

Intelligent Financial Services and Insurance Companies:

The Movement
of Enterprise
Applications to the
Cloud

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Introduction

The financial services and insurance (FSI) industry is at an inflection point in history. Stringent and varying regulations across regions, cut-throat competition from fintechs and technology giants, and demanding customers are changing the way the industry does business.

The U.S. is looking at fine-tuning or revamping existing regulations, and Europe's GDPR and MiFID II continue to create an impact. Upstarts such as PayPal and even bigger giants such as Facebook are creating new ways for users to access and move cash. In this environment, customers demand self-service and instant access to data, with loyalty lasting only until a better product or service is offered.

Consequently, personalization, multichannel access, seamless experiences and intelligent services assume importance. At the same time, FSI firms must deliver on revenue and margin growth.

Technology has always played a disruptive role in this industry, especially in the banking segment, with its focus on enterprise agility and operational efficiency.

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The cloud is a vital part of the digital technology portfolio, providing the flexibility and agility to respond to market changes

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A critical ingredient of the digital technology portfolio is the cloud. The cloud powers digital transformation and provides the flexibility and agility to respond to market changes. By helping reduce the hardware and software assets in an enterprise, the cloud enables faster scaling, cost efficiencies and the ability to keep pace with the rapidly changing technology landscape.

“Our aim in moving to the cloud was to streamline complex legacy processes,” said the director of a financial services firm in the U.S. “Also, it became imperative for executives in our firm to have real-time insights for competitive advantage. We also wanted to use cloud as a foundation for agility and scalability – a foundation that could support the growth we were envisaging.”

As part of the transition to the cloud, enterprise applications come under the spotlight as firms move away from monolithic packages and massive implementation cycles toward shorter agile implementations. This increases the acceleration path and in turn spurs more digital transformation in a flywheel effect, with confidence in one initiative leading to further successes.

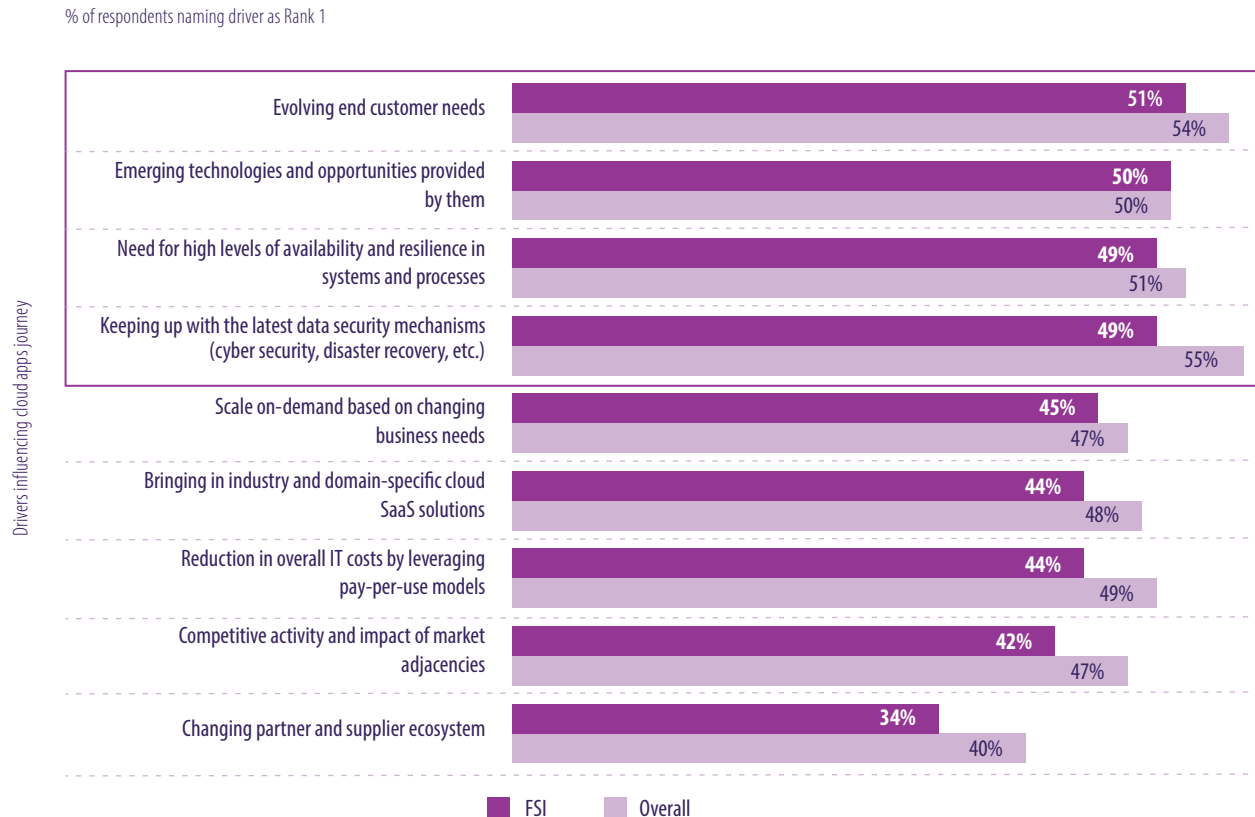
Given the critical role played by enterprise applications in a business, it seemed timely to get a comprehensive idea of their movement to the cloud in the FSI space. Enterprise applications include those that run the business, such as enterprise resource planning (ERP), customer relationship management (CRM), supply chain management (SCM) and human resources management (HRM).

