**RELEASE NOTES**

**Windows HipLink** **5.2**

# 

# Supported Platforms

# Windows Server 2016

# Windows Server 2012 and Windows Server 2012 R2

# Windows Server 2008 R2

# Windows 7 – 64 bit

* 32-bit editions of Windows are NOT supported

# System Requirements

**Low-End/Training System:**    - Physical: Intel® Core™ i5 or Core™ i7processor  
    - Virtual: 2-4 core processor (or vCPUs)  
    - 2GB to 4GB RAM  
    - High-speed HDD  
    - Gigabit Ethernet and high-speed Internet  
    - Windows Server 2012 R2 operating system

**Minimum Production System:**    - Physical: Intel® Xeon® Processor E3 Family  
    - Virtual: 4 core processor (or vCPUs)  
    - 4GB-8GB RAM  
    - Enterprise-grade HDD  
    - Gigabit Ethernet and high-speed Internet  
    - Windows Server 2012 R2 operating system

**Recommended Production System:**    - Physical: Intel® Xeon® Processor E5 Family  
    - Virtual: 8-12 core processor (or vCPUs)  
    - 8GB to 16GB RAM  
    - Enterprise-grade HDD or SSD  
    - 10 Gigabit Ethernet and high-speed Internet  
    - Windows Server 2012 R2 operating system

**High-Performance Production System:**

    - Physical: Intel® Xeon® Processor E7 Family  
    - Virtual: 24 core processor (or vCPUs)  
    - 24GB to 32GB RAM  
    - Two Enterprise-grade HDDs or SSDs - implement RAID-1 mirroring  
    - 10 Gigabit Ethernet and high-speed Internet  
    - Windows Server 2012 R2 operating system

# Deployment

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## Installation Steps

* **ODBC driver 13.1 for SQL server has been installed (for Enterprise version only)**
* If it’s not installed, download and install the ODBC driver 13.1 for SQL server from here: <https://www.microsoft.com/en-us/download/details.aspx?id=53339>. Choose the x64 version only for 64-bit systems.

**For upgrading from previous version:**

*(Note: This build is upgradable only from build 4.7.1060 and above)*

• Login into HipLink with admin credentials.

• Stop all running services from the HipLink Services Panel.

• Logout of HipLink.

• Stop the IIS Web Server service [World Wide Web Publishing Service (W3SVC)]

• Make a copy of the entire HipLink directory and save it in a safe location as a backup. (This is typically found at C:\Program Files\HipLink Software\HipLink or C:\Program Files(x86)\HipLink Software\HipLink.)

• Extract the HipLink build (WIN\_HL\_5\_2\_Installer\_5.2.0.161.zip).

• Run the HL-5.2-Setup.exe file with the "Run as administrator" option.

• Follow the on-screen instructions and select the "Upgrade" option when prompted.

**After Upgrade:**

1. Update HTTPS binding in IIS Manager (if HipLink is deployed on HTTPS)   
2. Update ca-bundle.crt (if any private CA root and/or intermediate certificates are required)  
3. Restart IIS (e.g., by "IISReset" command)  
4. Verify from Windows Services Panel that the service "HPD-MaintenanceManager" is **NOT** running

5. Completely clear Web Browser cache  
6. Login and navigate to HipLink Services Panel and verify that all relevant services are running

**For a fresh install:**

1. Make sure that IIS has been installed with all of its required components. Please follow the respective IIS Guide for configuration of IIS 7.5, IIS 8.0 & IIS 8.5, or IIS 10.
2. Extract the HipLink build (WIN\_HL\_5\_2\_Installer\_5.2.0.161.zip) into any directory
3. Run the HL-5.2-Setup.exe file with the "Run as administrator" option.
4. Follow the on-screen instructions to install HipLink.

**Important Notes:**

* For installing this build fresh or upgrading from a previous version, currently the user is required to turn **OFF** the machine “User Access Control (UAC)”, OR running the installer by right click -> Run as Administrator.
* This build is only supported on IIS Webserver. In case the pre-upgrade build is deployed on Apache Webserver, then user would first need to follow “Apache to IIS Webserver Migration Steps” as given in its associated document.
* The issues reported by Accunetix scan are fixed by running the script

**RC4SSL3IISTildeDirectoryEnumDisable.bat** included in the installer. Impact of this script is not isolated to HipLink, so it is not executed by installer but can be run by user manually.

## Removal Steps

If needed, the installed build can be uninstalled as follows:

* Stop all running services.
* Terminate all user sessions.
* Logout of HipLink.
* Make a copy of the Hiplink directory and save it in a safe location as a backup. This is typically found at C:\Program Files\HipLink Software\HipLink or C:\Program Files(x86)\HipLink Software\HipLink
* Go to Windows -> Control Panel -> Add/ Remove Programs.
* Select HipLink 5.0 from the list of installed programs, and uninstall.

