

Voyage to Modernization: Don't let your customer fall behind

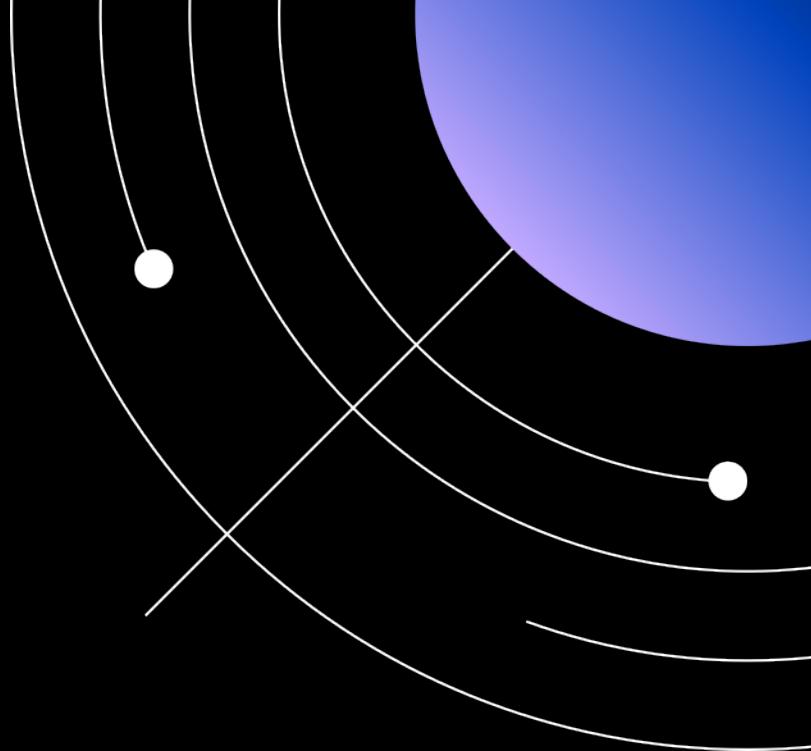
Kyle Brown
IBM Fellow, CTO Cloud Architecture



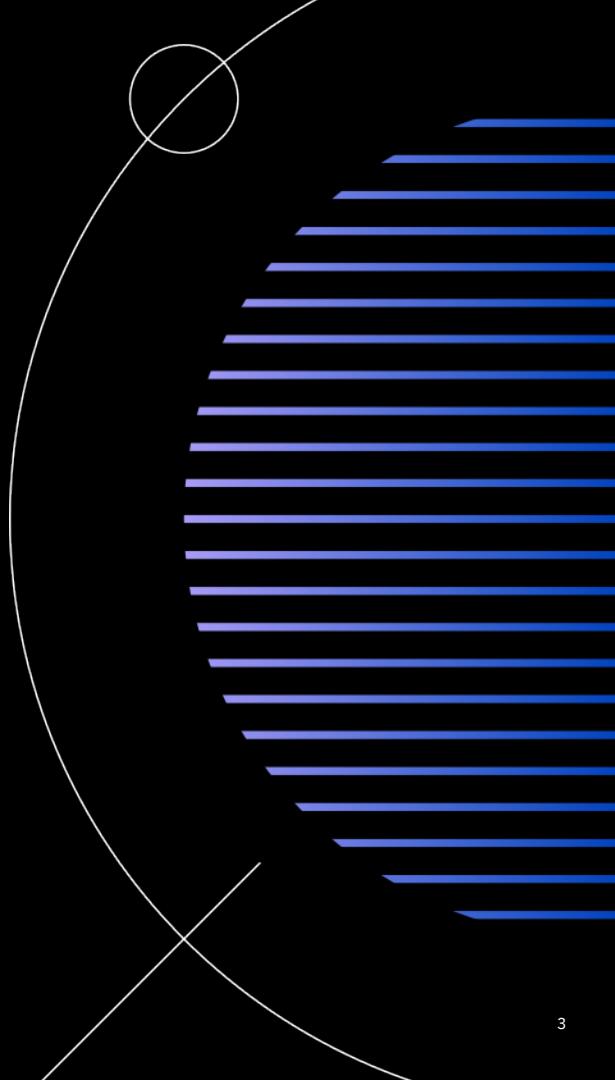
IBM
Fast Start
2021



- 1. Understanding the Landscape**
- 2. Distributed System Modernization**
- 3. Mainframe Modernization**
- 4. Hybrid System Modernization**



