

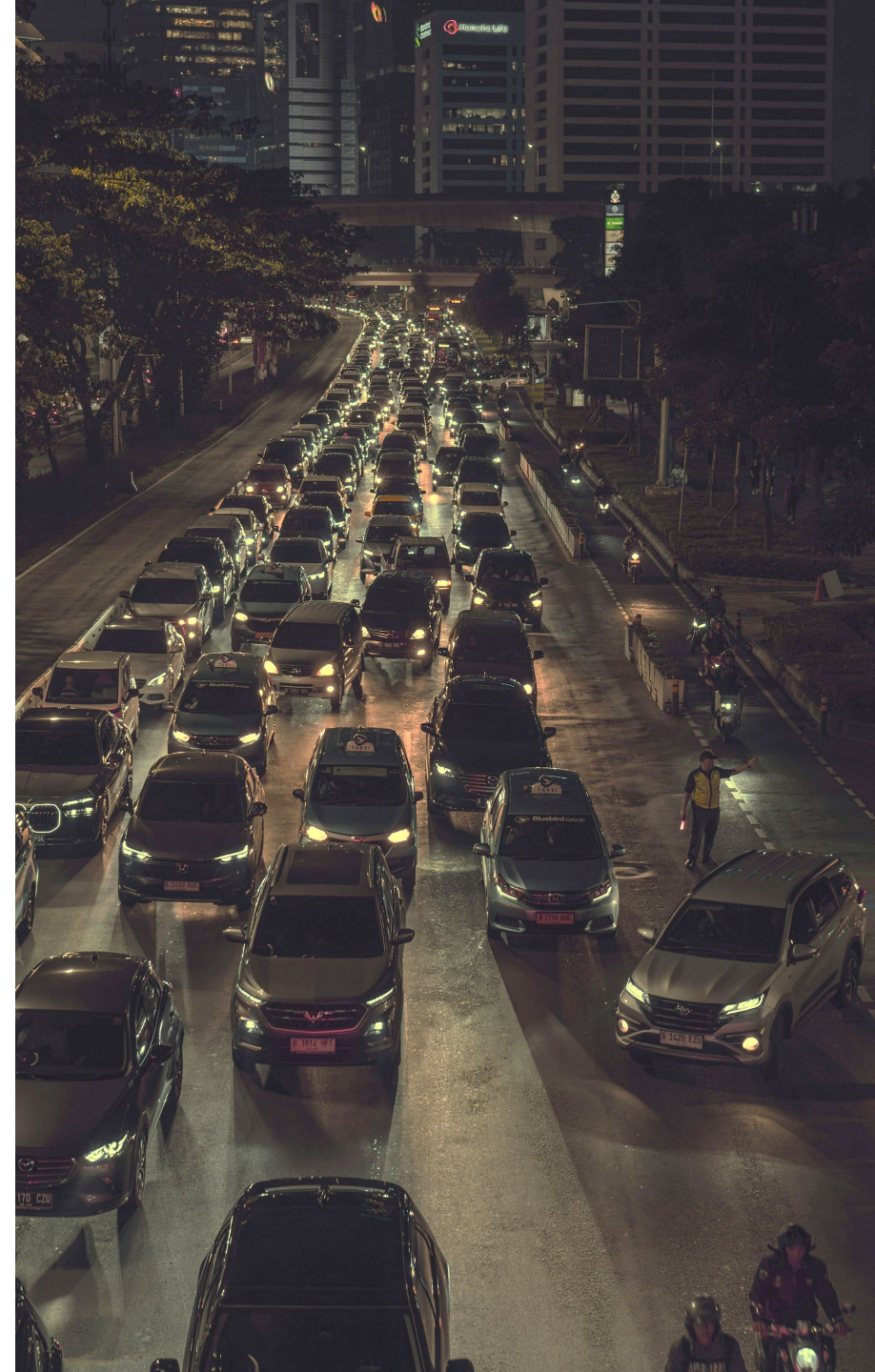
# Beating the Bottlenecks – A New Approach to Mainframe Delivery

A DevOps.com / Techstrong Webinar  
18 JUN 25



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

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





# 1. Market Background

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# 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

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



Source: IBM.com

# 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

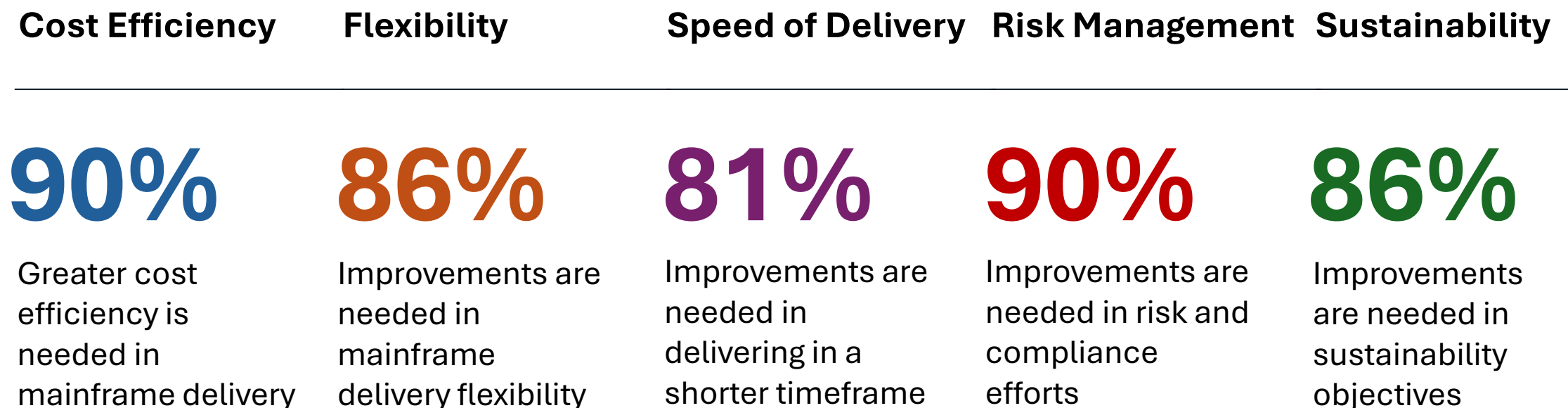
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Source: Mainframe Decision Makers' responses, Vanson Bourne, 2025



