

Why Running Your Supply Chain in the Cloud Makes Sense

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velocity
CONNECT + ACCELERATE + INNOVATE

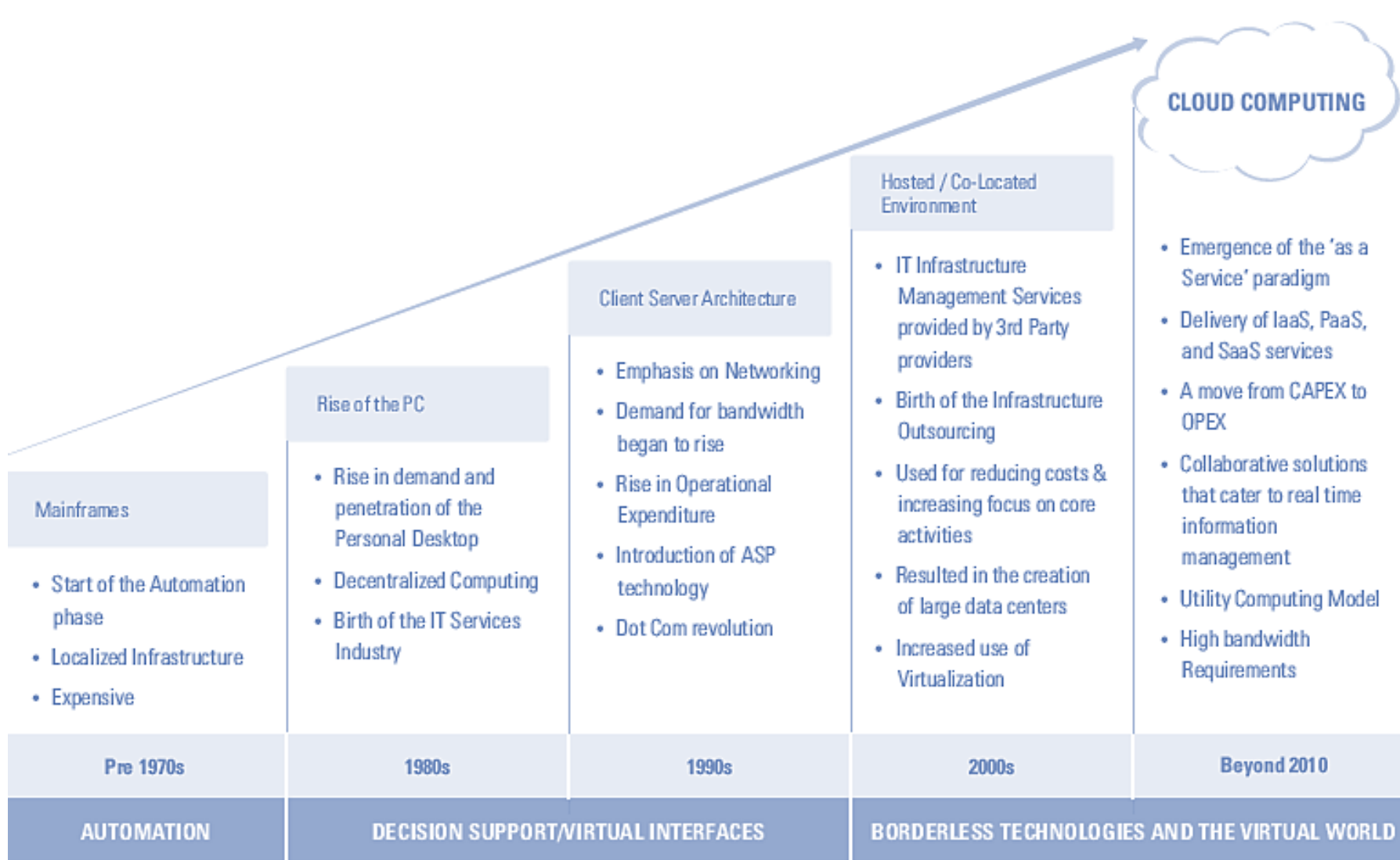


Agenda


- ▶ The Evolution of Cloud Computing
- ▶ What is “The Cloud”?
- ▶ What does a Cloud Deployment Look Like?
- ▶ Benefits to Your Business
- ▶ How Secure is your Data in the Cloud?
- ▶ Future of Cloud Computing




The Evolution of Cloud Computing



What is Cloud Computing?



