

COMMUNICATIONS ALLIANCE

Service Provider Guide for the 'So you want a VoIP phone service?' Communications Alliance Customer Booklet



Introduction

This Guide is a companion document to the Communications Alliance 'So you want a VoIP phone service?' Customer Booklet.

The Customer Booklet was developed to assist prospective (domestic and SOHO) users of VoIP services by providing a step-by-step process to help them decide upon a VoIP service, with a particular emphasis on the services and consumer protections provided to Australians who have current telephony services.

Who are these guidelines intended for?

This Guide provides assistance for VoIP Service Providers to help in considering the technical, regulatory and consumer protection issues that have been covered in the Customer Booklet and that prospective users may enquire about.

Individuals or organisations who are considering becoming users of VoIP services are recommended to read the 'So you want a VoIP phone service?' Customer Booklet, available at <http://www.commsalliance.com.au/Activities/voip>. This Guide provides further information for those who wish to learn more about VoIP services.

Feedback

This is a living document, which will be updated on a regular basis to reflect ongoing developments in the technical and regulatory environment. It is recognised that there are areas in this Guide where further information is required. Readers are encouraged to forward new information, suggestions and corrections to Mike Johns at m.johns@commsalliance.com.au to be incorporated into future releases. Communications Alliance would like to encourage an open and interactive dialogue with members of the industry to assist the ongoing development of this Guide. Please note that information that is provider-specific cannot be included.

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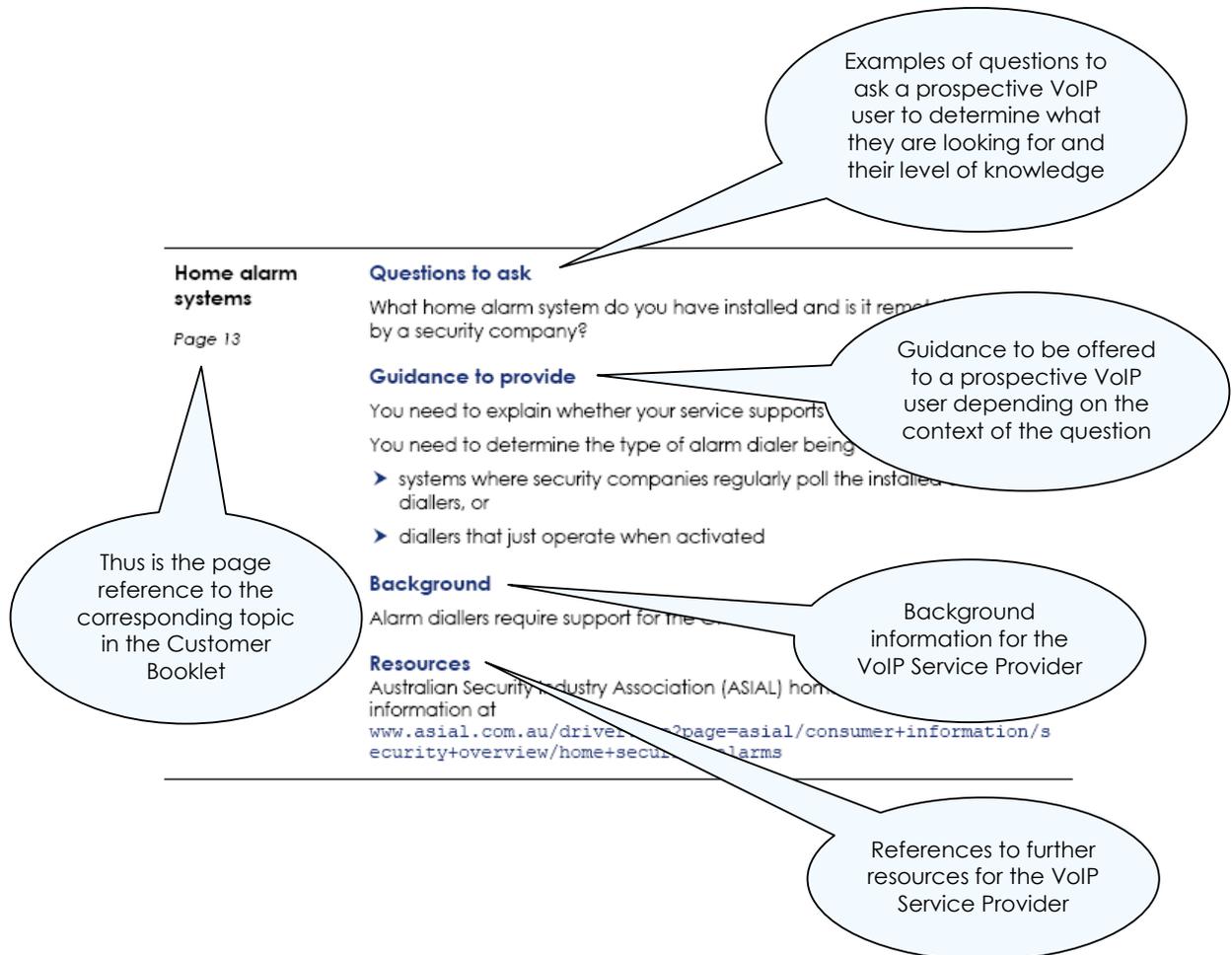
9 Consumer protection issues

Consumer protection

How to use the information in this Guide

Issues concerning the provision of VoIP services have been divided into nine high-level topics. Each topic in turn provides guidance on specific items as described in the diagram below.

A comprehensive index is provided towards the back of this Guide.



1 Service features and applications

Telephone line provisioning

Number of lines and calls

Page 7

Questions to ask

- How many phones lines do you use now?
- Do you want to be able to make phones calls while using the internet and emailing?
- How will you be using your VoIP service in the future?
- What phones will you want to use (your existing phones or purchase new phones)?

