Establish and maintain client user liaison

Once the critical business functions have been identified and analysed in a business and an appropriate new system has been implemented you will need to establish and maintain a liaison with the client. This will enable you to accurately assess the required support needs for the new system. To do this you will need to develop support procedures and assign suitably skilled people to the various support roles.

This unit *(ICAS5102B)* will give you the knowledge and skills to analyse business IT systems and identify and establish appropriate support systems.

The topics for this unit are as follows:

Determine support areas

In this topic you will learn how to identify and record information technology used in the organisation. You will also learn how to identify stakeholders of the system, understand the organisational structure, culture and politics in relation to support requirements in order to be able to determine what level of support is required by each organisational unit.

Develop support procedures

In this topic you will learn how to verify support needs, establish support procedures and write a service level agreement to meet customer expectations.

Assign support personnel

In this topic you will identify IT skills required to assist each organisational unit with support activities and assign personnel according to human resource processes. You will also learn how to provide support using agreed procedures and obtain regular feedback on allocated support.

Determine support areas

Overview

This resource will help you to determine support areas within an information technology environment.

In this topic you will learn how to:

- identify information technology used in a business

- identify stakeholders of the system
- examine organisational structure, culture and politics in relation to support requirements
- determine what level of support is required by each organisational unit

Identify information technology

There are many definitions of Information Technology which include processing, storing and acquiring information using technological systems.

Think of your local bank branch. On most desks, there are one or more desktop computers. Each computer probably connects to a network. The network consists of devices such as switches, routers, and servers, most of which have some sort of user-administered operating system. The desktop PC will also have software applications installed to perform the various tasks carried out by the business.

All of this technology requires support for the following reasons:

1. Technology does not always work as it should. Hardware can fail and software can have bugs.
2. The users of technology do not always know how to perform tasks using the available technology.
3. The needs of the business may change, and so will their need for and use of technology.

Typically, the technology used by business falls into two groups:

- **Hardware:** desktop computers, laptop computers, mainframe computers, printers, scanners, digital photography devices, routers, switches, hubs, external drives, storage media (eg. CDs, USB Flash Memory Sticks, etc.)
- **Software:** office software used for word processing, spread sheeting, presentations, database management systems, network and router operating systems, and firmware contained in small devices such as cameras.

Example: ABC stationary

> ABC Stationary is located in a modern shopping mall on the west side of the city. ABC uses a modern cash register that links sales to its computerised inventory accounting system (the software is called 'ExpressBooks'). They also have an EFTPOS terminal that is leased from the bank. Their internet communication is done by an ADSL connection through an ADSL combination router switch. They have one workstation at the register and two in the back office. All computers have internet access. The machines are networked using Static IP addresses on an Ethernet LAN. All networking is peer-to-peer and all the workstations run the XT operating system. They also have a printer connected to one of the workstations, a scanner, a digital camera and a fax machine. The telephone system is a commander system small exchange which is leased from UW Telephony.

Identify stakeholders

This section deals with the subject of stakeholders. You will learn what a stakeholder is, how to identify stakeholders in the system you are going to be supporting, and the perils of ignoring or failing to identify important stakeholders.

What is a stakeholder?

A **stakeholder** is a person or organisation that has an interest in the system or is impacted by the system.

How do you identify stakeholders?

As support is often negotiated towards the end of a project, you will have been working and communicating with important stakeholders throughout the project. The most common stakeholder is called the **sponsor**. The sponsor is the person or organisation which

- is the major force behind the project
- provides the funds for the project
- has the authority to make decisions on support issues.

The last point is the most important one. You must find out who has the authority to sign contracts or agreements and make decisions that will apply to the organisation. This may be a person (usually a manager or director) or might be a committee (eg. executive management committee or council).

Although this person or committee may have ultimate authority regarding the establishment and maintenance of client support arrangements, you may also be required to deal with others in the organisation regarding these issues. This is especially true in our modern business environment where people expect to be consulted over important business decisions which affect them.

The following are some simple methods for finding those with whom you will consult:

- Meet with the project sponsor(s) and brainstorm; during a brainstorming session, everybody puts in their ideas without evaluating them. This could help you find important stakeholders quickly and easily.
- Talk to people in the organisation. Find out who has an interest in the system and who is affected by it. Who are the main users? Who will be receiving the support? Who will be providing the support?

The following link takes you to a spreadsheet tool that helps you identify and analyse system stakeholders:

- Send an email or letter or put an ad in the company newsletter. You could send the newsletter out to everybody electronically using the ‘everyone’ list. The ‘everyone’ email address sends that email to everybody on the list. This is extremely helpful when consulting regarding the set-up of a support agreement, as most employees have access to email.

