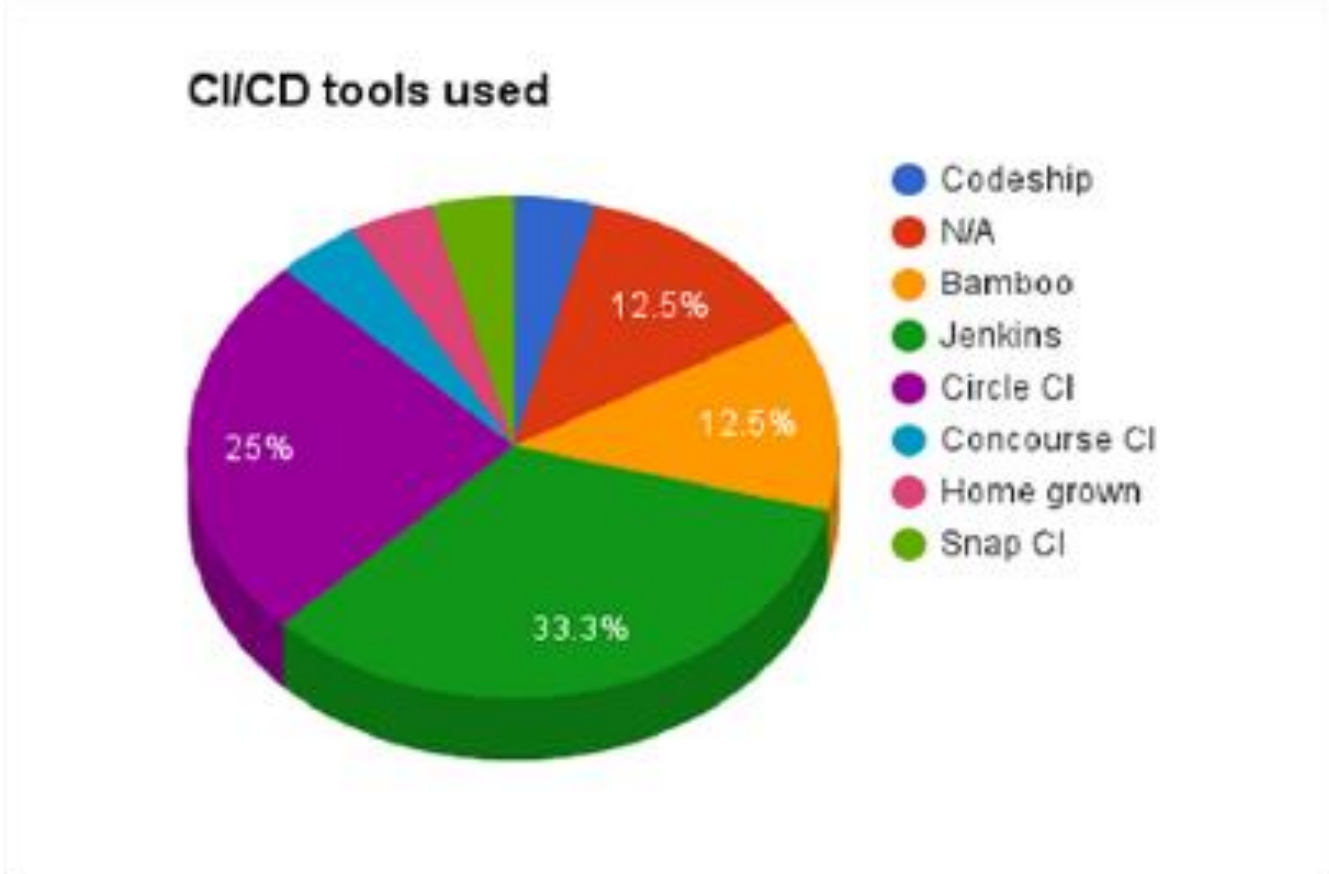
VS

Jenkins - History

- 2005 - Hudson was first release by Kohsuke Kawaguchi of Sun Microsystems
- 2010 – Oracle bought Sun Microsystems
  - Due to a naming dispute, Hudson was renamed to Jenkins
  - Oracle continued development of Hudson (as a branch of the original)

