



# **GEO Release Notes**

*VERSION: 11.0*

*UPDATED: NOVEMBER 2016*

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Used, under license, U.S. Patent Nos. 6,473,802, 6,374,300, 8,392,563, 8,103,770, 7,831,712, 7,606,912, 7,346,695, 7,287,084 and 6,970,933

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## 1 GEO Release Notes Introduction

This document describes the features added and issues resolved in the current release.

The GEO product is available in two forms:

- A standalone GEO product
- A Global Server Load Balancing (GSLB) Feature Pack that is part of the KEMP load balancer (LoadMaster) product

This document applies to both forms of GEO. We recommend making a full back up of the LoadMaster configuration before upgrading the software.

Installation of this software and reloading of the configuration may take up to five minutes, or possibly more, during which time the LoadMaster being upgraded is unavailable to carry traffic.

### 1.1 Prerequisites

The following are recommendations for upgrading the software:

- The person undertaking the upgrade should be a network administrator or someone with equivalent knowledge
- In case of issues restoring backup configurations, configuring LoadMaster or other maintenance issues, please refer to the LoadMaster documentation which can be found at <http://kemptechnologies.com/documentation>

### 1.2 Support

If there are problems loading the software release, please contact KEMP support staff using our website and a KEMP support Engineer will call you promptly.

### 1.3 Compatible Products

- GEO standalone product
- LoadMaster with the Global Server Load Balancer (GSLB) Feature Pack

## 2 Release 2.2.36.1/7.2.36.1

Refer to the section below for details about firmware version 2.2.36.1/7.2.36.1. This was released on 17<sup>th</sup> November 2016.

### 2.1 Issues Resolved

PD-7770	Fixed some issues relating to the GEO proximity Selection Criteria.
PD-7937	A notification is displayed when the GEO cluster limit is reached.
PD-7747	Fixed an issue that was causing GEO partner updates to fail.
PD-7522	Improved error handling for API commands relating to GEO maps.
PD-7516	It is possible to set the GEO location of “everywhere” using the API.

## 3 Release 2.2.35/7.1.35

Refer to the sections below for details about firmware version 2.2.35/7.1.35. This was released on 2<sup>nd</sup> August 2016.

### 3.1 New Features

#### 1. GEO now supports blacklists.

GEO blacklists are now supported using the WUI and API.

#### 2. GEO per-FQDN settings.

It is now possible to configure GEO Time To Live (TTL) and sticky DNS settings on a per-FQDN basis.

#### 3. Enhanced GEO health checks to allow grouping by cluster.

A new option called **Unanimous Cluster Healthchecks** has been added which, when enabled, enforces the use of shared health checking across all sites with the same cluster defined.

### 3.1 Issues Resolved

PD-7225	The <b>listcustomlocation</b> API command is now showing the correct custom locations which have been added.
PD-7134	Fixed the GEO LoadMaster WUI in order to display missing menu elements.
PD-7481	Fixed an issue relating to incorrect site selection failover when using <b>Location Based</b> as the <b>Selection Criteria</b> .

### 3.1 Known Issues

PD-7770	There are some issues with the GEO proximity <b>Selection Criteria</b> .
PD-7516	The GEO Location Based option for “Everywhere” cannot be set and is not listed in the API.
PD-7338	The <b>listclusters</b> API command returns 0 as the <b>CheckerPort</b> value if the checker is set to <b>tcp</b> . The default value when using TCP health checks is 80 and that should be returned.
PD-7522	If a GEO map is modified using the API and the IP address for the site is not specified, nothing is returned (an error should be displayed).

## 4 Release 2.2.34.1/7.1.34.1

Refer to the sections below for details about firmware version 2.2.34.1/7.1.34.1. This was released on 18<sup>th</sup> May 2016.

### 4.1 Feature Enhancements

1. It is now possible to delete custom GEO locations.
2. PowerShell and Java API commands have been added for adding custom locations to FQDNs.

### 4.2 Issues Resolved

PD-6657	Fixed an issue relating to Private/Public site preference with proximity selection.
PD-6641	Fixed a display issue for sites using a built-in geographic location database.
PD-6626	Fixed geographic coordinate resolution of existing sites when switching to proximity selection.
PD-6215	Added API commands to allow public IP addresses to be treated as private on GEO.

### 4.3 Known Issues

PD-7225	The <b>listcustomlocation</b> API command shows custom locations that have not been added.
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## 5 Release 2.2-32a/7.1-32a

Refer to the sections below for details about firmware version 2.2-32a/7.1-32a. This was released on 26<sup>th</sup> January 2016.