Perils of not identifying stakeholders

If you don’t identify your stakeholders, you may find

- that they will find you and insist on having a say in the project or support agreement
- that people will resent the support agreement and not back it

- that the support agreement you formulate does not identify all of the support requirements, making it deficient and faulty.

Identify organisational structure

An organisational structure is usually a diagram showing the reporting and responsibility relationships between staff of an organisation. As mentioned, most are shown in a graphical form.

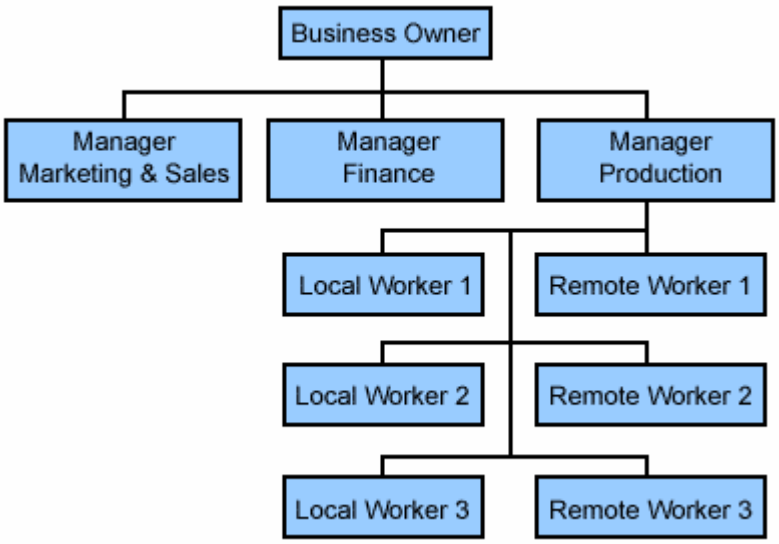

Image: Organisational chart. From top down: Business owner. Business owner subordinates: manager marketing and sales, manager finance, manager production. Manager production subordinates: local worker 1, remote worker 1, local worker 2, remote worker 2, local worker 2, remote worker 2.

Figure 1: Organisational chart

If you are in a large organisation, you can often find this document on the company's intranet or by asking the Human Resources department.

If you are in a small organisation, the organisational structure will often be quite simple. It will often consist of an owner-manager-workers or something similar. In this type of business, there is often no documented organisational structure.

Organisational culture and politics – what is it? Why identify it?

Organisational culture is the *beliefs* and *values* that exist - whether formally or informally - in an organisation. Put plainly, it is 'The way we do things around here.'

Organisational politics is closely related to culture. *Culture* is the values and beliefs; *politics* is the things that happen - the informal and formal policies, procedures and working relationships.

'Office' and 'Organisational' Politics really are the same thing!

Formal politics is defined by the organisation's official policies, procedures and structure. This is easily understood from the organisation's documents.

Informal politics tends to be undefined and undocumented. It consists of a complex interaction of relationships between people in the organisation. At times, the informal politics is stronger than the official version.

How can politics work for you, and why are politics and culture important in establishing and maintaining a support system for business Information Technology?

Most support agreements are based on the official version (i.e. the formal organisational structure). This is because informal politics are generally regarded as undesirable. However, this can fail if we are not mindful of informal politics. If harnessed, informal politics can be a help in providing support.

Example: Politics

> Bill was studying an Information Technology course and was excellent at solving computer problems. He was also very motivated and wanted to help in the IT function of his organisation as much as possible. However, Tom was the employee who was appointed to look after IT support problems. People liked Bill more than Tom and tended to go to Bill first with their problems. When a support agreement was implemented at their organisation, Bill was named as the 'first level support officer'. His job description was adapted to incorporate fixing simple computer problems. More complex problems were to be passed onto Tom. This really just made going to Bill with computer problems official. The agreement made wise use of existing organisational politics.

Determine level of support required

Why is support important?

As you can see from the diagram, the visible part of customer service (the 'front line' delivery) is only the tip of the iceberg. It is supported by many things such as standards, systems, quality issues, management support, etc. This is an important concept to grasp when approaching the set up of a client support agreement. You should understand that by supporting IT systems that run in the background, you are, in fact, helping make the business more efficient and competitive. Efficient support of those parts of the iceberg that nobody sees results in better front line service to customers.

Image: The customer service iceberg: visible third of customer service: frontline staff and customer contact. Unseen two-thirds of customer service: systems, procedures, standards, quality issues, internal customer care, management support, training, organisations philosophy and vision.

