**Presentation Topic: JFROG ARTIFACTORY – ARTIFACT MANAGEMENT** 

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Software Test&Requirement Management Engineer(Embedded)

**HCL TECHNOLOGIES** 

Project: HCL-(Argiva -CHM Dev & Support for SMIP)









# JFrog LTD -company profile

- ☐ JFrog is recognized as a global leader.
- The company is privately held and operated from California, France and Israel & Headquarters at **Netanya** (Israel), founded on 2008.
- ☐ India has one branch -Bangalore
- ☐ More than 3,000 paying customers, 60,000 installations and millions of developers globally rely on JFrog's world-class infrastructure for software management and distribution.
- ☐ Customers include some of the world's top brands, such as

  Amazon, Google, LinkedIn, MasterCard, Netflix, Tesla, Barclays, Cisco, Oracle, Adobe

  and Vmware
- ☐ Website: www.jfrog.com

# JFrog LTD - RESOURCES & SUPPORT



# V.I Con

#### RESOURCES

- Resource Center Webinars, articles, white papers, screencasts, use cases, and more
- User Guides -Technical documentation about JFrog products
- Integrations All of the technologies that integrate with Jfrog OR JFROG PRODUCT

https://jfrog.com/integration/ (refer link for technologies)

#### **SUPPORT**

- Get Support-24/7 R&D Level Support
- Ticket Portal -- Existing customers? -Get direct help from JFROG team
- Customer Zone -All the resources you need to manage and troubleshoot your JFrog products
- Knowledge base service Comprehensive self service portal
- Upcoming webinar-Joint our leading tech expert to enrich your knowledge
- Community forum-Ask the Community
- Toll Free: 1-888-494-2855 (For emergency support)

# JFrog LTD - PARTNERS





# JFrog LTD - CUSTOMERS



# JFrog LTD -products



#### We Imagine a World Where Software is Liquid(jfrog image-)

- We envision an industry where software updates run automatically and continuously, as if it were liquid Updates, like water, run freely across the corners of the world.
- We imagine software that is always connected, always flowing, unceasingly.
   Note: Continuous Updates required for Liquid Software

## JFrog LTD -products (continue.,)

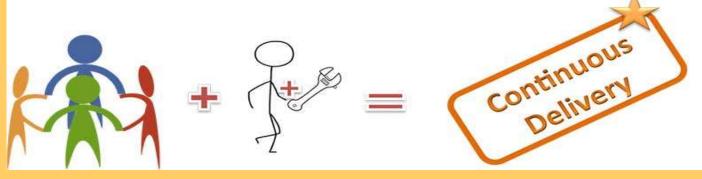
These products are used by millions of developers and DevOps engineers around the world and available as open-source(trail Ver.. Limited period), on-premise and SaaS cloud solutions.

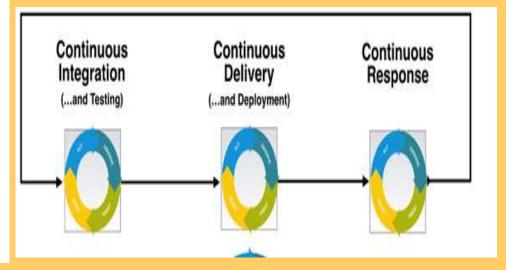
Note: We should be understand about the **SaaS & DevOps** than we could have easily understand the where JFROG Products are used



#### FOR UNDERSTANDING ABOUT THE TOOLS AND USES -MORE IMAGES PLZ REFERE BELOW

DevOps is a <u>Culture</u> of Trust and Collaboration in which <u>People</u> use the Right <u>Tools</u> for Automation to achieve <u>Continuous Delivery</u>





DevOps -Define

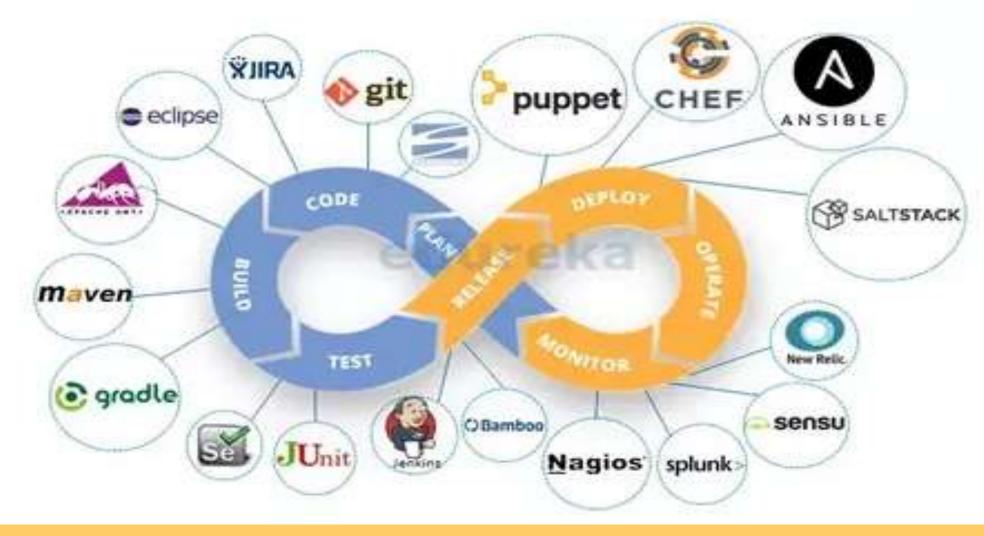
DevOps Flow

Note : Automate Everything: Best Practices and Tools for Your **DevOps Pipeline** 



