The S/4HANA Modernization Journey
App Modernization Strategies for SAP Customers and Microsoft Azure as an SAP Cloud Platform

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Storms of Disruption: The End of Business as Usual

Organizations are navigating through multiple “storms of disruption” that are creating tailwinds, headwinds, and crosswinds of high impact to each of them.

These recent disruptions are characterized by being:
- Enduring
- Volatile
- Interconnected
- Company-specific

**Tailwinds (positive forces that bring new opportunities)**
1. Hybrid working
2. Consumer digital demand
3. Digital industry ecosystem
4. New digital business models
5. Emergence of new disruptive technologies

**Headwinds (negative forces that challenge status quo)**
1. Inflationary pressures
2. Cybersecurity threats
3. Skill shortages
4. Russia-Ukraine war
5. Supply chain constraints

**Crosswinds (neutral forces that must be considered)**
1. New digital data regulations
2. Digital sovereignty
3. Sustainability
4. Government stimulus
5. New digital-native competitors

Source: IDC European Industry Acceleration Survey, October 2022 (n=1,500)
Transition to Digital Business Models Implies Fundamental Business Changes Ahead

Q: Compared with the business model you had 10 years ago, which of the following best describes your strategy for business model innovation?

We see four approaches to digital business models:

1. **Digital** (fully transitioned to digital)
2. **Mixed** (mix of traditional and digital units)
3. **Gradual** (incremental transition to digital)
4. **Traditionalist** (maintaining traditional business model)

- **Digital**: Diversification of business launch of new digital, complementary products/services
  - Radical transformation of business model into a digital one
  - We are digital-native

- **Mixed**: Acquisition of digital organization
  - Launch of entirely new digital spin-off

- **Gradual**: Incremental change & adaption of business model through process improvement

- **Traditionalist**: No change to business model

Only **5%** of European organizations have not changed their business model over the past decade.

European organizations expect **43%** of their revenues to be driven by digital business models in 2 years.

Source: IDC European Industry Acceleration Survey, October 2022 (n=1,500)
SAP ERP Customers Overwhelmingly Want to Modernize

Q: What are (or were) the top technical objectives for your migration to SAP S/4HANA?

- Reduce ERP operating costs: 48%
- Create a more agile and flexible ERP setup: 42%
- Enhance the integration of ERP with other systems: 38%
- Improve extensibility: 36%
- Remove customizations: 35%
- Simplify the ERP landscape: 33%
- Migrate away from our datacenter: 29%
- Optimize technical processes (e.g., ops, HA< DR): 27%

Goal:
Leaner, simplified, lower-cost, more agile, standardized, cloud-based ERP core

1 in every 4 business leaders in IDC’s C-Suite Survey customers have stated that “modernizing core business applications” is a top technology priority for the next 12 months.
Key SAP Modernization Business Case Elements Are Lower IT Costs, Better Customer Experience, and Improved Strategic Agility

Q: What are (or were) the top technical objectives for your migration to SAP S/4HANA?

- Reduce the cost of integration, customization, and training: 46%
- Improve customer experience: 42%
- Improve adaptability to dynamic business conditions: 40%
- Better capture data and deliver insights: 31%
- Reduce the cost of business operations: 29%
- Improve ability to counter disruptions of business operations: 28%
- Better introduce new products, services, or business models: 27%
- Reduce the cost of the ERP system: 27%
- Work better with suppliers, partners, sellers, ecosystem: 25%

SAP ERP customers identified a wide variety of business case elements across IT and business, suitable for a comprehensive business case. However, in our experience, most actual SAP modernization business cases are based exclusively on reduced, avoided, or eliminated IT costs. These cost components are easier to estimate and quite closely aligned with modernization efforts. The actual modernization business impact goes much beyond IT, but often this wider business impact is just too uncertain and intangible for inclusion in a formal business case, unfortunately.

Bo Lykkegaard, IDC
Cloud Deployment Is the Default Destination for S/4HANA

19 in every 20 S/4HANA migrating customers aim for some sort of cloud deployment for S/4HANA. Cloud is a default.

27% specifically call out hyperscalers, such as Microsoft Azure, Amazon Web Services, and Google Cloud Platform, as destination platforms, but a significant proportion of those mentioning S/4HANA Cloud, hybrid cloud deployment, and HANA Enterprise Cloud (now replaced by RISE with SAP) are likely to use hyperscaler cloud platforms as well.

As SAP scales back its own infrastructure-as-a-service ambitions, IDC believes that the hyperscalers will gain further popularity.

Bo Lykkegaard, IDC

Source: IDC HANA Core Modernization Survey, January 2022 (n=486)
SAP ERP Customers Are Moving to the Public Cloud for Strategic Business Reasons

Q: Which business benefits has your organization achieved (or expected to achieve) from migration to public cloud?

