How to set up a
Telephone Answering Service

Introduction

A telephone answering service (TAS), or virtual reception service, is essentially a contact centre that specialises in handling inbound calls for a variety of businesses. A TAS can consist of 1 operator that services a handful of businesses, to 100s of operators servicing 1000s of businesses.

With entrepreneurs setting up new small businesses at a record rate - all in need of affordable alternatives to full-time receptionists and customer service agents - there are great opportunities for new answering service businesses to enter the market.

This simple guide has been created to assist those looking to provide a new answering service business and who want to understand the technical aspects (at nSolve we leave the business and marketing side to others). Our aim has been to make an approachable guide. In doing so we have needed to keep things simple. If you have any questions or suggestions after reading it through please do get in touch with the nSolve Team and we'll be happy to assist.

The role of a TAS and how to do it efficiently:

At its most basic level a TAS answers calls for multiple Clients i.e. customers. Then according to the instructions given by the called Client, the TAS either sends a message or transfers the caller to the appropriate 'Contact' (usually an employee of your Client). If instead of transferring the call a message is taken, then the message is delivered according to the Contact's instructions. These instructions might be to send the message immediately via SMS or an email at the end of the day or a monthly fax summary etc.

Your Clients can either forward all their calls to you or just when they are busy. You could answer all calls saying 'The Answering Service, who are you calling for?' but it is more professional to answer in the name of your Client e.g. 'Bob's Plumbing, how may I help you?'. Although to do this the operator handling the call must know both which telephone number the caller has called and which Client is using that telephone number. To do this you obtain dedicated virtual telephone numbers and assign one of these numbers to each of your Clients. (These virtual numbers are also known as Direct Inward Dialling(DID) or Direct Dial In (DDI) numbers).. Your Clients then forward their calls to their dedicated number when they need your service. Your telecom provider then routes the calls from those numbers to you. The telecom provider also includes the DDI number value that was called as part of the 'extra' information that goes with the call. (You may recall when you have an inbound call on your mobile you are presented with the caller's number or name. This number or name is part of the extra information.) Now when you get a call the operator can see the virtual telephone number and could look at a list to know which Client is being called so they know the company name to say when they answer the call.

If you have a lot of Clients you will have a lot of virtual numbers and a long list of Client names to look at each time a call comes in. With suitable software, that can obtain the extra information about the call, including the virtual number, you can automatically be presented

with the Client name based on the virtual number. In the Telephone Answering world this is known as 'call popping' i.e. the appropriate Client information is 'popped' into view when the telephone rings.

Additionally with a lot of Clients you will have a lot of contacts to transfer calls too or a lot of messages to send. Each Client will have their own instructions for you to handle their calls and their preferred means of receiving any messages. A TAS needs to manage all this with dedicated mechanisms, procedures and processes being required. Here again a dedicated TAS software package can significantly help your business work effectively and efficiently.

There are a number of means for the telephone call to be delivered to you. Traditionally a TAS would have used a number of ISDN lines and a local phone system (PBX) to distribute the calls to the operator stations. Now though it is common for telephone calls to be delivered over the internet, known as Voice over Internet Protocol (VoIP). The most common format of VoIP calls is SIP (Session Initiation Protocol) and a SIP Server performs the role of distributing the calls to the operator stations. The two mechanisms require very different handsets and very different infrastructure. The traditional local phone system requires dedicated telephone wiring from the operator station to the phone system. While the VoIP solution, allows the use of ether physical handsets or 'softphones' (a computer program that relays the audio via the computer); both of which are simply connected over any standard internet connection (Ethernet, WiFi, GSM etc). For the TAS software to obtain the virtual number information it needs to use a software interface called an API built into the hard/soft phone for the VoIP method or TAPI for the older phone system option..

Operator availability is another aspect of an efficient and reliable TAS service. Originally most operators would have been located in one building working a 9-5 shift. With VoIP, cloud PBXs, cloud servers, softphones and the prevalence of decent secure internet access via a VPN there are many more options regarding operator resourcing. It is now easy to have operators in multiple time zones giving greater call handling coverage, even 24x7, all that is needed is a computer running a suitable TAS software package, a headset and an internet connection.

