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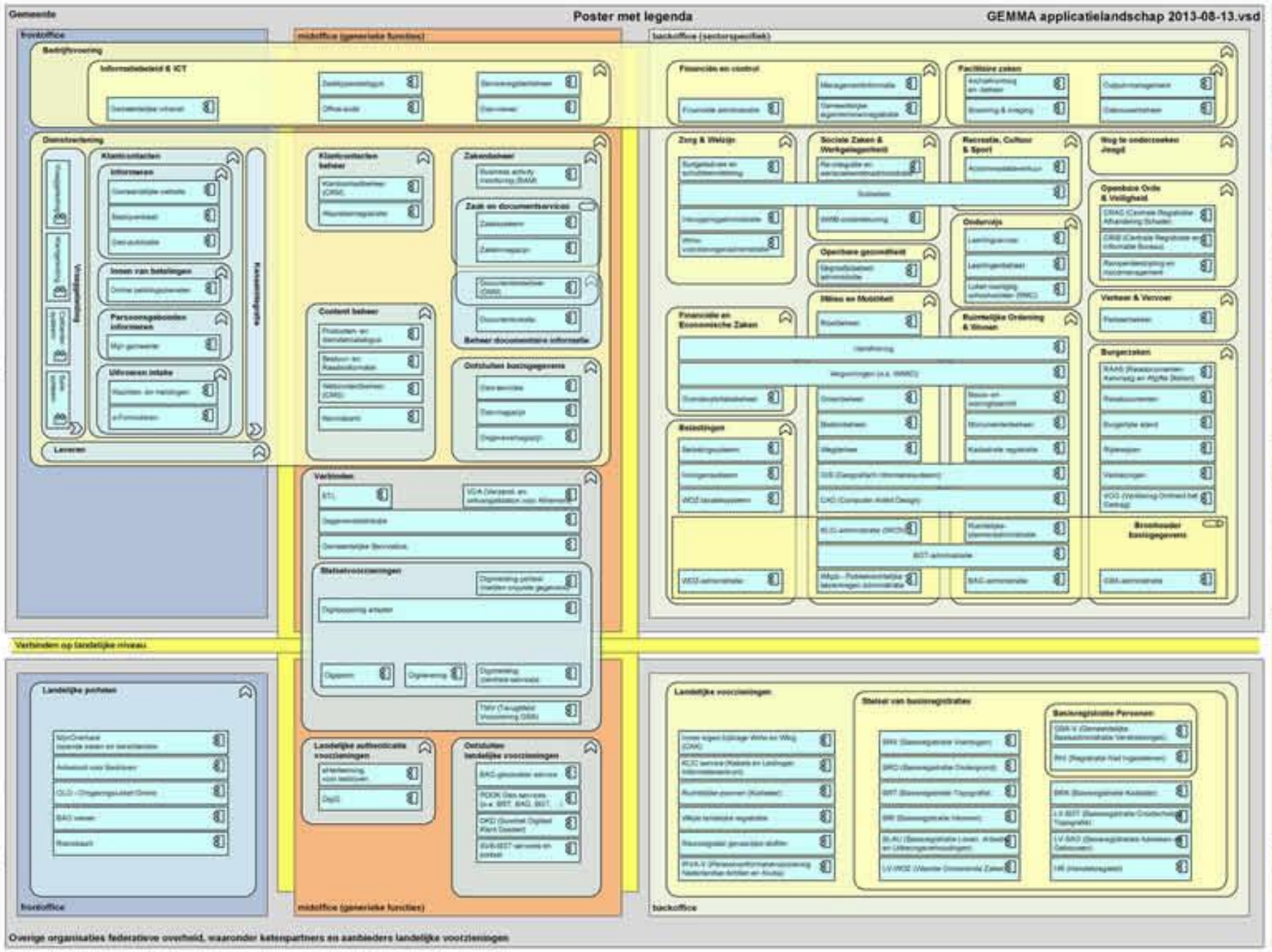
HI, I AM STEFAN SMEETS, UNIT MANAGER THE CONNECTED COMPANY AND I AM GOING TO TALK ABOUT ….

Why build and modernise your application with the Azure Cloud ?



Waarom is het GEMMA applicatielandschap gemaakt?
Het GEMMA applicatielandschap is gemaakt als hulpmiddel voor het verkrijgen van inzicht in het huidige gemeentelijk applicatielandschap. De plaat helpt hierbij door deze te gebruiken als grondplaat voor het maken van verschillende views. B.v. een overzicht van een gemeente, het productportfolio van een leverancier of het weergeven van ketens en koppelvlakken tussen applicaties.

Legenda

Het GEMMA applicatielandschap is gemodelleerd met ArchiMate®, de standaard modelleertaal voor Enterprise Architectuur (EA). Archimate is een open en onafhankelijke modelleerstandaard en wordt beheerd door 'The Open Group'.

Bedrijfsfunctie

De bedrijfsfuncties in het Applicatie-landschap zijn gebaseerd op de door de VNG gehanteerde indeling in gemeentelijke beleidsvelden. Een voorbeeld van een bedrijfsfunctie is het beleidsveld burgerzaken.

Bedrijfsrol

Een gemeente kent meerdere rollen in het kader van de stelsel van basisregistraties. Naast de rol afnemer is een gemeente bronhouder voor enkele registraties.

Applicatiefunctie

De applicatiefuncties in het applicatielandschap zijn gedefinieerd in de GEMMA informabearchitectuur. Een voorbeeld van een applicatiefunctie is 'Zakenbeheer'.

Applicatiecomponent

De applicatiecomponent wordt in het GEMMA applicatie landschap referentiecomponent genoemd. Het GEMMA applicatielandschap is onderverdeeld in een samen-hangend geheel van referentiecomponenten. Zie www.gemmasoftwarecatalogus.nl voor de omschrijvingen van de referentiecomponenten. Een op de markt verkrijgbaar softwareproduct kan functionaliteit bieden van één of meerdere referentiecomponenten. Het is de verantwoordelijkheid van de leverancier om vast te stellen welke softwareproducten voldoen aan de omschrijving en positie van een referentiecomponent. Een voorbeeld van een referentiecomponent is een 'Zaaksysteem'.