Guidance to provide

You should describe what services are provided with your account including distinctions between residential accounts and business accounts where multiple lines may be offered.

You should describe the VoIP services being offered in terms of traditional 'phone lines' and how a VoIP service may differ. For example:

- What telephone ('indial') number(s) come with your account?
- How many concurrent services are being offered in the plan?

Keeping POTS

Page 8

Guidance to provide

If the inquirer has a Digital Subscriber Line (DSL) service, you should explain that a DSL service requires the existing phone line to operate over. You can bring to their attention that their existing telephone provider may have more economical plans that could be considered in conjunction with using a VoIP service.

If the inquirer has a cable or wireless broadband service, you can explain that these broadband services are independent of the existing phone line.

You should bring to their attention that there are other benefits in retaining the existing phone line such as being able to use some phones (e.g. those that do not use mains power to work) in the case of a blackout.

Service features

Services

Page 8

Questions to ask

- What features do you currently use and what phone and other devices do you use?
- What additional features are you interested in?

Guidance to provide

You can inform the inquirer of other services that you are able to provide in conjunction with the VoIP service. They may already be familiar with some of

these services in the context of similar services over the Public Switched Telephone Network (PSTN).

You will need to explain that the correct operation of some services will depend on the type of Customer Equipment being used. You should inform the inquirer of the equipment that you support in conjunction with your services.

You should provide information on these features on your website.

Examples

- voicemail messages (typical options to receive voicemail messages include accessing via a telephone, by logging in to the VoIP service provider's website or as an attachment in an email)
- call waiting, call forwarding, call barring, Calling Number Display, Calling Number Display blocking
- conference calls
- instant messaging (IM)
- video calls
- ability to send text or visual information during a call
- higher quality voice calls
- using your VoIP service wherever you are (nomadicity)
- presence (status of your availability to take calls and the availability of the person you are calling)
- sending and receiving faxes
- ability to send and receive real-time text and video during a call

Equipment

Page 8

Guidance to provide

You should list all the options that you provide in your plans, including:

- VoIP programs on computers (not really the subject of the Customer Booklet)
- ATAs and how their existing phone can be used
- VoIP phones that can be connected directly to the broadband service

The ability to use a service will also depend on the equipment used by the person that they are calling.

Dial tones

Page 23

Guidance to provide

You should describe (and demonstrate if possible) the tones that are used with the service. Typical tones include dial, engaged and call waiting.

Business needs

Business services

Page 12-13

Questions to ask

What is the type and size of your business (home office, small business, mobile office)?

What telecommunications services are you currently using for your business?

Guidance to provide

You need to determine their business needs and to explain that their needs may require additional consideration, for example, a higher level of service reliability and a higher voice quality for their calls.

Other needs could include:

- multiple extension numbers
- audio and video conferencing
- call centre functionality
- remote teleworking
- presence in other locales
- inter-office communications (for example free 'on-net' calls between offices)
- facsimile
- EPTPOS

You can inform them of special business plans that you may offer.

Resources

VoIP for Small Businesses

<http://www.setel.com.au/site.php?id=383>

Demystifying Business VoIP Services (for SMEs)

<http://www.marketclarity.com.au/freebies>

Third party consultancies

Page 12

Questions to ask

What are your current IT requirements for your business?

Guidance to provide

You need to determine whether there are particular needs that may not necessarily be VoIP-related but are communications-related that require external consultancy, e.g.

- office networking (e.g. servers, data storage, cabling)
- security, including firewalls and other intrusion prevention
- IT support
- Teleworking

Privacy and confidentiality

Page 12

Guidance to provide

You need to explain that there are a number of privacy and security issues that may require consideration, including:

- the display of phone numbers
- security and privacy of voice on an IP network presence and location information

Other Needs

Fax machines

Page 13

Questions to ask

What facsimile machine do you currently use?

Guidance to provide

You need to explain whether your service supports facsimile communications.

You need to determine the type of facsimile machine being used and whether you support it.

Background

Facsimile machines require support of the G.711 codec or T.38 (Fax over IP)

Home banking

Page 13

Questions to ask

Do you do home banking by telephone (or use other services where you need a touch tone phone)?

Background info

There are two issues: DTMF compatibility and security. Touch tone dialling using DTMF (dual tone, multi-frequency), for example to navigate menu systems, may not function correctly, depending on whether the service provider's network supports touch-tone dialling. Banks provide security technologies with their internet banking such as SSL connections, encryption and digital certificates to protect customers' information.

Resources - Security (general internet banking security advice)

ANZ

www.anz.com.au/protectyourbanking/

Commonwealth

www.commbank.com.au/NetBank/security.asp

National

www.nab.com.au/Personal_Finance/0,,83947,00.html

Westpac

www.westpac.com.au/internet/publish.nsf/Content/WI+Security

Home alarm systems

Page 13

Questions to ask

What home alarm system do you have installed and is it remotely monitored by a security company?

Guidance to provide

You need to explain whether your service supports alarm diallers.

You need to determine the type of alarm dialler being used:

- systems where security companies regularly poll the installed alarm diallers, or
- diallers that just operate when activated

Background

Alarm diallers require support for the G.711 codec.

Resources

Australian Security Industry Association (ASIAL) home security alarm information at www.asial.com.au/driver.asp?page=asial/consumer+information/security+overview/home+security+alarms

Digital set top boxes

Page 13

Questions to ask

What cable television service do you subscribe to and is it connected to your telephone line?

Guidance to provide

VoIP services at present will generally not support the connection that the set top box requires to call back to the subscription television provider.

To maintain the connection to the subscription television provider, a PSTN service is recommended.