DevOps LifeCycle : Tools







## Basic understanding ,As we know that as the following tools (specified usage)...

# PERFORCE Version everything Bitbucket







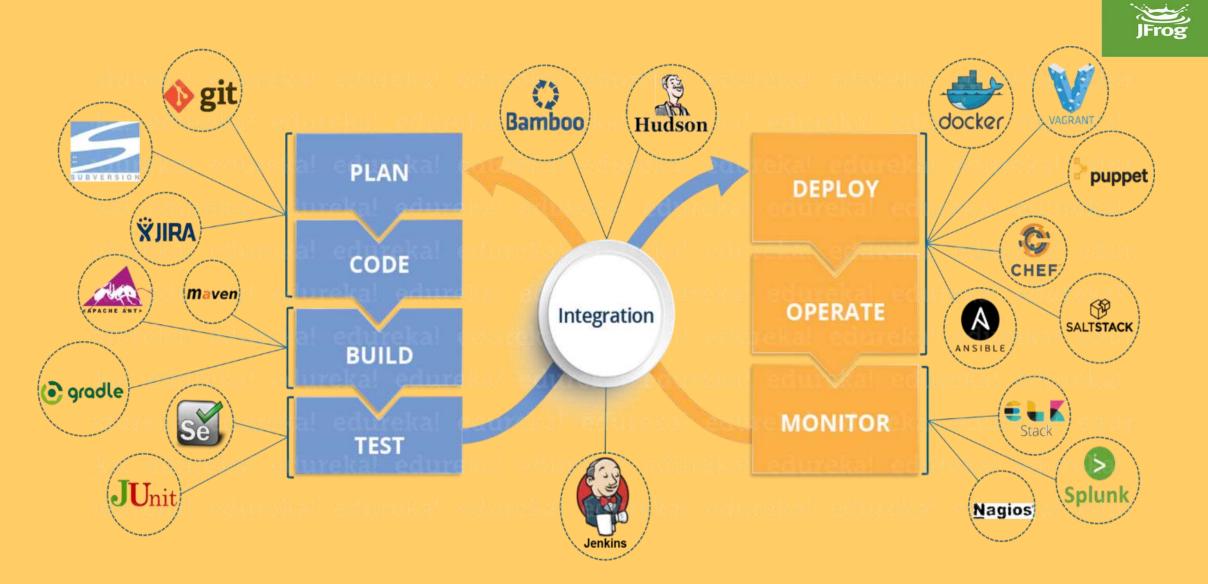




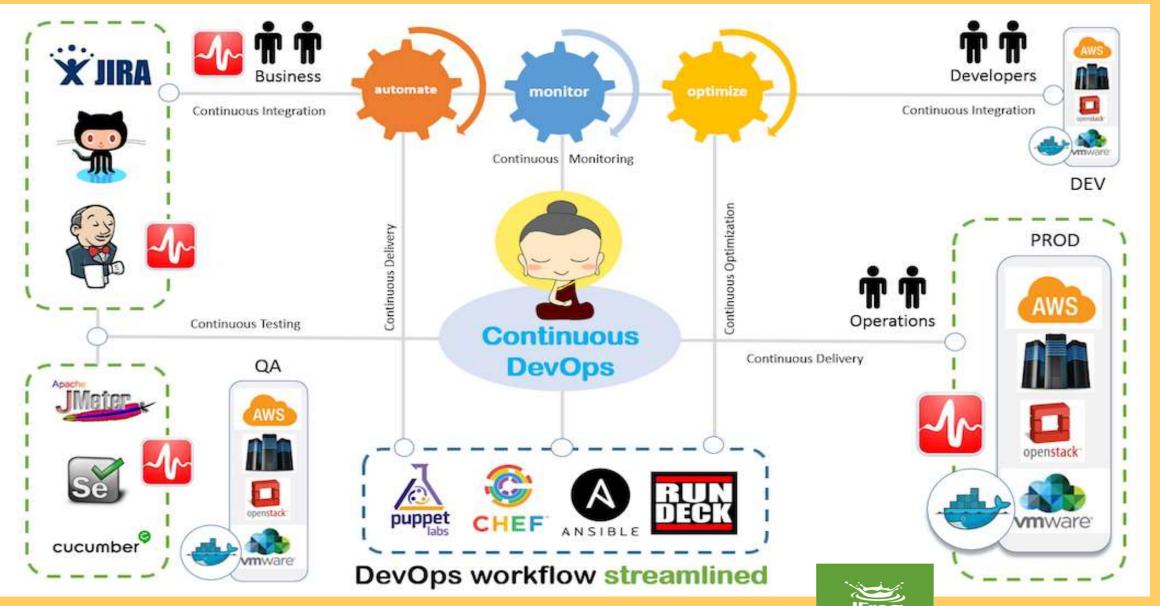




# Basic understanding ,As we know that as the following tools (integration flow.....)



# Basic understanding ,As we know that as the following tools (continuous delivery level...)





# JFROG-ARTIFACTORY -(Enterprise Universal Artifact Manager)



# Describe about "JFROG" Term(overview)

The solution engineer team as "FROG" consists of talented group of engineers who continuously work with "J" for customers in integrating our factory in their Continuous Integration & Deployment (CI-CD) Pipeline.

Note: JFROG have Approximately 3,000 customers across the globe including most of the fortune 500 companies

- JFrog is revolutionizing the software world with the practice of **Continuous Update**, with a speed and continuity that forever changes the way organizations manage and release software.
- Shipping updates continuously and automatically has become a critical element of any successful operation
- jFrog's End-to-End Product Offering
- JFrog Artifactory integrates with the rest of the JFrog product family so all work flows seamlessly.(Ex-Home(things)

## **Define** -JFROG-Artifactory - Universal All Your Binaries In One Place

JFrog Artifactory is the only repository manager that fully supports all major package formats.

JFrog Artifactory happily serving 6,564,044 artifacts

# UPDATE THE UNIVERSE



#### JFROG-Artifactory (Automatic solution)



- Artifactory is the single tool that "talks" to all the different technologies, increasing productivity, reducing
  maintenance efforts and promoting automated integration between the different parts. Designed from the
  ground up to fit into any development ecosystem, Artifactory manages any repository layout offering nativelevel support for all major package formats.
- The JFrog Artifactory Package from **Automic Release Automation** allows you to include authorized binary artifact retrieval as part of visually designed workflows
