Executive
summary

Success
stories

Introducing
Cloud Choice

Advise

Align

Animate

Our
ecosystem

Capgemini

CONSULTING.TECHNOLOGY.OUTSOURCING

Cloud
Choice

Cloud first: The new normal

People matter, results count.

We need to talk

about the

cloud

We collaborate with our clients to make the transition from legacy technologies to a cloud-first way of working.

Whether your organization is well-advanced in its cloud adoption, or at an early stage, we develop the enterprise-grade hybrid cloud which best supports your applications, and makes your business more efficient and agile.

This helps you compete more strongly in a digital world.

Executive summary

Executive summary

Since 2013, Capgemini and Sogeti have delivered over

5,000 cloud projects

around the world

Turn your cloud-first intent into cloud-first reality.

Cloud is no longer an emerging technology: As adoption accelerates, it's becoming a ubiquitous delivery option for all kinds of IT.

Most enterprises are using the cloud, and many have cloud-first strategies. But most have transitioned only a minority of their applications to cloud environments. Many rely heavily on traditional IT, and use cloud services tactically rather than strategically. Constraints and risks limit their adoption.

The digital imperative
Cloud is becoming essential not just to optimize costs, but to give the enterprise the flexibility it needs in the digital era. With cloud, new environments can be provisioned in minutes; computing becomes more efficient, scalable and automated. Cloud-native applications, PaaS combined with DevOps methodology and micro-services architecture enable business velocity for the enterprise, with rapid deployment and continuous innovation between the business and IT.

Exploiting the benefits of cloud more fully across the IT portfolio is essential if IT operations is to support the demands of the business for agility and competitive advantage. CIOs and IT leaders are under pressure to shape an enterprise cloud strategy, execute mass migration of applications to the cloud, and use the cloud to support ongoing digital innovation with the business, while keeping everything secure. Enterprises which fail to make the transformation to cloud risk being left behind.

Towards the enterprise hybrid cloud
Adopting a hybrid cloud strategy enables enterprises to move each workload to the environment which meets its requirements best. This allows performance and risk factors to be balanced while migrating the applications portfolio to the cloud.

For example, organizations with major concerns about data privacy, data sovereignty, network latency and data & applications availability, or with specific regulatory constraints or customization needs typically do not view public cloud or Software as a Service (SaaS) as the solution for every application. Instead, they are moving to a hybrid environment, with SaaS, legacy applications and cloud-native applications running on different types of cloud infrastructure – private and public cloud, dedicated on-premise and multi-tenant hosted. The migration, integration and management activities this involves demand an experienced partner.

Supporting CIOs in the journey to the cloud
Cloud Choice is a complete portfolio of services from Capgemini that deliver a cloud-first way of working for the enterprise. From forming a strategy to managing and orchestrating the hybrid estate, we partner with an ecosystem of providers to bring you the industry-leading solutions and combine those with our own assets to create a unique platform that equips you for future growth.

Our workload-centric approach delivers the best cloud option for each application. You benefit from modernization of your applications portfolio, and the enterprise hybrid cloud which best supports your business processes. As experts in cybersecurity as well as cloud, we embed security services throughout our approach.

Wherever you are in your cloud adoption journey, Cloud Choice helps you become a cloud-first business that is efficient, agile, flexible, and more competitive.

Success stories

Success stories

Efficiency

Rationalize the IT portfolio and close datacenters, while improving flexibility and ability to scale.

Watch the video on sogeti.com

20% reduction in total cost of ownership.

Over 30 mission-critical applications hosted on the public cloud.

Financial constraints led PostNL to innovate their business model and reduce the TCO of their Group IT facilities.

PostNL worked with Sogeti to move the IT landscape to the cloud with a 'Saas before Paas before Iaas' strategy. SaaS solutions were adopted as much as possible. Where feasible, the remaining applications were upgraded to enable a move to Microsoft Azure PaaS, or otherwise migrated to Microsoft Azure IaaS. Only a few applications unsuited to these environments were moved to a private cloud.

Sogeti experts assessed, migrated or retired 200 applications and now run over 30 mission-critical applications on Microsoft Azure – including Microsoft, Java, Oracle and ISV applications.

The project has rationalized and standardized PostNL's IT and reduced the size of the IT unit. It has delivered a faster development process for new applications, more scalability, and more capacity to innovate.

