THE MULTI-CLOUD MATURITY INDEX

A report analysing triumphs and challenges on the multi-cloud journey for organisations in EMEA and around the globe
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The Multi-Cloud Tipping Point

Over the past several years, organisations across every industry, sector, and region of the world have begun using multiple public clouds to drive their business operations. Sometimes this is an accidental outgrowth resulting from different teams preferring to run apps or workloads on different clouds. And sometimes it’s a strategic decision designed to increase flexibility, control costs, monetize data, and navigate data residency requirements. In every case, organisations are striving to gain maximum value from their multi-cloud environment, while contending with the increased complexity that comes with managing multiple clouds.

Our research of nearly 3,000 organisations throughout Europe, Middle East, and Africa (EMEA) reveals that only one in five has reached the tipping point, where the strategic advantages of multi-cloud outweigh the inherent complexities. These ‘cloud-smart’ organisations have achieved a more sophisticated and mature approach to multi-cloud, which enables them to gain strategic business advantages. By contrast, the majority (81%) of organisations report that they haven’t yet embarked on the multi-cloud journey or are struggling with various aspects of ‘cloud chaos’ — everything from talent gaps to governance to security risks.

Note: All survey data is for EMEA respondents only unless otherwise specified.
Key Findings from the Research

1. The embrace of multi-cloud has spiked in the last two years, as organisations have navigated the impact of the global pandemic. While 35% of organisations reported using multiple public clouds two years ago, that number has increased to 62% and is expected to grow to 67% over the next five years.

2. Respondent organisations currently use an average of 2.2 public clouds, and this number is expected to increase to 2.8 over the next five years.

3. 95% of all organisations surveyed believe a multi-cloud approach is critical to business success, and 48% of those go even further, saying that organisations that do not adopt a multi-cloud approach risk failure. These percentages are even higher (98% and 64%, respectively) for organisations that have achieved the highest level of multi-cloud maturity. This indicates that the more advanced an organisation is in its multi-cloud approach, the more benefit it gains.

4. 89% of respondents from multi-cloud organisations say that their organisation uses apps that were built to run across multiple public clouds.
Survey Demographics

The survey — conducted by Vanson Bourne and commissioned by VMware — collected global data from 5,790 respondents, including 2,880 from EMEA. The respondents, who were surveyed between April and June of 2022, consisted of CIOs, CISOs & CTOs, cloud architects & DevOps professionals, app developers, and business decision makers split across the following dimensions:

**COUNTRY**

- UK: 500
- Germany: 350
- France: 350
- Italy: 240
- Netherlands: 240
- Denmark: 240
- Sweden: 240
- Spain: 240
- UAE: 240
- Israel: 240

**INDUSTRY**

- Financial services: 589
- Public (excluding education & healthcare): 376
- Healthcare – private: 326
- Energy, oil/gas & utilities: 249
- Healthcare – public: 215
- IT, technology & telecoms: 209
- Construction & property: 177
- Retail, distribution & transport: 162
- Manufacturing: 129
- Education – private: 123
- Business & professional services: 102
- Media, leisure & entertainment: 58
- Education – public: 50
- Other commercial sector: 115
<table>
<thead>
<tr>
<th>Age of Organization</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 years old or younger</td>
<td>71</td>
</tr>
<tr>
<td>6-10 years old</td>
<td>717</td>
</tr>
<tr>
<td>11-25 years old</td>
<td>1369</td>
</tr>
<tr>
<td>26-50 years old</td>
<td>415</td>
</tr>
<tr>
<td>51-75 years old</td>
<td>165</td>
</tr>
<tr>
<td>76-100 years old</td>
<td>75</td>
</tr>
<tr>
<td>101 years or older</td>
<td>68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization Size</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>500–999 employees</td>
<td>416</td>
</tr>
<tr>
<td>1,000–2,999 employees</td>
<td>608</td>
</tr>
<tr>
<td>3,000–4,999 employees</td>
<td>877</td>
</tr>
<tr>
<td>5,000 or more employees</td>
<td>979</td>
</tr>
</tbody>
</table>
The number of public clouds in use is on the rise. But more isn’t always better.