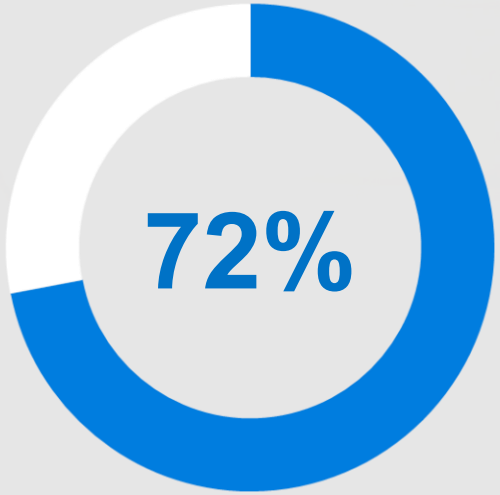
Applicatieservice

Een applicatieservice stelt (een deel van) de functionaliteit van een applicatiecomponent beschikbaar. Bij voorkeur gebeurt dit via een gestandaardiseerde interface. Een voorbeeld van de applicatieservice zijn de zaak- en documentservices.

72%

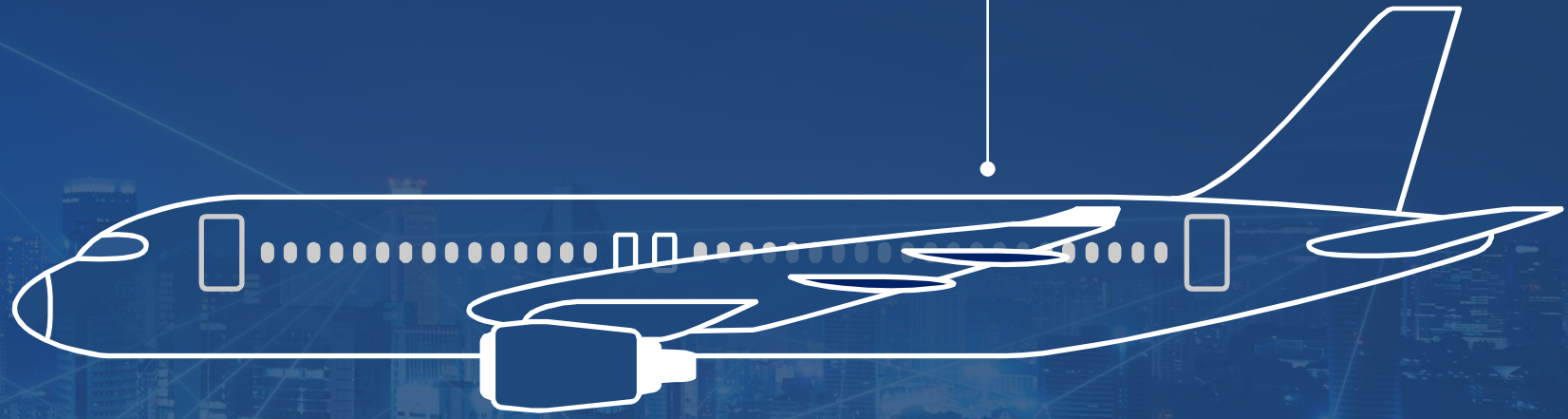
of IT budgets are put aside to ‘keep the lights on’.

Gartner



MODERN LIFE RUNS ON CODE

Boeing 787
14 million lines of code



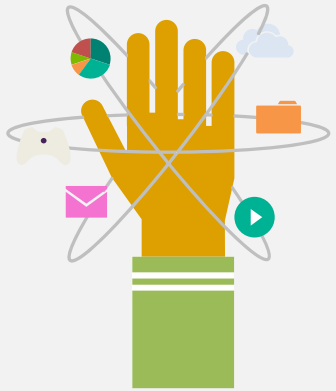
Urban traffic control system
5 million lines of code

Luxury car
120 million lines of code

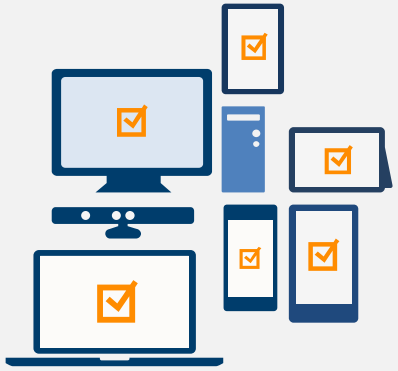
Source:
https://informationisbeautiful.net/visualizations/million-lines-of-code/