Cloud Computing comes into focus only when you think about what IT always needs: a way to increase capacity or add capabilities on the fly without investing in new infrastructure, training new personnel, or licensing new software



Cloud Computing helps businesses fight a quickly changing environment with flexibility

Cloud Variations

▶ Public Cloud

- Available to the general public on a pay-per-use basis. The customer has no visibility over the location of the cloud computing infrastructure.
 - ▶ Microsoft Azure, AWS, Google CPS, IBM Cloud

▶ Private Cloud

- Computing services offered either over the Internet or a private internal network and only to select users instead of the general public – a cloud that belongs to you
 - ▶ Rackspace, Dimension Data, VMware

▶ Hybrid Cloud

- Computing environment that combines a public cloud and a private cloud by allowing data and applications to be shared between them.
- When computing and processing demand fluctuates, hybrid cloud computing gives businesses the ability to seamlessly scale their on-premises infrastructure up to the public cloud to handle any overflow—without giving third-party datacenters access to the entirety of their data.

Cloud Service Models

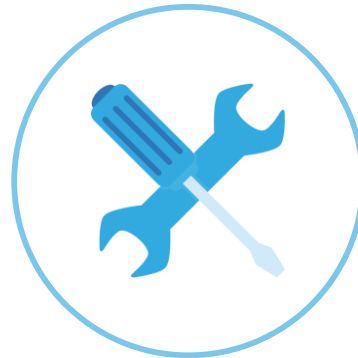


SaaS

Software as a Service

Email
CRM
Collaborative
ERP

Consume



PaaS

Platform as a Service

Application Development
Decision Support
Web
Streaming

Build on it



IaaS

Infrastructure as a Service

Caching
Networking
Security
Technical
System Mgmt

Migrate to it

Comparing Cloud Services

Managed by You

Managed by Vendor

PACKAGED SOFTWARE

Applications
Data
Runtime
Middleware
OS
Virtualization
Servers
Storage
Networking

INFRASTRUCTURE (AS A SERVICE)

Applications
Data
Runtime
Middleware
OS
Virtualization
Servers
Storage
Networking

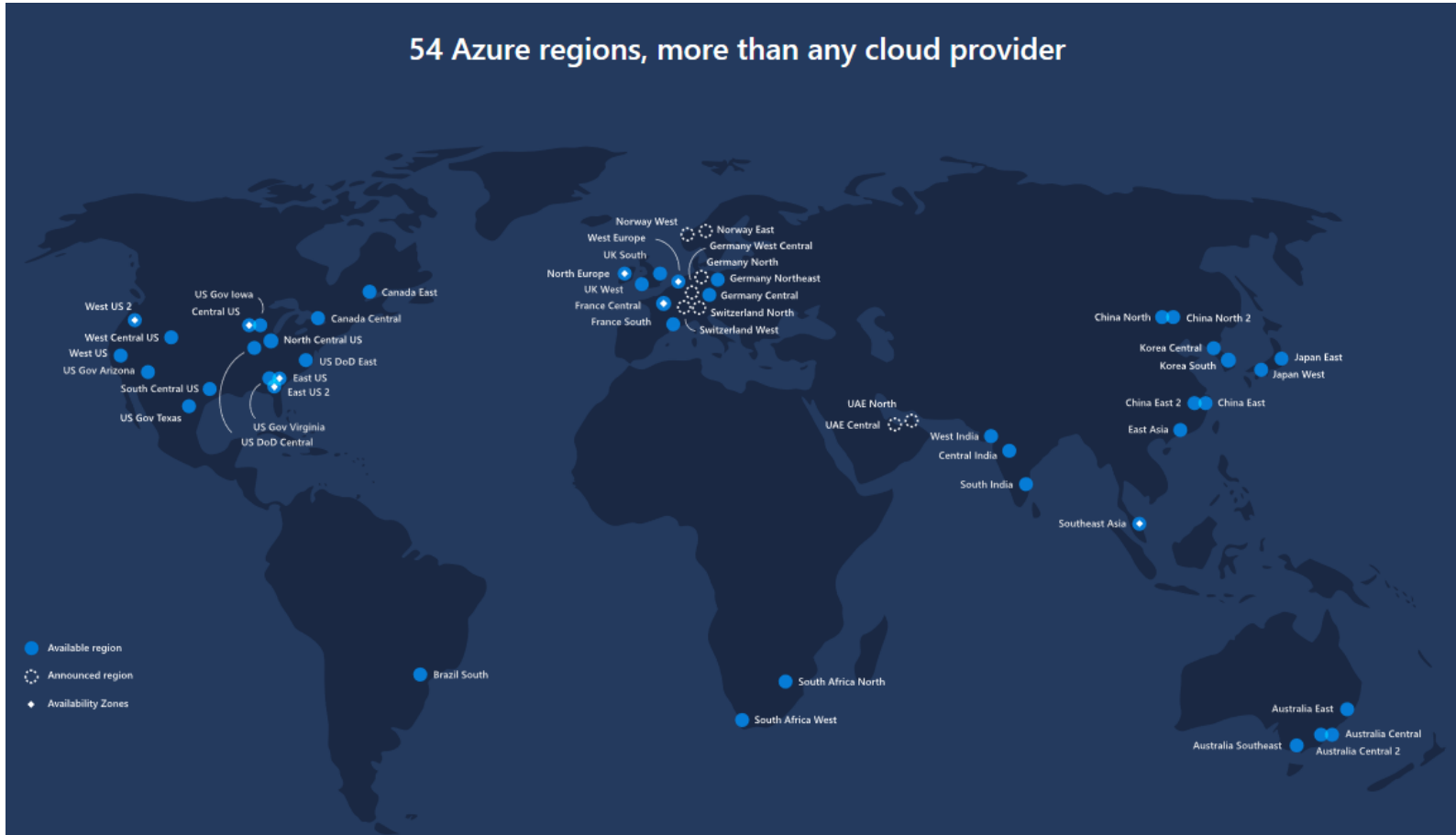
PLATFORM (AS A SERVICE)