Understanding the Landscape

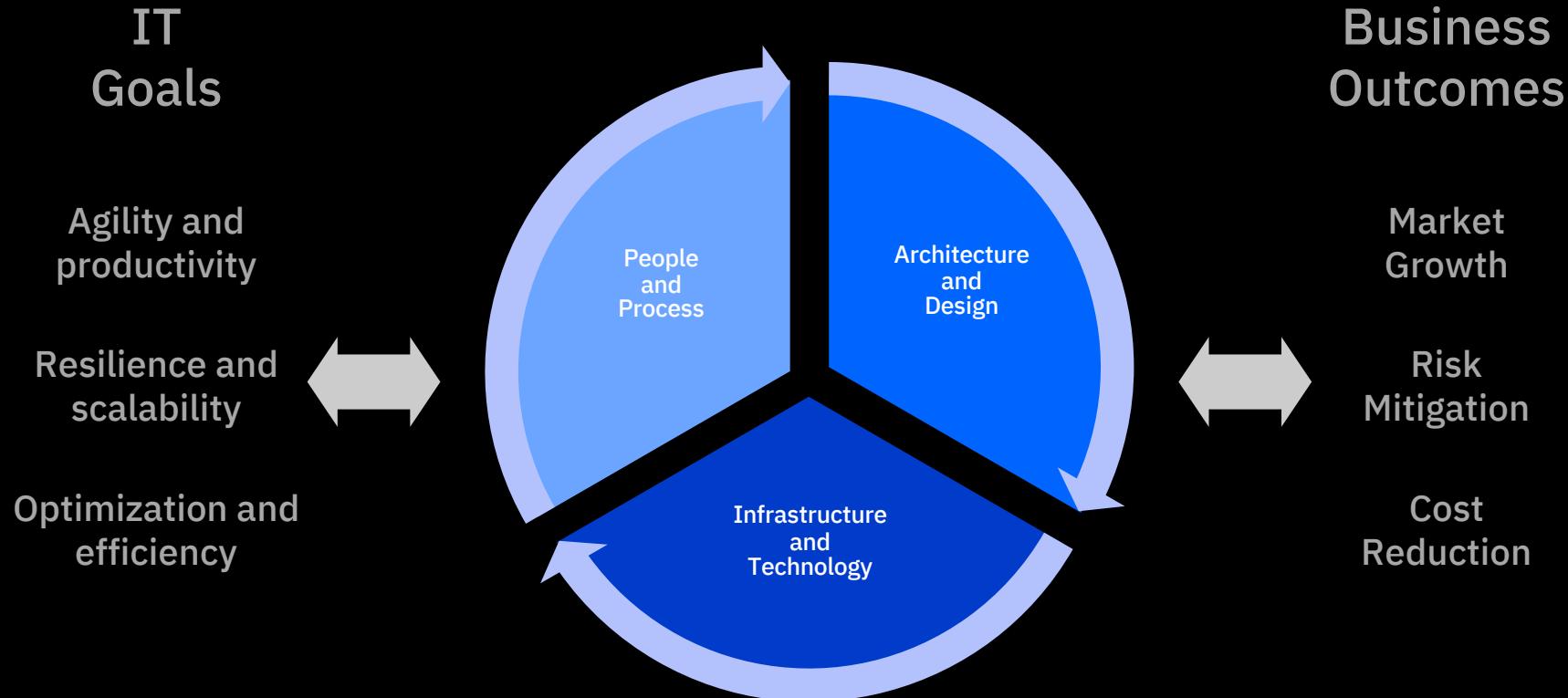


What does modernization even mean?

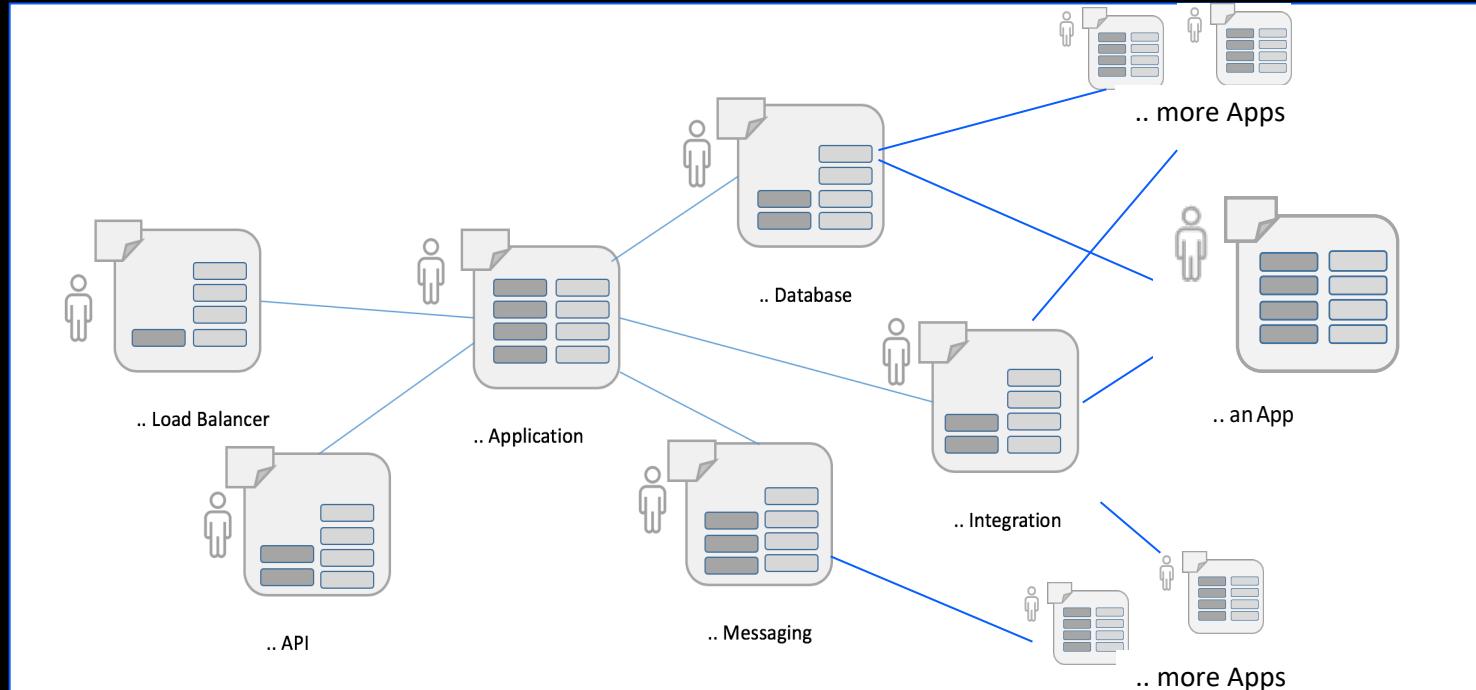
An Application consists of one (or usually more) custom-written program components together with the supporting infrastructure, application middleware, middleware services (such as databases, queuing software, integration software and other aspects) and other components that make up a complete solution.

Application Modernization is the process of updating an application so that it can be maintained, extended, deployed and managed in a way that allows the application to meet the business' current and future needs.

