Vnomic
Automated Engineered SAP Landscape as a Service

C A S E   S T U D Y

The Total Economic Impact of SAP landscape Deployment on Microsoft Azure Business Benefits

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Migrating to Cloud Business Case

Cloud computing enables companies to enjoy infinite scalability and affordable IT costs by only paying for the resources they utilize. Firms can reap significant additional cloud benefits, such as reduced computing expenses, increased engineer productivity, and a shift in activities from on-premises central architecture to a cloud infrastructure.

A detailed review of cloud computing levers and value-oriented business use cases foresees millions of dollars in run-rate EBITDA saving across Fortune 500 companies. Technically, a number that will grow as the cloud facilitates the adoption of emergent technologies such as distributed systems, augmented reality and blockchain. The emergence of this immense value pool comes at a time of increasing competitive pressure on companies. Fast-moving digital players are creating a fluid business landscape and accelerating the pace of change. For CEOs, cloud adoption is not just an engine for revenue growth and efficiency. Its speed, scale, innovation, and productivity benefits are essential to pursuing broader digital business opportunities now and well into the future. Yet an overly narrow view of cloud-value economics and where value exists often keeps companies from achieving the desired outcomes. The good news is that many companies across various industries have successfully implemented the public cloud to achieve impressive results. These companies follow three best practices:

- They execute a well-defined, value-oriented strategy across IT and businesses and install a cloud-ready operating model.

- They develop firsthand experience with the cloud and adopt a much more technology-forward mindset than their peers.

- They excel at developing a cloud-literate workforce.

The pools of value for cloud adoption are across two dimensions rejuvenate and innovate. **Companies can begin their journey by working with their tech leadership to focus on four actions:**

- Set ambitious targets.

- Pursue a hard-headed economic case.

- Adopt cloud-native ways of working.

- Invest in standardized, automated cloud platforms.

Dimensions of Value

The value of cloud transcends IT and is estimated at more than $1 trillion.

1. Rejuvenate
$430 billion

IT cost optimization

Cost optimization of application development and maintenance and IT infrastructure

Risk reduction

Improved business resilience of the organization

Core-operations digitization

Implementation of latest technological/digitization achievements in core operations

2. Innovate
$770 billion

**Innovation-driven growth**

Business growth from new and enhanced use cases in analytics, IoT, and automation

Accelerated product development

Enhancement of operating-model agility, ease of cloud configuration, and democratized access to computational power

Hyper-scalability

Access to instant on-demand elasticity in compute and storage capacity to scale across customer segments, geographies, and channels
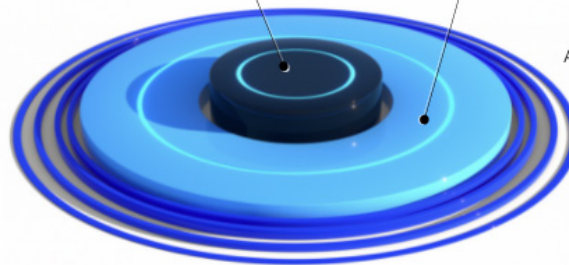
Source: Independent third-party research data (OmnicomGroup and Known), industry and McKinsey expert interviews, McKinsey D2020 IT cost benchmarking, McKinsey Global Institute research, team analysis

Source: McKinsey Global Institute - Cloud's trillion-dollar prize is up for grabs

Companies in every industry can capture substantial value from the cloud, but it isn't distributed evenly. High tech, oil and gas, retail, healthcare systems and services, insurance, and banking are positioned to generate the most value as measured by EBITDA impact in 2030. However, the business went almost to all industries across the Fortune 500. **As you see below, the business shows potential for an average rise in EBITDA of more than 20 percent.**

This value distribution is likely to change as the impact of cloud evolves. Democratized access to computational power and infrastructure could reshape the landscape in industries that have historically not been highly competitive.

Capture of the economic value is expected to differ by industry.

