



ATUG Comments  
ACCC Discussion paper  
Telstra's local carriage service and wholesale line rental  
exemption applications – October 2007

Rosemary Sinclair  
Managing Director  
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ATUG wishes to make a number of comments in regard to the applications for exemption:

**Geographic Market definition**

ATUG prefers to wait for the outcome of the ACCC Infrastructure Audit process to determine how much alternative infrastructure is available in Exchange Service Areas as per the Fixed Services Review – April 2007. ATUG made comments to the ACCC on this proposal in March 2007

**Reality of consumer choice**

From an end users point of view the presence of competing infrastructure in and of itself is not an indicator of an effectively competitive market. Other jurisdictions exploring regulatory forbearance based on infrastructure combine this with capability considerations. For example, Canada has a approach that

“deregulation will occur where competitors are serving the market and are capable of serving 75% of the number of lines that the incumbent can serve. This will ensure that there is consumer choice. There is a new provision that for an 18 month “head start” where an application for forbearance is based on competition from a small competitor...”

<http://www.ic.gc.ca/cmb/welcomeic.nsf/261ce500dfcd7259852564820068dc6d/85256a5d006b9720852572b400524ba5!OpenDocument>

**Business market definition**

For business users the definition of markets as bounded by Local Exchange Service Areas is problematic and the implementation of exemptions in some areas and not in other areas is uncertain. ATUG is not convinced of the strength of unregulated wholesale markets and their ability to ensure choice for business users who may have branch offices and the like extended across the boundaries of ESAs. The reality of wholesale markets over the last 2 years is that unless access is mandated products have been withdrawn and choice thus limited for end users.

The Canadian Regulatory Impact Analysis Statement identifies the need for different approaches for business and residential markets:

“Under this new approach forbearance with respect to the incumbent's business local exchange services may occur if there is, in addition to the incumbent, at least one independent facilities-based, fixed-line telecommunications service provider that offers local exchange business services in the market and is capable of serving at least 75% of the number of business local exchange service lines that the incumbent is capable of serving. With respect to the incumbent's

residential local exchange services, forbearance may occur if there are, in addition to the incumbent, at least two independent facilities-based telecommunications service providers, each of which offers local exchange residential services in the market and is capable of serving at least 75% of the number of residential local exchange service lines that the incumbent is capable of serving; at least one of these providers, in addition to the incumbent, must be a fixed-line telecommunications service provider. Alternately, the CRTC may forbear if the incumbent can demonstrate that it does not have market power based on the criteria proposed by the Competition Bureau in the proceedings leading to Telecom Decision CRTC 2006-15, and referenced in paragraph 213 of that Decision. “

<http://strategis.ic.gc.ca/epic/site/smt-gst.nsf/en/sf08752e.html>

Recognition that the needs of business users are different from the needs of residential users is also a theme being explored in the EU in the Telecoms Reform proposals where the need for a single market across Europe to better meet the needs for business is a key driver in major reforms being proposed.

[http://ec.europa.eu/information\\_society/newsroom/cf/itemlongdetail.cfm?item\\_id=3723](http://ec.europa.eu/information_society/newsroom/cf/itemlongdetail.cfm?item_id=3723)

### **Resale or facilities based competition**

At the core of the exemption applications is a philosophical position about the form of competition. The end user perspective is less philosophical and more practical. What matters to end users is the presence of effective choice. This would need to be ensured before ATUG would support the applications for exemptions.

### **Service Equivalence**

For choice to be effective the voice services have to be replicable using the alternative infrastructures. ATUG has been discussing this amongst our membership and would make the following comments based on this research:

#### **Are PSTN voice services replicable through the use of:**

- DSLAMs - Technical and regulatory compliance is achievable but voice quality is not achievable.
- Traditional voice switching equipment - Yes, but there are some exceptions where proprietary protocols are used.
- Soft switches - No. There are some key technical standards missing and most softswitch implementations rely on proprietary solutions with variable results.
- VoIP - Difficult to achieve Technical and regulatory compliance and voice quality is not achievable.

- Alternative infrastructure such as fixed wireless or HFC - Technical and regulatory compliance is achievable but voice quality is not achievable.

### **Do cable and wireless networks provide meaningful constraint on the pricing of the LCS and WLR:**

Due to the small footprint of cable and wireless solutions they have negligible impact on pricing, and in most cases are used as alternatives to ADSL.

In estates where fibre or coaxial cable have been installed the competitive [non Telstra] networks consistently deliver price reductions of 50% compared to Telstra smart community costs for a basket of services [ voice, free to air TV, Pay TV, Broadband {2Mbit/s or more}].

All packetised voice solutions [where VoIP is one method] suffer from the lack of standards that connect the telco core network to the last mile link.

The voice quality issue has already been addressed with the G.722.2 standard, however this product is not readily available and licensing issues have not been resolved.

