Beating the Bottlenecks – A New Approach to Mainframe Delivery

A DevOps.com / Techstrong Webinar
18 JUN 25

POPUP MAINFRAME

Featuring a guest host from:

Futurum

Today's speakers

Gary Thornhill

Founder and Product Leader,
PopUp Mainframe

Bronwyn Davies

Head of Development,
PopUp Mainframe

Derek Britton

Senior Strategy Leader,
PopUp Mainframe

Guy Currier

Analyst,
The Futurum Group

Agenda

1. Market Background (Derek Britton)
2. Beating Bottlenecks – A new approach (Gary Thornhill)
3. The PopUp Mainframe product (Bronwyn Davies)
4. Resources, Q&A

POPUP MAINFRAME

1. Market Background

The IBM mainframe—here to stay

- **98%** rely on the IBM mainframe to run their organization
- **94%** confirm their “potential to leverage additional workload capacity on specialist / Linux environments on Z”
- **97%** seek to make “increased use” of specialist mainframe processors

Source: IBM.com

Source: Mainframe Decision Makers’ responses, Mainframe Market Survey, Vanson Bourne, 2025

Yet market data shows that mainframe delivery is critically challenged

- **96%** experience development and testing challenges using the IBM mainframe
- **88%** have concerns over the availability of mainframe environments
- Nearly a third say **4 or more separate teams** are involved in a standard mainframe delivery
- Staffing limitations and poor tooling (**both 79%**) are hindrances to meeting business objectives

Source: Mainframe Decision Makers' responses, Vanson Bourne, 2025

...and that strategic goals are being hampered

Bottlenecks are undermining business objectives

Cost Efficiency	Flexibility	Speed of Delivery	Risk Management	Sustainability
90%	**86%**	**81%**	**90%**	**86%**
Greater cost efficiency is needed in mainframe delivery	Improvements are needed in mainframe delivery flexibility	Improvements are needed in delivering in a shorter timeframe	Improvements are needed in risk and compliance efforts	Improvements are needed in sustainability objectives

Source: Mainframe Decision Makers' responses, Vanson Bourne, 2025

POPUP MAINFRAME

2. The PopUp Mainframe solution

PopUp Mainframe

Revolutionizing Mainframe Delivery

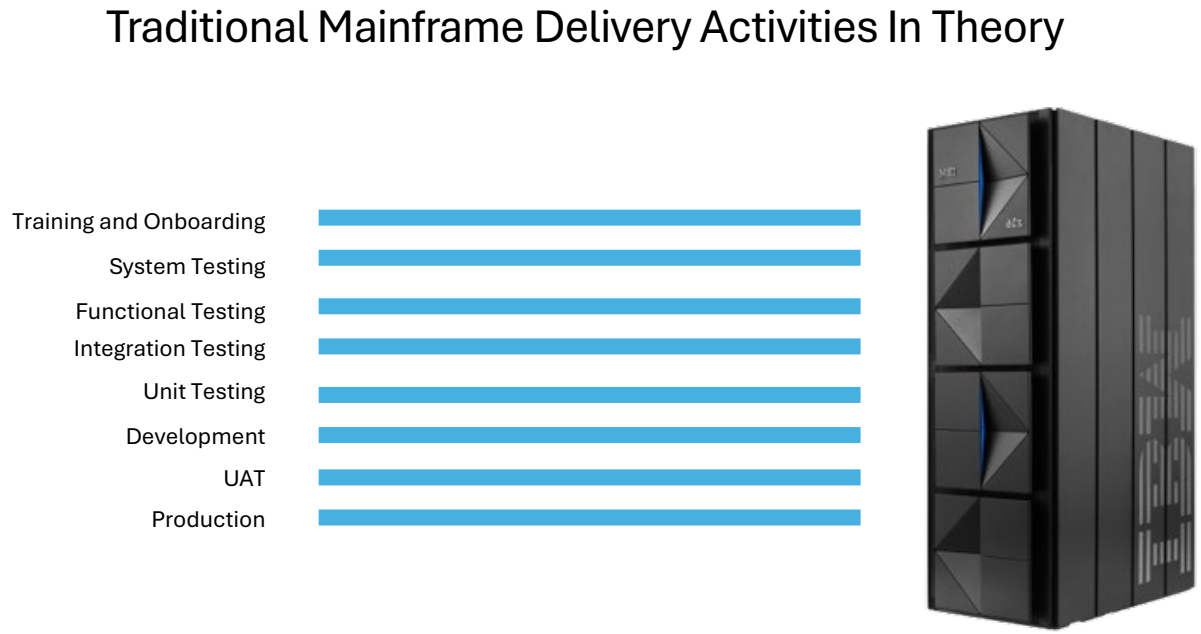
POPUP MAINFRAME

An instantly available mainframe environment to accelerate urgent development and testing activities

