System Requirements

**Windows:**
- Windows Server® 2012, 64-bit processor
- Windows Server 2016, 64-bit processor
- Windows Server 2019, 64-bit processor
- Windows® 10, 64-bit processor

**Browsers:**
- Chrome Browser version 50 or higher

**Minimum System Requirements:**
- CPU cores: 4
- Memory (RAM): 16GB
- Minimum: 50GB available drive space

**Recommended System Requirements:**
- CPU cores: 8
- Memory (RAM): 16GB

**Network Access Requirements:**

**Internet Access**
For the PPME licensing system to work, the server must have outgoing ports 80 and 443 open to the Internet, and must be able to reach my.nalpeiron.com and zebra.com.
**Internal Network (Outgoing Ports)**
Zebra printers support a discovery process that utilizes UDP on port 4201. Initial printer configuration may use TCP ports 9100, 9200, or 6101. If using LDAP, additional ports may need to be opened.

**Server Access (Incoming Ports)**
The server firewall should be configured to only allow the following incoming ports:
- Port 8443: printer connections
- Ports 80 and 443: client connections.

**Supported Printers**
All Link-OS printers, including the following series:

1. iMZ series
2. QLn series
3. ZC100 series
4. ZC300 series
5. ZQ300 series
6. ZQ500 series
7. ZQ600 series
8. ZD400 series
9. ZD500 series
10. ZD600 series
11. ZR Series
12. ZT200 series
13. ZT400 series
14. ZT500 series
15. ZT600 series

**General Notes**
1. Zebra recommends that the Printer Profile Manager Enterprise (PPME) application be installed on its own server, with no other applications running on that server. This allows for all server resources to be dedicated to the application, and can help avoid license conflict with other installed apps.

2. During installation, spaces or other whitespaces in the email field will cause the certificate generation process to fail.

3. PPME fully supports printer OS versions 10Z and greater (Link-OS 2.5 and greater, released January 2015). Earlier printer OS versions were not tested.

4. When using the app to distribute printer OS updates, you will experience better performance if you first upload the printer OS to the PPME app before distributing it to printers.

5. If a user deletes a resource, profile or tag associated with a provisioning event, the provisioning event is paused.

6. Selecting all and deselecting all in the quick tag view will only select/deselect the printers that qualify under the current filter, NOT all of the printers available to PPME.

7. After applying an empty IP address or DNS in manually add printer, the discovery will never end, you will have to click Cancel to do a new manually add printer again.

8. Downgrading from the 20.01z printer OS to the 19.15z printer OS prevents the printer from getting an IP address the first time it boots up after the downgrade. Reboot the printer again to obtain an IP address.

9. PPME uses UTC to store all times. This is done so that the browser and the server don't have to worry about synchronizing. When a user creates a provisioning date-based event, any time entered will be first converted to UTC. Assuming the user is in Guangzhou, that is 8 hours ahead of UTC, and the server is in Lincolnshire, that is 6 hours behind UTC. Assuming it is 9:00am in Guangzhou, so that is 1:00am in UTC, and 7:00pm for the server.
   a. Now let's say you want to schedule an event to happen at 11:00am 2/17/2017 Guangzhou time. The browser code will take 11:00am UTC+8 and set it to 3:00am UTC +0 2/17/2017. The server will read that and schedule an event to happen in 2 hours, at 9pm UTC-6 2/16/2017. The key point is to remember the server's time zone is the ultimate deciding factor. All events and logs will be based on and offset from that time.

10. The printer list refreshes every 60 seconds to accommodate for printers that are changed into a state that doesn't match the current filter. Example: User filters for online printers. User turns an online printer offline. The offline printer will still be in the printer list even though the filter is for online printers. But because of the 60-second refresh interval, the printer list will be refreshed and the offline printer will be removed from the list of online printers, given that the user is still filtering for online printers at the time of refresh.

11. The printer only works with PNG and GRF image types by default, so the application converts graphics to a PNG as needed.

12. Applying a profile to a printer will trigger a reboot. Applying a profile with a printer OS change will trigger two reboots.
13. Do not apply a profile with a ‘~jr’ command inside the profile to a printer, because then PPME would have no choice but to restart the printer over and over again.

14. Multiple pending actions sent to an offline printer may result in errors and incomplete operations when printers come back online.

15. When setting the printer to static IP address the "dns server ip address" setting on the printer needs to be configured in order for the printer to find the server. Otherwise the printer will be unable to find the PPME server when it comes online again.

16. Switching a printer from Line mode to ZPL mode (or to other languages, in any order) is not supported by PPME.

17. Gleaning and RARP protocols are not supported.

18. Due to a bug in the v8 Java Virtual Machine (JVM v8) the Printer Profile Manager Enterprise (PPME) application may become unresponsive upon rebooting due to a large volume of printers (1000+) attempting to reconnect all at once. This bug is expected to be fixed in JVM v9, however, until that happens it may be necessary to reconfigure printer’s weblink connections to retry at different intervals rather than the current 10 second default. Doing so will prevent all of the printers from reconnecting at the same time, avoiding the JVM v8 issue. Note that the PPME application will attempt to reconfigure the retry interval automatically when printers connect or are added, however, the new configuration will not take effect until the printers are rebooted after sending the command to them.

Additionally, the printers cannot be automatically reconfigured unless they successfully connect, which may be difficult in cases where the printer load is greater than 1,000 printers. If this is the case, it is recommended that printers are reconfigured to varying retry intervals of 20 seconds to 120 seconds in groups of no larger than 100-200 (e.g. possibly by subnet). NOTE: This is not meant to imply that you have to limit your tagged groups to 200 printers.

