

Microsoft in Telecommunications

Empowering Operators and
Partners

Rui Carmo

Principal Architect

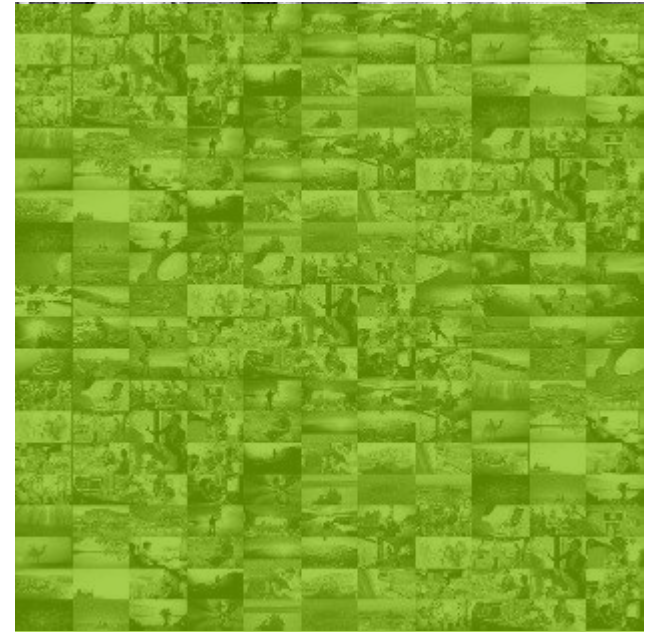
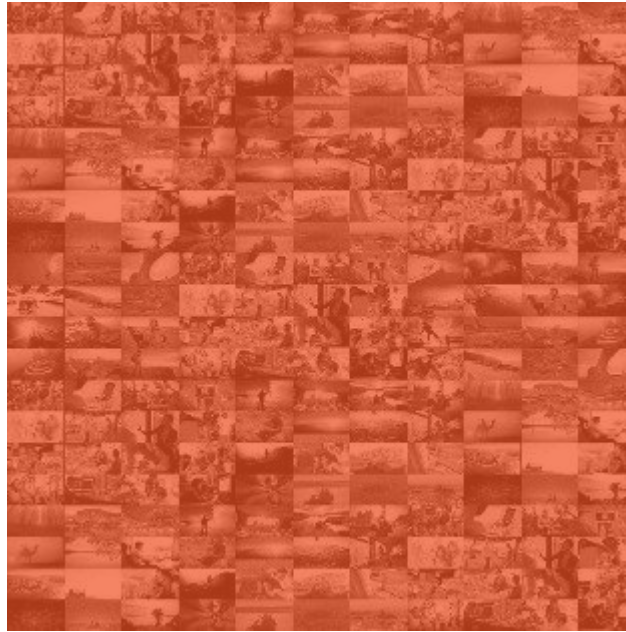
Azure for Operators