Moving toward cloud native – the bigger picture



The Enterprise Hairball

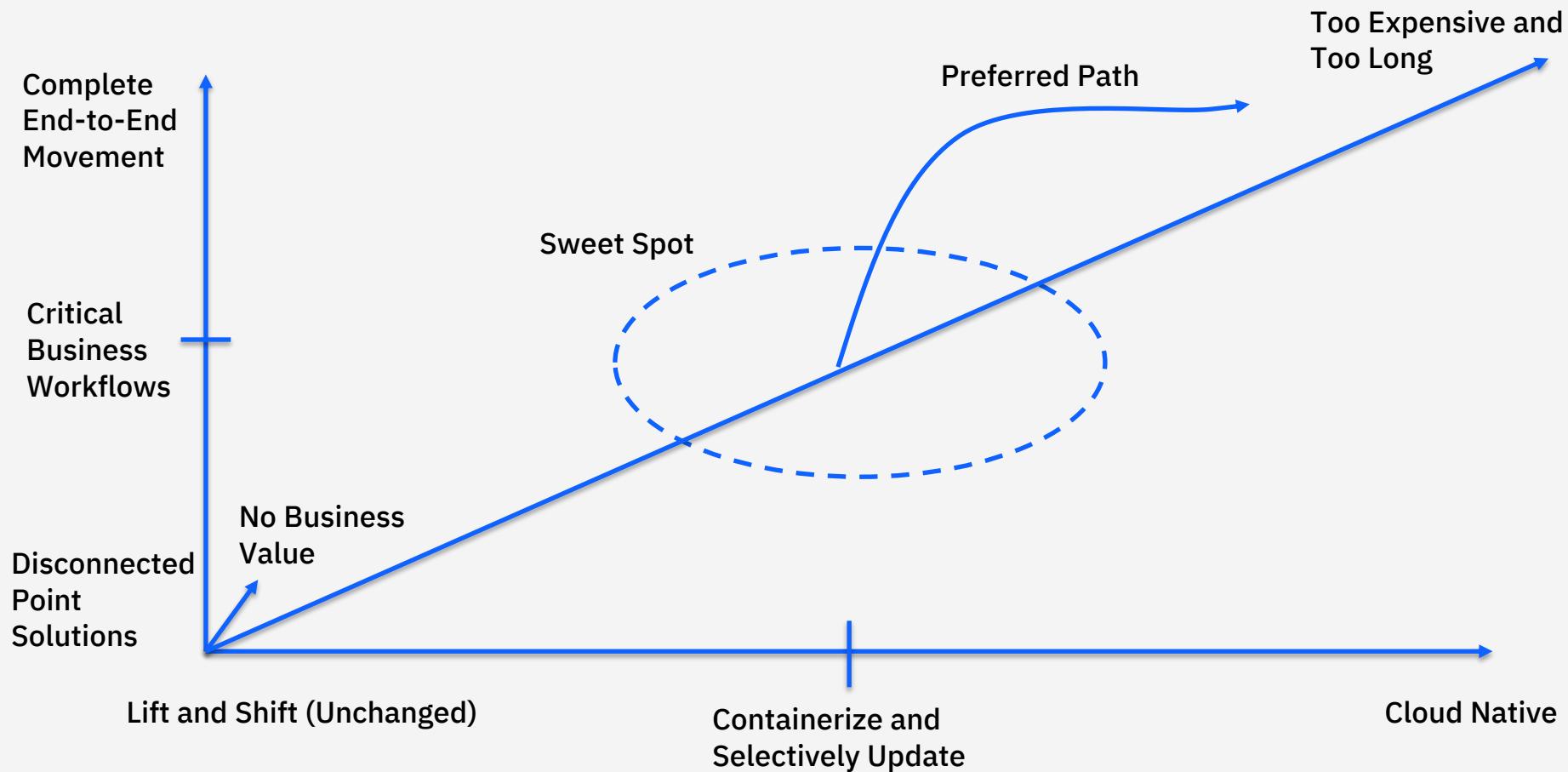


Navigating the parts of an Application Portfolio

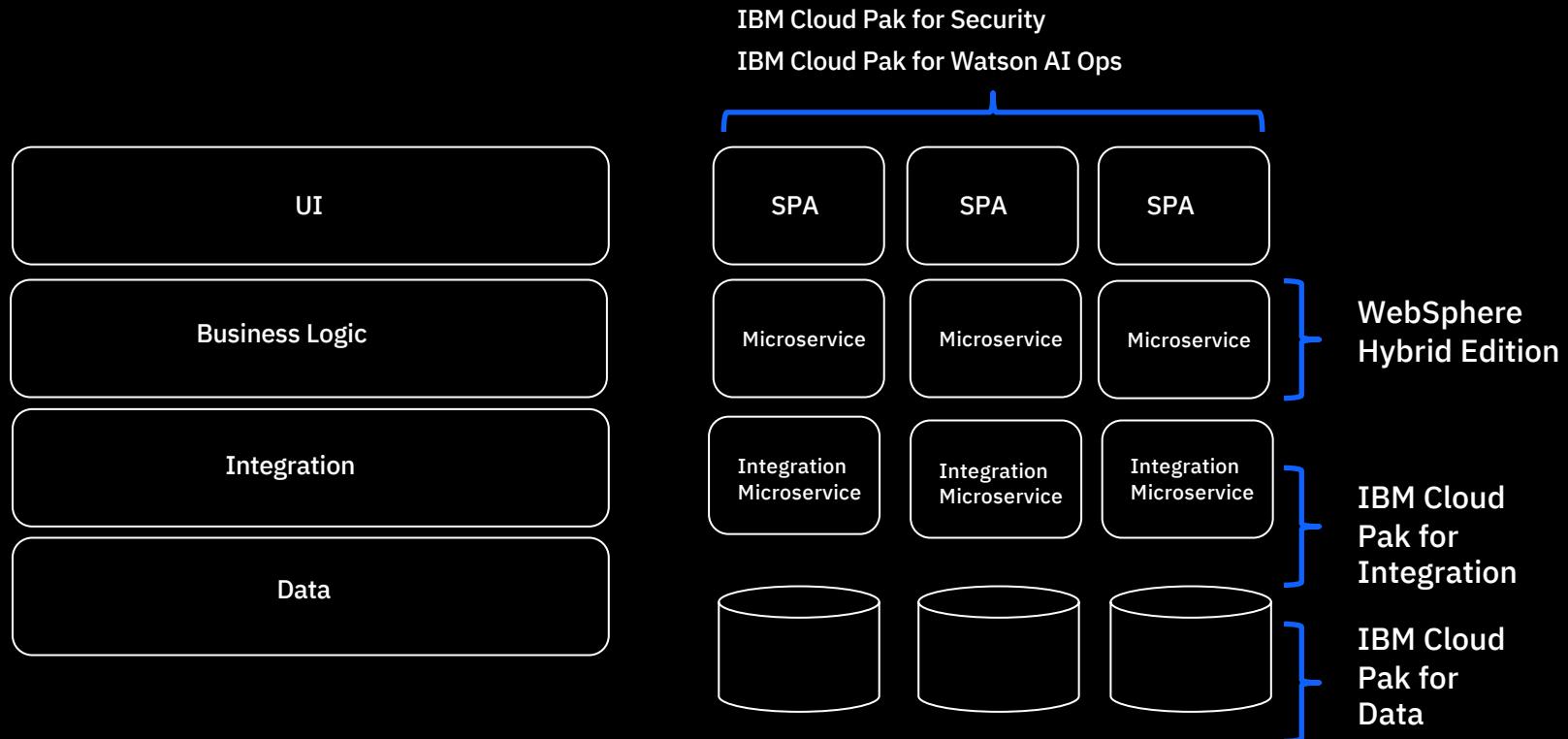


- Our basic problem is plotting a course through the hairball.
- You have to understand that you can't do it all at once. It must be done incrementally.
- You have to find parts that you can extract out and demonstrate that they can continue to function in a more modern approach or platform, while providing a clear path to also upgrading the other parts of the hairball.
- Different parts of the hairball will require different modernization strategies
- Think globally – modernize locally