Infosys launched a study in the first quarter of this calendar year to understand the experience of application cloud transformation across 154 FSI firms from the United States, Europe, Australia and New Zealand. To understand the pulse of the market moving forward, the survey was further validated by qualitative interviews with senior executives in September and October. Respondents were senior executives involved in digital and cloud initiatives.

The cloud: a strategic move for enterprise applications

A mix of external and internal drivers trigger the movement of FSI applications to the cloud (Figure 1). The top three include meeting evolving end customer needs (51%), using opportunities offered by emerging technologies (50%) and ensuring high levels of availability and resilience in systems (49%).

Figure 1. Evolving customer needs, emerging technologies, and needing high levels of resilience influence an FSI firm's decision to embark on a cloud apps journey



Source: Infosys Knowledge Institute, 2019

Customers are growing in influence, shaping the way a firm interacts with them. In an era of fickleness, where new entrants with innovative models intensify competition, FSI firms must make enhancing customer relationships a top priority. Packages such as Salesforce, built on the cloud, accelerate this path to customer-centricity. Industry reports suggest that personalized services and timely resolution of issues can significantly raise the bar on customer experience. For example, deploying chatbots and virtual assistants to address simple queries goes a long way in ensuring speedy and efficient resolutions in addition to satisfied customers.

The FSI industry has always been quick to adopt new technologies to improve operational efficiencies,

customer engagement and business metrics. With the cloud, pay-as-you-go, service automation and the ability to rapidly scale the business mean that more technologies can be deployed.

An executive at a financial services firm in the U.S. validated this trend, saying: "We went through a period of acquisitions, which changed how our systems and processes worked. We used cloud as a foundation from which to support future development as per the strategic road map."

And given the business-critical systems that enable anytime, anywhere transactions, enterprises will look for high levels of availability and resilience and ensure

minimal disruption to the business. This can be achieved using managed services, which cloud providers are adept at implementing. Server switching also means firms can follow in the footsteps of Netflix, which sees 99.99% availability on its platform. When one server goes down, another server on AWS picks up the load, ensuring business uptime.

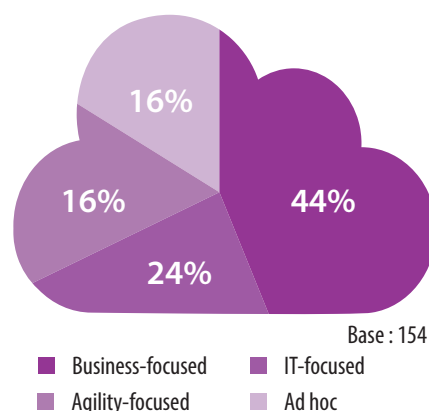
The four types of enterprises

The study evaluated the maturity and direction of the application cloud program across the FSI companies surveyed. Maturity was determined by asking the following questions:

- Are the business objectives of FSI firms strategic or operational in nature?
- Do business or IT-led reasons drive FSI enterprises to the cloud?
- Are enterprises occupied with quick wins today, or are they thinking and planning for the future?
- Have FSI enterprises expanded to include the external ecosystem, or are they internally focused?