Background

Digital set top boxes currently incorporate dial-up modems and the QoS, reliability and compression characteristics of VoIP services at present generally will not support a dial-up connection on the VoIP service. Technically it may be possible (use of the G.711 codec is required) but using a VoIP service for this connection is not recommended at present.

There are no more analogue set top boxes connected to the cable networks as the analogue network has now been switched off as of the end of January 2007.

The three major pay TV providers are Foxtel, Optus and Austar. In addition there are Neighbourhood Cable (Ballarat, Geelong and Mildura) and TransACT (ACT and Queanbeyan).

Medical monitoring services

Page 13

Questions to ask:

Can you describe the medical monitoring service that do you use?

Guidance to provide

You need to explain whether your service supports medical monitoring services.

Background

Medical monitoring services require support of the G.711 codec.

Priority assistance

Page 13

Guidance to provide

You need to explain that priority assistance is only provided in conjunction with a Standard Telephone Service. The inquirer should speak to their service provider who is providing priority assistance.

Background

Currently Telstra, AAPT and Primus offer priority assistance services. Telstra is the only carrier required to provide priority assistance services to its customers as a condition of its licence.

Resources

ACIF C609:2007 **Priority Assistance for Life Threatening Medical Conditions**
Industry Code

ACMA Priority Assistance information at
http://internet.aca.gov.au/WEB/STANDARD//pc=PC_2038

Access for people with disabilities

Textphone or teletypewriters (TTYs)

Page 12

Guidance to provide

You need to explain that the ability for TTYs to be used in conjunction with a VoIP service will depend on the compatibility with the Analogue Telephone Adapter (ATA) being used.

Background

The current understanding is that TTY support is not generally provided on any currently available mass market ATAs. Alternate services such as Text over IP (ToIP) may fulfil a need in the future.

National Relay Service (NRS)

Page 12

Questions to ask

What NRS services do you currently use?

Background

Voice calls to the NRS ('speak and listen' or 'speech to speech relay') are supported in the same manner as other VoIP calls. The quality of the call will be important.

All other calls that use text communications:

- 'Type and read' (text to voice')
- 'Type and listen' ('hearing carry over')
- 'Speak and read' ('voice carry over')

will have the same dependency on the ATA & TTY compatibility.

From the middle of 2007 the NRS will be supplying an internet relay service. This service is similar to a relay service using a text telephone, but the user accesses the service via MSN and AOL messaging on a PC, laptop or 3G phone.

Resources

Refer to the information provided by The National Relay Service at
www.relayservice.com.au/calloptions/

2 Telephone Numbers

Phone number provisioning

Assigning numbers

Page 11

Questions to ask

Are you looking to replace your existing phone service or are you planning to use a VoIP service alongside of your existing service?

Guidance to provide

You should explain what number comes with the VoIP service, how it can be used and how it differs from a PSTN (geographic) number.

Background

Options may include keeping your existing number or getting a new VoIP number. New numbers may be like your existing number or a 'virtual' (or 'private') number. Ask the VoIP service provider what is offered and what the differences are.

A new 'Location independent communications service' number range (0550) has been introduced by ACMA as a part of the Numbering Plan for predominantly nomadic services.

Resources

ACMA Numbering information at
www.acma.gov.au/WEB/STANDARD//pc=IND_TECH_TEL_NUM_OVIEW

ACIF G610:2007 **IPND Data** Industry Guideline

Porting

Page 11

Questions to ask

What phone service(s) do you have now and what are you planning/inquiring to change?

Guidance to provide

You should explain the processes that are in place for transferring their number ('porting') from one service provider to another and the conditions under which it can happen (including charges and timing).

Currently the interest is in porting a PSTN number for use on a VoIP service. In the future the issue of porting between VoIP service providers and also from a VoIP service Provider back to a provider of a PSTN service will become relevant.

The degree in difficulty in porting will also depend on whether they are simple or complex ports.

Background

Porting occurs between carriers networks who have a Ported Local Number Register (PLNR) so that other carriers can direct call traffic for the Ported Telephone Numbers to the new network. Carriers need to have porting and interface agreements and connections in place for ports to their network as well as ports away from their network. Carriers also need to be able to download every other carrier's PLNR in order to determine the correct

network for call routing to Ported Telephone Numbers.

Resources

ACIF C540:2006 **Local Number Portability** Industry Code

ACIF G602:2006 **Local Number Portability IT Specifications and Operations Manual**

ACIF G603:2004 **Local Number Portability IT Test Strategy**

ACIF G613:2004 **Local Number Portability IT Test Plan**

ACMA Local Number Portability information at
www.acma.gov.au/WEB/STANDARD/pc=PC_1694

Making calls

What numbers can be dialled?

Page 11-12

Guidance to provide

You need to provide a 'laundry list' of numbers that are available and any difference from their current phone service. Numbers include local, long distance, mobile, international numbers, '13' and '1300' local rate numbers, '1800' free phone numbers, '1900' premium rate numbers.

Background

It is currently understood that there are no VoIP Service providers offering 1900 services due to the fact that call charging for these services cannot be done in real time.

'13' services (such as pizza deliveries and taxis) will not generally recognise your location.

Resources

ACMA Number Plan information at
www.dcita.gov.au/communications_and_technology/policy_and_legislation/numbering/numbering_plan

On-net calls

Page 12

Questions to ask

You need to explain the differences between 'on-net' calls and calls terminating outside of your network on traditional networks and other VoIP networks.

Background

Generally, VoIP Service Providers have not provided the ability for their customers to call numbers of other VoIP providers.

Nomadcity

Page 12

Guidance to provide

You can explain that using the service from other locations (nomadcity) is dependant on the following factors:

- what equipment is needed to use a service from another location
- what conditions need to be present to be able to access your service

You need to explain that the Emergency Service Operator will not necessarily know the location of a caller making an emergency call using a nomadic service.

Background

It may be possible for a customer to use their phone (with supporting equipment) and the service wherever they can get access to the internet.