Jenkins



CI/CDelivery tools used by participants

Installing and Configuring Jenkins

JDK	JDK 1.7 or above
Memory	2 GB RAM (recommended)
Disk Space	No minimum requirement. However, all builds will be stored on the Jenkins machines, it has to be ensured that sufficient disk space is available for build storage.
Operating System Version	Jenkins can be installed on Windows, Ubuntu/Debian, Red Hat/Fedora/CentOS, Mac OS X, openSUSE, FReeBSD, OpenBSD, Gentoo.
Java Container	The WAR file can be run in any container that supports Servlet 2.4/JSP 2.0 or later.(An example is Tomcat 5).

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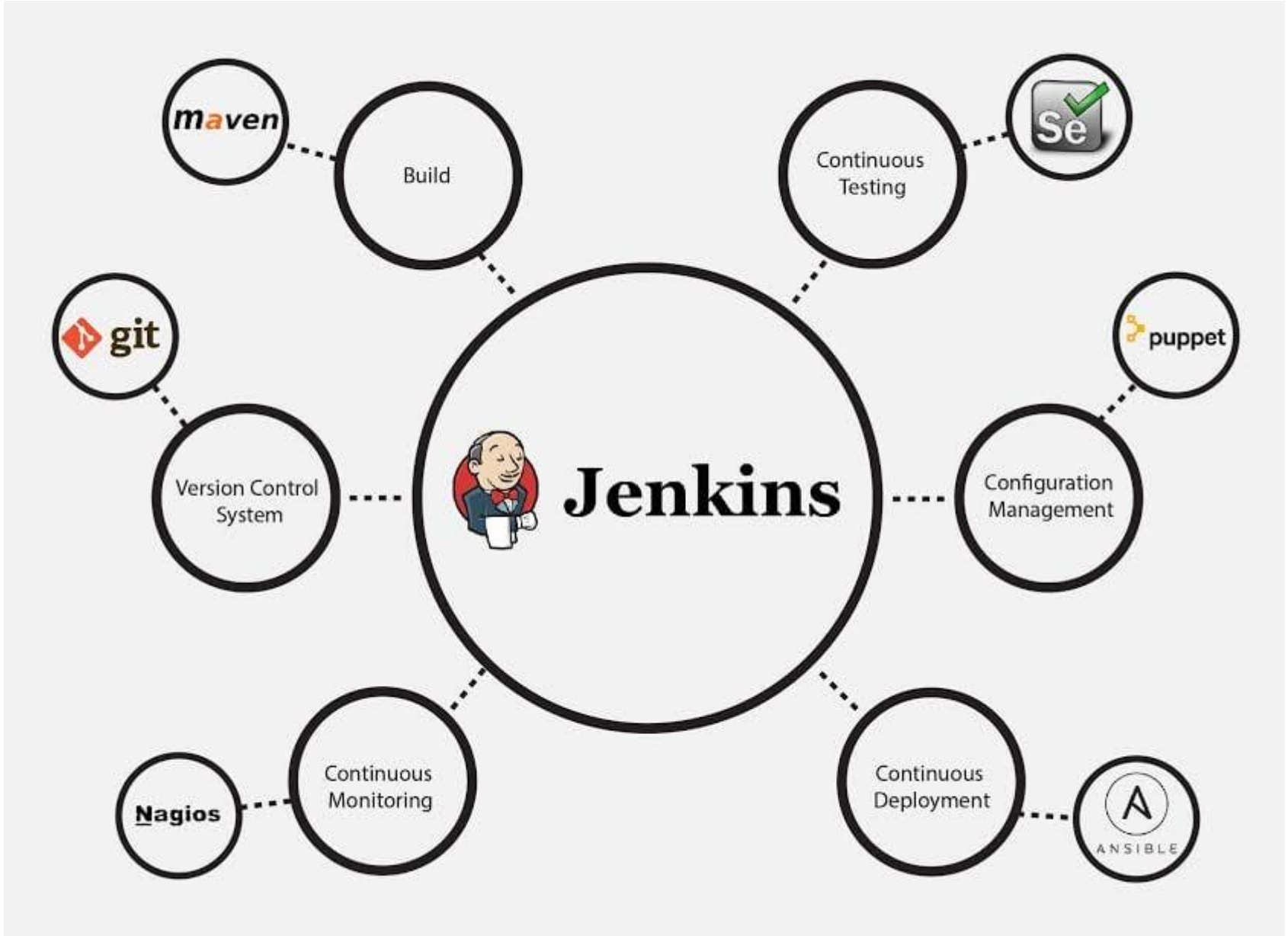
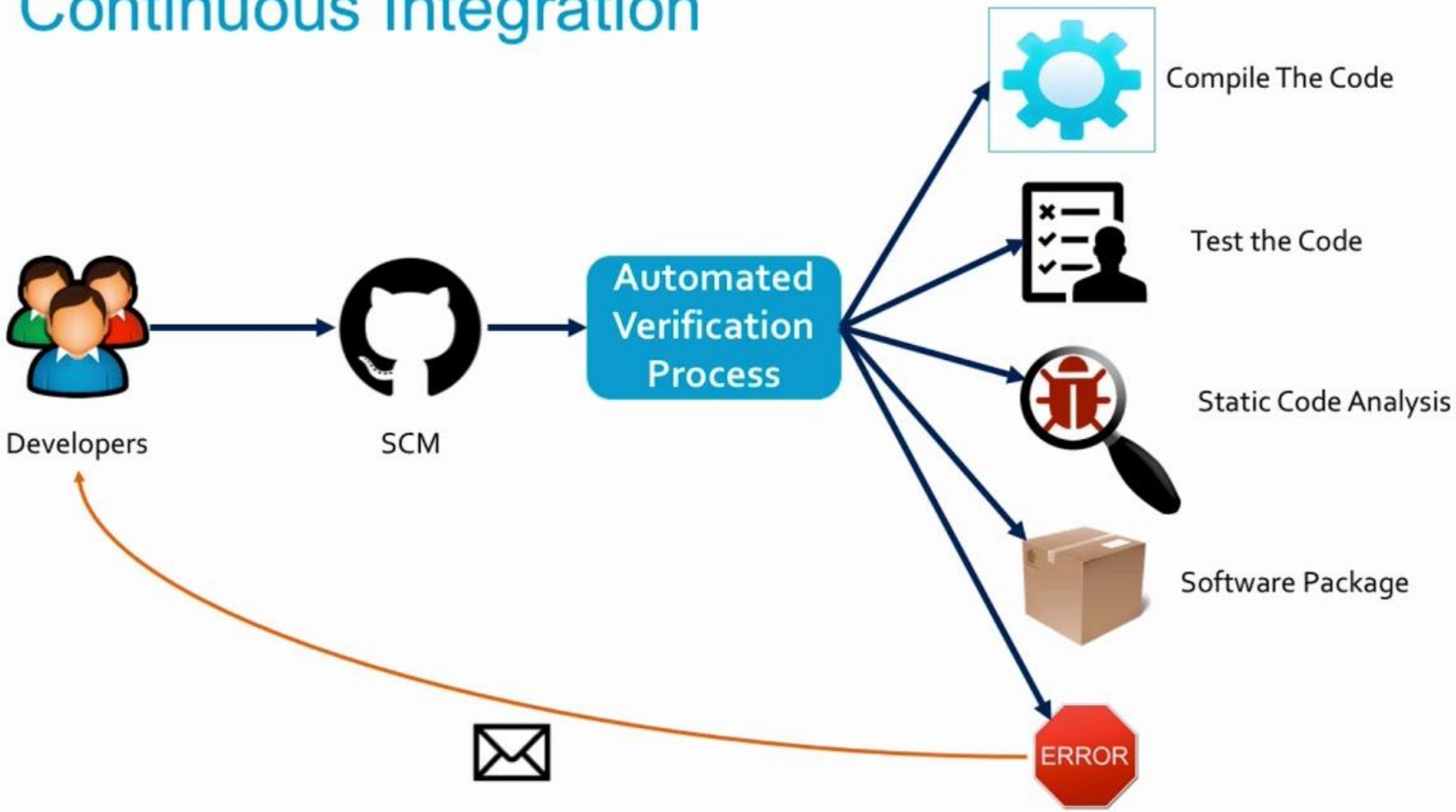
Jenkins