# ...and that strategic goals are being hampered

Bottlenecks are undermining business objectives



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



## 2. The PopUp Mainframe solution

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# PopUp Mainframe

Revolutionizing Mainframe Delivery



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

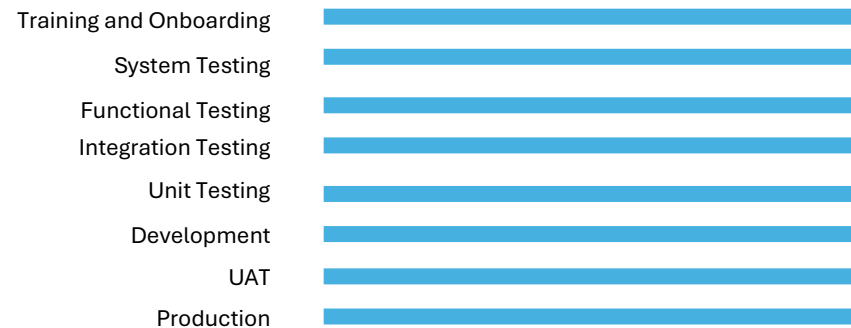
**Functionally  
equivalent to  
z/OS , PopUp  
Mainframe runs  
on Linux on Z,  
LinuxOne, or  
Cloud / On-  
prem based x86  
servers**



# How it works

The problem: mainframe change needs to change...

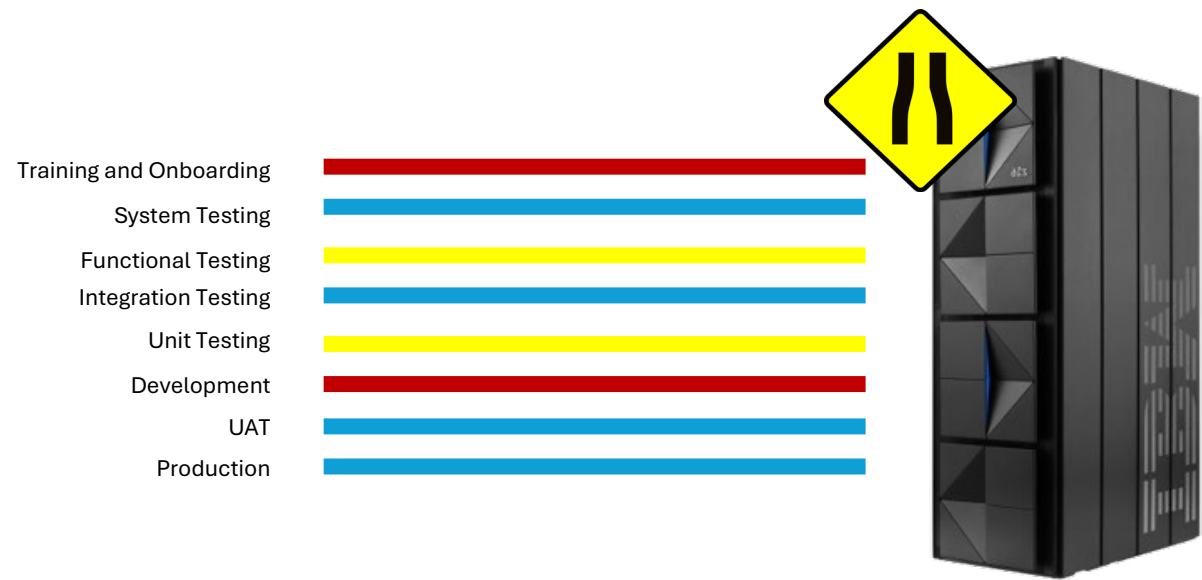
## Traditional Mainframe Delivery Activities In Theory



# How it works

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

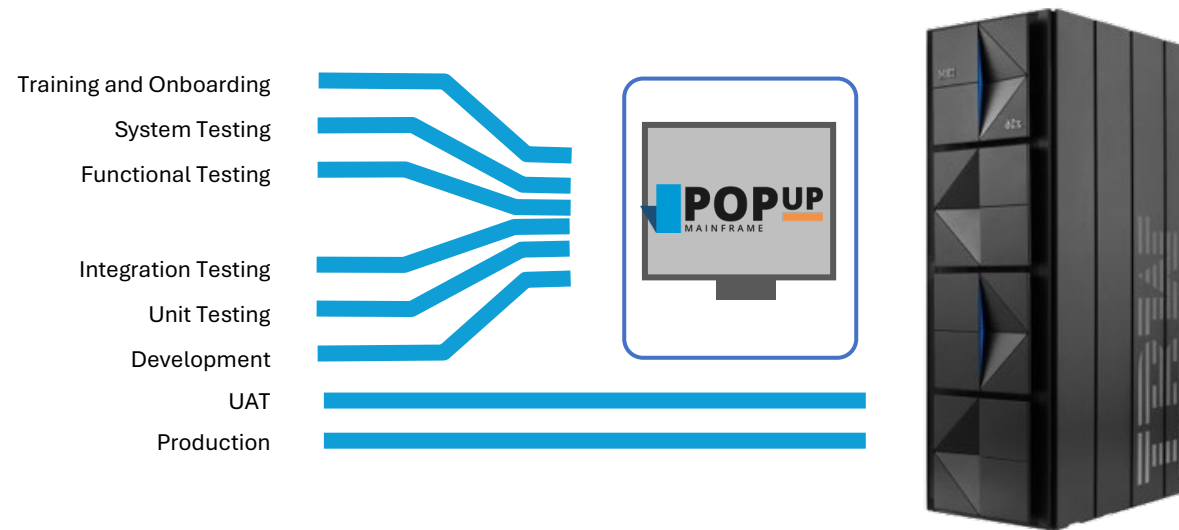
Traditional Mainframe Delivery Activities In Reality