Pre-selection

Page 12

Guidance to provide

You need to explain whether you can supply pre-selection or not. Alternatively, for a user to be able to choose among multiple VoIP Service Providers, this would depend on whether their customer equipment could support multiple connections

Background

Pre-selection was originally introduced to provide consumers with a choice of providers without having to dial over-ride codes. It requires having existing relationships between providers to handover calls.

For a customer using a VoIP service, the choice would be to have multiple VoIP providers and/or the ability to revert back to their PSTN line. This can be achieved through the use of 'dial plans' if the modem supports multiple VoIP providers. Examples where this could be used is where alternate providers offer better international call rates or the customer may wish to revert back to the PSTN for a 000 emergency call.

Resources

ACIF C515:2005 **Pre-selection** Industry Code

ACMA Pre-selection information at
www.acma.gov.au/web/STANDARD//pc%3DPC_2546

Emergency access

Dialling '000'

Page 10

Guidance to provide

You need to explain whether you provide direct access to the emergency service operators. If you do, then you need to explain that the instructions of the '000' and '106' operators need to be followed.

Background

Part of providing a standard telephone service is the ability to meet the obligations under the Emergency Call Service Regulations.

Resources

ACMA information on Emergency Call Services
www.acma.gov.au/web/STANDARD//pc%3DPC_2025

ACMA information on Internet calls (VoIP)
http://internet.aca.gov.au/WEB/STANDARD//pc=PC_100550

ACMA information on VoIP Regulation
http://www.acma.gov.au/WEB/STANDARD//pc=PC_310067

ACIF C536:2003 **Emergency Call Services Requirements** Industry Code

Location identification

Page 10

Guidance to provide

You need to explain that it is unlikely that emergency call operator or the emergency service organisations (Police, Fire and Ambulance) will be able to identify where you are just from your number and that you need to verbally provide your location to them when asked.

Background

ACIF G629:2006 *Interim VoIP Location Indicator for Emergency Services Signalling* Specification

Real time '106' text calls

Page 10

Guidance to provide

'106' is the emergency number provided by the National Relay Service (NRS) for those who are Deaf or have a hearing, speech or communication impairment.

TTYs can only be used with compatible ATAs in order for a text call to be successful.

Phone number displays

Calling Number Display

Page 12

Questions to ask

Do you currently have calling number display?

Do you wish to prevent others from seeing your telephone number?

Is your existing number an unlisted number?

Guidance to provide

The call information that accompanies an unlisted number does not automatically get transferred with the call when being handed from one network to another.

You need to explain:

- how incoming numbers will be displayed.
- how to prevent others from seeing their number.
- whether their number is to be a listed or an unlisted number.

An unlisted number is also known as a 'silent line' (as provided by Telstra)

Associated Issue

When porting a number, the associated services, such as an unlisted number or silent line, are not necessarily ported along with the number.

As a service provider, if you are the recipient of an unlisted number from another network, you are required to maintain the call information to preserve the number's anonymity. The ACIF C522 Industry Code provides the CSP obligations for Calling Number Display. Consideration should be given for both on-net and off-net calls.

Resources

ACIF C522:2007 *Calling Number Display* (CND) Industry Code

Number directories and assistance

Directory assistance and operator-assisted calls

Page 23

Guidance to provide

You need to explain if you provide **directory assistance** (either via a website or a human operator) and **operator-assisted calls**?

Resources

ACMA Directory assistance & associated services fact sheet
http://www.acma.gov.au/WEB/STANDARD//pc=PC_2947

Directory listings

Page 23

Questions to ask

If the inquirer is planning to use their existing number for the VoIP service, you need to ask:

Is your existing service listed, unlisted or is it a suppressed address?

Background

When porting a number, the associated services, such as directory listings, are not necessarily ported along with the number.

Resources

ACIF C555:2007 *Integrated Public Number Database (IPND)* Industry Code

3 Broadband service

Broadband suitability

Speed

Page 14

Questions to ask

Do you have broadband? If so, what type of broadband (ADSL, cable, wireless or satellite) and what plan are you on (speed and monthly data usage allowance)?

What is your computer and broadband usage like at present?

Advice – for DSL broadband

You should explain the relationship of the VoIP service that you are providing and the bandwidth that it consumes in their ISP's broadband plan. You should warn that if this limit is exceeded, calls will start to sound like 'mobile' calls (or may not be able to be made at all depending on the broadband plan).

You can explain that there are several factors that can impact on the quality of their VoIP service by the choice of broadband service, including:

- the upload and download speed of the connection. The speed of the service may be impacted by various factors including concurrent internet browsing, file uploading/downloading, the number of active users on the broadband service and possible electrical interference.

You could also explain that there are factors beyond their control, including:

- how far they live from the telephone exchange
- the quality of the line connecting the exchange to their premises

You can explain what VoIP services can typically be provided over different broadband plans. Typically for ADSL plans:

- 256 / 64 kbps - is barely adequate for one call at a time (with no other computer activity)
- 512 / 256 kbps - is very usable for residential usage
- 512 / 512 kbps or more - would suit a small office with maybe five to ten phones

Background

The actual speed achieved for DSL services will depend on many factors, including the distance from the telephone exchange to the user's premises, the line quality, electrical interference and the configuration of the user's network and equipment. Seldom are the theoretical maximum speeds of the broadband service achievable. ISPs must comply with the *Trade Practices Act* when advertising broadband speeds.

The actual speed achieved for cable will mostly depend on how many other users are active at the same time.

The effects of latency of a satellite access link can cause a greater delay of VoIP packets compared to other access technologies.

There are several hosted speed tests to determine the upload and download rates, some of which the server can be nominated, including:

Speed test

Page 14, 17

Guidance to provide

A useful website called 'TestYourVoIP' at www.testyourvoip.com will make a VoIP call from wherever you are to one of several test locations and report the results.