<table>
<thead>
<tr>
<th>Business &amp; IT efficiency</th>
<th>Hybrid work</th>
<th>Cybersecurity</th>
<th>IT speed</th>
<th>Business innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher business and IT productivity</td>
<td>Enablement of remote/hybrid work</td>
<td>Reduced data security risks/improved compliance</td>
<td>Faster software development and deployment</td>
<td>Faster time to market for new products/services</td>
</tr>
</tbody>
</table>

29% 27% 23% 22% 20%

Moving IT workloads to the public cloud is not about hardware and services arbitrage. It is a strategic, long-term commitment, done to achieve lasting business advantages.

44% of SAP ERP customers have a "balanced approach between on-premises/colocation and public cloud" or prefer public cloud for IT workloads.

Source: IDC Multicloud 2022 Survey, September 2022 (n=779, all SAP ERP customers)
Over Half of SAP Customers Already Use Azure for IT Workloads

Q: To what extent does your organization use, or plan to use within 12 months, Microsoft Azure for IaaS, PaaS, and/or SaaS?

<table>
<thead>
<tr>
<th>Extensive use</th>
<th>Limited use</th>
<th>Not using &amp; no plans to use</th>
<th>Not using but plan to use within 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>23%</td>
<td>27%</td>
<td>23%</td>
<td>27%</td>
</tr>
</tbody>
</table>

When compared to other cloud platforms, the four areas where Microsoft Azure has the strongest relative advantage are:

1. Marketplace/ecosystem
2. Digital resilience (e.g., disaster recovery)
3. Trust (security, privacy, compliance, certifications)
4. Openness (least lock-in)

The recent IDC Multicloud 2022 Survey confirmed that Microsoft Azure is a popular cloud platform across industries and European countries. According to IDC’s Semiannual Public Cloud Services Tracker, Microsoft was the #1 provider of platform-as-a-service worldwide in 1H22.

Source: IDC Multicloud 2022 Survey, September 2022 (n=772, all SAP ERP customers)
Cybersecurity Is a Driver for SAP Customers to Move to Azure

44% of SAP ERP customers state that “cybersecurity concerns” is a driver of increased cloud.

The top security concerns of SAP customers when moving workloads to cloud platforms can be resolved with appropriate services and solutions:

1. Cloud security skill 32%
2. Visibility, security, and recovery of data 29%
3. Managing encryption across multiple clouds 24%

IDC — in working with organizations that are moving workloads from on-premises to Azure — has observed the following general security upsides and advantages of the cloud:

- Active Directory on Azure. For organizations that are already managing users on Active Directory, identity and access management in the cloud is simply an extension of the existing setup.
- Physical infrastructure of cloud provider is highly secure.
- Azure has built-in security components (e.g., firewall).
- Third-party security products/services that are continuous (24X7) are available on the platform.
- Organizations can configure digital sovereignty (data and workload control).

Source: IDC Multicloud 2022 Survey, September 2022 (n=779, all SAP ERP customers)
Sustainability Is Another Motivator for SAP Customers to Go to Azure

Q: In which of the following ways do you think cloud is helping your organization achieve your sustainability objectives?

1. Access to more efficient applications and capabilities through SaaS solutions
2. Access to more efficient infrastructure/hardware
3. Access to sustainable applications and services for more efficient operations

Source: IDC Multicloud 2022 Survey, September 2022 (n=779, all SAP ERP customers)

Sustainability is one of several key motivators for organizations to move workloads to the cloud. Large hosting centers often have unique access to renewable energy sources and have highly efficient infrastructure and operations. SaaS applications have a lighter IT footprint, especially on the client side, and many offer applications and services to measure and manage carbon footprint.

Bo Lykkegaard, IDC

42% of SAP ERP customers state that “sustainability & carbon neutrality initiatives” are a driver of increased cloud use
The Majority of SAP ERP Customers Prefer Application Platform Co-existence

Q. Where will SAP fit in your future enterprise architecture?

36% SAP-centric (SAP ecosystem apps preferred)

37% SAP co-existence (A variety of apps/platforms preferred)

22% SAP Minimization (Third-party apps/platforms preferred)

80% see SAP as at least “mostly adequate” for their ERP needs
78% plan to have already migrated to S/4HANA

72% see SAP as at least “mostly adequate” for their ERP needs
66% plan to have already migrated to S/4HANA

66% see SAP as at least “mostly adequate” for their ERP needs
49% plan to have already migrated to S/4HANA

Source: IDC HANA Core Modernization Survey, January 2022 (n=700)
Nearly a Third of SAP ERP Customers Have Already Moved to S/4HANA, But Most Have Yet to Finalize Their Migration Plans and Implementation

There has been a steady and substantial flow of SAP ERP customers migrating to S/4HANA over the past two years. However, almost one-third still have to decide and start planning their ERP future.

