

# ElectricFlow 8.2 Release Notes

**Electric Cloud, Inc.**  
35 South Market Street, Suite 100  
San Jose, CA 95113  
[www.electric-cloud.com](http://www.electric-cloud.com)



## **ElectricFlow version 8.2**

Copyright © 2002–2018 Electric Cloud, Inc. All rights reserved.

Published 2/14/2018

Electric Cloud® believes the information in this publication is accurate as of its publication date. The information is subject to change without notice and does not represent a commitment from the vendor.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED “AS IS.” ELECTRIC CLOUD, INCORPORATED MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Use, copying, and distribution of any ELECTRIC CLOUD software described in this publication requires an applicable software license.

Copyright protection includes all forms and matters of copyrightable material and information now allowed by statutory or judicial law or hereinafter granted, including without limitation, material generated from software programs displayed on the screen such as icons, screen display appearance, and so on.

The software and/or databases described in this document are furnished under a license agreement or nondisclosure agreement. The software and/or databases may be used or copied only in accordance with terms of the agreement. It is against the law to copy the software on any medium except as specifically allowed in the license or nondisclosure agreement.

### **Trademarks**

Electric Cloud, ElectricAccelerator, ElectricAccelerator Huddle, ElectricCommander, ElectricFlow, ElectricFlow Deploy, ElectricFlow Release, ElectricInsight, and Electric Make are registered trademarks or trademarks of Electric Cloud, Incorporated.

Electric Cloud products—ElectricAccelerator, ElectricAccelerator Huddle, ElectricCommander, ElectricFlow, ElectricFlow Deploy, ElectricFlow Release, ElectricInsight, and Electric Make—are commonly referred to by their “short names”—Accelerator, Huddle, Commander, Flow, Deploy, Release, Insight, and eMake—throughout various types of Electric Cloud product-specific documentation.

Other product names mentioned in this guide may be trademarks or registered trademarks of their respective owners and are hereby acknowledged.

# Contents

ElectricFlow 8.2 .....	1
Product Description .....	1
What's New or Modified .....	1
New Features and Functionality .....	1
Resolved Issues .....	3
Behavior Changes .....	4
Bundled Plugins .....	4
Installation and Upgrade Notes .....	4
Changing the Default Prefix for StatsD .....	4
Upgrading Your Existing ElectricFlow Environment .....	5
Upgrading the DevOps Insight Server from Version 7.3 to Version 8.x .....	5
Running the DevOps Insight Server on a System with Other ElectricFlow Components .....	6
Configuration Notes .....	6
Performing a Full Import .....	6
Updating Application Component Plugin Versions in the Export File When Upgrading from 5.x to 8.x .....	6
Registering a Custom Plugin Procedure for the Step Creation Dialog .....	7
Diffie-Hellman Key Size Incompatibility .....	7
Limitations .....	7
Known Issues .....	8
Performance and Scalability Issues .....	8
Other Known Issues .....	9
Documentation and Online Help .....	11
Product Documentation .....	11
Automation Platform Online Help .....	11
Troubleshooting and Getting Help .....	11
Technical Support .....	11
Electric Cloud "Ask" Website .....	11
ElectricFlow Knowledge Base .....	12



## ElectricFlow 8.2

ElectricFlow 8.2 is a feature release (FR). Feature releases make new features available more frequently than long-term support (LTS) releases (such as ElectricFlow 8.0). The features and enhancements introduced in feature releases are typically rolled into the subsequent LTS release.

## Product Description

ElectricFlow® is an enterprise-grade DevOps Release Automation platform that simplifies provisioning, building, and releasing multi-tiered applications. Its model-driven approach to managing environments and applications lets teams coordinate multiple pipelines and releases across hybrid infrastructure in an efficient, predictable, and auditable way.

## What's New or Modified

### New Features and Functionality

ElectricFlow 8.2 provides the following updates to the Automation Platform and the ElectricFlow Deploy and Release modules.