Ballooning Clouds

Public cloud usage is expanding at a rapid rate, especially among medium-sized organisations with 1,000–4,999 employees.

### AVERAGE NUMBER OF PUBLIC CLOUDS USED BY AN ORGANISATION

<table>
<thead>
<tr>
<th>When the org was founded</th>
<th>2 years ago</th>
<th>Currently</th>
<th>In 2 years</th>
<th>In 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>500–999 employees</td>
<td>0.8</td>
<td>1.2</td>
<td>2.2</td>
<td>2.4</td>
</tr>
<tr>
<td>1,000–2,999 employees</td>
<td>1.1</td>
<td>1.4</td>
<td>2.4</td>
<td>2.7</td>
</tr>
<tr>
<td>3,000–4,999 employees</td>
<td>0.9</td>
<td>1.3</td>
<td>2.1</td>
<td>2.5</td>
</tr>
<tr>
<td>5,000+ employees</td>
<td>0.7</td>
<td>0.8</td>
<td>1.9</td>
<td>2.2</td>
</tr>
</tbody>
</table>

### AVERAGE NUMBER OF PUBLIC CLOUDS USED BY AN ORGANISATION

<table>
<thead>
<tr>
<th>When the org was founded</th>
<th>2 years ago</th>
<th>Currently</th>
<th>In 2 years</th>
<th>In 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>500–999 employees</td>
<td>1.1</td>
<td>1.3</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>1,000–2,999 employees</td>
<td>0.9</td>
<td>1.9</td>
<td>2.2</td>
<td>2.6</td>
</tr>
<tr>
<td>3,000–4,999 employees</td>
<td>0.7</td>
<td>0.8</td>
<td>3.2</td>
<td>3.1</td>
</tr>
<tr>
<td>5,000+ employees</td>
<td>0.5</td>
<td>1.4</td>
<td>2.7</td>
<td>3.2</td>
</tr>
</tbody>
</table>
‘Incumbent’ organisations (defined as those that are 11 years old or older, not ‘born in the cloud,’ and have annual revenue growth of 15% or less) are also seeing a proliferation of public clouds compared to ‘challenger’ organisations (defined as those that are 10 years old or younger, were ‘born in the cloud,’ and have annual revenue growth of 15% or more). This marks a noteworthy change from when these organisations were founded. This reversal indicates that incumbent organisations are recognizing the value of multi-cloud and are now playing catch-up.

It’s noteworthy that incumbent organisations in EMEA appear to be taking a less aggressive approach to the number of public clouds they plan to use. While EMEA incumbents expect to use an average of only 2.9 public clouds in five years’ time, incumbents in North America and APJ expect to use an average of 3.1 and 3.3, respectively.

This isn’t necessarily a disadvantage, as having ‘too much of a good thing’ can cause management, cost, and security complexities, to name a few.

Finding the Multi-Cloud Sweet Spot

While 99% of respondents believe a multi-cloud approach has benefits to business — including enhanced employee flexibility (cited by 45% of respondents), enhanced ability to innovate (cited by 41% of respondents), and getting apps into production faster (cited by 40% of respondents) — this doesn’t mean that more clouds are necessarily better. Using too many clouds can become unmanageable.
The survey finds that the highest-revenue-growth companies are actually using fewer public clouds than shrinking or low-growth companies. This indicates a more thoughtful, strategic approach to multi-cloud on the part of the hyper-growth companies — ensuring that they are maximising the potential of each individual cloud.

Unlocking the Potential of Multi-Cloud

A whopping 89% of respondents from multi-cloud organisations have apps that were built to run across multiple clouds, which allows these organisations to increase app dev, DevOps, and/or IT productivity (cited by 45% of respondents), improve cybersecurity (cited by 38% of respondents), and improve resilience (cited by 37% of respondents), among many other benefits. Organisations with apps built to run across multiple clouds (hybrid apps) are more likely to appreciate the role a multi-cloud approach plays in critical business functions.

