Release Notes

This page documents production updates to Deep Learning VM. We recommend that Deep Learning VM developers periodically check this list for any new announcements.

You can see the latest product updates for all of Google Cloud on the Google Cloud release notes (/release-notes) page.

To get the latest product updates delivered to you, add the URL of this page to your feed reader (https://wikipedia.org/wiki/Comparison_of_feed_aggregators), or add the feed URL directly: `https://cloud.google.com/feeds/deeplearningvm-release-notes.xml`

August 10, 2020

FEATURE **M54 release**

- Added support for the europe-west3 region
- Updated the Explainable AI sdk and added explainers
- Fixed llvm-openmp support
- Added support for instance auto upgrade
- Made Deep Learning VM images and Deep Learning Containers more consistent for TPU
- Updated NCCL to 2.7.6 in CU110 images
- Added the scikit-learn package and container
- Added JRE to R images
- Limited custom container memory utilization

August 06, 2020

FEATURE **M53 release**

TensorFlow Enterprise 2.3 images, including images that support CUDA 11.0, are now available.

July 13, 2020

FEATURE **M51 release**

Allow removing `sudo` access from Deep Learning Containers.

Debian-10-based images are released. You can create Shielded VM instances (https://cloud.google.com/security/shielded-cloud/shielded-vm) from these images.

June 23, 2020

FIXED **M50 release**

Miscellaneous bug fixes.

June 11, 2020

FEATURE **M49 release**

TensorFlow Enterprise images updated to 1.15.3 and 2.1.1.

The tensorflow-enterprise-addons (https://pypi.org/project/tensorflow-enterprise-addons/) package is now available in all deep learning environments.

XGBoost, MXNet, R, PyTorch, CNTK, and Caffe images have been updated with library upgrades and bug fixes.

May 18, 2020

FEATURE **M48 release**

TensorFlow 2.2 images have been added. The new TensorFlow 2.2 image families are `tf2-2-2-cpu` and `tf2-2-2-cu101`. See the available image families (https://cloud.google.com/ai-platform/deep-learning-vm/docs/images).

May 12, 2020

FIXED **M47 release**

Fixed an OS login issue under single user mode for a user external to an organization.

Fixed a git extensions plugin issue in TensorFlow 2 images.

January 21, 2020

FEATURE **M41 release**

TensorFlow Enterprise (https://cloud.google.com/tensorflow-enterprise/docs/) 2.1 images are now available.

MXNet upgraded to 1.5.1.

PyTorch upgraded to 1.4.0.

XGBoost upgraded to 0.90.

November 01, 2019

FEATURE You can now create a TensorFlow Enterprise Deep Learning VM Image. TensorFlow Enterprise image families provide users with a Google Cloud Platform optimized distribution of TensorFlow with long-term version support (https://cloud.google.com/tensorflow-enterprise/docs/overview#long_term_support_lts). To learn more about TensorFlow Enterprise, read the TensorFlow Enterprise overview (https://cloud.google.com/tensorflow-enterprise/docs/overview).

October 11, 2019

FEATURE **M36 release**

The TensorFlow 2.0 image is out of experimental.

CHANGED What-If Tool (`witwidget`) (https://pair-code.github.io/what-if-tool/) upgraded to 1.4.2 for TensorFlow 1.x images.

August 26, 2019

FEATURE **M34 release**

JupyterLab upgraded to 1.0 on all images.

PyTorch upgraded to 1.2.

July 12, 2019

FEATURE **M30 release**

R upgraded to version 3.6.

TensorFlow: added support for using Python 3.7.

R Notebooks are no longer dependent on a Conda environment.

FIXED Fix for the bug when Nvidia driver is not installed if the user does not have the Google Cloud Storage API enabled.

What-If Tool (`witwidget`) (https://pair-code.github.io/what-if-tool/) fixes for TensorFlow 1.14.

Miscellaneous bug fixes.

July 01, 2019

FEATURE **M28 release**

What-If Tool (`witwidget`) (https://pair-code.github.io/what-if-tool/) added to DLVM.

FIXED Fixed TensorFlow 1.14 issues.

Miscellaneous bug fixes.

June 20, 2019

FEATURE **M27.1 release updates**

TensorFlow upgraded to: 1.14.0.

TensorFlow 2.0 upgraded to: Beta 1.

FIXED Miscellaneous bug fixes.

