asia cloud computing association

Cloud Readiness Index

October 2012

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Welcome to the Asia Cloud Computing Association's second Cloud Readiness Index (CRI). The Index has been designed to track the development of the necessary infrastructure and enabling environment for cloud computing across leading Asian economies.

Cloud computing has become an important part of the knowledge economy and is certain to become one of the biggest drivers of economic growth over the next decade. Research firm Gartner forecasts public cloud services to be worth $109 billion this year, while the EU expects the cloud to add as much as €160 billion ($206 billion) to annual GDP between now and 2020.

By mapping the conditions required for successful implementation, the Asia Cloud Computing Association (ACCA) aims to identify potential bottlenecks that could slow adoption and limit the ability of Asian economies to take advantage of the cloud computing future. The Index also serves to help identify critical gaps to be addressed in the form of policy, legal and commercial cloud drivers.

While it is natural to focus upon the rankings and the leading indicators, it is in fact the identification of areas for improvement that ACCA sees as the most important aspect of this Index. It is these areas that are giving pause to cloud computing adoption and are inhibiting the expansion of the cloud economy.

As cloud services have grown, issues such as reliability of access, security, government access, privacy and intellectual property protection have emerged as challenges to adoption. From a more commercial point of view, we are also seeing concerns about data portability, vendor lock-in and interoperability. Many of these issues are a long-term presence in the communications and information technology community. What is new in the cloud era, however, is the growing new conversation around 'trust' – trust in the service provider, in the government, in the network, in the security of data.

We are still at an early stage of building that trust. ACCA believes that the Index is an important means to driving an informed discussion about the role of industry and governments in building trust to drive even greater adoption of the cloud even greater adoption of the cloud.

In this version of the CRI, the ACCA has been able to illustrate not only how countries rate relative to one another, but also how their paths are progressing, including which factors are not improving relative to neighbours and peers.

Singapore, for example, fell slightly overall, while **Korea** and **Hong Kong** swapped second and third positions. This was due largely to Singapore's relatively low score for Data Privacy[1], scoring just slightly ahead of China, and behind economies such as India and **Indonesia**, and demonstrating how critical the privacy issue has become for business in trans-national data flows. By contrast, Korea ranked at the top of perceptions for privacy. Interestingly, the two areas that Korea is seen to need to address, IP protection and Data Sovereignty, are the two areas in which Singapore topped the Index.

Australia fell two places, tumbling to 7th overall, largely premised on its limited showing on international connectivity (where it beat only New Zealand) and Data Centre Risk, where it ranks with countries such as **Vietnam** and China, and only marginally ahead of the Philippines and Indonesia.

Thailand also fell two places to finish equal last, coming bottom for Data Sovereignty, due to onerous constraints and the regulatory ambiguity over moving data in and out of the country, and the low scores in Government Online & ICT Prioritisation. Thailand also scored poorly against its peers and neighbours in Data Privacy and International Connectivity. This represents quite a step backward when measured against the progress that other countries have been making in both their infrastructure and regulatory systems.

In addition to Korea, **Taiwan** and **New Zealand** both improved this year, due to progress in policies around Freedom of Information and Data Privacy. **India** maintained its 9th position, but needs to focus more on hard infrastructure and connectivity issues. We observe **China** falling two positions, urgently needing to improve both infrastructure quality and data policies.

[1] Singapore has recently passed a Personal Data Protection Bill, which will be enacted over the next two years

The ACCA believes that the CRI provides a powerful illustrative tool for policy-makers and to assist government-led training programmes. By identifying core components required to support cloud computing take-up, the CRI will aid in focusing resources productively to address some of these deficiencies. Industry development can be spurred along with broad-based economic growth.

Given the emerging acceptance of the relationship between cloud computing adoption and economic growth (GDP), it is these gaps therefore that must be addressed to allow economies to take full advantage of the potential of the cloud.[2]

The ACCA invites governments around the region to join in a discussion on areas of particular interest and demand, and to help identify programmes aimed at bringing improvements based on best industry practice and peer benchmarks.

Evolution of the Index

Since the CRI was first published, we have had extensive input from external stakeholders, including regional governments, on how it can be improved. For the most part our engagements with stakeholders have been very positive and constructive. The CRI has also been presented at numerous platforms – formally at conferences and meetings, as well as through informal channels to interested stakeholders. All suggestions were taken into account and put to the Association's CRI Working Group, and all who contributed to the discussion have added to development of a much more robust index.

