

# Ensuring Agility And Trust In A Rapidly Changing Financial Services Market

Asia Pacific Firms Must Overcome  
Cloud Regulatory Misperceptions To  
Enable Digital Transformation

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## Executive Summary

Banks and other financial services institutions (FSI) across Asia Pacific are under immense pressure to increase agility, improve efficiency, and embrace digital transformation — all essential for meeting the growing expectations of empowered customers and effectively competing with both established players and a growing number of fintechs seeking to disrupt traditional financial services markets. But many still lack a thorough understanding of cloud-related banking regulations, which is slowing cloud adoption and potentially putting these firms at a competitive disadvantage.

In November 2015, Microsoft commissioned Forrester Consulting to evaluate cloud adoption trends among FSI in Asia Pacific and gauge these firms' knowledge and perceptions of cloud-related financial regulations. We analyzed the impact of regulatory compliance, security and privacy, and reliability concerns on current and future cloud initiatives. We also identified firms' key evaluation criteria and expectations for cloud providers, including the importance of cloud providers' reputations and ability to actively engage regulators to ensure compliance for cloud initiatives.

In conducting in-depth interviews with 34 senior IT decision-makers in the Asia Pacific financial services sector from nine countries, Forrester found that these organizations are at vastly different levels of maturity in cloud understanding and adoption. They also differ dramatically in their understanding of how regulatory compliance is likely to impact their ability to deploy cloud initiatives. Despite these vast differences, Forrester believes that to thrive, FSI in Asia Pacific will (and must) increasingly embrace cloud computing — both public and hybrid — and must therefore understand cloud-related banking regulations, formalize internal cloud policies, and implement best practices for engaging with cloud providers and banking regulators.

directly tied to customer-facing, digital banking capabilities like new customer acquisition and onboarding.

- › **But too many FSI in Asia Pacific still lack thorough understanding of cloud-related banking regulations.** In both mature and high-growth markets, firms interviewed for this study illustrated a lack of regulatory knowledge, citing perceived restrictions to cloud adoption/usage that aren't actually present in regulations.
- › **Defining strategies for engaging and interacting with banking regulators has become crucial.** As firms' understanding of cloud regulations increases, so too does their understanding of how and when to engage regulators. Banks are reaching out to regulators more proactively and frequently to build relationships, establish trust, and address potential compliance issues earlier in the process.
- › **Cloud providers are viewed as an essential part of the banking ecosystem in most Asia Pacific markets.** FSI do not consider cloud providers to be mere passive utilities. Instead, they are expected to actively engage regulators to help shape their cloud delivery models and practices, thereby ensuring that proposed cloud initiatives are compliant with local (and regional) regulations and, hence, are more likely to be approved and implemented.

### KEY FINDINGS

Forrester's study yielded several key findings:

- › **Leading FSI in the region are using regulations to help steer public cloud initiatives, not as an excuse to stop them.** The better the firms' understanding of regulations, the more likely they are to embrace public cloud services. In most instances, these initiatives are

## Cloud Adoption Among Financial Services Firms Is Accelerating

Contrary to some commonly held assumptions, financial services firms across the globe are embracing cloud computing. In fact, the rate of cloud adoption in the sector actually exceeds the broader market (see Figure 1). We anticipate this trend will accelerate over the next 12 months (see Figure 2). Why is this? Decision-makers interviewed for this project consistently cited three key benefits of cloud:

- › **Speed and agility.** Business decision-makers (BDMs) within financial services firms like quick implementation times (two to three months on average) for standard cloud offerings, versus spending a minimum of nine months with internal IT to deliver something similar.
- › **Freeing up resources.** Information technology decision-makers (ITDMs) like not having to maintain hardware, particularly platforms and infrastructure for dev/test. A large regional Australian bank we interviewed went even further, citing a desire to move away from managing infrastructure themselves as a primary motivator for embracing cloud.
- › **Responsiveness.** As group CTO for a large Australian bank told Forrester, “Disrupters are giving banks a run for their money and we cannot operate in the traditional way.” In response, banks are increasingly embracing agile as an approach to delivering code into production whenever developers are ready. This is really only possible where self-service automation of underlying infrastructure — a key cloud tenet — is supported.

