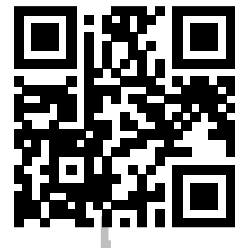
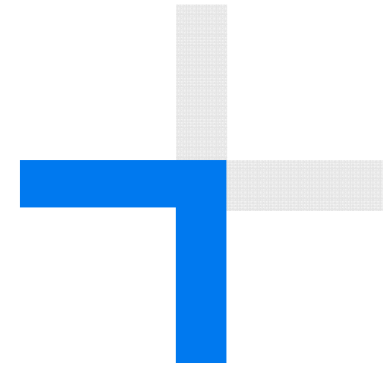


Tales from the trenches: How Customers Make Mainframe DevOps Deliver

Gary Evans
Micro Focus

November 2018
Session **MH**



Your Presenter today



Gary Evans

Distinguished Engineer, Enterprise DevOps



Agenda

- **Direction: DevOps**
- **A flexible approach**
- **Process Integration**
- **Agile Development**
- **Continuous Integration**
- **Measuring Success**
- **Wrap Up and Questions**



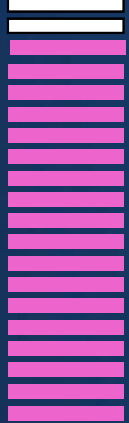
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DIRECTION: DEVOPS?

The world's largest organizations rely on the mainframe

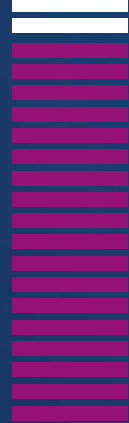
And consumption is rising...