Impact of cloud use cases and improvements
Estimated 2030 EBITDA run-rate impact

■ 1. Rejuvenate ■ 2. Innovate

|	# of companies	EBITDA impact, $ billion	EBITDA impact as % of 2030 EBITDA
High tech	30	110–160	28–40
Oil & gas	45	80–160	29–60
Retail	64	90–140	31–53
Healthcare systems & services	30	70–140	35–74
Insurance	45	70–110	43–70
Banking	36	60–80	13–17
Automotive & assembly	23	40–60	31–54
Telecom	12	40–60	12–19
Advanced electronics & semiconductors	25	30–50	12–25
Consumer packaged goods	43	20–40	11–20
Transport & logistics	20	20–40	24–41
Pharmaceuticals & medical products	12	20–40	9–19
Media & entertainment	14	20–30	12–18
Travel	11	10–30	28–44
Aerospace & defense	12	10–20	14–22
Basic materials	23	~10	11–20
Chemicals	15	~10	10–18
Electric power & natural gas	14	~0	5–7
Infrastructure	13	~0	12–21
Total	**487**	**700–1,200**	**20–34**

Source: Independent third-party research data (Omnicom Group and Known), industry and McKinsey expert interviews, McKinsey D2020 IT cost benchmarking, McKinsey Global Institute research, team analysis

Like several previous technology disruptions, cloud shifts barriers to entry in many markets from scale to skill, enabling smaller companies with the right skills to scale businesses on the latest infrastructure without worrying about up-front costs—thus creating a threat to slower moving incumbents.

Use cases also differ by industry. Solutions that unlock the value of cloud include inventory optimization in retail, automated forecasting in oil and gas, chatbot support for high tech, and customer-call-center optimization in banking.

Six value drivers could enable cloud to deliver more than $1 trillion in 2030 EBITDA value across the Fortune 500 by 2030.

Estimated 2030 EBITDA run-rate impact, $ billion
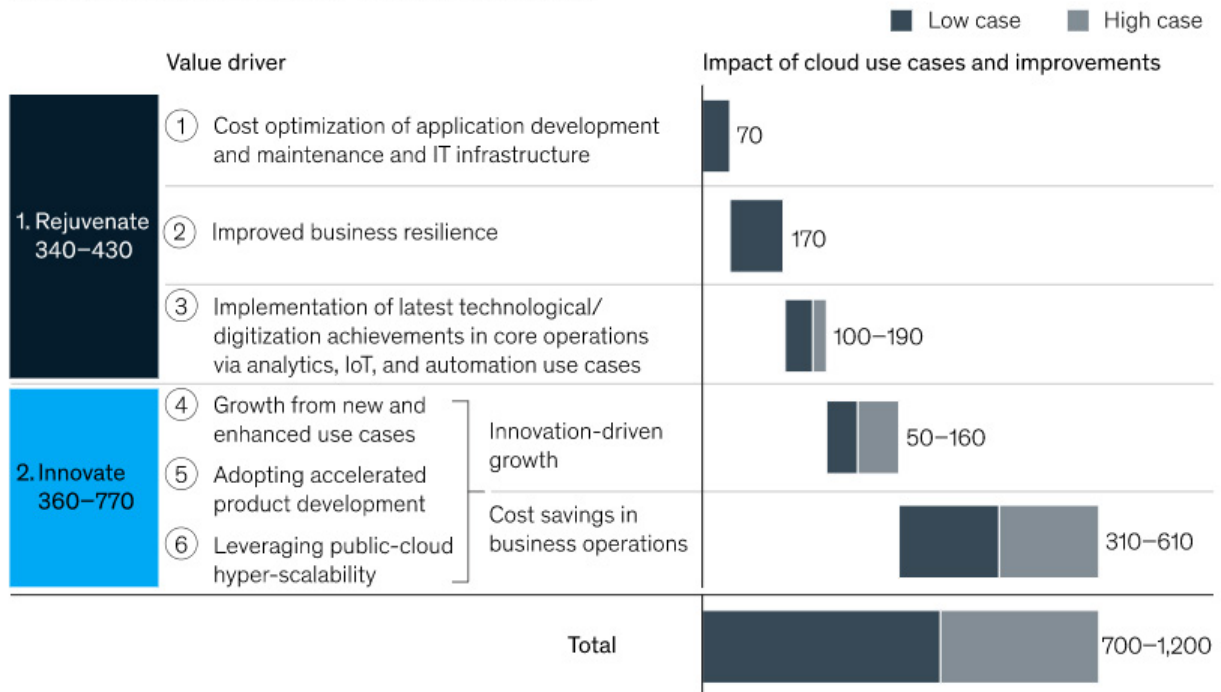
Note: Cost of implementation is not included in calculation.
[1] Premature to estimate value in 2030.
Source: Independent third-party research data (OmnicomGroup and Known), industry and McKinsey expert interviews, McKinsey D2020 IT cost benchmarking, McKinsey Global Institute research, team analysis

Capturing Value: Six value drivers underpin the two dimensions - As companies assess the opportunities enabled by cloud, a detailed review of the sources of value can pinpoint where they need to focus their attention, people, and resources. Across the two dimensions, six drivers of value can collectively generate Millions in value

Rejuvenate - Rejuvenation describes a break from traditional legacy approaches by using cloud to lower costs and risk across IT and core operations.