The reconfiguration can be done by setting the following two weblink values (depending upon which connection is being utilized for PPME).

For example, if you were setting the printers to an retry_interval of 20, you’d send these two commands to the printers:

```
! U1 setvar "weblink.ip.conn1.retry_interval" "20"
! U1 setvar "weblink.ip.conn2.retry_interval" "20"
```

To make this as easy as possible, you can create a file called retryint.zpl, containing the above commands, and then use the Resources directory in PPME to send the file to printers. It’s important to name the file with the .zpl extension, because when you click on the file in the Resources you will be able to choose the “Send Resource” on the Resource Actions screen, using the stacked three dot menu.

19. If an existing Printer Profile Manager Enterprise installation is found, the installer will attempt to update the service. Before continuing with the upgrade, it is recommended that you backup your current installation. The upgrade will stop the Printer Profile Manager Enterprise service, upgrade the application, and restart
the service. Any printers or users connected at the time of this upgrade will experience a disruption in service while the upgrade is in progress. This update is only to be used on older, successful, installations. If an installation is newer or was incomplete, the product should first be completely uninstalled.

20. Link-OS 6.0 firmware is known to have download issues with some binary files. If a download issue is encountered, make sure your printer is running the latest firmware version.

### Licensing Notes

1. For the Printer Profile Manager Enterprise licensing system to work, the server must have ports 80 and 443 open, and must be able to reach the host `my.nalpeiron.com`

2. The licensing system will check in with the web based license server once a day.

3. Perpetual licenses will report “License expires in N/A days” – because a perpetual license does not expire.

### Change Log

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Sept 2019</td>
<td>3.1.7124</td>
<td>• Added ZC1X0 and ZC3X0 series card printer support</td>
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<tr>
<td></td>
<td></td>
<td>• Added a setup wizard on new installations to assist with initial configuration</td>
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<tr>
<td></td>
<td></td>
<td>• Added a new Auto-Tag feature which allows printers to be automatically tagged based on a printer setting</td>
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<tr>
<td></td>
<td></td>
<td>• Added a new wireless certificate management feature which allows customers to setup automatic updates of their printer’s wireless lan certificates. This feature requires printers to have Link-OS 6 or later installed, and it supports the follow Certificate Authority servers:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Microsoft ADCS: Microsoft Certification Authority 10.0</td>
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<tr>
<td></td>
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<td>• Microsoft ADCS NDES 2019: Microsoft Certification Authority 10.0</td>
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<tr>
<td></td>
<td></td>
<td>• EJBCA-SCEP: EJBCA 7.1.0 Enterprise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improved database disk use</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Other minor bug fixes</td>
</tr>
<tr>
<td>Date</td>
<td>Version</td>
<td>Changes</td>
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<tr>
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<tr>
<td></td>
<td></td>
<td>- Improved the searching capability of the System Log.</td>
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<tr>
<td></td>
<td></td>
<td>- The Device Listing Page now supports the ability to export all printer settings to a CSV file.</td>
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<td></td>
<td>- Added the ability to delete multiple printers at once from the Device Listing Page.</td>
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<td></td>
<td>- Added a new Battery Monitoring Feature (BETA) that allows customers to individually monitor the batteries for their mobile devices. This feature can be enabled and disabled. Please note, it can take the app up to 15 min to gather enough data to create a trend line chart for each battery.</td>
</tr>
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<td>- Improved the visibility of issues that can arise when adding a printer and improved the steps to resolve those issues, reducing the need to communicate directly with the printer when troubleshooting.</td>
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<td>- Analytics gathering can be enabled to store all printer settings in the Elasticsearch document store so they may be queried for report generation and other analytics. Note that turning on the Analytics function can greatly increase the hard drive space the app uses and will also cause the app to attempt to open a connection to the cloud-based Zebra Printer Connector to communicate the data it has gathered.</td>
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<tr>
<td></td>
<td></td>
<td>- Updated the Java Virtual Machine to version 8.0.151</td>
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<tr>
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<td></td>
<td>- Updated Elasticsearch to version 5.6.5</td>
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<tr>
<td></td>
<td></td>
<td>- Updated Postgresql to version 10.1-3</td>
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<tr>
<td></td>
<td></td>
<td>- Added support for newer printer firmware versions and printer models.</td>
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<tr>
<td></td>
<td></td>
<td>- Added the ability to specify a CA Certificate for LDAP.</td>
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<tr>
<td></td>
<td></td>
<td>- Other minor bug fixes.</td>
</tr>
<tr>
<td>1 Oct 2017</td>
<td>2.0.6353</td>
<td>- Updates to LDAP configuration will no longer remove existing LDAP users.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Added support for newer firmware versions and printer models.</td>
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<tr>
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<td></td>
<td>- The installer has been updated to allow for upgrades of Printer Profile Manager Enterprise (see General Notes).</td>
</tr>
<tr>
<td>12 June 2017</td>
<td>2.0.6301</td>
<td>- Addressed stability issues when updating the printer operating system for a 1000+ printers at one time.</td>
</tr>
</tbody>
</table>
• Require customers to configure Domain Name Server address when they are setting static addresses on printers. Note that the printers using static addresses will have their DNS configuration overwritten when they are added through the PPME application.

• Weblink logs shown for printers in offline or adding states on the Printer Details Page.

31 March 2017  2.0.6194  Initial release.

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Technical Support

Worldwide Technical Support is available through your Reseller, or at: https://www.zebra.com/support

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Software Updates

Updated versions will be available on our web site: https://www.zebra.com/profilemanagerenterprise

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