INDUSTRY TRENDS ARE CREATING NEW OPPORTUNITIES AND CHALLENGES

New apps



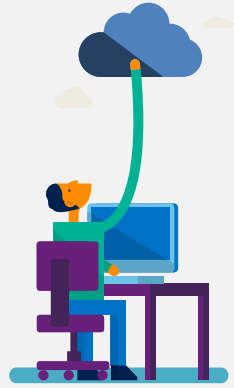
Device proliferation

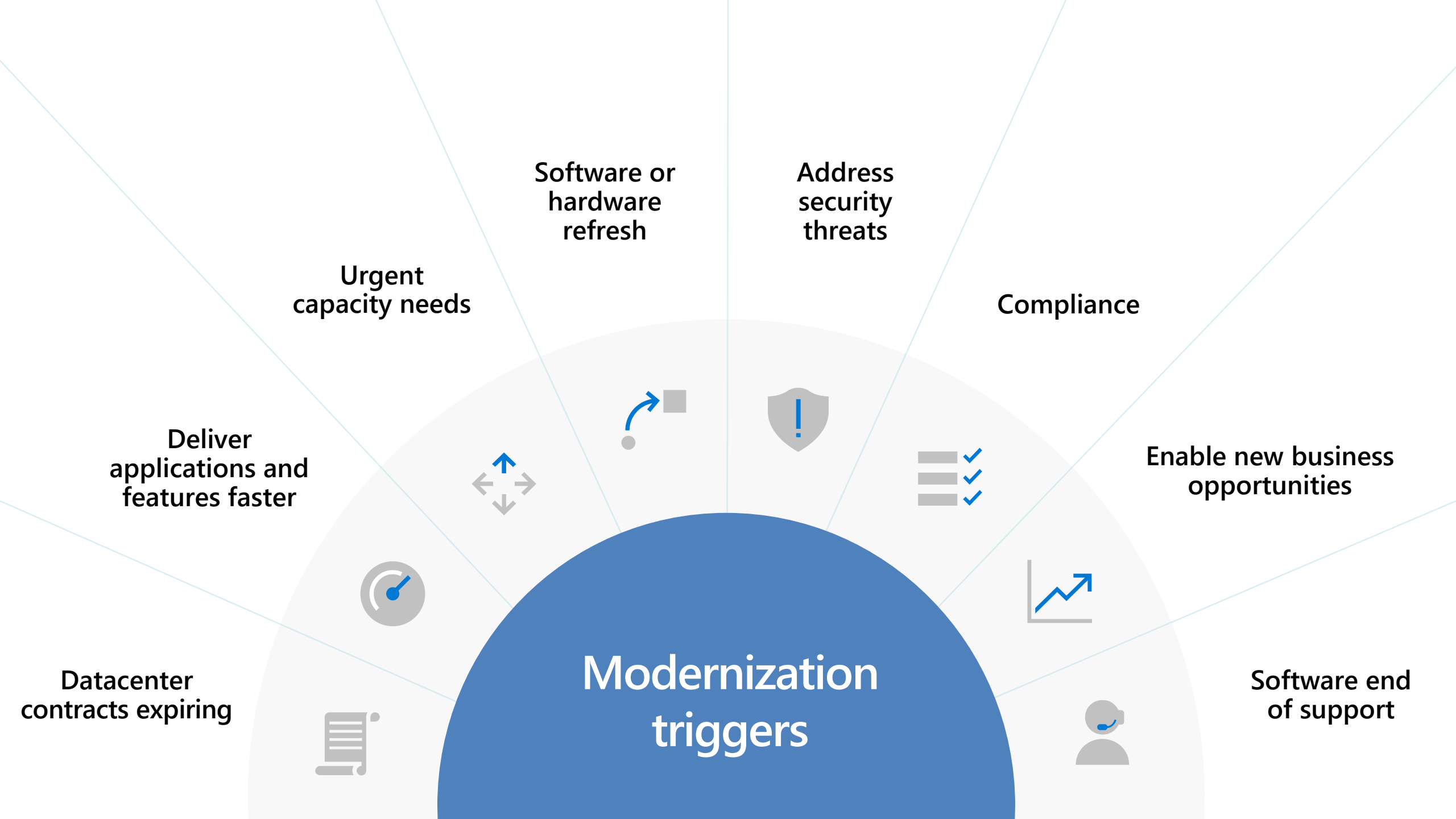


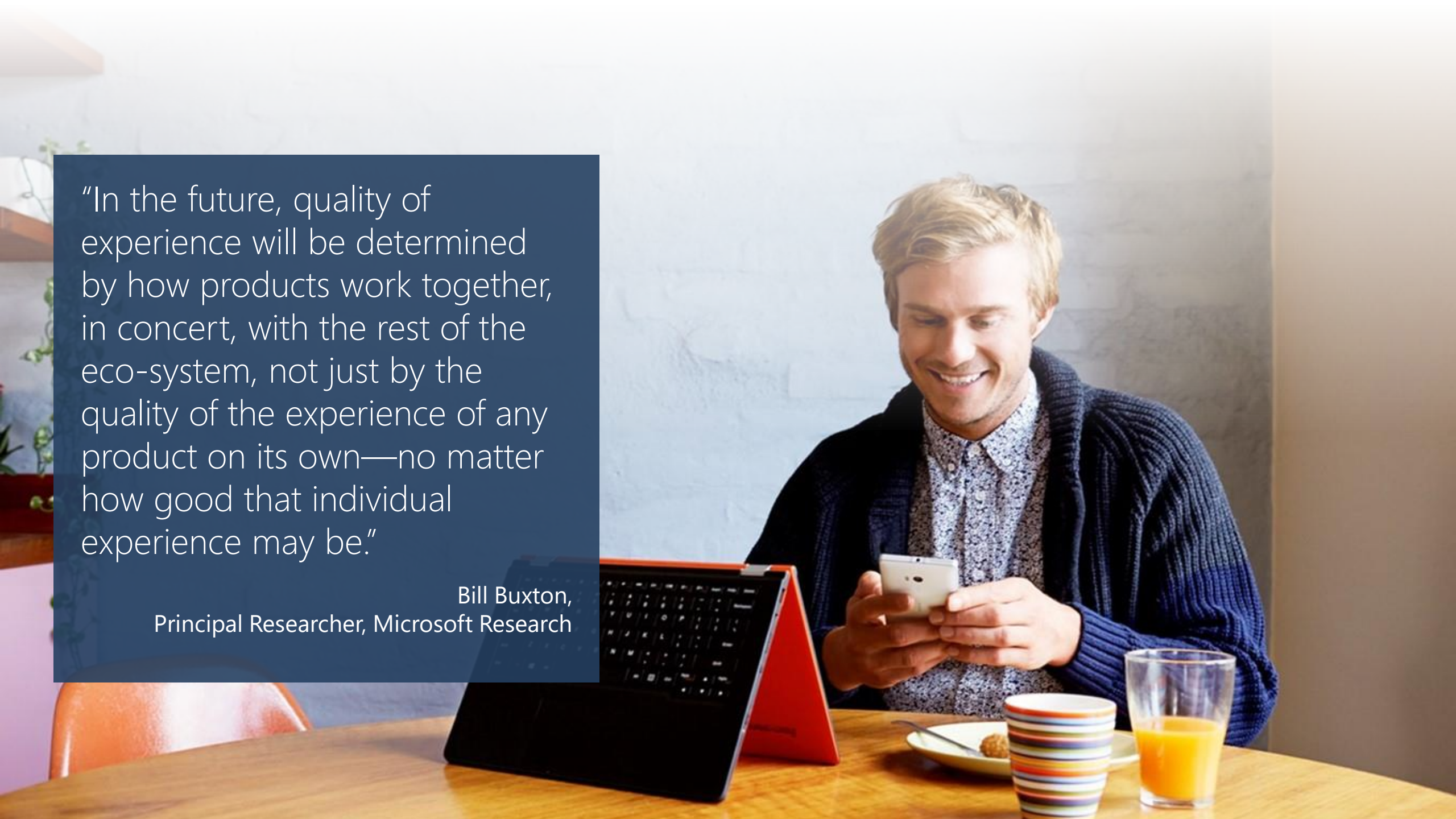
Cyber threat detection

Data explosion

Cloud computing




Modernization triggers
Software or hardware refresh
Address security threats
Urgent capacity needs
Compliance
Deliver applications and features faster
Enable new business opportunities
Datacenter contracts expiring
Software end of support



"In the future, quality of experience will be determined by how products work together, in concert, with the rest of the eco-system, not just by the quality of the experience of any product on its own—no matter how good that individual experience may be."