#### *Release Planning, Scheduling, and Tracking*

Several new features for planning, scheduling, and tracking the progress of releases are introduced:

- Release planning is enhanced to let you plan each milestone and its expected delivery date. In addition to existing schedule information on the overall release, you can now create start and end dates on stages including at the task level. (CEV-16554, CEV-16553, and CEV-9514)
- The Planned vs Actual view is introduced. This view shows a bar-chart timeline of each pipeline stage versus your plan and the percentage complete of each stage to show where you are on your milestones. This view also shows the total time spent per stage and the time spent in automated versus manual activities.

You can click the endpoint of the “actual” progress bar for a pipeline stage to view key details. You can also customize the color in which each stage is displayed.

For details about the Planned vs Actual view, see the “Planned Versus Actual View” section in the “Release Management” chapter of the *ElectricFlow 8.2 User Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html). (CEV-16779)

- Release pipeline authoring as well as access to various management views such as the Release Command Center and the Path to Production view are simplified. (CEV-16606 and CEV-12627)

#### *Unified Calendar for Releases and Environment Reservations*

The Release Calendar is introduced. This calendar provides a top-down perspective of all releases and environment reservations in one view. This calendar lets you view the schedule for releases that are planned for one or more projects so you can plan accordingly to avoid conflicts. This calendar also shows the schedule for releases that are in progress or have completed as well as environment reservations (including blackout periods). You can switch between the monthly, weekly, or daily views and show all pipelines scheduled within the selected time period. For details about the Release Calendar, see the “Release and Environment Reservations Calendar” section in the “Release Management” chapter of the *ElectricFlow 8.2 User Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html). (CEV-16943 and CEV-16555)

### **Hierarchy Menu Enhancements**

The Hierarchy Menu is enhanced to further simplify navigation and authoring of applications by allowing direct access via the Microservices Visual Editor, the Environments Visual Editor, and the Pipelines Visual Editor without first opening the Applications Visual Editor and then clicking a microservice or environment object in the hierarchy. The Hierarchy Menu is a wizard-like menu that aids in modeling by helping you see the relationship between objects in a project and coaching you along the way by indicating the next required actions.

This menu provides an easy-to-understand view of the model structure and where you are within it, highlights missing pieces, and streamlines navigation across objects. For details, see the “Hierarchy Menu” section in the “Introduction to ElectricFlow” chapter of the *ElectricFlow 8.2 User Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html). (CEV-16605, CEV-16604, CEV-16366, and CEV-16365)

### **DevOps Insight Enhancements**

Numerous improvements are introduced in the DevOps Insight dashboards as follows.

- The Deploy pipeline phase in the Release Command Center dashboard is updated to include independent microservice deployments as follows. (CEV-16503)
  - The Success Rate widget now includes independent microservice deployments.
  - The Average Time to Deploy widget now includes independent microservice deployments.
  - The Successful Microservice Deployments widget is introduced.
- The Deployments dashboard is renamed to Application Deployments. The metrics for independent (project-level) microservice deployments in this dashboard are moved to the Microservice Deployments dashboard, which is introduced in this release. (CEV-16502)
- The Microservice Deployments dashboard is introduced. This dashboard displays key metrics for independent (project-level) microservices deployed to different container orchestration platforms. You can use these metrics to gain insight into your organization’s throughput and to bubble up any potential bottlenecks in your microservice deployment processes so that you can address them quickly. Drill-down capability is included for all widgets in this dashboard.

The Microservice Deployments dashboard lets you identify problem hotspots and measure the reliability of microservices running on your container clusters. This dashboard provides indicators to measure agility of development and reliability of microservice deployments. (CEV-16414)

- Drill-down capability is added to most widgets in the Application Deployments dashboard as follows: Total Number of Deployments, Breakdown of Deployments by Outcome Over Time, Average Deployment Duration, Applications With Most Failed Deployments, Applications With Most Deployments, and Environments With Most Deployments. (CEV-16397)
- The dashboard editor now lets you configure drill-down in widget definitions. (NMB-25622)
- Drill-down capability is added to the Releases dashboard. Drill-down is now included in the following widgets in the dashboard: Average Duration of Releases Over Time, Number of Releases Per Month, Release Completion - Planned vs Actual, Releases with Longest Duration, and Top 10 Longest Running Pipeline Tasks across Releases. (NMB-25621)
- Drill-down capability is added to all widgets in the Test and Operate pipeline phases in the Release Command Center dashboard. These phases draw information from the HP-ALM and ServiceNow plugins respectively. (NMB-25572)

For details about the DevOps Insight enhancements in this release, see the “DevOps Insight” chapter of the *ElectricFlow 8.2 User Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html).

