring a server from a backup or if a previous server's IP address was issued to a newly deployed server.

LOC-11717 Console errors when commas are used instead of periods in decimals

Fixed errors that would occur if a client running in a locale transmitted data using a comma instead of a period in GPS decimals. Locale-specific decimal numbers are now supported.

LOC-11934-Added IMEI column to the Licensing page

The IMEI (International Mobile Station Equipment Identifier) field has been added to the Licensing page, allowing customers to easily search and sort to find a specific device. This allows you to confirm which device or devices are licensed or will be unlicensed on the page.

LOC-11983 Added sorting to additional columns on the Licensing page

We added the ability to click column headings in the table on the Licensing page to sort by users, device name, licensed state, or IMEI.

LOC-10968 Improved Diagnostics Connect client error message

We improved the error message and included the most common reasons for the failure when the Diagnostics Connect client cannot establish a connection to the Diagnostics server.