This test can be carried out also while downloading or uploading a file to the internet to illustrate the impact on your VoIP call.

Resources

Whirlpool www.whirlpool.net.au (a technical website on Australian broadband, including information on VoIP)

Broadband speed tests:

Oz Broadband Speed Test www.ozspeedtest.com

Internet Connection Center www.pcpitstop.com/internet

Ookla Speed Test www.speedtest.net

Data usage

Page 15-16

Guidance to provide

You need to explain how making VoIP calls will use part of their monthly broadband data quota.

You can explain that it is typical for ISPs to only count downloads in a customer's broadband allowance (which represents ONE side of the conversation). If an ISP counts both uploads and downloads (representing BOTH sides of the conversation) then that customer's data quota is used up at twice the rate.

You can let them know if you allow your customers to control codec selection so they can choose the speech quality of their own calls (generally in order to reduce the impact on their download data quota).

You need to let them know if you cap or throttle the broadband speed in the plan if a customer exceeds their monthly data usage. The result is either that customer will not be able to make further VoIP calls or alternatively the VoIP calls could increase their broadband bill. If you offer an 'unlimited' plan, you need to explain what features of the plan are unlimited.

Background

VoIP calls can typically use 10 MB to 40 MB (approximate figures) from the download quota for every hour of calls.

Resources

VoIP plan comparison at vOip chOice: www.voipchoice.com.au or at Oz Net Phones at www.ozinternetphones.com

Broadband and VoIP services

Page 16

Guidance to provide

If you are the ISP supplying the VoIP service as a bundled product, you need to consider the following issues:

- the Quality of Service (QoS) that you are providing
- the phone numbers that your customers can and cannot ring?

If you are solely a VoIP service provider, you need to consider the following issues:

- your relationship with the broadband service provider
 - is your VoIP service treated equally on the ISPs network?
-

Assurance of service

Page 17

Guidance to provide

If you are also the ISP, you need to explain what assurance of service you can provide as the broadband provider. Issues to consider are:

- the availability of the service
- the Quality of the service

Choosing a broadband service

Suitability

Page 16

Questions to ask

Have you gone through the suggestions in the VoIP Customer Booklet including going to www.choice.com.au and www.broadbandchoice.com.au?

Guidance to provide

You may be able to assist them in selecting the type of broadband service that is best for their needs (ADSL, cable, wireless, satellite).

You should refer users to an Internet Service Provider (ISP) who can provide suitable speeds and Quality of Service (QoS).

Resources

DCITA *Broadbandnow* website
www.broadbandnow.gov.au

Broadband comparison at Internet Choice at
www.internetchoice.com.au

Availability

Page 16

Guidance to provide

You can recommend ISPs to them that you have business relations with or alternatively send them to broadband CHOICE at www.broadbandchoice.com.au

4 VoIP service

Choosing a VoIP service provider

Trial periods

Page 18

Guidance to provide

You need to explain consumer rights, including statutory cooling-off periods in contracts

Resources

Refer to the ACIF C620:2005 **Consumer Contracts** Industry Code

Assurance of service

Page 18

Guidance to provide

As the VoIP Service provider, you need to explain what assurance of service you can provide. Issues to consider are:

- the availability of the service
- the Quality of the service

Domicile of VoIP Service Provider

Page 18-19

Guidance to provide

If you are based in Australia, you can provide them with an ABN number to demonstrate that you are an Australian company.

You need to explain how the characteristics of the voice call may be affected under certain conditions, such as **delay**, **echo** and **drop-outs**.

If you are based overseas, you need to explain how calls to emergency services ('000' and '106' calls) are handled.

If you are based overseas, then you need to explain how you bill customers, including the handling of inquiries and dispute resolution, and any specific aspects of the bills such as whether the bills will be in Australia dollars and if not, would they be subject to currency fluctuations.

Background

The Quality of Service (or QoS) is dependant on several factors. If the service is being provided from an overseas location, there would be some extra delay in the conversation and the quality may suffer.

Customer contracts are dependant on which country the service provider's business is located.

Resources

Communications Alliance **An introduction to Consumer Codes**
www.commsalliance.com.au/about_us/factsheets

ACIF C521:2004 **Customer Information on Prices, Terms and Conditions**
 Industry Code

ACIF C542:2003 **Billing** Industry Code

ACIF C547:2004 **Complaint Handling** Industry Code

ACIF C620:2005 **Consumer Contracts** Industry Code

Codes can be found at www.commsalliance.com.au/documents/codes

ACMA Code information www.acma.gov.au/WEB/STANDARD//pc=PC_2524

5 Customer premises

Configuration in customer's premises

Page 20

Questions to ask

- What equipment do you already have which you intend to use for VoIP?
- What do you already know about connecting up a VoIP service?
- What do you need (or want) to know about connecting up a VoIP service?
- Where will you want to use the phones in your home?

Guidance to provide

You need to establish the inquirer's competence in working with computers and telephony. You need to provide the following information as applicable:

- the suitability of the customer's equipment for the VoIP service, especially whether their existing broadband modem has the necessary capabilities for handling VoIP and whether there are any restrictions on equipment or software.
- the equipment that you supply for the VoIP service.
- details of support you provide for (i) equipment you have provided; and (ii) equipment supplied by the customer.
- where to seek assistance/information on setting up equipment for VoIP (other than your support services).
- how to obtain responses to frequently asked questions (e.g. your website, email, customer hotline)

Issues that may need to be considered include:

- whether the VoIP service will work alongside their existing phone service
- whether they need to purchase software or extra equipment such as an ATA for their existing phone
- whether they wish to continue to use their existing handset
- the location of the equipment and the telephone outlet
- whether they wish to have a PSTN service to dial the emergency service operator in case the broadband or VoIP service becomes unavailable.