92%



Top 100
Banks

92%



Top 25
Retailers

100%



Top 10
Insurers

92%



Top 25
Airlines

70%



Growing
Consumption

Transformation drives change

Core business applications are here to stay-- and busier than ever

85% Strategic and Business Critical

90% 5+ year lifetime

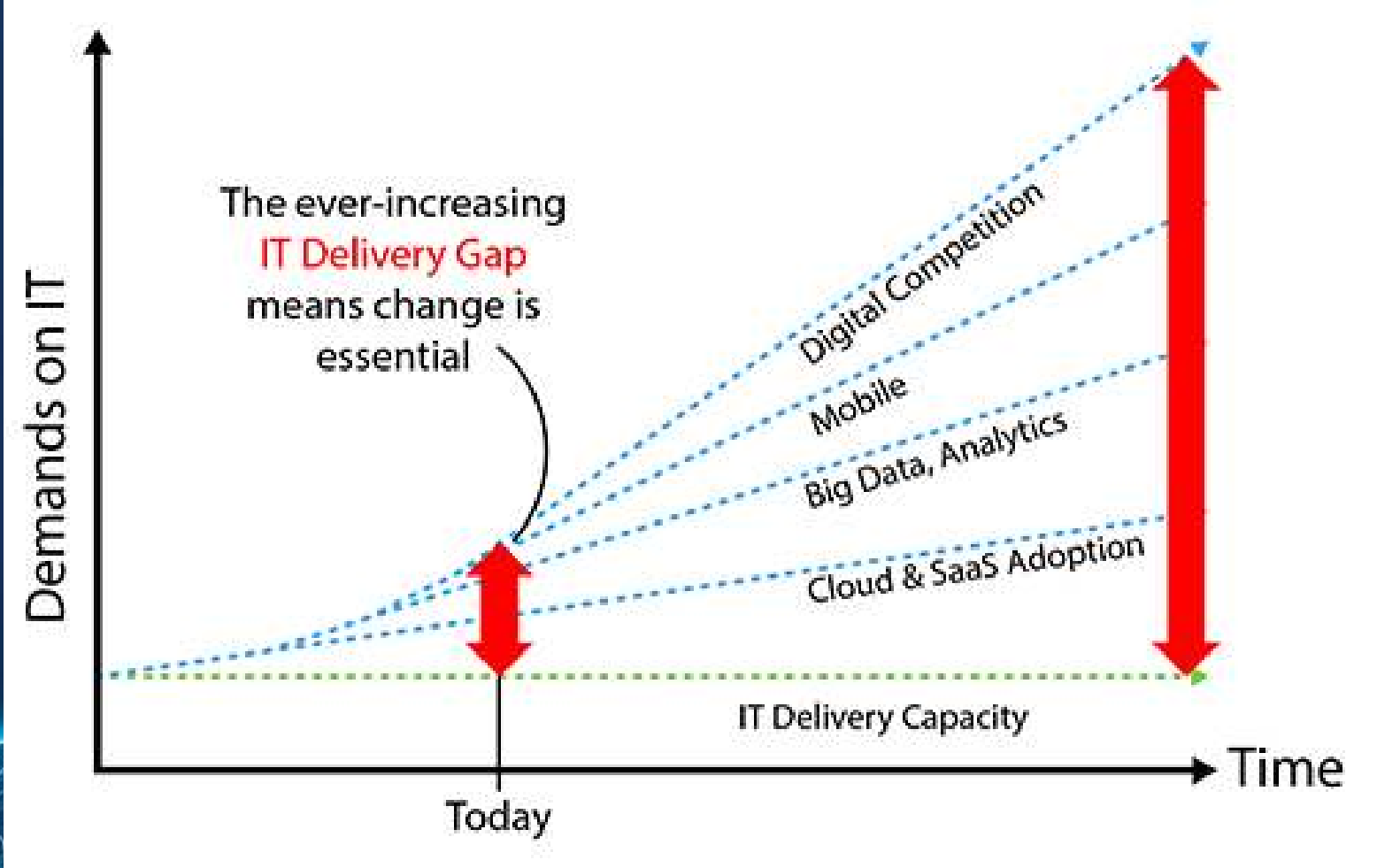
55% Will modernize in 24 months

87% of CEOs say they are in the IT **Innovation** business

19.4% CAGR, App modernization market size expected to grow from to **16.67B** by 2022

5% of organizations believe they have **mastered digital** as compared to their competitors

Today's Transformational Demands





DevOps – the new default direction

Modernizing digital delivery processes

55-84 %

55-84 %



Mainframe DevOps - Defined

A first class citizen in the DevOps toolchain

- A major **cultural** and organizational change from decades of waterfall to leaner software development and Continuous Delivery.
- A continuous improvement **process** of software development and deployment.
- An alignment of **systems of record** delivery pipeline with **systems of engagement** to improve time to market and quality.
- An integration of existing mainframe with modern agile planning, tracking, testing, delivery, deployment and monitoring **tools**.



Enterprise DevOps – Case Studies

Global Financial Insurer

Insurance policy management application supporting multiple brands

Challenges

- Exponential increase in volume and frequency of business changes to mainframe systems
- Need to increase velocity of test and deployment while reducing cost

Global Financial Services Org.

New business strategy of high growth and acquisition

Challenges

- Rate of mainframe changes couldn't keep pace with the business – growing backlog
- Mainframe practices, tooling and culture couldn't support emerging Agile and DevOps adoption

Global Retail Bank

Growth through expansion of products and services

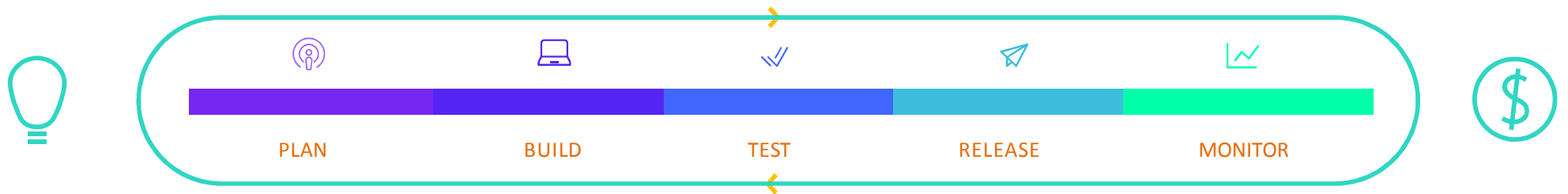
Challenges

- Inability to keep pace with rate of business change – application
- Reliance on monolithic dev and test practices