Setting up a TAS:

As you can see from above there are a number of elements to select to create an effective and efficient TAS. Below we list the primary decisions. Some of these decisions also need to consider your anticipated future direction. (Please see the Key Terms section for detailed descriptions of the terms).

1. Where will your operators be located?
    a. Your home - good for keeping costs down
    b. An office - good for building rapport with your operators but potential significant costs
    c. Remote - good for giving you access to different time zones, languages and pay levels, will need a connection over the internet to your data server. (Usually a VPN connection)
    d. A mix - good for flexibility

2. Which type of telephone lines?
    a. ISDN - good for quality via dedicated telephone infrastructure, requires you to own and operate a dedicated phone system such as an Avaya IP Office, can limit remote operator support unless the phone system allows remote SIP extensions.
    b. VoIP / SIP - often cheaper than ISDN, SIP trunks can be connected to your own SIP server that distributes the calls or you can use a hosted VoIP providers own SIP server. Note some hosted VoIP providers limit what devices can be connected to their systems. VoIP quality is dependent on Internet capability (we recommend a minimum of 3mbs up and down for each operator). Having your own SIP Servers e.g. Asterisk PBX or FreePBX (which can be cloud or locally based) allows enhanced features such as full call control, recording, routing, reporting, billing via talk time etc. With the SIP Server hosted in the cloud the day to day management of it can be handled by 3rd party IT specialists if you don't wish to do so. E.g Gixr.com

3. How many telephone lines? The number of lines you have depends on the number of calls you wish to handle at any one time – not the number of Clients you have! For example, if you have 3 operators you will need an absolute minimum of 4 lines to allow each operator to be on the phone concurrently, whilst allowing one additional line for transfer calls, outbound calls, etc. (A telephone line is not a telephone number. Multiple numbers can be assigned to a telephone line.)

4. How many virtual (DDI/DID) numbers? You will need at least one per Client. You will

usually buy virtual numbers in batches. Ideally your TAS software should help you manage which virtual number is allocated to which Client and which numbers are spare or in a quarantine state (when a Client leaves you, you can reuse their virtual number but you might want to give it a short time period before doing so).

5. Where will you be transferring calls? If you believe you will be transferring calls to mobiles or international numbers you could experience larger call costs especially if you are paying for the time the caller and your contact spend talking (known as the patch time). You therefore need to monitor these costs and times. If you intend to bill per minute (instead of a fixed cost for patching a call) your TAS software will need the ability to obtain the patch time from your phone system. Which further dictates which phone system server you can use. (FYI nCall supports obtaining patch call time from FreePBX , Avaya and Splicecom PBXs).

6. What type of Client will you be targeting? Having a few very large Clients (e.g. hospitals each with 1000's of contacts) compared with a large number of smaller Clients with only a handful of contacts will significantly impact your price sensitivity of DDI numbers versus call time charges.

7. Selecting a Telecom supplier: armed with your answers to the above questions you can now approach various telecom suppliers to compare costs, functionality, and support levels.

8. Who will be doing your back office admin? Creating, managing and billing Clients along with all their updates can be a significant task. Initially this can be handled by an operator in their time between calls but as you grow and get more Clients this means more work. You could need a dedicated staff member. Another option is to deploy a Client portal on your website whereby your Clients can make changes, see reports, see calls and messages etc themselves which can be a considerable time saver for your back office admin (nCallOnline is such a portal).

9. Where will your data reside? All operators need to be able to access the data so it is

held on a computer called a server. This server can be located in your home, in the office or in the cloud. In the cloud can mean you simply rent the machine (a VPS) and therefore have reduced upfront costs and long term maintenance is minimal. The data needs to be secure and regularly backed up. You need the ability to anonymise personal data e.g. contacts of ex-clients and allow exporting of personal data if your clients should request it.

10. Internet connectivity needs: Most of your communications will be dependent on an internet connection. This connection will be used for sending and receiving messages, and if you select a VoIP solution the quality of the audio will be entirely dependent on your internet connection. A reliable internet connection with a guaranteed bandwidth from your provider is recommended. Some providers now offer EFM Internet – these are leased internet lines at an affordable price where you can have a specific internet speed at all times with a consistent download/upload speed.