### 5.1 Issues Resolved

PD-6514	Fixed an issue relating to site restrictions for FQDNs.
PD-6476	Improved GEO proximity stability.
PD-6095	Fixed an issue with the add/remove country and change map location API commands for GEO.
PD-6078	It is now possible to add a custom location to an IP in an FQDN using API commands.
PD-5915	Fixed an issue which was preventing an extra name server from being added.
PD-3642	Fixed an issue relating to GEO Weighted Round Robin statistics.

### 5.2 Known Issues

PD-6626	Changing an existing FQDN with sites to proximity balancing causes automatic resolution to fail.
PD-6627	If 'bad data' is entered in the coordinates of an FQDN, automatic resolution will fail.

## 6 Release 2.2-30/7.1-30

Refer to the sections below for details about firmware version 2.2-30/7.1-30. This was released on 3<sup>rd</sup> November 2015.

### 6.1 Feature Enhancements

1. There is now further flexibility in GEO around selectively responding with public or private sites based on whether a client is from a public or private IP address.
2. Enhancements have been made to the GEO partner status indicators.

### 6.2 Issues Resolved

PD-5478	Fixed an issue with the GEO round robin scheduling method for IPv6.
PD-5282	Fixed an issue relating to the GEO proximity scheduling method.
PD-4863	Fixed an issue which was preventing GEO custom locations from being edited.
PD-5853	Fixed an issue relating to GEO health checking.

### 6.3 Known Issues

PD-5582	There are some GEO issues relating to the resource check parameters and cluster health checking.
PD-5915	In GEO, it is not possible to add multiple name servers using the WUI. This can be done in the API as a workaround.

## 7 Release 2.2-28b/7.1-28b

Refer to the sections below for details about firmware version 2.2-28b/7.1-28b. This was released on 28<sup>th</sup> August 2015.

### 7.1 Feature Enhancements

1. Updated firmware to mitigate against CVE-2015-5477 vulnerability.

### 7.2 Issues Resolved

- |         |  |
|---------|--|
| PD-5581 | Fixed a GEO Web User Interface (WUI) issue which caused issues with multiple locations being assigned. |
|---------|--|

### 7.3 Known Issues

- |         |   |
|---------|---|
| PD-3642 | Statistics are not updating correctly when using GEO and weighted round robin scheduling. |
| PD-4863 | Custom locations on the LoadMaster GEO cannot be disabled.                                |

## 8 Release 2.2-28a/7.1-28a

Refer to the sections below for details about firmware version 2.2-28a/7.1-28a. This was released on 29<sup>th</sup> July 2015.

### 8.1 Issues Resolved

PD-5251	Fixed an issue which prevented some GEO miscellaneous parameters to be set.
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### 8.2 Known Issues

PD-3642	Statistics are not updating correctly when using GEO and weighted round robin scheduling.
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## 9 Release 2.2-28/7.1-28

Refer to the sections below for details about firmware version 2.2-28/7.1-28. This was released on 24<sup>th</sup> June 2015.

### 9.1 Feature Enhancements

1. Removed superfluous messages in GEO logging.
2. Added status indicators for partner SSH tunnels.

## 10 Release 2.2-26/7.1-26

Refer to the sections below for details about firmware version 2.2-26/7.1-26. This was released on 1<sup>st</sup> May 2015.

### 10.1 Feature Enhancements

1. New LoadMaster installations now come pre-installed with an up-to-date GEO database, including IPv6.
2. Improved GEO partner IP entry method - only the shared IP address needs to be entered into the **Remote GEO LoadMaster Access** text box for HA configurations.

## 11 Release 2.2-24a/7.1-24a

Refer to the sections below for details about firmware version 2.2-24a/7.1-24a. This was released on 11<sup>th</sup> February 2015.

### 11.1 Feature Enhancements

1. Added new GEO cluster RESTful API commands which list and show clusters.

### 11.2 Issues Resolved

PD-3344	SSH can now be disabled on a GEO cluster in order to increase security.
PD-3319	Alternate gateway support has been added for GEO LoadMasters with multiple interfaces.
PD-3160	Fixed a problem with the <b>modmap</b> RESTful API command.
PD-3104	The <b>addmap</b> RESTful API command now works in all scenarios.
PD-3075	A superfluous error message, which displayed when setting the <b>isolateips</b> parameter via the <b>ModifyFQDN</b> command, has been removed.

## 12 Release 2.2-22b/7.1-22b

Refer to the sections below for details about firmware version 2.2-22b/7.1-22b. This was released on 3<sup>rd</sup> December 2015.