This examination led to four distinct clusters (Figure 2):

Figure 2. Business-focused enterprises make up almost half of respondent firms, with IT-focused enterprises (24%) and agility-focused enterprises (16%) also figuring in the data



Source: Infosys Knowledge Institute, 2019



Business-focused (44%):

Visionary enterprises looking at long-term business impact. These firms have an eagle eye on enhanced customer and employee experiences, increased innovation and market reach, and keeping up with the changing ecosystem.



IT-focused (24%):

Enterprises absorbed in technology-led operational outcomes and are not fundamentally changing their business model in response.



Agility-focused (16%):

Progressive enterprises focused on improving organizational agility. These firms rely heavily on operational transformation to deliver business outcomes.



Ad hoc (16%):

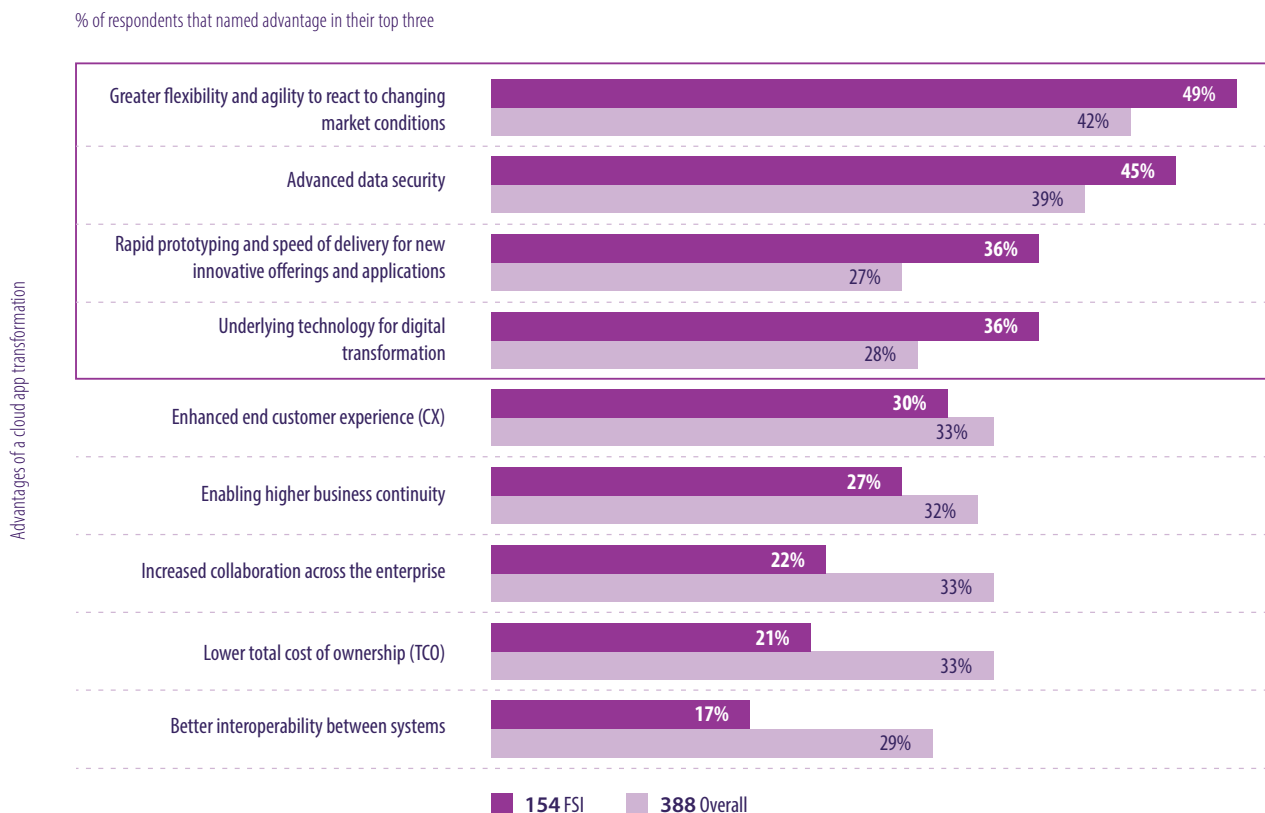
Enterprises lacking a clear vision and plan for IT or business transformation. They respond to triggers in an ad hoc fashion.