Bill Buxton,
Principal Researcher, Microsoft Research

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Are your applications ready?

Today

Application silos, built in isolation

Limited set of platforms and form factors

Overabundance of data

Servers and infrastructure to manage

Upfront capacity planning, fixed scale

Future

Multi-channel applications, covering all touchpoints

Many platforms, devices and form factors

Data-driven intelligence in applications

Focus on application **functionality, not infrastructure**

Elastic, unlimited **scale**

© Microsoft Corporation

Microsoft

The application journey to the cloud

© Microsoft Corporation

The journey to the cloud: much more to choose from

IaaS/VM/Compute

Own your home

Platform as a Service

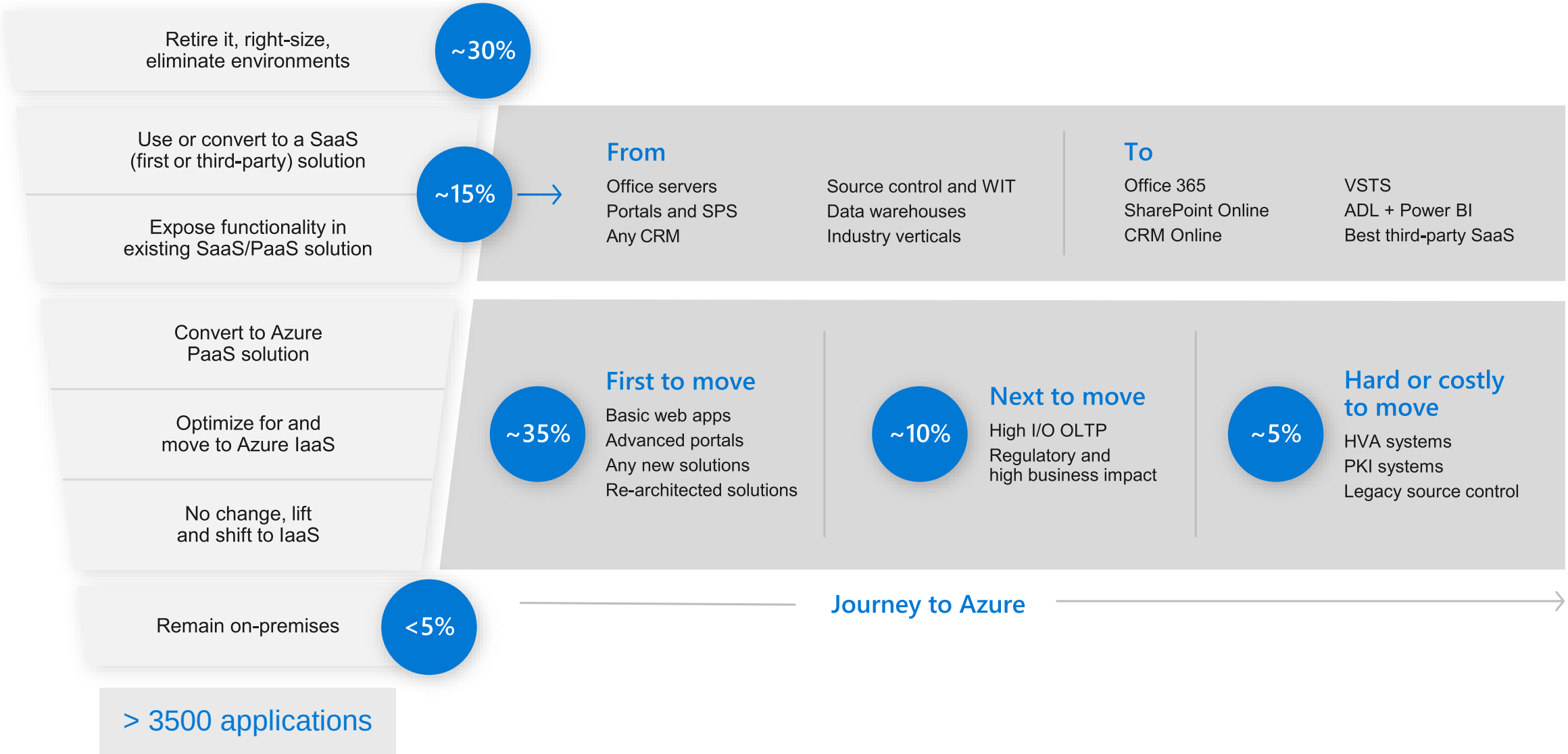
Bed and breakfast

Serverless

Hotel

© Microsoft Corporation

The Microsoft IT journey to Azure



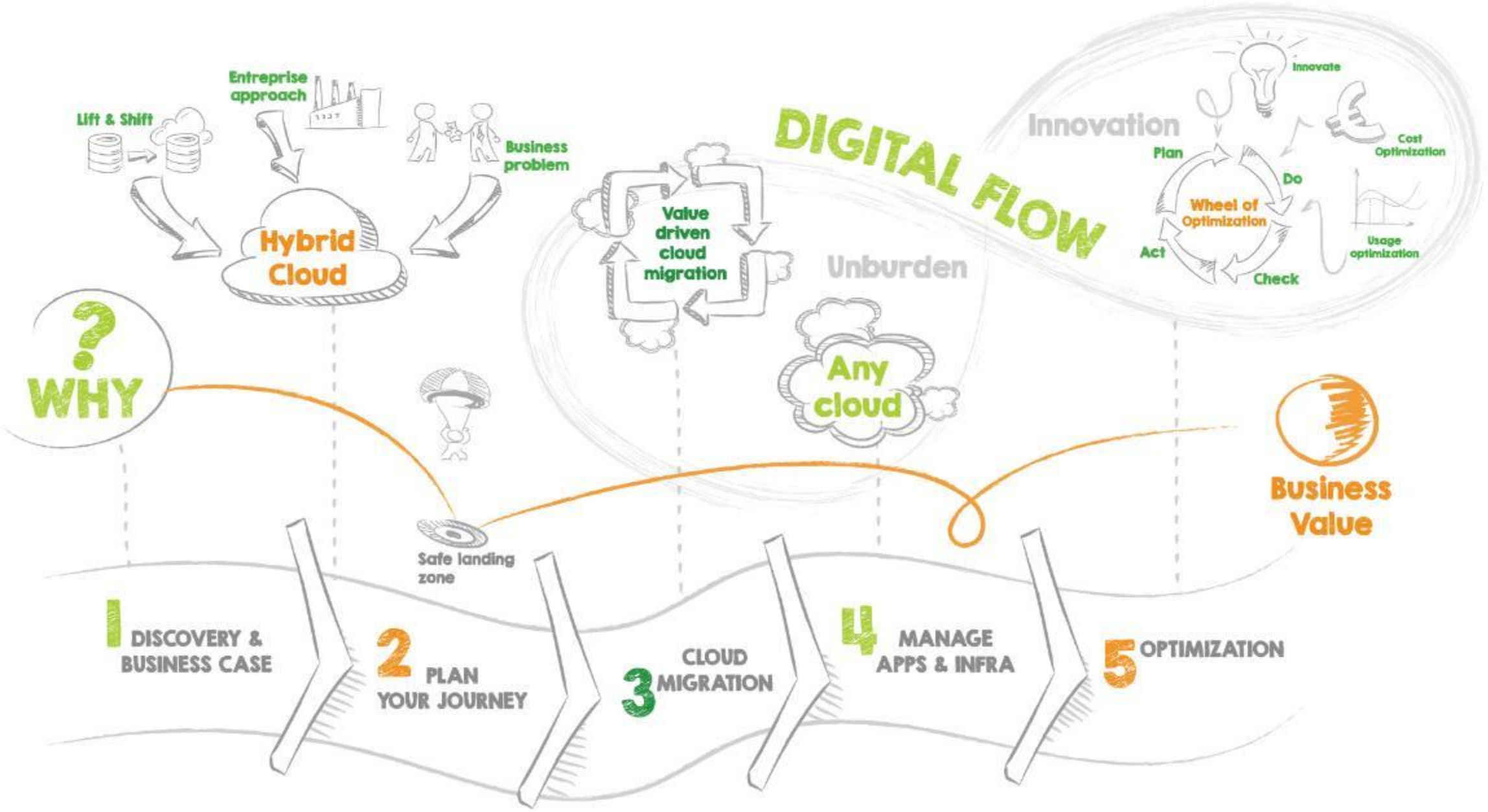
TOP 3 LEARNINGS

1. It's a great opportunity to 'clean house' - retire applications that are no longer used or consolidate and transition functionality to off-the-shelf solutions where possible.

2. No cloud hosting model (IaaS, PaaS, SaaS) should be taken off the table too early.

3. Move custom applications in stages:
   - Move simple workloads directly to PaaS: web sites, static portals, standard three-tier applications.
   - Migrate complex solutions to IaaS first to unlock immediate benefits and gradually modernize later.
   - Keep legacy/undocumented code as-is and surround it with serverless functions to add features.