A FLEXIBLE APPROACH

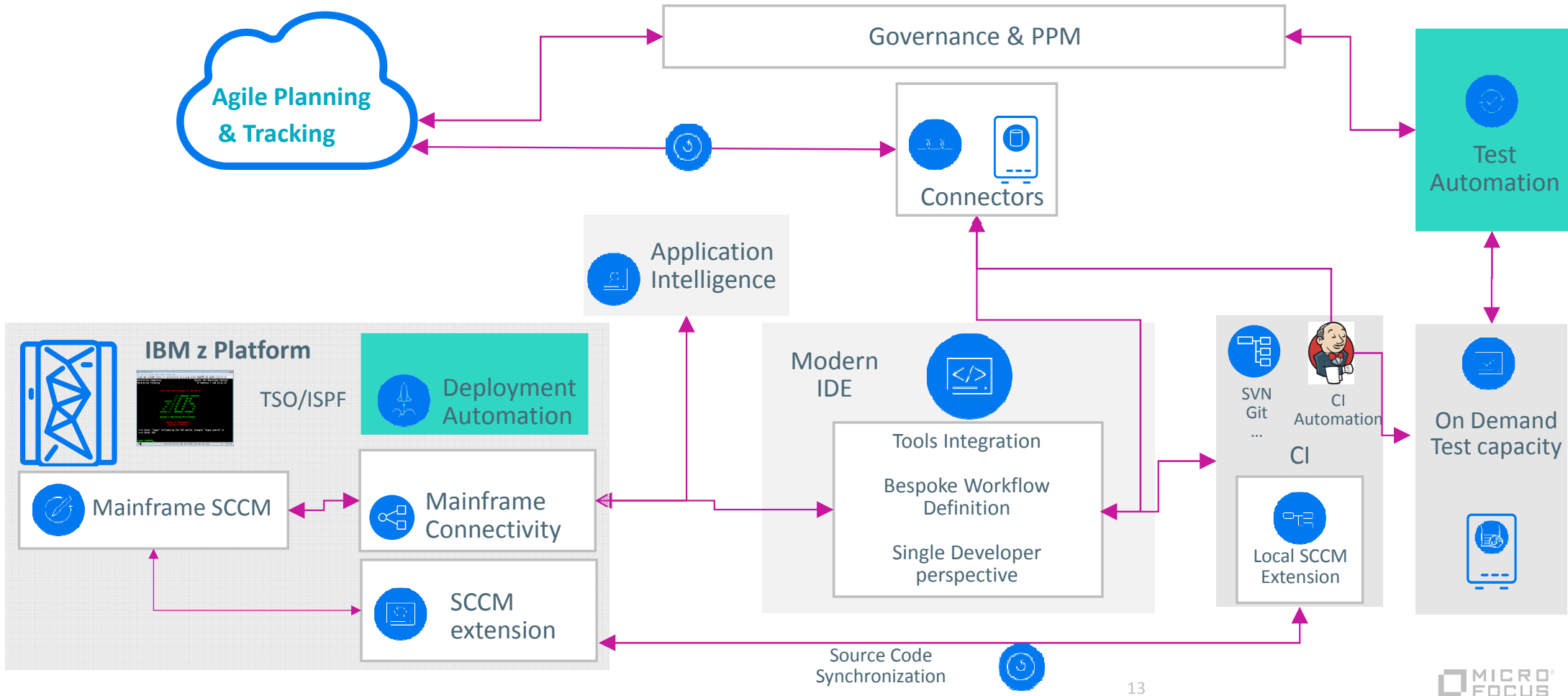
Starting the Transformation



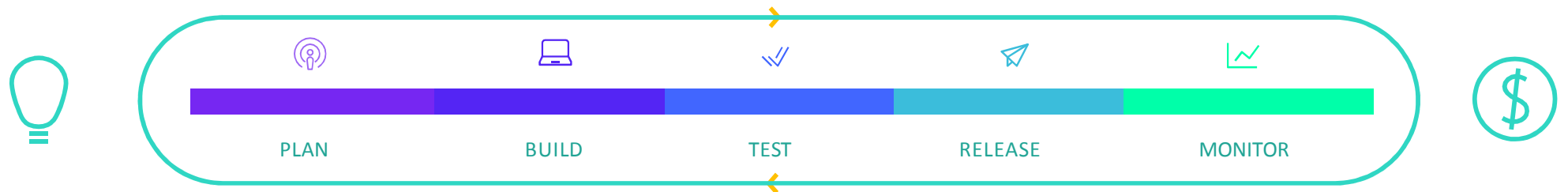
The process of transformation starts with the deployment pipeline...

