



1

# Introduction to Repository Managers

# ► Introduction to Artifact Repository

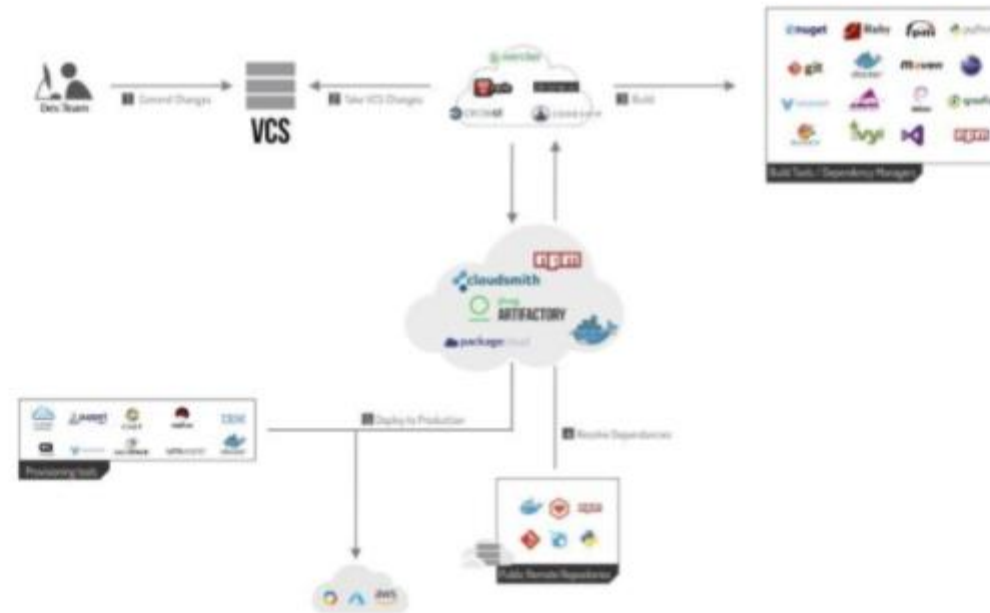
- Also called a **binary repository**.
- It is used for storing building blocks of a project in **binary code**.
- It is mainly used for **deployment processes** rather than development processes.





# ► Introduction to Repository Manager

- ▶ **Server applications** for managing repositories.
- ▶ **Reduce the bandwidth** used for retrieving artifacts.
- ▶ They provide a target for **deploying the artifacts**.





# ► Reasons to Use a Repository Manager

- ▶ Can be used as a **Maven Repository**.
- ▶ It **saves up time** when downloading files.
- ▶ Increases **standardization**.
- ▶ Increases **collaboration**.



# ► Reasons to Use a Repository Manager

- ▶ Binary files need **metadata** to be stored along with them.
- ▶ Binary files are **not cloned** the way source code is cloned
- ▶ Higher security in **repository managers**.
- ▶

**You manage what you code in Git, and what you build in Nexus.**



## 2 Introduction to Nexus Repository

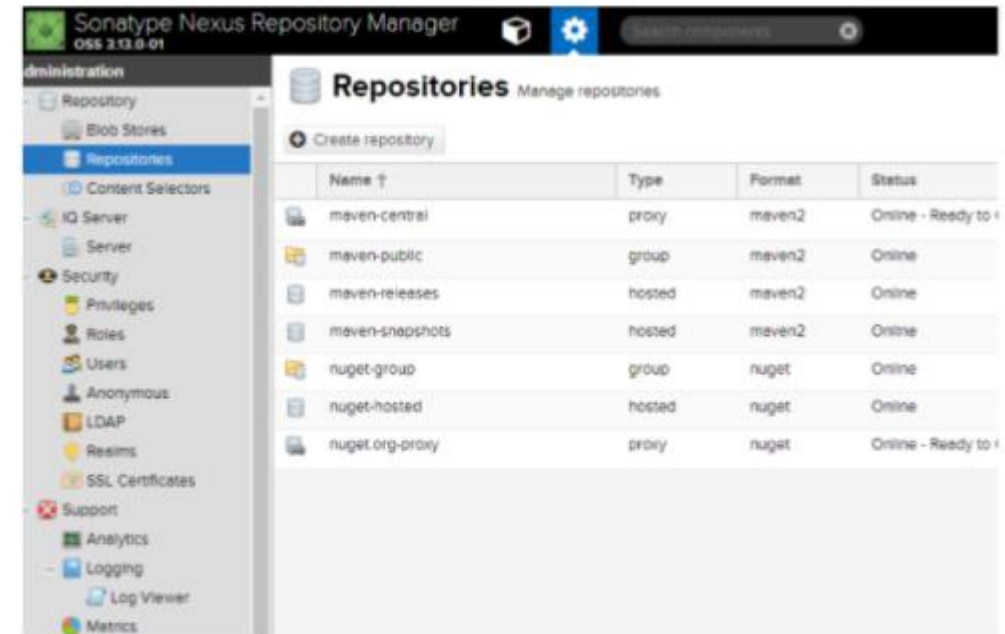




# What is Nexus?

- ▶ **Nexus** is the provider of one of the most popular **repository managers**.
- ▶ Compatible with many **popular tools**.