June 17, 2019

FEATURE **M27 release**

New ML framework added: CNTK 2.7 from Microsoft.

New ML framework added: Caffe 1.0 BVLC from UC Berkeley.

Updated TensorFlow 2.0 Beta0.

FIXED Miscellaneous bug fixes.

May 29, 2019

FEATURE **M26 release**

RAPIDS updated to 0.7.

Faster driver installation time for common TensorFlow and PyTorch images.

You can now use Deep Learning VMs without a public IP address if you have enabled Google Private Access.

FIXED Miscellaneous bug fixes.

May 03, 2019

FEATURE **M25 release**

New image added: CUDA 10.1.

PyTorch upgraded to 1.1.0.

fastai upgraded to 1.0.52.

MXNet upgraded to 1.4.0 (and now based on CUDA 10.0 images).

Chainer upgraded to 5.4.0.

April 26, 2019

FEATURE **M24 release**

We now support two authorization modes in the new release: single user mode and service account mode3.

rpy2 is now pre-installed in the R image.

A plugin for editing metadata of cells is now pre-installed.

jupyterlab-celltags JupyterLab extension is now pre-installed.

FIXED Fixed bug with sudo (now you can use sudo from the JupyterLab terminal).

Downloading files from JupyterLab file browser is now working.

March 15, 2019

FEATURE **M22 release**

Tensorflow upgraded to version 1.13.

FEATURE Fairing (https://github.com/kubeflow/fairing) now preinstalled.

FEATURE cookiecutter and seaborn now preinstalled.

FIXED More descriptive serial logs to help customers debug common issues.

FIXED Misc bug fixes.

ISSUE Due to incompatibilities between Tensorflow 1.13 (which requires Numpy 1.16.2 or greater) and the latest Intel optimized version of Numpy (which is 1.15) we are not using the intel optimized versions of Numpy and Scipy for this release.

February 21, 2019

FEATURE **M20 release**

TensorFlow and Pytorch GPU images switch between CPU-only/GPU-enabled binaries at startup depending on whether GPUs are attached.

FIXED SSH is not disabled during NVIDIA driver installation on GPU images.

ISSUE Due to incompatibilities between the latest kernel update (Debian 9.8) and Docker, we have put a hold on the kernel updates for this release (that is, `apt-mark hold linux-image-4.9.0-8-amd64`). If you require the latest kernel, you can run `sudo apt-mark unhold linux-image-4.9.0-8-amd64 && sudo apt upgrade`, but we cannot guarantee that Docker or our direct JupyterLab link from Marketplace (https://console.cloud.google.com/marketplace/details/click-to-deploy-images/deeplearning) will function correctly if you force the upgrade.

January 29, 2019

FEATURE **M19 release**

New TensorFlow 2.0 (experimental) flavor is added.

New experimental ability to use Deep Learning VMs with special Web proxy, instead of SSHing to the VM.

January 14, 2019

FEATURE **M16 release**

New MXNet 1.3 (experimental) flavor is added.

December 19, 2018

FEATURE **General Availability**

Launched the new 1.0 version of AI Platform Deep Learning VM Image.

FEATURE **M15 release**

BigQuery magic plugin now preloaded all the time.

Jupyter SQL integration now pre-installed and SQL plugin now preloaded.

TensorFlow images now include bazel pre-installed.

Python Dataproc client now pre-installed on all our images.

CHANGED fastai updated to the latest version 1.0.38.

December 10, 2018

FIXED **M14 release**

Fixed bug that was resulting in a broken Git UI in some cases.

FEATURE Fast.Ai updated to 1.0.36.

December 05, 2018

FIXED **M13 release**

Integrates fix for speed regression in linear models when using TensorFlow with Intel® MKL DNN.

FEATURE Adds Git-Jupyter integration.

November 20, 2018

CHANGED **M12 release**

Chainer is now upgraded to 5.0.0 (and CuPy to 5.0.0).

CuDNN updated to 7.4.

TensorRT5 updated to GA.

XGBoost updated to 0.81.

Images now have papermill pre-installed.

Ability to change Jupyter UI that is running on the port 8080, currently supported: Lab and Notebook.

November 13, 2018

FIXED **M11.1 release**

Fixed an issue where users were locked out of `apt` after startup due to a package needing configuration. If you are using an M11 image and are experiencing issues with apt, please either recreate your VM or run `sudo dpkg --configure -a` to clear the lock.