Value Driver 1: IT Cost Optimization

The traditional on-premise model for managing applications and infrastructure is inherently inefficient. It is highly manual and typically uses expensive technology equipment at less than total capacity. The economics of cloud computing is strong. On the one hand, the cloud provides access to automated capabilities that enterprises could never afford to develop on-premise. Technically, cloud service providers (CSPs) leverage inverse workload usage patterns to run their assets at much higher utilization. On the other hand, CSPs charge based on consumption, and companies must remediate existing applications to run efficiently in the cloud.

Early research indicates that developers spend measurably less time on infrastructure and production support and more on business requirements and development when companies move to the public cloud. Similarly, "lift and shift" migrations of existing on-premise applications to the cloud can increase costs if they are not optimized or remediated correctly. In contrast, companies that have built new systems in the cloud or remediated existing applications to leverage cloud attributes are seeing dramatic efficiency improvements. Cloud also enables greater development productivity through new working methods, such as agile and DevSecOps, and efficiency improvements through API-based or self-service-based workflows and automation. For example, automated deployment and management. Research also indicates that effective cloud usage can improve application development and maintenance productivity by 38 percent and infrastructure cost efficiency by 29 percent for migrated applications. As a result, increasing the share of Fortune 500 applications in the cloud from 10 percent to 60 percent would yield benefits of $56 billion in application development and maintenance and $12 billion in infrastructure expenditures.

Value Driver 2: Improved Resilience and Lower Downtime Costs

By 2030, companies will lose roughly $650 billion due to system downtime and cybersecurity breaches. The cloud could reduce downtime by about 57 percent for migrated applications through more resilient architecture, resulting in a 26 percent cost reduction for breaches. Cloud could improve platform integrity through automated, embedded deployment and governance processes and controls. These features reduce technical risks with a modernized, consistent technology stack across environments.

Value Driver 3:
Core Operations

Cloud accelerates and, in some instances, unlocks implementing the latest technological and digitization solutions in the back office, such as analytics-driven accounting and talent management. Organizations that shift to the public cloud unlock additional value by repurposing and reskilling their workforce to focus on higher-value tasks, such as developing products and services that address customer demands. Cloud can reduce manual effort through API-based models, standardization, and automation.

Innovate

The next dimension involves harnessing the cloud to accelerate or enable innovation using advanced analytics, IoT, and automation at scale. These provide companies with ways to pursue innovation-driven growth and optimize costs for business operations. The range of potential value is extensive and reflects that not all organizations have the cloud maturity to achieve a similar degree of innovation. We analyzed 700 use cases to determine the impact of the cloud on unlocking value. The value was allocated across a range from 100 percent in select cases, 30 percent in the bulk of cases, and null in a small number of cases.

Value Driver 4: Growth from New and Enhanced Use Cases

A "fail fast" mentality is a hallmark of the most innovative companies, and the cloud facilitates it by providing access on-demand to nearly unlimited infrastructure capacity and computational power.

Cloud enables companies to experiment with applications and new business models at lower cost and more incredible speed. Executives who embrace cloud avoid sizeable up-front capital outlays when they launch or expand businesses. To support this shift, organizations need new operating models focused on, among other things, managing consumption, gaining visibility into future demands, and forming integrated financial operations (FinOps) teams to maintain fiscal control.

Value Driver 5: Accelerated product development

Accelerated product development Companies have adopted cloud to enhance their operating-model agility, accelerating the implementation of use cases while lowering R&D investment.

Companies can more easily configure solutions on the cloud than on premise, enabling them to keep pace with the speed of business change and creating a flywheel for responsiveness. In addition, migrating to the public cloud provides organizations with access to innovative tools and capabilities offered by CSPs, such as containers, microservices, DevOps functions, continuous integration and delivery (CI/CD), and advanced serverless architecture. This enhances product development from the outset and dramatically speeds design, build, and ramp-up, helping companies to reduce time to market dramatically.

Value Driver 6:
Rapid Scaling

Cloud providers' infrastructure and global presence can be harnessed to scale products almost instantaneously to a broader set of customer segments, geographies, and channels. In addition, organizations can gain access to instant on-demand elasticity in compute and storage capacity—critical elements in launching and building new businesses.