### 12.1 Known Issues

- |         |   |
|---------|---|
| PD-3160 | There is a bug with the <b>modmap</b> RESTful API command.  |
| PD-3104 | The <b>addmap</b> RESTful API command does not work when the <b>Selection Criteria</b> is set to <b>Real Server Load</b> .                |
| PD-3075 | A superfluous error message appears when you attempt to set the <b>isolateips</b> parameter via the PowerShell <b>ModifyFQDN</b> command. |



## 13 Release 2.2-22/7.1-22

Refer to the sections below for details about firmware version 2.2-22/7.1-22. This was released on 25<sup>th</sup> November 2014.

### 13.1 Feature Enhancements

1. Security enhancements have been made to GEO.
2. Multiple Virtual Services with the same IP address can now be added to the GEO Real Server Load Cluster Check.
3. Updated the BIND version to 9.9.6-ESV to address CVE-1999-0662.

### 13.2 Known Issues

- |         |   |
|---------|---|
| PD-3160 | There is a bug with the <b>modmap</b> RESTful API command.  |
| PD-3104 | The <b>addmap</b> RESTful API command does not work when the <b>Selection Criteria</b> is set to <b>Real Server Load</b> .                |
| PD-3075 | A superfluous error message appears when you attempt to set the <b>isolateips</b> parameter via the PowerShell <b>ModifyFQDN</b> command. |

## **14 Release 2.2-20/7.1-20**

### **14.1 New Features**

1. The ability to designate GEO listening interfaces.

You can now define which interface(s) are used for listening and responding to DNS requests.

2. The ability to use multiple interfaces to listen for GEO requests.

GEO now has the ability to have multiple interfaces used for DNS responses and requests.

### **14.2 Feature Enhancements**

1. GEO API commands have been added.

### **14.3 Issues Resolved**

PD-2644          Fixed an issue with syncing some GEO settings.

## 15 Release 2.2-18b/7.1-18b

### 15.1 New Features

#### 1. GEO enhancements

New GEO features which allow failover and isolates public/private sites. Also, two GEO selection criteria options have been renamed to more appropriately reflect their functions (**Location Based** has been renamed to **Proximity** and **Regional** has been renamed to **Location Based**).

### 15.2 Issues Resolved

PD-1941      Removed unnecessary options for GEO cluster synchronization

### 15.3 Known Issues

1. GEO health check intervals do not match the settings configured

## 16 Release 2.2-16/7.1-16

### 16.1 New Features

1. The LoadMaster GEO Operating System is now running on Linux kernel 3.10.28

The LoadMaster GEO has been re-based to Linux version 3.10.28.

### 16.2 Issues Resolved

PD-1687      Made the GEO sync mechanism more tolerant of rapid changes

## 17 Release 2.1.14/7.0-14

### 17.1 Feature Enhancements

1. GEO can now be disabled and enabled via the Web User Interface (WUI) (when GEO is disabled it is possible to modify the packet filter settings)

### 17.2 Issues Resolved

- |         |   |
|---------|---|
| PD-1145 | DNS requests can now be made to the LoadMaster GEO over an IPv6 network |
| PD-1277 | BIND has been updated to version 9.6-ESV-R10-P2                         |

## **18 Release 2.1.12a/7.0-12a**

### **18.1 Feature Enhancements**

1. GEO search order changed

### **18.2 Issues Resolved**

- |        |   |
|--------|---|
| PD-771 | Fixed issue where the site failure and recovery settings were not updating to the partner |
| PD-808 | Fixed issue where the FQDN was not updating to the partner                                |

## 19 Release 2.1.10/7.0-10

### 19.1 Known Issues

1. Site failure and recovery settings are not replicated to the partner GEO.
2. In some cases, FQDNs are not replicated to the partner GEO.

## **20      Release 2.1.8e/7.0-8e**

### **20.1      Feature Enhancements**

1. Automated Licensing and Support Infrastructure (ALSI) Enhancements

### **20.2      Issues Resolved**

- |        |  |
|--------|--|
| PD-700 | Fixed reboot issue when changing service types |
|--------|--|



## 21 Release 2.1.8/7.0-8

### 21.1 New Features

#### 1. IP Range Selection Criteria

Allows the specification of a location or country that apply to an IP address or range.

#### 2. Certificates Functionality

Gives the ability to import and manage SSL certificates.

### 21.2 Issues Resolved

PD-392              Issue with GEO sync has been resolved

## Document History

Date	Change	Reason for Change	Ver.	Resp
Dec 2015	Release updates	2.2-32/7.1-32	7.0	LB
Jan 2016	Minor changes	Updated Copyright Notices	8.0	LB
Apr 2016	Release updates	2.2.34.1/7.1.34.1 release	9.0	LB
Aug 2016	Release updates	2.2.35/7.1.35 release	10.0	LB
Nov 2016	Release updates	2.3.36.1/7.2.36.1 release	11.0	LB