- This will ensure that what is approved is what is delivered, on demand and consistently across any environment including production.
- This is the key stage of application development, and when completely automated, it allows the dev team to test and build their release multiple times a day
- This stage includes compilation, packaging, and running the automated tests.
- Build automation utilities such as Make, ake, Ant, Maven, and Gradle are used to generate build artifacts.
- The build artifacts can then be stored into an **artifact repository** and deployed to the environments. Artifact repository solutions such as JFrog Artifactory are used to store and manage the build artifacts.
- The main advantage of using an artifact repository is that they make it possible to revert back to a previous version of the build, if that's ever necessary.
- Highly available cloud storage services such as AWS S3 can also be used to store and manage build artifacts.
   Running on AWS for build services, one should consider AWS CodeBuild. Jenkins, one of the most popular open-source tools, can be used to coordinate the build process.

# JFROG -Artifactory -HOW IT WORKS

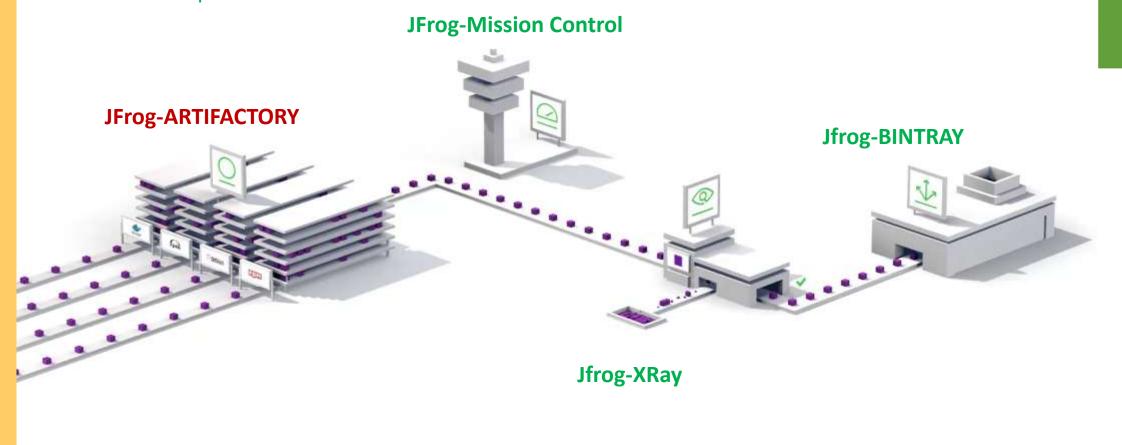


- Automic Release Automation combines an integrated application packaging system, smart deployment models and out-of-the box actions for common deployment tasks with robust workflow design and high volume execution capability
- The Automic Jfrog Artifactory Package allows users to retrieve artifacts or artifact folders from a specific build, build status, or the latest artifact version.
- Optimized for enterprise environments, Automic Release Automation accelerates deployments to all environments from DEV to PROD, from legacy to private/public/hybrid cloud, and ensures the quality of those deployments.
- Several key capabilities make Automic Release Automation the most advanced and complete solution on the market.
- <a href="https://jfrog.com/artifactory/">https://jfrog.com/artifactory/</a> (flash view)