Download the eBook
https://azure.microsoft.com/resources/inside-microsoft-cloud-migration-journey/


Lift & Shift
Entreprise approach
Business problem
Hybrid Cloud
DIGITAL FLOW
Value driven cloud migration
Unburden
Any cloud
Innovation
Innovate
Cost Optimization
Plan
Do
Wheel of Optimization
Act
Check
Usage optimization
WHY
Safe landing zone
Business Value
1 DISCOVERY & BUSINESS CASE
2 PLAN YOUR JOURNEY
3 CLOUD MIGRATION
4 MANAGE APPS & INFRA
5 OPTIMIZATION

Top tips for tackling cultural shift
1
Assessing how the cloud could affect your culture
2
Carrying out a risk assessment focuses on people, not on technology
3
Finding board-level sponsors to act as champions of change
4
Developing a programme that combines positive employee communications with inclusivity
5
Putting in place a bottom-up channel for raising concerns

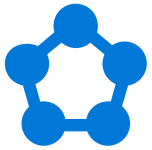
Microsoft

What makes Azure a great place for application developers?

© Microsoft Corporation

A turn-key platform for Application Modernization

Orchestration
(Kubernetes)



Microservices

Web Apps

Event-driven
Functions

< Control

Infrastructure abstraction

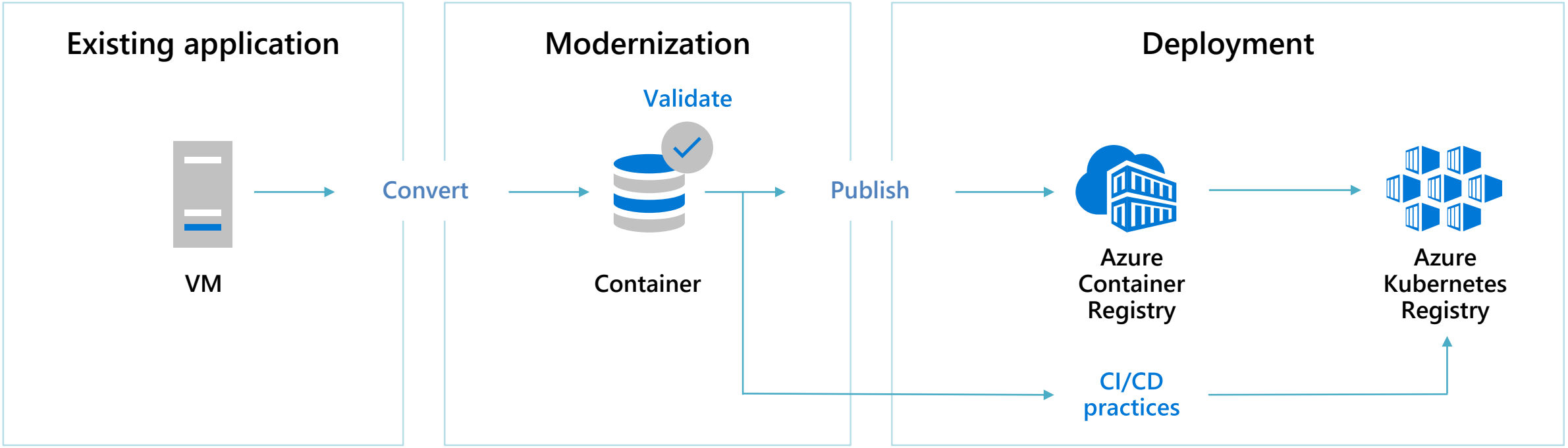
Productivity >

© Microsoft Corporation

Refactoring with container technology

Faster application deployment with integrated CD/CD tools and orchestration

- Containers support all frameworks and technology stacks across clouds and on-premises
- No OS overhead means improved packing density and more resource efficiency
- Faster application deployment with integrated CD/CD tools and orchestration