..and understanding where to optimize

IBM Z Agile Software Development



Starting the Transformation



The process of transformation starts with the deployment pipeline...

..and understanding where to optimize



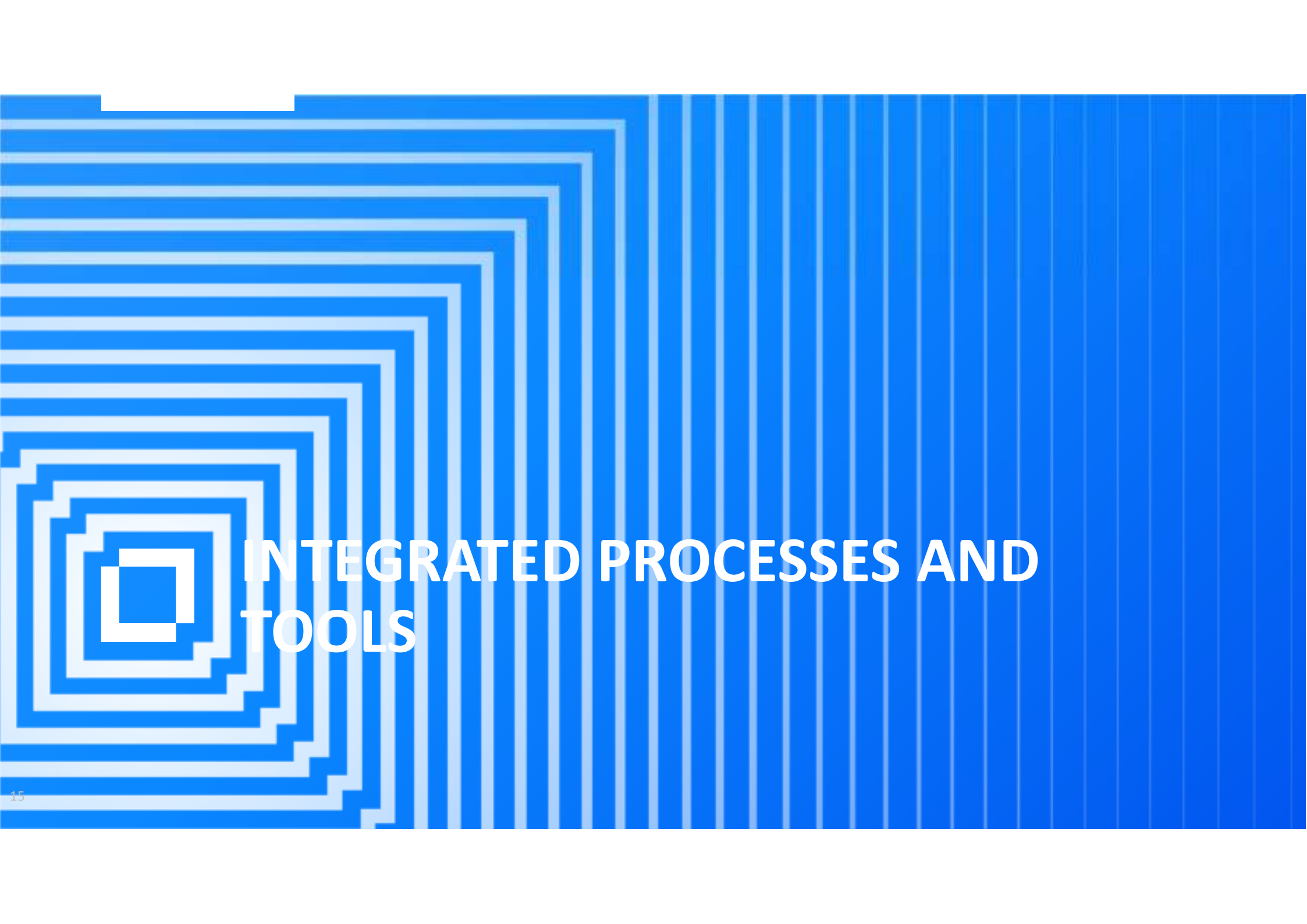
Integrate Processes
& Tools



Agile Development



Continuous
Integration

The background is a vibrant blue. On the left side, there is a series of concentric squares, each slightly offset from the one inside it, creating a tunnel-like effect. On the right side, there are several vertical lines of varying thicknesses, also in shades of blue, creating a striped pattern.