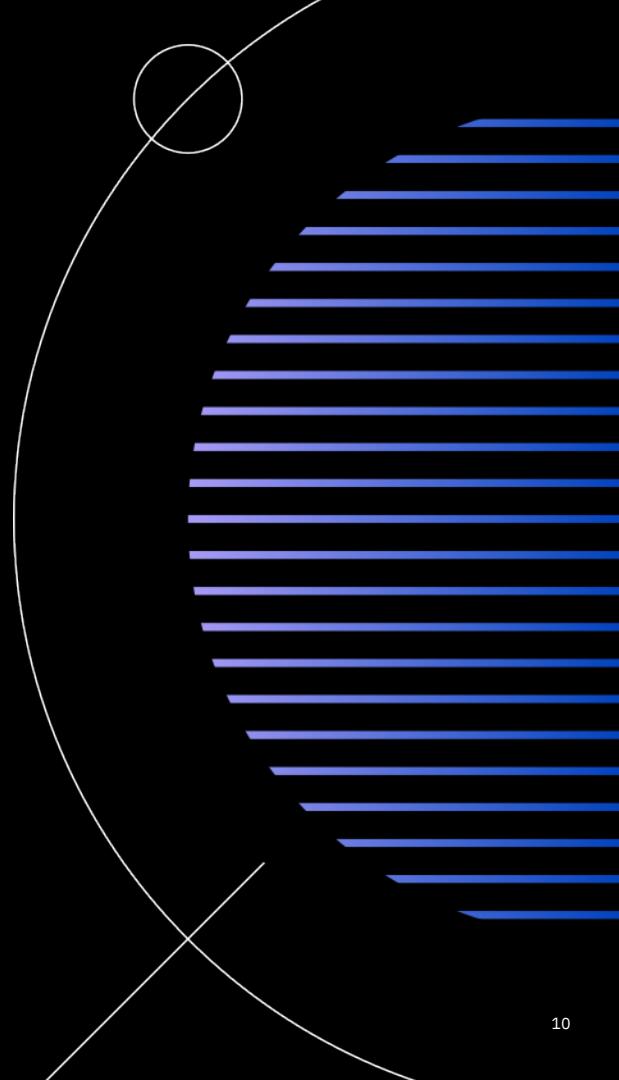
Finding a Modernization Path



Detangling the hairball



Distributed Systems modernization



Distributed Systems Modernization

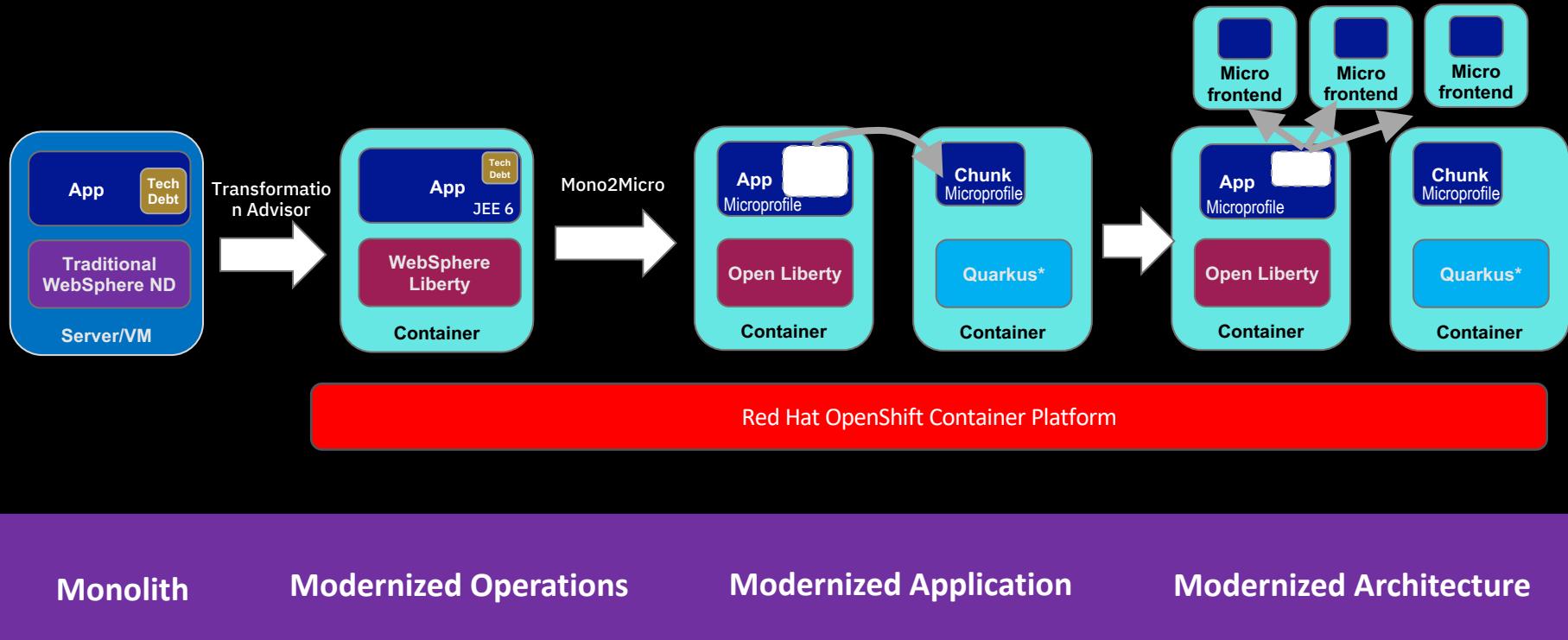
A good place to start is using **IBM Transformation Advisor** to analyze the code

- It collects information about customer existing environment and applications running in WAS on z/OS or WAS on z/Linux
- It combines that with rules and insights gained from years of working with WebSphere and WebSphere applications
- It provides recommendations for the cloud journey, by providing the information to identify the best application modernization approach to adopt and suggest to the customer ('Replatform' or 'Refactor')
- IBM Transformation Advisor works the same on all the platforms where WebSphere Application Server is installed. It doesn't mind if WAS is running either on a distributed platform or on mainframe (z/Linux and/or z/OS)