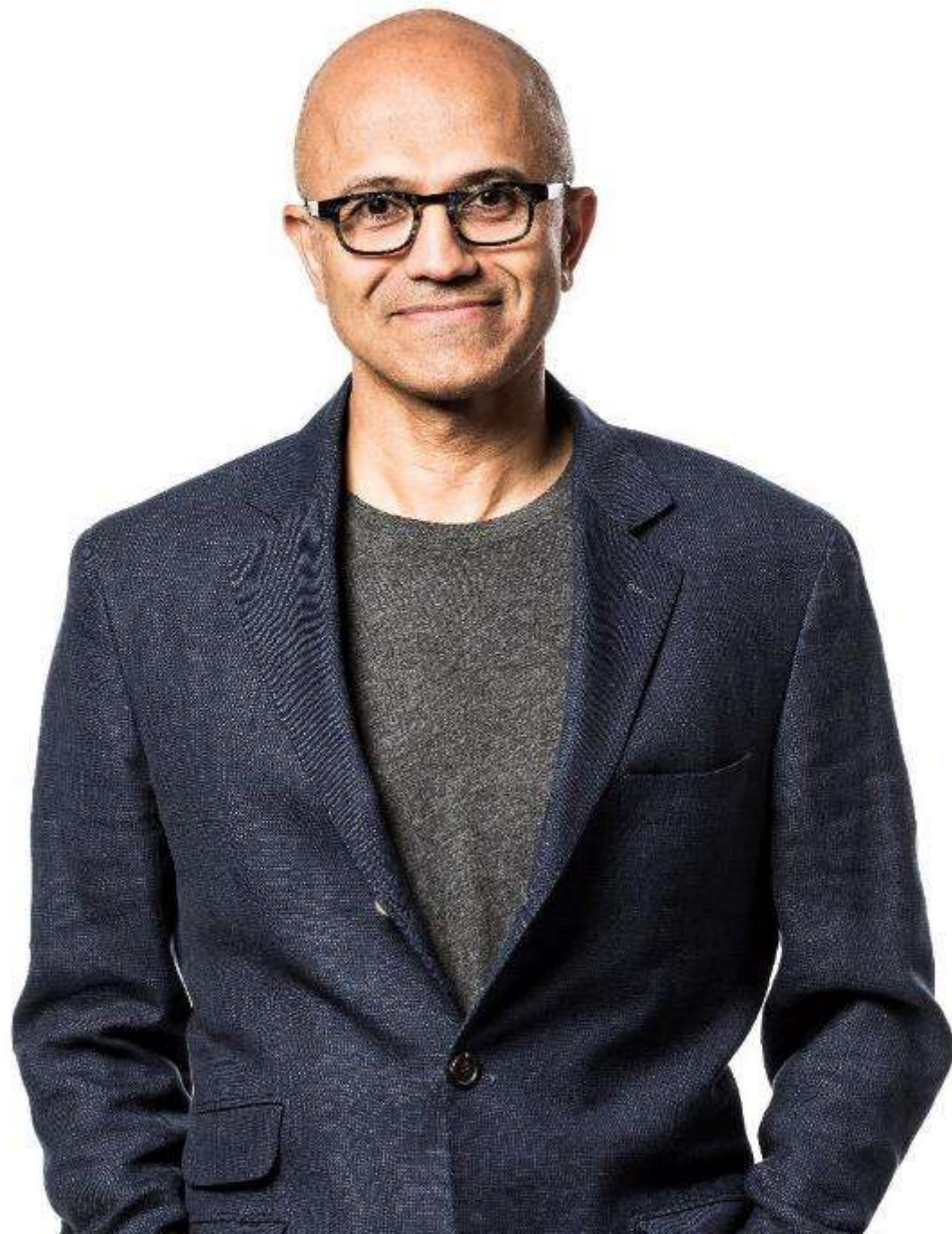


mobileum



Microsoft in Telco





“ I have been very clear about our business model—**we’re not trying to become a telecommunications company**, or a drug company or an automobile company. We want to partner with them. ”

Satya Nadella
CEO, Microsoft

Microsoft's perspective for Telecommunications

Microsoft for Telecommunications

Microsoft empowers telecommunications organizations to achieve more with a trusted and secure platform for productivity, business operations, network optimization, personalized experiences, and product innovation.

Elevate customer experiences



Empower service teams with data-driven insights to increase productivity and enhance care. Use conversational AI to enable self-service, expedite issue resolution, and deliver frictionless customer experiences at scale.

Streamline enterprise operations and BSS



Simplify workflows, realize operational efficiencies, and build a hyper-connected business through cloud-native applications, intelligent processes, and automation.

Accelerate network transformation



Use the power of a carrier grade, hybrid cloud to improve network efficiency, scalability, and reliability, reduce cost, and grow revenue.

Reinvent product innovation and monetization



Optimize 5G investments and create new revenue streams with a platform for the rapid development, deployment, and monetization of innovative cross-industry edge and IoT services.

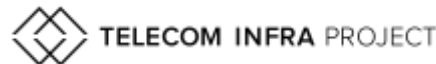
Build a secure data-driven business




Enable a secure data platform with intelligent analytics optimized for the cloud.