Functionally equivalent to z/OS , PopUp Mainframe runs on Linux on Z, LinuxOne, or Cloud / On-prem based x86 servers

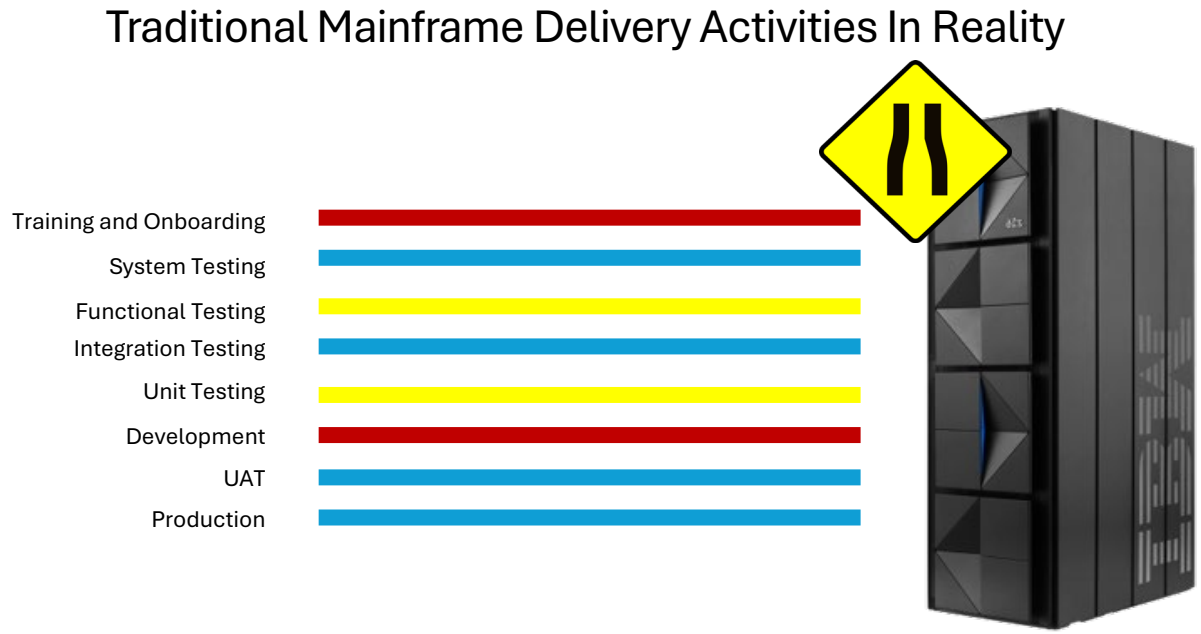
How it works

The problem: mainframe change needs to change...



How it works

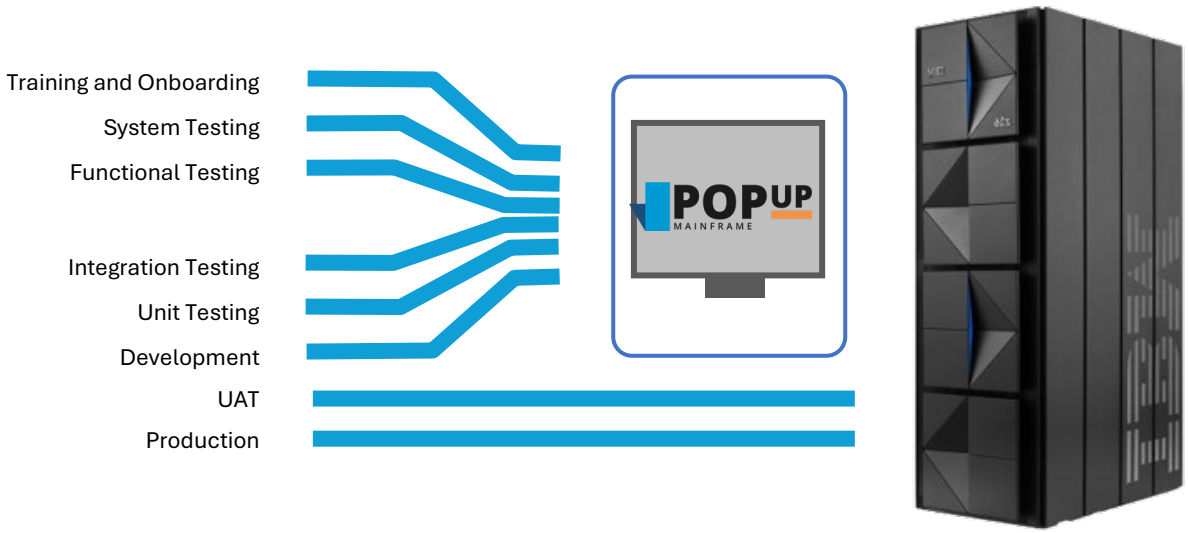
The reality: lack of environments and capacity hampers delivery schedules and slows down mainframe change



How it works

PopUp Mainframe adds z/OS-compatible processing power - whenever you need it - to overcome bottlenecks and accelerate mainframe deliveries

Scalable, Flexible Mainframe Delivery using PopUp Mainframe



How does it work?