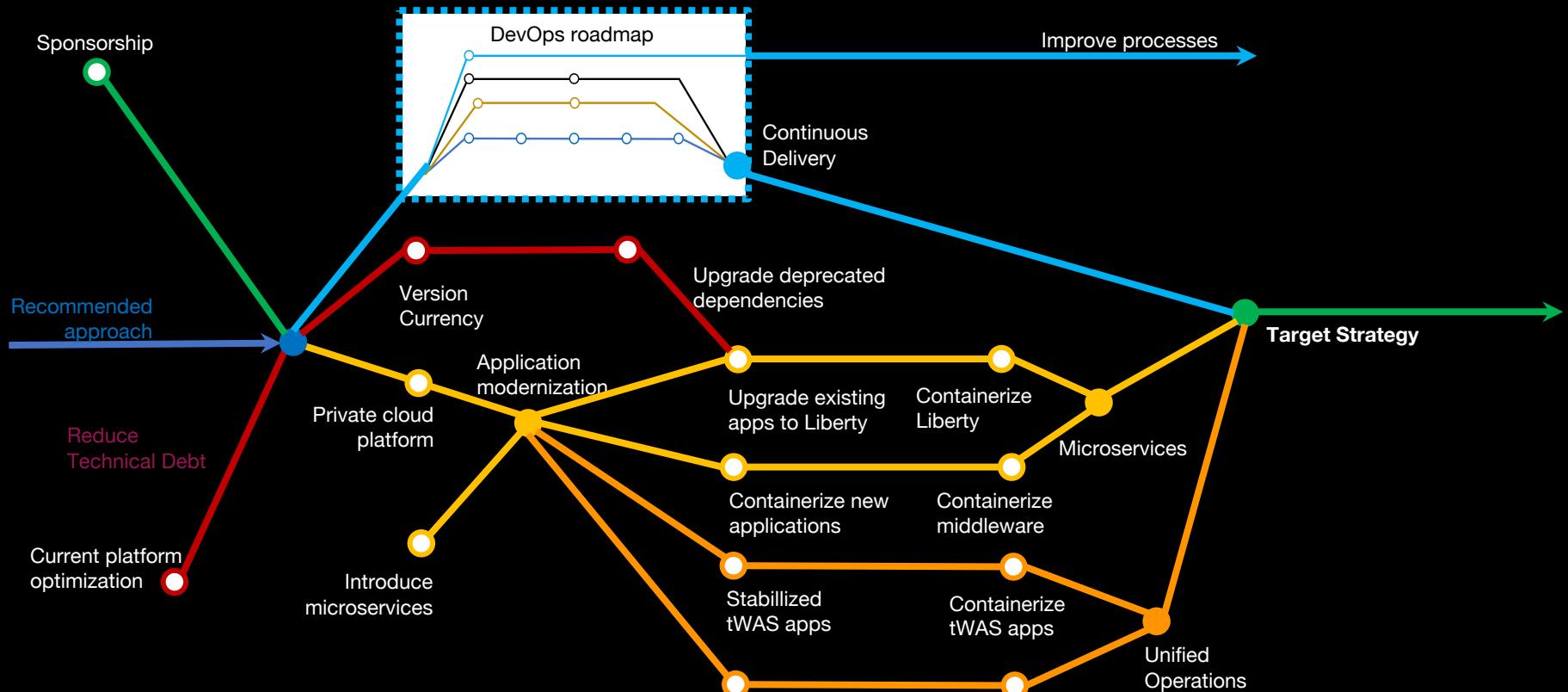
Clients are entitled to use TA when entitled for CP4A, CP4I, WHE, CFMR

TA currently provides analysis for Java applications, ACE (IIB) integrations, and some versions of MQ

Application Modernization Path



A more complete App Mod Roadmap



Java Applications are only part of the problem

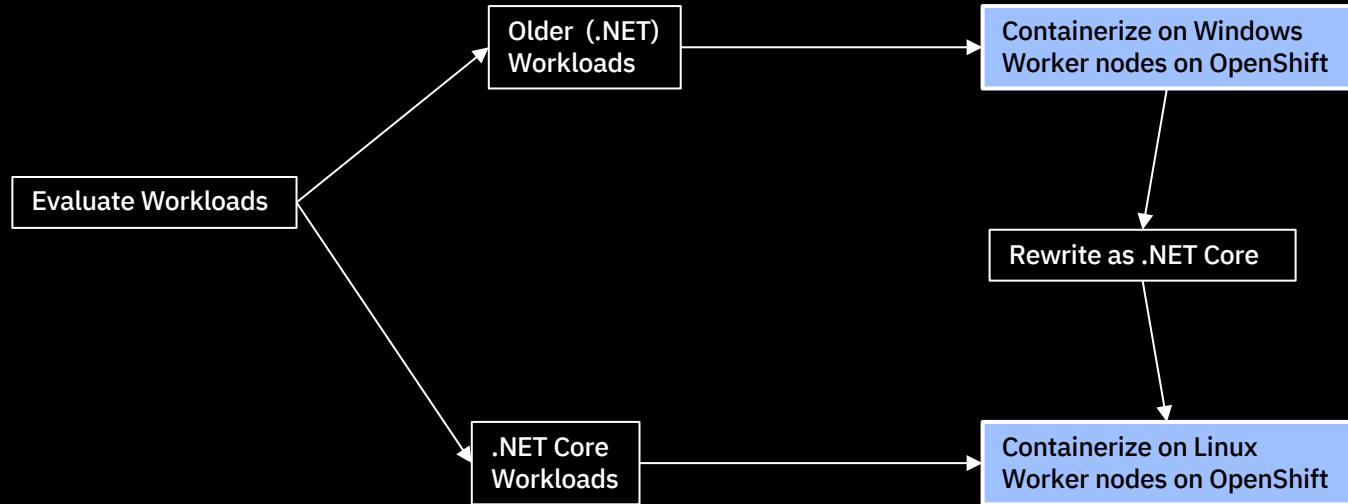


Most of our Enterprise customers also have .NET applications that may need to be modernized as part of a move – having a ready answer for how we can help is critical