Background

Equipment currently owned by customer may have been locked by a previous provider for use on the previous provider's network. Also there may be limitations with older equipment that prevent certain configurations or the support of some services.

Quality

Characteristics

Page 9, 20

Guidance to provide

You need to explain the factors that can affect voice quality, including:

- how their home network prioritises their calls.
- how the VoIP Service Provider's network may prioritise the calls.
- how the ISP may prioritise the calls
- How many calls does the user have in progress at the same time in relation to the capabilities of the broadband service?
- other activities such as the uploading or downloading of files at the same time of the call?
- once the call is beyond your network, the call quality is subject to other service providers' networks and the call-terminating parties' setup.

You can explain that there may also be incompatibilities between different pieces of customers' equipment (and software).

Background

Prioritisation of VoIP calls, both intentionally or unintentionally (e.g. via packet inspection) is an issue that has been raised by industry.

Resources

Communications Alliance has two active projects on QoS. See www.commsalliance.com.au/Activities/voip

Setup and optimising

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Questions to ask

What equipment do you already have which you intend to use for VoIP?

What do you already know about connecting up a VoIP service?

What do you need (or want) to know about connecting up a VoIP service?

Where will you want to use the phones in your home?

Guidance to provide

You need to clarify what equipment you support and the level of support that you provide.

For the equipment that you do support you need to provide them with sufficient details to optimally set up their service.

The customer needs to be advised of the trade-offs of keeping older equipment against investing in newer equipment. The customer needs also needs to be advised of that the quality of the handset can have an effect on the quality of a call.

Background

Consumer modem/routers are entering the market as 'VoIP-ready' devices incorporating support for packet prioritisation. Multifunctional devices may also include ATAs with ports for PSTN phones on the devices.

Availability / Power supply

Blackouts and loss of power

Page 9

Questions to ask

Do you experience unreliable supply or blackouts in your area?

Guidance to provide

You need to explain what arrangements are available during power outages and blackouts:

- have a backup PSTN phone that is powered by the telephone line
- have an alternate phone like a mobile phone handy
- if continued operation of your phone is important for your residence or business during a power outage, the use of a backup power supply (known as 'UPS' or 'Uninterruptible Power Supply') may need to be considered. A UPS operates like a backup battery and typically lasts for one or two hours.

Computers and VoIP

Page 6, 10

Questions to ask

Do you have a computer at home and are you intending to use it to make VoIP calls or manage your VoIP account?

Guidance to provide

VoIP phone services can operate independently from a networked computer in your home. Computers can be used to help in the set up process and to access the VoIP service provider's website.

Unlike a VoIP phone service, using a VoIP program on a computer requires the computer to remain on at all times to receive calls using that VoIP service.

General safety and privacy/security issues

Thunderstorms and acoustic shrieks

Page 24

Guidance to provide

You should inform the user of safety issues when using phones, whether the phones are held in the hand or are headsets. One issue is the use of telephones during **thunderstorms** and another is the possibility of experiencing **acoustic shrieks**.

Resources

Further information may be found in the Telstra White Pages or at www.telstra.com.au/thunderstorms/index.htm

Security and privacy

Page 24

Background

If using a computer in the home or office, normal **security** and **privacy** measures should be considered including the use of log-in passwords, virus protection, provision of a firewall and backing up of address books and other sensitive information.

As a service provider, you need to consider other privacy/security issues such as VoIP SPAM (also known as SPIT or SPAM over Internet Telephony), e-security and legal and illegal interception.

The *Telecommunications Act* and *Telecommunications Interception and*

Access Act set out the conditions under which legal interception can be conducted by Carriers and carriage service providers for law enforcement and national security agencies. In general terms, unless exempted, all carriers and carriage service providers must provide facilities, which enable them to execute a warrant for interception and to provide special assistance to law enforcement and security agencies. The interception of a communication passing over a telecommunications system is expressly prohibited, except in certain limited circumstances.

Resources

DCITA:

www.dcita.gov.au/communications_for_consumers/security/e-security/internet_security_essentials_for_small_business/internet_security_essentials

IIA (Internet Industry Association):

http://security.iaa.net.au/australian_resources/managing_security/index.html

6 Faults

How to go about solving faults and problems

Defining the fault

Page 23

Questions:

Can you describe the fault that you are experiencing? Have you been through the advice in the VoIP Customer Booklet?

Guidance to provide

You should provide guidance (e.g. a self-help section with on-line diagrams, diagnostic tools) on your website on how to go about determining what the fault is.

To provide customer support that reflects best practice, a technical support phone number should be provided in addition to just email support.

The fault-finding process described in the remaining part of this section provides a basic guide for users to follow.

Background

Chopped up or intermittent speech is more likely on lower broadband speeds or lower quality ISP networks.

The service or equipment of the person you are calling may be the cause of the poor quality or noise.

The person you are calling may be experiencing worse voice quality than you (because of the slower broadband upload speeds).

Resources

The forums on Whirlpool at <http://forums.whirlpool.net.au/> can provide answers on VoIP issues for those with a higher level of technical expertise.

Connection

Page 23

If a call **does not connect**, or suddenly drops out, hang up and call again.

If your **VoIP service** is not working properly:

- check that your **internet connection** is working properly by browsing the internet from your computer.
- check that the **power is on** in each piece of equipment.
- check that all the **cables** are connected properly.
- try turning the **power off and on** again for each piece of equipment (also called 'rebooting', just like a computer).
- check that your equipment has been **setup** correctly.

Quality

Page 23

If the **voice quality is suffering**, for example you are getting noise or distortion in your calls (or the person you are speaking with has problems understanding you):

- Check for **other activity** on your computer or home network, for example downloading files from the internet, using file and music sharing programs, sending emails with large attachments.