Applications
Data
Runtime
Middleware
OS
Virtualization
Servers
Storage
Networking

SOFTWARE (AS A SERVICE)

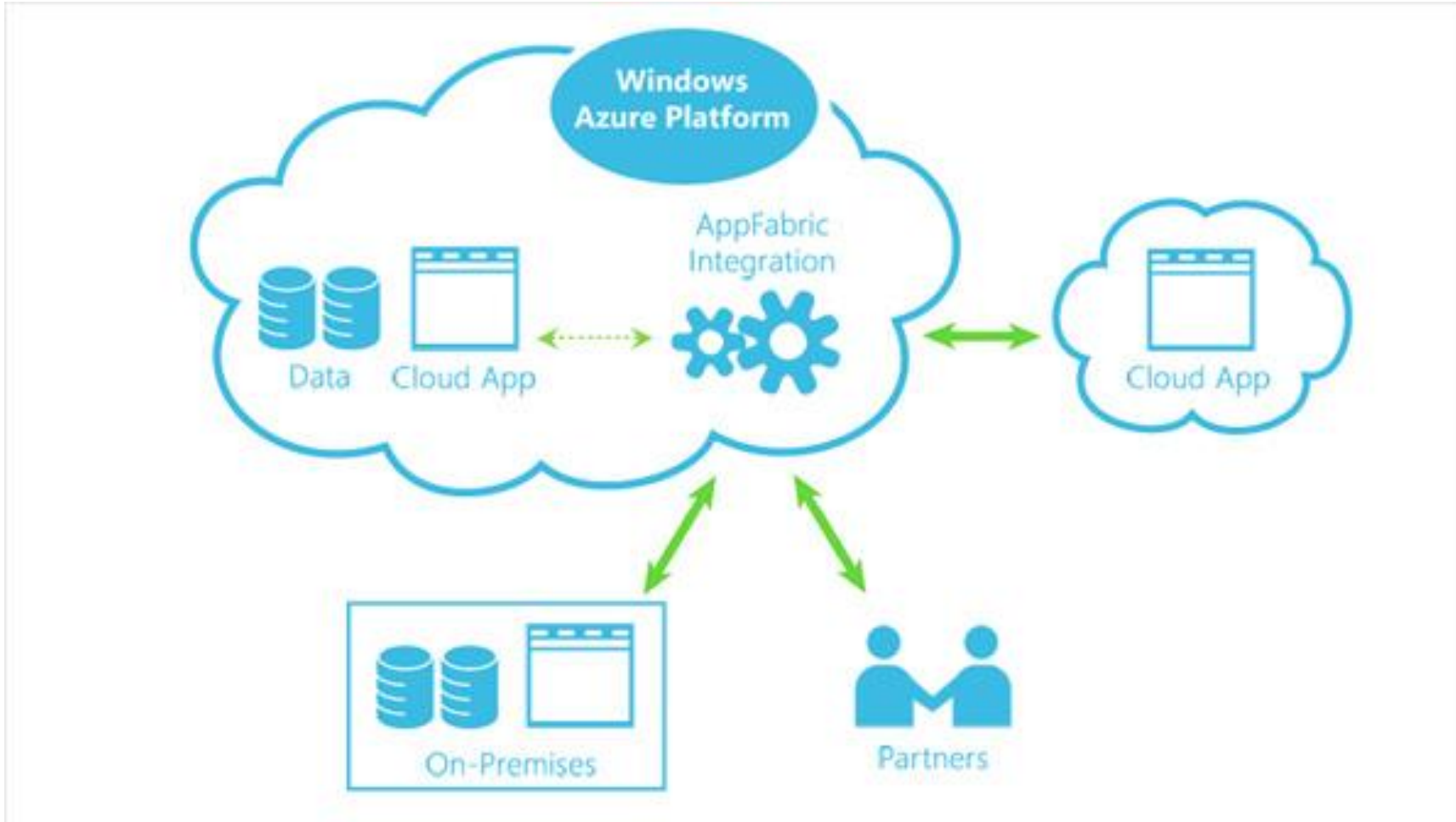
Applications
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Microsoft Azure