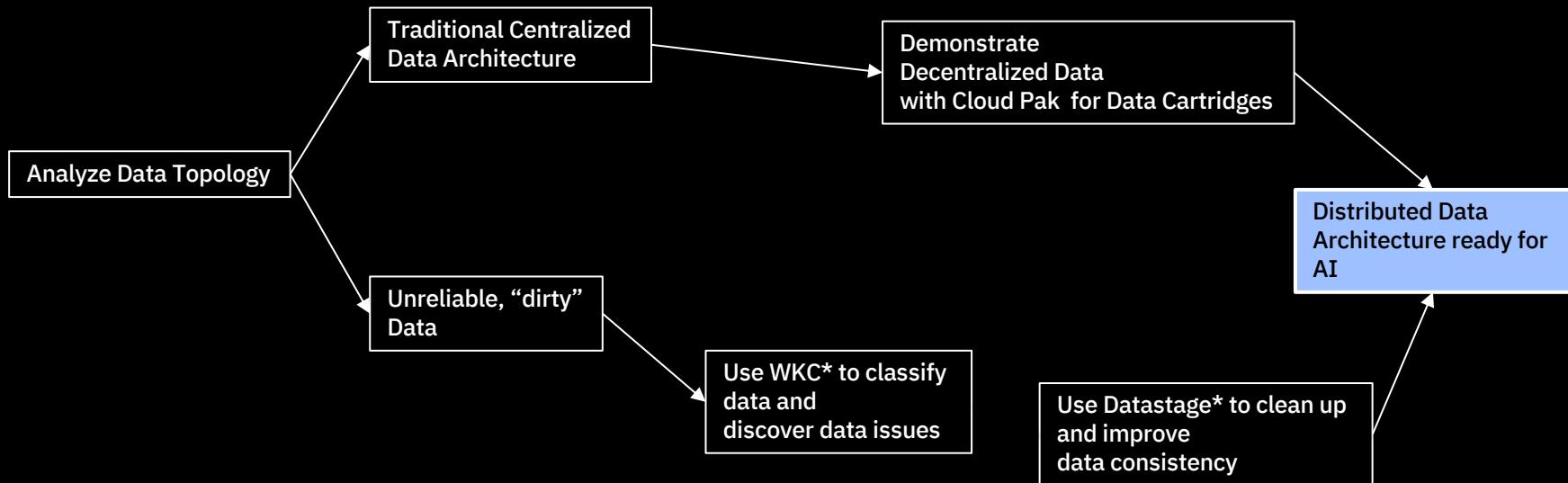


And no Java modernization effort can proceed unless you have a simultaneous plan for modernizing the data as well...

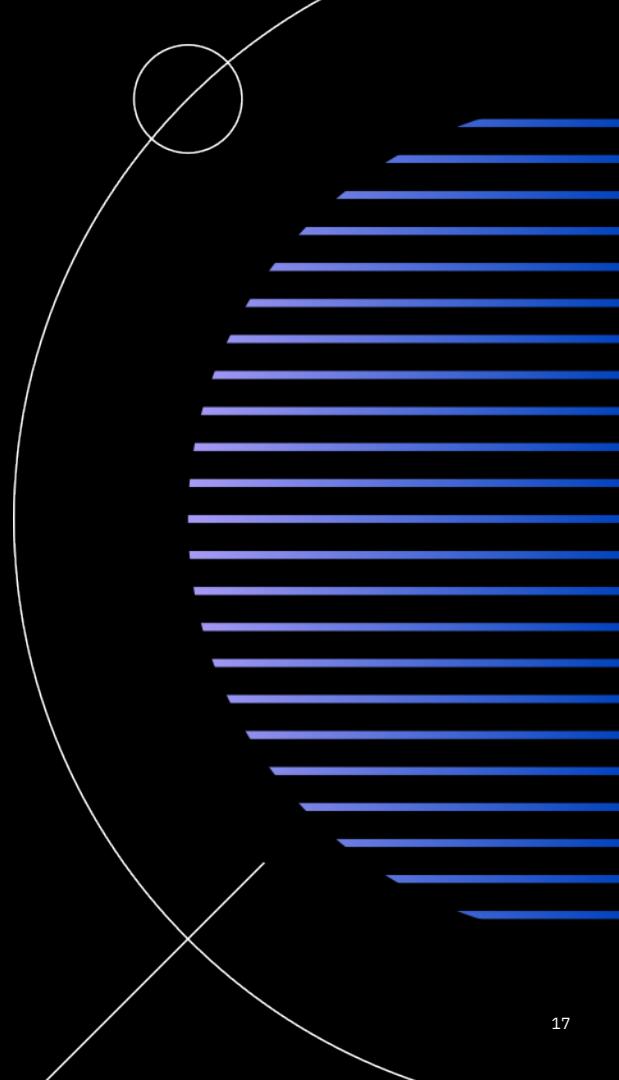
Windows Modernization Paths



Data Modernization Paths (illustrative)



Mainframe modernization



Mainframe Modernization is not trivial



Clients often think that moving off the mainframe will solve all of their problems – but that's not as easy as it sounds