**Compatible Desktop Browsers**

* Microsoft Internet Explorer version 11 *(versions 8, 9,or 10 are NOT supported)*
* Google Chrome (latest version)
* Mozilla Firefox (latest version)
* Microsoft Edge (latest version)

**New Features & Enhancements**

**ACTIVE DIRECTORY INTEGRATION CHANGES**

* **Implemented Active Directory support for ADFS**
* This provides hosted systems or systems off-site the option to use Microsoft Active Directory Federation Services. This enables users to use their Active Directory credentials to login in to HipLink even when the system is remote.
* ADFS will provide SSO as part of its functionality suite
* For existing customers this feature will result in the switching OFF of LDAP support from license key. Alternatively, LDAP support in license key will result in “SSO Support using ADFS” being switched OFF.
* **Added Support for syncing receiver email cc & email failover through the LDAP service.**

**HIPLINK MOBILE ENHANCEMENTS**

* **Support to populate the Callback and the Text Failover number fields for HipLink Mobile receivers via APIs**
* Receiver Callback &Text Failover numbers can be added and synced through HipAdm utility, IE Utility, SOAP API and LDAP enhanced service.
* **APNS Push Notification Validations**
* Added a verification function for the expiration of the Push Certificate in the System Attendant. This will alert the admin if the remaining days before expiration are below a configurable threshold.
* Added validation on the HNP Manager Configuration to check if the Push Certificates are Valid. A Warning is shown if expiration date is approaching.
* Displayed 'Issuer Name' of push certificate on the HNP Configuration panel
* **Support for adding a HipLink Mobile receiver through HipAdm Utility**
* **Simplified HipLink Mobile Configuration**
* Assigned Owner fields in Global Settings enabled by default and hidden
* The fields “Number of Processor Thread” and “Jobs to process per cycle” are hidden by default from HNP configuration panel.
* “OTA Updates” settings are hidden from HNP Manager Advanced Settings GUI with default value set to Enabled
* “Push Notifications” template hidden from HNP Manager Push Notifications GUI
* 'Certificate Type' radio buttons hidden from HNP Configuration Push Settings screen with default value set to Development
* **Support for sending HipLink Alert Emergency Broadcast messages through REST API**
* **HNP messages are immediately marked failed instead of waiting in HipLink messaging queue till message time out when the device activation is not present or if the activation is blocked. This will reduce unnecessary load of messages on HipLink services for messages which are never to be delivered.**
* **Implemented push-based 2-way query mechanism for HNP messaging so that message status updates and responses are only queried when they are available.**
* This would result in preventing needless excessive queries for HNP messaging as no queries are made by the HNP messenger unless required.
* The messages are moved from the Paging Queue to the Waiting Queue while they are awaiting any status updates or responses, which causes the load on the Paging Queue(s) to be reduced drastically. This helps ensure that any new messages are delivered immediately and the excessive load on the Paging Queue(s) due to waiting 2-way query files do no causes any messaging delays at all.
* As a consequence, the "Two-Way response query time interval" and "Two-Way response monitoring timeout" fields are removed from HNP Carrier Add / Edit page as there is no interval-based querying mechanism present for HNP messaging, and instead a new field named "Maximum Lifespan of Message" has been introduced.

**API ENHANCEMENTS**

* **Implementation of Serial port enhancements and consistency across all modules.**
* Range of COM ports on Windows has been enabled from COM1 to COM256 across all modules. Previously, many modules restricted COM ports up to COM32 only, which was incorrect since Windows allows up to COM256.
* Serial Port Parameters: Many modules in HipLink had incorrect values of Baud rate. Different modules had different sequence for the values in Parity and Flow Control, and in some cases, the values were incorrect. Some modules had invalid values allowed for Data Bits and/or for Stop Bits. All of these have been corrected and the values have been made consistent across all modules.
* Default values for Serial Port Parameters have been made consistent to 9600, 8, n 1 across all modules.
* Many other existing and newly discovered bugs were fixed along with the implementation of this feature.

**PERFORMANCE & SECURITY ENHANCEMENTS**

* **Updated SQLlite3 library to latest version for increased stability and better performance.**
* **Digitally signed HipLink Installer package and all application binaries with HIPLINK SOFTWARE (SEMOTUS INC) code signing certificate.**
* **Changes in IIS for HipLink website deployment**
* Queue Length is set to 10000
* Rapid Fail Protection is Disabled
* Changed Fast CGI Requests Per Instance from 100 to 1000 for optimized usage of system resources
* Changed Fast CGI Queue Length from 1000 to 10000

**OTHER FEATURE ENHANCEMENTS**

* **Ability for user to set the “Show Full Name” option on Primary Send panel persistent for his account.**
* **Changes in Message Template Content Editor**
* Set the GUI content editor to view mode only with editing in template content possible through XML code editor only
* Added validations for restricting user from adding invalid XML characters. The characters “<” and “>” must be encoded by user before adding in template text. The tool tip of template content editor has been modified to include hints.
* Existing message templates which violate the above rule (i.e. contain un-encoded characters “<” and “>” in template body) will need to be edited and updated by the user after the upgrade.
* Added validations for preventing the user from adding template XML code in an invalid format.
* The mouse cursor would automatically be located in between the start and end tags whenever user adds a new tag during message template addition or editing.