INTEGRATED PROCESSES AND TOOLS



Enterprise DevOps

Integrate Processes and Tools

The Challenge

- Many tools, no integration, no automation
- Disconnected processes and systems, slowing DevOps
- IT in siloes, unable to support the agility of the business
- Perception that mainframes can not be part of DevOps practices

Why do?

- Deliver faster with more reliability
- Consistency and visibility across teams to break down siloes
- Common processes and automation to ease adoption and attract new talent



Tools Integration DEMO

The background is a vibrant blue gradient. On the left side, there are several concentric squares, each slightly offset from the one inside it, creating a tunnel-like effect. On the right side, there are vertical lines of varying thicknesses, also in shades of blue, creating a striped pattern.

AGILE DEVELOPMENT



Enterprise DevOps Agile Development

The Challenge

- Old, outdated tools limit developer productivity
- Current infrastructure and resources limit developer efficient
- Difficult to find and train new mainframe developers
- Modern dev teams find it difficult to work with mainframe systems

Why do it?

- Modern development IDEs and tools remove barriers to entry for new developers
- Application knowledge at the point of change to reduce reliance on SMEs
- Higher quality through code inspection and unit testing
- Efficient development and testing with no resource contention



Agile Development Demo

The background features a series of concentric blue squares on the left side, each slightly offset from the previous one, creating a tunnel-like effect. The right side of the image is filled with vertical blue lines of varying thicknesses, creating a striped pattern.

Continuous Integration



Enterprise DevOps

Continuous Integration

The Challenge

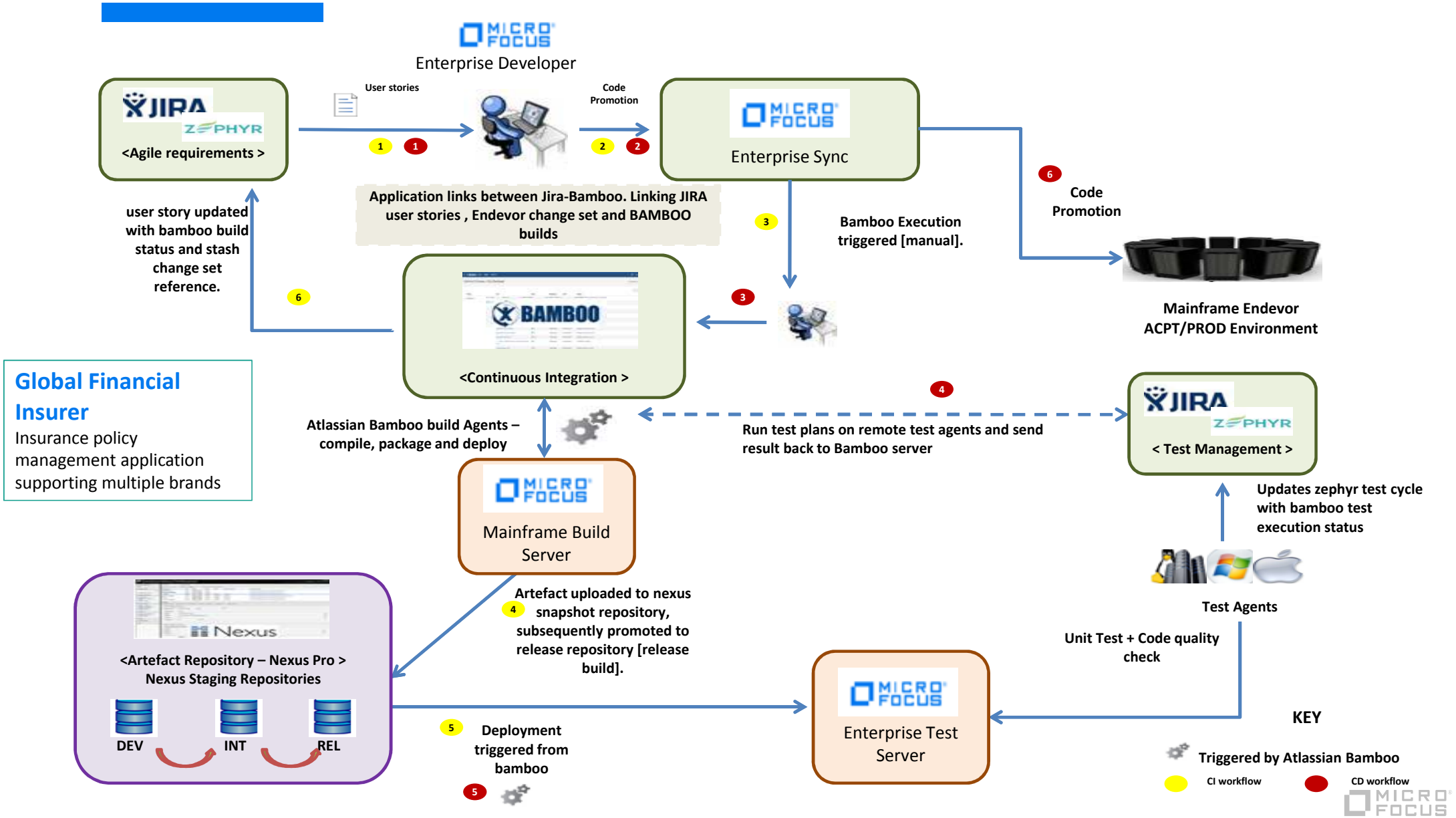
- Complex and manual process slowing test environment provision
- Resource constraints limiting test environment availability
- Builds are executed manually
- Developers have limited ability to unit test
- Developers and testing working in silos