- If there is **irritating noise** or 'static', it may be due to interference from other nearby devices (maybe noticed if you are using a cordless phone).
 - Check your **handset**. If possible, plug in a different handset or trying using your handset on another phone line.
 - If you are using loudspeakers or handsfree, try using a headset or handset.
-

Further problems

Page 24

If the problem still exists, you can:

- Check the fault-finding procedures in your manuals.
- If you think it is something to do with your VoIP service, seek assistance from your VoIP service provider.
- If you think it is something to do with your broadband service, seek assistance from your ISP.

7 Customer service

Customer service

Providing assistance

Page 25

Guidance to provide

You need to ensure that your customer knows how to contact your customer service and when it is available.

Background

Information about your organisation's customer service offerings, such as call centre operation times and contact details (e.g. free rate, local rate or premium numbers), customer user manuals, call test numbers etc, need to be readily accessible both to staff and customers, via your website and in customer-provided information.

Resources

Information on you website and on individual product suppliers' websites.

Terms and conditions

Page 25

Guidance to provide

You need to ensure that your customer understands the **terms and conditions** of the VoIP services that you provide. Are the contractual arrangements to use the telephone service fair and easily understood and readily accessible?

Background

Communications Alliance has developed Codes of Practice for the industry which provide necessary consumer protections. The Consumer Codes, developed in cooperation with industry representatives and consumers, cover the life cycle of the relationship between service providers and their customers.

The Code protections start by ensuring that the advertising and promotional material for marketing of telecommunications goods and services are fair and accurate. Those same protections extend to information about prices, terms and conditions supplied before and after a customer signs up for a service.

Contracts themselves are also governed by Code rules covering matters such as ensuring that contractual wording is not confusing and does not contain unfair or hidden conditions.

Resources

Communications Alliance 'An introduction to Consumer Codes'
www.commsalliance.com.au/about_us/factsheets

ACIF C542:2003 **Customer Information on Prices, Terms and Conditions and Billing** Industry Code and Code Summary sheet

ACIF C620:2005 **Consumer Contracts** Industry Code and Code Summary sheet

ACIF C546:2007 **Customer Transfer** Industry Code and Code Summary sheet

Codes can be found at
www.commsalliance.com.au/documents/codes

Code Summary sheets can be found at

www.commsalliance.com.au/about_us/factsheets

ACMA Code information

www.acma.gov.au/WEB/STANDARD//pc=PC_2524

DCITA policy and legislation information

www.dcita.gov.au/communications_and_technology/policy_and_legislation

8 Billing

Service charges

Costs of a telephone service

Page 7

Questions to ask

What types of calls do you make today and how much do you spend on calls?

Guidance to provide

You will need to establish the existing and future service usage patterns of the inquirer to be able to provide the relevant fees.

You should list all the costs categories and provide your rates (and savings):

- Upfront costs (activation, equipment)
- Monthly fees
- Rates for local, long distance, mobile, international calls, on-net calls.
- Rates for premium services (if access to these services are offered)
- Exit costs
- costs for people calling my VoIP service

Background

The inquirer may be unaware of their spend, especially if they have multiple phone services and bills (local, international, mobile, phone card).

Pricing for PSTN and VoIP services can be very different. Provide information in terms that the inquirer would be familiar with (as used in their existing bills). Keep technical terminology to a minimum.

Resources

VoIP plan comparison at vOip chOice: www.voipchoice.com.au or at Oz Net Phones at www.ozinternetphones.com

Impact on broadband bill

Page 16

Questions to ask

Do you have broadband already? If so, what type of broadband (ADSL, cable, wireless or satellite) and what plan are you on (monthly data usage allowance)?

What is your computer and broadband usage like now?

Guidance to provide

If they are already using broadband, you should direct them to their broadband plan to make them aware of their ISP's data download charges and conditions. For example, if the monthly data usage limit is exceeded, either an excess rate applies or the broadband speed is throttled back (or 'shaped').

Resources

The website of the inquirer's ISP.

Contracts and billing

Customer obligations

Page 11

Guidance to provide

You need to explain the different relationships with the ISP who is providing the broadband service and a VoIP service provider.

You need to explain the differences between plans with and without contracts, explain any contractual obligations (legislation and Codes) and about pre-payment and post-payment.

You can explain the different billing options and feature that are available:

- on-line (via the internet)
- real time billing (via the internet)
- bill itemising

You need to explain if there are any restrictions on the use of the service (e.g. business use versus residential use).

You need to explain contractual arrangements such as minimum contract lengths and cancellation fees.

Managing telephony spend

Page 25

Background

The accuracy and timeliness of bills are governed by Codes, as are credit assessment practices and the processes used for dealing with customers in financial difficulties.

The purpose of the Communications Alliance **Guide for a Financial Hardship Policy** is to assist CSPs in developing internal policies and processes to manage customers who are experiencing difficulty in paying their accounts as a result of financial hardship, in line with Code requirements.

Resources

ACIF C541:2006 **Credit Management** Code and Code Summary sheet

Communications Alliance Guide for a **Financial Hardship Policy** at www.commsalliance.com.au/about_us/factsheets

Financial difficulty

Page 25

Background

The Credit management Code is to assist CSPs in developing internal policies and processes to manage customers who are experiencing difficulty in paying their accounts as a result of financial hardship, in line with Code requirements.

Resources

ACIF C541:2006 **Credit Management** Code and Code summary sheet

Guide for a Financial Hardship Policy
http://www.commsalliance.com.au/about_us/factsheets

9 Consumer protection issues

Consumer protection

Customer Service Guarantee **Background**

Page 25

The CSG specifies the times in which standard telephone services must be installed and repaired (see link below for more information).

How the CSG applies to VoIP services is under consideration by DCITA.