Any data, any integration – PopUp is a fully compatible, virtual mainframe environment

No Data Risk

Full, compliant data masking capability – or data can remain on Z

Integration with everything

Compatible with IBM, 3rd party and opensource mainframe and DevOps tools

Full z/OS equivalency

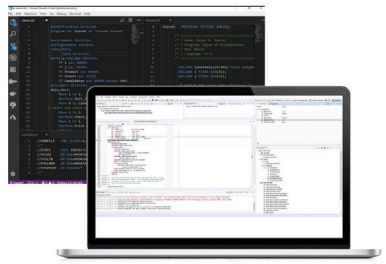
PopUp Mainframe behaves like z/OS – and supports all z/OS software and subsystems

How does it work?

Immediately available and disposable, PopUp Mainframe is fully accessible to all mainframe backgrounds

Start/Stop in Seconds

Initiate / shutdown PopUps in moments for full flexibility and power and emissions savings



Accessible, Available

Instant availability via ISPF or your choice of GUI to support broad, rapid adoption and usage

Strategic Benefits

Make tangible gains across key business objectives

Cost Efficiency

Reuse existing platforms to accelerate deliveries and protect production MIPS

Flexibility

Start key dev, test, training work any time – instantly – to maximise productivity

Speed to Market

Increase delivery velocity by 400% by removing needless delays

Compliance

Maintain critical data compliance in mainframe testing – keep data on Z

Sustainability

Switching off idle resources can reduce emissions and power usage by up to 50%

POPUP MAINFRAME

3. Product Overview

Basic delivery process using PopUp Mainframe

How PopUp Mainframe gives ready-access to critical mainframe environments

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Development → Build & Test → Pre-Production testing → Deploy to Production

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PopUp Mainframe instances can be quickly deployed and integrated into incumbent mainframe delivery processes

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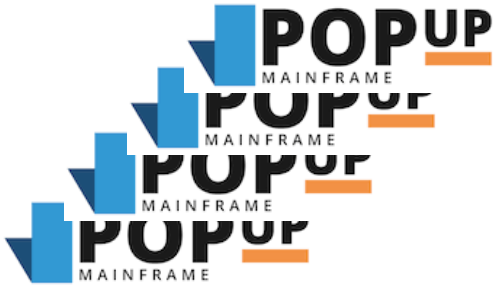
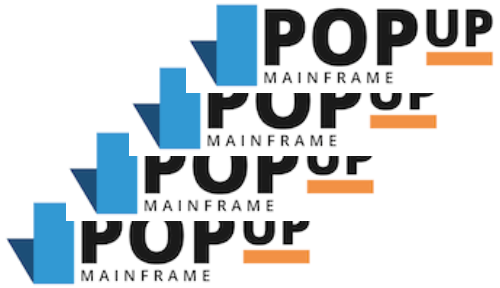
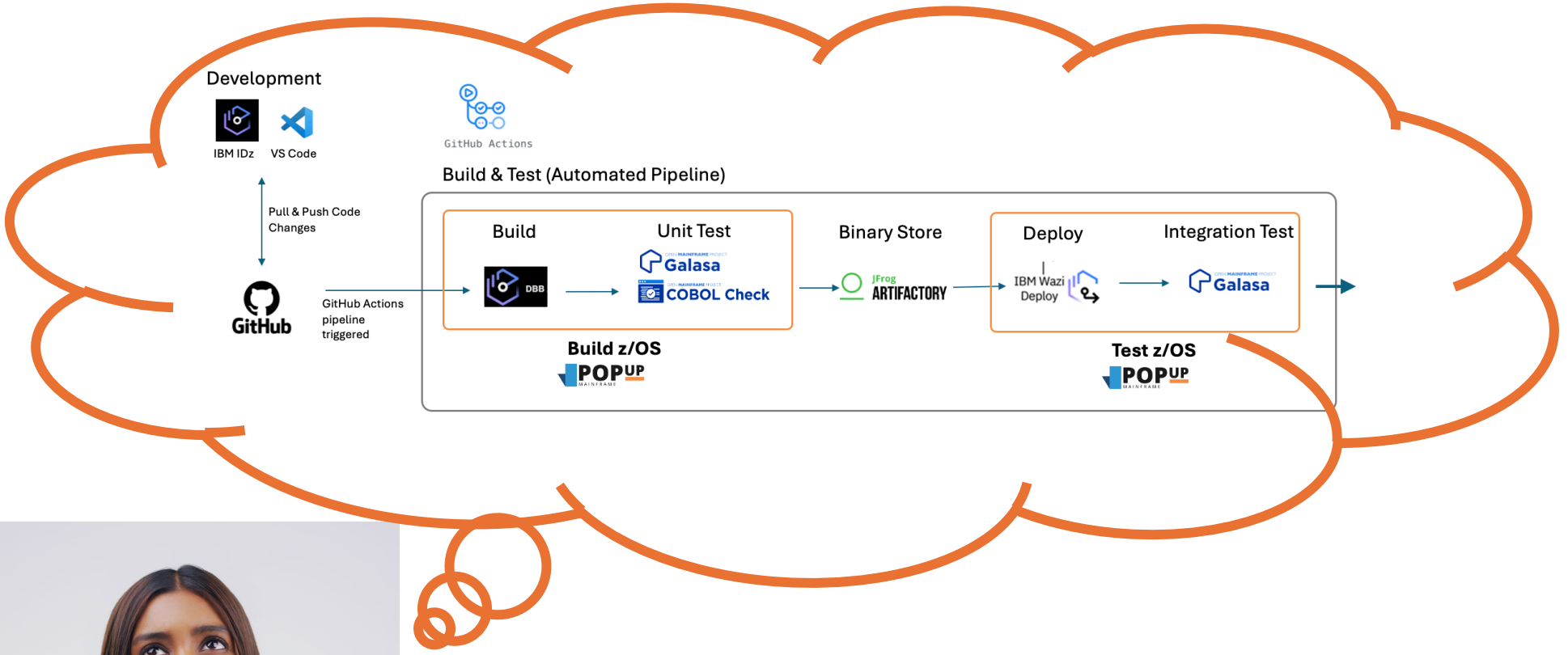




