There is little doubt that cloud computing is a rapidly growing trend in IT sourcing and end-user organisations are fast approaching or contemplating a switch to cloud computing as the norm for the delivery of IT services due to factors such as flexibility, scalability and cost-effectiveness.

Recognising the increasing prevalence of cloud computing, the Monetary Authority of Singapore ("MAS") recently issued a circular to all Singapore financial institutions on information technology outsourcing on 14 July 2011, with a particular emphasis on cloud computing. The circular also introduces the new MAS Technology Questionnaire for Outsourcing which financial institutions are now required to consult and submit to MAS before making any significance IT outsourcing commitment.

**Outsourcing includes cloud computing**

MAS takes a broad view of what constitutes “outsourcing” in the circular and considers the most common types of outsourcing to be in IT and business processing functions ranging from systems development, maintenance and support to data centre operations, network administration, disaster recovery services, application hosting and cloud computing. Such activities can involve the provision of IT capabilities and facilities by a single third party or multiple vendors located in Singapore or abroad.

**General responsibilities of financial institutions**

In the circular, MAS reminds that financial institutions continue to be responsible for effective due diligence, oversight and management of outsourcing and accountability for all outsourcing decisions. Each financial institution should put in place proper framework, policies and procedures to evaluate, approve, review, control and monitor the risks and materiality of all its outsourcing activities.

Each financial institution should ensure that outsourcing in any configuration or at any location not result in any weakening or degradation of its internal controls. Moreover, each financial institution should ensure that its service provider employs a high standard of care and diligence in its security policies, procedures and controls to protect the confidentiality and security of its sensitive information, such as customer data, computer files, records, object programs and source codes.

**Cloud computing-specific risks and attributes**

The circular highlights that there are unique attributes and risks arising out of the deployment of cloud computing services which financial institutions should recognise and note, especially in the areas of data integrity, recoverability and confidentiality and legal issues such as regulatory compliance and auditing.

Considering that multi-tenancy and shared resources are characteristics of cloud computing services, MAS emphasises that financial institutions should pay attention to the service providers’ ability to isolate and clearly identify their customer data and other information system assets since cloud computing service providers typically process data for multiple customers. In the event of contract termination with a service provider, the financial institution should have the contractual power and means to have all such IT information and assets promptly removed or destroyed. Financial institutions should also consider the resiliency and safety of the service provider’s infrastructure to ensure that their business continuity preparedness is not compromised by outsourcing.
The circular reiterates that, prior to entering into a contract with any outsourcing service providers, financial institutions should perform a thorough risk assessment of the proposed outsourcing arrangement against all relevant MAS regulations, guidelines and other requirements, such as:

- MAS Guidelines on Outsourcing
- Internet Banking & Technology Risk Management Guidelines
- Notice 634: Banking Secrecy – Conditions for Outsourcing
- Circular on Endpoint Security and Data Protection

More importantly, MAS referred to the MAS Technology Questionnaire for Outsourcing (“Outsourcing Questionnaire”), available on the MAS website at http://www.mas.gov.sg/legislation_guidelines/risk_mgt/Guidelines_on_Risk_Management_Practices.html. This is a detailed 32-page questionnaire requiring financial institutions’ assessments and responses to numerous issues including:

- the organisation’s foremost outsourcing risks (including cloud computing risks) and how they are being addressed
- the proposed activities and operations to be outsourced
- the type of data to be processed and stored by the service provider
- the location and security of the service provider’s data centres
- the organisation’s service provider selection criteria
- the reputation, competence and experience of the service provider, its major customers and whether it is providing similar services to other financial institutions
- the service level agreement (“SLA”) for each outsourced activity, operation or transaction and SLA provisions (such as nature and scope of service, performance monitoring, reporting requirements, sub-contracting, confidentiality and security)
- the vendor management process to monitor the service provider’s performance and assess its compliance with the organisation’s policy, procedures, security controls and regulatory requirements
- security practices and controls for the protection of confidential information
- the service provider’s disaster recovery/business continuity plan
- the data backup and recovery arrangements for the organisation’s data that resides with the service provider
- the organisation’s exit strategy

Financial institutions are now required to consult and submit the completed Outsourcing Questionnaire to MAS before making any significance IT outsourcing commitment (this generally includes outsourcing involving customer personal or account data transactions, deposits, loans payment card data, trading details and investment portfolios).

**Our view**

MAS’ reiteration of the need for financial institutions to perform risk assessment against all relevant MAS technology and risk regulations, guidelines and other requirements is not new, and indicates that MAS maintains its stringent position on outsourcing IT operations. MAS is (and has always been) particularly concerned about the treatment of customer information in such arrangements. Notice 634: Banking Secrecy – Conditions for Outsourcing (first issued in February 2003, last revised in May 2004) underscores MAS’ paramount concern that the confidentiality of customer information be protected in all outsourcing arrangements involving the disclosure of customer information to the service provider.

*Continued on next page*
By its issuance of the circular and the Outsourcing Questionnaire, MAS is allowing banks to consider the use of cloud computing services within the ambit of MAS’ existing outsourcing regulatory framework. It is likely that MAS would maintain a reluctance to allow confidential customer data to be housed in cloud computing offerings - unless and until the financial institution concerned is able to amply demonstrate that it has sufficiently addressed all the risks and attributes of deploying the cloud to MAS’ satisfaction, especially in relation to IT governance and issues of control over data.

Contact us

Ahead of any significant IT outsourcing, banks and financial institutions would now have to more carefully examine their services agreements and take up their concerns with their service providers and develop contractual safeguards, to demonstrate their readiness to utilise cloud computing services in IT outsourcing. Likewise, it is important for cloud computing service providers to have a better understanding of these issues highlighted in the Outsourcing Questionnaire which their customers in the banking and financial services industry now face, and to consider the safeguards which they may be able to offer.

If you have any questions or would like to learn more about what we can offer to you, please do not hesitate to contact Christopher Chong or Rosemary Lee at the details noted below.

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