The Right Way to Adopting Cloud

Cloud offers tremendous value, but the benefits don't appear magically. Cloud requires a well-defined, value-oriented strategy and a coordinated execution by IT and businesses to realize total value. For example, organizations that "lift and shift" applications to the cloud with no change to architecture miss vital benefits, such as automated migration and management of enterprise workload on clouds.

Moving SAP Landscape to Azure Business Case

Microsoft Azure

Microsoft Azure is the public cloud computing platform from Microsoft. The array of cloud services it provides includes computing, analytics, storage, and networking. Azure includes more than 400 brands and cloud services, all of which are aimed at helping you to create answers to current difficulties and build the future. The azure platform offers business owners a means to cope with their difficulties and achieve their organizational objectives. Utilize tools and frameworks of their choosing to build, run, and manage applications throughout many clouds, on-premises, and at the edge. A public cloud like Microsoft Azure is an embodiment of an example. Everything a cloud user uses, from hardware to software to support, is owned and operated by the cloud provider.

Microsoft Azure is an SAP-certified public cloud that allows organizations to deploy and run their SAP landscape in the cloud. Using Microsoft Azure and Vnomic, companies can migrate and run their SAP landscape more rapidly than their legacy on-premises infrastructure. Organization realize the cost savings associated with moving to the cloud by reducing the need for on-premises hardware, software, and data center real estate. To measure the financial impact realized by customers, Vnomic conducts a cloud economic and technical assessment study and examines the potential ROI enterprises may realize by hosting their SAP instances on Microsoft Azure.

Before using Microsoft Azure for SAP, customers required an extensive, costly, on-premises hardware infrastructure to support SAP instances. The infrastructure also needed substantial support and maintenance from IT staff. New and iterative SAP releases also faced frequent delays because of limited testing capabilities, hardware capacity constraints, and shrinking windows for planned downtime. After migrating SAP landscapes to Microsoft Azure, the organization can benefit from Azure and Vnomic capabilities reducing time to value from months to hours while reducing the impact of delays on SAP releases to the business and increasing the speed to market for key business capabilities. Organizations also realize significant CAPEX savings by eliminating their SAP landscapes' hardware, software, and data center space. This benefit trickled further into the IT organization, allowing them to reallocate personnel who supported the on-premises infrastructure to higher-value activities.

Key Findings Quantified Benefits

The following risk-adjusted present value (PV) quantified benefits are what we found for SAP on-premise landscape with 470 systems/VMs:

Value Driver 1: IT cost optimization

- **Avoided cost of on-premises hardware of $ 7.9 million**

  By migrating their SAP applications to Microsoft Azure, the company will recognize significant cost savings from retiring legacy hardware and software tools and operational cost savings for infrastructure to host and deliver the SAP environment.

- **Avoided cost of overprovisioned hardware of $ 3.4 million**

  Customers will not need to overprovision hardware associated with their SAP deployment to accommodate peak utilization. Using Azure, companies gained access to on-demand capacity and scalability to quickly add or reduce resources when needed, reducing the cost of over-configuring infrastructure.

- **Elimination of physical data center space cost valued at $1.3 million**

  Companies relies on data center space to support their legacy SAP deployments. By migrating to Azure, this need was eliminated.

Value Driver 2: Improved resilience and lower downtime costs

Improved resilience and lower downtime cost worth $3.6 million.
Microsoft Azure's global and highly reliance infrastructure and Vnomic resiliency management significantly improve resiliency and lower downtime costs using zonal deployment and the latest clustering solutions.

Value Driver 3: Core operations

Reallocation of staff required to manage SAP infrastructure worth $1.4 million.

By eliminating on-premises hardware from the SAP environment, organizations required fewer IT staff to manage and support it. The company can rededicate IT staff to higher-value tasks and delay additional hiring unquantified benefits.

Value Driver 4: Growth from new and enhanced use cases

Cloud enables companies to experiment with SAP Landscapes and new business models at lower cost and more incredible speed, avoiding sizeable up-front capital outlays when they launch or expand businesses.

Value Driver 5: Accelerated product development

SAP Landscapes can more easily be configured on the cloud than they can on-premise, enabling companies to keep pace with the speed of business change and creating a flywheel for responsiveness.

