TELSTRA CORPORATION LIMITED

**Response to NBN Co Information Paper:
B2B Industry Interface Specifications**

25 February 2010

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1. Introduction

This submission is in response to NBN Co's suite of documents released on 28 January 2011 entitled NBN Co Information paper B2B Industry Interface Specifications, NBN Co B2B Technical Specification, NBN Product Definition Specification, and B2B Interaction Process Specification (**the Specifications**). It should be read in conjunction with Telstra's responses to NBN Co's Product Technical Specification released on 22 December 2010 and its Product and Pricing Overview for Access Seekers released on 20 December 2010.

Delivering a fully functioning B2B solution and online web portal that will provide industry with a seamless means of transacting with NBN Co to manage end-user customer requirements is critical to the success of the NBN. It underpins Retail Service Providers' (RSPs) ability to manage their end-user customers' service requirements on the NBN, by providing efficient and timely interactions with NBN Co that accommodate their customer needs. It is therefore critical that NBN Co develops systems and processes that meet customers' operational and informational needs.

NBN Co is developing its systems for an industry which already has established B2B services. RSPs have invested considerable time and money in existing systems which serve them and their end-users well, and which are able to handle numerous types of transactions and considerable volumes of requests. Any new systems introduced by NBN Co will require RSPs to invest in additional time and expense, and will need to operate in conjunction with existing systems for a considerable period of time. Given this, NBN Co should ensure that its systems complement existing processes, and are developed without unnecessary cost and disruption to the industry, so that the transition to the NBN can be managed smoothly.

Telstra welcomes the release of the Specifications, recognising they are draft documents outlining NBN Co's current views on its B2B services. In responding, Telstra urges NBN Co to engage closely with industry in the ongoing development of its industry based B2B services to ensure it will be able to meet the industry's requirements and expectations; handle the volume and types of transactions required; and importantly, facilitate the delivery of an enhanced experience with end-user customers.   Telstra would be pleased to assist NBN Co in this important matter.

This submission outlines the key issues Telstra has identified with the Specifications, including:

- The need for further development and in some cases the re-design of several core B2B functions so they can accommodate the types of transactions that will be required by industry;

- The procedures that support the use of B2B systems require further development; and

- the need for NBN Co to establish and publish a program for industry engagement with clear milestones identified. This will ensure NBN Co and RSPs can work towards a known timeline that allows all participants to take the steps required to develop, test and implement B2B systems that meet industry requirements, and that are delivered in a manner which is aligned with the release of NBN Co's commercial offerings.

Telstra's more detailed comments on the Specifications are contained in the attached Feedback log excel spreadsheet.   The spreadsheet contains Telstra's initial feedback on the Specifications, and should not be taken as Telstra's final view.

Telstra would be pleased to meet with NBN Co to discuss the matters raised in this or our previous submissions. Telstra welcomes further engagement with NBN Co on these issues.

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2. Core functions proposed in NBN Co's B2B systems

The B2B functions delivered by NBN Co are critical for all of industry to engage efficiently and seamlessly with NBN Co. The functions must ensure the delivery of an enhanced end-user customer experience that meets, if not exceeds, NBN Co's customers' expectations. At a minimum, NBN Co's B2B systems should deliver an outcome which matches the level of service and functionality already delivered to the industry by Telstra.

Telstra is concerned that some of the functionality described in the Specifications does not appear to meet this requirement. Telstra's initial response to some key matters is set out below. Telstra encourages NBN Co to consider these matters and, where necessary, revisit the proposed design of its systems to ensure a positive outcome for the industry.

2.1   Service Qualification Function

A smooth functioning and timely service qualification (**SQ**) process is critical to RSPs' ability to provide services to its end-user customers; to meet their requirements and expectations; to facilitate competition and to efficiently manage the costs of service delivery. Telstra is concerned that NBN Co's draft proposal for SQ appears to be lacking important features, or proposes features that are overly restrictive, and will hinder RSPs' ability to service their end-user customer needs.