11. Email accounts: You will need an email account to send email notifications from your business to your customers. This should be on a private domain that reflects your company. We recommend you use a dedicated email address for this purpose. For quality control purposes, you may also consider an additional private email address for receiving a blind carbon copy (BCC) of all messages sent from your telephone system. A private Gmail account can work as a good BCC destination.

12. SMS accounts: You can also use a dedicated online SMS account to send SMS notifications (text messages) to your customers. Several SMS providers will allow you to bulk purchase SMS messages, enabling you to send large volumes over the internet at a low cost. Additionally, certain SMS providers allow you to show your company name as the sender to boost your professional image. In some cases it may be advantageous to use a specific mobile network provider to send SMS messages to customers of the same network.

13. Who will be looking after your IT equipment? While a single operator TAS might be run from just a single laptop with a USB headset, as you grow some technical IT skills will

be needed to manage the hardware and software to keep it up to date etc. Updating the TAS software should be a simply minimal effort that should not cause you business down time regularly.

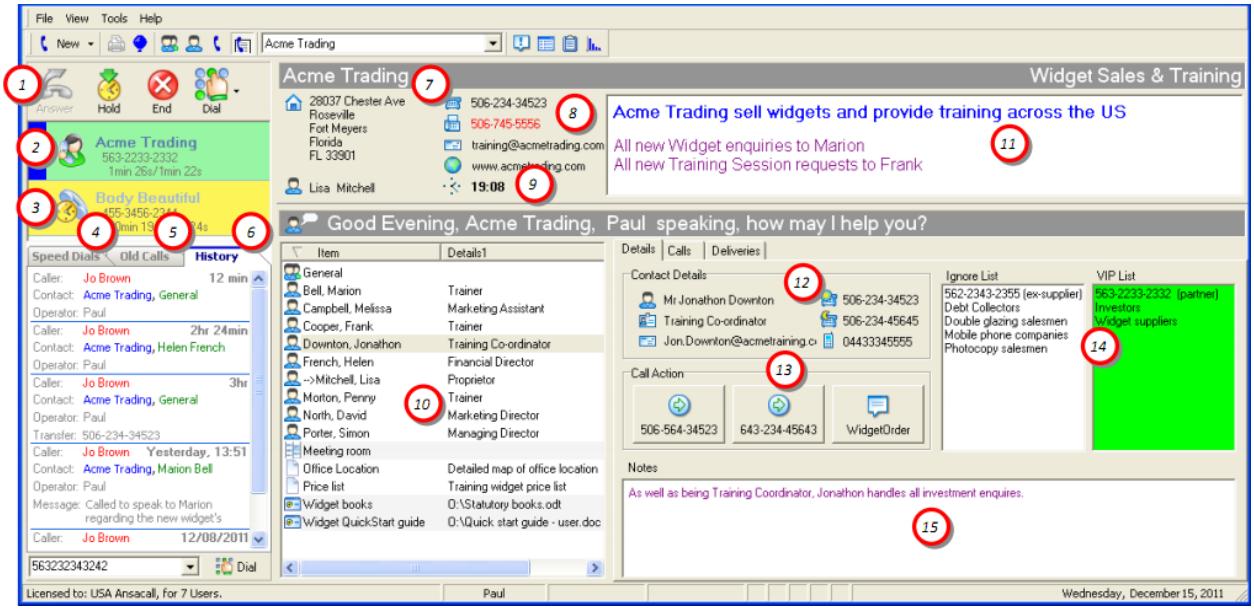
14. Client billing options: as you gain more Clients you will find a single billing scheme will not suffice. Some Clients will be attracted to your service if you offer large volume discounts, while others might want billing for extra services such as out of hours call handling. It is important to know you have a solution that is flexible to handle any billing scheme you wish to offer.

15. Accurate Customer billing: Ease of obtaining the information to generate accurate and detailed Client invoices is critical otherwise this will consume significant time by you or your staff. Your Clients will also want to know exactly how the bill was generated.

16. TAS software? You could start a TAS business with just a phone and pen and paper but as you grow dedicated TAS software will be essential. Dedicated TAS software will ensure your operators answer your customer's calls efficiently and in a professional manner. Ideally the software will automatically deliver messages to your customers in the format your customers require and when they require them (e.g. immediately or as end-of-day summaries).