Sustainability

Microsoft Telecommunications Industry Affiliations



Microsoft's Carrier Grade Platform



Public MEC
Private MEC



Affirmed
acquisition



Metaswitch
acquisition



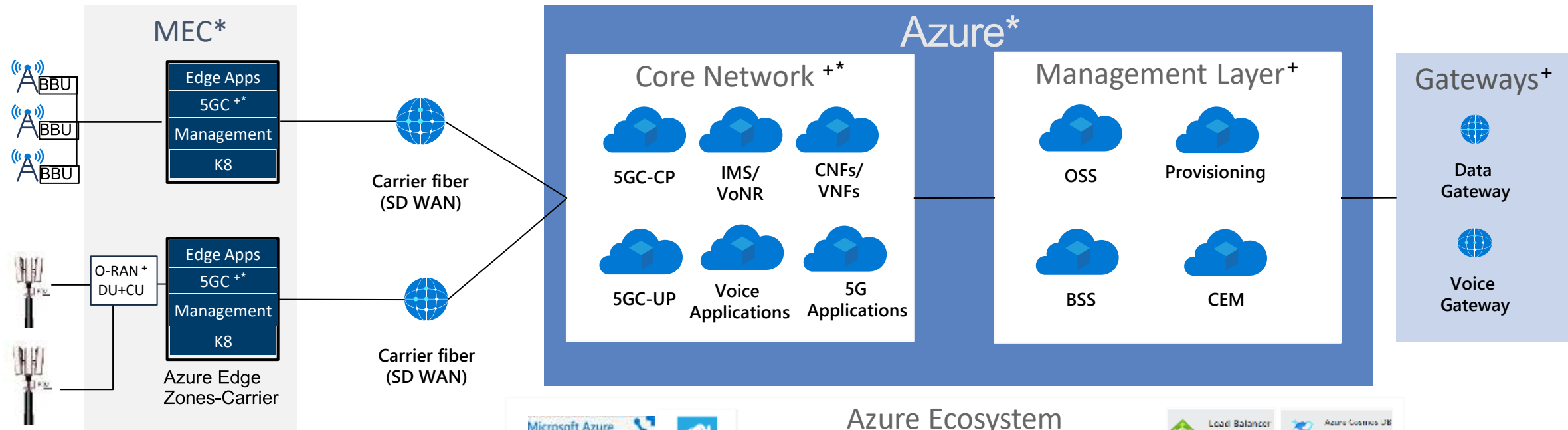
AT&T Network Cloud
Platform acquisition

Telco DNA

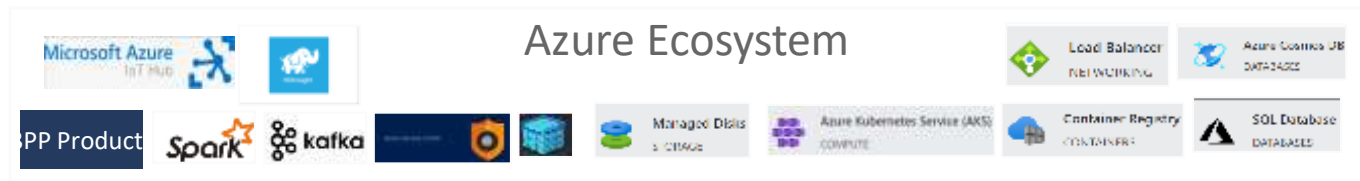


1st Party 5G Core

Hybrid Cloud Architecture for 5G

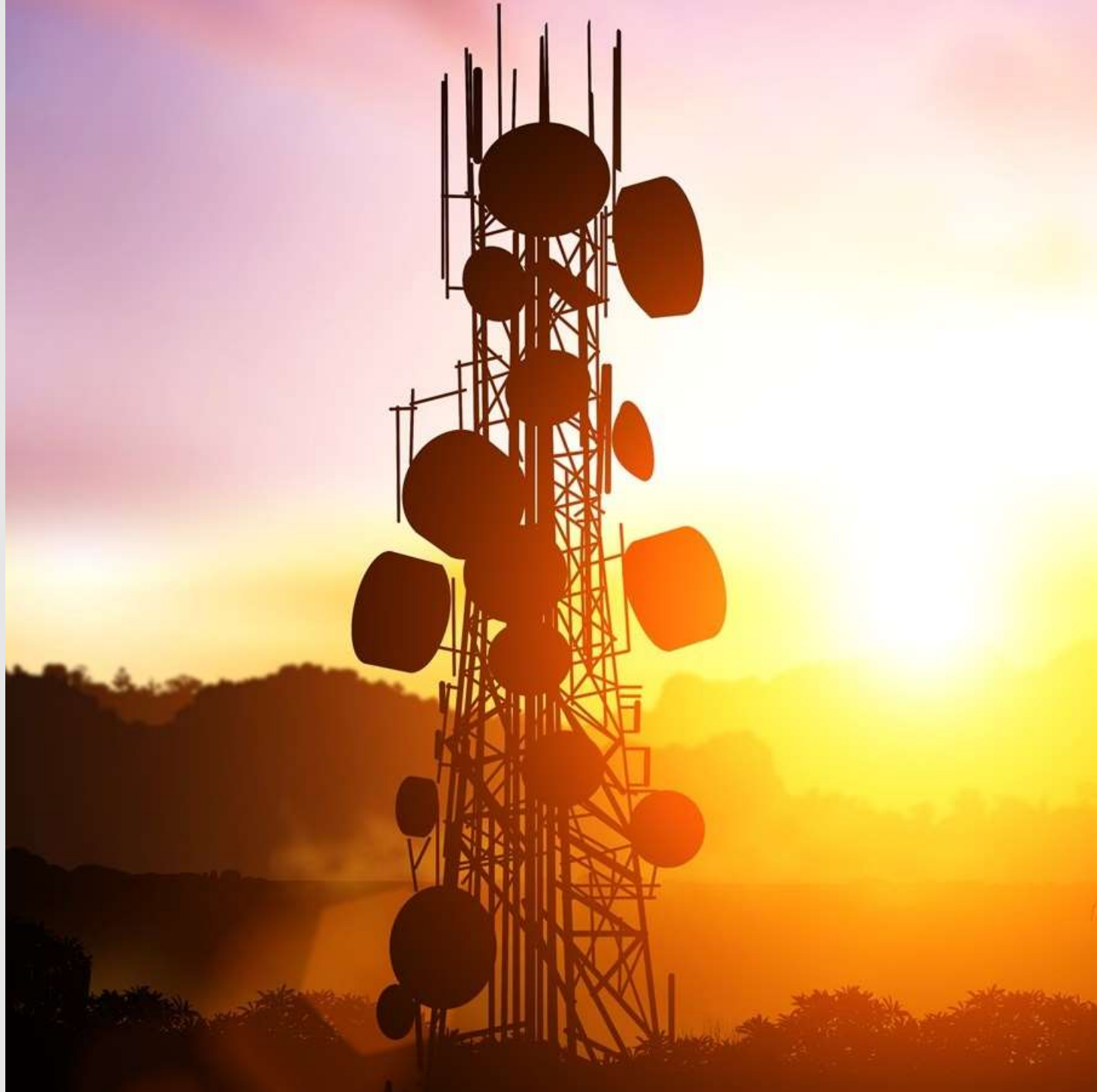


Central Radio Capacity management, in Azure