## Other Enhancements

- You can now undeploy microservice processes. (CEV-16450)
- You can now enable or disable email notifications for manual steps, pipeline gate tasks, and manual task approvals. (CEV-16368, CEV-16367, CEV-15367, and CEV-8689)
- Microservices under applications can now include microservice processes. (CEV-16292 and CEV-15835)
- You can now specify resources or pools on which to run pipeline command tasks. (CEV-15408)
- Each application process step in the Application Editor now includes an icon to indicate which type of retry behavior is enabled. (CEV-15236)
- All applicable sections for installing or upgrading ElectricFlow in the *ElectricFlow Installation Guide* are updated to describe how to set permissions on the installer file to make it executable. For details, see the guide at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html). (NMB-25298)

## Resolved Issues

- The ElectricFlow installer and the `ecconfigure` tool are enhanced to support the full range of modifiable configuration settings for the ElectricFlow server, repository server, and web server so that all modifications to these settings are preserved during upgrades.

For details about the preserved settings in version 8.2, see the “Configuration Settings Preserved After an Upgrade” section in the upgrade chapters of the *ElectricFlow 8.2 Installation Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html). For details about the `ecconfigure` options in version 8.2, see the “ElectricFlow Installed Tools” section in the “Automation Platform” chapter of the *ElectricFlow 8.2 User Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html). (NMB-25718 and NMB-24895)

- An `Entity content is too long error in jagent.log` no longer occurs when a large (multi-gigabyte) artifact is retrieved from the ElectricFlow repository. (NMB-25708)
- A `403 Access Forbidden by CSRFProtector!` error no longer appears when you click **OK** to save certain changes in the Automation Platform. (NMB-25627)
- Hyperlinks in the **Description** field of a workflow property are now rendered correctly. (NMB-25611 and NMB-17003)
- Chrome 61.0 no longer becomes stuck in a grayed-out state when you try to attach credentials to a step in a procedure. (NMB-25540)
- The “Supported Alternate Databases” section in the “System Requirements and Supported Platforms” chapter of the *ElectricFlow Installation Guide* is updated to include additional guidance for setting the `OPEN_CURSORS` parameter so that ElectricFlow does not run out of open cursors. For details, see the guide at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html). (NMB-25486)
- The *KBEC-00376 - Making the ElectricFlow Server JVM Aware of Docker Container Memory Limits* KB article is created. This KB article shows how to work around a Java issue where the JVM for this server cannot see the container’s total system memory when run in a Docker container. A reference to this KB article is added to the “Making the ElectricFlow Server JVM Aware of Docker Container Memory Limits” section of the *ElectricFlow Installation Guide*. (NMB-25474)
- In-place upgrades using silent installation on Windows 2012 now merge changes already made to the `<DATA_DIR>\conf\wrapper.conf` file. (NMB-23317)

- An issue where the host name in the `COMMANDER_SERVER` property in the `apache/conf/httpd.conf` configuration file was not updated during installation to use an FQDN as with the host name in the `COMMANDER_SERVER_NAME` property in the `conf/commander.properties` file is fixed. (NMB-22993)

### Behavior Changes

Drill-down for the Success Rate and Average Time to Deploy widgets is removed from the Deploy pipeline phase in the Release Command Center dashboard. (CEV-16503)

### Bundled Plugins

The following plugins are new or updated.

Name	New Version	Status
EC-ALM	1.1.0	Updated
EC-AmazonECS	1.0.3	Updated
EC-Docker	1.2.2	Updated
EC-GoogleContainerEngine	1.0.4	Updated
EC-Jenkins	1.9.1	Updated
EC-JIRA	1.1.1	Updated
EC-Kubernetes	1.0.5	Updated
EC-OpenShift	1.3.1	Updated
EC-ServiceNow	2.1.2	Updated
EC-SonarQube	1.0.3	New
EF-Utilities	1.1.8	Updated

For a complete list of bundled plugins, see the “Plugins That are Bundled with ElectricFlow” appendix in the *ElectricFlow 8.2 User Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html).