PopUp Mainframe instances can be quickly deployed and integrated into incumbent mainframe delivery processes

Example Delivery Pipeline using PopUp Mainframe

Illustrating the Opportunity for Mainframe Delivery Improvement



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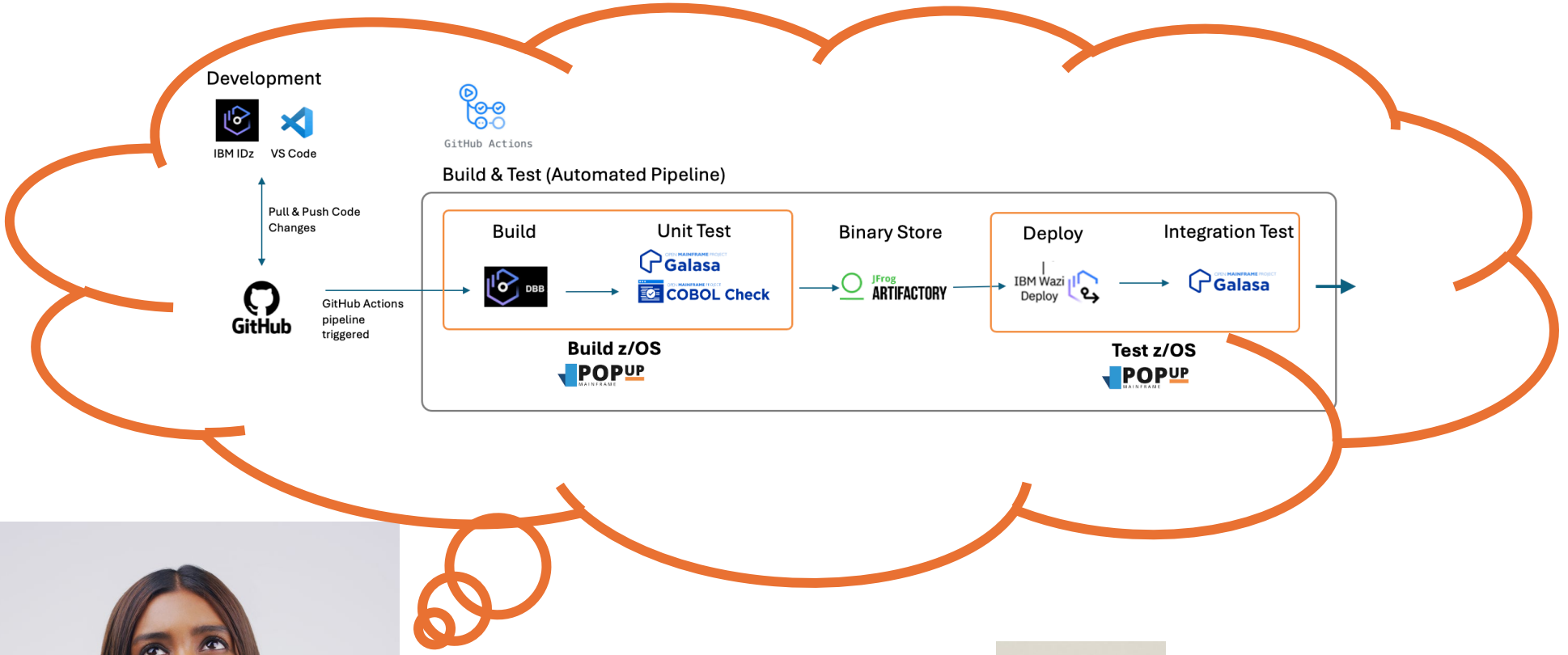