+ Partner/NEP products, * Microsoft Products

Transforming into a Digital Service Provider



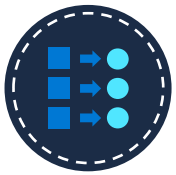
Forces at work driving change



Investment in 5G, edge, and fiber network infrastructure



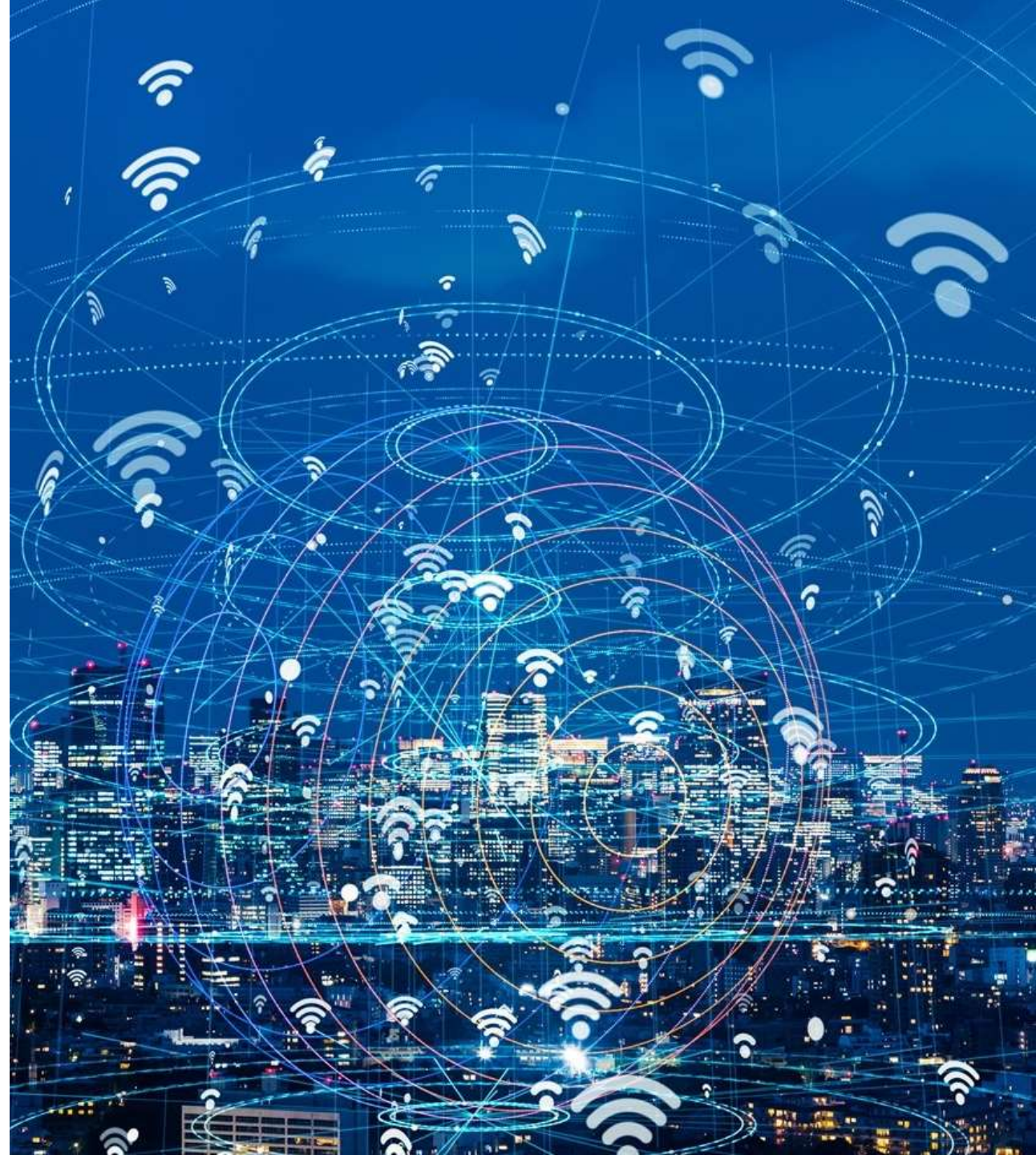
Reducing costs and complexity of business operations



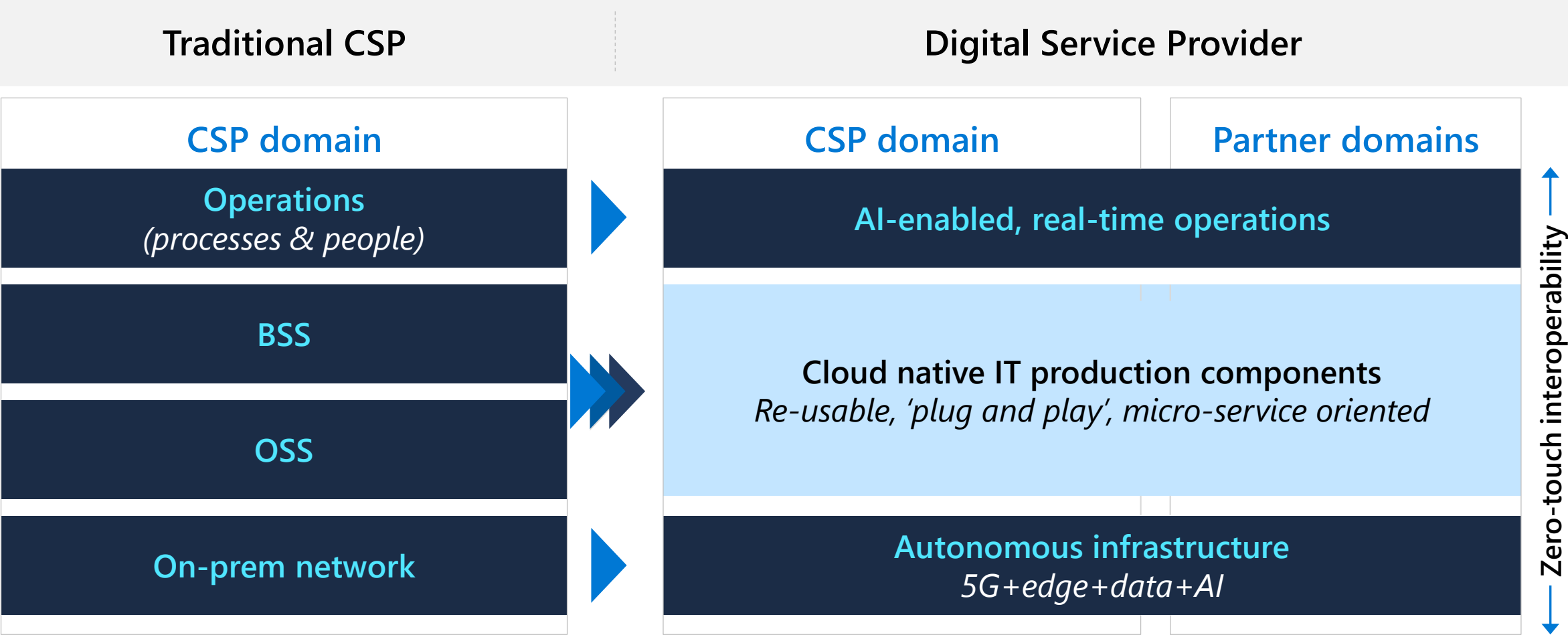
Transition from connectivity provider to digital service provider