    The software should be capable of generating the information required for invoicing and reporting purposes. Other useful features might include custom forms to ensure the operator records exactly the information your Client requests. The software should have no restrictions on the number of Clients, number of contacts at each Client company, number of operators, number of calls that can be taken or the number of messages that can be sent. nSolve has designed and developed nCall specifically for the TAS industry and will meet all these requirements and more as standard. This is sometimes referred to as the 'Client' software, particularly when the software is a Client-server designed as nCall is.

nCall TAS Software



1. Full telephone integration (answer, hold, transfer, end call, dial etc.)
2. The active call is displayed in green showing the company name being called, the caller's number, time since the call started ringing and the time spent speaking with the caller
3. A call on hold is shown in yellow
4. Speed Dial to give quick access to commonly used numbers
5. Old Calls displays previous calls handled by this agent
6. History shows if this caller rang before, which company(s) they contacted and any messages taken
7. Clients details are 'popped' into view as call rings
8. Red text indicating private Client details
9. The local time at the Client's office (avoiding mistakes with cross-country/international calls)
10. The contacts for this Client and easy access to other Client related information
11. General notes about the Client to assist the agent
12. Details for the currently selected contact
13. Configurable Call Action buttons allow you to define the call handling preferences. In this case try to transfer to two numbers or fill in the custom form 'Widget Order'
14. List of callers to this contact that the agent should filter or handle with importance
15. General notes about the contact

There are a number of ways of putting together the infrastructure of a TAS, all of which are fully supported by nCall, for example:

1. VoIP solution with hosted telephone system
2. VoIP solution with SIP server
3. TAPI telephone system with SIP trunks
4. TAPI telephone system with ISDN lines

nCall licencing

You require one licence per concurrent operator. We offer rental and purchase licences. With purchase plans, setup, training and support packages. Contact us for our latest prices: https://www.nsolve.com/contact-us/

Examples:

A. A TAS with a single person handling all the calls using our Buzz softphone: 1 nCall licence and 1 Buzz licence are needed.
B. A TAS with 3 operators within the company, each covering a separate shift with no overlap and each having their own dedicated computer with a USB headset (rather than a physical phone at each location). nCall and Buzz are installed on all 3 computers. 1 nCall licence and 3 Buzz softphone licences are required.
C. A TAS with two operators handling calls for different shifts but both working together at the busiest times with each operator having their own physical handsets: Two nCall licences are needed.
D. A medium size TAS with 6 operators:: nCall and Buzz can be installed on all 6 computers, both office and home PCs. Of the 6 operators, say 4 work concurrently during the day, the other 2 operators do half the night time shift each working from home.
   In this case 4 nCall licences are needed - since this is the maximum number of operators using nCall at any one time - and 6 Buzz licences are required.

For pure admin staff who edit and maintain the data in nCall and NEVER need to answer the calls then we offer a reduced price back-office nCall licence with no call handling features (and no Buzz licencing requirement).

FYI if you wish to add another licence at any point, this is simply a case of emailing us and we send you the licence key (and pro-rata it onto your next bill)

Minimum requirements for a 3 operator answering service using nCall and VoIP:

Required:

- 20-30 telephone virtual numbers (depending on number of Clients)
- 3 computers running Windows 7 or above
- 3 licences of nCall
- Server with Windows Server 2012+ (or an ordinary PC using Windows 7+)
- An account with an SMS provider e.g. 24x.com, Twillo
- An email account
- Internet router
- Account with an ISP provider
- 4-6 VoIP lines (SIP trunks) and DDI numbers e.g. Numbergroup
- Telephone system with SIP support OR cloud hosted PBX .e.g FreePBX from Gixr
- 3 x nSolve Buzz softphones (or 3 x Yealink or snom handsets)
- A reliable, high speed internet connection with high-capacity bandwidth
- Reasonable IT skills or support from a 3rd party

Optional

- *Virtual private network (VPN) for remote operators*
- *An email-to-fax provider*
- *An email-to-pager provider*
- *A BCC email account e.g. a private gmail account*
- *nCallOnline Client portal - allowing your Clients to serve themselves*
- *nCall REST API - allowing you to extend nCall's functionality and interface with 3rd party systems*
- *nCall Transfer Monitor - allowing you to bill per minute of patch call time.*

Key Terms:

Virtual Telephone Numbers (DDI / DID)

Virtual telephone numbers are also known as DID (Direct Inward Dialling), DDI (Direct Dial In) numbers. These are provided by your telephone service provider, for you to assign to your customers. As you will be taking calls on behalf of other businesses, you will need at least one dedicated DID per Client. Using a unique DID number for each of your Clients enables your call handling software to 'pop' the correct Client when a call comes in to your service.