In this iteration of the CRI, we have refined a number of attributes in order to better score certain metrics. For example, two additional information regulatory metrics have been added. Broadband parameters have been shifted to emphasise speed and coverage rather than quality. These are discussed in more detail below. While the changes limit the direct comparisons we can make with the 2011 Index, we believe these revised measures make for a better insight into market readiness and are unlikely to need further revision.

[2] A recent study by IDC shows that cloud computing will generate 14 million jobs globally in the next three years – 10 million in China, India and the Asia-Pacific region. Many of these jobs are likely to be in non-IT areas.

The Cloud Readiness Index

	Data Privacy	International Connectivity	Data Sovereignty	Broadband Quality	Government online servives and ICT Prioritization	Power Grid and Green Policy	Intellectual Property Protection	Business Sophistication	Data Center Risk	Freedom of Information Access	Cloud Readiness Index	Rank	Change since 2011
Japan	**9.0**	**10.0**	5.6	7.6	7.9	7.8	7.6	**8.4**	6.0	**8.9**	78.8	1	⬌
Korea	**9.0**	8.0	6.2	**9.0**	9.1	7.1	5.9	6.9	7.4	7.7	76.3	2	⬆
Hong Kong	7.5	7.4	7.6	7.6	8.4	5.7	7.9	7.1	**8.0**	8.7	75.9	3	⬇
Singapore	4.5	9.2	**8.1**	6.3	**9.5**	5.7	**8.7**	7.3	6.4	7.1	72.8	4	⬇
Taiwan	7.0	7.5	5.9	6.1	8.8	7.1	7.1	7.5	6.5	**8.9**	72.4	5	⬌
New Zealand	**9.0**	1.3	**8.1**	5.4	7.8	**8.3**	8.3	6.6	7.1	**8.9**	70.8	6	⬌
Australia	7.5	2.7	7.3	6.0	8.2	7.5	7.6	6.7	5.6	8.6	67.7	7	⬇
Malaysia	7.5	4.6	5.6	3.7	8.2	6.2	7.0	7.1	6.2	6.9	63.0	8	⬇
India	6.0	8.4	4.7	2.4	6.3	3.3	5.0	6.1	3.1	7.6	52.7	9	⬌
China	4.0	5.0	3.5	3.5	6.6	4.5	5.7	6.2	5.1	7.1	51.2	10	⬇
Indonesia	6.0	4.8	2.1	2.2	5.7	4.9	5.1	6.0	3.1	7.2	47.1	11	⬌
Philippines	2.5	4.6	4.3	2.3	5.5	5.8	4.0	5.9	3.6	7.5	46.0	12	⬆
Thailand	3.0	2.8	1.5	5.9	5.5	4.8	4.4	6.0	3.6	7.4	44.9	13	⬇
Vietnam	5.0	3.2	3.9	2.2	5.9	3.8	3.6	5.3	5.4	6.6	44.9	13	⬇

A: INFORMATION REGULATIONS

In the 2011 version of the Index, we limited ourselves to two information regulation categories: Data Protection Policy and Internet Filtering. After much feedback from stakeholders, we have expanded this to four: Intellectual Property Protection, Freedom of Access to Information, Data Sovereignty and Data Privacy.

With these extra metrics, we believe we now have a more holistic view of the environment for cloud providers and consumers of information services.

Intellectual Property Protection and Freedom of Access to Information are at opposite ends of the information-access spectrum: one is about protecting the rights of those who create various forms of content and data; the other is maximising both the rights and the access channels to information.

Data Sovereignty and Data Privacy are two aspects of data protection: the first to allow/restrict the movement of data and take advantage of offshore services; the second serves to protect the confidentiality and integrity of personal data.

1. Intellectual Property (IP) Protection

Digital information, whether content or application, is easy to copy if one has access to it. Storage in the cloud potentially provides easier access for a broader set of people. This metric measures a government's IP protection regulations and their enforcement – seen by many providers and consumers as a baseline for protection of their rights. Consumers want to ensure that the content stored and generated in the cloud is safeguarded from being copied, and likewise, cloud providers want to offer this level of security and peace of mind to their clients. Regulation and legislation that offer a framework by which intellectual property is protected, and violations penalized, pave the way for a healthy, vibrant cloud ecosystem.