Success stories

Agility

Become more competitive by launching a new service within weeks, and scaling to meet demand.

Watch the video on capgemini.com

## Three weeks to prototype a new cloud-native ecommerce solution using IBM Bluemix.

PostNord, a leading logistics company in the Nordics, is transforming from a postal company to an ecommerce company.

Capgemini and PostNord used IBM Bluemix to rapidly develop and run a cloud-native application that helps SME customers handle international shipping. This approach hid many of the complexities associated with hosting and managing applications, enabling PostNord to innovate more easily and respond rapidly to customer feedback.

This was delivered using DevOps approaches within a Logistics Lab, an environment where PostNord could innovate, industrialize new ideas and test them at speed.

PostNord is equipped to be agile, introducing new services quickly to compete with ecommerce competitors.

Executive
summary

Success
stories

Introducing
Cloud Choice

Advise

Align

Animate

Our
ecosystem

Introducing
Cloud Choice
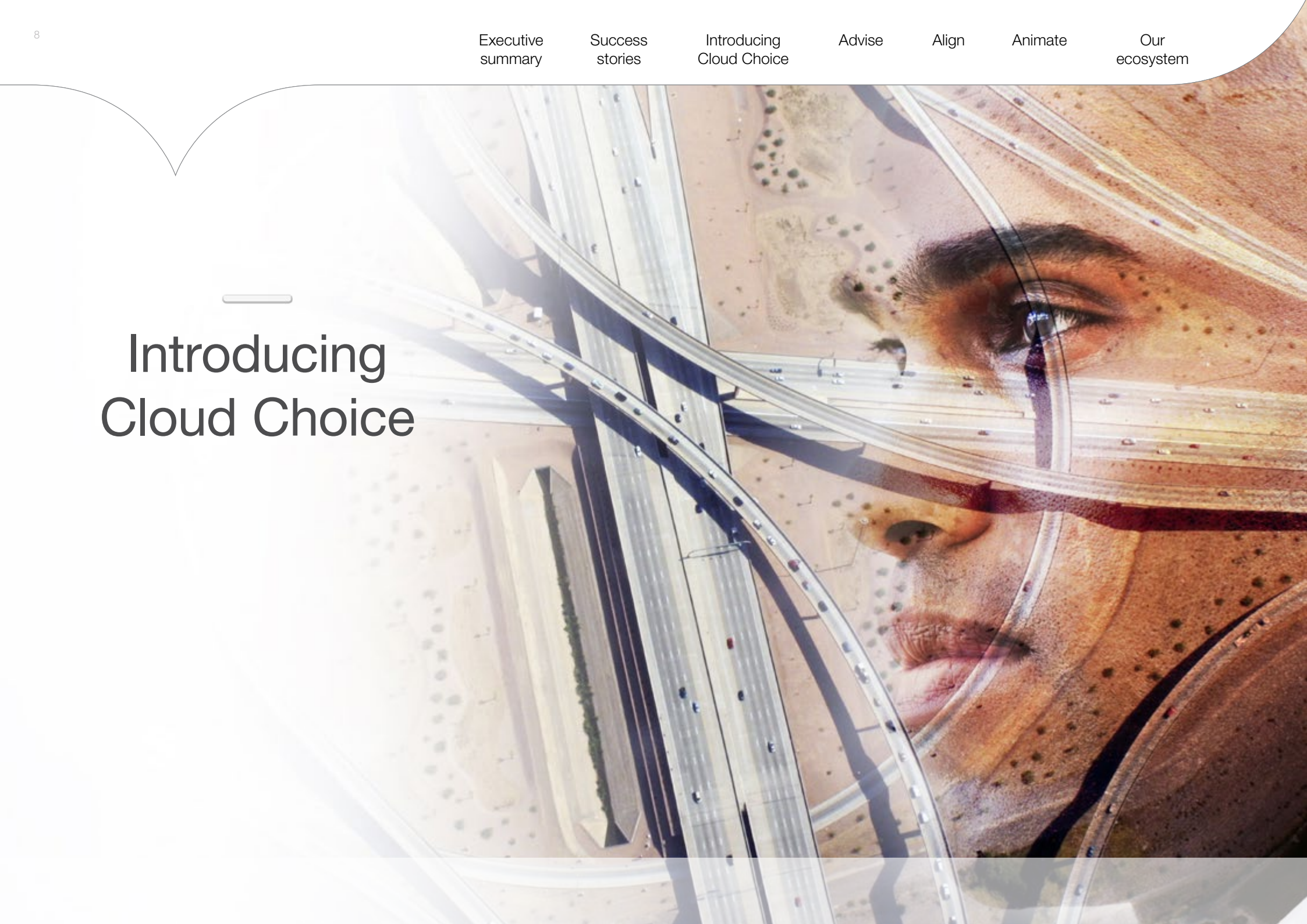
Introducing Cloud Choice