Integration with everything

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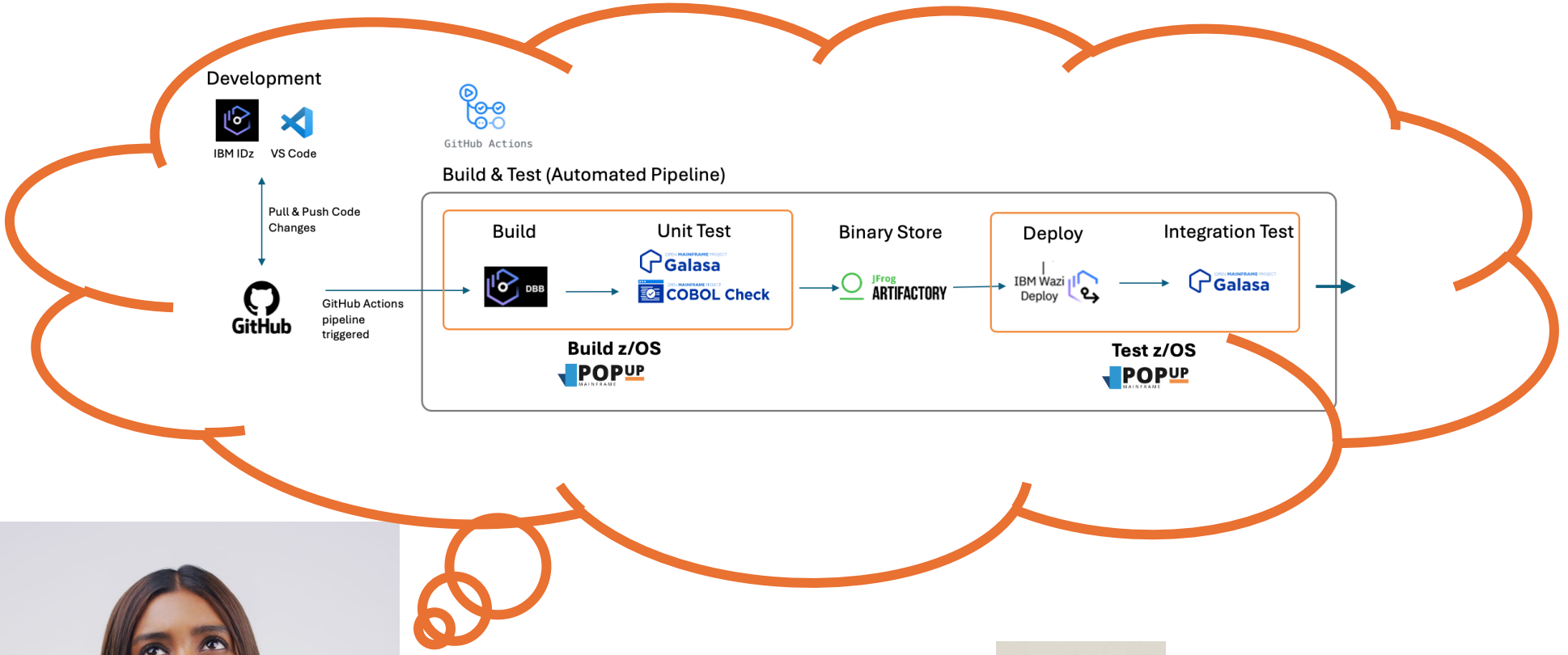

Integration with everything

Full z/OS equivalency

PopUp Mainframe X Edition

Ideal for leveraging commodity platforms

Z15/Z16/Z 17...

Prod, UAT and Master Data

X86 Cloud / On Prem

Dev, Unit and System Test, R&D, Training

PopUp Mainframe X Edition

Ideal for leveraging commodity platforms

Z15/Z16/Z 17...