#### JFROG -The Artifactory Difference

- Scales to Infinity Achieve high availability with active/active clustering and multi-site replication for your DevOps setup
  to support your scale.
- Too Integrated to Fail -integrates with your environment giving you the freedom to choose your tool stack. Use Artifactory to unite your CI/CD ecosystem, increase developer productivity and avoid vendor-lock-in
- **Empowers Automation** -Release faster and automate your pipeline via powerful REST APIs.
- **Hybrid Solution, Cloud or On-Prem-** Deploy Artifactory on-prem, in the cloud, or in a hybrid model.
- **Multi-Site Replication** Zero downtime on your Dev and Ops floor. Achieve High Availability with active/active clustering of your DevOps environment and scale as your team grows.
- Unbeatable 24/7 R&D Level Support- We provide around the clock help from the best support team in the industry.

**Software in the Fast Lane-**JFrog's solution is a fully automated pipeline for distributing trusted software releases. It connects all developers and DevOps engineers to end devices and ensures software flows quickly and free from interruption.



# Jfrog-Xray (Continuous Security and Universal Artifact Analysis)



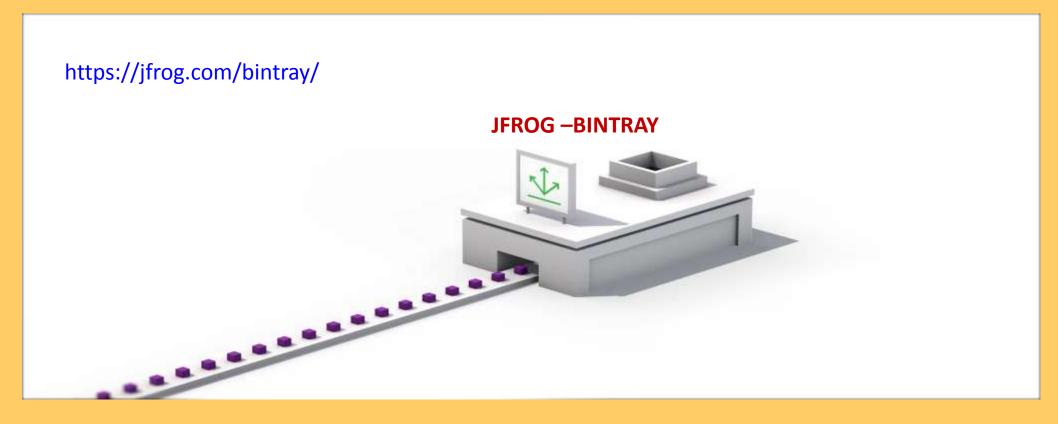
- Multilayer analysis of your containers and software artifacts for vulnerabilities, license compliance and quality assurance,
- Continuously govern and audit all artifacts consumed and produced in your CI/CD pipeline.



# JFROG -BINTRAY Universal Distribution Platform

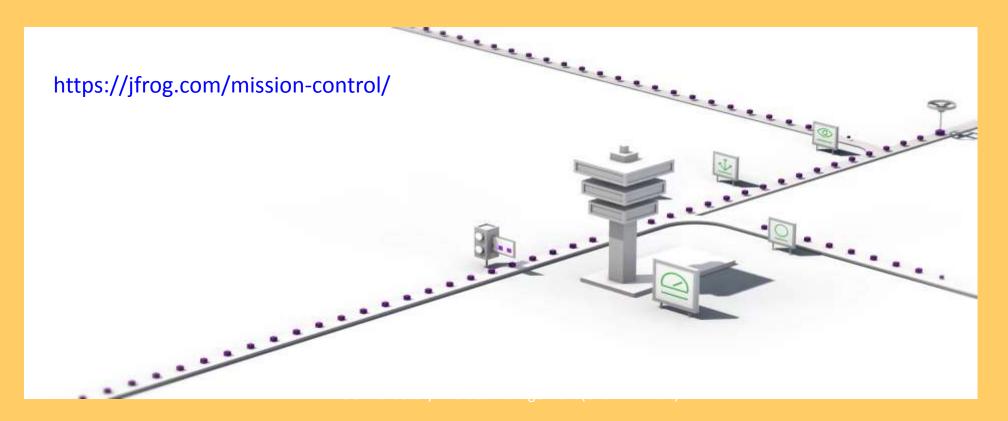


- Gear-Up your artifact management and distribution
- Your end-users expect an Enterprise level platform, reliable, scalable, secured and available everywhere anytime
- Complete distribution as a service for your artifacts