Resources

ACMA has produced a brochure and FAQ
www.acma.gov.au/WEB/STANDARD//pc=PC_2017

Privacy **Background**

Page 26

The *Telecommunications Act 1997* contains a number of provisions dealing with the privacy of personal information held by carriers, carriage service providers and others. Further information regarding privacy and the *Telecommunications Act* can be found on the Telecommunications page of the Office of the Privacy Commissioner web site.

The private sector provisions of the *Privacy Act* centre around 10 National Privacy Principles (the NPPs) that set out how private sector organisations should collect, use, keep secure and disclose personal information. The principles give individuals a right to know what information an organisation holds about them and the right to correct that information if it is wrong.

The Privacy Commissioner has written Guidelines to the National Privacy Principles to assist organisations to meet their obligations in the handling of personal information.

A series of information sheets has also been developed and provides more detailed explanations and good practice or compliance tips on various aspects of the National Privacy Principles and the Private Sector provisions.

Under the NPP "Openness", an organisation must set out in a document clearly expressed policies on its management of personal information. The organisation must make the document available to anyone who asks for it.

Resources

The Office of the Privacy Commissioner
www.privacy.gov.au/business/index.html
www.privacy.gov.au/act/telecom/index.html

ACMA Privacy & your phone service fact sheet
http://www.acma.gov.au/WEB/STANDARD//pc=PC_1686

Complaints **Guidance to provide**

Page 26

You need to ensure that your customer knows what your complaint handling policy is, how to lodge a complaint and the services that the TIO provides.

Resources

ACIF C547:2004 **Complaint Handling** Code and Industry brochure

Telecommunications Industry Ombudsman (TIO)

Page 26

Background

If you provide or resell telephone, mobile or internet services to small business or residential customer, you are required by law (*Telecommunications Consumer Protection and Service Standards Act 1999*) to be a member of the TIO Scheme.

The TIO is a free and independent alternative dispute resolution scheme for small business and residential consumers in Australia with unresolved complaints about their telephone or internet services. It is an office of last resort.

Resources

The Telecommunications Industry Ombudsman www.tio.com.au

Telephone sex services

Page 26

Background

If you supply a telephone sex service, you need to understand your obligations under Part 9A of the *Telecommunications (Consumer Protection and Services Standards) Act 1999*.

Resources

Restricted access arrangements for telephone sex services
www.acma.gov.au/WEB/STANDARD//pc=PC_484

Life threatening or unwelcome calls

Page 26

Background

To be better able to assist the community and customers, service providers need to be able to resolve issues of unwelcome calls and to provide assistance in life threatening situations in an efficient and expedient manner.

There is a Code which assists Carriers and Carriage Service Providers to define processes that help them work with end users and law enforcement agencies to address life threatening and unwelcome calls.

Resources

ACIF C525:2006 *Handling of Life Threatening and Unwelcome Calls* Industry Code

General links

Communications Alliance

Home: www.commsalliance.com.au

VoIP & NGN: www.commsalliance.com.au/Activities/voip

ACMA

Home: www.acma.gov.au

Internet calls: www.acma.gov.au/WEB/STANDARD//pc=PC_100550

VoIP regulation: www.acma.gov.au/WEB/STANDARD//pc=PC_310067

ACCC

Home: www.accc.gov.au

DCITA

Home: www.dcita.gov.au

TIO

Home: www.tio.com.au

Other

Voice over IP: en.wikipedia.org/wiki/Voice_over_IP
Comparison of VoIP software:
en.wikipedia.org/wiki/Comparison_of_VoIP_software

**Communications
Alliance
Publications**

In addition to the Codes and Standards, Communications Alliance publishes the following material, available at
http://www.commsalliance.com.au/about_us/factsheets

VoIP

What you should tell your customers about their Internet Telephone/ VoIP Service

Access to emergency services for users of VoIP and Internet Telephony

VoIP Security – what you can do about it as a VoIP or Internet Service Provider

A basic guide to VoIP technical terms and issues

VoIP Customer Booklet

Industry

Financial Hardship Guide

TIO - Your obligations as a Service Provider

TIO - Your obligations as a VoIP Service Provider

Complaint Handling - Your obligations as a Service Provider

Some facts about short messaging to 13/1300 numbers for corporates

Consumer

An Introduction to Consumer Codes

Your Telecommunications Service - As a consumer, what you are entitled to know

Some facts about short messaging to 13/1300 numbers for consumers

Code Summary Sheets

C521:2004 Customer Information On Prices, Terms And Conditions

C541:2006 Credit Management

C546:2005 Customer Transfer

C620:2005 Consumer Contracts

C625:2005 and G627:2005 Information Accessibility

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Overview of Communications Alliance

Communications Alliance was formed in 2006 from the merger of the Australian Communications Industry Forum (ACIF) and the Service Providers Association (SPAN) to provide a unified voice for the Australian communications industry and to lead it into the next generation of converging networks, technologies and services.

In pursuing its goals, Communications Alliance offers a forum for the industry to make coherent and constructive contributions to policy development and debate.

Communications Alliance seeks to facilitate open, effective and ethical competition between service providers while ensuring efficient, safe operation of networks, the provision of innovative services and the enhancement of consumer outcomes.

It is committed to the achievement of the policy objective of the *Telecommunications Act 1997* - the greatest practicable use of industry self-regulation without imposing undue financial and administrative burdens on industry.

Communications Alliance work in VoIP

Communications Alliance is actively involved in assisting the Australian telecommunications industry in the introduction of services such as VoIP. Our Working Committees and Groups are working on many activities including quality of service (QoS) for VoIP and QoS for the Australian IP networks.

The information in this Guide reflects the telecommunications environment and the types of VoIP services being provided at the time of publication. It is not intended to pre-empt any of the outcomes of the work being carried out.

Published by:

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July 2007, 1st edition