Prod, UAT and Master Data

Extracted z/OS environment and fully masked data transferred to x86 servers; baseline image replicable across teams and activities as needed

X86 Cloud / On Prem

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X86 Cloud / On Prem

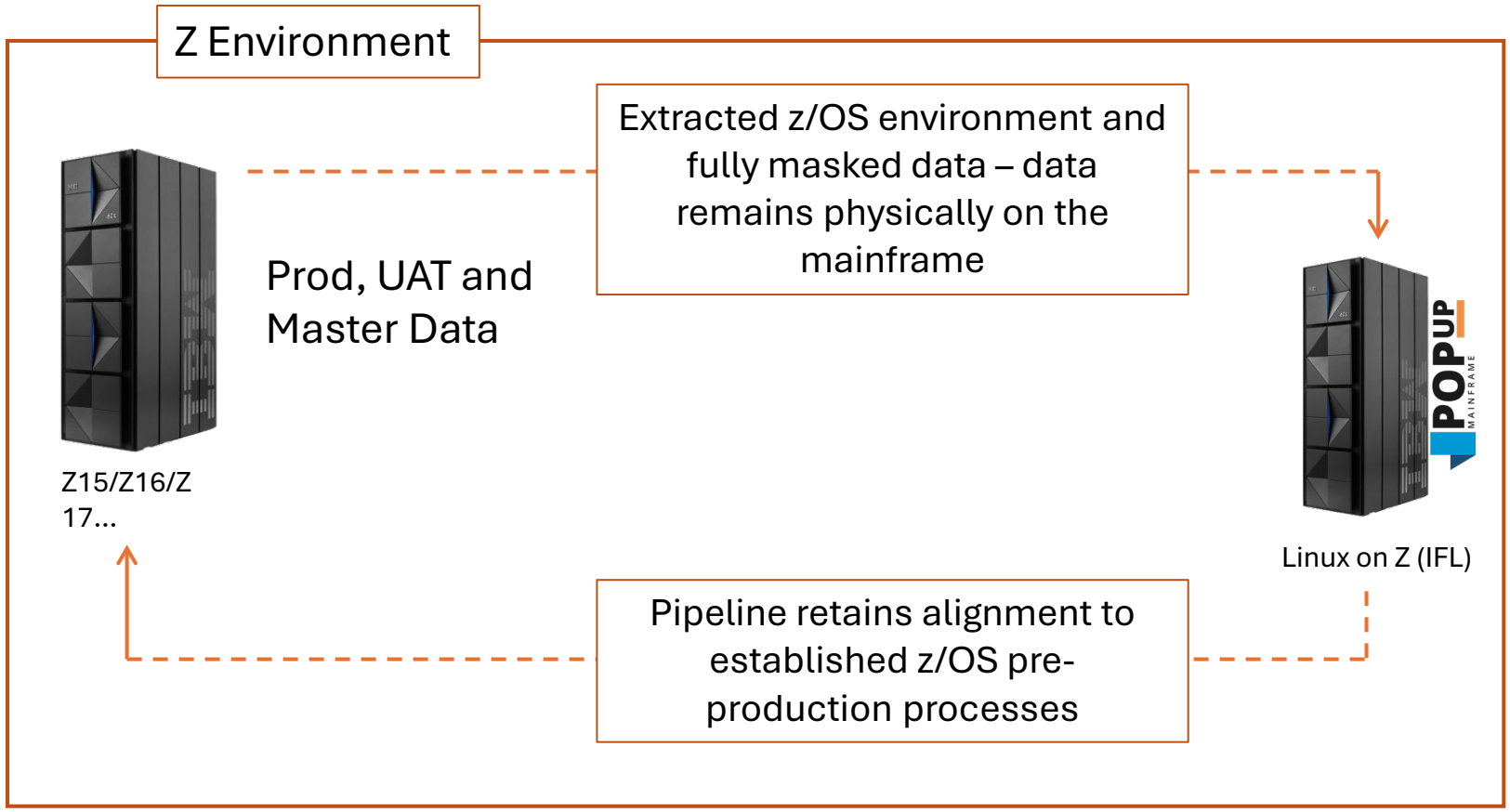
Dev, Unit and System Test, R&D, Training