# JFROG - MISSION CONTROL -From Artifact launch until landing, DevOps Management at Scale

- Understand the flow of artifact assets between sites to maximize productivity
- JFrog Mission Control provides you with an easy way to explore your managed sites and their services, on a geo-location map and a list view.
- JFrog Mission Control is a DevOps worry free dashboard solution that offers a bird's-eye view of all your Artifactory and Xray services. Configure and view all services under your administrative control whether they are installed on your own site or at geographically remote sites around the world.



# **Artifactory is a Universal Repository**



**DEV** 

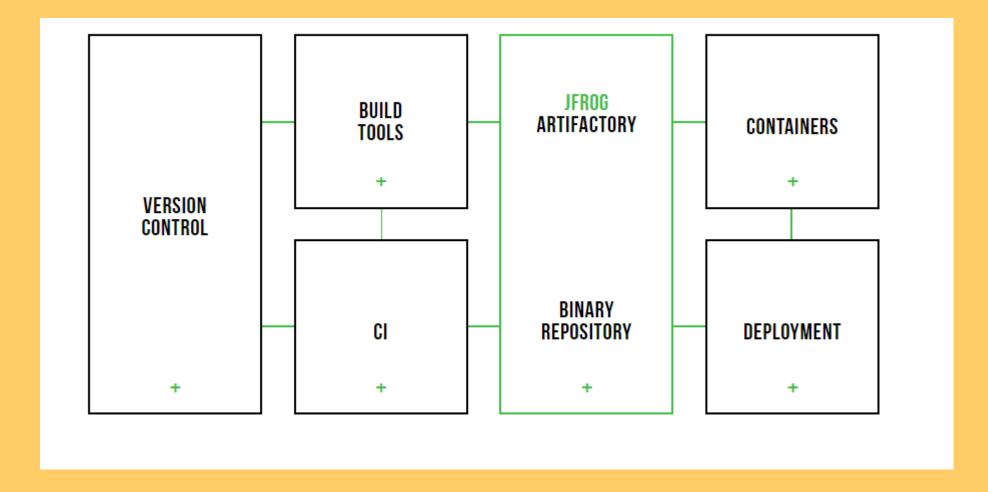


**OPS** 



# Manage JFROG -Artifact Lifecycle-BLOCK DIAGRAM





Should be note over here + SYMBOL Shows adding(as per requirement in to tool and antifactory get update(every individu



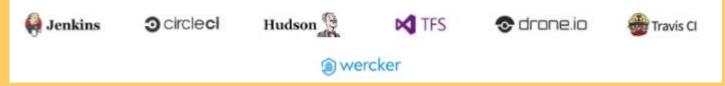
#### **VERSION CONTROL**



While Version Control is great for sources, you shouldn't check-in binaries files.

#### CI

Leverage Artifactory CI plugins to automate CI/CD pipeline and capture critical information about the build process.



#### **BUILD TOOLS**

Add a layer of control by using Artifactory as repository with which the Build tool interacts





#### **CONTAINERS**

Use metadata about an environment image and application file to gain consistency and transparency into your images and containers

