



CA (Pacific) Pty Ltd
ABN 20 001 146 345
Level 3
10 National Circuit
Barton ACT 2600
Australia

P +61 2 6253 6100
F +61 2 6253 6110
ca.com

Mr Andrew McGowan
Committee Secretary
House Standing Committee on Infrastructure and Communications
House of Representatives
PO Box 6021
Parliament House Canberra ACT 2600



Email: ic.reps@aph.gov.au

4th March 2011

Dear Mr McGowan

Inquiry into the Role and Potential of the National Broadband Network

CA Technologies appreciates the opportunity to provide input to this important inquiry.

In this submission, we have provided some brief background on CA Technologies and its role in the digital economy as well as our thoughts on the potential of the NBN to support a new model of IT service delivery known as 'cloud computing'. CA believes that cloud computing, enabled by the NBN will deliver significant benefits to Australian users, ranging across sectors such as health, education, government and business, as well as to home consumers.

CA Technologies

CA Technologies is a US based global information technology (IT) management software and solutions company. We work with the majority of the Forbes Global 2000, as well as government organisations and thousands of companies in diverse industries worldwide.

CA Technologies assists organisations manage IT in all environments — mainframe, distributed, virtualised and cloud — and provides innovative solutions and services for the digital age. CA Technologies is a leader in the emerging domain of cloud computing, providing the planning, provisioning and management technology as well as intellectual property to allow organisations to build clouds.

The Australian subsidiary, CA (Pacific) Pty Ltd, employs about 480 staff in offices in Brisbane, Canberra, Melbourne, Perth and Sydney.

Further information on CA Technologies is available at www.ca.com

Response to the Inquiry

As a global company with exposure to the world's most established, as well as emerging, digital economies, CA has seen firsthand the effects of transformational technologies and infrastructure investments.

Accordingly, CA Technologies supports the Federal Government's commitment to the establishment of the NBN as a critical piece of infrastructure, which will underpin the future of Australia's digital economy and support future productivity improvement and service delivery.

The ability of the NBN to transform the delivery of public services, to deliver improved education and health outcomes, to support industry and regional-development and to facilitate critical environment initiatives, has been widely publicised and acknowledged. Undoubtedly, many of the submissions to this inquiry will provide examples of how the NBN can help to achieve these objectives.

As a technology company, CA Technologies intends to focus its input to this inquiry on the benefits that we believe the emerging model of 'cloud computing', enabled by a future NBN, will have on Australia.

The NBN, like cloud computing, is at an early stage of development but the potential benefits of both to Australia will be enormous.

Cloud computing is seen within the Australia ICT community as an evolutionary shift in the way commercial and government entities consume and manage IT services, however the role of the NBN will be critical.

Cloud computing is the undisputed future direction for the ICT industry, commercial and Government entities.

According to IDC, "Cloud services are consumer and business products, services and solutions delivered and consumed in real-time over the Internet".

It exists in various forms from Private (self-managed), to Public (shared infrastructure) to Hybrid models including Software as a Service (SaaS).

Cloud computing provides organisations with the ability to more effectively utilise their IT infrastructure and to consume IT as a utility, paying for only what is used on a per monthly basis. This is a radical shift for business and industry alike and will deliver clear benefits to users.

In addition, cloud services will allow for the faster delivery of products and services to business, government and consumers.

The increasing array of cloud-based applications being developed will also deliver benefits to home users, including remote monitoring of home devices, enhanced entertainment services, new healthcare delivery models, supporting teleworking and improved community participation in social networking.

But to ensure successful delivery of these benefits to Australian users and consumers in future a key element will be ubiquitous, high-speed, broadband access.

The National Institute of Standards and Technology (NIST), part of the US Department of Commerce, has a precise but wide ranging definition of what is required for a service to be considered a cloud computing service. Of these the most applicable and important to the Australian ICT landscape is "Broad Network Access". In essence, cloud solutions are only viable and can only be considered cloud solutions if they are widely accessible and provide the required performance, underpinned by reliable and accessible communications.

However, as highlighted in the Australian Government Information Management Office's (AGIMO's) Draft Cloud Computing Strategic Direction Paper, and further supported by independent research, modelling and simulation of cloud service providers by National ICT Australia (NICTA), the current performance of cloud services is a major issue and, CA believes, an obstacle to wider adoption.

Typically this is a result of a phenomenon known as latency, which often is attributable to availability and performance of internet bandwidth. Latency is a measure of time delay experienced in a system, the precise definition of which depends on the system and the time being measured. Depending on the complexity of the cloud services, consisting of the amount of data transferred, system architecture, and number of users, the impact of latency on an application hosted within a cloud solution can be severe, including rendering the application inoperable.

Many of the largest and most dominant global cloud Computing providers are based in geographies outside of Australia, such as Asia, Europe and North America. The impact of trans-continental latency, often due to poor Australian broadband services, on these platforms and the applications relying upon them are measurable and significant.

The rollout of the NBN will assist in addressing the problem of latency involving offshore cloud providers and facilitate access to overseas innovation in service delivery. Furthermore, providing the Australian ICT industry with critical underpinning communications infrastructure through the NBN provides an opportunity for a substantial and sustainable competitive advantage for Australian based cloud computing service providers.

Enabling the Australian ICT industry to provide cloud services over the NBN can encourage further local investment from multinational organisations, create lower barriers to entry for SME's and entrepreneurs to adopt and benefit from cloud services and create a competitive, viable and sustainable market. It will also contribute to building capabilities in the local ICT sector, including among Australian SMEs, as these firms provide the skills, knowledge and resources to build and deliver cloud solutions and services.

Australian governments, businesses, organisations and consumers will be the beneficiaries of the growth and development of cloud services, with an array of new cloud-based applications becoming available. Australia will not only have access to overseas-based innovation, but will also be able to facilitate local innovation in technology and service delivery.

CA Technologies is already gearing up for this next phase in the Australian ICT market. As a company we are investing in on-line content and applications to allow our services to be delivered by cloud providers and consumed on-demand by organisations ranging from the largest enterprise to the SME market. We are expanding our technology reach to assist organisation to authenticate and secure the predicted explosion in NBN-generated on-line commercial transactions. To help organisations to become NBN-ready we have also acquired Australian developed technology that allows organisation to manage and layer their own 'flavour' of IP-based networking over the NBN.

Thank you for the opportunity to participate in the Committee's inquiry. Should you require further information please do not hesitate to contact me.

CA Technologies would be happy to attend a public hearing to expand upon its submission. I can be contacted on _____

Yours Sincerely,

Simon Barnier
Senior Director, Federal Sales
CA (Pacific) Pty Ltd