Read our master report – [Behind the Scenes of an Intelligent Enterprise: Moving Enterprise Applications to the Cloud](#) – for more insight into each cluster.

Enterprise clusters expect both strategic and operational benefits

The key advantages that FSI respondents expect to achieve from a cloud apps journey are greater flexibility to respond to market conditions (49%), advanced data security (45%), and rapid prototyping and speedier delivery for new offerings (36%) (Figure 3).

Figure 3. Greater market flexibility, advanced data security and rapid prototyping for new offerings are top cited advantages for cloud app transformation



Source: Infosys Knowledge Institute, 2019

As diverse geopolitical forces act on the FSI industry, and with profit at stake, firms must react quickly to market headwinds and make full use of opportunities. Mature use of enterprise applications allows FSI firms to “pivot” – quickly changing strategic direction to create more successful and long-lasting business outcomes. They can instantly turn on a new service, with security and privacy controls in play.

The need for security is obvious, and though the debate continues on whether the cloud is more secure than on-premises environments, more and more business leaders see the cloud as a way forward. In fact, cloud service providers have multilayered security defenses and work hard to patch servers that come under threat.

“Multilayered security defenses make cloud a good option for business leaders”

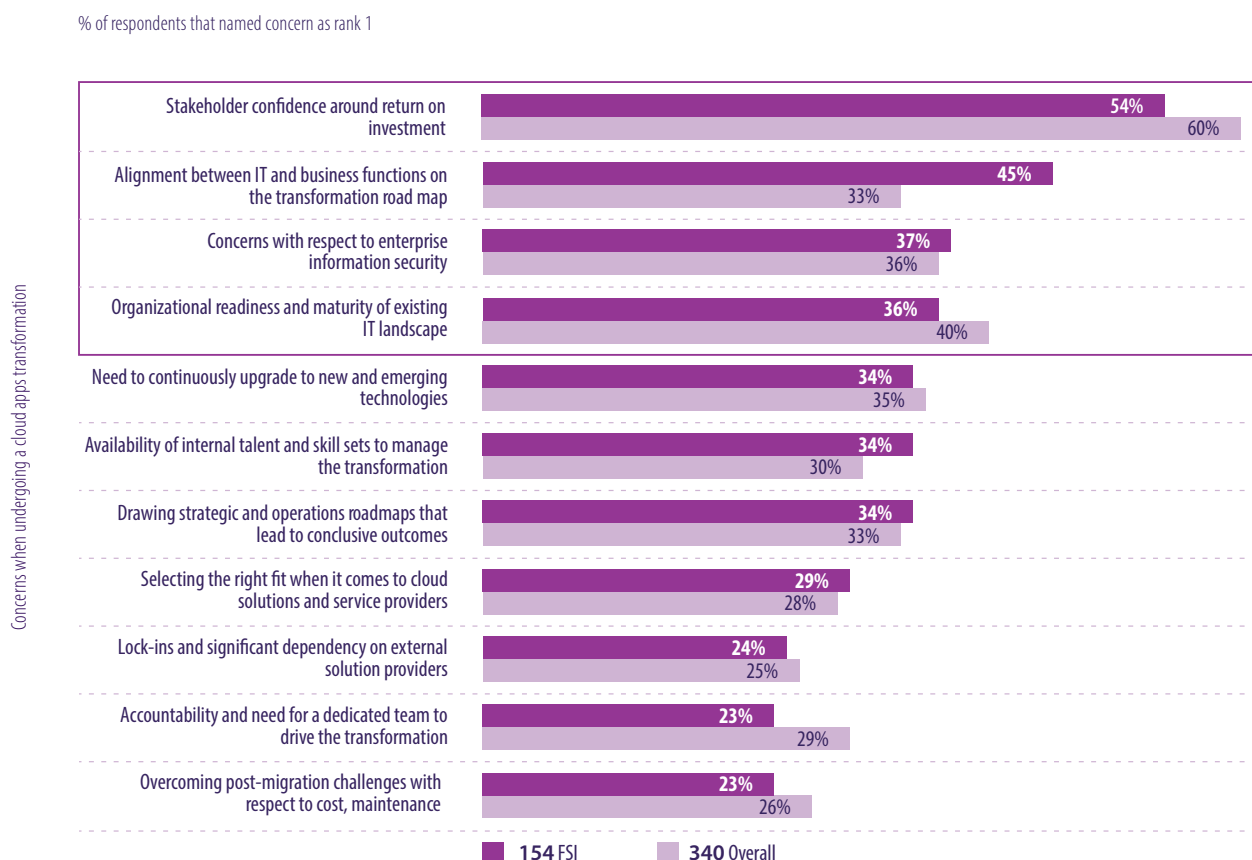
Some executives in our research also cited the flexibility of cloud to integrate with third-party applications, along with its strength in user experience, superior functionality and scalability. “We were particularly impressed with the dashboards and reporting metrics that we were able to cull out once we had integrated and streamlined our processes with the cloud,” said one U.S. leader in the mortgage industry.