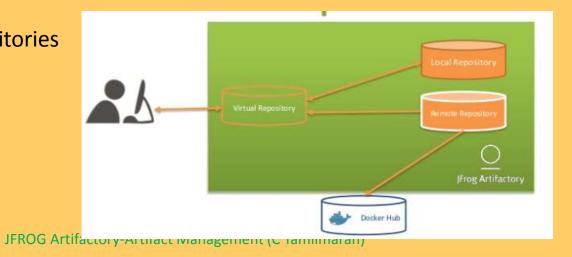


#### **DEPLOYMENT**

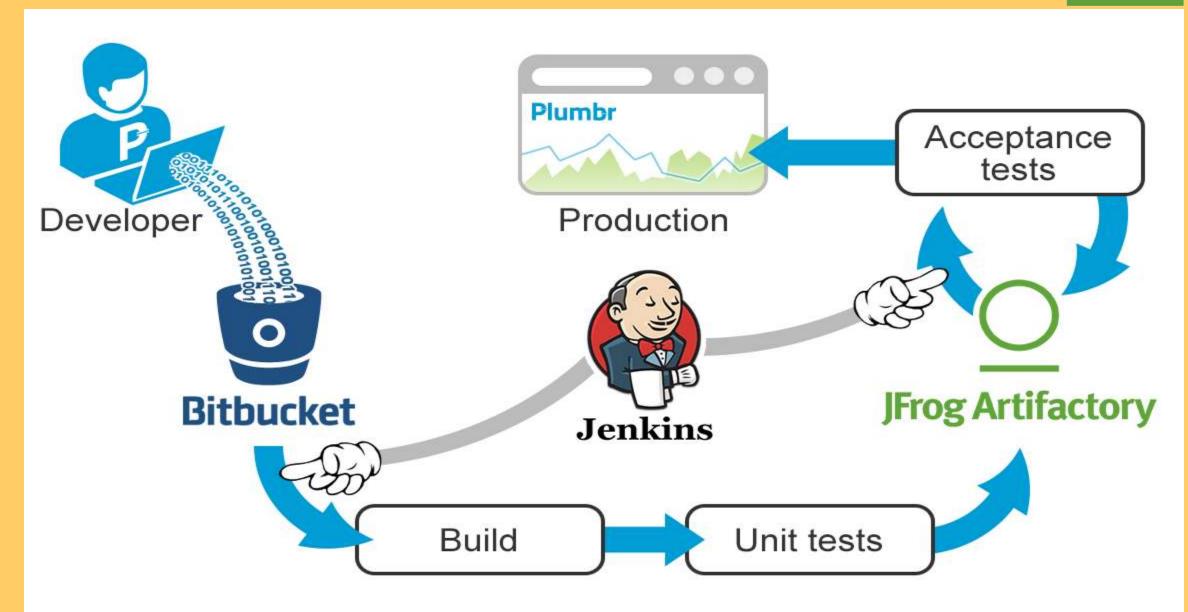
Integrate your CD tools with Artifactory to release faster and more reliably to your environment.