Among the biggest concerns for those yet to migrate is uncertainty over costs. Those concerns should be eased by the fact that 88% of migrated customers said the costs of their SAP ERP modernization fell within their original estimates.

With careful planning and the right support, cost concerns do not need to be a barrier to modernization initiatives.

Ashok Patel, IDC

Q. Where does your organization stand regarding migration to SAP S/4HANA?

Source: IDC HANA Core Modernization Survey, January 2022 (n=700)
SAP Customers Face an Array of Barriers for App Modernization, But There Are Solutions to Overcome All of These Challenges

Q: What are the key app modernization barriers among SAP customers?

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding a partner for the application modernization &amp; migration journey</td>
<td>30%</td>
</tr>
<tr>
<td>Skills shortages</td>
<td>28%</td>
</tr>
<tr>
<td>Finding out where to start the modernization &amp; migration process</td>
<td>28%</td>
</tr>
<tr>
<td>Difficulty defining the business outcome of the application</td>
<td>27%</td>
</tr>
<tr>
<td>modernization &amp; migration process</td>
<td></td>
</tr>
<tr>
<td>Need to modernize our infrastructure first</td>
<td>27%</td>
</tr>
<tr>
<td>Stuck in legacy application architecture &amp; processes</td>
<td>26%</td>
</tr>
<tr>
<td>Assess and classify all our applications</td>
<td>26%</td>
</tr>
<tr>
<td>Lack of knowledge of what is available in the market</td>
<td>22%</td>
</tr>
</tbody>
</table>

IDC recommendations

- Conduct analysis on vendor and advisory offerings to identify the best partner options.
- External expertise can play a vital role in plugging any internal skills gaps that are delaying modernization efforts.
- Understanding your current setup is key to knowing where to start. Consider whether advisory firms can help accelerate that process.
- Conduct a business value assessment to identify what you want to gain from your app modernization initiatives.
- Consider your app modernization goals as part of your infrastructure modernization planning.
- Develop and implement strategies to update legacy architectures and processes.
- Review your existing application portfolio with an eye on identifying modernization opportunities.
- Conduct a study on what is available in the market, leaning on external service providers, many of whom already have this information available.
The Costs and Risks of Doing Nothing Are Significant and Are Continuously and Irreversibly Increasing

48% of SAP ERP customers are migrating to S/4HANA to reduce their ERP operating costs

Source: IDC HANA Core Modernization Survey, January 2022 (n=700)

Delaying ERP modernization exposes organisations to rising costs, which will increase further the longer legacy ERP is maintained.

Legacy ERP skills shortages are expected to increase as more companies migrate to newer solutions.

Integrating newer, cloud-based apps/platforms with legacy on-premises ERP systems can result in additional customizations, higher costs, and more complex modernization initiatives.

Old ERP systems with limited and complicated integrations and lots of customizations increase operational fragility and maintenance costs.

Maintaining old, on-premises ERP systems will continue to generate ongoing security costs, which will only rise after the end-of-life 2027 deadline.

Running older ERP systems risks diverging employee experiences, with existing employees potentially preferring legacy systems they are used to, while new employees perceive them in a more negative light.

Value baseline

Value erosion from not modernizing ERP systems

- Rising software maintenance costs
- Exposure to legacy skills shortage
- Growing complexity/fragmentation
- Operational fragility
- Security risks
- Employee experience
ERP systems are mission-critical to organizations, directly and indirectly touching many parts of their operations. As a result, there is a diverse array of influencers in ERP-related decisions.

While the overall direction is often set by the CEO and CIO, there are important ERP influencers across the C-Suite.

ERP modernization projects must have a compelling vision and fully address concerns around costs and risks. Involving the right stakeholders and building a coalition is essential when undertaking modernization to avoid compromises and unnecessary delays and costs.

Ashok Patel, IDC
SAP ERP Customers Are Reducing In-House SAP Infrastructure Skills and Increasingly Rely on External Expertise

Q: What type of SAP skills does your organization have?
Q: Which of these skills does your organization plan to phase out?

Cost optimization and innovation are the biggest drivers behind SAP customers’ decision to rely on external expertise for their future SAP applications.

Q. Why rely more on external SAP skills over the next two years?

BASIS and ABAP will see the greatest reduction in in-house skills investment as SAP workloads move to the cloud.

The primary focus for new in-house SAP expertise investment is for functional skills rather than infrastructure and middleware capabilities.

Source: IDC HANA Core Modernization Survey, January 2022 (n=700)
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