Alignment to established z/OS pre-production processes

Integration with everything

PopUp Mainframe Z Edition

Ideal for leveraging Linux on Z, supporting all data compliance models



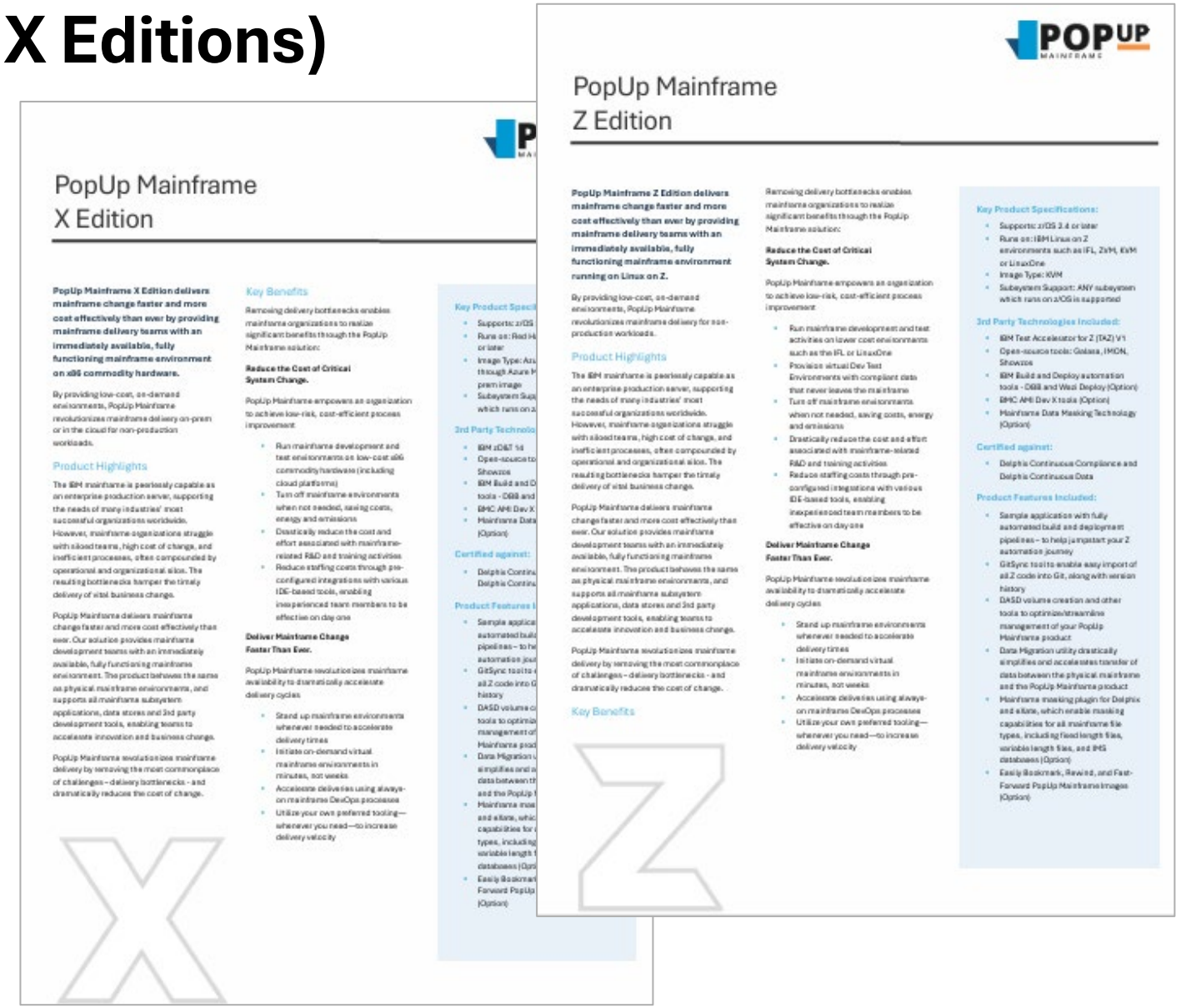
Integration with everything

Release Overview (Z and X Editions)

Available May 2025

Release Highlights

- Support for z/OS 3.1
- Functional Equivalency to Z
- Robust Data Masking and Governance
- Broad DevOps Toolchain integration (IBM, BMC, opensource, ISPF/GUI)
- Available on-prem, cloud, LinuxOne and IFL
- Immediate startup – and shutdown



popup-mainframe.com/popup-mainframe-z-edition-and-popup-mainframe-x-edition/

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4. Resources and Questions

Resources and Questions

Supporting Article

"Breaking Through"

DevOps.com

Market Survey

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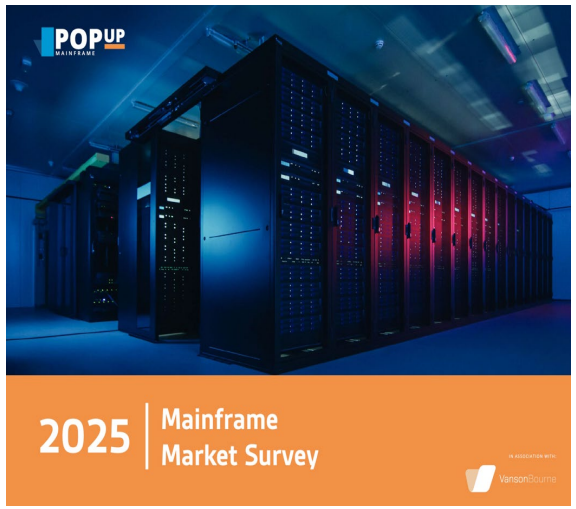