# 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

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



## Integration with everything

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Compatible with IBM, 3<sup>rd</sup> party and opensource mainframe and DevOps tools



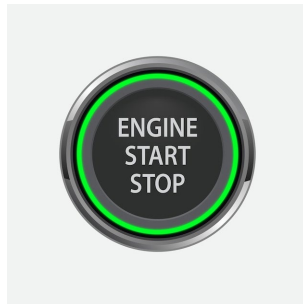
## Full z/OS equivalency

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

# How does it work?

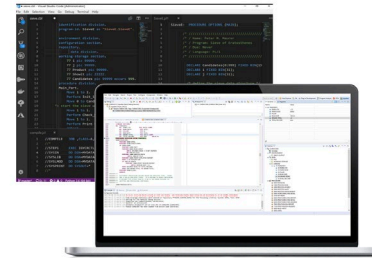
Immediately available and disposable, PopUp Mainframe is fully accessible to all mainframe backgrounds



Start/Stop in Seconds

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



Accessible, Available

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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%



# 3. Product Overview

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# Basic delivery process using PopUp Mainframe

How PopUp Mainframe gives ready-access to critical mainframe environments



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How PopUp Mainframe gives ready-access to critical mainframe environments

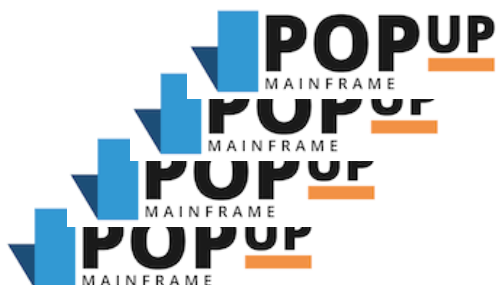


PopUp Mainframe instances can be quickly deployed and integrated into incumbent mainframe delivery processes

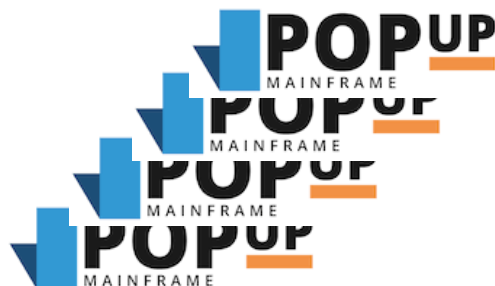
# Basic delivery process using PopUp Mainframe