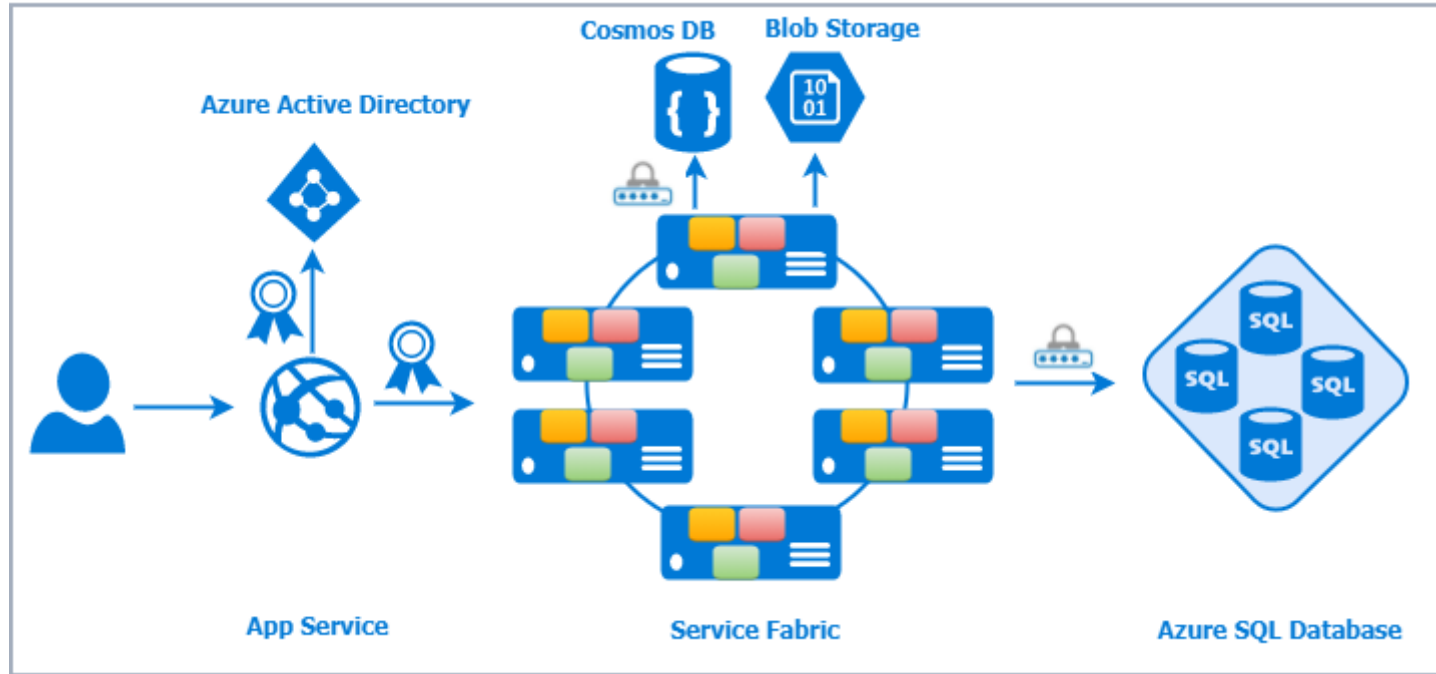


- ▶ 54 Regions
- ▶ 140 Countries
- ▶ 1.6 Pbps of bandwidth in a region

Cloud Deployment



Cloud Deployment





Benefits

▶ Cost

- Eliminates the capital expense of buying hardware and software
- No data center and all that comes with operation a data center

▶ Speed

- Provision resources in minutes
- No capacity planning pressure

▶ Global Scale

- Deliver the right amount of IT resources – for example, more or less computing power, storage, bandwidth - right when it is needed

▶ Productivity

- Eliminate “racking and stacking” – hardware setup, software patching, and other time-consuming IT chores
- Spend more time on achieving more important business goals