In this research, Europe (63%) and Australia and New Zealand (50%) considered greater flexibility to react to market conditions as a top benefit. For the U.S., advanced data security was the most important expected advantage (50%).

Cloud concerns persist, characterizing large-scale programs

FSI enterprises are significantly concerned about delivering return on investment to retain stakeholder confidence (54%) (Figure 4). Cloud transformation programs mandate high investments and consequently garner significant visibility, especially among senior leaders. Large-scale programs of this nature require ownership and direction from top management to succeed, so delivering significant ROI deservedly becomes a key concern across business and IT groups, and across industries and regions.

Figure 4. FSI firms are apprehensive about building stakeholder confidence, aligning IT and business roadmaps, and information security



Source: Infosys Knowledge Institute, 2019

Other concerns include alignment between IT and business functions on the transformation roadmap (45%) and ensuring enterprise information security (37%).

Organizational readiness and maturity of the existing landscape also figured heavily (36%). The thought of overhauling the entire IT landscape is a significant point of discussion for many cloud initiatives. "We were apprehensive about organizational readiness," said one

For FSI firms, the IT-focused cluster had apprehensions around upgrading to new technologies (60%)

mortgage director from a U.S. financial services firm. "This is something most executives don't want to embark on,

especially when they don't have solid backing behind them. But in our case, we knew it had to be done or else we wouldn't remain competitive."

All respondents from Australia and New Zealand (100%) and half from Europe (50%) expressed concerns about building stakeholder confidence. The U.S. was more worried about information security (67%) and aligning IT and business functions on the transformation roadmap (57%).

The business-focused (64%) and agility-focused (69%) clusters were most concerned about building

stakeholder confidence. Long-term business impact is only possible if a firm has buy-in from top leadership,



For FSI firms, the IT-focused cluster had apprehensions around upgrading to new technologies (60%)



while organizational agility requires collaboration at the grass-roots level. The IT-focused group was most apprehensive about the need to continuously upgrade to new technologies (60%).

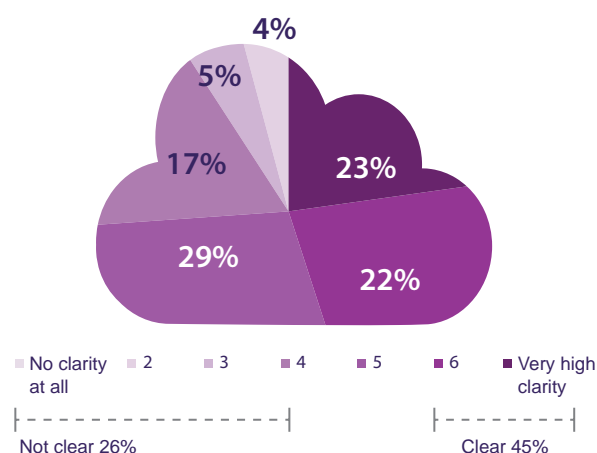
The importance of a clear strategy and roadmap

Game-changing initiatives cannot succeed without the support of multiple stakeholders across the organization. To garner support, stakeholders must have clarity on the initiatives and what to expect from them. While almost half the respondents (45%) said they had clarity on the digital path, a significant 26% of FSI enterprises said they were unclear.

The respondents who were clear on the digital transformation path looked to exploit the cloud's advanced computing capabilities (55%), deliver enhanced experiences to stakeholders (51%) and reduce time to market (50%).

The U.S. respondents showed a higher level of clarity (49%).