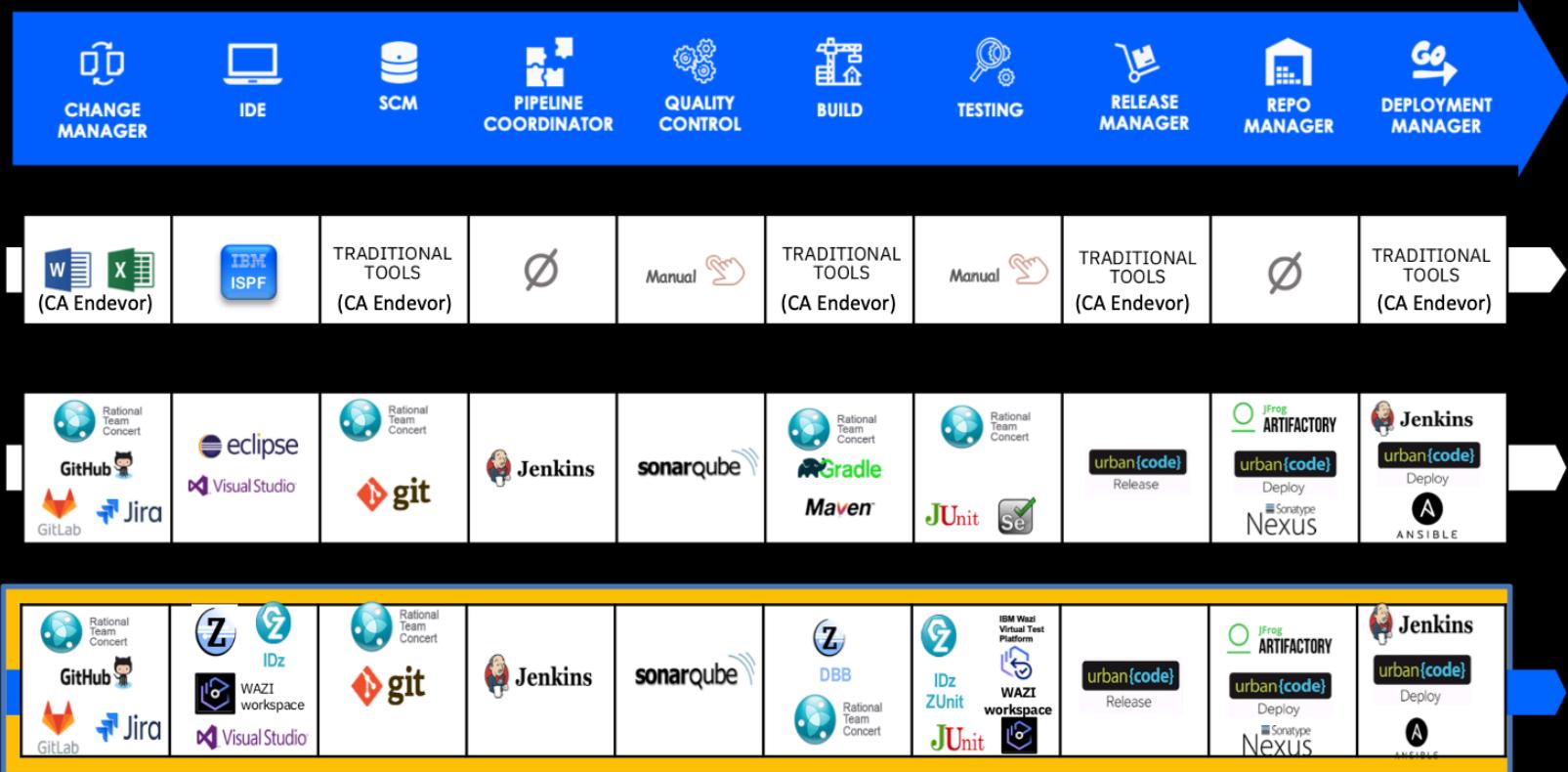


The problem is just as often their own development processes and lack of investment in infrastructure and skills as it is the cost of the mainframe

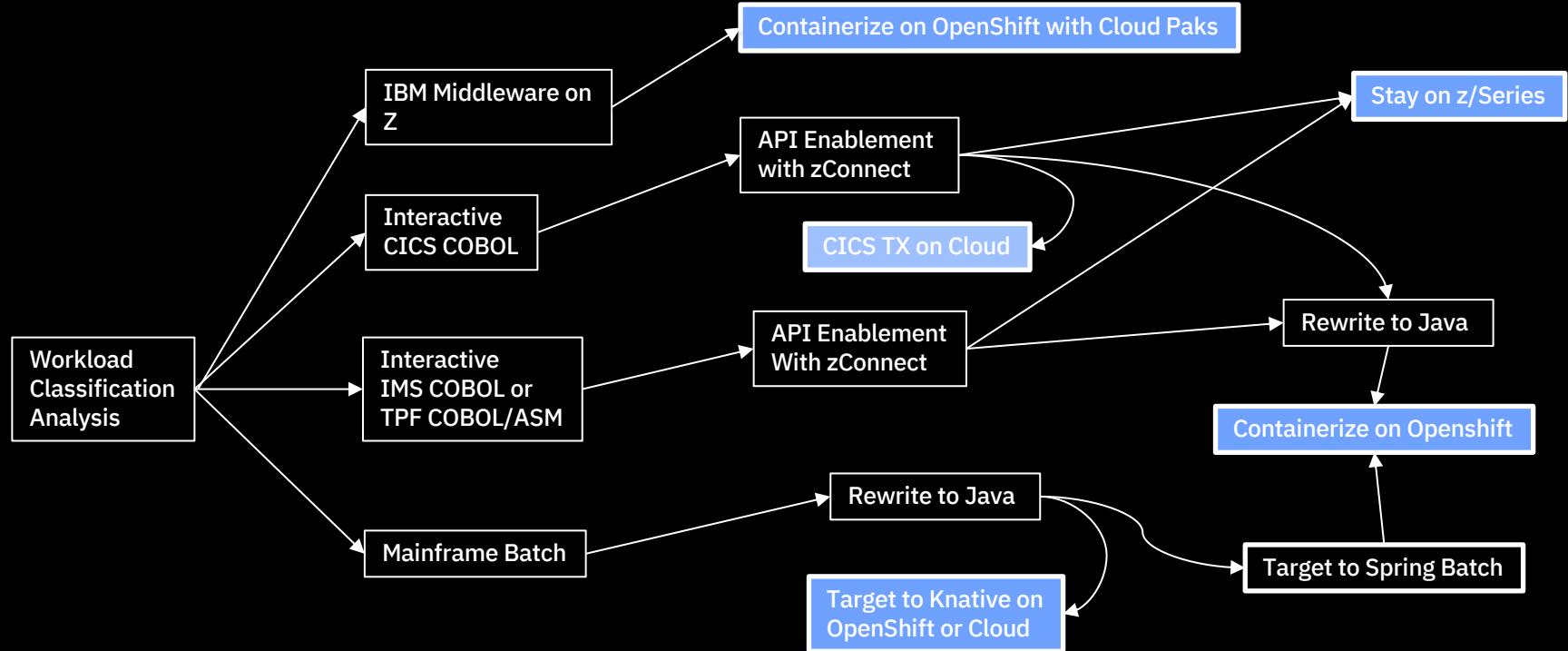


You may have to modernize part of your mainframe assets as part of a larger modernization effort – but that doesn't always mean moving off of the mainframe