How PopUp Mainframe gives ready-access to critical mainframe environments

Development



Build & Test



Pre-Production  
testing



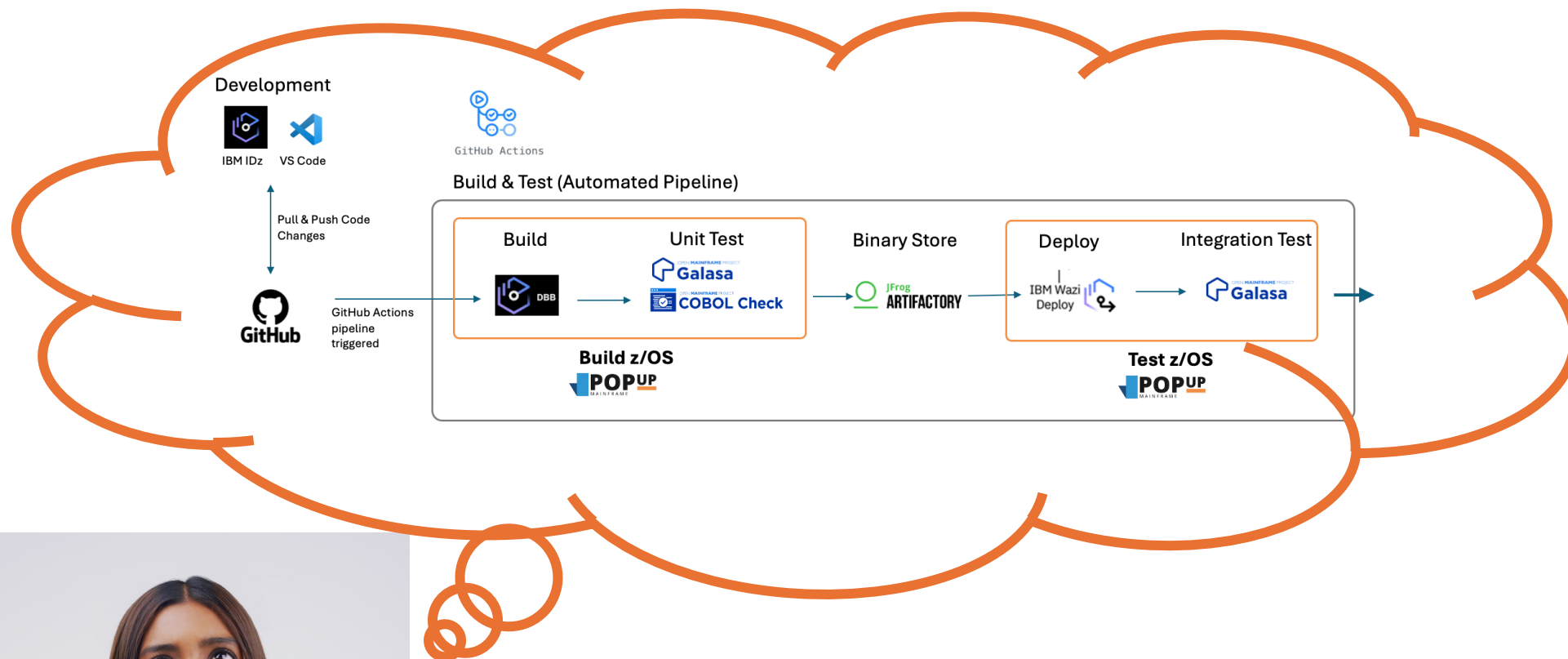
Deploy to  
Production



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

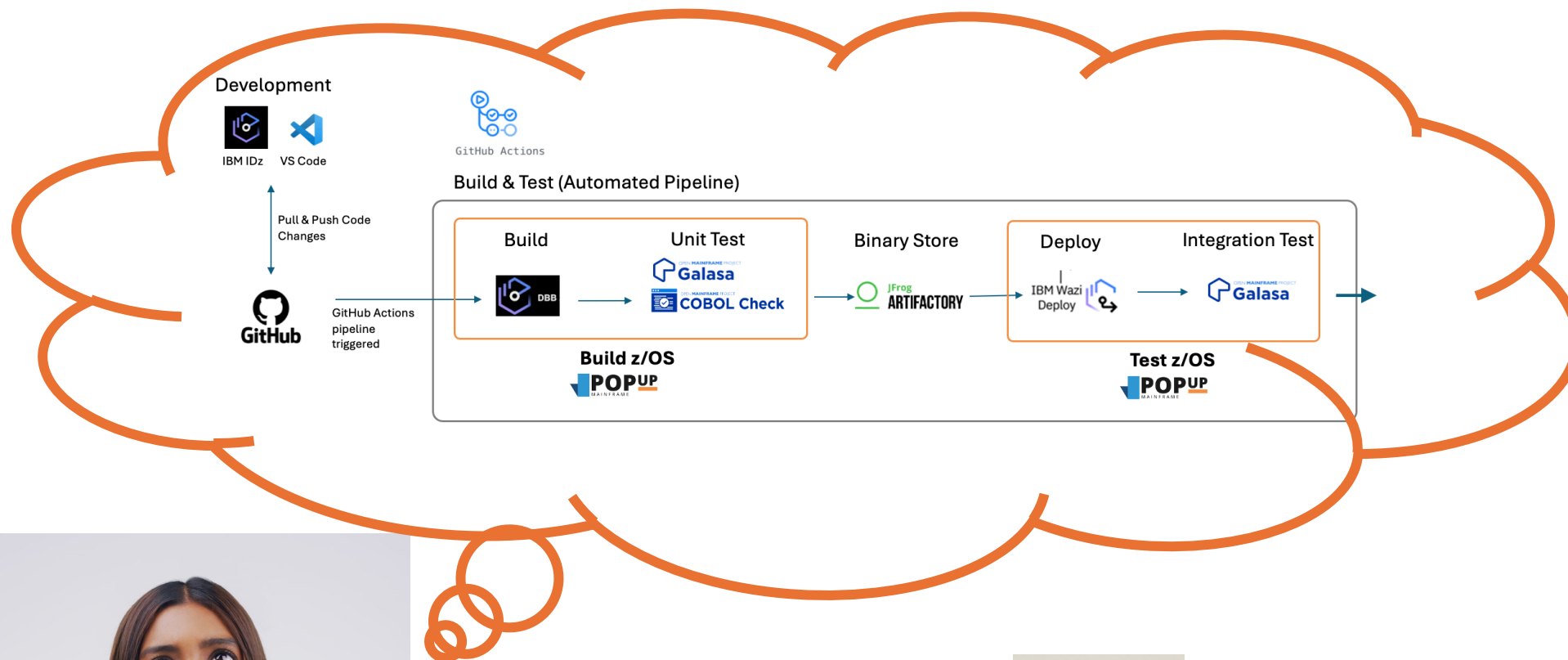
# Example Delivery Pipeline using PopUp Mainframe