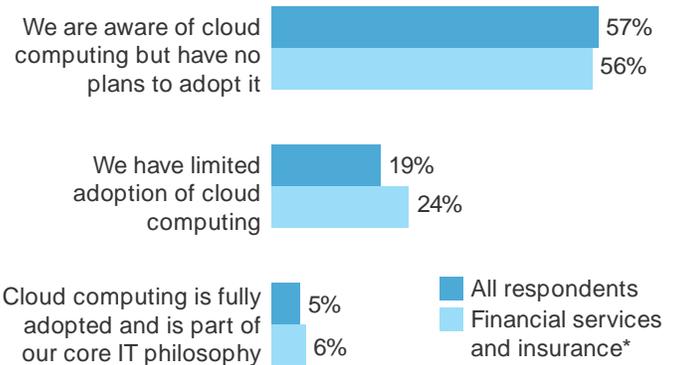
*“We see a direct correlation between cloud and speed/agility — quicker deployment, bypassing traditional build models, rapid prototyping, and quick releases.”*

— Head of group strategy and architecture at a large Australian bank

**FIGURE 1**

### Current Global Cloud Adoption — FSI Versus All Industries

“Thinking about your organization’s experience with adopting cloud computing over the past 12 months, please select the most appropriate response below.”



Base: 1,209 respondents

\*Base: 131 respondents

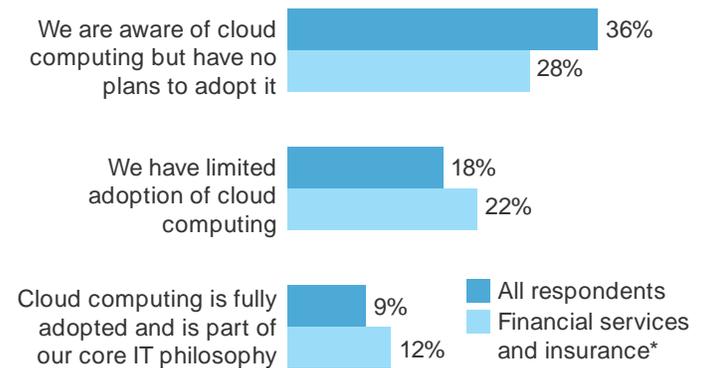
(not all responses shown)

Source: Business Technographics® Global Priorities And Journey Survey, 2015, Forrester Research, Inc.

**FIGURE 2**

### Expected Future Global Cloud Adoption — FSI Versus All Industries

“Thinking about your organization’s future plans to adopt cloud computing during the next 12 months, please select the most appropriate response below.”



Base: 1,209 respondents

\*Base: 131 respondents

(not all responses shown)

Source: Business Technographics® Global Priorities And Journey Survey, 2015, Forrester Research, Inc.

## Formalizing Internal Cloud Policies Is Critical To Project Success

The markets included in this study vary widely in terms of overall maturity, so it's not surprising that perceptions of cloud computing and approaches to cloud adoption also vary.

- › **Australia and New Zealand (ANZ) are actively embracing cloud.** In both markets, firms' views of cloud computing have evolved over the past two to three years from general CIO- or CTO-led resistance (often in reaction to real or perceived regulatory concerns) to a far more nuanced view. What's fueling this change? An increased understanding of different cloud approaches and the relative benefits and rewards of each. It's also a clear response to increased interest from BDMs pressured to rapidly deliver and continuously improve digital capabilities to meet increasing customer expectations.
- › **FSI in Japan and Korea are at the other end of the spectrum.** In these mature, conservative markets, current approaches are almost entirely centered on private cloud — still primarily viewed as server virtualization. ITDMs in most firms still believe they can more effectively deliver IT services to the business by controlling all hardware, software, and network themselves. But Forrester expects firms to update these traditional views over the next two to three years as the pressure to innovate increases. Broader acceptance of public cloud services in these markets will be driven by improved understanding of cloud-related regulations, increased presence of global cloud providers, and competitive threats from fintech disruptors.
- › **Singapore and Hong Kong firms are pragmatic but optimistic.** Typically neither as aggressive as firms in ANZ, nor as conservative as banks in Japan and Korea, Singapore and Hong Kong firms generally center cloud approaches on improving IT responsiveness to internal business demands for cost reductions and improved agility. These are primarily translating into both public and hybrid cloud initiatives to increase utilization rates and cut time to provision and deprovision IT-enabled services. Public cloud initiatives are part of many banks' near-term plans, particularly for new or expanded digital initiatives.
- › **FSI in Malaysia and Indonesia are taking a wait-and-see approach to cloud.** When it comes to cloud, firms in

both of these markets are more conservative than peers in Singapore and more likely to be guided by a limited or incorrect understanding of regulations. In other words, FSI in these markets are more likely to be reactive to regulations or guidelines (often not fully understood or properly interpreted) versus proactively seeking to understand and/or push the boundaries to influence those guidelines.

