Solution Brief

IBM Dependency Based Build

Support open source DevOps pipeline including traditional Z artifacts

IBM

Today, IT velocity is a strategic lever for companies. While the distributed world implements the DevOps fundamentals to meet this challenge, the Mainframe world lags.

However, it represents an essential part of the Core IT and it is integrated into most of the main evolutions of the Information Systems.

Therefore, IBM proposes a radical change for development on IBM Z®: integration into the DevOps approach and use of the market leading development tools, especially in the Software Configuration Management and Pipeline Orchestration areas.

Challenge

Modernize the development practices:

- Facilitate the generation renewal.
- Open to new abilities.
- Increase the productivity and the reliability of developments.

Enpower the development team.

- Make the development team autonomous on the whole cycle.
- Encourage exchanges between the entities.
- Harmonize the development practices on Mainframe / Distributed environment.

Increase the velocity & security of multi-technology delivery by converging onto a single pipeline.

96% of the new IT initiatives are provided by both the Mainframe and the distributed environment. However, these two parts of the same application are delivered according to different methods and frequencies.

This causes up to 45% of failures for a delivery frequency from once a month to once a week.

The IBM solution

Integrated with modern Development Environments (IDE)

Developers can use a modern IDE to access to Git repository, modify their code and then trigger builds on Z from this environment.

This opens development teams for integrating standard development tools and helps restore development attractiveness on Z.

Integration to the enterprise CI / CD with standard tools such as Git, Jira, Jenkins, etc.

IBM Nazare integrates modern market-leading tools to define a pipeline adapted to your organization according to your needs.

ZOD helps you develop your mainframe application sources using Git as the Software configuration manager (SCM).

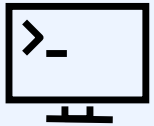
It also includes a building process based on dependencies (IBM Dependency Based Build), which can be integrated into a continuous integration process (CI/CD).

Self provisioning

In IBM Z, applications can also benefit from Cloud Ready development and test infrastructures with Z Development and Test (ZD&T) to isolate the development cycles and manage the test activities.

By integrating seamlessly to pipeline orchestrators and binaries repositories such as Jfrog Artifactory, DBB opens the door to providing the same degree of isolation in testing environments than the one modern SCM are providing at coding level.

IBM Dependency Based Build brings consistency for managing continuous integration among the multi-cloud and the Z developers by allowing Z artifacts on a pipeline very similar to the one already operated in distributed teams.



Open and popular Integrated Development Environment (IDE)

26 to 50 %

Improvement of the developers' productivity
(S&P Health care company)

85 %

Reduction on the integration of new programmers

(Fiducia)

Modern delivery pipeline

90 %

On-time delivery (60% previously)
(Nationwide)

10 to 25 %

Improvement of team productivity
(coupled with test automation)

(Bank of Montreal)

Self-provisioning

71 %

Z customers think that the inflexibility of their mainframe limits the ability of the IT department to innovate.

(IDC, BMC, Microfocus)

Learn more

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For more information on IBM DBB:
www.ibm.com/products/dependency-based-build

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