Illustrating the Opportunity for Mainframe Delivery Improvement



# Example Delivery Pipeline using PopUp Mainframe

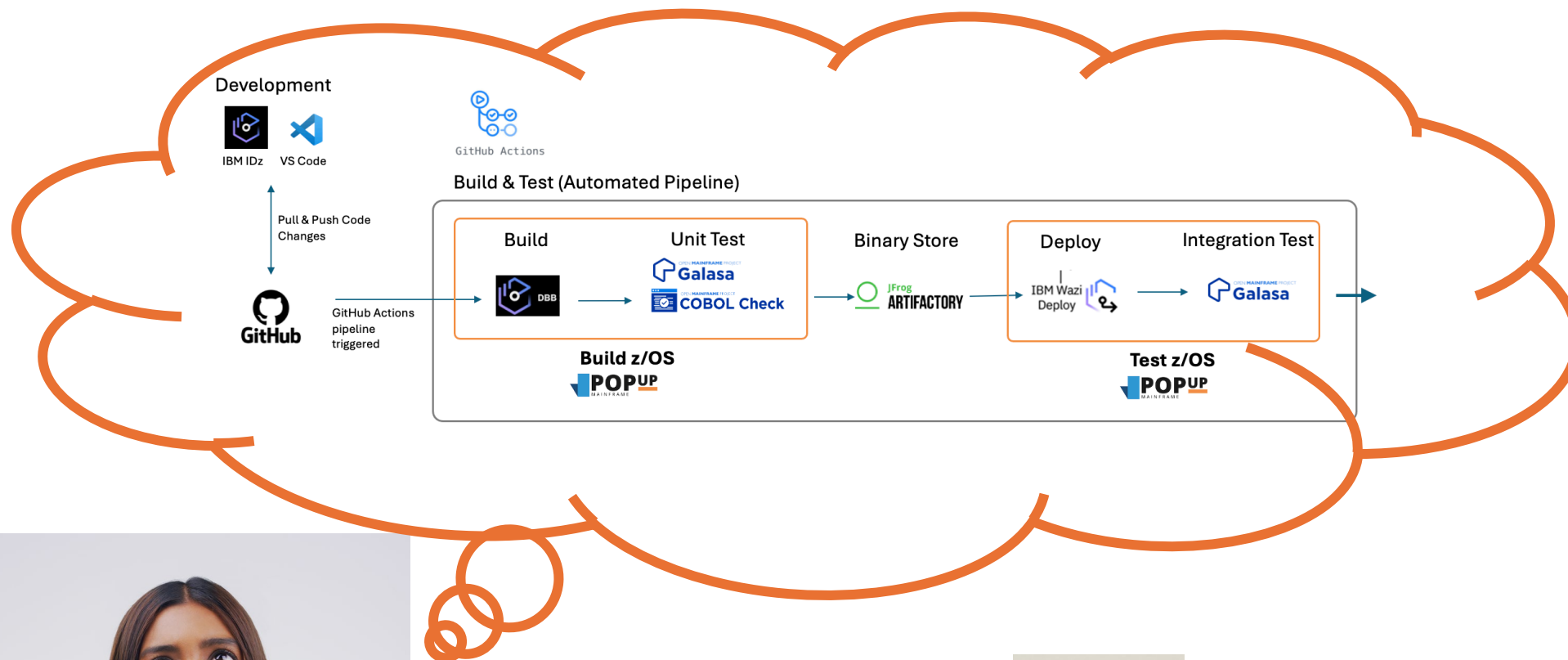
Illustrating the Opportunity for Mainframe Delivery Improvement



Integration with everything

# Example Delivery Pipeline using PopUp Mainframe

Illustrating the Opportunity for Mainframe Delivery Improvement



Integration with everything



Full z/OS equivalency

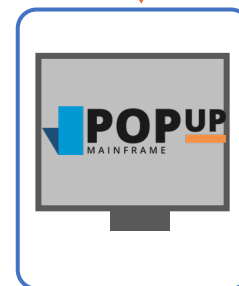
# PopUp Mainframe X Edition

Ideal for leveraging commodity platforms



Prod, UAT and  
Master Data

Z15/Z16/Z  
17...