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*“Our cloud policy has evolved over the past several years from ‘don’t do cloud’ to ‘here’s what you need to think about and plan for in order to consider leveraging cloud.’”*

— Head of information security strategy and architecture at a major Australian bank

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*“Japanese IT professionals do not see any meaningful difference between server virtualization and cloud.”*

— Head of IT infrastructure delivery for the Japanese operations of a global bank

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## Cloud Policy Best Practices Transcend Individual Markets

While cloud perceptions and adoption plans vary, a common set of internal cloud policy best practices is emerging among FSI in Asia Pacific, including:

- › **Involve all key stakeholders.** There is a need for and benefit in emphasizing compliance and risk management in any cloud policy, which requires the direct involvement of procurement to ensure that business continuity is baked into the process and informs all considerations. Other groups commonly cited as key stakeholders among interviewees include lines of business, legal, audit and risk, and security.
- › **Rethink existing security policies and approaches.** FSI are increasingly seeking to review and update all

security processes to ensure they anticipate cloud scenarios. This is potentially a massive change for many firms, since existing security policies typically assume on-premises or managed outsourcing for everything.

- › **Avoid burning platforms as a driver of cloud adoption.** Don't pursue or justify a cloud initiative based solely on a separate objective like closing a data center or reducing IT headcount, as it will skew priorities and approaches and likely decrease leverage with cloud providers. As the head of infrastructure for a large Australian bank learned the hard way, seeking to close a data center or get off a specific platform may lead to trying to migrate applications that aren't a good fit for the cloud. Instead, start with an enterprise architecture-led approach to evaluate the firm's current portfolio and prioritize the migration of applications that are closest to being cloud-ready.
- › **Leverage existing outsourcing practices as a guide.** When it comes to evaluating cloud providers and sourcing cloud services, typical areas of focus cited by FSI across the region all center on the level of transparency in areas like data center location, approaches to data security and audits, the role of subcontractors, and contingency planning. Firms are increasingly applying discipline and knowledge of outsourcing contracts and risk mitigation to their cloud approaches. While Forrester expects this practice to increase over the next two to three years, many firms will struggle to apply practices optimized for bespoke outsourcing to far more standardized public cloud initiatives.

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*“The big difference between cloud and outsourcing is visibility into the cloud provider to ensure separation and segregation of data and ensure controlled data access.”*

— IT head at a regional bank in the Philippines

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*“When it comes to cloud, our view is to start by default with stringent outsourcing contracts and go from there.”*

— Senior vice president at a large Singapore bank

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## Don't Just Understand Regulations, Understand Regulators

Cloud internal policies and approaches among FSI in Asia Pacific are clearly maturing. But no cloud strategy will succeed without a solid understanding of cloud-related regulations. In fact, interviews confirmed that as firms' understanding of regulations increases, so too does their understanding of how and when to engage regulators and, then in turn, their readiness to adopt cloud solutions.

- › **In Australia, APRA gets consistently solid marks.** Interviewees were consistent in their view that APRA is getting clearer, more open, and more willing to engage in dialogue than in the past. For instance, they have clarified the distinction between outsourcing (dedicated) and shared computing environments, where APRA is far more concerned about encryption and access. Several interviewees specifically cited APRA's August 2015 information paper as being hugely useful in clarifying the regulator's thinking, which has instilled far more confidence in banks' cloud strategies.
- › **Singapore firms view MAS as steadily evolving their thinking.** Many interviewees incorrectly believe that MAS regulations essentially boil down to “You can use cloud as long as physical hardware is on the island.” While actual regulations aren't this rigid, FSI in Singapore are displaying improved understanding of cloud regulations now versus two years ago, mainly due to improved outbound communication from MAS. This confidence is translating directly into a more positive perception toward public cloud services and cloud adoption.
- › **Many firms in Japan and Korea still have limited visibility into regulators' policies and guidelines.** The general assumption among interviewees in Japan is that FSA forbids cloud, regardless of material or nonmaterial, private or public data. While this assumption isn't always based on actual knowledge of FSA guidelines, there is a

huge reluctance to test the strict compliance guidelines around personal data protection by banks in Japan — and no one wants to be the first bank to push the envelope. A very similar situation is unfolding in Korea. Lack of visibility into the cloud, and the erroneous assumption that off-shore cloud services aren't permitted, breeds inertia.

- › **Regulators in other ASEAN markets vary in transparency of guidelines.** Multiple interviewees stated that Indonesian regulators have been relatively consistent in their guidelines, which are conservatively interpreted as focusing primarily on ensuring data residency and providing full audit capabilities. The impression of FSI in Malaysia is that Bank Negara is conservative in its policies toward cloud but is becoming easier to engage. Finally, BSP in the Philippines is viewed as increasingly pragmatic in its approach to data residency, particularly for foreign banks with in-country operations accessing cloud services from other bank locations.