Methodology: The Index draws on the WEF 2012 Network Readiness Index, using the sixth parameter from the 1st pillar. Measurement is based on the average score from an Executive Opinion Survey conducted in 2010 and 2011. The question posed was: How would you rate intellectual property protection, including anti-counterfeiting measures, in your country? [1 = very weak; 7 = very strong]. The Index normalizes the score by dividing by 7 and multiplying by 10.

Top score: 8.7 Average: 6.3

2. Freedom of Access to Information

The power of cloud computing can be harnessed only if information can be accessed and manipulated. This index combines two separate indicators to assess a country's ability to access information: (1) using freedom of the press as a proxy for freedom of speech, and (2) the accessibility of digital content via multiple platforms.

Methodology: Both indicators are from the Networked Readiness Index published in the World Economic Forum (WEF) Global Information Technology Report 2010-2011: the Freedom of the Press index, and the Accessibility of Digital Content index. Both indicators were given equal weight, and their scores have been aggregated. The two questions posed were: How free is the press in your country? [1 = totally restricted; 7 = completely free] and; in your country, how accessible is digital content (e.g., text and audiovisual content, software) via multiple platforms (e.g., fixed-line Internet, wireless Internet, mobile network, etc.)? [1 = not accessible at all; 7 = widely accessible]

Top score: 8.9 Average: 7.8

3. Data Sovereignty

This attribute offers an original metric based on primary research by the Association's Security Working Group. The current data, which was finalised in May 2012, provides an initial Data Sovereignty picture in the Asia region. Data sovereignty has been identified as one of the key concerns for stakeholders, and the Working Group expects to offer a more robust analysis once the research is completed.

Methodology: Our survey takes a qualitative approach, ranking each of the countries by seven criteria: 1) quality of law; 2) predictability; 3) smart applicability; 4) quality of enforcement; 5) clear scope of protected data; 6) cloud-friendly storage requirements, and; 7) efficient cross-border data flows.

Top score: 8.1 Average: 5.3

4. Data Privacy

Ensuring the right level of data protection laws for cloud services is increasingly an area of focus for regulators and law-makers, who must determine how and what data can move to and from the cloud, and what data can move offsite and offshore.

A number of Asian markets are now implementing data protection and privacy laws or are updating and reforming existing laws to meet the challenges of the cloud.

As was the case in the earlier version of the Index, this attribute looks not only at the level of data protection and enforcement but also at the harmonization and consistency of these laws with regional best practices, such as the APEC Privacy Principles, to encourage greater cross-border flow of information in the region.

Methodology: For this attribute we have looked at data from the 2011 and 2012 Business Software Alliance (BSA) Cloud Computing Scorecards for a snapshot of the status of privacy laws and regulations, and cross-referenced with APEC data on those signatories to the Cross-Border Privacy Enforcement Arrangement (CPEA).

Top score: 9.0 Average: 6.3

B: INFORMATION INFRASTRUCTURE

5. Broadband Speed and Coverage

One of the essential characteristics of cloud computing is access via broadband. Most national regulators understand that having a policy that encourages the deployment of high-speed broadband to the largest fraction of their population is critical if they are going to benefit from the digital economy and specifically cloud computing.

Methodology: The Index uses measurement data from the Akamai State of the Internet for Q4 2011 to compile this parameter. By combining the average broadband speed to a nearby server, along with the percentage of users that have at least 2Mbps access, the score reflects the actual broadband coverage in the country. To normalize the raw scores, the Index adds the square root of the average broadband speed to half the square root of the percentage of access speeds of at least 2 Mbps.

Top score: 9.0 Average: 5.0

6. Data Centre Risk

For the 2012 Index we have put greater emphasis on the risks related to successful operation of cloud infrastructure, with a Data Centre Risk metric as opposed to the more general Global Risk parameter that we previously used. This has resulted in a slight shuffling of the country results, as factors such as labour and energy costs have come into play.

Methodology: The primary source of data is the 2012 Data Centre Risk Index from The hurleypalmerflatt and Cushman & Wakefield, which takes into account attributes such as data centre-related costs, political stability, natural disasters, water availability and energy security, among others. They have been weighted accordingly in regards to importance, and the Index score divided by 10.

In cases where hurleypalmerflatt and Cushman & Wakefield provide no country data, we have drawn on the Maplecroft 2012 Global Risk Index, which we used last year. These scores have been normalized to integrate with the primary source data.