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Rearchitecting with microservices

More agile, scalable and resilient applications

Individual services can be upgraded, changed or taken down without impacting the application

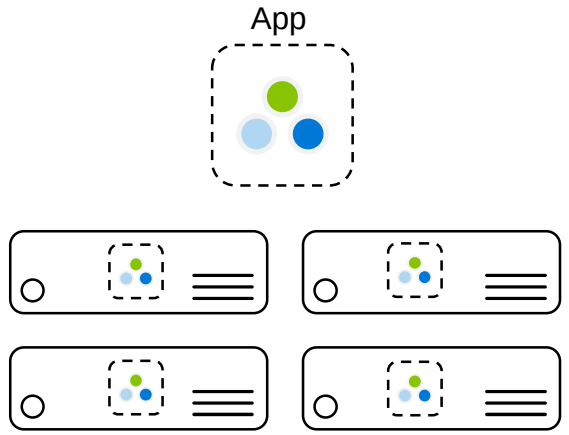
Developers work on individual services, which are smaller, easier to manage and understand

If individual services should fail, the application will continue to work without interruption

Microsoft Azure Service Fabric

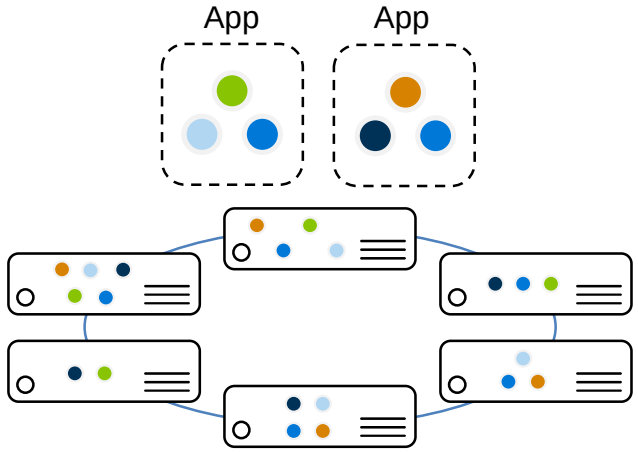
Microservices

Large, all-inclusive app



Monolithic

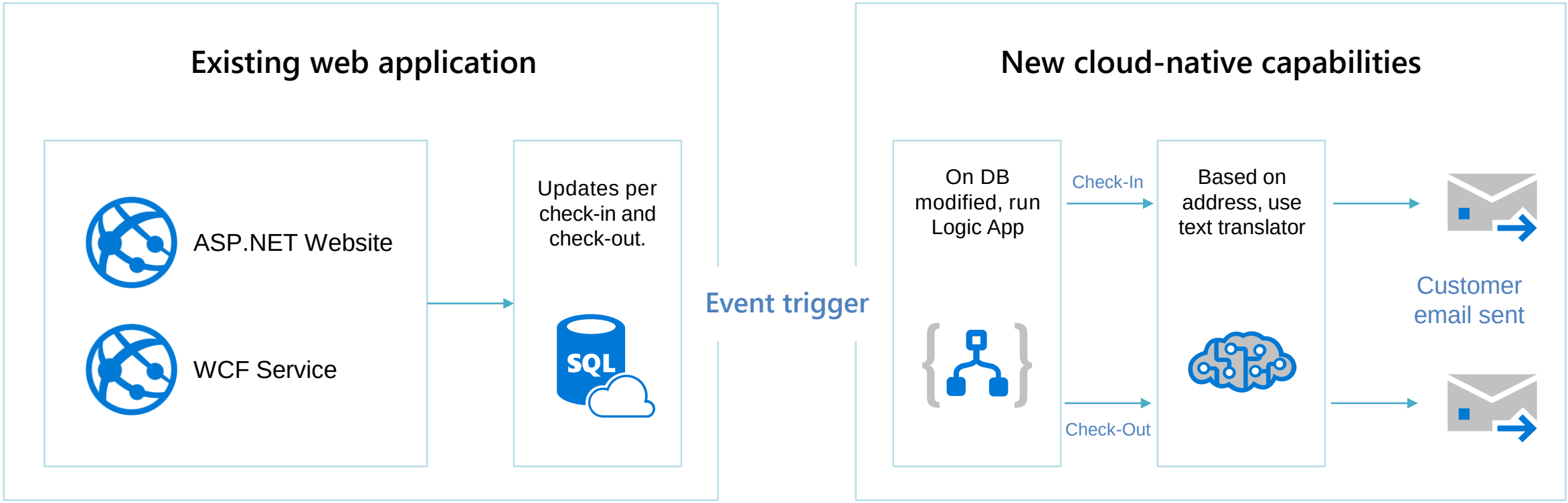
Small, independent services



Future-proofing applications with serverless

Adding new capabilities to existing applications

- Existing code and functionality is left as-is and moved to managed cloud services
- New capabilities are added incrementally using serverless functions triggered by events



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“By 2020, more than 50% of enterprises will run **mission-critical, containerized Cloud-Native applications** in production”.

