

Proposed Variation to Make the GSM Service Declarations Technology-Neutral

AAPT submission

This submission is made by AAPT Limited in response to the ACCC discussion paper “*Proposed Variation to Make the GSM Service Declarations Technology-Neutral*” issued September 2001. AAPT acknowledges that this submission may be released to the public. Any questions on this submission should be directed to David Havyatt, Director – Regulatory, on 02 9377 7694, or by email to dhavyatt@aapt.com.au.

This submission consists of three sections. The first is a general summary of the AAPT comments, the second is a specific response to the questions raised by the ACCC, and the third is an attachment which is a mark-up of the proposed service description reflecting the changes that AAPT has suggested. This mark-up covers only the terminating access service, though the originating access service would be similarly structured.

General Comments

AAPT supports a review of the declarations for mobile termination and originating access services. AAPT is mindful of the current requirements for the ACCC to only amend or vary declarations in association with Pricing Principles. Consequently, AAPT is reluctant to recommend in this process any variations to the declaration that would require the ACCC to institute another review of Pricing Principles. As the ACCC has recently reached a decision on its Pricing Principles in relation to the GSM Originating and Terminating Access Service can inform the discussion in relation to a technology-neutral declaration.

In its consideration of the Pricing Principles to apply to GSM termination, the ACCC paid heed to the information problem, alternatively the consumer ignorance problem, that a party calling a mobile service is unable to distinguish the network operator providing that service. Given that the Australian numbering plan refers only to “digital mobile services” for the allocation of numbers in the 04 range, and given the implementation of Mobile Number Portability, which covers the totality of this range, the conclusion reached in the consideration of Pricing Principles clearly applies to all digital mobile services. Consequently, it is appropriate that the declaration of the terminating access service to be covered by the pricing principle applies to the entire class of calls that falls within the same area of consumer ignorance. Consequently, it is appropriate to modify the GSM Termination description to refer instead to the set of phone numbers that end-user customers may be calling.

This then has consequences for the approach that network operators may take to establishing the numbering schemes they wish to apply to their networks. Clearly, the CDMA network operators took the decision that they didn’t want to try to technologically distinguish their service from other services. By seeking to utilise the

same digital mobile numbering range and not seeking alternative numbering ranges, they sought a position where calls to their networks would not be distinguished from calls to other networks. The logical conclusion is that these calls should be covered by the same determination. This conclusion is also then reached for future services utilising voice calls (or data over voice calls) to these self-same number ranges. If an operator of a 3G network, however, were to desire to have different calling party paying options to those that apply to existing networks, it would be essential for them to make a case before the ACA for the allocation of a different number range that was not portable with the existing 2G numbers so that end user customers would not suffer from the informational problem. To this extent, a definition of the terminating access service is well described to refer to a group of numbers rather than a technology.

For operators of new generation services, the existence of a declaration is in fact to their benefit. Recent experience has shown that where a new network operator wishes to establish a service that will require the dominant network operator to seek terminating access, the dominant network operator may determine that they do not wish to seek that terminating access. While one would anticipate this may result in a network effect to the disadvantage of the dominant network, prior to the new network building any scale of operation this would not occur. The dominant network's failure to seek terminating access may therefore result in the inability of the new network to become an established operation and thus be anti-competitive. The existence of the ability to achieve a regulatory determined price for terminating access is perceived to be an essential component of denying the dominant network the option of not seeking terminating access.

Finally, the existing declaration only refers to voice services or data over voice. While it is clear that there are new generation services that occur either through signalling circuits or through packet switched data services for which any-to-any connectivity requirements will make declarations desirable, AAPT would recommend against attempting to include those in a revised GSM service declaration. AAPT's concern is the above expressed concern about the requirement for the ACCC to provide Pricing Principles in relation to declarations. For the extension of the GSM declaration to the digital mobile range for voice calls, the ACCC's Pricing Principles as determined for GSM clearly apply. The ACCC's Pricing Principles do not, however, cover any appropriate Pricing Principles for the operation of SMS interconnection nor for any data style service. While the existence of interconnection for SMS may create the opportunity for a similar retail linked approach, AAPT believes some further investigation would be required before that could be concluded.

Comments on ACCC questions

- The Commission's preliminary view is that the issues raised in the recent GSM pricing principles paper in relation to the GSM terminating service (that is, control over access and consumer ignorance) may equally apply to other mobile technologies currently deployed or in use. Is this likely to be true? If not, why not?
- The Commission proposes to vary the GSM service declarations such that they are technology-neutral with respect to technologies currently deployed or in use. Proposed service declarations are provided at Attachment B. Are there any comments in relation to the proposed variations?