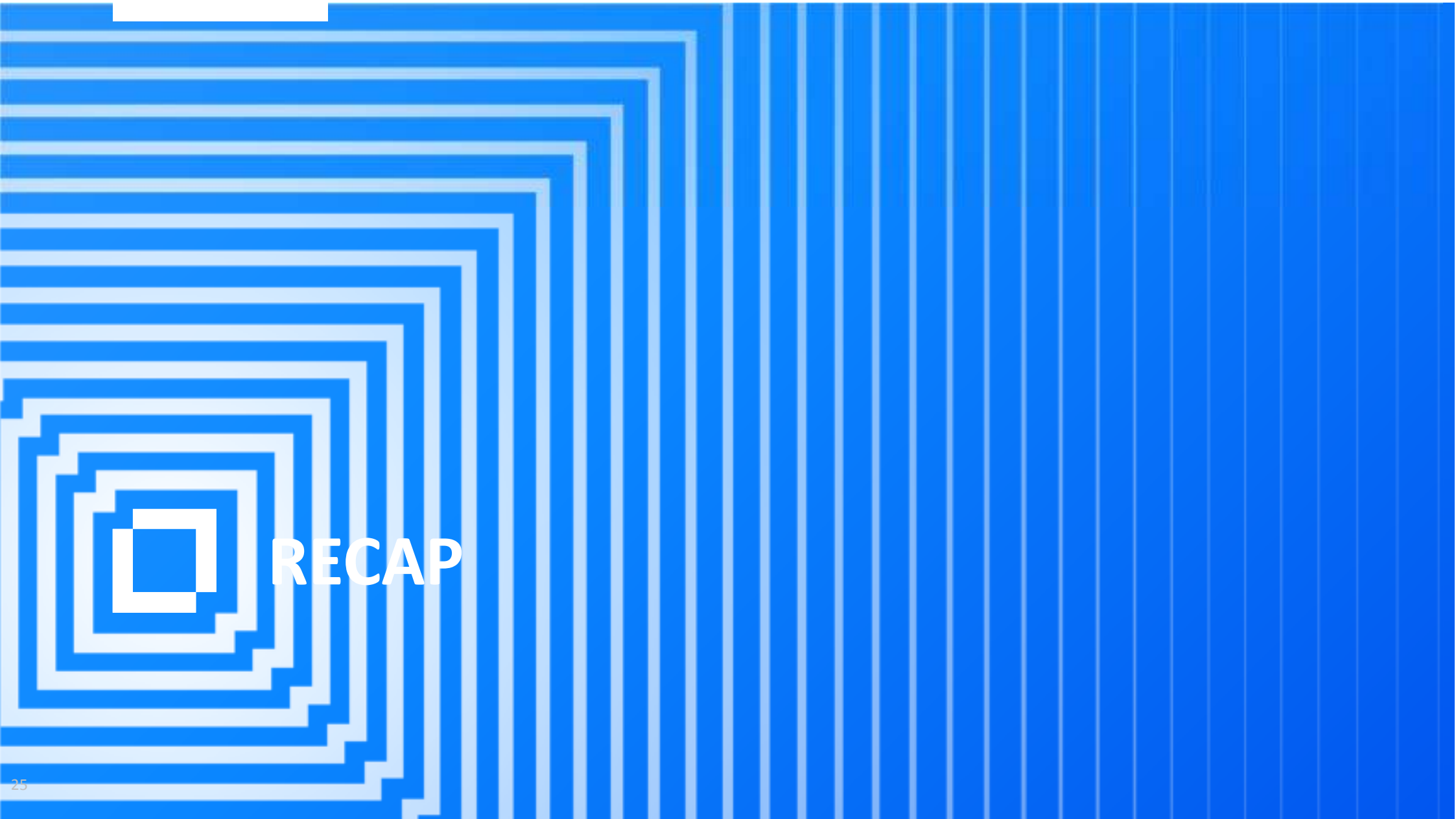
Why do it?