Benefits

► Performance

- Worldwide network of secure datacenters, which are regularly upgraded to the latest generation of fast and efficient computing hardware
- Reduced network latency for applications and greater economies of scale

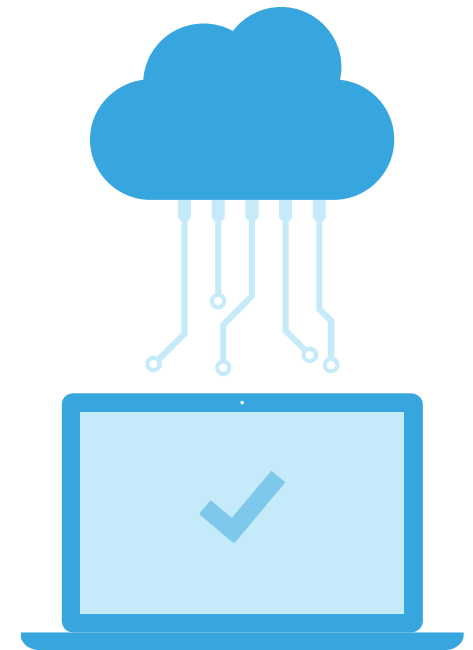
► Security

- Broad set of policies, technologies, and controls that strengthen your security posture overall
- Protection for your data, apps, and infrastructure from potential threats



Benefits

- ▶ Using Office 365? Then you already have a cloud presence
- ▶ Your identity travels with you to the cloud – AD and AAD
- ▶ Plug into all the benefits of the platform
 - Serverless computing
 - AI/Machine Learning
 - IoT
 - Big Data
 - Blockchain
- ▶ Demand Solutions is an enabler by leveraging these technologies
 - With your data “in the cloud” now you can leverage the fast array of computing resources



Home - Microsoft Azure | <https://portal.azure.com/#home>

Microsoft Azure | Search resources, services, and docs | tcgielow@demandsol... DEMAND MANAGEMENT, INC.

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Azure services [See all \(+100\)](#)

- Virtual machines
- Storage accounts
- App Services
- SQL databases
- Azure Database for PostgreSQL
- Azure Cosmos DB
- Kubernetes services
- Function Apps
- Azure Databricks
- Cognitive Services

Make the most out of Azure

- Learn** Azure with free online courses by Microsoft [Microsoft Learn](#)
- Monitor** your apps and infrastructure [Azure Monitor](#)
- Secure** your apps and infrastructure [Security Center](#)
- Optimize** performance, reliability, security, and costs [Azure Advisor](#)
- Connect** to Azure via an authenticated browser-based shell [Cloud Shell](#)

Recent resources [See all your recent resources](#) [See all your resources](#)

NAME	TYPE	LAST VIEWED
ds344madepadsx	Virtual machine	4 d ago
ds344madepadsxboot	Storage account	4 d ago
am-ds344madepa	Resource group	4 d ago
ds330tridentdx	Virtual machine	3 wk ago
am-ds330trident	Resource group	3 wk ago
ng-saaswestus	Resource group	4 wk ago
ds317mayvilldsxdisks	Storage account	4 wk ago
am-ds317mayville	Resource group	4 wk ago
ds282bludot	App Service	4 wk ago

Useful links

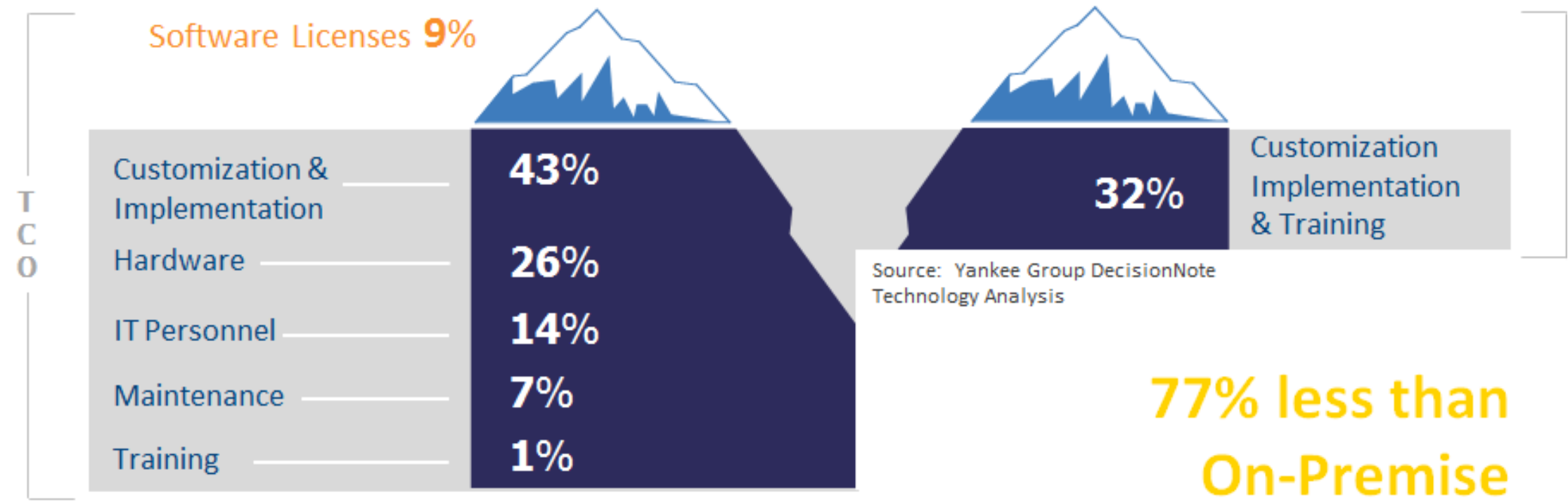
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Learn more and what's on the roadmap and subscribe to notifications to stay informed. [Azure.Source](#) wraps up all the news from last week in Azure.
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Hear right from the team developing features that help you solve problems in the Azure blog.