Figure 5. Almost half of the FSI firms had clarity on digital initiatives, though almost three-tenths were unclear



Source: Infosys Knowledge Institute, 2019

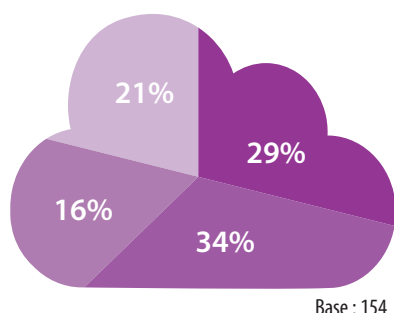
Enterprise cloud applications adoption is well underway

This research revealed that a significant 50% of the FSI respondents had shifted all or some critical enterprise applications to the cloud (Figure 6).

Enterprises from Australia and New Zealand were significantly more mature than their counterparts in

the U.S. and Europe in moving all major enterprise applications to the cloud (32%). In fact, they were a full 21 percentage points further along than their counterparts in Europe.

Figure 6. Half of FSI firms have moved all or some of their enterprise applications to the cloud, with just 21% still entirely on-premises



| | Current state of cloud transformation (%) | Overall | FSI | U.S. | EU | ANZ |
|---|--|---------|-----|------|----|-----|
| | Base | 853 | 154 | 99 | 36 | 19 |
| 1 | Some pilots and proofs-of-concepts for cloud adoption are underway, but currently, all enterprise applications are still on premises | 24 | 21 | 23 | 22 | 5 |
| 2 | Cloud adoption is underway for some applications/functions, but none have been completed | 26 | 29 | 21 | 42 | 47 |
| 3 | Cloud adoption is already complete for some enterprise applications and functions | 34 | 34 | 41 | 25 | 16 |
| 4 | All major enterprise applications have moved to cloud | 16 | 16 | 14 | 11 | 32 |

Source: Infosys Knowledge Institute, 2019



Three choices for migration to the cloud: LOB, enterprise or both

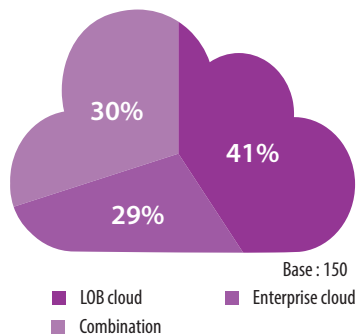
FSI enterprises must carefully examine objectives and expected outcomes before deciding on the cloud approach to take.

The line of business (LOB) approach allows a business unit to independently activate a new cloud service with less involvement from the enterprise IT team. Such an approach is best suited for situations that require quick deployments and minimal disruption. Moreover, FSI

enterprises can select best-in-class software such as SAP SuccessFactors or NetSuite by adopting an LOB approach.

In contrast, enterprise-level cloud approaches are complex, requiring immense efforts, and ideal for long-term projects that integrate applications on a single homogeneous platform. Such efforts cause significant disruption and take a long time to complete.

Figure 7. Enterprise cloud is the way forward for two-fifths of FSI firms, while LOB and combination approaches show a similar profile



| Approach adopted | Overall | FSI | U.S. | EU | ANZ |
|------------------|---------|-----|------|----|-----|
| Base | 814 | 150 | 96 | 35 | 19 |
| LOB cloud | 31 | 30 | 29 | 29 | 37 |
| Enterprise cloud | 39 | 41 | 36 | 51 | 42 |
| Combination | 30 | 29 | 34 | 20 | 21 |

Source: Infosys Knowledge Institute, 2019

The combination option presents the best-of-both-worlds approach.

FSI firms in this research opted most often for the enterprise approach (41%). Enterprises used both the LOB and combination approaches almost equally.



High business maturity is needed to adopt different approaches for various use cases, something the business-focused cluster has



Europe (51%) was well ahead of others in deploying the enterprise approach. Australia and New Zealand (37%) used the LOB approach more than the others, while the U.S. (34%) led in adopting the combination approach.

Breaking down this data by cluster raises some interesting insights. Business-focused enterprises tend to use all three approaches almost equally. It takes a high level of maturity and experience to be able to adopt any of the methods in differing use case scenarios, which is why this cluster is best placed to execute such decisions confidently.

Enterprises focused on agility and IT transformation, however, were inclined to adopt an enterprise-wide cloud approach, as their programs often extend across the enterprise. Further analysis showed that IT-focused firms chose the enterprise approach for its advanced data security, enhanced end customer experience and increased collaboration across the enterprise. Agility-focused enterprises perceived the enterprise cloud to have a lower TCO and better interoperability between systems.