- Branched from Hudson
- Java based Continuous Build System
- Runs in servlet container
  - Glassfish, Tomcat
- Supported by over 400 plugins
  - SCM, Testing, Notifications, Reporting, Artifact Saving, Triggers, External Integration
- Under development since 2005
- http://jenkins-ci.org/

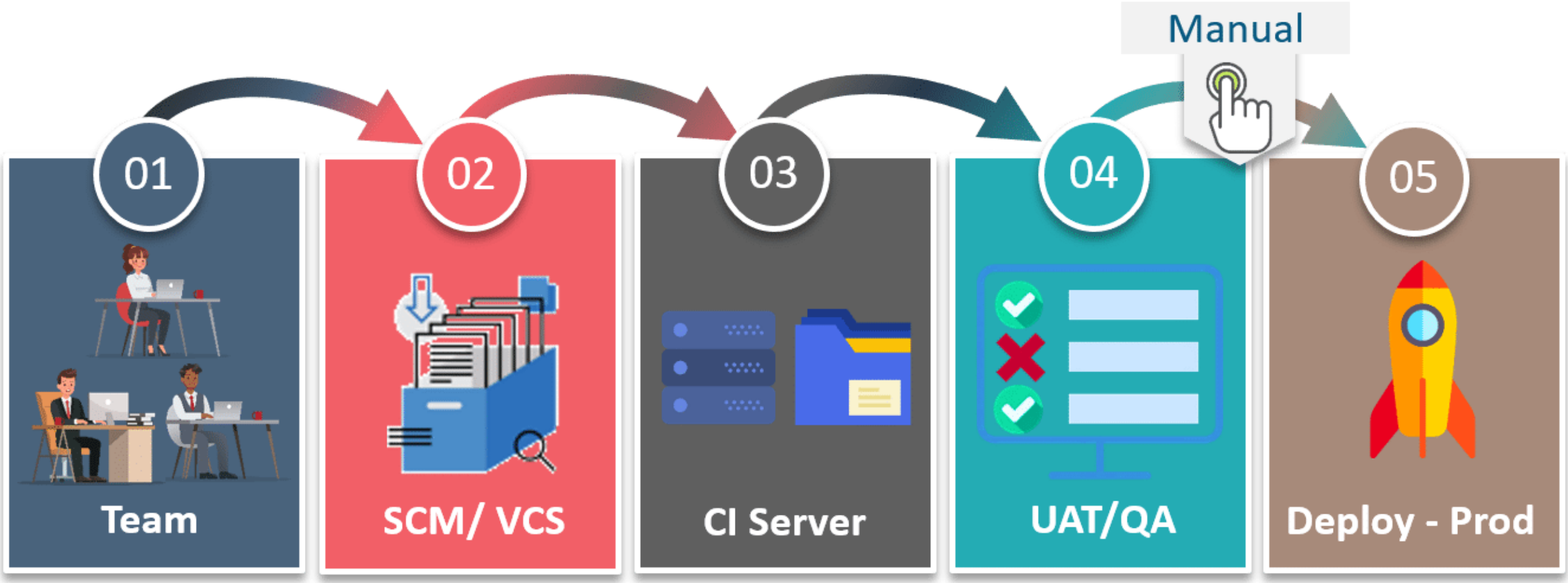

maven
Build
Continuous Testing
Se
git
puppet
Version Control System
Jenkins
Configuration Management
Nagios
Continuous Monitoring
Continuous Deployment
ANSIBLE

Before Jenkins	After Jenkins
The entire source code was built and then tested. Locating and fixing bugs in the event of build and test failure was difficult and time consuming, which in turn slows the software delivery process.	Every commit made in the source code is built and tested. So, instead of checking the entire source code developers only need to focus on a particular commit. This leads to frequent new software releases.
Developers have to wait for test results	Developers know the test result of every commit made in the source code on the run.
The whole process is manual	You only need to commit changes to the source code and Jenkins will automate the rest of the process for you.