- Build applications faster
- Automate provision of test environments so available on demand
- Build and test automation to find issues earlier in test cycle
- Increase application quality through use of code quality and code coverage metrics

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Continuous Integration DEMO





RECAP



Enterprise DevOps – Case Studies

What we learnt with our customers

Process and Tools Integration

Established mainframe procedures, modern DevOps toolchains CAN co-exist as a powerful Enterprise solution

Agile Development

Significant acceleration of release velocity can be achieved for major mainframe systems-of-record application teams

Continuous Integration

Dramatic improvements in testing speed and code quality, while cost-of-testing reduced considerably

...using contemporary technology and a collaborative culture of change



Enterprise DevOps – Case Study results

Global Financial Insurer

Insurance policy management application supporting multiple brands

Challenges

- Exponential increase in volume and frequency of business changes to mainframe systems
- Need to increase velocity of test and deployment while reducing cost

Results

- Reduced test provisioning from 6 weeks to 2 hours
- Reduced test time by 50%
- Reduced annual cost of test provision by 95% per envt

Global Financial Services Org.

New business strategy of high growth and acquisition

Challenges

- Rate of mainframe changes couldn't keep pace with the business – growing backlog
- Mainframe practices, tooling and culture couldn't support emerging Agile and DevOps adoption

Results

- Doubled release velocity with 50% fewer IT resources
- 20% savings in developer time
- Mainframe cost savings from offloading Dev/Test to AWS