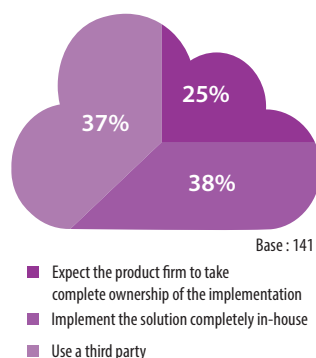
The implementation process

Once the right cloud approach has been identified, and the cloud solution identified (SAP, Oracle, Salesforce and so on), how do FSI firms go about actually implementing these solutions?

Third-party vendors enable a high degree of customization, giving FSI firms the ability to meet evolving customer needs and test emerging technologies. Outsourcing also takes advantage of

economies of scale and access to higher-caliber talent. It is no surprise then that third-party implementations ranked highly (37%) (Figure 8). An equally viable option for FSI firms is to implement the cloud solution in-house (38%), using internal assets and ensuring that projects run on time. FSI firms in Australia and New Zealand strongly expressed a preference for in-house implementation (53%).

Figure 8. FSI firms expressed equal desire to implement the cloud solution in-house or through a third-party provider



| Product implementation (%) | Overall | FSI | U.S. | EU | ANZ |
|--|---------|-----|------|----|-----|
| Base | 844 | 154 | 99 | 36 | 19 |
| Implement the solution completely in-house | 36 | 38 | 35 | 36 | 53 |
| Third party (IT service providers) | 39 | 37 | 38 | 36 | 32 |
| Expect the product firm to take complete ownership of the implementation | 25 | 25 | 26 | 28 | 16 |

Source: Infosys Knowledge Institute, 2019



Preparing for the cloud challenge

The key challenges that FSI enterprises faced during the application cloud journey were aligning existing legacy systems and technology environments (47%), the pace of execution (47%), promoting cultural change within the organization (46%) and accurate estimation of time and costs (46%) (Figure 9). U.S. respondents were more concerned than the other regions.

Figure 9. Technology issues such as legacy system alignment and pace of execution were the top cited pain points for FSI firms

| Challenges (% top2 box) | Overall | FSI | U.S. | EU | ANZ |
|--|---------|-----|------|----|-----|
| Base | 840 | 15 | 98 | 36 | 19 |
| Aligning existing legacy systems and architectures and technology environments | 49 | 47 | 51 | 42 | 39 |
| Pace of execution and implementation of the initiative | 48 | 47 | 53 | 36 | 33 |
| Promoting a culture change within the organization | 48 | 46 | 49 | 40 | 44 |
| Accurate estimation of time and financial costs involved | 51 | 46 | 52 | 31 | 39 |
| Tracking and monitoring systems and processes on cloud | 51 | 45 | 51 | 31 | 39 |
| Collaboration and integration with external service providers and stakeholders | 47 | 43 | 51 | 28 | 32 |
| Deciding on choice of tools and technologies to pick from | 48 | 42 | 48 | 33 | 26 |
| Application refactoring and tweaking to suit cloud architectures | 46 | 41 | 44 | 39 | 33 |
| Lack of high levels of clarity in the execution roadmap | 45 | 41 | 42 | 40 | 39 |
| Absence of an internal dedicated cloud team to drive the initiative | 45 | 34 | 37 | 31 | 26 |

Source: Infosys Knowledge Institute, 2019

Legacy systems built on COBOL and similar aging technologies continue to play an active role in the FSI IT landscape and guzzle up a significant portion of the IT budget and focus. Maintaining these systems diverts valuable resources from cloud and digital transformation. Further, when the shift happens, FSI firms must invest efforts in promoting the change as employees are typically reluctant to switch from familiar modes of working.

One financial services executive we interviewed said that, within their firm, cloud transformation was a matter of urgency. However, decision making was a challenge and internally, they had to rally a group of executives to turn intent into action. “We had to move from legacy systems and software to a new cloud-based architecture which our teams didn’t have any experience with. It was also a challenge to change ways of working, but we emphasized again and again to our teams that the

transformation was necessary to drive growth in the future.”