Product Release

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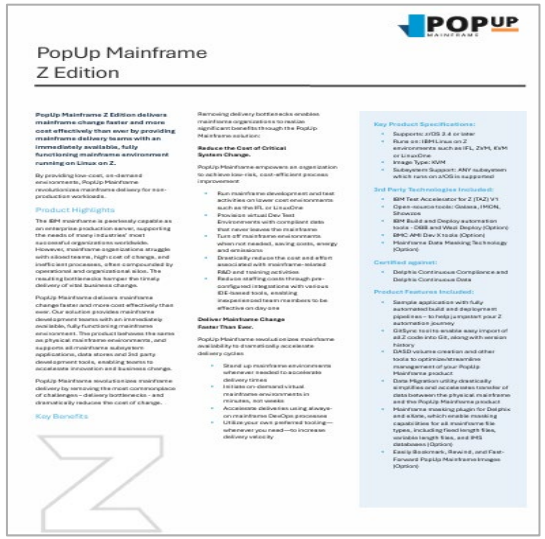

No decision is a decision

The true cost of status quo

- Limited return on investment for development and test
- Missed sustainability improvement
- Stifled DevOps strategy outcomes
- Continued gaps in training, onboarding and R&D effort
- Further separation from distributed processes
- Unresolved operational silos

Extrapolated from the PopUp Mainframe 2025 Market Survey

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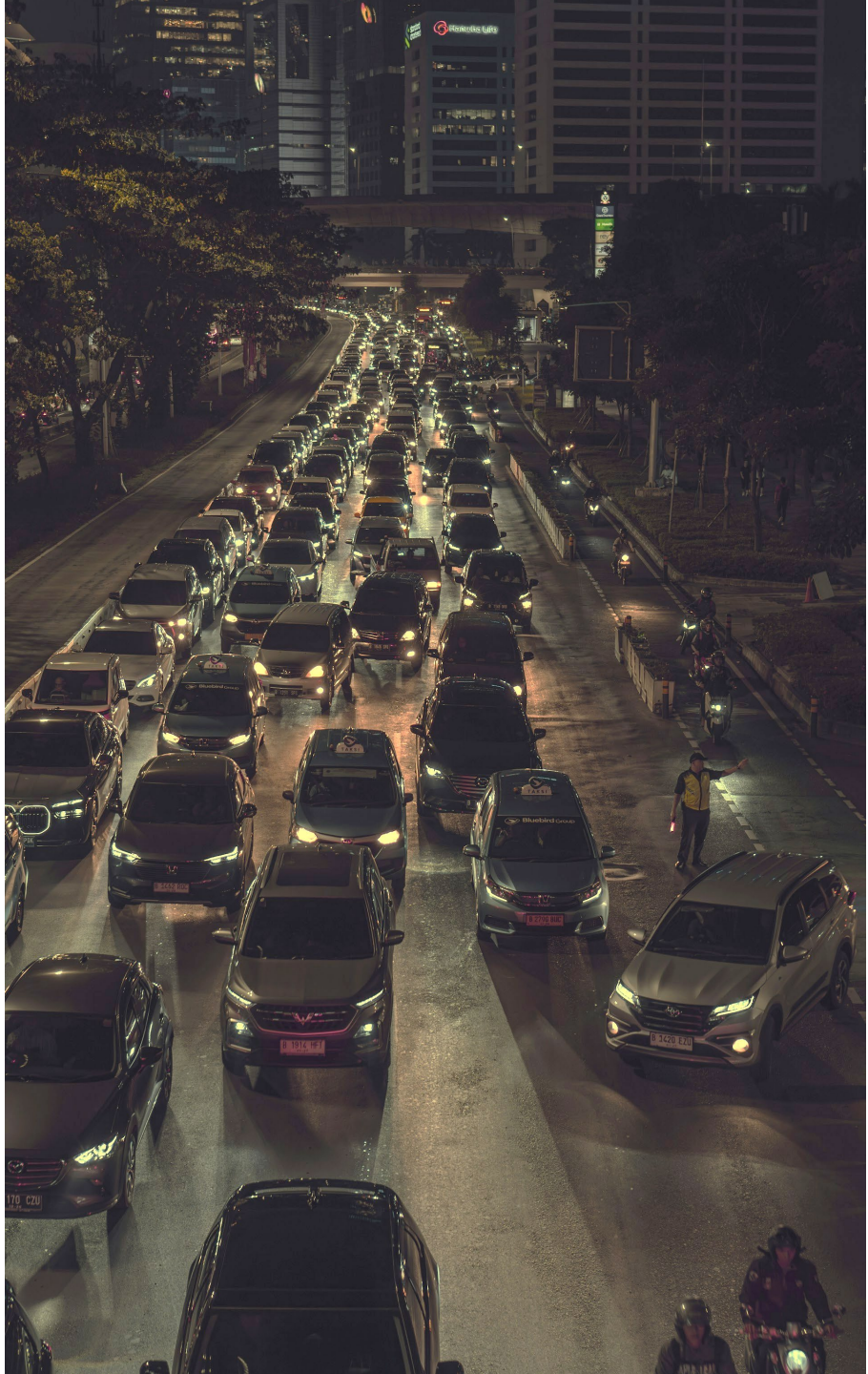
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