Development of industry-specific edge services

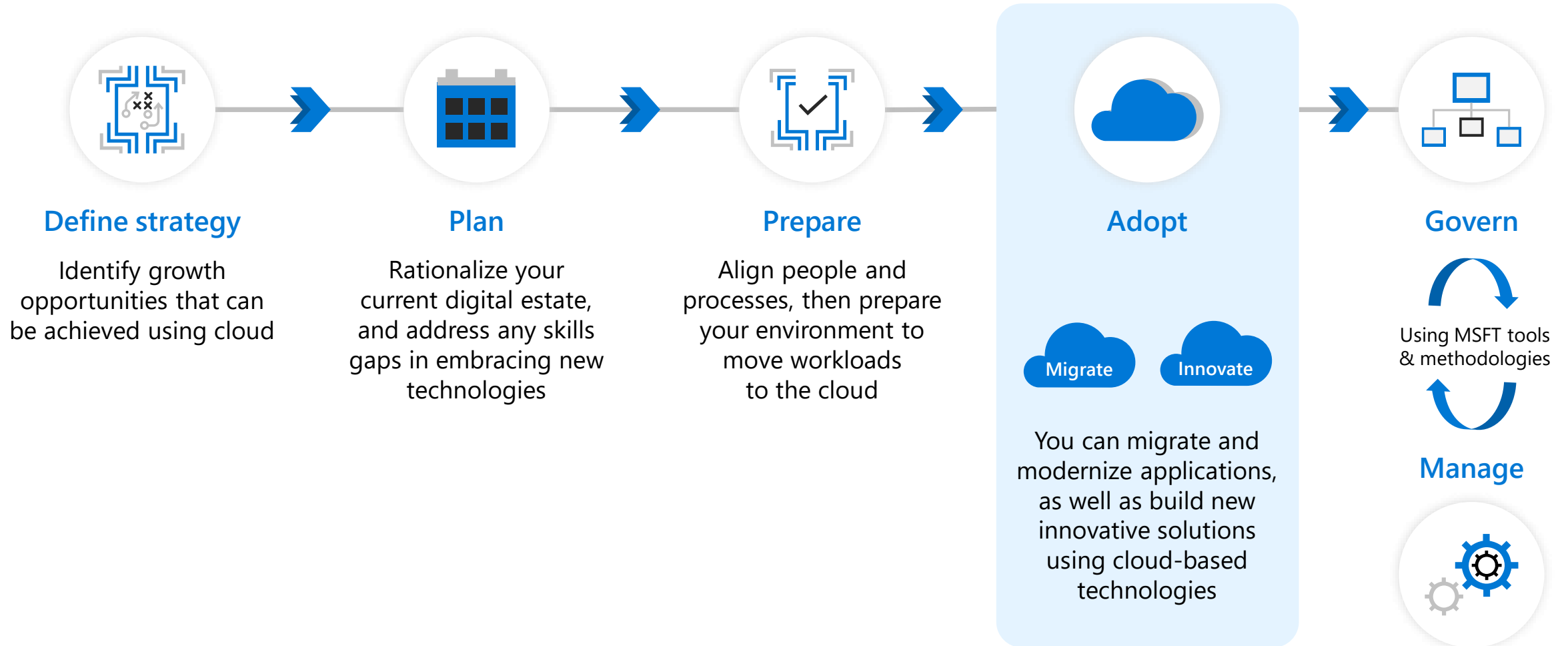


To transform from a traditional CSP to a digital service provider



Becoming cloud native is a big investment, but we make it simple

The Microsoft Cloud Adoption Framework for Azure is proven guidance that's designed for your success



Partnering with Carriers





**A strategic alliance to deliver innovation with
cloud, AI, and 5G**









Accelerating the deployment of digital services and next-gen infrastructure



B2B and B2C Offerings for Operators with Microsoft

B2B and B2C Offerings for Operators with Microsoft				Microsoft Products
 End User Communications & Collaboration	Teamwork (Voice, Collaboration, Meeting and Contact Centre Solutions)	End User Security (Identity & Access Management, Information and Data Protection)	Endpoint Management (Virtual Desktop, Mobile Device Mgmt, Connected Devices aaS)	Microsoft 365 Teams with Direct Routing Surface Range of Devices Azure WVD, AD, MIP, Intune
 Hybrid Cloud, Networking & Security	Cloud Connect & Security (MPLS/SDWAN/Firewall, Threat Management)	Managed Cloud Services (Windows & Linux migrate, Hybrid Solutions, SAP on Azure)	Network Edge Solutions (MEC/NEC, Mobile Private Network)	Azure Compute Platform Azure Arc Azure Networking Azure ATP, Azure Sentinel Azure for Operators
 Business Solutions	IoT (Applications, Platform and Connectivity)	Business Applications (ERP, Sales, Marketing, Customer Service, Project Management)	Industry Clouds (Financial Services, Healthcare, Retail, Manufacturing, Nonprofit)	Azure (IoT, AI, Synapse) Dynamics 365 HoloLens Microsoft Industry Clouds
 Consumer Services	Gaming (across devices and platforms)	Media (Streaming, Content Aggregation, Personalization)	Advertising (Telco Marketing, Telco Engagement, and Retention, Asset and Data Monetization)	Xbox, Game Pass Ultimate xCloud Vubiquity, MediaKind, Firstlight Inmobi