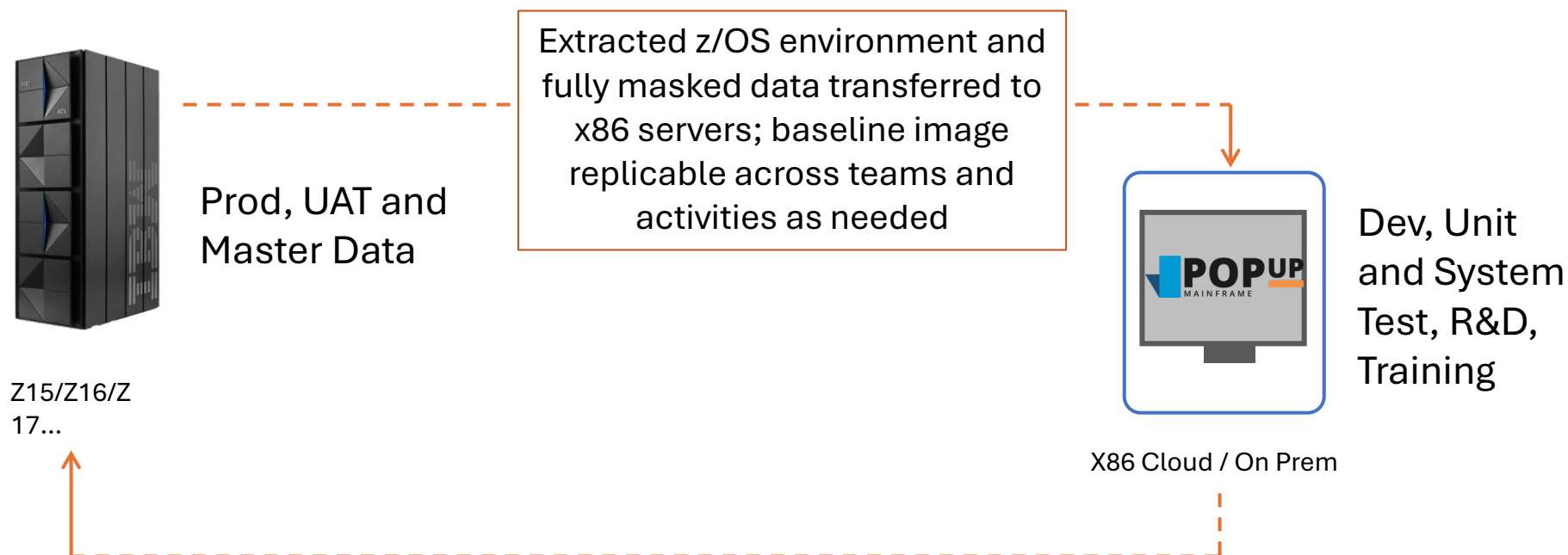


Dev, Unit  
and System  
Test, R&D,  
Training

X86 Cloud / On Prem

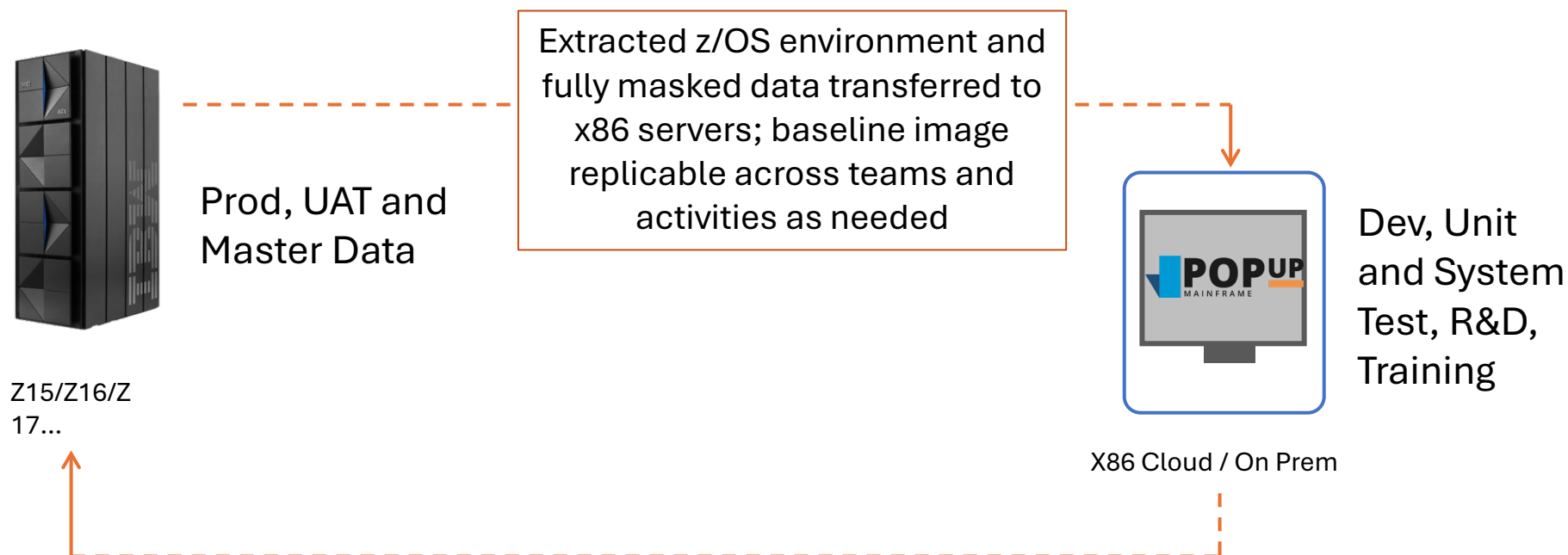
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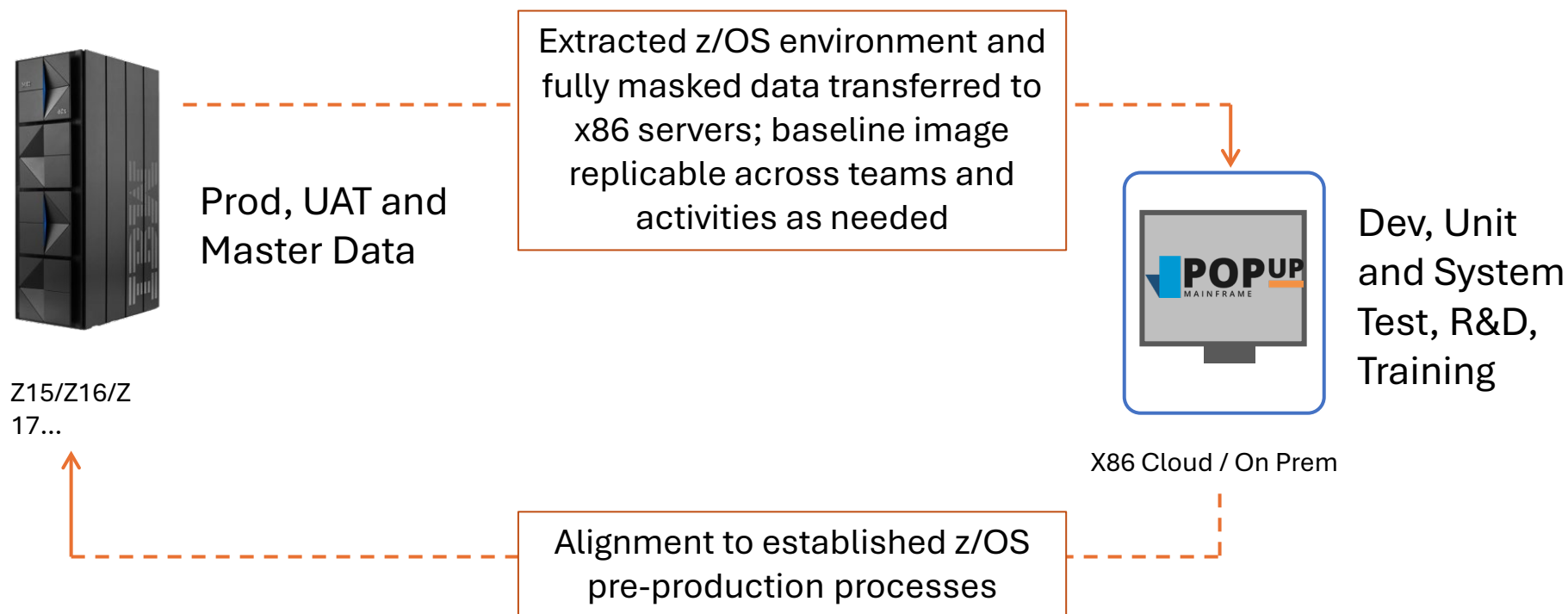
Ideal for leveraging commodity platforms



