

Spectrum™ Technology Platform  
Version 2018.2 S15

Spectrum™  
Technology Platform  
Release Notes

This document contains information about Spectrum™ Technology Platform 2018.2 S15. You have access only to the modules you have licensed. To evaluate any other modules, contact your Pitney Bowes account executive for a trial license key.

**Who should apply this update?** This product update is for users of Spectrum™ Technology Platform 2018.2.

**Is this update required?** Yes: this is a required platform-level update.

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## Important information about this product update

Product update 2018.2 S15 resolves multiple issues and provides a security enhancement.

**Note:** The way in which you apply this update is different from our usual product update installations.

This product update provides an optional utility that allows you to generate encrypted password strings. To use this utility:

1. Complete the **full** product update installation. It is important that you complete the installation process for your installation configuration. Please review [the installation overview](#) for this release, as it contains very specific instructions for applying the patch for distributed installations.
2. Follow the process for [generating encryption strings](#), using one of the two methods:
  - Define encryption strings using the **JMX console** `encryptString` property.
  - Define encryption strings using the **password-utility.jar** command, a new utility installed as part of this update.
3. Pay close attention to the instructions for starting the server and repository (if separated), and when to re-start the server and repository.

## Support server requests via proxy as default

(CDQE-74443) We have added default support for external requests to the Spectrum™ Technology Platform via proxy.

If your configuration uses proxy servers to provide a layer of security between users and Internet calls, you should add these **wrapper.conf** properties to support that configuration.

### *Add properties to support proxy calls*

Add the properties below to `SpectrumDirectory/server/bin/wrapper/wrapper.conf`

```
wrapper.java.additional.14=-Dhttp.proxyHost=myHTTPproxyHost/IP
wrapper.java.additional.15=-Dhttp.proxyPort=ProxyPort
wrapper.java.additional.16=-Dhttps.proxyHost=myHTTPSproxyHost/IP
wrapper.java.additional.17=-Dhttps.proxyPort=ProxyPort
```

## Error when running a scheduled job

(CDQE-71643) Scheduled jobs that run according to control file triggers would sometimes end with errors.

## Provide Japanese language support - Management Console

(CDQE-74592) We now provide Japanese language support in Management Console, version 2018.2. Any credentialed user can change the UI language.

To change to Japanese display on Management Console:

1. Access Management Console, and select **Profile** at the top of the console page.
2. Select 日本語 in the **Language** drop down.

## Encrypt and mask or remove resource passwords

### *About this enhancement*

(CDQE-73731) This enhancement directs Spectrum™ Technology Platform to encrypt all resource passwords from property files. This is an optional enhancement. Install this feature only if you wish to encrypt your passwords.

Follow the process for [generating encryption strings](#).

### *Updating properties to generate encryption strings*

Update the following property files, replacing `p*****s` with your encryption string.

```
SpectrumDirectory\Program Files\Pitney
Bowes\Spectrum\server\app\conf\spectrum-container.properties
spectrum.cluster.password=p*****s
spectrum.encryption.node.keystorePassword=p*****s
spectrum.encryption.node.truststorePassword=p*****s
spectrum.encryption.client.keystorePassword=p*****s
spectrum.encryption.client.truststorePassword=p*****s
#spectrum.https.encryption.keystorePassword=p*****s
#spectrum.https.encryption.truststorePassword=p*****s
#spectrum.cache.encryption.keystorePassword=p*****s
#spectrum.cache.encryption.truststorePassword=p*****s
spectrum.index.password=p*****s
#spectrum.index.encryption.node.keystorePassword=p*****s
#spectrum.index.encryption.node.truststorePassword=p*****s
#spectrum.index.encryption.client.keystorePassword=p*****s
```

```
#spectrum.index.encryption.client.truststorePassword=p*****s

SpectrumDirectory\Program Files\Pitney
Bowes\Spectrum\server\bin\enableadmin.properties
spectrum.encryption.keystorePassword=p*****s
spectrum.encryption.truststorePassword=p*****s

/jobexecutor.properties (available on client side where CLI utilities
are downloaded)
spectrum.encryption.keystorePassword=p*****s
spectrum.encryption.truststorePassword=p*****s

/pflowexecutor.properties (available on client side where CLI utilities
are downloaded)
spectrum.encryption.keystorePassword=p*****s
spectrum.encryption.truststorePassword=p*****s

/cli.properties (available on client side where CLI utilities are
downloaded)
spectrum.encryption.keystorePassword=p*****s
spectrum.encryption.truststorePassword=p*****s
```

### Generating encryption strings

There are two methods for generating encryption strings.