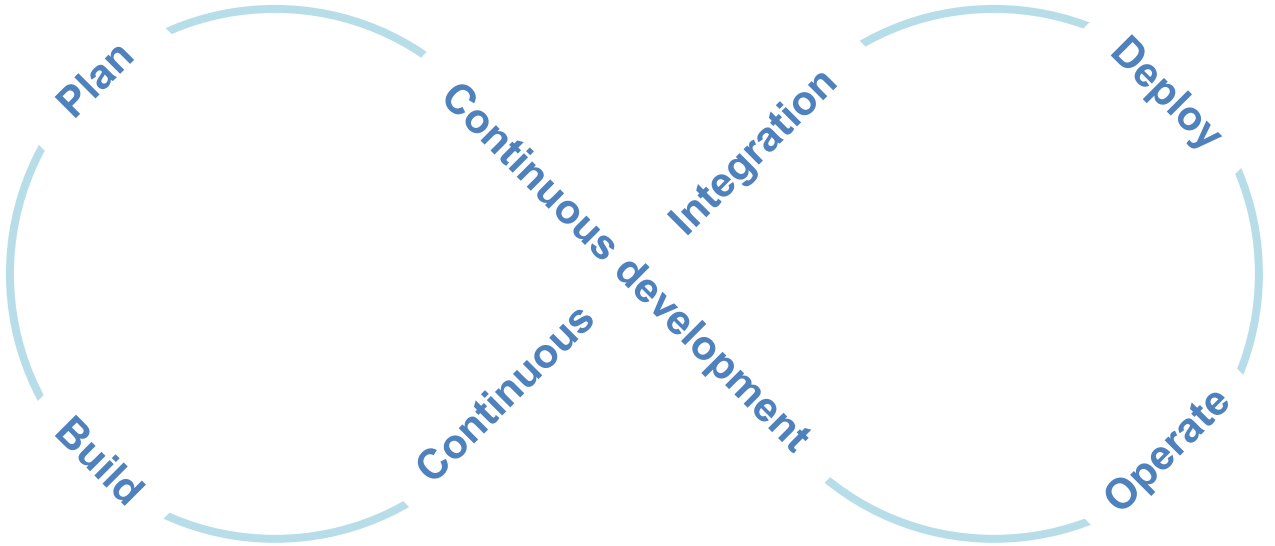
Gartner

Deliver applications faster and more reliably

Plan + Track

Release

Development



Operations

Code, Build + Test

Operate + Monitor

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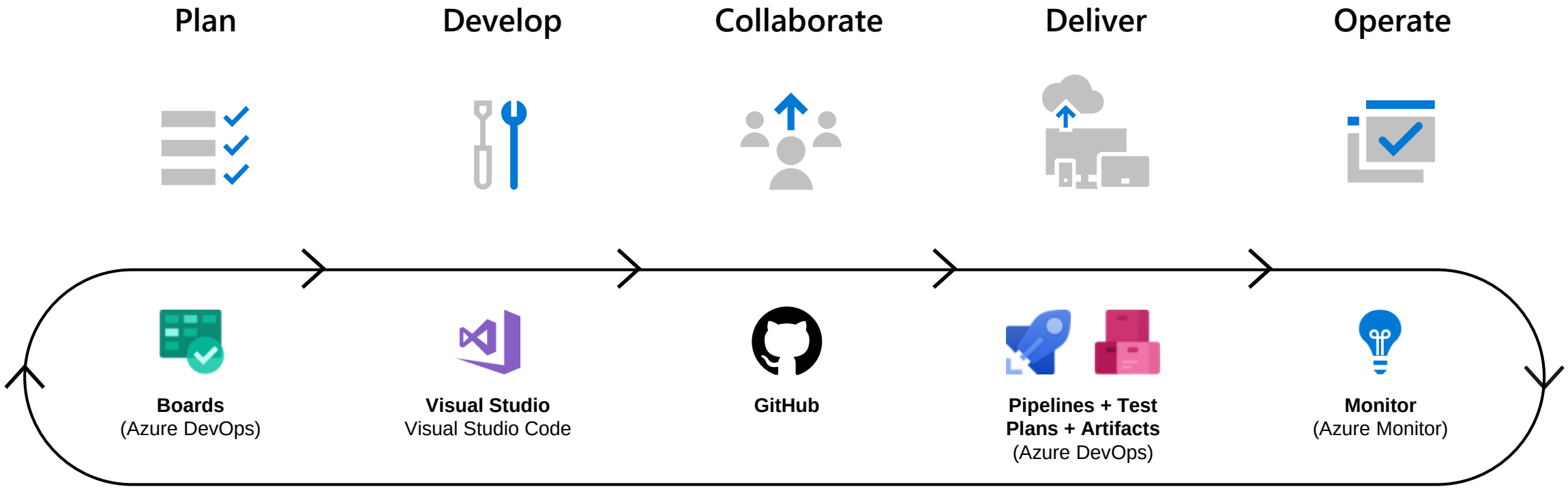
Deliver applications faster and more reliably



Faster delivery to production • More business value

© Microsoft Corporation

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Lower your TCO by moving to Azure

Azure offers many ways to save money

78%

savings by migrating datacenters to Azure instead of staying on-premises

68%

savings by rehosting applications on Azure PaaS

63%

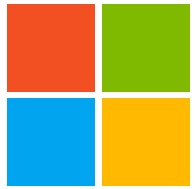
savings by rearchitecting applications for Azure

5x

lower cost for Microsoft workloads compared to AWS

Source

Azure TCO Calculator at www.azure.com/tco



Microsoft Azure

Productive + Hybrid + Intelligent + Trusted

DELIGHT YOUR CUSTOMERS

Growing trust, accessibility, relevance, and revenue through engagement and innovation.

Earn your customers' trust

Modern applications support co-creation, direct customer engagement, and tangible service

Deliver a consistent experience across channels

Help your customers achieve a consistent flow across interaction channels in retail, commercial, and wholesale segments

Engage customers at scale

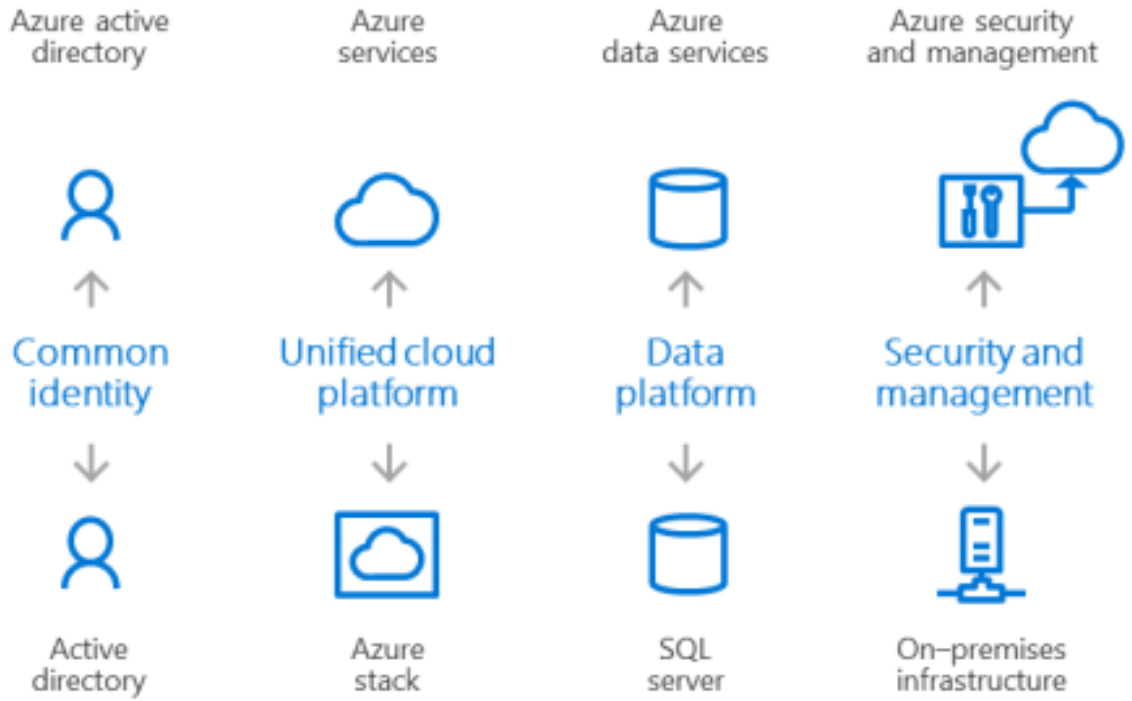
Deliver consumer facing services at massive scale to increase revenue streams and tap new markets