**Note:** Artifactory Virtual Repositories

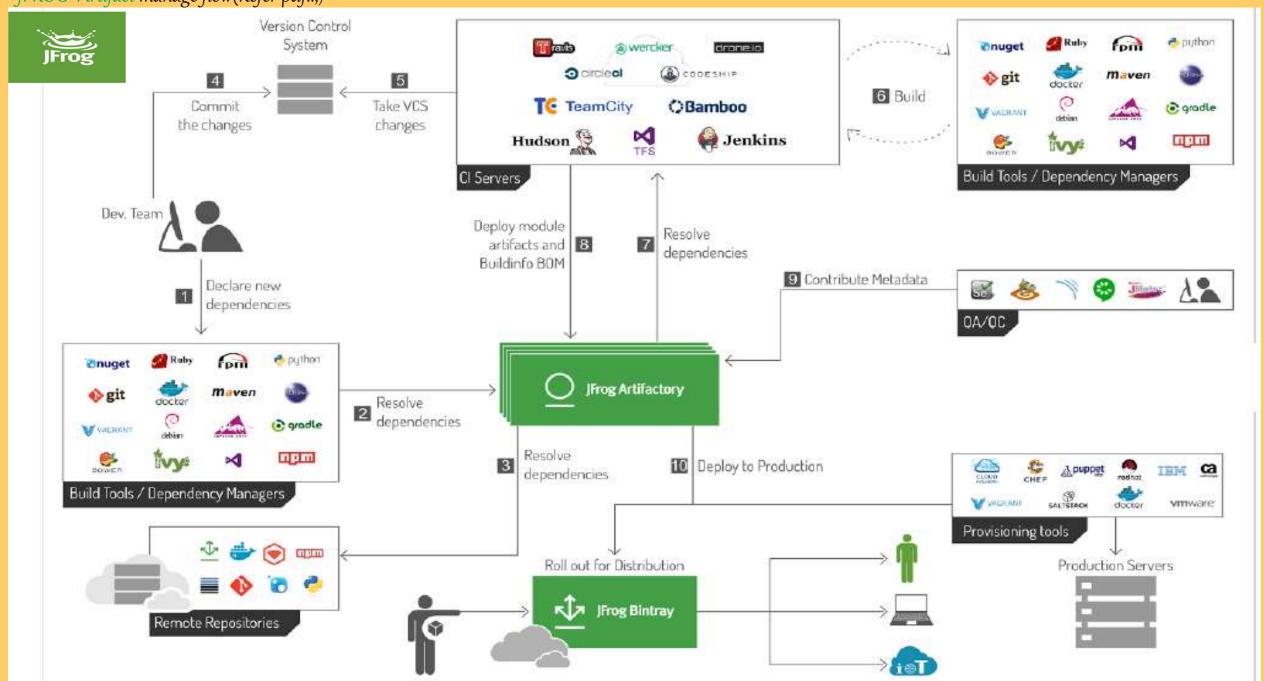




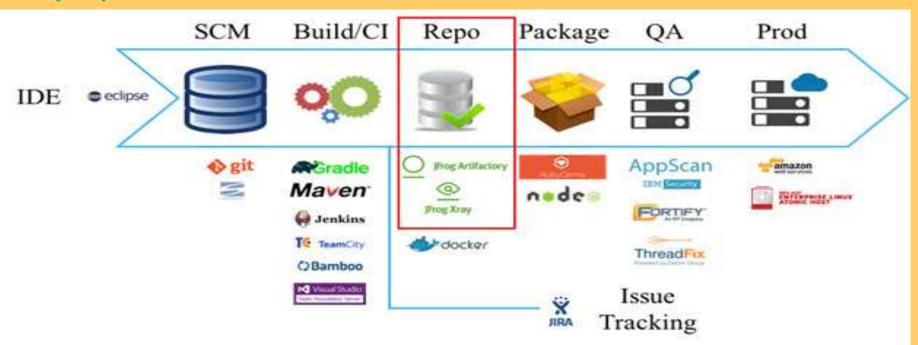




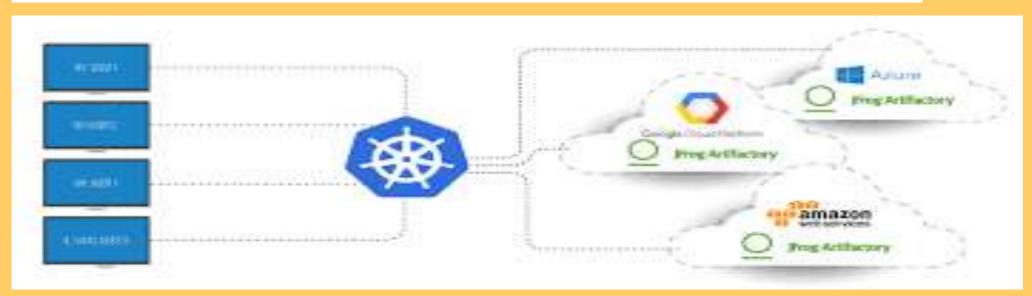
JFROG -Artifact manage flow(Refer pdf.,,)



#### JFROG -Antifactory MANAGED (AFTER DONE)





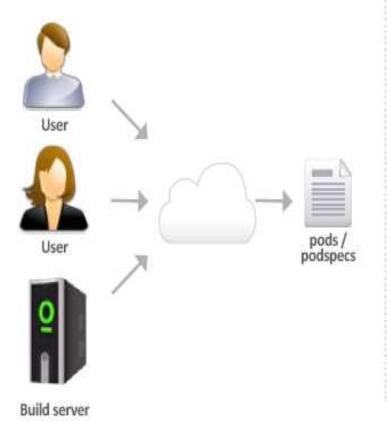


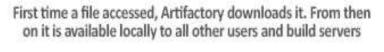


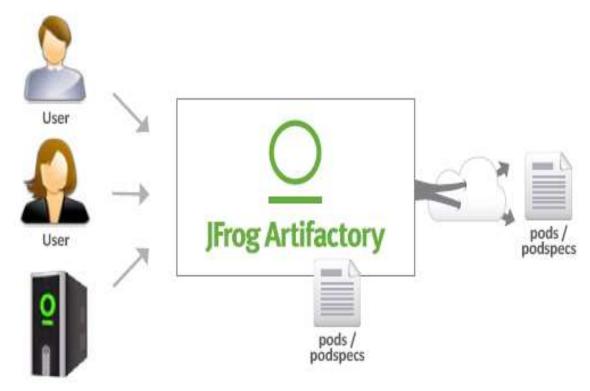
#### Before

#### After

#### Different users and build server download the same file







Build server

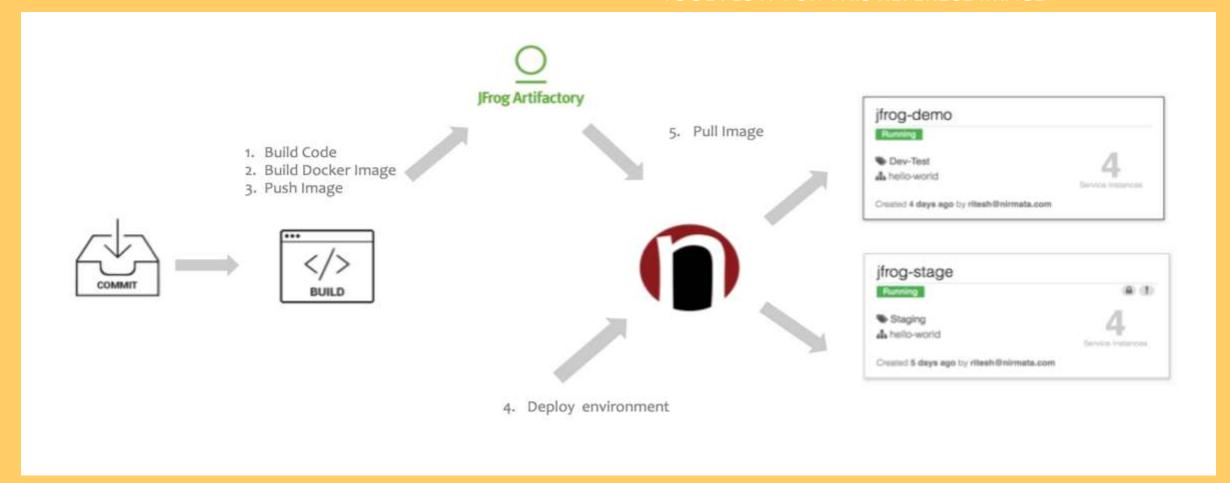




#### WE WILL INTERACT WITH THE TOOL IN REAL TIME......



#### TOOL FLOW FOR THIS REFERECE IMAGE



Plz Refer as follows pdf (Which I have emailed up)