### Installation and Upgrade Notes

For complete installation and upgrade information, see the *ElectricFlow 8.2 Installation Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html).

### Changing the Default Prefix for StatsD

In `DATA_DIR/conf/wrapper.conf`, change the default prefix for StatsD from  
`wrapper.java.additional.802=-DCOMMANDER_STATSD_PREFIX=commander`  
to  
`wrapper.java.additional.802=-DCOMMANDER_STATSD_PREFIX=flow`  
(NMB-22835)



## Upgrading Your Existing ElectricFlow Environment

**IMPORTANT:** Before starting an upgrade, make sure to back up your existing ElectricFlow data.

- Upgrades to ElectricFlow 8.x are supported only from ElectricCommander 4.2.x or any version before 8.0. Any ElectricCommander systems and servers that are pre-Commander 4.2 must be upgraded to an ElectricCommander 4.2.x release. For upgrade instructions, see the *ElectricFlow 8.2 Installation Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html).
- Upgrading to ElectricFlow 8.x from ElectricCommander 4.2.x requires a database upgrade.
- You cannot upgrade from a previous version running the built-in database to an ElectricFlow 8.x database. If you want to continue using the built-in database in ElectricFlow 8.x, follow the database upgrade procedures described in the *ElectricFlow 8.2 Installation Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html).
- If your XML export file from ElectricFlow 8.0.1 or earlier versions has elements containing `applicationServiceMapping`, you must change all instances of that string in the file to `serviceClusterMapping` before importing the file into version 8.1. For example, change the following XML:

```
<applicationServiceMapping>
  <applicationServiceMappingId>9efcda31-a85f-11e7-8500-0800279f198d</applicationServiceMappingId>
  <applicationServiceMappingName>9efcda31-a85f-11e7-8500-0800279f198d</applicationServiceMappingName>
  ...
</applicationServiceMapping>
```

to

```
<serviceClusterMapping>
  <serviceClusterMappingId>9efcda31-a85f-11e7-8500-0800279f198d</serviceClusterMappingId>
  <serviceClusterMappingName>9efcda31-a85f-11e7-8500-0800279f198d</serviceClusterMappingName>
  ...
</serviceClusterMapping>
```

(CEV-16237 and CEV-16158)

## Upgrading the DevOps Insight Server from Version 7.3 to Version 8.x

### *Re-Specifying Configuration Settings Not Preserved During the Upgrade*

The installers (GUI, interactive console, and silent mode) for the DevOps Insight server do not preserve the configuration setting for the DevOps Insight server host name (`--hostName`) or the setting for the Elasticsearch number of shards (`--elasticsearchNumberOfShards`) during the upgrade from 7.3 to 8.x. If you specified nondefault values during the 7.3 Reporting server installation, you must re-specify these settings during the upgrade. (All other settings are preserved.)

### *Configuring DevOps Insight Server Security*

The introduction of enhanced security for the DevOps Insight server in version 8.0 requires that you specify the security settings during DevOps Insight server installation. These settings are used to enable connectivity and authentication between the DevOps Insight server and the ElectricFlow server. For details about

specifying these settings during DevOps Insight server installation, see the “Installing ElectricFlow” chapter of the *ElectricFlow 8.2 Installation Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html).

## Running the DevOps Insight Server on a System with Other ElectricFlow Components

For a production environment, Electric Cloud recommends that you install the DevOps Insight server on a system other than systems running other ElectricFlow components (such as the ElectricFlow server, web server, repository server, or agent). If you must install it on the same system (such as for testing or other non-production or trial-basis situations) see the “Running the DevOps Insight Server on a System with Other ElectricFlow Components” section in the *ElectricFlow Installation Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html) for details.