A MULTI-CLOUD APPROACH PLAYS A VERY OR SOMEWHAT IMPORTANT ROLE IN:

<table>
<thead>
<tr>
<th>ACCELERATING TIME TO MARKET</th>
<th>95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisations with hybrid apps</td>
<td>78%</td>
</tr>
<tr>
<td>Organisations without hybrid apps</td>
<td></td>
</tr>
</tbody>
</table>

MEETING CUSTOMER NEEDS

| 95% |
|-----------------------------|-----|
| Organisations with hybrid apps | 80% |
| Organisations without hybrid apps |

RECRUITING THE BEST TALENT

| 94% |
|-----------------------------|-----|
| Organisations with hybrid apps | 71% |
| Organisations without hybrid apps |
The journey to multi-cloud maturity is a long, bumpy road.

Defining Multi-Cloud Maturity

To pinpoint the criteria that the most advanced organisations share, and to assess levels of maturity across the cloud landscape, survey respondents were grouped into four categories: Trailing, Cloud Beginner, Cloud Intermediate, and Cloud Smart.

Respondents were categorised based on the number of public clouds used, hybrid app usage, data sovereignty capabilities, visibility and control over cloud expenses, DevOps talent, and cybersecurity. Respondents were assigned positive or negative points depending on their level of maturity in each category and given an overall score, resulting in the following breakdown:

A SNAPSHOT FOR EVERY STAGE

**TRAILING ORGANISATIONS**
Trailing organisations, by definition, are not multi-cloud organisations. They are:
+ Slightly less likely to be from EMEA than the global total
+ More likely to come from private education than from other industries
+ More likely to be a medium/large-sized organisation (3,000-4,999 employees) vs other organisations
+ 32 years old on average

**CLOUD-BEGINNER ORGANISATIONS**
Cloud-beginner organisations are either just embarking on their multi-cloud journey or aspiring to do so. They are:
+ Slightly more likely to be from EMEA than the global total
+ More likely to come from construction & property or business than from other industries
+ More likely to be a small organisation (500-999 employees) vs a larger organisation
+ 26 years old on average

**CLOUD-INTERMEDIATE ORGANISATIONS**
Cloud-intermediate organisations are in the middle of their multi-cloud journey. They are:
+ Slightly less likely to be from EMEA than the global total
+ More likely to come from the public sector (excluding education and healthcare) than from other industries
+ More likely to be a large organisation (5,000+ employees) vs. smaller organisations
+ 24 years old on average

**CLOUD-SMART ORGANISATIONS**
Cloud-smart organisations are the most advanced when it comes to multi-cloud maturity. They are:
+ Equally as likely to be from EMEA as the global total
+ More likely to come from business & professional services than from other industries
+ More likely to be a medium/large-sized organisation (3,000-4,999 employees) vs other organisations
+ 22 years old on average

The remainder of this report examines what members of the different categories have in common to determine how multi-cloud adoption affects organisations at each stage of the journey, and to show those in the early stages that more and more benefits will start to come their way.
### 3 Cloud-smart organisations share key things in common.

Multi-Cloud Unlocks Revenue and Profitability Potential

While it doesn’t happen overnight, the survey finds that a multi-cloud approach can have a positive impact on revenue and profitability. And the farther organisations get on their multi-cloud journey, the more likely they are to see substantial increases.

**MULTI-CLOUD HAS HAD A POSITIVE IMPACT ON REVENUE**

<table>
<thead>
<tr>
<th></th>
<th>Cloud Beginner</th>
<th>Cloud Intermediate</th>
<th>Cloud Smart</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>51%</td>
<td>88%</td>
<td>97%</td>
</tr>
</tbody>
</table>

**MULTI-CLOUD HAS HAD A POSITIVE IMPACT ON PROFITABILITY**

<table>
<thead>
<tr>
<th></th>
<th>Cloud Beginner</th>
<th>Cloud Intermediate</th>
<th>Cloud Smart</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31%</td>
<td>89%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Multi-Cloud Helps Organisations Manage Data Wherever It Resides

With organisations increasingly collecting data from customers all over the world, and national regulations getting more complex by the day, data sovereignty (i.e. the principle that data is subject to the privacy laws within the nation where it is collected and stored) is top of mind.