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*“Cloud is no longer a dirty word for regulators.”*

— Senior vice president at a large Singapore bank

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## Best Practices For Interacting With Regulators

Too many senior ITDMs across the region are uncomfortable with their understanding of relevant regulator concerns, priorities, and positions. But these ITDMs can learn from leading banks across the region that are reaching out to regulators more proactively and frequently to build relationships, establish trust, and avoid compliance issues earlier in the process. Regardless of the individual bank's level of expertise, a common set of best practices emerged.

- › **Don't expect regulators to provide a how-to.** This awareness is growing across the region. As the head of business architecture at a major Australian bank stated, “Regulators will never be prescriptive. They are focused instead on providing guidelines, which are always subject to some interpretation.” These thoughts were echoed by the CIO of a large Hong Kong bank: “Regulators do not tell you exactly how you can deploy public cloud solutions. They are there to provide high-level guidelines.”

- › **Start with risk mitigation and contingency planning.** To effectively engage highly risk-averse regulators, banks must recognize the potential risks involved in proposed cloud initiatives and prove they are adequately addressing them. Issues like resiliency, physical security, and data management (segregation, privacy, control, encryption, etc.) must all be addressed.
- › **Be proactive, and be prepared.** Adequate due diligence is essential before approaching regulators. Be proactive and ensure no surprises. In particular, avoid anything that might be perceived as potentially impairing the country's banking system. Essentially, it's about proving to the regulator that the bank has thought through all considerations and has plans in place to mitigate risk.
- › **Start early in the process.** Building and maintaining direct relationships is key. Multiple firms interviewed make it a practice to proactively engage regulators early in strategy definition to ensure the bank doesn't go down the wrong path. As the CIO of a large Indonesian bank told Forrester, “In some cases it's as simple as talking the regulator through what you're planning to do and why you're doing it.”

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*“Before approaching the regulator, ask yourself a question . . . is your risk capability mature enough to handle what you're planning to do in the cloud?”*

— Head of business architecture at a major Australian bank

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*“The key for positively approaching the regulator is to deliver proof of good governance and the ability to repatriate workloads as/when necessary.”*

— Group CTO at a major Australian bank

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## Cloud Providers Should Help Facilitate Compliance — And Approval

Regulators will continue reviewing potential cloud initiatives on a case-by-case basis, based on the relative risk for the particular bank in question. Hence, there's a limit to how much cloud providers can do on behalf of customers or prospects in terms of general guidance and best practices when approaching a regulator. But among the interviewees, there was general agreement that:

- › **Cloud providers have an obligation to engage regulators.** The consensus among banks interviewed is that cloud providers should always be prepared to explain how they are accommodating country-specific requirements or guidelines. They are also expected to be proactive in ensuring that offerings are compliant, with a primary focus on ensuring that risk mitigation is part of their offerings and operational approach.
- › **Case studies are extremely valuable for precedence, where applicable.** Cloud providers must understand and appreciate the environment that banks operate in and ensure that proposed cloud solutions and approaches will not raise any red flags with regulators. Precedent could certainly come from a similar project in another country, as long as the regulatory concerns are similar, a point highlighted by multiple interviewees.
- › **Delineating governance responsibilities is critical.** From the regulators' perspective, FSI governance requirements are and will remain distinct from those of cloud providers. In other words, firms are still wholly responsible for compliance. Hence, a key value-add for cloud providers is to highlight the limits of their own governance and clarify the responsibilities of the bank.

## Trust, Reputation, And Engagement Are Key Evaluation Criteria

Cloud providers are increasingly viewed as an essential part of the banking ecosystem in most Asia Pacific markets. Firms don't consider cloud providers to be utilities, but strategic service providers. Standard evaluation criteria typically includes: performance, scalability, availability, security, automation, resilience, and price. But interviewees are looking for more from their strategic cloud provider, and the consensus is that:

- › **Track records matter.** Existing relationships are hugely valuable, as trust is critical to cloud vendors' value proposition. Why is this? Because unlike traditional outsourcing, cloud providers don't typically force you into long-term contracts. Instead, they attempt to keep you loyal through other means, such as strong value, better user experience, superior service, and increased levels of security.
- › **Support for hybrid approaches is essential.** Integration with back-end systems, including core banking, was cited by almost all interviewees as a critical requirement for any public cloud initiative. In fact, as cloud initiatives expand, integration will become central to enabling digital transformation and processes that cut across new, increasingly cloud-based systems of engagement and traditional on-premises systems of record.
- › **Local presence is highly advantageous.** This is true not only for data residency — specifically the location of the cloud provider's data center — but also for technical support, account management, and the ability to establish a positive relationship with local regulators. If not in-country, support must at least be in-region; this is particularly true in ASEAN markets, where Singapore-based support is considered by many banks to be "local enough."
- › **Auditability and transparency are crucial.** Customers that are accustomed to having security audits performed on their traditional infrastructure partners have been disappointed by cloud providers that do not provide regulator access to their data centers for this purpose. But this is changing. In fact, a growing number of FSI in the region are ensuring that contracts stipulate clear audit terms, be they third-party audits or rights extended to regulators, and specify the location of the provider's cloud facilities.