Integration with everything

# PopUp Mainframe X Edition

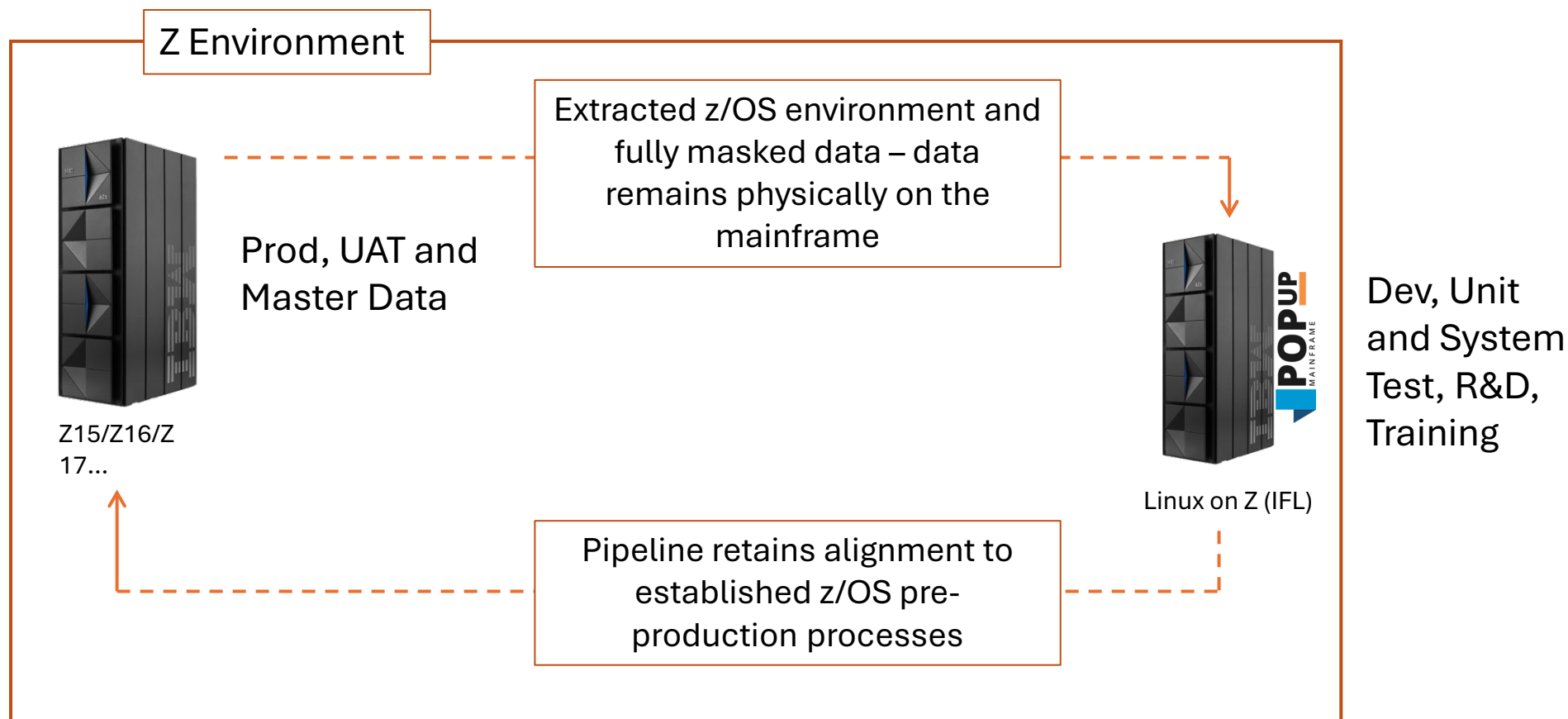
Ideal for leveraging commodity platforms



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 X Edition

PopUp Mainframe X Edition delivers mainframe change faster and more cost effectively than ever by providing mainframe delivery teams with an immediately available, fully functioning mainframe environment on x86 commodity hardware.

By providing low-cost, on-demand environments, PopUp Mainframe revolutionizes mainframe delivery on-prem or in the cloud for non-production workloads.

#### Product Highlights

The IBM mainframe is perfectly capable as an enterprise production server, supporting the needs of many industrial, most successful organizations worldwide. However, mainframe organizations struggle with slow teams, high cost of change, and inefficient processes, often compounded by operational and organizational silos. The resulting bottlenecks hamper the timely delivery of vital business changes.

PopUp Mainframe delivers mainframe change faster and more cost effectively than ever. Our solution provides mainframe development teams with an immediately available, fully functioning mainframe environment. The product behaves the same as physical mainframe environments, and supports all mainframe subsystems: applications, data stores and 3rd party development tools, enabling teams to accelerate innovation and business change.

PopUp Mainframe revolutionizes mainframe delivery by removing the most commonplace of challenges—delivery bottlenecks—and dramatically reduces the cost of change.