## Configuration Notes

### Performing a Full Import

During a full import, the import operation might hang in the following scenarios. To import successfully into ElectricFlow 8.0 and newer versions, perform the appropriate workarounds (CEV-15447 and CEV-11873):

- A manual process step in a process has formal parameters. The workaround is to remove the entry related to the property sheet for the job step that is associated with the manual process step.
- In the exported XML file from the earlier release, two pipelines are in different projects, and both pipelines have no gate tasks. The flow associated with the pipeline is duplicated under both projects. The workaround is to remove the flow element under the projects.

## Updating Application Component Plugin Versions in the Export File When Upgrading from 5.x to 8.x

Application components are based on plugins (EC-Artifact, EC-Maven and EC-FileSysRepo) with plugin details (such as name, procedure, and parameters) stored in properties on the component. Before version 5.4, the value for the `pluginProjectName` property included the plugin name and version (for example, EC-Artifact-1.0.3.4), which closely tied components to specific versions.

When you export your project data before upgrading from ElectricCommander 5.0, 5.1, 5.2, or 5.3 to ElectricFlow 8.x, you must update the application component plugin versions in the export file to the versions on the target ElectricFlow server before importing the data to ElectricFlow 8.x.

For example, if the promoted EC-Artifact plugin version is 1.0.4.1, then in the snippet below, you would change EC-Artifact-1.0.3.4 to EC-Artifact-1.0.4.1:

```
<property>
  <propertyId>3f509ffd-506b-11e6-9960-f01faf2c26a3</propertyId>
  <propertyName>pluginProjectName</propertyName>
  <counter>0</counter>
  <createTime>2016-07-23T00:20:20.829Z</createTime>
  <expandable>1</expandable>
  <lastModifiedBy>admin</lastModifiedBy>
  <modifyTime>2016-07-23T00:20:20.829Z</modifyTime>
  <owner>admin</owner>
  <tracked>1</tracked>
  <value>EC-Artifact-1.0.3.4</value>
</property>
```

Starting with release 5.4, ElectricFlow uses the plugin key (which does not include the version) when defining a component. (CEV-6679)

## Registering a Custom Plugin Procedure for the Step Creation Dialog

You must register a user-developed plugin so that it appears as an option:

- When you use the plugin to configure a step in a component or application process.
- In a procedure in the automation platform.

For details, see the “Register your procedure for the step creation dialog” section in the “Examples and Tutorials” chapter of the *ElectricFlow Plugin Developer Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html). (CEV-3649)

## Diffie-Hellman Key Size Incompatibility

To enable the ElectricFlow server versions 7.0 or newer to configure Diffie-Hellman cipher suites properly, ElectricFlow uses OpenSSL-1.0.1T with SSLv2 enabled. Because of OpenSSL and JRE changes, the minimum Diffie-Hellman key size requirement is increased to 1024 bits (from 768 bits) as of version 7.0.

Server versions 7.0 or newer use Jetty (a Java HTTP server), which listens on the 8000 (unsecure) and 8443 (secure) ports. Server versions 7.0 or newer use Java 1.8.0\_66, in which the ephemeral DH key size defaults to 1024 bits during SSL/TLS handshaking in the SunJSSE provider.

For details on the increase of the key size requirement as of Java 1.6-u101, see the Java release note at <http://www.oracle.com/technetwork/java/javase/overview-156328.html#6u101-b31>. For details as of Java 1.7-u85, see the Java release note at <http://www.oracle.com/technetwork/java/javase/7u85-relnotes-2587591.html>.

Because their minimum key size is 1024 bits, agent versions 7.0 or newer can connect only to:

- Server versions 5.4, 6.0.1, or 6.5 or higher via ectool
- External applications that require SSL with a minimum key size of 1024 bits

However, ElectricCommander agents of versions 5.0.6, 5.3, or 5.4 and ElectricFlow agent versions 6.0.1 or 6.5 or newer can connect to all ElectricFlow server versions (including 7.0 or newer) via ectool and ec-perl.

ElectricCommander server versions 5.0.6 or 5.3 or newer can run jobs using all agent versions (including 7.0 or newer). ElectricFlow server versions 7.0 or newer can run jobs using ElectricCommander agent versions 5.0.6 or 5.3 or newer.