In 2015 cloud and digital accounted for

23%

of

Capgemini revenue

(2.6b€)

From strategy, to managed cloud.
We collaborate with clients at all stages of their cloud transformation to improve business performance.

Achieving the transition to cloud services
When a business runs on the right combination of cloud technologies or services – what many people call a cloud platform – it is at its most flexible, scalable and adaptable. It is set up to innovate, and perform well in a digital world that is changing rapidly.

But the question isn't whether the cloud adds value: It is how to get there. For large enterprises, becoming truly "cloud first" brings the challenge of moving away from legacy IT. Businesses have many options to consider when making the transition to cloud: How to approach it, how to maximize the benefit, which vendors and solutions to use, which parts of the business go first. Combined with security and other concerns, this means that many are approaching cloud services tactically rather than strategically.

Why Cloud Choice?
Through Cloud Choice, we help our customers make an active choice to embrace the cloud, and make it the primary way of delivering and consuming IT within their business. We bring the full range of business and technology expertise needed to develop and execute a cloud strategy, and manage the hybrid world that results, while keeping everything secure. This creates the foundation for agility, innovation, disruption, and growth.

The transformation roadmap is different for every client. Whether your business is beginning the transition to cloud and defining a strategy, or needs expert support in developing cloud-native applications or managing cloud environments, Cloud Choice brings together the services you need to maximize results.

Why Capgemini?
Capgemini is uniquely positioned to help large enterprises achieve a cloud-first way of working. We've delivered over 5,000 cloud projects for large enterprise customers worldwide since 2013, and provide multi-disciplinary expertise in business and technology – from consulting, to applications, infrastructure and cloud managed services.

We deliver business transformation with end-to-end cloud services which are workload-centric, rather than infrastructure-centric. To maximize the benefits of cloud we take a top-down view of the applications portfolio and determine the right cloud option for each application, rather than simply transferring on-premise datacenters to IaaS. In particular, we are a leader in developing cloud-native applications with microservices architecture using PaaS and DevOps methodology. These boost top-line growth for businesses by enabling continuous deployment and innovation.

We have an industrialized and proven approach. This is underpinned by automated tools for workload assessment, and factory methods for migration and cloud services automation, which improve time to value and minimize risk for our clients.

We go to market with an ecosystem of leading cloud vendors, including AWS, Microsoft, Google, IBM, the EMC Federation, SAP, Oracle, Salesforce and HP. However, we offer an independent and objective perspective, and help our clients adopt the right solutions for their needs.

Finally, we are experts in both cloud and security. Our end-to-end advisory, protection and monitoring services in cybersecurity allow our clients to make the transition to cloud with confidence.

Introducing Cloud Choice

Cloud Choice is a complete portfolio of services that deliver a cloud-first way of working for the enterprise.

It comprises three families of services.

● Advise

Produces a roadmap which helps customers move from cloud-first intent to cloud-first implementation by overcoming risks, constraints and barriers. We plan our clients' transition to the cloud and build a compelling business case for it. We evaluate the implications for our clients' organizations and how they should transform to optimize results.

● Align

Transforms the applications portfolio, by assessing the applications and identifying the best cloud option for each – whether migrating them to IaaS environments, building new cloud-native applications leveraging PaaS, agile and DevOps methodologies, or replacing with SaaS.

● Animate

Delivers an enterprise-grade hybrid cloud by allocating workloads to cloud infrastructure – whether public or private, dedicated or multi-tenant, safely and in control. We orchestrate services, automate provisioning, and manage cloud services.

Advise

How can the cloud support your business strategy? We define your cloud roadmap and adapt your business to exploit its potential.

What we do:

Roadmap

Defines a top-down business vision for achieving a cloud-first way of working across applications and processes. This involves overcoming constraints which might limit cloud adoption, and managing risks.