Top score: 8.0 Average: 5.5

7. Power Grid and Green Policy

This year we have added Green Policy to the original Grid Quality parameter and looked at the sustainability and development of power in the 14 countries. The previous Index was more focused on the operational efficiency of data centre power supplies. In CRI 2012, we are more focused on: how power in these countries can be sustained in the long run, what countries are doing to ensure renewable energy usage, whether multiple power sources are tapped and whether the grid has redundancy built-in.

Methodology: We have adopted the World Economic Forum 2012 Energy Architecture Performance Index scores for this index, supplemented by our own additional research.

Top score: 8.3 Average: 5.9

8. International Connectivity

The rise of offshore cloud services is helping drive demand for international bandwidth. Submarine optical fibre cable systems carry around 98% of all international Internet traffic and this is reflected in this indicator's focus upon each country's international fibre connectivity.

Methodology: Two scores have been combined: one for submarine cables that are operating only within Asia (intra-Asia) and those that are operating outside (e.g. Asia-USA, Asia-Europe, Asia-Africa-Europe). Since the ACCA is focusing on cloud computing within Asia, a 2/3 weighting has been given to the capacity of intra-Asia cables and a 1/3 weighting has been given to the rest. The index normalizes the raw scores of each country by doubling its square root.

Top score: 10.0 Average: 5.7

C. BUSINESS & GOVERNMENT ENVIRONMENT

9. Business Sophistication

This is a new attribute of the Index and maps the quality of a country's overall business networks and the operations of individual firms. There is a strong correlation between the level of business sophistication and the adoption of cloud services.

The cloud can help Asian economies fast-track their efforts to promote human capital and become more knowledge-based economies, assist in delivering lower-cost IT services, and tap into new supply chains. Emerging markets should see the cloud as a way to accelerate this evolution and to improve their business sophistication rankings.

Methodology: For this measure we have relied on the World Economic Forum's Global Competitiveness Report 2012 for a comparison of Asia markets.

Top score: 8.4 Average: 6.7

10. Government On-line Services and ICT Prioritisation

This parameter measures the government's commitment to the cloud, tracking government applications of cloud computing for its IT services and the level of government support and promotion of ICT across the economy.

Methodology: Two studies, each with equal weight, were used to measure this attribute. For online services we drew on the UN e-government 2012 survey, comprising four sections corresponding to the stages of e-gov development: emerging, enhanced, transactional and connected. For ICT prioritisation we used the first parameter of the eighth pillar of the WEF's 2012 Network Readiness Index, which measures the prioritisation of ICT by the government across industries (on a scale of 1 to 7).

Top score: 9.5 Average: 7.3

Australia

2012 Score: 67.7 • Rank: 7th • 2011: 4th

Australia slipped three positions, primarily because of its limited international bandwidth, where it ranked second last. In other areas Australia continues to post scores in the middle or top tier. Its high scores in data privacy and data sovereignty should continue to improve since it has recently announced an initiative to re-examine these policies. The score for Broadband Quality does not yet reflect the rollout of the NBN, which is still underway.

Recommendation: Because of the limited availability of offshore capacity, we recommend the government consider subsidies, tax credits or other incentives to increase connectivity to the rest of the region.

China

2012 Score: 51.2 • Rank: 10th • 2011: 8th

China's investment in cloud computing is fairly advanced, with a number of cloud-ready townships and government-supported initiatives being announced in various provinces. Cloud computing pilots, backed by state funds, are already underway.

However, many potential constraints on growth remain, including the application of China's own technical standards, incentives that favour local firms, investment rules that may limit foreign participation in infrastructure, and opaque information regarding security and cross-border data laws.

Recommendation: We strongly recommend the application of international standards for cloud-related technologies and for clarity around security, cross-border data laws and the role of foreign investors in cloud hardware and services.

Hong Kong

2012 Score: 75.9 • Rank: 3rd • 2011: 2nd

Hong Kong fell one position but still ranked as one of the region's cloud leaders, achieving top score for data centre risk, equal 2nd for broadband quality and 3rd for data sovereignty and IP protection. Its lowest score was in power grid and green policy: it has excellent energy infrastructure but has neither targets nor policies for more sustainable power consumption. However, the HK government has actively supported cloud computing and has driven the use of cloud in the public sector as a means of cutting costs and improving efficiency.

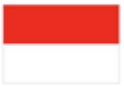
Recommendation: We urge the government to take a much more aggressive approach to IT power consumption and the use of renewable energy sources by setting specific targets for the government's own IT and encouraging the use of world-best practice for data centre energy efficiency across the economy.