**IT’S EASY TO MANAGE DATA IN WHICHEVER NATION IT RESIDES**

<table>
<thead>
<tr>
<th></th>
<th>Trailing</th>
<th>Cloud Smart</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>74%</td>
<td>94%</td>
</tr>
</tbody>
</table>

**IT’S EASY TO SECURE DATA IN WHICHEVER NATION IT RESIDES**

<table>
<thead>
<tr>
<th></th>
<th>Trailing</th>
<th>Cloud Smart</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>66%</td>
<td>91%</td>
</tr>
</tbody>
</table>

These tasks are also easier for organisations that use hybrid apps (those built to run across multiple public clouds):

**IT’S EASY TO MANAGE DATA IN WHICHEVER NATION IT RESIDES**

<table>
<thead>
<tr>
<th></th>
<th>Non-hybrid app users:</th>
<th>Hybrid app users</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>71%</td>
<td>89%</td>
</tr>
</tbody>
</table>

**IT’S EASY TO SECURE DATA IN WHICHEVER NATION IT RESIDES**

<table>
<thead>
<tr>
<th></th>
<th>Non-hybrid app users:</th>
<th>Hybrid app users</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>57%</td>
<td>85%</td>
</tr>
</tbody>
</table>

**COUNTRY SPOTLIGHT**

At 99%, respondents from Israel were more likely than any other EMEA respondents to report that multi-cloud had a positive impact on revenue growth, while those from the United Arab Emirates were least likely to say the same at 77%.

Respondents from Israel were also most likely to report that multi-cloud had a positive impact on profitability at 99%, while those from Sweden joined the United Arab Emirates as the least likely to say the same at 80%.
Regardless of the ease with which organisations manage and secure their data, 95% report that data sovereignty is a concern, with 46% saying it’s a ‘significant’ concern. (However, this figure varies greatly by country with 58% of those in the United Arab Emirates reporting significant concern vs just 30% of those in Denmark.)

Luckily, multi-cloud strategies are making it easier to manage and protect data wherever it resides by allowing organisations to work with sovereign cloud providers. These providers are key to ensuring that data is protected, compliant, and resident within a national territory. Operated by a sovereign entity, sovereign clouds are exempt from foreign jurisdictional control and managed by national citizens with the relevant national security clearance.

The farther an organisation gets on its multi-cloud journey, the better it’s able to utilise sovereign clouds.

Multi-Cloud Helps Turn Data into Money

The global data monetization market is expanding exponentially. In Europe alone, the data economy’s impact on GDP is expected to grow from 2.6% in 2018 to 4.2% by 2025, according to the European Commission.*

Looking to the future, respondents expect data monetization to become a ‘significant’ source of revenue, and this is especially true for the cloud-smart group.

Multi-cloud is helping accelerate this trend. That’s because it allows ways of managing data through sovereign clouds. Sovereign clouds as part of a multi-cloud strategy provide the ability to choose the right cloud for each data classification and for better governance around data mobility.

COUNTRY SPOTLIGHT

Those from the Netherlands are much more likely than others in EMEA to say it’s easy to manage and secure data in whichever nation it resides, at 95% and 93%, respectively. Meanwhile, those in the United Kingdom are most likely to say managing data in whichever nation it resides is difficult, at 21%. And those in Sweden are most likely to say the same for securing their data, at 26%.

REGION SPOTLIGHT

While a similar number of organisations in all regions say that data monetization is currently a significant source of revenue (29% - 30%), those in APJ and North America plan to accelerate data monetization to a greater degree than those in EMEA in the near future. In five years’ time, 67% of those in APJ and 68% of those in North America say data monetization will be a significant source of revenue, whereas only 59% of those in EMEA say the same.

*Statista, May 2022
From the Server Room to the Board Room

Unlocking the potential of multi-cloud isn’t solely about having the right tech in place. Respondent organisations that put the CEO at the helm of their multi-cloud journey — ensuring that a multi-cloud strategy plays a central role in overall business objectives — have better outcomes.