Workload planning

Accelerates benefits realization by reconciling the business and financial benefits of migrating workloads with the related constraints and risks. This results in a business case which can be tested in a proof of concept phase.

Organization transformation

Establishes the right organization to deliver outcomes from an investment in cloud, including governance, processes, and skills.

12

Executive
summary

Success
stories

Introducing
Cloud Choice

Advise

Align

Animate

Our
ecosystem

Advise

_____

For a client in the
pharmaceutical industry
we identified TCO

savings

of

25%

after assessing

300
applications

Plan your transition to a cloud-first way of working.

We help enterprises approach cloud adoption strategically, by analyzing and quantifying the impact of cloud services on the organization.

A tailored approach
No two organizations are at the same stage in their cloud adoption, or approach cloud services with the same objectives. Often the complexity of the stakeholder landscape for IT services makes it difficult to agree a coherent enterprise cloud strategy.

Our approach is to develop a strategy starting with the current pain points in the business: For some, an unsuccessful implementation in the past; for others, the desire to control shadow IT or rationalize the landscape. We then identify how ready your applications and organization are for the move to cloud.

The vision for cloud
Our cloud advisory services help clients develop a cloud strategy that supports their wider business goals before committing resources to implementation. We establish a vision for how cloud will change and benefit the business: Not just its operating costs, but its business model, its delivery to customers, and its ability to adapt and innovate.

We develop roadmaps which define the transition from the current state to a cloud-first way of operating which supports the strategic objectives of the business. Our roadmaps focus on four areas:

• Digital business services or applications that need to scale and be transformed regularly

• Big data solutions that are used today or that will be needed in the future (eg Hadoop)

• The migration of existing on-premises applications to the cloud

• Accelerating the adoption of SaaS, from ERP and core systems to HR and collaboration tools.

Overcoming the barriers with a strong business case
Many enterprises' ability to adopt cloud is hampered by:

• Constraints such as compliance and budget

• Contractual, legal or skills limitations

• Risks in areas such as data confidentiality, availability and disaster recovery

Our expertise in these areas enables us to quantify the impact of cloud on the organization. A robust and compelling business case showing the ROI of all change allows barriers to be overcome, and helps avoid costly mistakes. It shows what should be moved to the cloud first in order to maximize benefits.

Our focus on analyzing the barriers to adoption clarifies which cloud solutions are best suited to your applications, and helps you remain compliant, business-ready and competitive throughout any transformation.

Reshaping the IT organization
The introduction of cloud services and platforms into the business implies different ways of working that require intentional design. These include catalogued IT services, automated provisioning, new application development methods, and the requirement to manage multiple clouds at scale. This will be underpinned by a different financial model, and by new ways of working between the business and IT.

We provide business change consulting to help CIOs make these changes an organizational reality, and maximize sustainable value.

Align

How should you move your applications to the cloud? We modernize and migrate your applications portfolio to maximize performance.

What we do:

Workloads assessment

Analyzes each legacy application to determine the best method to maximize long-term benefits, taking into account time, costs and user impact.

Migrating workloads to the cloud

Industrializes the modernization of applications and migration of workloads to their new cloud environments, managed in a factory approach by expert teams.

Cloud-native applications

Improve agility and the ability to innovate by creating APIs and cloud-native applications with microservices architecture that are elastic, resilient and scalable. We leverage PaaS with agile and DevOps methodologies and containerization technology.

Implementing software as a service (SaaS)

Deploys and integrates SaaS solutions from an ecosystem of partners, often to replace legacy applications.

14

Executive
summary

Success
stories

Introducing
Cloud Choice

Advise

Align

Animate

Our
ecosystem

Align

Sogeti migrated over

250 applications

to the public cloud in
an 18 month period for
a client in the oil & gas
industry, delivering a

50% reduction

in on-premise infrastructure &

reducing outages by 98%

Transform your applications portfolio for the cloud.

We determine the best cloud option for each application. The result is a hybrid cloud that is optimized for your workloads.

A workload-centric approach to the cloud
Once the overarching cloud strategy is in place, our Align services establish what can feasibly be moved to the cloud, and what is the right cloud deployment model and environment for each workload - from on-premise private cloud, to public cloud, PaaS and SaaS. Some applications may simply be re-platformed, while others may require modernization to exploit cloud infrastructure. Using multiple deployment models as part of a hybrid cloud strategy brings rapid provisioning, flexibility and scalability, while allowing you to control factors such as availability, data sovereignty and privacy.

