

Required Tools

- [Client-Based Tools](#)
- [Server-Based Tools and Repositories](#)

The following tables list the tools used in ONAP development. This is intended for reference. For instructions on installing client tools and preparing to access the server-based tools, see [Setting Up Your Development Environment](#).

Client-Based Tools

These tools are installed on your client development system.

Tool Name	URL	Description
Git client	https://www.atlassian.com/git/tutorials/install-git	Client for distributed source control system. The download referenced here includes the command-line tool Git Bash.
IntelliJ	https://www.jetbrains.com/idea/	One of several possible Java development environments. (The IntelliJ Community Edition is open source.) Uses the Java SDK.
Java SDK	http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html	Required for Java builds
Maven	http://maven.apache.org/download.cgi	command-line tool for building Java (and other) programs Install maven 3.3.3+ as 3.2.x may have issues with an ODL certificate name mismatch
PuTTY	http://www.putty.org/	Remote SSH terminal; also, a public/private key generator.
Python (optional)	https://www.python.org/	Script engine needed by some components (select add python to your path in the installer)
other tools	Development Guides https://confluence.atlassian.com/get-started-with-sourcetree/install-sourcetree-847359094.html	See the Development Guides for specific additional tools required by different subsystems. Example tools include: nodejs, node-gyp (which in turn requires Python v.2.7.x and GCC), grunt-cli, and bower. SourceTree from Atlassian is a git shell for windows/mac
Docker	https://docs.docker.com/engine/installation/linux/centos/#install-using-the-repository	Required to build dcae-inventory (create the images)
Kubernetes	https://kubernetes.io/docs/tasks/tools/install-kubectl/ https://kubernetes.io/docs/tasks/tools/install-minikube/	Future only
Postman	https://chrome.google.com/webstore/detail/postman/fhbjgbfijnljbdggehccddcbncdddomop?hl=en	Exercise REST endpoints like the following examples in Verifying your ONAP Deployment#Postman/CurlRESTcalls

Server-Based Tools and Repositories

These tools and repositories are server-based. Some are accessed via a browser with no setup, other than obtaining a login and password. Others may require you to set environment variables, create private encryption keys, or make settings within client tools.

Tool Name	URL	Description
Confluence	https://wiki.onap.org	ONAP Development Wiki, which you are looking at now. Used to provide project documentation, guidelines, and other information.
Insights	LFX Insights	A metrics dashboard reporting on multiple aspects of community development and engagement.

Gerrit server	https://gerrit.onap.org/	Gerrit code review server, hosting the Git repositories as well as controlling access, push, and review of new code. It also hosts the Jenkins job configuration in a Git repository that follows the same workflow.
Identity portal	https://identity.linuxfoundation.org/	registering portal : controls user account and group management.
Jenkins Master	https://jenkins.onap.org/	ONAP Jenkins Master host, this host will only serve as a 'Display' as most of the jobs will be executed by 'minions' (slave hosts which are defined by using the Jenkins configuration repository in Gerrit).
JIRA	https://jira.onap.org/	ONAP JIRA instance, used to track issues, releases, stories...
Nexus 2	https://nexus.onap.org/	ONAP Nexus 2 repository, this repo will hold Maven2 artifacts produced by builds (both Release and Snapshot, also Javadoc-mavensite), Access is automatically provided to builds by the maven settings on the Jenkins Master, see Jenkins job for more details. User should be able to access and browse artifacts through this URL.
Nexus 3	https://nexus3.onap.org/	<p>ONAP Nexus 3 repository, this repo will hold Docker containers produced by ONAP builds. Access is automatically provided to builds by the maven settings on the Jenkins Master, see Jenkins job for more details. User should be able to access and browse artifacts through this URL.</p> <p>There are three hosted repositories:</p> <ul style="list-style-type: none"> • release repository: nexus3.onap.org:10002 • snapshot repository: nexus3.onap.org:10003 • staging repository: nexus3.onap.org:10004 <p>The release repository contains the docker images at specific release cuts. The snapshot repository contains daily docker image builds. The staging repository contains docker images before a release cut. When approved, docker images in the staging repository are moved to the release repository.</p> <p>There is an additional repository, nexus3.onap.org:10001, which is a proxy to the hosted repositories. By logging into the proxy repository, it is possible to access all the docker images contained in release, snapshot and staging repository. Also, from the proxy repository it is possible to access public docker images that are used in ONAP, such as MariaDB, HBASE, Cassandra, etc.</p> <p>Access to hosted and proxy repositories is regulated by username and password:</p> <ul style="list-style-type: none"> • username: docker • password: docker <p>These credentials provide read-only access to repositories. This is the only account that will work for community members to be able to access docker images.</p> <p>How to download a docker image</p> <ul style="list-style-type: none"> • log into the docker hub (we suggest to use the proxy repository): <code>docker login -u docker -p docker nexus3.onap.org:10001</code> • pull the docker image that you like (in this example we pull MSO): <code>docker pull nexus3.onap.org:10001/openecomp/mso:1.0-STAGING-latest</code>
Sonar	https://sonar.onap.org/	ONAP Sonar server, will hold Sonar metrics computed by component builds
Read the Docs	https://docs.onap.org/	Formal ONAP documentation.