Are there any technologies, other than CDMA, which are currently deployed or in use? Are there any other technologies (with similar functionality) which are likely to be deployed or used in the future?

What functionality is currently provided for in the GSM service declarations?
What functionality should be provided for by the proposed service declarations?
For example, should the service descriptions provide that end-users are able to be fully mobile and send and receive voice calls as well as data (ie to utilise the functionality provided for by 2.5G technologies)?

Is the functionality of delivering a SMS message currently provided for in the current GSM service declarations? Should the functionality of delivering a SMS message fall within the proposed service declarations? Why, or why not?

The proposed service declarations make references to tables GOASD1 to GOASD7 and tables TGASD1 to TGASD5 (of Telstra's ordering and provisioning manual). Are these references relevant to the proposed service declarations?

AAPT agrees with the Commission's view that the issues raised in the recent GSM Pricing Principles paper in relation to the GSM terminating service do apply to all other mobile technologies currently utilising the number range specified by the ACA for digital mobile telephony.

In relation to new technologies, AAPT is of the view that any technology that wishes to utilise numbering from within the current digital mobile telephony number scheme is a technology to which the declaration should apply. This also means that the ACCC does not need to be making calls about what different technologies are in operation, and leaves questions as to whether the appropriate allocation of these numbers to the ACA.

The functionality of delivering SMS is not currently provided for in the current GSM Service Declaration. For the reasons discussed in our opening, it is not appropriate to include the functionality of delivering SMS as it does not currently constitute a voice service. AAPT believes there is merit in considering a wider declaration for non-

voice services between digital mobile networks, however we believe that should be conducted as a separate inquiry. Such an inquiry should also consider the implications of declaration of other data style services such as packet data services.

Finally AAPT believes that the references to the various tables in the service declarations should be deleted. If industry participants believe there is benefit in specifying standards for the construction of such tables this should be conducted either as an ACIF or a TAF process. This comment in fact applies to all current declarations.

- Are the mobile services market and the fixed-to-mobile services market, as detailed in the GSM pricing principles, the relevant markets for consideration? If not, what are the relevant markets for consideration?

AAPT agrees that the Commission's conclusion that the mobile services market and fixed-to-mobile services markets are technology neutral markets. AAPT has had some questions over the relevance of the fixed-to-mobile services market and its relation to the mobile services market and has previously emphasised the need to recognise the wholesale market for termination that is a component of both retail markets. However, for the purposes of the current paper it is important to recognise there is not a separate GSM market from the CDMA market.

- Is the Commission's analysis of the current state of competition in the mobile services market and the related downstream fixed-to-mobile services market accurate? If not, why not?
- Will the proposed variation of the GSM service declarations promote competition in the mobile services market and/or the related downstream fixed-to-mobile services market? Why, or why not?
 - Is access already supplied for CDMA?

AAPT generally agrees with the Commission's analysis of the current state of competition in the mobile services market. The proposed variation of the GSM service declaration to be a technology-neutral declaration for termination of calls to digital mobile services will promote competition in the mobile services market by creating competitive neutrality between the different technologies. There remains a potential that providers of new networks could attempt to take advantage of the unregulated state of their networks to try to achieve higher termination payments than those applying to existing network operators and thus try to subsidise their network entry via higher termination charges. This will potentially result in greater competition in the mobile services market at the expense of competition in the fixed-to-mobile market.

- Will the proposed variation of the GSM service declarations impact on the achievement of any-to-any connectivity? Why?

AAPT is not aware of any difficulties in achieving any-to-any connectivity for any of the existing mobile services networks. However, our comment above relating to existing concerns that any-to-any connectivity does not mandate a network operator to be an access seeker do remain real concerns. It is AAPT's belief that the ability of the ACCC to arbitrate prices determination does act as a break on the ability of dominant network operators to refuse to seek terminating access.

- Do those mobile carriers with CDMA networks currently supply, and charge for, CDMA services similar to the GSM originating and terminating services? Are these services supplied to other mobile carriers and/or fixed line carriers?
- Would the proposed variation of the GSM service declarations impact on the legitimate commercial interests of access providers supplying the CDMA services? How?
- Would the proposed variation of the GSM service declarations have an effect on the investment decisions of new entrants or existing carriers?
- How would the proposed variation affect decisions to invest in the downstream fixed-to-mobile services market?
- How would the proposed variation affect the allocative efficiency in the downstream fixed-to-mobile services market?
- Would the absence of the proposed variation of the GSM service declarations adversely impact on allocative and dynamic efficiency? If not, why not?