The best application modernization strategy for each application depends on how critical and how complex it is. Constraints and risks must be balanced with the requirement to reduce costs or increase agility.

Applications might be:

• Migrated to IaaS (public or private)

• Re-factored or re-written with PaaS

• Replaced with a SaaS solution

Industrialized assessment and migration
We use a streamlined assessment approach with automated tools to collect rich data on all applications in the portfolio. This determines whether an application is feasible for the cloud, and informs decision making on the appropriate cloud architecture and operating model.

Our industrialized methodology for migrating workloads to the cloud allows us to structure and sequence mass-migration of applications in tranches according to the dependencies between them. Our migration factory handles the process from installing and configuring applications, to testing and migrating data, while minimizing disruption to the business.

Cloud-native applications
PaaS combined with Agile and DevOps methodologies allows clients to rapidly build applications that can deliver almost instant business value, with no infrastructure knowledge. Cloud-native applications can be conceived, born, and launched in a matter of hours or days and bring high value intellectual property with little to no capital investment. They are an excellent choice for high-value, high complexity applications which underpin competitive advantage, and which need to be enhanced continuously.

Deploying SaaS
Replacing high-value, low complexity applications with SaaS solutions can be a highly effective cloud strategy. We help you navigate the market objectively and identify the most suitable solutions for your needs, working with an ecosystem of leading vendors including Salesforce, Workday, Netsuite, Google, Microsoft, SAP and Oracle.

We implement and integrate SaaS applications with your systems landscape, improving speed to value with our extensive experience of SaaS deployment and unique IP.

15

Executive
summary

Success
stories

Introducing
Cloud Choice

Advise

Align

Animate

Our
ecosystem

Animate

What platform and services do you need? We provision, integrate, manage and orchestrate the environments in your hybrid estate.

What we do:

**Dedicated
private cloud**

Delivers a private cloud built to order, either on your premises or hosted in a Capgemini or Sogeti datacenter, to provide secure isolation for your organization's workloads.

**Capgemini-hosted
multi-tenant private
cloud**

Provides on-demand cloud hosting. Our catalogued and competitively-priced services offer high availability, and are securely hosted in Capgemini datacenters.

**Public cloud
managed services**

Provides enterprise-grade managed services which allow you to run business-critical applications on the leading public cloud platforms securely. We automate provisioning and simplify multi-cloud management through self-service catalogues.

Animate

For a global manufacturer and retailer we migrated

3 SAP
landscapes
50 servers
and
60TB of storage

to the AWS Cloud, avoiding an $8m hardware refresh and delivering

45%
operational savings while continuing to operate in a hybrid model

Define the right cloud infrastructure.

To equip you with the right environment for your needs, we securely allocate workloads to public, private or hybrid infrastructure.

Bring your cloud strategy to life
Our Animate services deliver the best-aligned hybrid solutions for the business. We provision and orchestrate services, and provide ongoing management of infrastructure to ensure high performance and security. Working as a systems integrator in partnership with our ecosystem of vendors, we wrap the industry-leading products and services into a comprehensive business service with measurable results.

We bring deep expertise in integration to the challenge of making cloud and non-cloud systems work as one seamless whole. This is matched by our ability to tune complex environments so that the required performance is maintained at all times.

We provide a range of cloud deployment models, to meet the requirements of each application or workload.

Managing the hybrid enterprise
The hybrid enterprise approach enables each application workload to be provisioned in the optimal environment according to the required performance, economics, security and elasticity.

This model demands strong service managing a hybrid enterprise which comprises conventional infrastructure, dedicated converged infrastructure, multi-tenant converged infrastructure and public cloud utility. Our solution meets the challenges in integration and security; orchestrating and automating across multiple platforms.

Private cloud
Compliance requirements mean that private cloud is the right choice for some workloads. We deliver dedicated private clouds on-premise, or host a dedicated private cloud in one of our datacenters deploying the leading technologies. We provide services for every stage of deployment, including integration, configuration, automation and managed services.