Further cross-tab analysis found that the business-focused cluster ranked choosing the right tools and technologies as their biggest challenge (68%). Being further along on the cloud apps transformation journey, financial service visionaries are also bringing new forefront initiatives to scale (such as blockchain). As we wrote in the report – [Infosys Digital Radar 2019: Barriers and Accelerators for Digital Transformation in the Financial Services Industry](#) – these visionary firms have the strongest ability to use mainstay technologies such as cloud as a fulcrum for wide-scale digital transformation, and often cite many challenges on their road to success. However, they are also the most confident about surmounting these obstacles.

Conclusion

Today, FSI enterprises vie for turf with fintech entrants while tackling an increasingly stringent and diverse regulatory environment. They are also under immense pressure from stakeholders to improve business results. Going the digital route helps these firms rewire their organization and address the rapidly evolving market more deftly while becoming more customer-centric. As part of this business-critical initiative, they must consider moving applications to the cloud, taking advantage of reduced costs, improved efficiencies and business agility (through rapid provisioning of services), increased resiliency, and effective governance by cloud service providers.

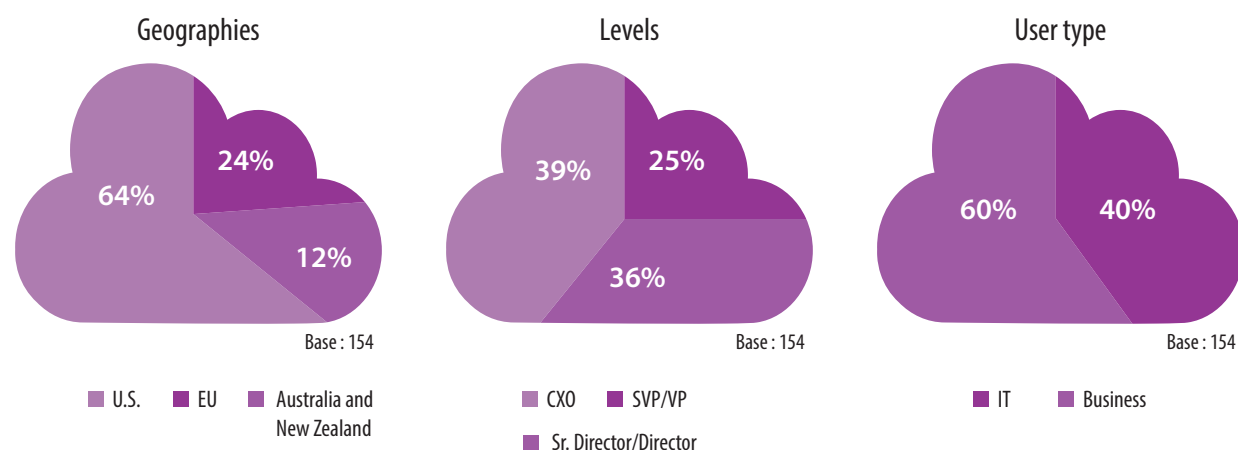
Having a clear roadmap in place is critical, before even beginning to find growth opportunities, efficiencies and business change. In this research, only 45% of FSI respondents said that they had clarity on the organizational roadmap for digital transformation – a worrying thought. While 50% of the surveyed firms said that they moved some or all of their critical applications

to the cloud, to truly benefit from a cloud program, top-down leadership with support from business CXOs must be instated. The study showed that respondents prefer the enterprise cloud approach more than the LOB or combination approaches: The enterprise approach benefits from a seamless integration of applications, leading to higher organizational efficiency. However, enterprise cloud implementation takes significantly longer than the other approaches, which might be a reason for the slower rate of adoption seen in agility-focused and IT-focused firms.

The path to cloud transformation is fraught with challenges, especially as FSI enterprises must deal with a massive legacy environment. This research showed that the extent of cloud adoption needs to increase significantly for FSI firms to realize its transformational potential and tangibly impact business results. A competent partner can play a critical role in helping the FSI enterprise steer through complex cloud transformation programs and emerge a winner.

Survey methodology

A total of 154 FSI senior executives and leaders involved in digital and cloud initiatives responded to this research, which took place in the first quarter of this calendar year. To understand the pulse of the market moving forward, the survey was further validated by qualitative interviews with senior executives in September and October. Only companies with more than U.S. \$1 billion in revenue were chosen. Respondents hailed from the United States, Europe, Australia and New Zealand.



Source: Infosys Knowledge Institute, 2019

Author

Harry Keir Hughes

Senior Consultant – Infosys Knowledge Institute

harrykeir.hughes@infosys.com

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