**Method one:** use the \*.jar file utility to generate the encryption string for the Spectrum default password.

Generate an encrypted string for the default password, p\*\*\*\*s.

Specify the command:

```
java -jar password-utility.jar -p password -a algorithm
```

...where:

- *password* is your site's password
- *algorithm* is the encryption method: AES or PBKWithMD5AndDes

Sample output:

```
#####
##### Encrypted String for the password #####
#####
9yOYoZ9W2aAF2Baapa5wIxCMNQ/9TZFP
```

**Method two:** You can also generate encryption strings from the JMX console through the `encryptString` property. This request takes the format `MBean operation: invoke method encryptString on MBean servername:manager=EncryptTextManager`.

## Before you apply this update

To install this product update you must have Spectrum™ Technology Platform 2018.2 installed.

**Important:** Before you install this product update, be sure that you have installed all previously-released product updates for your modules and the platform. Unexpected issues may occur if you do not install product updates in the proper order. For a listing of product updates for each module and the platform, see the Product Update Summary on [support.pb.com/spectrum](http://support.pb.com/spectrum).

### *Applying this product update to a cluster*

To apply this product update to a cluster, install the product update to each node by following the instructions in these release notes. You can apply the product update to one node at a time without stopping all the nodes in the cluster.

### *Installing on standard or distributed configurations*

The installation process is slightly different for distributed configurations, so be sure to follow the correct process for your operating system and installation type.

**If your Spectrum repository is located on the same machine as your Spectrum server**, use the instructions for standard configuration for your operating system.

- **Standard configuration installation - Windows** on page 6
- **Standard configuration installation - Unix and Linux** on page 9

**If your Spectrum repository is located on a separate machine from your Spectrum server**, use the instructions for distributed installation for your operating system.

- **Distributed configuration installation - Windows** on page 7
- **Distributed configuration installation - Unix and Linux** on page 11

## Installing on Windows

The installation steps are different for standard and distributed configurations of Spectrum Spectrum™ Technology Platform, so be sure to follow the steps for your configuration. Distributed configurations are those where the server and database repository are located on different machines.

In the installation procedure, *SpectrumDirectory* is the folder where you have installed the Spectrum™ Technology Platform server.

## Standard configuration installation - Windows

We have added two new files with this product update:

- *SpectrumDirectory\server\app\lib\common-encryption-18.2.jar*
- *SpectrumDirectory\server\bin\password-utility-18.2.jar*

**Note:** In this procedure, *SpectrumDirectory* is the folder where you have installed the Spectrum™ Technology Platform server.

1. Stop the Spectrum™ Technology Platform server. To stop the server:

- Right-click the Spectrum™ Technology Platform icon in the Windows system tray and select **Stop Spectrum™**.
- Alternatively, you can use the Windows Services control panel and stop the Pitney Bowes Spectrum™ Technology Platform service.

2. Ensure that all Spectrum applications are closed.

3. Back up these files to a different location:

- *SpectrumDirectory\index\lib\spectrum-server-index-elasticsearch-adapter-18.2.jar*
- *SpectrumDirectory\server\app\deploy\ews-18.2.car*
- *SpectrumDirectory\server\app\deploy\ews.war*
- *SpectrumDirectory\server\app\deploy\fileservers.war*
- *SpectrumDirectory\server\app\deploy\managementconsole.war*
- *SpectrumDirectory\server\app\exports\jobexecutor.jar*
- *SpectrumDirectory\server\app\exports\pflowexecutor.jar*
- *SpectrumDirectory\server\app\exports\spectrum-cli-18.2.zip*
- *SpectrumDirectory\server\app\lib\spectrum-server-cache-hazelcast-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-common-cache-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-common-common-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-common-index-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-common-persistence-ogm-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-config-core-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-index-elasticsearch-adapter-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-index-elasticsearch-client-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-runtime-core-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-servlet-jetty-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-startup-18.2.jar*
- *SpectrumDirectory\server\app\lib\spectrum-server-database-neo4j-external-18.2.jar*
- *SpectrumDirectory\server\bin\enableadmin-18.2.jar*

- `SpectrumDirectory\repository\lib\spectrum-server-database-neo4j-external-18.2.jar`
4. Use the link in the product update announcement to download the \*.zip file containing the product update from the Pitney Bowes.
  5. Extract the resulting \*.zip file (`cdq20182s15.zip`) to the folder where you installed Spectrum. For example, `C:\Program Files\Pitney Bowes\Spectrum`. Choose to overwrite the existing files.
  6. Start the Spectrum™ Technology Platform server.
    - To start the server, right-click the Spectrum™ Technology Platform icon in the Windows system tray and select **Start > Spectrum™**.
    - Alternatively, you can use the Windows Services control panel to start the Pitney Bowes Spectrum™ Technology Platform service.
  7. If you have downloaded the Command Line Interface (CLI), Job Executor, and Pflowexecutor to a client machine, delete those programs and download the updated versions from the Spectrum™ Technology Platform Welcome page, which you can typically access at: `http://SpectrumServer:8080`.