India

2012 Score: 52.7 • Rank: 9th • 2011: 9th

India is making some progress in its readiness for cloud services. It scores relatively well in international connectivity because of the number of subsea cables that connect it to the rest of the world, but its broadband and electricity infrastructure polled poorly. Broadband access is available to just 1% of the population. The government has promised to massively expand this but has provided little detail on how.

Recommendation: India must remove the uncertainty around its mobile licensing, where 2G licenses have been cancelled and 3G license coverage rights are poorly defined. A second recommendation is to improve the quality and sustainability of electricity power generation.



Indonesia

2012 Score: 47.1 • Rank: 11th • 2011: 11th

While scoring on the lower tier of the Index, Indonesia's economy is still recording healthy growth and the government continues to prioritise the knowledge economy. ICT is one of 22 areas targeted for economic growth under the MP3EI Master Plan. But Indonesia ranks equal last for broadband quality and second last for data sovereignty. The legal framework for cloud services is also unclear; current regulations require any company providing a 'public service' to establish an onshore data centre.

Recommendation: Key priorities need to be a substantial improvement in broadband quality and the strengthening of laws and regulations concerning data sovereignty and data centre risk.

Japan

2012 Score: 78.8 • Rank: 1st • 2011: 1st

Japan once again tops the Index, ranking 1st in connectivity and business sophistication and equal 1st in data privacy and freedom of information. Its lowest scores were in data sovereignty and data centre risk, coming in 7th in both parameters.

In aggregate Japan is well-prepared for cloud computing. Even the power shortages that have followed since the March 2011 earthquake have been managed well by the data centre industry. We believe Japan has the optimum mix of policies, business and infrastructure to continue and drive growth and adoption of cloud computing.

Recommendation: Japan could improve its rating further by providing clearer direction around data sovereignty.

Korea

2012 Score: 76.3 • Rank: 2nd • 2011: Equal 3rd

Korea's impressive cloud résumé includes the world fastest nationwide Internet connections (average speed 17.5 Mbps), comprehensive privacy legislation, a power grid well-protected from natural disasters, and affordable electricity rates. The government, which has also invested heavily in the cloud, is determined to ensure Korea stays at the forefront: its target is to halve IT infrastructure op-ex in the public sector by 2015 and to capture 10% of the global cloud market by 2014.

Recommendation: Korea is ranked 2nd in the Index, but if it wishes to achieve its goal of becoming an important regional centre for cloud services it will need to consider regulatory and tax regimes that can attract major providers and customers.

Malaysia

2012 Score: 63.0 • Rank: 8th • 2011: 7th

Malaysia maintained its position in the middle tier of the Index. While it made progress in some areas, such as its nationwide Cloud On-boarding Programme for SMEs, it ranked well behind the leaders in broadband and international connectivity, despite achieving the targeted penetration rate set in the National Broadband Initiative and extending regional connectivity with new cables to Indonesia and Japan.

Recommendation: Malaysia's priorities should be in IP protection and data centre risk, both areas where it scored poorly. It also needs to introduce the Personal Data Protection Act 2010, which has not yet been brought into force.

New Zealand

2012 Score: 70.8 • Rank: 6th • 2011: 6th

Despite its relatively small size, New Zealand continues to offer an attractive environment for cloud computing. It ranks not far behind the region's heavyweights, held back mainly by the low offshore bandwidth score, where it is placed last. Cloud investments are going into Auckland, Wellington and Hamilton and, in what appears to be a world first, the industry is developing a voluntary code of practice.

Recommendation: No.1 priority is to expand the available international bandwidth. A number of new trans-Pacific cables are being proposed – the government and the cloud industry can help by lending support to at least one of these.

Philippines

2012 Score: 46.0 • Rank: 12th • 2011:13th

The Philippines remains at the lower tier of the Index. It scores relatively well in the freedom of information access parameter but poorly in other parameters. It ranks last in data privacy (although it has since passed the Data Privacy Act), second last in IP protection and third last in broadband quality.

Recommendation: We believe the Philippines cloud sector would benefit by upgrading the ICT office of the DoST to a separate department to replace the now-defunct Commission on Information and Communications. We also recommend strengthening of intellectual property protection regulations also be treated as a priority to boost confidence of service cloud providers.