Azure mobile app

Benefits

On-Premise Software

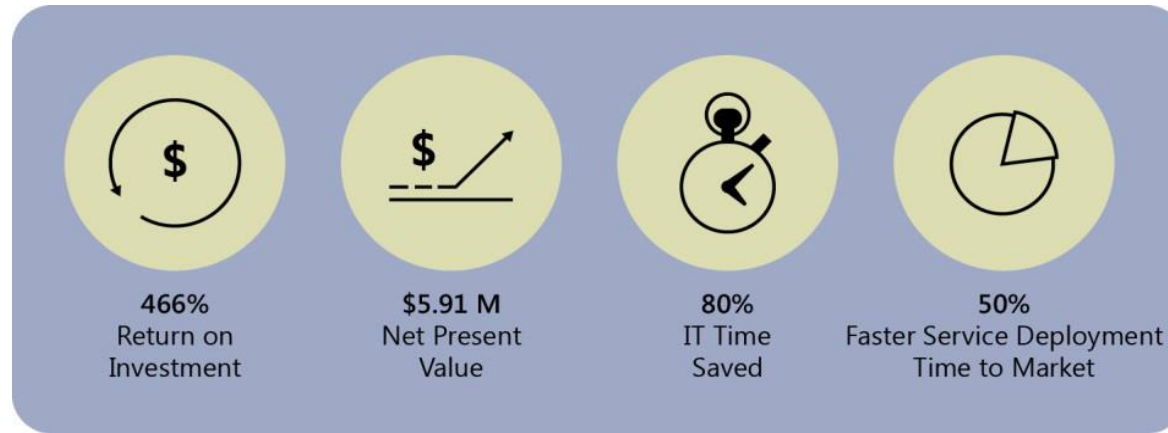
Cloud Computing



**77% less than
On-Premise**

Benefits

- ▶ 2016 Forrester Consulting - PaaS had an ROI of 466 percent, with a reduction in the amount of IT time spend on maintenance at 80 percent, among other benefits:



Benefits

- ▶ **There is great potential!**
 - Build and rapidly deploy applications with reach and scale that would have been impossible from their own datacenters
 - Communicate with Internet-connected devices all over the world
 - Tap into big data and analytics services for personalization, better products, and more efficient processes
 - Enjoy unprecedented development, test experimentation, and innovation cycles
- ▶ **With any great technological change there will be disruption**
 - Corporate culture
 - Enterprise and IT processes
 - Individual roles
 - Governance
- ▶ **Fear not – this is good for you!**