## Limitations

- When an application is cloned from one project (the original project) to another (the destination project), the tier maps for the application will point to the environments with the same names in the destination project. To deploy the application to the environments in the original project, you must create tier maps connecting the application to those environments.
- When an assignee is added in a manual process step or stage task through the web interface, the Search field displays only the users who have actually logged into the system.
- Session management limitations:
  - When a user logs out, they are logged out only on that node.
  - When a user is deleted from the system, their session is active until it expires.
  - When a job ends, the user’s session is active until it expires.

## Known Issues

### Performance and Scalability Issues

#### *Performance Impact of Recursive Traversal of Group Hierarchy*

Enabling **Recursively Traverse Group Hierarchy** might impact system performance when the LDAP group hierarchy is traversed. The amount of impact varies with the configurations of the ElectricFlow and LDAP servers, the depth of group hierarchy in the LDAP server, and the network latency between the servers. Make sure that your directory provider can handle the additional load for supporting nested group hierarchy traversal.

The following response times were recorded during Electric Cloud performance tests with nested LDAP groups support.

#### Test Environment Details

- ElectricFlow server
  - Intel® Core™ i5-3210M CPU @ 2.50GHz CPU
  - 3011MiB RAM
  - 80 GiB (85 GB) VBOX HARDDISK disk
- Active Directory server
  - Intel Core i5-3210M CPU @ 2.50GHz CPU
  - 2 GB RAM
  - Windows Server 2012 R2 OS
- Performance data set
  - 5040 users
  - 126 groups
  - Average number of 40 users per group
  - Average number of 2 immediate groups per parent group
  - Maximum depth of 6 in group hierarchy

#### Response Times with Active Directory

Average of 1000 API calls with user and group at the fifth nested level in the Active Directory group hierarchy.

API command	ElectricFlow 6.5 without recursive group hierarchy traversal	ElectricFlow 6.5 with recursive group hierarchy traversal
login	1.066 seconds	1.195 seconds
getUser	1.086 seconds	1.213 seconds
getGroup	0.918 seconds	1.102 seconds

### Response Times with OpenLDAP

Average of 1000 API calls with user and group at fifth nested level in the Active Directory group hierarchy.

API command	ElectricFlow 6.5 without recursive group hierarchy traversal	ElectricFlow 6.5 with recursive group hierarchy traversal
login	0.744 seconds	0.753 seconds
getUser	0.705 seconds	0.714 seconds
getGroup	0.657 seconds	1.011 seconds

### Scalability Issues

- Hundreds of parallel job steps might cause Job Scheduler performance issues at job startup. (NMB-16185)
- The time needed to add a property to a job increases as the number of properties increases. (NMB-16120)
- The time needed to add a step to a procedure increases as the number of steps increases. (NMB-16118)

### Other Known Issues

- When you do a full import from version 8.0 to version 8.2 and two or more releases have the same name (under different projects) and are associated to the same pipeline, then after import, the runs for all releases might become associated to the first imported release.

This is because ElectricFlow cannot differentiate runs between the releases since all runs are under the same pipeline project and have the same name. To work around this issue, rename releases in the export file so that all their occurrences (in `deploymentHistoryItem`, `flowRuntime`, and so on) are unique. (CEV-17164)

- Undeploying services from Amazon EC2 Container Service (ECS) and Google Container Engine (GCE) clusters is not supported and causes the following error: `Step error [PropertyReferenceError]: couldn't find property 'ec_container_service_plugin/operations/undeployService/procedureName' in invoking service 'ec_container_service_plugin/operations/undeployService/procedureName'.` (CEV-17140)
- Jobs might not appear upon drill-down into the “Clusters With Most Deployments” widget in the DevOps Insight Microservices Dashboard if the service does not contain a deploy step in the process. (CEV-16930)
- A project import might not include the path-to-production view. (CEV-16250)
- Multiple mapped environments with the same name from different projects are not supported in email notifications. (CEV-16245)
- During an upgrade from version 8.0 (and prior versions with service and container support) to 8.1, the installer adds a default process to the application scoped service if the service is referenced in an application process step. For all other services in the application that have no reference in the application process step, you must manually create the process using the Hierarchy Menu. (CEV-16212)