### Distributed configuration installation - Windows

For distributed configurations, you must perform separate server- and repository-side update steps. You must complete the repository server updates *before* you complete the Spectrum product server updates.

- [Repository update steps](#)
- [Server update steps](#)

We have added two new files with this product update:

- `SpectrumDirectory\server\app\lib\common-encryption-18.2.jar`
- `SpectrumDirectory\server\bin\password-utility-18.2.jar`

**Note:** In this procedure, *SpectrumDirectory* is the folder where you have installed the Spectrum™ Technology Platform server.

### Repository server update - Windows

The repository server update is the first step the distributed configuration update. After you complete these steps, continue with the [server update](#) steps.

1. Use the link in the product update announcement to download the \*.zip file containing the product update from the Pitney Bowes.
2. Extract the downloaded product update files to your repository server.
3. Stop the repository server. To stop the server:
  - Right-click the Spectrum™ Technology Platform icon in the Windows system tray and select **Stop Spectrum™**.

- Alternatively, you can use the Windows Services control panel and stop the Pitney Bowes Spectrum™ Technology Platform service.
4. Back up this file to a different location:  
`SpectrumDirectory\repository\lib\spectrum-server-database-neo4j-external-18.2.jar.`
  5. Copy this file from the extracted product update \*.zip file:  
`\repository\lib\spectrum-server-database-neo4j-external-18.2.jar.`
  6. Place the copied file (from the previous step) in this location:  
`SpectrumDirectory\repository\lib\`, overwriting the existing file.
  7. Restart the repository server. To restart the server:
    - To start the server, right-click the Spectrum™ Technology Platform icon in the Windows system tray and select **Start > Spectrum™**.
    - Alternatively, you can use the Windows Services control panel to start the Pitney Bowes Spectrum™ Technology Platform service.
  8. Continue the product update by completing the [Spectrum server update](#).

### [Spectrum product server update - Windows](#)

The server update steps are the final part of the distributed configuration update. Be sure to complete the [repository update](#) steps before starting these steps.

1. Stop the Spectrum™ Technology Platform server. To stop the server:
  - Right-click the Spectrum™ Technology Platform icon in the Windows system tray and select **Stop Spectrum™**.
  - Alternatively, you can use the Windows Services control panel and stop the Pitney Bowes Spectrum™ Technology Platform service.
2. Ensure that all Spectrum applications are closed.
3. Back up these files to a different location:
  - `SpectrumDirectory\index\lib\spectrum-server-index-elasticsearch-adapter-18.2.jar`
  - `SpectrumDirectory\server\app\deploy\ews-18.2.car`
  - `SpectrumDirectory\server\app\deploy\ews.war`
  - `SpectrumDirectory\server\app\deploy\fileservers.war`
  - `SpectrumDirectory\server\app\deploy\managementconsole.war`
  - `SpectrumDirectory\server\app\exports\jobexecutor.jar`
  - `SpectrumDirectory\server\app\exports\pflowexecutor.jar`
  - `SpectrumDirectory\server\app\exports\spectrum-cli-18.2.zip`
  - `SpectrumDirectory\server\app\lib\spectrum-server-cache-hazelcast-18.2.jar`
  - `SpectrumDirectory\server\app\lib\spectrum-server-common-cache-18.2.jar`
  - `SpectrumDirectory\server\app\lib\spectrum-server-common-common-18.2.jar`
  - `SpectrumDirectory\server\app\lib\spectrum-server-common-index-18.2.jar`
  - `SpectrumDirectory\server\app\lib\spectrum-server-common-persistence-ogm-18.2.jar`