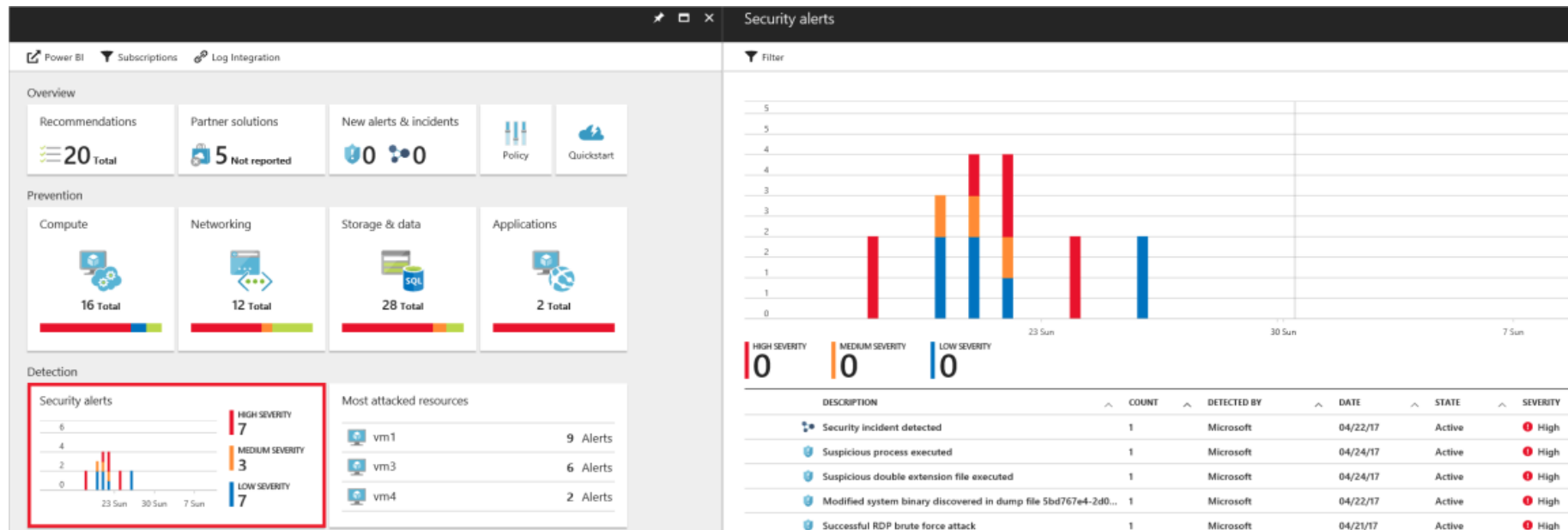
Security

- ▶ Cloud that is built with customized hardware, has security controls integrated into the hardware and firmware components, and added protections against threats such as DDoS
- ▶ Manage identity and control access
- ▶ Secure your network
- ▶ Safeguard data
- ▶ Key, secrets and certificate management
- ▶ Threats detected early
 - Actionable insights are developed by analyzing vast sources including 18 billion Bing web pages, 400 billion emails, 1 billion Windows device updates, and 450 billion monthly authentications
- ▶ Microsoft Intelligent Security Graph
 - Machine learning, behavioral analytics, application-based intelligence

Security

► Azure Security Center - unified infrastructure security management system

- Natively part of Azure
- Security posture of your data is strengthened
- Advanced threat protection – Azure, on premises.