DevOps: unified pipeline for Heterogeneous/Hybrid environments

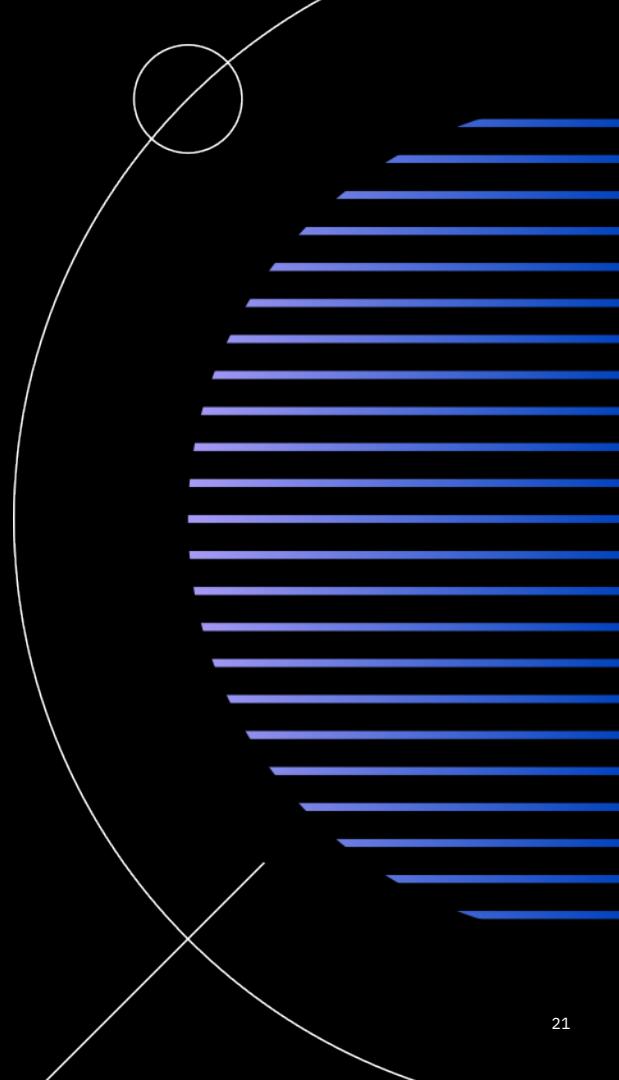


Mainframe modernization paths example



For larger customers, GBS has tools to help the analysis process

Hybrid System modernization



Agile Integration

Modernizing
integration to enable
business agility

Decentralized
Ownership
People & Process

→ Accelerate agility and
innovation
(**development** agility)

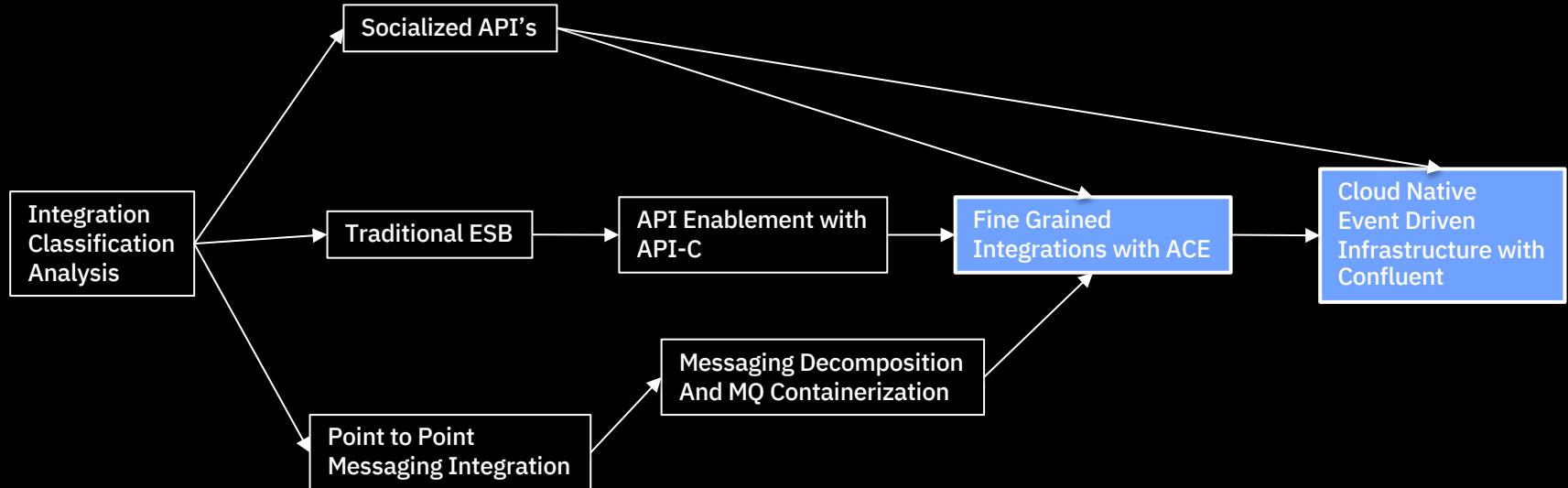
Fine-grained
deployment
Architecture

→ Improve build
independence and
production velocity
(**deployment** agility)

Cloud native
infrastructure
Technology

→ Dynamic scalability
and inherent
resilience
(**operational** agility)

Integration Modernization Paths



TA will help in some cases with analysis of IIB flows – otherwise this is a manual process

Don't forget the placement discussion!

In this talk we've spent most of our time discussing HOW to do modernization of different parts of the enterprise portfolio

That's because clients often obsess over the WHERE before they really consider the how deeply enough.

But after a POC or MVP (or even during it) the workload placement discussion will rise to the forefront. Don't let it stop the movement prematurely.

Some important things to consider:

1. What is the TCO of moving to a public cloud vs. on premises private cloud?
2. What advantages do specific hardware architecture choices (e.g. zSeries coresidency, Power architecture) give to the overall system?
3. What advantages does the IBM Public cloud give over other private clouds in terms of security and ease of implementation of OpenShift and Cloud Paks for this workload?

Help them Think Hybrid Multicloud – not every part of an application needs to go in the same place!

Resources

CP4Apps Enablement and Certification:

<https://w3.ibm.com/w3publisher/cloud-paks-skills-and-certification/cloud-pak-for-app>

JEE App Modernization Course:

<https://learn.ibm.com/course/view.php?id=5160>

CP4Automation Education Links:

<https://ibm.ent.box.com/s/q2uec61zr8ktqcmgmoecx83av5qm125w>

CP4Automation Course:

<https://learn.ibm.com/course/view.php?id=5583>

CP4Data Learning Journey:

<https://w3.ibm.com/w3publisher/daell-enablement/cloud-pak-for-data>

CP4Data Training links:

<https://ibm.ent.box.com/s/fshp87sts89burukplm5qr806plt2pd>

CP4Integration Enablement and Certification:

<https://w3.ibm.com/w3publisher/cloud-paks-skills-and-certification/cloud-pak-for-integration>

CP4Integration Workshop:

<https://learn.ibm.com/course/view.php?id=5429#section-13>

CP4MCM Enablement and Certification:

<https://w3.ibm.com/w3publisher/cloud-paks-skills-and-certification/cloud-pak-for-mcm>

Thank you

First Lastname

Job Title

—

firstlastname@us.ibm.com

+1-555-555-5555

ibm.com