- `SpectrumDirectory\server\app\lib\spectrum-server-config-core-18.2.jar`
  - `SpectrumDirectory\server\app\lib\spectrum-server-index-elasticsearch-adapter-18.2.jar`
  - `SpectrumDirectory\server\app\lib\spectrum-server-index-elasticsearch-client-18.2.jar`
  - `SpectrumDirectory\server\app\lib\spectrum-server-runtime-core-18.2.jar`
  - `SpectrumDirectory\server\app\lib\spectrum-server-servlet-jetty-18.2.jar`
  - `SpectrumDirectory\server\app\lib\spectrum-startup-18.2.jar`
  - `SpectrumDirectory\server\bin\enableadmin-18.2.jar`
4. Use the link in the product update announcement to download the \*.zip file containing the product update from the Pitney Bowes. You can also copy the \*.zip file you downloaded previously for the repository update.
  5. Extract the resulting \*.zip file (`cdq201820S15.zip`) to the folder where you installed Spectrum. For example, `C:\Program Files\Pitney Bowes\Spectrum`. Choose to overwrite the existing files.
  6. Back up this directory to a safe location, then delete it from the prior/original location:  
`SpectrumDirectory\repository\.`
  7. Back up this file to a safe location, then delete the file:  
`SpectrumDirectory\server\app\lib\spectrum-server-database-neo4j-external-18.2.jar`.
  8. Start the Spectrum™ Technology Platform server.
    - To start the server, right-click the Spectrum™ Technology Platform icon in the Windows system tray and select **Start > Spectrum™**.
    - Alternatively, you can use the Windows Services control panel to start the Pitney Bowes Spectrum™ Technology Platform service.
  9. If you have downloaded the Command Line Interface (CLI), Job Executor, and Pflowexecutor to a client machine, delete those programs and download the updated versions from the Spectrum™ Technology Platform Welcome page, which you can typically access at:  
<http://SpectrumServer:8080>.

## Installing on Unix or Linux

The installation steps are different for standard and distributed configurations of Spectrum Spectrum™ Technology Platform, so be sure to follow the steps for your configuration. Distributed configurations are those where the server and database repository are located on different machines.

In the installation procedure, *SpectrumDirectory* is the folder where you have installed the Spectrum™ Technology Platform server.

### Standard configuration installation - Unix and Linux

We have added two new files with this product update:

- `SpectrumDirectory/server/app/lib/common-encryption-18.2.jar`

- `SpectrumDirectory/server/bin/password-utility-18.2.jar`

**Note:** In this procedure, *SpectrumDirectory* is the folder where you have installed the Spectrum™ Technology Platform server.

1. Source the `SpectrumDirectory/server/bin/setup` script.
2. Run the `SpectrumDirectory/server/bin/server.stop` script to stop the Spectrum™ Technology Platform server.
3. Ensure that all Spectrum applications are closed.
4. Back up these files to a different location:
  - `SpectrumDirectory/index/lib/spectrum-server-index-elasticsearch-adapter-18.2.jar`
  - `SpectrumDirectory/server/app/deploy/ews-18.2.car`
  - `SpectrumDirectory/server/app/deploy/ews.war`
  - `SpectrumDirectory/server/app/deploy/fileservers.war`
  - `SpectrumDirectory/server/app/deploy/managementconsole.war`
  - `SpectrumDirectory/server/app/exports/jobexecutor.jar`
  - `SpectrumDirectory/server/app/exports/pflowexecutor.jar`
  - `SpectrumDirectory/server/app/exports/spectrum-cli-18.2.zip`
  - `SpectrumDirectory/server/app/lib/spectrum-server-cache-hazelcast-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-common-cache-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-common-common-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-common-index-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-common-persistence-ogm-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-config-core-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-index-elasticsearch-adapter-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-index-elasticsearch-client-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-runtime-core-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-servlet-jetty-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-startup-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-database-neo4j-external-18.2.jar`
  - `SpectrumDirectory/server/bin/enableadmin-18.2.jar`
  - `SpectrumDirectory/repository/lib/spectrum-server-database-neo4j-external-18.2.jar`
5. Use the link in the product update announcement to download the the product update from the Pitney Bowes.
6. FTP the `cdq201820s15.tar` file in binary mode to a temporary directory on the Spectrum™ Technology Platform machine.
7. Change to the directory where Spectrum™ Technology Platform is installed.
8. Untar the file using this command, overwriting the old files:
 

```
tar -xvf TemporaryDirectory/cdq201820s15.tar
```

9. Run the `SpectrumDirectory/server/bin/server.start` script to start the Spectrum™ Technology Platform server.
10. If you have downloaded the Command Line Interface (CLI), Job Executor, and Pflowexecutor to a client machine, delete it and download the updated versions from the Spectrum™ Technology Platform Welcome page, which you can typically access at: `http://SpectrumServer:8080`.