#### Key Benefits

Removing delivery bottlenecks enables mainframe organizations to realize significant benefits through the PopUp Mainframe solution:

**Reduce the Cost of Critical System Change.**

PopUp Mainframe empowers an organization to achieve low-risk, cost-efficient process improvement:

- Run mainframe development and test environments as low-cost x86 commodity hardware (including cloud platforms)
- Turn off mainframe environments when not needed, saving costs, energy and emissions
- Dramatically reduce the cost and effort associated with mainframe-related R&D and training activities
- Reduce staffing costs through pre-configured integrations with various IDC-based tools, enabling inexperienced team members to be effective on day one

**Deliver Mainframe Change Faster Than Ever.**

PopUp Mainframe revolutionizes mainframe availability to dramatically accelerate delivery cycles:

- Stand up mainframe environments whenever needed to accelerate delivery times
- Initiate on-demand virtual mainframe environments in minutes, not weeks
- Accelerate deliveries using always-on mainframe DevOps processes
- Utilize your own preferred tooling—whenever you need—to increase delivery velocity

#### Key Product Specifications

- Supports z/OS
- Runs as: Red Hat or Linux
- Image Type: Any through Azure Marketplace
- Subsystem Support: ANY subsystem which runs on z/OS is supported

#### 3rd Party Technologies Included


- IBM z/OS 3.1
- Open-source tools: GitLab, JIRA, SonarQube
- IBM Build and Deploy automation tools - CDB and Web Deploy (Optional)
- BMC AMI Dev Kit suite (Optional)
- Mainframe Data Masking Technology (Optional)

#### Certified against:

- Delphi Continuous Compliance and Delphi Continuous Data

#### Product Features Included:

- Sample application with fully automated build and deployment pipelines – to help jumpstart your Z automation journey
- GitSync tools to enable easy import of all Z code into Git, along with version history
- DASD volume creation and other tools to optimize streamlining management of your PopUp Mainframe product
- Data Migration utility drastically simplifies and accelerates transfer of data between the physical mainframe and the PopUp Mainframe product
- Mainframe masking plugin for Delphi and other, which enable masking capabilities for all mainframe file types, including fixed length files, variable length files, and PDS datasets (Optional)
- Early Backward, Forward, and Fast-Forward PopUp Mainframe Images (Optional)



### PopUp Mainframe Z Edition

PopUp Mainframe Z Edition delivers mainframe change faster and more cost effectively than ever by providing mainframe delivery teams with an immediately available, fully functioning mainframe environment running on Linux on Z.

By providing low-cost, on-demand environments, PopUp Mainframe revolutionizes mainframe delivery for non-production workloads.

#### Product Highlights

The IBM mainframe is perfectly capable as an enterprise production server, supporting the needs of many industrial, most successful organizations worldwide. However, mainframe organizations struggle with slow teams, high cost of change, and inefficient processes, often compounded by operational and organizational silos. The resulting bottlenecks hamper the timely delivery of vital business changes.

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#### Key Benefits

Removing delivery bottlenecks enables mainframe organizations to realize significant benefits through the PopUp Mainframe solution:

**Reduce the Cost of Critical System Change.**

PopUp Mainframe empowers an organization to achieve low-risk, cost-efficient process improvement:

- Run mainframe development and test activities on lower cost environments such as the IFL or LinuxOne
- Provide virtual Dev Test Environments with compliant data that never leaves the mainframe
- Turn off mainframe environments when not needed, saving costs, energy and emissions
- Dramatically reduce the cost and effort associated with mainframe-related R&D and training activities
- Reduce staffing costs through pre-configured integrations with various IDE-based tools, enabling inexperienced team members to be effective on day one

**Deliver Mainframe Change Faster Than Ever.**

PopUp Mainframe revolutionizes mainframe availability to dramatically accelerate delivery cycles:

- Stand up mainframe environments whenever needed to accelerate delivery times
- Initiate on-demand virtual mainframe environments in minutes, not weeks
- Accelerate deliveries using always-on mainframe DevOps processes
- Utilize your own preferred tooling—whenever you need—to increase delivery velocity

#### Key Product Specifications:

- Supports z/OS 3.1 or later
- Runs as: IBM Linux on Z environments such as IFL, zVM, KVM or LinuxOne
- Image Type: KVM
- Subsystem Support: ANY subsystem which runs on z/OS is supported

#### 3rd Party Technologies Included:

- IBM Test Accelerator for Z (TAZ) V1
- Open-source tools: GitLab, JIRA, SonarQube
- IBM Build and Deploy automation tools - CDB and Web Deploy (Optional)
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## 4. Resources and Questions

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## Resources and Questions



# Supporting Article

## "Breaking Through"

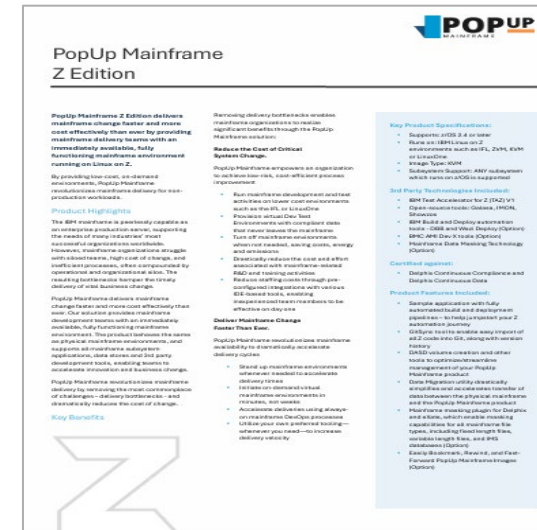
DevOps.com

# Market Survey

Page [Here](#)

# 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



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