**CEO ‘EXTREMELY’ ENGAGED IN CLOUD USE**

- **Cloud Beginner**: 41%
- **Cloud Intermediate**: 48%
- **Cloud Smart**: 59%

Cloud-smart organisations were also most likely to have the CEO as the **primary** decision maker when it comes to a multi-cloud strategy.

**CEO WAS OR WOULD BE THE PRIMARY DECISION MAKER IN ORGANISATION’S MULTI-CLOUD APPROACH**

- **Cloud Beginner**: 28%
- **Cloud Intermediate**: 22%
- **Cloud Smart**: 33%

Similar to the way incumbent organisations are playing ‘catch-up’ with regard to the number of public clouds used, incumbents are also planning to outpace challengers over the next five years when it comes to data monetization. While data is currently only a ‘significant’ source of revenue for 20% of incumbent respondents, they expect these numbers to increase to 42% and 62% over the next two and five years, respectively. Meanwhile, challengers (currently sitting at 36%) expect to plateau at 42% over the next five years.

Organisations that run hybrid apps were much more likely than non-hybrid app users to say that their CEO is ‘extremely’ engaged at 53% and 22%, respectively.
While organisations are less affected when they become cloud smart, no multi-cloud journey is without challenges.

Security in Multi-Cloud: A Double-Edged Sword

With more clouds, comes more potential entry points for bad actors, prompting organisations to cite ‘increased cybersecurity risks’ as the number one challenge associated with multi-cloud at 35% (tied with ‘different skill sets/tools required for each cloud’).

Paradoxically, at the same time multi-cloud is increasing security risks by creating more points of entry, it’s also providing organisations with the ability to segment and sequester data as needed and design more tailored cybersecurity strategies. Increased security of customer and employee data were the top-cited benefits of a multi-cloud approach.

More Clouds Require More (and Different) Talent

After security (and ‘different skill sets/tools required for each cloud’), other challenges associated with implementing a multi-cloud approach are the need for increased hands-on management of clouds (cited by 33% of respondents), and the lack of in-house talent to successfully implement the multi-cloud strategy (also cited by 33% of respondents).

However, as with most areas, skills gaps tend to become less pronounced as organisations continue on their cloud journey and become cloud smart:

“MY ORGANISATION DOES NOT HAVE THE SKILLS IN-HOUSE TO ACHIEVE A MULTI-CLOUD APPROACH”

<table>
<thead>
<tr>
<th></th>
<th>Cloud Beginner</th>
<th>Cloud Intermediate</th>
<th>Cloud Smart</th>
</tr>
</thead>
<tbody>
<tr>
<td>DevOps</td>
<td>53%</td>
<td>45%</td>
<td>44%</td>
</tr>
<tr>
<td>Cloud Usage</td>
<td>56%</td>
<td>58%</td>
<td>68%</td>
</tr>
<tr>
<td>DevOps Usage</td>
<td>58%</td>
<td>53%</td>
<td>66%</td>
</tr>
</tbody>
</table>

One bright spot in the talent gap story is DevOps, with only 2% of respondents saying that their organisation has not at least partly achieved DevOps capabilities. When it comes to fully achieving DevOps capabilities, it’s unsurprising that hybrid app users are soaring ahead at 51% vs 23% for non-hybrid app users.
Despite challenges along the way, organisations that take a deliberate, conscientious approach will eventually see the proverbial clouds lift on their multi-cloud strategies.

From Chaos to Clarity

Embarking on a multi-cloud journey is rarely, if ever, a seamless process. But the 19% of organisations that are considered cloud smart act as a beacon for those still on their way. These cloud-smart organizations are experiencing the freedom to choose the best cloud for each application... the ability to say ‘no’ to vendor lock-in and the skyrocketing costs that result... and the power to control their data, and not the other way around.

Those currently struggling with increased security risks, visibility concerns, or any other challenge associated with a multi-cloud approach should rest assured. VMware’s tools can help organisations design an approach that brings together the best of all clouds. Learn more at vmware.com/multi-cloud