Capgemini-hosted multi-tenant private cloud services, hosted in our own datacenters, offer a low-cost model with services immediately available. They are pre-existing services that customers can deploy and consume on demand. They bring the advantages of high availability, rapid provisioning, and pay-as-you-go pricing. We offer many types of multi-tenant hosted private cloud selected for different kinds of workloads, including purpose-specific builds for SAP, Oracle and big data.

Public cloud managed services and automation
We provide enterprise-grade managed services which enable our customers to move their workloads to the leading public cloud platforms, including AWS, Microsoft Azure, Google, Virtustream and IBM SoftLayer. We enable flexibility of supply with the option to be able to move workloads between providers to avoid vendor lock-in.

Our expert teams provide enterprise-grade support wraps with a global Intelligent Service Desk to monitor and optimize performance. We also offer user self-service portals with controlled workflow and billing.

We deliver automated IT services through the design of a catalogue of IT services, services orchestration and automated provisioning of infrastructure and applications.

Our ecosystem

Our ecosystem

Discover an ecosystem of industry-leading cloud services.
We wrap the industry-leading vendors' offerings into a complete business service.

In all areas of Cloud Choice we work with our ecosystem of alliance partners to deliver the best services in the market to clients. We make the leading vendors' cloud services easy to consume, and embed them into a transformation approach which delivers ROI and business outcomes.

Software as a service and managed business services
We offer a wide range of SaaS solutions in combination with implementation services specific to these products. These include Adobe, Ariba, AWS, Box, Google, Microsoft Dynamics, MuleSoft, Netsuite, Pega, Saleforce suite, SAP HANA, ServiceMax and Workday.

We partner with Independent Software Vendors (ISVs) to offer managed business services, leveraging our intellectual property, an underlying ISV technology and a cloud platform: For example Insurance Connect, which leverages Guidewire, or DiALM for asset-intensive industries, based on AVEVA. Both of these are hosted on AWS.

PaaS and cloud-native applications
We have global capability in designing and delivering cloud-native applications based on the major full-function Platform as a Service (PaaS) providers: Cloud Foundry-based such as HP Helion, IBM Bluemix and Pivotal Cloud Foundry; or alternatively Force. com, AWS Beanstalk, or Azure Service Fabric. We also offer simple PaaS using Docker and Mesos or Kubernetes.

We invest in open source cloud projects so that our clients can benefit from rich crowd-sourced innovations.

Infrastructure as a service
In public cloud, we provide managed services in collaboration with AWS, Microsoft Azure, Google, Virtustream, and IBM SoftLayer. Our private cloud options are based on technologies from EMC, Microsoft, SAP and Oracle. Our multi-tenant private cloud based on Microsoft's Cloud Platform System provides an Azure-like experience in a private cloud model. This offers the level of security and control which many enterprises demand.

Business process as a service
Depending on client needs, we offer a full 'stack' approach to Business Process as a Service (BPaaS) where we cover the entire value chain for a process such as Finance & Accounting, or a specialized stack where we provide services in a niche area. Our approach can encompass applications and infrastructure from a wide range of partners.

Migrating to the AWS Cloud or Microsoft Azure
For customers who approach the cloud with one preferred vendor in mind, we leverage partner technologies, methods and innovation in all areas of our Cloud Choice portfolio with partner-specific offerings: Capgemini Cloud Choice with Amazon Web Services and Capgemini Cloud Choice with Microsoft.

We need to talk
about the
cloud

Cloud first is the new normal. As flexible cloud solutions provide a foundation for digital transformation, knowing how to maximize the potential of cloud technologies enables businesses to stay relevant and keep pace with expectations.

As cloud adoption accelerates, more and more businesses are looking to cloud to deliver innovation, top-line growth and competitive advantage.

How will you get there before your competitors?

Capgemini
CONSULTING.TECHNOLOGY.OUTSOURCING

Cloud
Choice

For more information on Cloud Choice, contact:

Franck Greverie
Group Cloud and Cybersecurity Leader
franck.greverie@capgemini.com

Richard Bowler
Advise Leader
richard.bowler@capgemini.com

Vikrant Karnik
Align Leader
vikrant.karnik@capgemini.com

Stephen Pumphrey
Animate Leader
stephen.pumphrey@capgemini.com

About Capgemini

With more than 180,000 people in over 40 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2015 global revenues of EUR 11.9 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Learn more about us at

www.capgemini.com

People matter, results count.