For example, the following SQ features are essential for the industry, but do not appear in the Specifications:

- the ability for access seekers to make resource reservations;
- support for a range of different business activities like bulk marketing campaigns, migration and transfer SQs;
- appropriate sequencing of SQ events to align with RSPs ordering processes. For example an SQ response prompts for an appointment, rather than this occurring via a confirmation of the order, since appointments need to be negotiated with the customer prior to order confirmation; and
- mechanisms and design features to guarantee RSP certain quantities of business transactions such as SQ and orders.

Further details are contained in the attached spreadsheet.

2.2   The Order, Appointment Management and Assurance Functions

The 120 B2B transaction descriptions provided by NBN Co in the Specifications do not provide sufficient information to enable Telstra to understand the integration and reconciliation required to communicate with Telstra systems and business processes. A deeper understanding of the business logic and associated information to be exposed by the proposed transaction is needed.

Below is a list of some of the concerns Telstra has with the proposed ordering, appointment management and assurance functions.

2.2.1 Ordering

- Access seekers require the ability to amend in-flight orders by modifying key order attributes (such as product plans and line speeds) rather than simply altering comment fields;
- The system should:

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- distinguish between the following order types: migration of existing copper and HFC services to fibre; connection of a new service installation; and transfers of NBN services between RSPs including NBN Co's involvement in the churn transfer process;
- clearly define the CVC order structure and usage;
- have the ability to place future dated orders; and
- We seek clarification on how:
  - the state transition will be handled in the progress of an order; and
  - "simultaneous and linked" transactions are supported through the interface. For example, a customer moving house will request disconnection and connection orders at two different premises both provisioned at a date in the future.

2.2.2 Appointment Management

- Appointments must be able to be booked independently of the order and assurance processes, rather than as part of the confirmation of the order placement; and
- The system should allow for pre-booking and cancellation of appointments without affecting orders placed or tickets raised, and allow rescheduling after the appointment is placed;

2.2.3 Assurance

- Access seekers need to be informed of all forms of network outages, whether planned or unplanned, using an event outbound service such as in SNMP format but managed via the ticket lifecycle;
- Assurance tickets should be kept open if the request for response is not answered;
- If field activity is required to resolve tickets, this should be identified;
- Access seekers should be notified when dependant products are disconnected;
- Very little detail is provided in the Network Testing, Performance and Diagnostic Overview. More detail is required about the "Event Diagnosis", "Connectivity" and "Service Tests", as well as the extent to which RSPs are expected to use them; and
- The types of line testing available in the specifications are based on the tests that are relevant for copper lines. These need to be expanded to include tests such as the status of battery charge and other fibre-based diagnostics.

2.3   The Function of Product Selection and Identification

Clarity on product constructs and the hierarchy of services is critical for developing smooth ordering processes. The key definitions for NBN products and services and their relationship to an order are fundamental to most B2B messaging transactions and functions. However, NBN Co's specifications interchange the terms "product" and "service" and the definitions are confusing. We are not sure of the hierarchy of "services", how they relate to "products" and the purpose of the Service ID.

Some of the key issues Telstra has identified with the specifications of NBN Co's products and how they relate to B2B include:

- It is unclear how the geographical variation of product versions will be supported. For example we would prefer service availability queries to return supported product versions;

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- The frequency with which NBN Co changes its product definitions is important, as it will have flow-on impacts to business continuity due to the requirement for re-certification for each version;
- NBN Co should classify major version changes to products, that are not backwards-compatible, as new products; and
- The operational functions, status and B2B product and process specifications appear to be based on an understanding of the Fibre Access Service definition. These features also need to accommodate the Satellite, Wireless and CVC product and any other products NBN Co will deliver through the RSP self-care interfaces (ie the B2B system and portal**). To ensure efficient use of capital, RSPs must be confident that baseline investment incorporates all key product and process requirements.