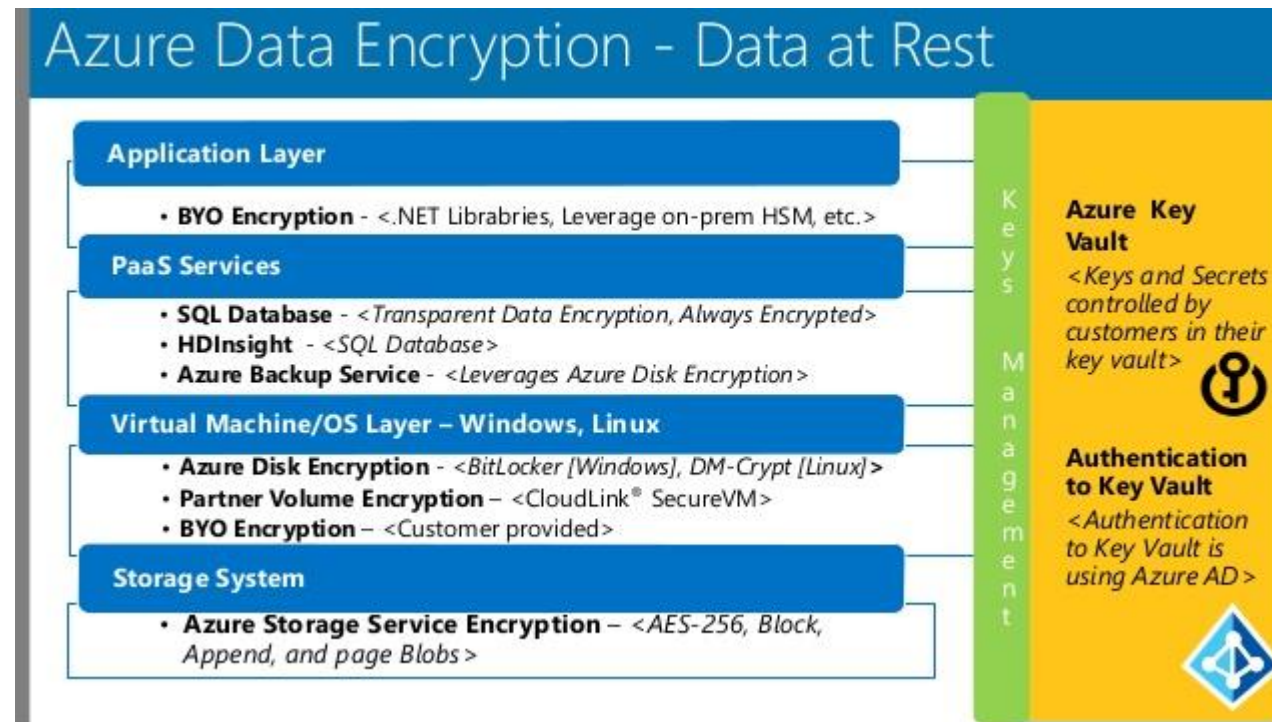


Security

Secure Platform	Privacy & Controls	Compliance	Transparency
Security Development Cycle, Internal audits	Manage your data all the time	Trust Center	How Microsoft secures customer data in Azure services
Mandatory Security training, background checks	Control on data location	Common Controls Hub	How Microsoft manage data location in Azure services
Penetration testing, intrusion detection, DDoS, Audits & logging	Provide data access on your terms	The Cloud Services Due Diligence Checklist	Who in Microsoft can access your data on what terms
State of the art data center, physical security, Secure Network	Responding to law enforcement	Compliance by service, location & Industry	How Microsoft secures customer data in Azure services
Security Incident response, Shared Responsibility	Stringent privacy standards		Review certification for Azure services, Transparency hub

Data Security

- ▶ Data always encrypted – at rest and in transit
- ▶ Data is replicated at a minimum three times across different regions
- ▶ Data is only accessible by the customer, cloud provider
- ▶ Microsoft spend \$1B annually on Cybersecurity



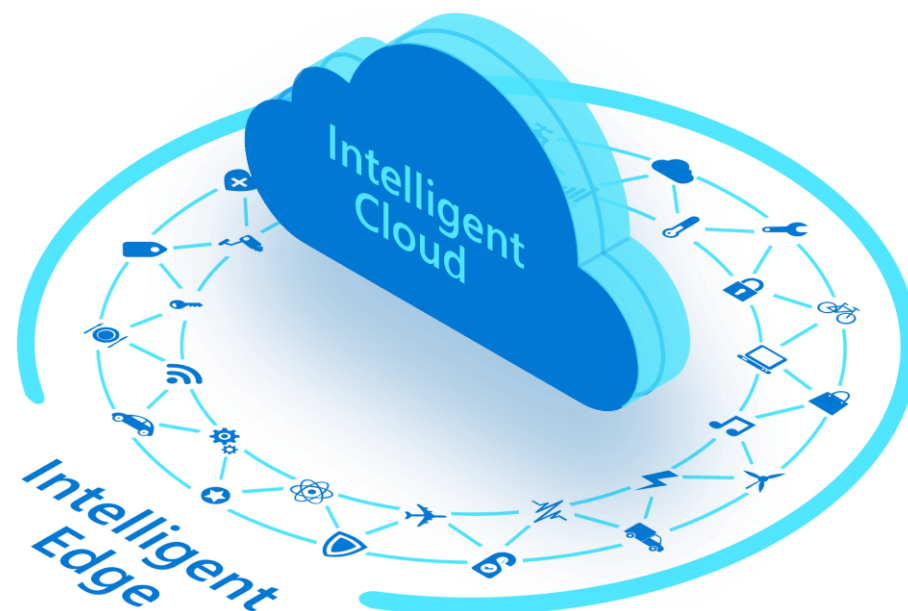
Future of Cloud Computing

► The Intelligent Cloud

- Ubiquitous computing, enabled by the public cloud and artificial intelligence (AI) technology, for every type of intelligent application and system you can envision

► The Intelligent Edge

- Connected systems and devices that gather and analyze data—close to your users, the data, or both. Users get real-time insights and experiences, delivered by highly responsive and contextually



Future of Cloud Computing

- ▶ Combine the virtually limitless computing power of the cloud with intelligent and perceptive devices at the edge of your network to create a framework for building immersive and impactful business solutions
- ▶ Mixed Reality – a blend of the physical and digital world
- ▶ Through edge computing, mixed reality surfaces rich, interactive information where you need it, when you need it, across platforms and devices
- ▶ Quantum Computing

QUESTIONS?





THANK YOU