### Distributed configuration installation - Unix and Linux

For distributed configurations, you must perform separate server- and repository-side update steps. You must complete the repository server updates *before* you complete the Spectrum product server updates.

- [Repository update steps](#)
- [Server update steps](#)

We have added two new files with this product update:

- `SpectrumDirectory/server/app/lib/common-encryption-18.2.jar`
- `SpectrumDirectory/server/bin/password-utility-18.2.jar`

**Note:** In this procedure, *SpectrumDirectory* is the folder where you have installed the Spectrum™ Technology Platform server.

### Repository server update - Unix and Linux

The repository server update is the first step the distributed configuration update. After you complete these steps, continue with the [Spectrum sever update](#) steps.

1. Source the `SpectrumDirectory/server/bin/setup` script.
2. Run the `SpectrumDirectory/server/bin/server.stop` script to stop the Spectrum™ Technology Platform server.
3. Back this file to a different location:  
`SpectrumDirectory/repository/lib/spectrum-server-database-neo4j-external-18.2.jar`.
4. Use the link in the product update announcement to download the product update from the Pitney Bowes.
5. FTP the `cdq201820s15.tar` file in binary mode to a temporary directory on the Spectrum™ Technology Platform machine.
6. Copy this file from the extracted product update \*.zip file:  
`/repository/lib/spectrum-server-database-neo4j-external-18.2.jar`.
7. Place the file copied in the previous step to this location:  
`SpectrumDirectory/repository/lib/`, overwriting the existing file.
8. Run the `SpectrumDirectory/server/bin/server.start` script to start the Spectrum™ Technology Platform server.
9. Continue the product update by completing the [Spectrum server update](#) steps.

### ***Spectrum product server update - Unix and Linux***

The server update steps are the final part of the distributed configuration update. Be sure to complete the **repository update** steps before starting these steps.

1. Source the `SpectrumDirectory/server/bin/setup` script.
2. Run the `SpectrumDirectory/server/bin/server.stop` script to stop the Spectrum™ Technology Platform server.
3. Ensure that all Spectrum applications are closed.
4. Back up these files to a different location:
  - `SpectrumDirectory/index/lib/spectrum-server-index-elasticsearch-adapter-18.2.jar`
  - `SpectrumDirectory/server/app/deploy/ews-18.2.car`
  - `SpectrumDirectory/server/app/deploy/ews.war`
  - `SpectrumDirectory/server/app/deploy/fileservers.war`
  - `SpectrumDirectory/server/app/deploy/managementconsole.war`
  - `SpectrumDirectory/server/app/exports/jobexecutor.jar`
  - `SpectrumDirectory/server/app/exports/pflowexecutor.jar`
  - `SpectrumDirectory/server/app/exports/spectrum-cli-18.2.zip`
  - `SpectrumDirectory/server/app/lib/spectrum-server-cache-hazelcast-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-common-cache-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-common-common-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-common-index-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-common-persistence-ogm-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-config-core-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-index-elasticsearch-adapter-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-index-elasticsearch-client-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-runtime-core-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-server-servlet-jetty-18.2.jar`
  - `SpectrumDirectory/server/app/lib/spectrum-startup-18.2.jar`
  - `SpectrumDirectory/server/bin/enableadmin-18.2.jar`
5. Use the link in the product update announcement to download the product update from the Pitney Bowes.
6. Extract the contents of the update download file to a temporary location.
7. FTP the `cdq201820s15.tar` file in binary mode to a temporary directory on the Spectrum™ Technology Platform machine.
8. Change to the directory where Spectrum™ Technology Platform is installed.
9. Untar the file using this command, overwriting the old files:
 

```
tar -xvf TemporaryDirectory/cdq201820s15.tar
```
10. Back up this directory to a safe location, then delete it from the prior/original location:
 

```
SpectrumDirectory/repository/ .
```

11. Back up this file to a safe location, then delete the file:  
*SpectrumDirectory/server/app/lib/spectrum-server-database-neo4j-external-18.2.jar.*
12. Run the *SpectrumDirectory/server/bin/server.start* script to start the Spectrum™ Technology Platform server.
13. If you have downloaded the Command Line Interface (CLI), Job Executor, and Pflowexecutor to a client machine, delete delete those programs and download the updated versions from the Spectrum™ Technology Platform server. Welcome page, which you can typically access at:  
*http://SpectrumServer:8080.*



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