2.4   Cross Functional Issues

2.4.1   Charges and Fees

NBN Co has not advised what charges will be imposed on transactions. Any proposed charges should be provided so that RSPs can plan appropriately and assess the cost of doing business with NBN Co. In addition, if NBN Co's systems do not have the flexibility to accommodate the types of amendments required by industry, even where the transaction is already in progress and accepted by NBN Co, then there should be no fees for cancelling a transaction already in progress and the submission of a new order.

2.4.2   Alignment between industry and NBN Co terminology and data

There is scope to align NBN Co's proposed B2B functionality more closely with the features already used and adopted by the industry to minimise the cost of flow-on changes for RSPs. For instance, the various information types in NBN Co's systems could be aligned to existing key identifiers and key code sets e.g. current party IDs. This would assist RSPs in the transition to the NBN, and would minimise the risk that RSPs would need to maintain two completely different B2B solutions in the industry over many years. It is crucial that, as far as possible, any new B2B systems should be constructed in a manner that is compatible with existing current B2B systems to allow for smoother transition. Telstra would be pleased to work with NBN Co staff to ensure this occurs.

2.4.3   Address data

Further information is required about the rules and policies that apply when a close, but not perfect, address match is provided. Analysing NBN Co's address responses could be very time consuming and costly for RSPs without defined response arrangements.

2.4.4   Direct Connection

RSPs that require direct connection between NBN Co and their own systems should be provided with a supported connectivity link. This should have the capabilities of virtual private networks- to access B2B systems and online platforms.   This will allow RSPs to better manage risk, security and performance.

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2.4.5   State Models

Business rules and typical design patterns need to be agreed between NBN Co and RSPs for the management of interactions, (such as orders, assurance and billing), status and error management approaches. This will minimise the cost of system development for NBN Co and access seekers. For example, the status that an order can be at any given point in time needs to be agreed.

2.5.6   RSP Data Privacy

If NBN Co has access to information that is confidential to an RSP, it is critical that the B2B and Portal interfaces do not allow confidential information to be disclosed to third parties.

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3. Procedures Associated with B2B System usage

The strength of the framework for supporting processes in which NBN Co's B2B systems operate will influence their acceptance by RSPs and in turn, affect the take-up rates for services on the NBN. Significant care in their development is required, in parallel with the development of the B2B systems themselves.

3.1   Service Level Agreements

The Specifications do not indicate the level of service assurance NBN Co is prepared to offer to access seekers across the range of transactions. Clearly some transactions are more time sensitive than others. In particular, synchronised and near-real time responses following a request are critical for SQ and appointment setting.

RSPs have regulatory and contractual obligations to customers in relation to the timeframes for the provision of services, such as the Customer Service Guarantee of 5 days to provision a service. NBN Co will need to allow the scheduling of appointments to meet those timeframes. Rectification and compensation processes also need to be designed for situations when SLA response times are not met.

3.2   Certification Process

It is unclear how certification will be obtained and how this will operate in relation to the initial on-boarding and any re-certification required due to changes to B2B product or service definitions. The criteria that trigger the re-certification process are also unclear. It is important that the certification requirements are streamlined as far as possible to avoid time consuming re-certification activities due to matters such as NBN Co product changes. Certification processes must not impinge on RSPs' ability to serve their customers. In addition, the same certification processes should apply to all RSPs whether they use the B2B systems or online portals.

3.3   Confidentiality

Information that NBN Co has regarding RSP interface developments, like lead times, and use of NBN Co interface development and testing environments, needs to be kept confidential from other RSPs.

3.4   Dispute Resolution Process

It is not clear how the NBN Co dispute resolution process will flow through the B2B systems. For example:

- Can a billing dispute be added (or linked) to the trouble ticket management for escalation of an unresolved dispute? And
- What is the procedure if NBN Co clears a disputed ticket but the access seeker doesn't agree?

3.5   Process Design Issues

In our view, the development of B2B systems and NBN's online web portal can progress at different speeds and focus on different functions. For instance, the on-line portal can manage transaction types that are lower in urgency (or require manual handling such as a reply telephone call) so that the development of B2B systems is expedited..