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*“Vendors are much more open than they used to be in terms of telling us where the cloud infrastructure is located.”*

— CIO of a large Hong Kong bank

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## Key Recommendations

FSI across Asia Pacific are fully aware of the changing landscape around them. Regulatory compliance will remain a primary consideration, as will the security and the reliability of your strategic technology and service providers. As understanding of cloud-related regulations increases, firms are becoming far more sophisticated, and in many cases more bullish, in how they view cloud initiatives within their organizations. But regulatory understanding alone isn't enough. Master the following steps to ensure your firm thrives and can benefit from ongoing disruptions in the financial services markets across Asia Pacific:

- › **Establish a link between potential cloud initiatives and your firm's digital transformation imperative.** A minority of the executives interviewed for this study have already embraced cloud computing to enable digital transformation. But the majority of FSI in the region have yet to recognize the link between strategic digital initiatives and cloud as the delivery approach. This must change, as cloud-based services are essential for delivering agile, scalable, and cost-effective digital capabilities. Target content publishing/delivery for Internet banking, digital onboarding, and, potentially, limited use of cloud analytics leveraging public data as the most likely starting points.
- › **Get your enterprise architects involved.** Many cloud initiatives still originate outside traditional IT, but this is suboptimal. In addition to CIOs, enterprise architects should be actively involved in cloud strategy, design, and implementation. Not only will this help ensure your cloud initiatives are well thought-out, it will also aid in outreach to regulators, who will need assurances that you've factored contingency planning into your strategy. Define principles for "cloud-first" and "cloud-viable", and focus migration or new development efforts on those systems specifically, regardless of any other ancillary objectives (such as closing a particular data center or migrating off a legacy platform).
- › **Proactively engage regulators, and avoid surprises.** When reaching out to regulators, the key is to demonstrate that controls are in place. Be proactive and engage early. Don't simply reach out when there's a clear need; instead, reach out early to share your intent and secure early buy-in from regulators to continue down that path. There is clearly a limit to how much you should share, as regulators should not be in control of your technology (or business) strategy. But effective engagement starts by illustrating your understanding and compliance with the key principles laid out by the regulator, and this is best done by involving regulators early in the process.
- › **Consider the benefits of being an early mover.** In both mature markets (Japan and Korea) and growth markets (Indonesia, Malaysia, and Philippines), consider the benefits of being an early customer of one of the global cloud providers, since that may provide increased leverage and the ability to influence terms of the contract. As several interviewees confirmed, this gets harder as cloud adoption becomes more widespread and cloud providers become better established in a market.
- › **Educate internal staff on the benefits of using cloud services as is.** One key challenge highlighted by multiple interviewees was educating BDMs on the limits and downside of trying to bend a cloud service to their needs rather than adapting to the service as it is delivered to others. It's a common mistake, since BDMs are more familiar with traditional sourcing and vendor management practices, including custom application development projects. But your company gains greater value and efficiency from a cloud service when you consume it as everyone else does — since customization inhibits economies of scale, a core value for all cloud services.

## Appendix A: Methodology

In this study, Forrester interviewed 34 senior IT decision-makers in the Asia Pacific financial services sector from nine countries to evaluate cloud adoption trends among financial services institutions in the region and gauge these firms' knowledge and perceptions of cloud-related financial regulations. Questions provided to the participants asked about the impact of regulatory compliance, security and privacy, and reliability concerns on current and future cloud initiatives. We also asked about firms' key evaluation criteria and expectations for cloud providers, including the importance of cloud providers' reputations and ability to actively engage regulators to ensure compliance for cloud initiatives. Respondents were offered a copy of the final report as a thank you for time spent on the interview. The study began in November 2015 and was completed in February 2016.

## Appendix B: Supplemental Material

### RELATED FORRESTER RESEARCH

"Don't Fear The Cloud — Profit From It," Forrester Research, Inc., March 5, 2015

"Asian Banks Are Adopting Cloud Faster Than You Think," Forrester Research, Inc., April 30, 2014