Strategic Partnerships with Telecommunications Operators

Examples that can inspire our thinking



Verizon teams with Microsoft to offer private 5G mobile edge computing

"We have built a network that provides real-world, 5G-enabled solutions today. By bringing together Verizon's 5G network and on-site 5G Edge platform with Microsoft's expertise in cloud services, we will enable the development of the next generation technologies everyone has been envisioning across industries."

Rima Qureshi, EVP and Chief Strategy Officer at Verizon



Microsoft to open new datacenter region in Spain and expand strategic partnership with Telefónica

- Azure Spanish Region on Telefónica's datacenter premises
- Datacenter transformation: Azure commitment and support to migrate IT workloads to Azure
- Joint Go-To-Market initiatives across B2C, B2B, and Public Sector
- Joint pursuit of "Digital Spain 2025" opportunities



Deutsche Telekom and Microsoft redefine partnership to deliver cloud experiences

- Datacenter transformation: Azure selected as preferred cloud
- Joint Go-To-Market with an offer to migrate T-Systems' SAP and mainframe customers from T-Systems' own datacenters to Azure
- Evaluating the use of Azure for Operators for network workloads



Jio and Microsoft announce alliance to accelerate digital transformation

- Reliance Jio will set up a network of datacenters across India which will be powered by Microsoft Azure.
- Jio will serve business customers with productivity and business solutions tailored to the needs of SMBs in India,
- Jio will partner with Microsoft to become a leader in online gaming.
- Jio will develop new tech that can be used by other customers based on Microsoft Azure (speech/language, digital twins, Edge CDNs, gaming, etc.)



NTT and Microsoft form a strategic alliance to enable new digital solutions

"NTT is committed to helping enterprises realize their digital transformation initiatives to help create a smarter world. We believe that the combination of the Microsoft Azure platform along with NTT's connected infrastructure and service delivery capabilities will accelerate these efforts. Additionally, the companies will collaborate on IOWN, including areas such as all-photonics network and digital twin computing".

Jun Sawada, President and CEO of NTT.

AT&T and Microsoft announce a strategic alliance to deliver innovation with cloud, AI and 5G

- AT&T migrates most non-network workloads to Microsoft Azure by 2024
- AT&T moves its 5G mobile network to Microsoft Azure for Operators, starting with AT&T's 5G Core
- Microsoft acquires AT&T's Network Cloud, which AT&T's 5G core network runs on, and gains access to AT&T's technical expertise, in support of its Azure for Operators platform
- That initiative will allow AT&T to focus on network operations, accelerate innovation for its customers, and empower its workforce while optimizing costs.
- AT&T provides much of its workforce with cloud-based Microsoft 365 productivity and collaboration tools
- AT&T and Microsoft partner to develop solution offerings combining edge technologies and 5G



BT and Microsoft announce strategic partnership focused on enterprise voice, security, and industry services

- BT's enterprise voice services will leverage Microsoft Operator Connect and Microsoft Operator Connect Conferencing to adding calling plans to Microsoft Teams
- BT will migrate its Global Managed Voice (GMV) service serving Fortune 500 multinational companies in more than 180 countries to Azure for Operators



SES Advances Digital Transformation with Cloud-First Strategy

- SES is founding connectivity partner for Microsoft Azure Orbital
- SES is Azure ExpressRoute partner
- SES demonstrated linear playout on Azure in 2019 and is developing turnkey cloud-based solutions for encoding, packaging, streaming, and content management on Azure
- SES is migrating its on-premise infrastructure to Azure



The Telstra-Microsoft partnership signals new generation digital foundations for Australian businesses

"Today's announcement with Microsoft formalizes the several streams of work we are already collaborating on. The global scale of Microsoft's platform, tools, and applications, together with Telstra's network solutions, reliability and leadership, will drive new and unique solutions for Australia."