Use Your Favorite Tools.





# ► Why Prefer Nexus?

- Easy to **install and configure**.
- Fast and easy **searching**.
- **Manage multiple repositories** from different domains.





# Table of Contents



- ▶ Components and Formats
- ▶ Repository Types



1

# Components and Formats



# ► What are Components?

- Components are the **building blocks** of the software.
- **Packages, libraries, containers** are examples of components.
- Open source components are available for use on the internet.
- Examples of component types:

Java byte code

C object files

XML,JS,HTML,CSS





# ► What are Formats?

- ▶ Formats are **ways of storing** components.
- ▶ Every tool has a **different format**.
- ▶ Examples of formats:  
maven2, nuget, docker...

***Maven™***

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2

## Repository Types



# ► What are Repository Types?

- There are 3 repository types in Nexus:

Hosted, proxy and group repository.



maven2 (group)



maven2 (hosted)



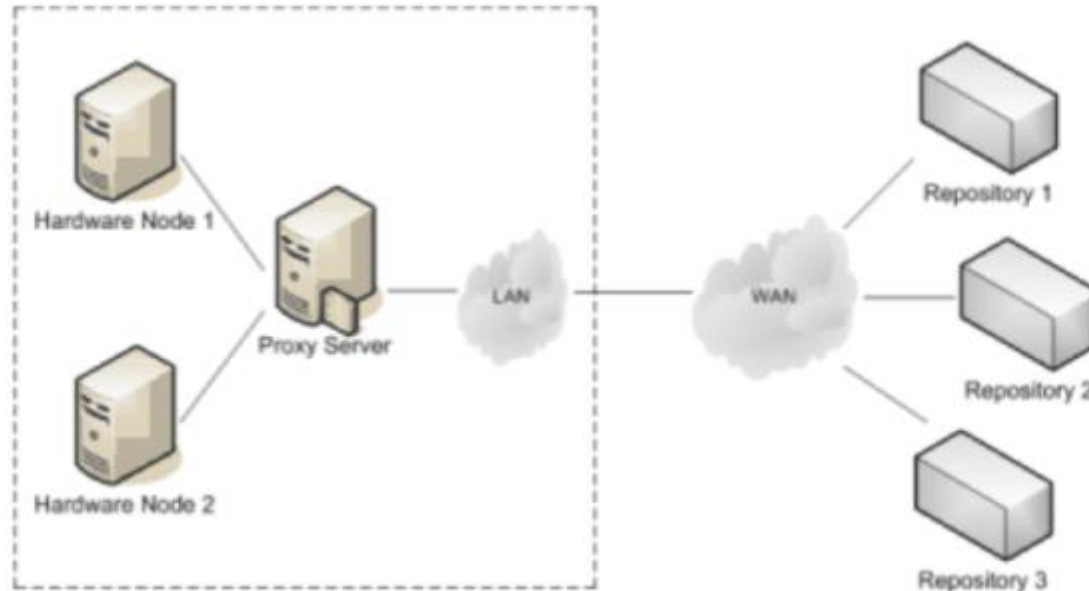
maven2 (proxy)





# ▶ Proxy Repository

- ▶ It is a **bridge** between the computer and remote repository.
- ▶ Components are **cached** in the proxy repository.
- ▶ **maven-central** and **nuget.org-proxy** are 2 built-in configured proxy repositories that come with Nexus Repository Manager.





# ► Hosted Repository

- It comes in handy when components are shared among different teams.
- Maven hosted repository consists of 2 separate repositories:

**Snapshot repository** and **release repository**.

## Releases

A release repository  
is considered a  
production network

vs

## Snapshots

A snapshot  
repository is more  
like a development  
or a testing network



# ▶ Group Repository

- ▶ It consists of **hosted**, **proxy** and other **group repositories**.
- ▶ Has its own **access point**.
- ▶ Both **remote** and **local** components can be accessed.