Telephone Lines

Analogue Lines:

This is what we typically have in our homes, linked to a domestic telephone. This is not recommended for any TAS as it will reduce the facilities available to you via your telephone system and software as the extra call information is not available.

ISDN Lines (Integrated Services Digital Network):

These are multifunctional digital lines that connect to a telephone system or computer. Each line is called a 'channel' and you can assign several telephone numbers to each channel. Over time, as your business grows, you can add extra lines as required. ISDN lines used to be highly recommended for TAS (as well as any other established business) for the quality of voice, reliability and variety of services, however it is widely acknowledged that the world will fully move over to VoIP within the next decade.

VoIP Lines (Voice-over IP) / SIP Trunks:

Voice-over IP uses the internet to deliver voice communication. Lines are called SIP trunks and like ISDN, a line can handle multiple telephone numbers. However, unlike ISDN a trunk is not

attached to a fixed location and can be used from anywhere with an internet connection. Many SIP trunk providers offer cloud-hosted virtual PBX solutions or you can alternatively route the SIP trunks to your own PBX allowing you finer control of the call management.

Telephone system / server

Mainly used within a business environment, telephone systems (PBX) manage multiple lines and typically provide additional facilities such as call routing, call recording, voicemail etc.

For VoIP solutions, a hosted VoIP solution allows you fully operational setup with minimal hardware. Alternatively you can have the SIP trunks connected to your own PBX (local or cloud based) giving you full call control, recording, routing, reporting etc. Your TAS software will then receive information about the call via an API within the hard/soft phones that handle the calls. VoIP solutions can easily support remote agents without any major technical issues.

For a traditional office bound telephone system to communicate with TAS software it must have a TAPI (telephone application program interface) driver. To get the most out of your chosen TAS software, ensure you choose a telephone system supplier that can provide a compatible TAPI driver. This is similar to a printer driver being required for a computer to efficiently communicate with a printer.

Telephone handset / Softphone

You will need one telephone handset or softphone per operator as a minimum. A softphone is a piece of software that enables your PC or laptop to act as your telephone. An example softphone is nCall's Buzz that supports many VoIP Providers, SIP Servers and also SIP extensions on traditional phone systems.

Operator (Client) computer

Each operator will need to have their own Windows PC or laptop if you wish to make use of

dedicated TAS software. Whilst software such as nCall can run on almost any modern PC, you must check the system requirements of your chosen provider.

For example, nCall's system requirements are:

- Operating System: Windows 7, Windows 8.1, Windows 10, Windows 11 (Windows 10 or greater recommended)
- Hard Drive Space: 100MB
- RAM: 2MB+ (4GB+ recommended)

Data (server) computer

Within a TAS there is a lot of data to manage and distribute. This is the role of a specific computer called a 'server' running a number of specialised applications. Again, for example here are nCall's server requirements:

- Operating System: Windows 7, Windows 8.1, Windows 10, Windows 11, Server 2012, 2016, 2019
- Hard drive space: 1GB+
- RAM: 4GB+ (16GB+ recommended)
- Can be located in the cloud (on a MS-Windows VPS) or in your office

Network router / VPN

A router will connect you and your operators to the internet. Any standard network router can be used, however we recommend you choose a business router that provides advanced features, stability and security, such as traffic management and remote network access (VPN – virtual private network).

Popping

The action of bringing Clients data into view when a new call occurs.

We hope you have found this guide useful, and will continue on your journey to starting a Telephone Answering Service – we're sure it will be a worthwhile venture!

If you have any questions about this guide, or using nCall as your dedicated software solution, please do get in touch.

We look forward to hearing from you!

Best wishes
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