### **Specifically on wireless based voice services:**

Voice-over-IP has allowed the carriage of voice services over IP connections. Whilst this is a very useful and potentially cost saving technical development, we should not lose sight of the century+ of technical development that has delivered our traditional telephony service in a very reliable manner.

Traditional telephone services have:

- 1) **Handset power** is delivered from the exchange building over the copper lines- therefore the service continues during a mains-power failure
- 2) **Dedicated bandwidth** - each user has a dedicated line to the exchange, i.e. not shared with anyone else
- 3) **Access for Emergency Calls** - 000 calls are identified and carried regardless of the state of the users telephone account
- 4) **Call Admission Control** - Carrier systems always "know" the maximum capacity of the system, and do not allow any additional calls to be connected unless the system can guarantee the service quality. Better to have a "busy tone" occasionally than a call that drops-out constantly. Note that a 000 call can still be connected - by dropping an already connected call.

IP networks themselves have characteristics that can make reliable voice delivery a challenge - such as latency, jitter and congestion. However, solving these IP-related problems alone does not address the issues 1-4 above. Wireless delivery adds additional challenges.

1) **Handset Power:** This area has already been eroded since de-regulation as customers can connect any manner of "cordless" extension phones and other devices, many of which are mains powered or have re-chargeable batteries with poor capacity. Some vendors have a CPE unit that provides battery-backed power to both the WiMAX receiver and the telephone handset.

2) **Dedicated Bandwidth:** Spectrum is scarce - to be practical wireless systems require that many users share the capacity of each channel. To guarantee good voice quality, each call must have its own guaranteed piece of capacity. However, it is not practical to provide this capacity to every user "just in case" they wish to make a call. It must be allocated when the call is set-up; and returned to the IP bandwidth shared-pool when the call is finished. CPE must allow this to happen in real-time.

3) **Access for Emergency Calls:** VOIP services delivered inside the "pipe" from the ISP can only be accessed when a connection is made with a valid username and password. If your ISP connection is off - for example you have forgotten your password - you have no 000 access. CPE must deliver a quality voice connection outside this pipe. The ISP can choose to connect an 000 call even from a customer with no current PPPoE connection.

4) **Call Admission Control:** CPE must "know" the maximum voice-call capacity of the system at any point in time. A request for another call can be denied ("Busy tone") if the call cannot be allocated guaranteed bandwidth. If the call is 000, another call can be dropped to allow the connection.

Note that in 2), 3), 4) above, the voice calls are identified and treated separately to general internet traffic, and **provided specifically as a quality voice service to the end-user.** (It is always possible for a user to use "Skype" or similar and operate it using the "general internet" or "best efforts" connection of an ISP. In this case the VOIP packets are unidentified and treated no differently to any other packets, and therefore cannot have the same service level guarantees.)

**Comms Alliance has been doing some work on VoIP Quality of Service** which may inform the ACCC's considerations on replicability.

See [http://www.acif.org.au/Activities/ngn\\_voip](http://www.acif.org.au/Activities/ngn_voip) :

- IP Network Quality of Service (on bearer QoS parameters)  
Communications Alliance established a Working Committee to develop a **guideline** for Carriage Service Providers, such as ISPs, on Network IP Quality of Service (QoS) to define a default set of Network IP QoS classes for all services for use in Australian IP networks. This includes

addressing IP packet delay, packet jitter and packet loss. It will also address IP packet prioritization as a means of implementing the Network IP QoS through, for example, the use of IP packet marking and packet handling.

- Voice over IP Quality of Service (on End-to-end 'teleservice' QoS parameters)  
Communications Alliance established a Working Committee to develop a [guideline](#) for Australian VoIP Service Providers and end users on Voice over IP (VoIP) QoS. This Guideline is to provide a measure of VoIP quality in a usable format for end users e.g. a 'number' or rating based on ITU-T Recommendation G.108. This could distil available information on the type of VoIP Customer Equipment (CE), codecs, the use of echo cancellers, etc. into a more usable format for end users.
- IP Location Information  
A Working Group developed a [report](#) on a list of technology choices for use in a guideline on location information for services using IP networks (e.g. VoIP) and a recommendation of a preferred option for a location information format.

## **Conclusion**

ATUG is focused on Competition as the most effective protection for the long term interests of end users. Where competition is not yet effective, regulated access to wholesale services provides the basis on which competition and choice for end users can develop. In the case of the exemption applications under consideration ATUG suggests more work is needed to define the markets from the perspective of end users, to review user perspective on the reality of replicable services and to consider the other developments in telecommunications policy and regulation which may have important implications for end users. 2008 will see a number of major reviews and decisions – USO, FTTN, Competition Framework, Operational Separation Review, and Declaration Reviews – which need to be part of any decision to provide exemptions.