November 08, 2018

CHANGED **M11 release**

All GPU images install NVIDIA driver 410.72.

TensorFlow updated to v1.12.0.

PyTorch 0.4 image now uses conda for package management.

October 23, 2018

CHANGED **M10 release**

PyTorch 1.0 updated to the latest build as of October 23.

`fastai` updated to 1.0.12.

`fastai` course materials are now available at `$HOME/tutorials/fastai/`.

Chainer UI updated to 0.6.0.

Chainer MN updated to 1.3.1.

FIXED Fixed a bug that was causing Intel packages to be overwritten.

October 10, 2018

FEATURE **M9 release**

Intel Optimized Python packages are installed in all distributions:

- NumPy
- SciPy
- `scikit-learn`
- TensorFlow (when applicable)

PyTorch 1.0 (Experimental) images include support for `[conda](https://conda.io/)` and `[fastai](http://fast.ai/)`.

CHANGED Chainer updated from v4.4.0 to v4.5.0.

September 27, 2018

FEATURE **M8 release**

New XGBoost images:

- `xgboost-<var>VERSION</var>-cu92-experimental`
- `xgboost-<var>VERSION</var>-cpu-experimental`

New CUDA 10.0 image (common-cu100) with the following NVIDIA stack in it:

- CuDNN 7.3
- NCCL 2.3.4
- Driver 410.48
- TensorRT 5

CHANGED TensorFlow updated from v1.10.1 to v1.11.0.

TensorFlow now compiled with CUDA 10.0 and CuDNN 7.3.

Common CUDA 9.2 image now has latest NCCL 2.3.4

Common CUDA 9.0 image now has:

- latest NCCL 2.3.4
- latest CuDNN 7.3
- TensorRT 5.0.0

Following packages are now pre-installed on the images:

- `htop`
- `protobuf-compiler`
- `tree`

After SSHing to the instance you now will see the exact revision of the image in the header.

September 18, 2018

FEATURE **M7.1 release**

Introducing new experimental images with PyTorch 1.0RC. New image families are:

- `pytorch-1-0-cu92-experimental`
- `pytorch-1-0-cpu-experimental`

September 12, 2018

CHANGED **M7 release**

Chainer updated from v4.3.0 to v4.4.0.

Better integration with BigQuery.

Pillow has been replaced with the faster Pillow-SIMD package.

`minikube` is now pre-installed.

New simplified image families introduced:

- `tf-latest-gpu`
- `pytorch-latest-gpu`
- `chainer-latest-gpu-experimental`

FIXED Jupyter now running on behalf of its own user (not root).

August 30, 2018

FEATURE **M6 release**

Introducing experimental images: these images bring new frameworks for you to try out, but they come with no guarantees of future support. Current experimental images:

- Chainer (4.3)

FEATURE All images now have `kubectl` installed.

CHANGED TensorFlow updated from v1.10.0 to v1.10.1.

August 14, 2018

FEATURE **M5 release**

All images now have Docker and/or NVIDIA Docker pre-installed.

TensorFlow and PyTorch images now include pre-baked tutorials.

GPU flavors of TensorFlow and PyTorch images now swap binaries to the CPU optimized binaries during the first boot if the instance does not have a GPU.

July 31, 2018

FEATURE **M4 release**

Includes Tensorfow Serving: model server binary at /usr/local/bin/tensorflow_model_server and tensorflow-serving-api preinstalled.

Integration with Colab: default JupyterLab instance can be connected as a Colab backend.

Upgraded to support CUDA 9.2 (note this changes the pytorch family name).

FIXED Fixed an issue with CUDA linking in the build process, binaries up to 10% faster now.

July 17, 2018

FEATURE **M3 release**

New common image with CUDA 9.0 has been introduced.

CHANGED The following changes are included in this release:

- All images now include OpenMPI (https://www.open-mpi.org).
- TensorFlow GPU images now include Horovod (https://github.com/uber/horovod).
- CUDA 9.2 stack now includes latest NCCL 2.2.13.

FIXED Bug that was preventing Jupyter Notebook from working correctly has been resolved.

July 11, 2018

FEATURE **M2 release**

TensorFlow updated to version 1.9.0.

New public Google Group for users: google-dl-platform (https://groups.google.com/forum/#!forum/google-dl-platform)

July 02, 2018

FEATURE **Beta launch**

AI Platform Deep Learning VM Image is available as a beta release.

Last updated 2020-08-12 UTC.