AAPT will encourage the ACCC to make individual inquiries of individual network operators in relation to the prices they currently charge. AAPT is not at liberty in a public submission to advise the prices it may or may not be paying individual network operators for terminating access. AAPT does not believe that the proposed variation to the GSM Service Declaration would impact on the legitimate commercial interests of access providers supplying the CDMA service. To the extent that the declaration would apply constraint on the CDMA operators this would not be a legitimate commercial interest, it would be an attempt by CDMA operators to exploit market ignorance to provide subsidised entry for their network operation.

AAPT does not believe that the proposed variation to the service declaration would have an effect on new investment decisions and new entrants or existing carriers. In

AAPT's own case when it has previously considered investments it has recognised that the CDMA termination service was always likely to be declared. In relation to the downstream fixed-to-mobile services market, AAPT is of the belief that the existence of a technology-neutral declaration will enable firms to make decisions to participate in this market with confidence. AAPT does not expect any significant further investment by network operators in Australia to address the fixed-to-mobile services market, however, existing operators may still need to expand capacity for network growth. Decisions to remain in the fixed-to-mobile services market are contingent upon the ability to generate returns on that investment and the existing proposed Pricing Principles to link or provide a price cap on mobile termination provides a degree of certainty. AAPT believes that the Commission's conclusions in relation to the GSM service declaration are correct, and that as discussed above failure to address the technology neutral requirement of the declaration would result in the ability of non-GSM mobile network operators to generate inefficiencies through the cross-subsidisation of mobile phone subscribers from fixed line subscribers.

- What are the perspectives of mobile regulation overseas and do they have implications for Australia's mobile regulatory regime?

AAPT does not believe that regulatory comparison between different jurisdictions is particularly useful in this regard. Consideration of regulation needs to review the entirety of a regulatory schema not just one specific aspect such as the declaration of GSM or mobile termination.

Proposed service descriptions

4. Domestic Digital Mobile Terminating Access Service

The following service description is provided for Domestic Digital Mobile terminating access and applies to the provision of Domestic Digital Mobile terminating access service by any AP to any AS.

The Service as described comprises a number of different elements as follows:

- a) Access for calls forwarded for termination in the AP's Digital Mobile network
- b) POI Location
- c) Signalling
- e) CLI provision
- f) Provision of Switchports
- g) Network Conditioning
- h) Fault Handling –
- i) Inter C/CSP Billing

Restrictions on availability and others factors relating to the provision of Access are further described below.

In accordance with the Trade Practices Act Part XIC, these elements:

- may not be available from all APs
- may have restrictions in their availability

Domestic Digital Mobile Terminating Access Service is an Access Service for the carriage of telephone calls (ie. voice, data over the voice band) from a POI to B-parties using numbers from the Digital Mobile number ranges of the Australian Numbering Plan and directly connected to the AP's network.

4.1 Availability

The availability of services may vary depending on the geographic and technical capability of the AP's network at the time at which a request for the service is made or the service is delivered.

The AP will make available to ASs documents describing the availability of this service on its network. See 4.3 & 4.4

4.2 Channel Capacity

The service will establish a connection for the purposes of voice communication equivalent to the standard bandwidth of 3.1kHz.

4.3 Services

4.3.1 The service is provided on a call that is handed over for termination to a customer directly connected to the AP's Digital Mobile network.

4.3.2 (Blank)

4.3.3 Service Restrictions

At least annually, the AP will advise of end-customer services that may restrict the provision of this service eg. Services barred from accepting Reverse Charge Calls.

4.4 Interconnection Handover arrangements

The AP and the AS are each responsible for the provision, installation, testing, making operational and monitoring of all the network on their respective sides of the POI.

4.4.1 POIs

“Point of Interconnection” or **“POI”** means an agreed location which:

- (a) is a physical point of demarcation between the networks nominated by the AS and the AP; and
- (b) is associated (but not necessarily co-located with) with one or more gateway exchanges of each of the networks nominated by the AS and the Access.

Calls originated by the A-party will be handed over to the Access Provider at Points of Interconnection agreed by the AS and the AP in respect of the POIs nominated by the AP in accordance with 4.4.1.1 and 4.4.1.2.

4.4.1.1 POI locations

The AP will provide a table listing of POIs where this service may be provided. This listing will be updated at least annually. The AS may request a point of interconnect with the AP's network at a location other than one specified by the AP. The AP must, to the extent technically and operationally feasible, permit the location of a point of interconnect at that location. Handover will be at the POI closest to the A Party

4.4.1.2 Number ranges

The AP will provide a table of the Digital Mobile number ranges to which this service will provide access. (TGASD2).

4.4.2 Signalling

4.4.2.1 Signals for this service will use CCS#7 signalling. Unless otherwise agreed, this CCS#7 signalling will be in accordance with the CIF Interconnection-ISUP specification.

4.4.2.2 The AP will provide a table of the locations where the AS may interconnect its CCS#7 signalling network with that of the AP for the purpose of accepting this service.