Multiply your business impact

Multiply the impact your business makes on high value customer interactions with a combination of devices and digital services

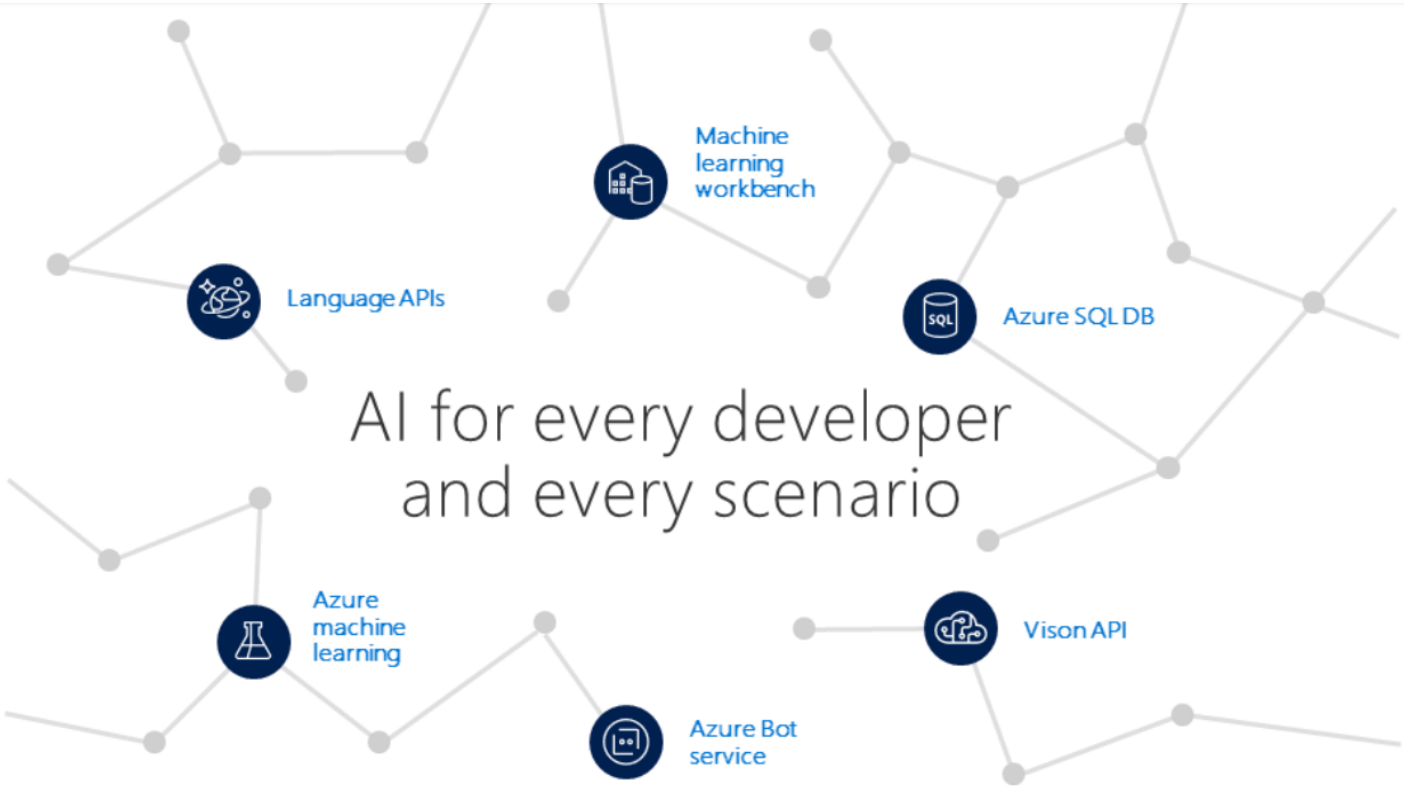
Hybrid

- The strength of the hybrid strategy is about the continuum of capabilities across the offerings, it's not just about the platform.
- Hybrid is more than just being able to move an application into the cloud.
- There are critical elements from identity, data, and security and management that have to be addressed.
- You don't have to be stuck in an all-or nothing choice – hybrid gives you the flexibility to move to the cloud when and how you want to.



- In addition to having the traditional on-premises enterprise data tools— such as SQL Server—Azure provides SQL services that connects data to **AI** services
- This enables quick adoption of **new innovative technologies**, such as deploying a global mobile application that integrates with facial recognition services
- The **ease of integration** enables anyone to build solutions like that
- From bot frameworks to **cognitive services**, you can fundamentally change the way your business goes to market with Microsoft's power AI platform

Intelligent



Trusted

Security

Protect your enterprise from advanced threats across hybrid cloud workloads

Azure Sentinel
Standing watch, by your side. Intelligent security analytics for your entire enterprise

Security Center
Unify security management and enable advanced threat protection across hybrid cloud workloads

Key Vault
Safeguard and maintain control of keys and other secrets

Application Gateway
Build secure, scalable, and highly available web front ends in Azure

Azure Information Protection
Better protect your sensitive information—anytime, anywhere

VPN Gateway
Establish secure, cross-premises connectivity

Azure Active Directory
Synchronize on-premises directories and enable single sign-on

Azure DDoS Protection
Protect your applications from Distributed Denial of Service (DDoS) attacks

Azure Dedicated HSM
Manage hardware security modules that you use in the cloud

ON
WITH
THE
SHOW