



## **ElectricAccelerator Release Notes**

**Version 9.0.1**

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## Product Description

ElectricAccelerator® is a software build accelerator that dramatically reduces build times by distributing the build over a large cluster of inexpensive servers. ElectricAccelerator (“Accelerator”) uses a patented dependency-management system to identify and fix problems in real time that break traditional parallel builds. Accelerator plugs seamlessly into existing software development environments and includes web-based management and reporting tools.

Accelerator includes the following components:

- Electric Make® (“eMake”)
- Electric File System (EFS)
- ElectricAccelerator Agents (“Agents”)
- Cluster Manager
- Electrify

## What's New or Modified

### New Features and Functionality

ElectricAccelerator now includes template files that you can modify to optimize your Android builds. These files work together to provide optimal settings for Android 6.x (Android M) and Android 7.x (Android N). For details, see the [KBEA-00130 - Best Practices for Android Builds](#) KB article. (EC-12097 and EC-12004)

### Resolved Issues

- Using the `--emake-pragmafile` eMake option in recursive makes no longer produces warning messages about failing to open the `emake.pragmas` file. (EC-12086)
- The `PATH` variable for 32-bit executables in the `ecloud.bash.profile` file now points to the correct directory. (EC-12085)
- (Windows 10) Accelerator agents no longer hang after a Windows update. (EC-12082)
- (Windows) The uninstaller no longer fails if the `HOMEDRIVE` environment variable is not set. (EC-12081)
- Random `readidir` operation failures caused by vanishing NFS mounts no longer occur. (EC-12024)
- An issue that caused an eMake crash in `Target::getResolvedLastModified` is fixed. (EC-12023)
- The `#pragma runlocal` pragma no longer makes a file unavailable to a later job. (EC-12000)
- eMake no longer crashes intermittently with `$(shell)` and cluster sharing. (EC-11987)

## Installation and Upgrade Notes

### Hardware Requirements

- Accelerator 7.2 and newer versions require a Pentium 4 or newer processor when running in a 32-bit Solaris x86 environment.
- The recommended total amount of RAM for an agent host is 2 GB *per agent* plus the amount of RAM normally needed to execute your build. For example, if you are running four agents, and your build normally needs 16 GB, you will need  $((2 * 4) + 16) = 24$  GB.

## Backing Up Before You Upgrade

- The upgrade process does not preserve the existing files. Back up the `/opt/ecloud/<arch>/cloud` directory for Linux and Solaris or the `C:\ECloud\<arch>` folder for Windows to a safe location.
- For additional security, back up the database by following the recommended procedure from your database vendor.

## Installing JDBC Drivers for MySQL or Oracle Databases

Electric Cloud no longer distributes the JDBC drivers for MySQL or Oracle databases. To use one of these databases, you must download its driver directly from the Oracle website, then copy it to the appropriate directory on the Cluster Manager server, and then restart the Cluster Manager service. For details, see the “Installing JDBC Database Drivers” section in the “Installing ElectricAccelerator” chapter of the *ElectricAccelerator 9.0 Installation and Configuration Guide* at [http://docs.electric-cloud.com/accelerator\\_doc/AcceleratorIndex.html](http://docs.electric-cloud.com/accelerator_doc/AcceleratorIndex.html).

## Copying the execserver Executable to a New Location if You Relocate eMake

If you copy the `emake` executable to a new location, you must also copy the `execserver` executable to that location. By default, the path to the `execserver` executable is `/opt/ecloud/i686_Linux/bin/execserver` (for 32-bit eMake) or `/opt/ecloud/i686_Linux/64/bin/execserver` (for 64-bit eMake).

## Regenerating History Files After an Upgrade

The identifier that is used to find certain types of jobs in the eMake history file changed in version 8.0. After an upgrade from version 7.2.2 or older versions to version 8.0 or newer versions, users should regenerate their history files by running their first build with the `--emake-history=create` eMake option to avoid unnecessary serializations. This build might have more conflicts than normal (but subsequent builds should return to normal).

## Known Issues

### Linux Kernel Issue That Affects Accelerator Performance

#### *Affected Kernel Versions*

- RHEL kernel versions later than 2.6.18-194.32 and earlier than 2.6.32-131
- Ubuntu Linux kernel versions 2.6.31, 2.6.32, 2.6.33, and 2.6.34

#### *Symptoms*

Affected systems might encounter reduced performance on both ext3 and ext4 file systems. Symptoms might include

- `hung_task_timeout_secs` messages in system `dmesg` logs
- Widely variable agent availability (entering and exiting agent “penalty” status frequently)
- Contention over the `ecagent.state` file
- Slower builds (with unexplained variances)

To help determine if this issue exists, run the `dmesg | grep hung_task_timeout` command. `hung_task_timeout` errors show that this issue is present. Contact your kernel provider for another version of the precompiled kernel.

#### *Fixes for Systems Running RHEL 5.6, 5.7, 5.8, and 6.0*

You should consider upgrading to 2.6.32-131 (RHEL 6.1) or downgrading to 2.6.18-194.32 (RHEL 5.5).

## Other Known Issues

- Results in the Cluster Usage report in the Cluster Manager might not appear in Internet Explorer 10. To work around this issue, choose **Tools > Compatibility View** from the browser menu and then re-run the report. (EC-11608)
- Options in the `emake.conf` configuration file override options that are set using Accelerator environment variables (such as `EMAKE_CM`). (EC-10272)
- If Apache fails to start properly after a new Cluster Manager installation, reboot the system.

## Documentation

### Product Documentation

Accelerator documentation is available at [http://docs.electric-cloud.com/accelerator\\_doc/AcceleratorIndex.html](http://docs.electric-cloud.com/accelerator_doc/AcceleratorIndex.html) as follows:

- *ElectricAccelerator Installation and Configuration Guide*
- *ElectricAccelerator Electric Make User Guide*
- *ElectricAccelerator cmtool Reference Guide*
- *ElectricAccelerator Error Messages Guide*
- *ElectricAccelerator Visual Studio Integration Guide*
- *ElectricAccelerator Release Notes* (this document)
- PDF, HTML, and mobile-optimized HTML versions of the online help that is also accessible from the Cluster Manager **Help** button.

Documentation on the website is updated periodically.

### Cluster Manager Online Help and Tooltips

Built into the Cluster Manager are

- A complete, robust, context-sensitive online help system (click the **Help** button in any page of the Cluster Manager web UI). See the documentation website as described above for the latest updates to this information.
- Tooltips with information to help fill in form fields.

# Troubleshooting and Getting Help

## Technical Support

Contact Electric Cloud technical support:

- 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
- Annotation file for the build involved

## Electric Cloud “Ask” Website

Go to <http://ask.electric-cloud.com> to:

- Ask questions or read answers to questions from other users
- Get help with installation and configuration
- Submit feedback

## ElectricAccelerator Knowledge Base

Go to <https://helpcenter.electric-cloud.com/hc/en-us/sections/200516893-Accelerator-KB> to find in-depth explanations of specific topics and solutions for specific problems.

### ElectricAccelerator Version 9.0.1

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