Value Driver 6: Rapid scaling

SAP landscape can leverage cloud providers' infrastructure and global presence to scale almost instantaneously to a broader set of customer segments, geographies, and channels. In addition, SAP Landscape can achieve instant on-demand elasticity in scaling the landscape to meet increasing business demand.
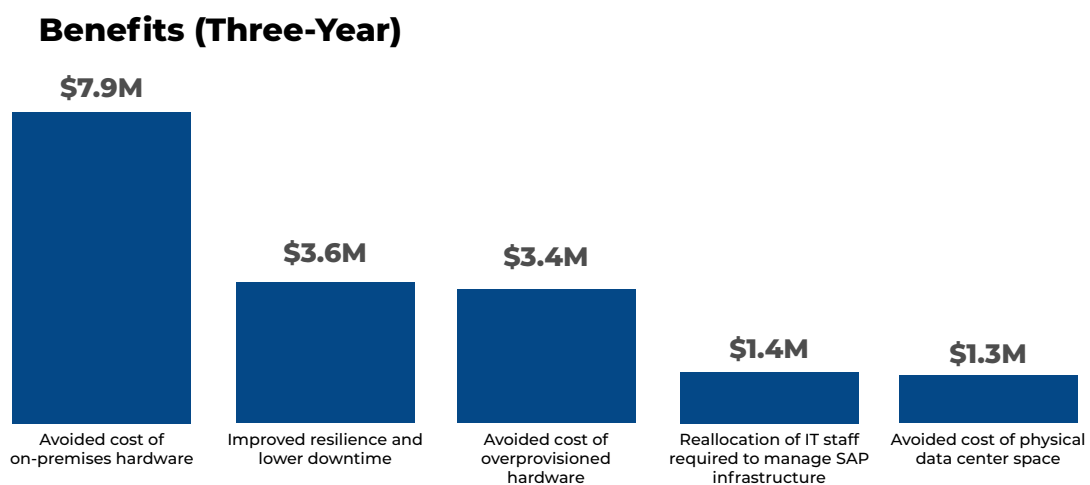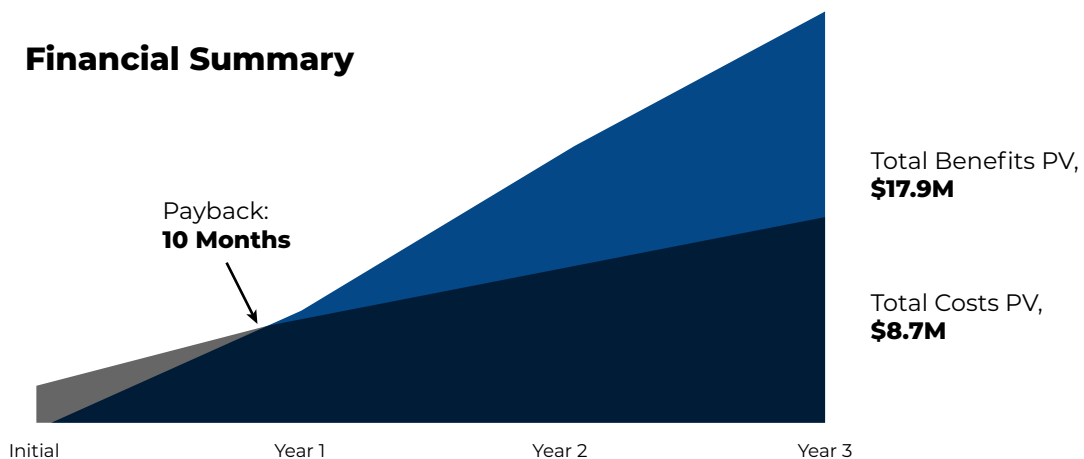
Costs

Customers can experience the following risk-adjusted PV costs:

Fees paid for Microsoft Azure infrastructure of $5.3 million over three years. Total pricing for compute, storage, and IT services (including security) were $2.1 million per year.

Cost to architect, migrate to and manage Azure infrastructure of $3.4 million.

These expenses included net new software, ongoing staff management, and initial internal efforts to plan and execute the migrations.

We project benefits of $17.6M over three years versus costs of $8.7M, adding up to a net present value (NPV) of $8.9M and an ROI of 102%.

Financial Summary

Payback: **10 Months**

Total Benefits PV, **$17.9M**

Total Costs PV, **$8.7M**

Initial | Year 1 | Year 2 | Year 3

Benefits (Three-Year)

$7.9M — Avoided cost of on-premises hardware

$3.6M — Improved resilience and lower downtime

$3.4M — Avoided cost of overprovisioned hardware

$1.4M — Reallocation of IT staff required to manage SAP infrastructure

$1.3M — Avoided cost of physical data center space

The NPV formula used for calculation is as follows,
NPV=(1+i)t Cash flow–initial investment where: i=Required return or discount rate and t=Number of times periods

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