4.4.2.3 Signalling interconnection may not be provided at all POI's. these POIs of 4.4.1.1 may provide only for interconnection of voice circuits. Control of voice circuits where direct signalling interconnection is not provided, will be via "quasi-associated signalling" using Signalling Transfer Point (STP) operation, with signalling via a nominated other gateway where signalling interconnection is provided.

4.4.3 CLI

Unless otherwise agreed the CLI of the A-party should be provided as part of the CCS#7 signalling for this service.

4.4.4 Nature of switchports

At POIs the calls will be delivered to the AP at 2.0488Mbit/sec Switchports. The switchports will operate at 2.048Mbit/sec in accordance with the ITU Recommendations G.703, G. 704 and G.732 (Blue Book).

4.4.5 Send and receive speech levels

The send and receive levels for speech will be -13 dBr unless specified otherwise in the Australian Network Performance Plan.

4.4.6 The AP will provide Echo Control as normal for Digital Mobile calls between the end customer and the AP's gateway exchange.

4.5 Interconnection forecasting, ordering and provisioning arrangements

4.5.1 Forecasting and planning requirements

4.5.1.1 Forecast of port requirements

For each POI the AS should provide forecasts, at least half yearly, of switchport requirements for 6, 12, 18, 24, 30 and 36 months from the time of forecast. Forecasts should be provided on dates to be agreed

between the AP and the AS and forecast the switchport requirements from operative dates of 31 December and 30 June. Forecasts will be discussed by the AP and the AS with a view to agreement within 30 Business Days. The forecasts will be used by the AP for network planning and not charging purposes.

4.5.1.2 Forecast of network capacity requirements

For each POI and for each charging district of the AP the AS should provide forecasts, at least half yearly, of traffic requirements for 6, 12, 18, 24, 30 and 36 months from the time of the forecast. These forecasts should provide daily and weekly profiles for the traffic forecasted and advice of any material non-uniformities in the dispersion of the terminating access traffic. Forecasts should be provided on dates to be agreed between the AP and the AS and forecast the traffic requirements from operative dates of 31 December and 30 June. Forecasts will be discussed by the AP and the AS with a view to agreement within 30 Business Days.

4.5.1.3 Ordering of Switchports.

The AP will accept orders for switchports up to the level of the agreed forecasts for each POI. The AS should order switchports allowing 6 months for their provision.

4.5.1.4 The AP will provide access up to the level of the agreed traffic forecasts for each POI.

4.5.1.5 The AS may request and the AP will give reasonable consideration to, and use reasonable endeavours to provide, such provision, but is under no obligation to provide access or switchports above the level of the agreed forecasts. If such access is provided, delivery times may be longer than those specified in 4.5.1.3.

4.6 Interconnection Ordering Requirements

4.6.1 Compliance testing

The AS will be required to demonstrate compliance with the agreed CCS#7 signalling system prior to the provision of the service.

4.6.1.1 The AP and the AS will develop an agreed test plan and the AS will provide results of tests to this plan from an appropriate test house or other such party. The AP will provide the results of such tests if it is not otherwise seeking a switch access service from the AS.

4.6.1.2 The AP and the AS shall review the test results of 4.6.1.1. within 20 business days and if the AP accepts that the test results of 4.6.1.1 are satisfactory then the AP and the AS will agree a date for commissioning tests.

4.6.1.3 The test results of 4.6.1.1 will form the prime documentary basis for ongoing operations, fault analysis and fault management of signalling between the AP and the AS.

4.6.2 Network Conditioning

Network Conditioning of the AP's network will be required before the provision of the service.

4.7 Operational and Fault handling arrangements

The AP will provide a contact point for the Operation and Maintenance of the service. Faults may be reported to this centre which will manage the clearance of these faults.

4.8 Inter C/CSP Billing frequency

The AP will invoice the AS on a monthly basis for this service.

4.9 Provision of Tones and Network Announcements

Where calls attempting this service do not progress to the end customer the call may be connected to tones as per AUSTEL Technical Standard TS002 or to a network RVA in the AP's network.

4.10 Customer Billing

Customer billing should be in accordance with an approved telecommunications access code.

4.11 Interconnect Call Records

If required by the AS to carry out distance based charging of calls made using this service, the AP will provide, at the request of the AS, interconnect call records to the AS which will include the following information:

- (a) time and date of answered communication;
- (b) communication duration;
- (c) charge zone in which the relevant mobile number is taken to have been located;
- (d) switch identifier;
- (e) calling party number;
- (f) called party number;
- (g) any other information agreed between the AP and the AS.

Interconnect call records will be provided at times and by electronic means to be agreed between the AP and the AS.