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We note that NBN Co's proposed B2B systems are designed for NBN products and it shouldn't be assumed that these systems will be suitable or appropriate for NBN Co orders of products from Telstra.

3.6   Change Management Issues

In our view, the development of B2B systems when core systems are immature generally results in significant change to interfaces that will drive increased cost and delays to RSPs' and NBN Co's implementations. It is also critical that the lead times for changes in the content of interfaces (such as new product features or versions) and interface definitions (such as format changes to billing data interfaces) provide enough time for access seekers to plan, design and deploy the consequential changes on their sides of the NBN Co interfaces.

It is important for industry to collaborate on the best technology and process solutions available to mitigate these issues.

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4. Industry Engagement Processes and Timelines

Prior to release of the Specifications, industry engagement on NBN processes has been limited to the very high level product papers released in December 2010. The subsequent discussions within the Communications Alliance have been focused primarily on B2B headline issues and the identification of higher level fundamental B2B elements that would need to be addressed in an NBN Co B2B framework. In addition, the number of RSPs represented at these gatherings has been small. While these Communications Alliance discussions with industry have been very beneficial they should not be construed as industry agreement with any particular B2B approach.

Telstra offers the following comments on NBN Co's current approach to B2B industry engagement with the objective of future B2B services delivering both NBN Co's and RSP requirements:

- While the Communications Alliance Operations working group is a useful forum for identifying headline issues that any B2B specifications will need to cover, it should not be the primary forum for working through the fine detail required of a B2B system specification.
- In order to streamline the interactions between NBN Co and RSPs, minimise industry costs for IT development (development, testing and deployment), on-boarding and interacting with NBN, and to maximise the end customer benefits, it is critical that NBN Co adopt a structured process involving full consultation with RSPs. We recommend focused technical workshops with each of the major RSPs to achieve these outcomes.
- NBN Co needs to work with RSPs and develop a timeline and process for collaborative engagement on the B2B program of work that better understands and addresses its customers' needs. This will ensure that any B2B solution is efficient, effective, adequately tested and cost effective for NBN Co and RSPs. For example:

  - Industry agreed decision-making criteria should be applied to resolving conflicting RSP and NBN Co needs;   and
  - Business rules that are required to underpin interactions with RSPs should be released in advance of other materials, such as the build guide, to give RSPs more time to assess them and to scope-out the changes required to their own internal IT systems and work practices.

- The technical environment plan for product testing and staging should be made available to access seekers to enable them to prepare for adoption of the B2B systems, and to ensure these are ready and available ahead of NBN Co's commercial release of its products.

Telstra would be pleased to engage with NBN Co further on this matter, which we believe is important to ensure a timely and smooth transition to the NBN, and to promote the end-user customers' experience.

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5. Conclusion

NBN Co's attention to improving the functionality and operation of B2B interfaces and online portals with RSPs by addressing the key issues Telstra has raised is likely to facilitate a smoother migration, ordering and service delivery process for RSPs. This will ensure that the end-customer experience is a positive one – a critical element in both the migration to the NBN and in the post NBN roll-out environment.

Telstra would welcome the opportunity to meet with NBN Co to explain in further detail the matters raised in this submission and in the attached spreadsheet. Our considerable knowledge and experience on B2B systems and providing Access Provider interactions to industry participants should be of assistance to NBN Co in the development of its own processes, which Telstra expects will lead to a much-improved outcome for the industry.

Telstra believes that the key issues identified above and in the attachment should assist NBN Co in having a sound basis for prioritising the design and system build processes. Telstra encourages NBN Co to develop its B2B systems and online portal in a collaborative manner with industry, giving industry the opportunity to provide feedback and input as changes to the Specifications are made. This is critical to ensuring that changes are not made in isolation of RSP and end-user customer requirements, which could result in unintended impacts on RSPs' existing operations, and potentially hamper rather than enhance the success of the NBN itself.

Telstra would be pleased to engage with NBN Co on this matter.

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