1 JFrog Artifactory Image Guide V5.4\_Tool



# **Advantages-JFROG Artifactory-Artifact Managers**

- Integrating a binary repository into a Continuous Delivery pipeline or a Continuous Deployment process
- Standardize the use of a binary artifact library for repeatable, secure, and consistent results
- Ensure only the right artifacts are accessed by the right credentials at the right time
- Promote more reliable rollbacks if a deployment fails
- Perform Continuous Deployments from an immutable, and approved set of binaries

## Disadvantages

- On prem version needs to be managed
- Could be expensive

#### HOW DO WE UTILIZE TO HCL PROJECT(ARQIVA — CHM dev & SUPPORT FOR SMIP)?

- Mostly It shall be used to manage the SMIP ARTIFACT (Which ever used devices like SM,CHM,DCC-CSP,DSP, etc)
- In SMIP whatever using all the Tool validation and development should be continuous integration and development(R&D)

#### **DEVOPS TOOL-Automated**

JAMA

**ALMSmart** 

**JIRA** 

SonarQube

Junit

JFrog Artifactory

Maven

**Jenkins** 

Chef

**Bamboo** 

Selenium

Splunk

**Jboss Fuse** 

**CAST** 

**Active MQ Message** 

**Broker** 

**OBIEE** 

**Jmeter** 

**HP ALM** 

HP ALM

Livelink

VeraCode

Liquibase

Informatica - ETL

Cucumber

**TestComplete** 

**Fortify** 

**SVN** 

Mostly existing in Arqiva(May be

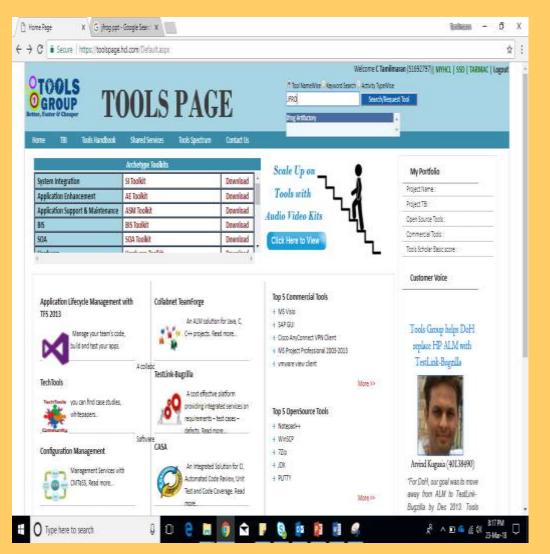


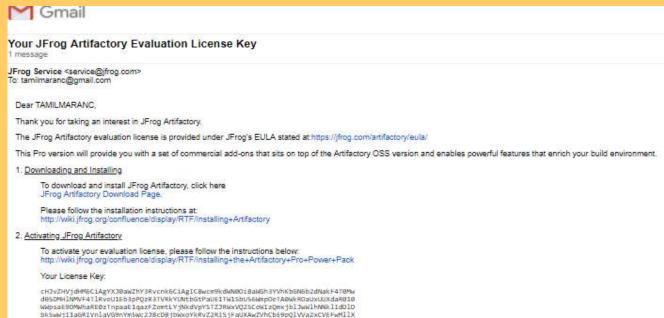
How to register for trail

https://jfrog.com/pricing/

- Artifactory On Prem
- Artifactory Cloud







Your JFrog Artifactory trial will expire on: Apr 23, 2018

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If you need assistance, please don't hesitate to contact us at support@frog.com

We look forward to getting your feedback, and wish you a powerful Artifactory experience.

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cnUycEhlK21qNwtLwGIZcwg4NVE1NGNWdlBSczVVRldXbzQ5b8ZKOTltTkpTa2RhTlJ3RnVzUktG SVpKRkJVcEdIUFkzcnBSaEFkbm3PN21jNnZlV8IyV21Pa8oyQzkvd3QvcHVZazkwSmpL5VNmc1k2

TElBQ3dUMVdhRHk5bFF3QXErdBdGdBQXaXpSUVBZQnhQUThEom5VQ2tUVmVkUFFFQXlQZU1iOWt3

Best regards.

The JFrog Team

https://www.jfrog.com







# TUAT'S ALL, FOLKS