Singapore

2012 Score: 72.8 • Rank: 4th • 2011: Equal 3rd

Singapore topped the Index in e-government and ICT prioritisation, and in IP protection. Infrastructure development has long been viewed as an enabler of the knowledge economy, and it is no wonder that we see Singapore ranking 2nd in international connectivity and 4th in broadband quality. The only shortcomings seem to be in the areas of data privacy and power grid/green policy.

Recommendation: Since the completion of this Index, the Singapore Parliament has passed the Personal Data Protection Act, removing one of the significant shortcomings in Singapore's cloud policy regime. Despite this development, the law will only come into effect in 2014, and we would urge the government of Singapore to accelerate its implementation.

Taiwan

2012 Score: 72.4 • Rank: 5th • 2011:5th

Taiwan has maintained its 5th position in the Index. It ranked 3rd for government services and ICT leadership, and 5th for broadband quality. The new Personal Data Protection Act, which became effective on October 1, removed criminal liability for the misuse of personal data unless done so for profit – a potential threat and disincentive to cloud innovation.

However, reflecting its uncertain geopolitical status, Taiwan once again ranked relatively low in the global risk and data sovereignty categories.

Recommendation: One way to reduce political risk could be to peer clouds in Taiwan with neutral countries, ensuring that critical business systems are not threatened by sovereignty issues.

Thailand

2012 Score: 44.9 • Rank: Equal 13th • 2011:10th

Should be doing much better. The political situation may have settled somewhat, but the Index has shown up its deficiencies in infrastructure, in particular international connectivity, broadband quality and power grid stability. While it scored relatively well in business sophistication and freedom of access to information, it ranked last in data sovereignty.

Recommendation: Apart from the urgent need to improve the infrastructure, we also recommend the re-examination of data privacy and sovereignty laws, two of its lowest-scoring indices.

Vietnam

2012 Score: 44.9 • Rank: Equal 13th • 2011:12th

Vietnam's rapidly-growing economy needs a good deal of focus to reap the benefits of the cloud. It ranks second last in power grid and fourth last in international connectivity. While its telecom policies emphasise universal access it is equal last in broadband quality. On the governance side, it is last in intellectual property protection and freedom of information access.

Recommendation: The key priorities for Vietnam should be to: 1) build better broadband access and expanded offshore connectivity, and 2) implement effective protection of intellectual property.

15 • THE NEXT STEPS

The purpose of this Index is to track the development of critical fundamentals for cloud-based services, and in so doing to stimulate discussion between cloud industry stakeholders across the region.

Asia-Pacific governments and businesses recognise the rapidly-growing importance of the cloud economy. The Association has established relationships with these stakeholders and is growing these further through events and outreach activities with all sections of the cloud community.

We welcome all feedback and wider involvement in these activities. If you would like to take part in ACCA events and to further engage with policy-makers, solution providers and users, please contact the ACCA CEO, Per Dahlberg: pdahlberg@asiacloud.org.

The Asia Cloud Computing Association fosters collaboration and innovation in Asia to drive adoption of cloud computing regionally. Our outreach efforts extend to policy and regulation, security, best practices, and market education.

The ACCA offers a specific forum for stakeholders – hardware and software developers, carriers, enterprise users, policy makers and researchers – to collaborate on the requirements of the Asia market from within, with expertise born of local knowledge.

Our members include Alcatel-Lucent, AT&T, Cisco Systems, Citrix, CITIC CPC, CloudGarage, Dimension Data, EMC Corporation, Equinix, Genetic Finance, Global Yellow Pages, Hiring Solutions, Hong Kong Cyberport, Huawei, iPerintis, Microsoft, NetApp, Nokia Siemens Networks, PLDT/Smart, Rackspace, Reed Hamilton, Telstra Global, Telenor, TrustSphere, Verizon and Workday.

For more information about the ACCA, please visit our website at www.asiacloud.org.

Acknowledgements: The ACCA would like to thank the following for their valuable contributions as part of the association's public policy and regulation working group: Bernie Trudel, John Galligan, David Rosengrave, Lim May-Ann, Peter Lovelock, Par Botes, Goh Hock Beng, Amir Haghbin, Per Dahlberg and Mark Ross.

Disclaimer: The Cloud Readiness Index aims to provide a snapshot for cloud preparedness in the Asia Pacific. Although we endeavour to provide accurate and timely information, we cannot guarantee the accuracy of information presented after November 2012.