Andrew Penn, CEO, Telstra



Partner Ecosystem

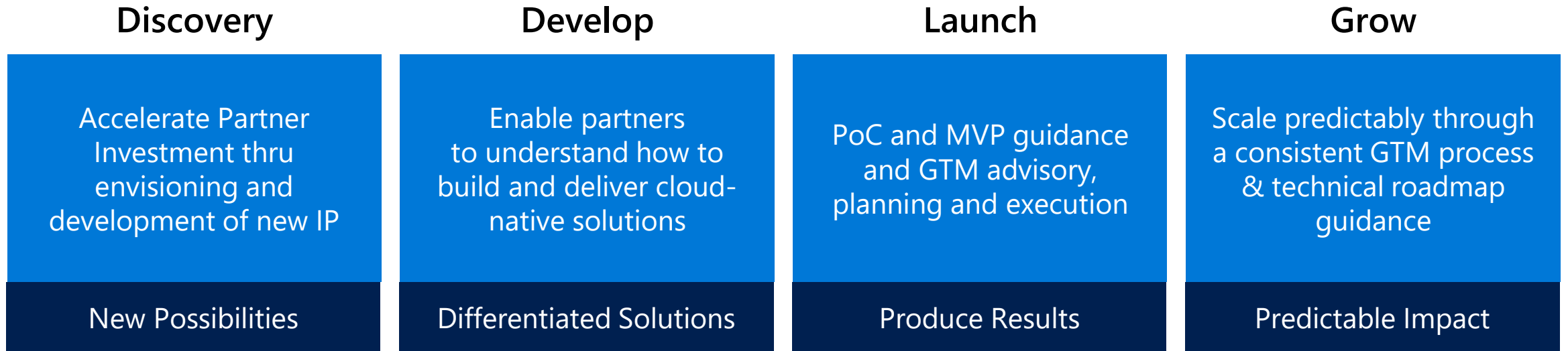


TELECOMMUNICATIONS SOLUTIONS

CHANNELS	MANAGED				SELF-SERVICE & DIGITAL							
	Microsoft Dynamics 365	GENESYS	NUANCE	Microsoft Teams	NICE	Microsoft Power Platform	sitecore	twilio	avanade	Microsoft Dynamics 365		
BUSINESS SUPPORT SYSTEMS	MARKETING		SALES			PRODUCT & ORDER MANAGEMENT			CUSTOMER MANAGEMENT			
	Microsoft Dynamics 365	LinkedIn	Adobe	Tech Mahindra	SAP	Microsoft Dynamics 365	HANSEN TECHNOLOGIES	Netcracker	TATA	Microsoft Dynamics 365	Infosys	accenture
	aprimo	ClickDimensions		TATA	HANSEN TECHNOLOGIES	icertis	amdocs	PEGA	SAP	GFI	Tech Mahindra	TATA
	AppDirect			DocuSign	beqom	Adobe	ORACLE	Tech Mahindra		PANORAMA	servicenow	
	CloudBlue	sprinklr	salesforce marketing cloud									
	REVENUE MANAGEMENT & ASSURANCE			FIELD SERVICE & PARTNER MANAGEMENT			ENTERPRISE MANAGEMENT			VALUE ADDED SERVICES		
	amdocs OPENET	mobileum	CSG INTERNATIONAL	Microsoft Dynamics 365	WorkSpan	esri	SAP	Office 365	Microsoft Dynamics 365	ERICSSON	MediaKind	
	Netcracker	SAP	globys	TENFORCE	Microsoft HoloLens	Glympse	OPENTEXT	KPMG	LinkedIn	axonize	MOJIO	
	ANALYTICS PLATFORM											
	TOMIR telarix	COMARCH	TATA	sas	snowflake	TERADATA	deFacto Global	EY	ORACLE	SUREX	Genetec	
			databricks	qlik	Informatica	IBM	BROADCOM	accenture	mobileum	INMOBI		
OPERATIONS SUPPORT SYSTEMS	DELIVERY & FULFILLMENT		SERVICE ASSURANCE			NETWORK MANAGEMENT			PLATFORM			
	Azure	TIBCO	affirmed	EMPIRIX	splunk	EXFO	amdocs	CISCO	NOKIA	redhat	CANONICAL	
	gemalto	blueplanet	pwc	servicenow	mobileum	mycomosi	ERICSSON	COMSCOPE	MAVENIR	CITRIX	blueprismi	
			RADCOM	bmc	InfoVista	Tech Mahindra			mobileum	vmware	ORACLE	