**Assumptions for this build for HipLink Enterprise only**

Following are the assumptions for this build that need to be strictly adhered to:

1. Both HipLink deployments are installed on exact same physical directory on the two application servers.
2. Both HipLink server machines are configured in the same time zone in Windows.
3. Both HipLink servers have the exact same build version of HipLink.
4. The deployment includes a load balancer (or similar software) that controls the traffic routing to the HipLink servers, such that it controls routing the traffic to the backup HipLink server in the event when the primary HipLink server goes down, and vice versa.

**Issues fixed in this Release**

* Fixed the Parity values of TAP Gateway, AN Gateway, TAP Dial Up protocol, TAP Leased protocol, DTML protocol and OAI protocol.
* Fixed memory leak in HNP Messenger service during messaging.
* Fixed multiple issues in build upgrade from previous builds.
* Fixed multiple issues in license key application.
* Fixed SOAP API not working issue for all operations.
* Fixed issue of “Override Unavailability” checkbox on Primary Send panel not being functional.
* Fixed issues in message templates being assigned to users with send panels on which the user did not has permission.
* The “Call Back Number” is now not imported through IE Utility if it’s invalid.
* Fixed an error on send panel when Receivers and Groups are shown in a single box and a large number of Receivers and Groups are present.
* Added multiple validations in HNP Configuration and HNP Carrier to restrict user from setting invalid and conflicting values of PUSH time out and Message lifespan timeout.
* Added proper validation errors and checks in case the message template content editor has invalid commands or commands in invalid format.
* Fixed issue with auto-created HNP carrier having incorrect message query timeout defined.
* Fixed issues of message status not being updated on reports when on Enterprise database.
* Fixed issues of messages being stuck in paging and waiting queues at high messaging load on both Standard and Enterprise databases.
* Fixed 5.6.11 Bare Line Feeds issue with Office365 SMTP server.
* Fixed a random issue of some services not being able to start on Primary server after auto-switch over occurs back to the Primary server from Backup server.
* Fixed issue of non-admin user able to login of web interface although restrict non-LDAP users checked in LDAP settings.
* Corrected the manual document links on HELP page to point to latest documents for HL 5.0.
* Fixed issues of wrong authentication type shown for LDAP and SSO users.
* Fixed issue of LDAP HNP receivers not receiving message status updates.
* Fixed issues of HNP escalation and scheduled messages expiring before being delivered.
* Fixed issue of HNP messages not being removed from waiting queue after completion on Enterprise database.
* Fixed issue of HNP messages being marked as failed on reports despite being delivered on devices during very high messaging load.
* Fixed issue of incorrect sequence of report nodes for HNP messages on very high messaging load.
* Fixed issue of duplicate report nodes for HNP messages on very high messaging load.
* Fixed issue of incorrect report nodes generation for a failed HNP message.

# Outstanding Defects in this Release

* Exporting all data of Web Sign Up recipients does not export all recipients if others filters are applied
* Device Type icons are not showing correctly on Direct Send panel
* Clicking on "Show Group Members" link does not open a popup if user does not have the rights to view and manage the selected receiver groups

**Contacting Customer Support**

You can contact HipLink customer support at the following times and with the following methods:

|  |  |
| --- | --- |
| **Time** | Monday through Friday 7:00 a.m. to 5:00 p.m. Pacific Standard Time (PST)  Excluding U.S. holidays. |
| **Email** | [support@hiplink.com](mailto:support@hiplink.com) |
| **Phone** | 408-399-6120 |
| **Fax** | 408-395-5404 |
| **Customer Support Portal System** | <http://portal.hiplink.com> |

We recommend that you review the following documentation to become familiar with the product.

* Installation and Administration Guide
* User Guide
* Programmer’s Guide

To open all guides, log on to the HipLink application through GUI. Click on “Help” button on the top right corner. It opens up a pop up window rendering the HipLink Help Index. Click on required link to open help guide.

## Send Us Your Feedback

We always appreciate suggestions from our customers. If you have comments or suggestions about our product or documentation, send an email message to [support@hiplink.com](mailto:support@hiplink.com)

Also visit our website [www.hiplink.com](http://www.hiplink.com) for general information.