- The Environments list page might not display the numbers of deployed services in individual environments. (CEV-16138)
- Restarting of imported pipeline runs is not supported. (CEV-16121)
- The retry count for group tasks or rules using “automated retry on error” is missing from the Pipeline runtime page. (CEV-15829)
- If an application process step cannot expand to its child steps (because of an invalid run condition or an invalid formal parameter), then the step is not retried even if it uses “retry on error” error handling. The job eventually completes with an error. (CEV-15122)
- “Retry on error” icons might remain in the pipeline runtime UI even though the corresponding gate rules were executed to completion. (CEV-14706)
- No error message appears for failed tasks and retry tasks during a pipeline runtime. (CEV-14689)
- The stage inclusion status in the Release Dashboard changes color after a stage is renamed. (CEV-12429)
- Error messages for runtimes started by a schedule are not visible if the schedule was created with a missed configuration. (CEV-12363)
- When an application with snapshots created in ElectricFlow 6.1 or earlier is cloned, and a project containing this application is imported to ElectricFlow 6.3 or higher, the import operation fails. (CEV-11106)
- The details popup that appears after you click the Track Changes button in a procedure in the Automation Platform might cause the **Change History** window to hang when you click the Expand Details button for a specific change. (NMB-25520)
- (Solaris and AIX platforms only) The artifact cache is not updated during artifact retrieval operations. (NMB-24955)
- When you use the Automation Platform UI to upload and publish artifact files with non-English characters in their file names, the operation fails with the following error: Upload file: Exit code 1: ERROR: Publish failure: Unexpected retrieval exception for repository error. (NMB-24949)
- If the user email address is changed in the Active Directory server or the LDAP server for an existing external user, email notifications continue to use the prior email address.

The workaround is to delete the entry for the remote user in ElectricFlow. The next time the user entry is retrieved from the directory server (for example, upon user login), the external user record will be created in ElectricFlow with the updated email address. (NMB-24052)

- You can revert changes only for high-level design objects such as applications, procedures, procedure steps, workflow definitions, and state definitions.

**IMPORTANT:** Restarting the ElectricFlow server while new records are created for all tracked objects might take at least as long as an export or import of all projects (10 to 40 minutes for a large project).

- System performance might decrease if you disable change tracking at the server level and then re-enable it at that level. (Change tracking is enabled by default.)

For details about using change tracking, see the “Change Tracking” chapter in the *ElectricFlow 8.2 User Guide* at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html))

## Documentation and Online Help

### Product Documentation

ElectricFlow product documentation is available at [http://docs.electric-cloud.com/eflow\\_doc/FlowIndex.html](http://docs.electric-cloud.com/eflow_doc/FlowIndex.html) as follows:

- *ElectricFlow Installation Guide*
- *ElectricFlow User Guide*
- *ElectricFlow API Guide*
- *ElectricFlow Release Notes*
- *ElectricFlow SDK Plugin Developer Guide* (updated on its own release cycle)
- *ElectricFlow SDK Plugin Developer Release Notes* (updated on its own release cycle)

Documentation on the website is updated periodically.

### Automation Platform Online Help

The Automation Platform web UI has a complete, robust, context-sensitive online help system. To use it, click the **Help** button in any page of the web UI.

## Troubleshooting and Getting Help

### Technical Support

Contact Electric Cloud technical support:

- +1 408.419.4300, option 2. Hours are 9 A.M.–5 P.M. PT Monday–Friday (except holidays)
- [support@electric-cloud.com](mailto:support@electric-cloud.com)
- <https://helpcenter.electric-cloud.com/> and then click **Submit a request** to submit or see your support tickets

Be prepared to provide your:

- Name, title, company name, phone number, and email address
- Operating system and version number
- Product name and release version
- Problem description

### Electric Cloud “Ask” Website

Go to <http://ask.electric-cloud.com>—a member-moderated community forum where you can:

- Ask and answer questions as well as comment on (and vote for) the questions of others and their answers
- Get help with installation and configuration
- Submit feedback

### ElectricFlow Knowledge Base

Go to <https://helpcenter.electric-cloud.com/hc/en-us/sections/200516863-ElectricFlow-KB> to find in-depth explanations of specific topics and solutions for specific problems.