Representative example of select partners

Enabling Partners in Taking Solutions to Market



Technical Enablement & Practice Building

+

Programs & Services to reach new customers

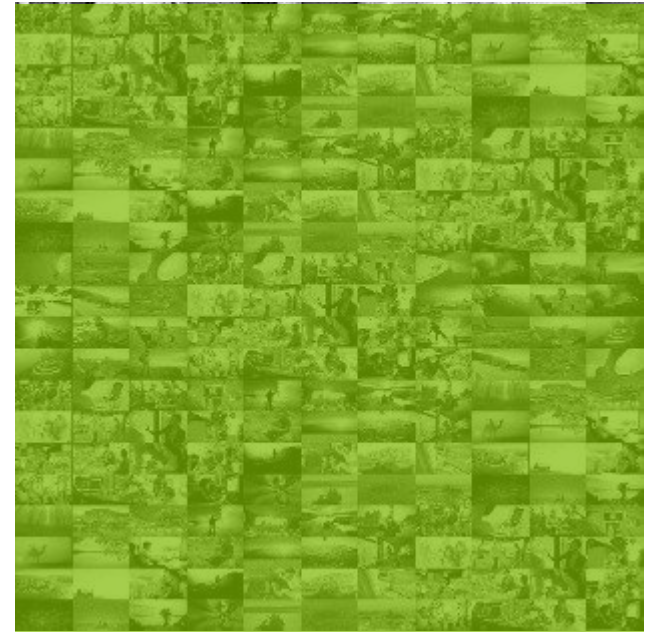
Azure Platform

Reference Architectures

Azure Marketplace

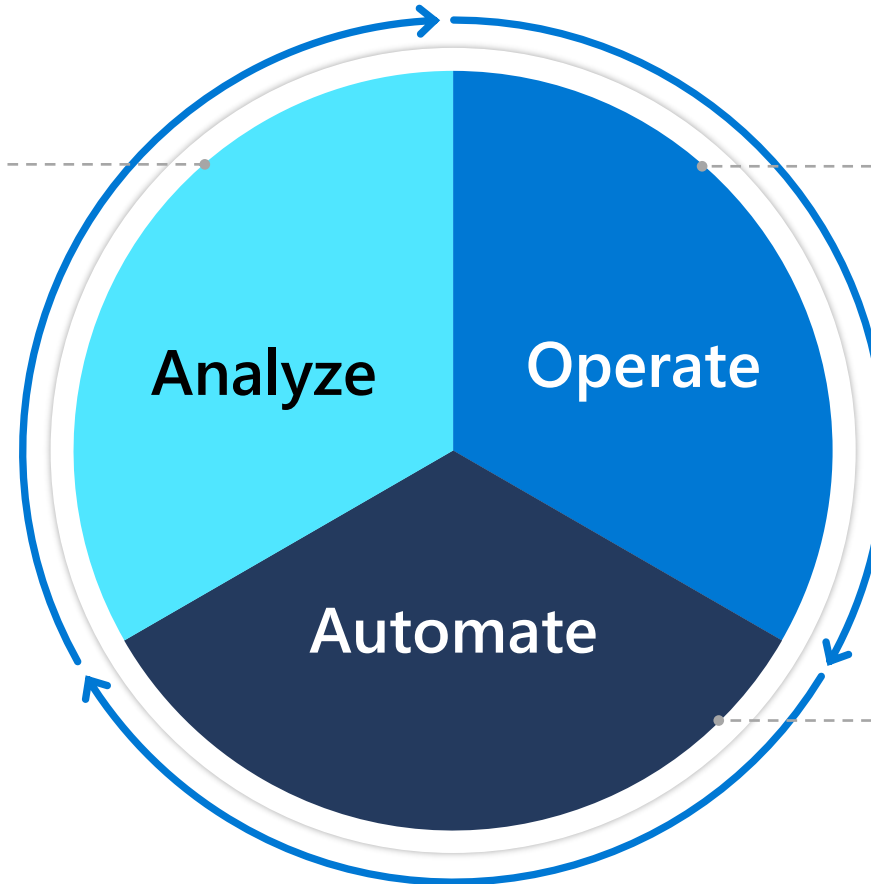
B2B Carrier Partnerships

A Glimpse of the Future



Telco Market trends: AIOps – Closing the loop

How do you work with **all of the data** now available to you?



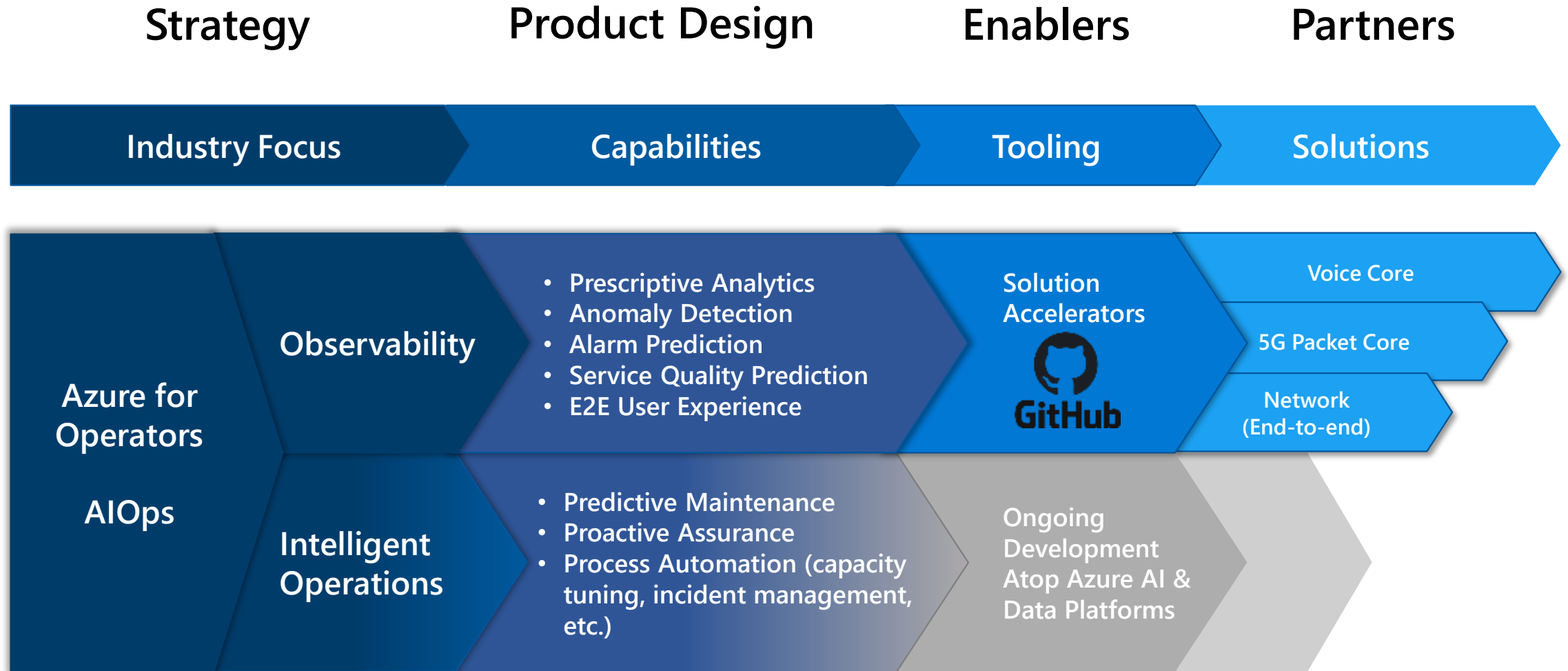
What brings together **system awareness** with orchestration?

5G is driving **exponential network growth**. How do you operate a system that large?

AIOps

Using machine learning on network analytics to automate operations and diagnose carrier systems.

Bringing AIOps to Market





Thank you

Q&A