Global Retail Bank

Growth through expansion of products and services

Challenges

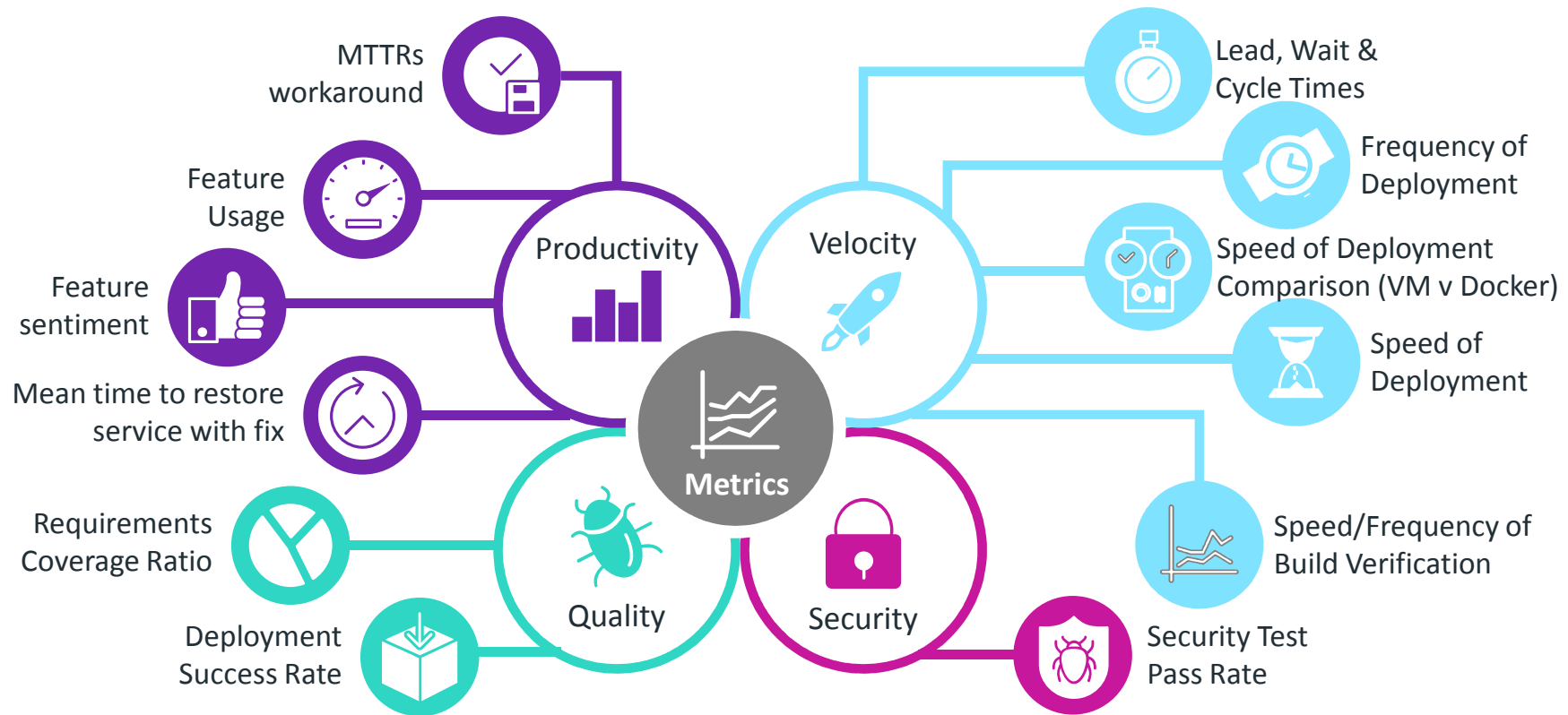
- Inability to keep pace with rate of business change – application
- Reliance on monolithic dev and test practices

Results

- 40% reduction in Dev Test costs over 3 years
- 20% increase in developer productivity
- 20% increase in volume test cycle
- 20% mainframe cost savings

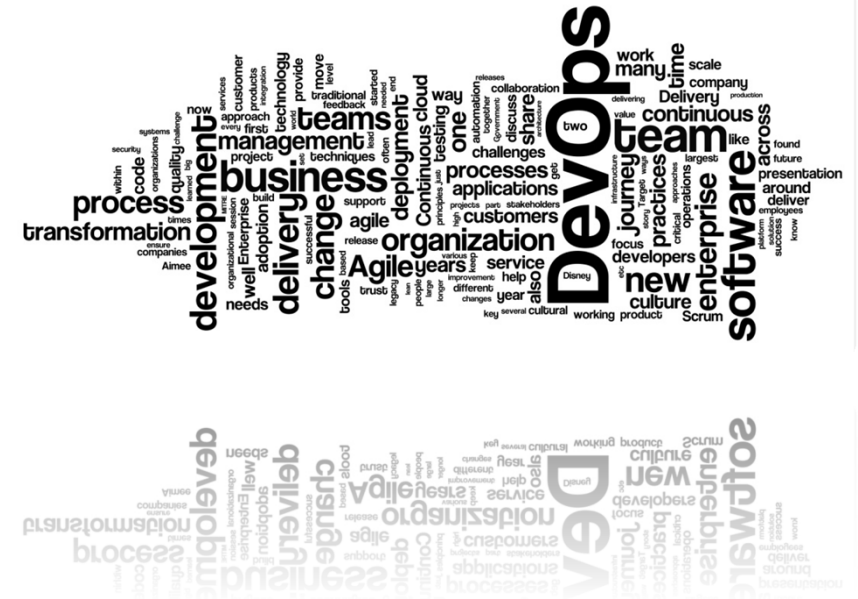
They solved THEIR key challenges – what about yours?

KPI: You can't manage what you don't measure



Conclusion

- The industry needs to deliver faster: fact
- Many are turning to DevOps
- Enterprise DevOps is difficult
- Organizations are succeeding by focusing on what matters to them and taking a contemporary and collaborative approach
- Build a model that supports YOUR key goals



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Questions

We want your feedback!

- Please submit your feedback online at
 - <http://conferences.gse.org.uk/2018/feedback/MH>
- Paper feedback forms are also available from the Chair person
- This session is **MH**