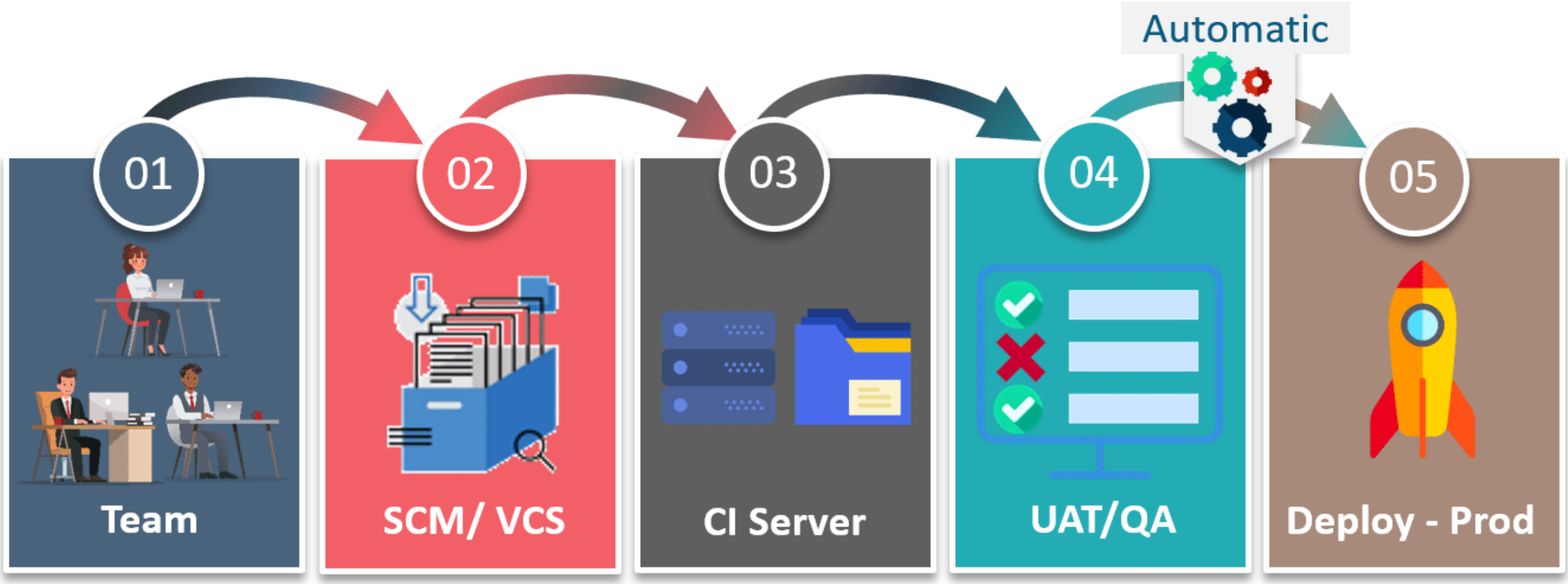
Continuous Integration



Continuous Delivery



Continuous Deployment



Continuous Integration

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Automated software release

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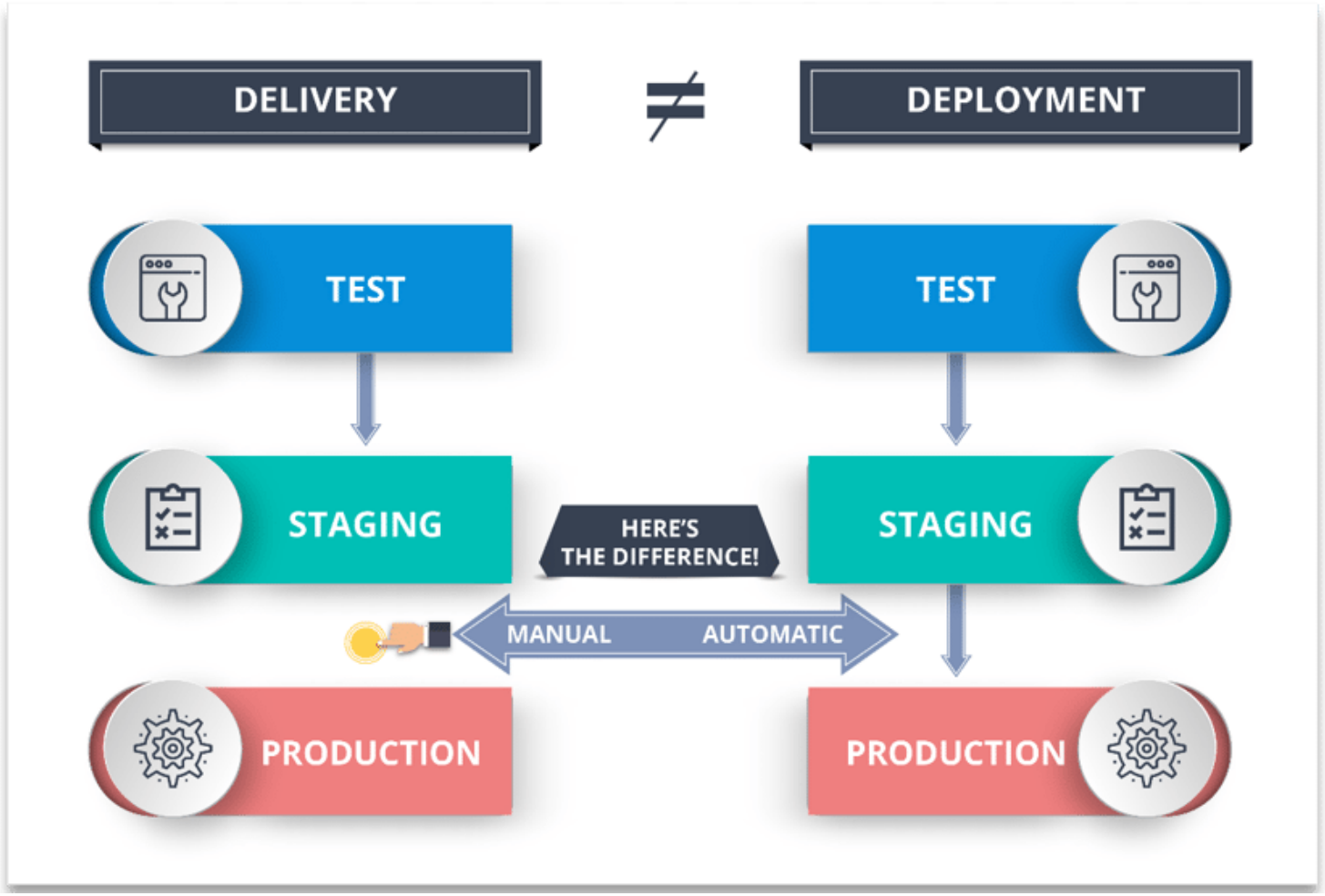
Manual Deployment To Production



Continuous Integration

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Continuous Delivery

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Automated Deployment To Production

Jenkins Installation :

- **With War File**
  - **With TOMCAT**
  - **With JAVA Direct Deployment**

- **Direct Deployment with YUM**

- **With Docker Image**

Topics:

- Jenkins Overview
- Installation and Configuration
- User Administration
- Plug-in Management
- Backup & Maintenance
- Master/Slave Concept
- Integration with multiple tools
- Job Creation
- Deployments with Pipeline Code
- . With Groovy Script
- . With Pipeline Code
- Email Alert setup
- Java & NodeJs Deployments
- Jenkins Deployment on Remote mechines