

Published on *CERN openlab* (<http://test-static-05.web.cern.ch>)

[Home](#) > [Manila ? OpenStack File Sharing Service](#)

---

## Manila ? OpenStack File Sharing Service <sup>[1]</sup>

**Date published:**

Tuesday, 1 September, 2015

**Document type:**

Summer student report

**Author(s):**

M. Patrascoiu

The report presents a short overview on what OpenStack is, how and why is it used at CERN and also goes into detail about the OpenStack Manila component, a service that enables file based storage and file sharing within OpenStack virtual machines. OpenStack Manila is a relatively new OpenStack component, having started in 2012 and in 2014 it has reached the latest cycle of development, where it could still be found at the time of the report. The fundamental object Manila works with is the ?share?, a unit of storage that can be accessed through the network simultaneously by multiple users. The scope of Manila is to provision shares in a ?Shares-as-a-Service? fashion, allowing entrusted users to manage their own shares independently, without the need of any external assistance, such as from an admin. The scope of the project has been to experiment with this technology and assert its functionality in the context of the existing cloud at CERN. The report details the principal services and operation of OpenStack Manila, along with the most common used command lines. It also goes into detail about two ways in which Manila can be installed, either manually or by using a deployment automation tool. A look at the required configuration parameters is also presented. In the last part, the deployed Manila service at CERN is presented, together with the configuration options used for the backend, the part responsible with linking the Manila service to the actual storage platform used.

**Report on ZENODO:**

[Document on ZENODO](#) <sup>[2]</sup>

- [Visit Us](#)
- [RSS Feeds](#)

DISCLAIMER: This Web page contains pointers to material related to the management of CERN openlab in the Information Technology Department at the European Organization for

Nuclear Research (CERN). Their use and distribution are regulated by the CERN copyright notice.



---

**Source URL:** [http://test-static-05.web.cern.ch/publications/technical\\_documents/manila-%E2%80%93-openstack-file-sharing-service](http://test-static-05.web.cern.ch/publications/technical_documents/manila-%E2%80%93-openstack-file-sharing-service)

**Links**

[1] [http://test-static-05.web.cern.ch/publications/technical\\_documents/manila-%E2%80%93-openstack-file-sharing-service](http://test-static-05.web.cern.ch/publications/technical_documents/manila-%E2%80%93-openstack-file-sharing-service)

[2] <http://zenodo.org/record/33192>