Figure 2: The customer service iceberg Source: Diane Bailey Associates

Levels of support

There are a number of ways to view levels of support. When discussing level of support, you may mean the type of support that is to be provided. For example, we could offer the following levels (or types) of support:

1. **Informal peer support** – workers help their co-workers with problems. The organisation can provide training to key workers so that they are able to be called upon for informal support.
2. **User support combined with other responsibilities** – a dual role of IT support and other responsibilities.
3. **User support as a separate position or group** – setting up a dedicated position such as 'IT Systems support officer' or a unit such as 'Technology Services Group'.
4. **Help desk support** – an internal or external support function that provides a broad range of support for business IT systems.
5. **Totally outsourced user support** – an external provider provides all necessary support.

Example: help desk support levels

If your support is to include a help desk that is staffed, the following structure is common:

- **Level 1 help desk** – takes the calls, logs details, may solve simple problems or give general advice for common problems (eg. advising on network availability)

- **Level 2 help desk** – technicians fix the problem or provide advice on how to fix the problem
- **Level 3 help desk** – highly qualified people provide customisation or bug fixes or software or web-based systems.

By level of support you could also mean a tiered system of problem management, based on the urgency of a problem. For example,

- **gold** – problem resolved within one hour, onsite
- **silver** – problem resolved within one working day
- **bronze** – problem resolved within three working days.

Finally, when discussing levels of support, we may also mean the exact support functions that are going to be put in place.

The following is a list of possible support functions:

1. Help desk
2. Technical troubleshooting
3. Training in the use of software
4. Preparation and maintenance of documentation
5. Installation and configuration of hardware and/or software
6. Maintenance of hardware, data, etc. (eg. backups, recovery)
7. Customisation of software
8. Preparation of new web content (eg. text, graphics)

Develop support procedures

You should already know about determining support areas. This resource will help you to develop support procedures for a new system within an information technology environment.

In this topic you will learn how to:

- Contact organisational units, as required, to verify support needs
- Establish procedures for providing required support, including method of contact, frequency of meetings and reports
- Document agreed procedure (service level agreement)

Verify support needs

In order to verify support needs, you should contact the organisation and check that you have all the relevant documentation. This would include a list of all the hardware and software that needs support, as well as input from key stakeholders.

Verification is a quality assurance technique. You will not only do it before you draft the agreement, but after as well. If you are thorough with your consultation, you will be less likely to miss things.

A support agreement that has missing key elements would be generally considered unworkable in today's present IT environment.

Tip: Sometimes it is difficult to document all the necessary components within a system (especially if you are new to a workplace or you are a contractor hired to do a specific job). Attempt to understand and view the system from a few different aspects.

Often IT staff state that a system or a format may be a certain type (eg when designing for the web, a manager might say all resolutions are 800 x 600 and there is no need to design for any other types). Try and check with a wide variety of users and see what they have. The time spent doing this may save a lot of rework or support later!

Be thorough with your investigations and ensure you have all the resources and parameters for your support project.

Customer expectations

When providing IT services, customer expectations can be a major challenge and often difficult to define - particularly in the IT industry where change is constant.

Perceptions of performance can differ from customer to service provider. If customers believe that your service is below standard or that you are unresponsive, then you are - regardless of your own assessment.

Customer satisfaction levels can fluctuate, often depending on customer expectations or your performance in providing service. It is important that you, as an IT service provider, monitor both satisfaction and performance carefully. If satisfaction is increasing, you need to work out what has changed in the way you provide service. If it is decreasing, go back to customer expectations and look at how well you meet them. Changes in your business environment and that of the customers also need to be closely observed.

Source: adapted from http://www.nkarten.com/mce.html

Establish procedures

What sort of procedures need to be established?

Incident management (for help desk) is actually one of the best ways of answering questions and providing a professional support service.

Typical incident management involves the following steps:

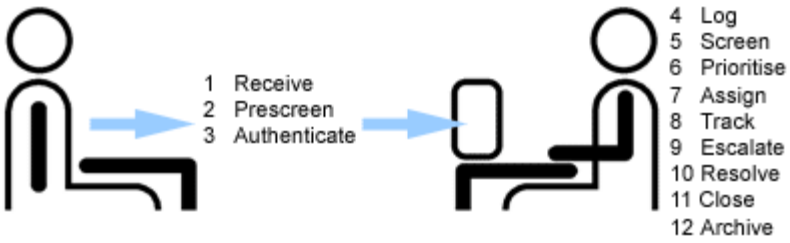

Image: Typical Incident management procedure: 1 receive, 2 prescreen, 3 authenticate, 4 log, 5 screen, 6 prioritise, 7 assign, 8 track, 9 escalate, 10 resolve, 11 close, 12 archive.

Figure 1: Typical incident management

In the diagram above, the user contacts the help desk or other support position. When the help desk receives the call, the first step is to authenticate the call (i.e. that the caller is entitle to support and that the problem is legitimate). The help desk should also give advice about problems that are currently affecting all users (such as server outages).

Incident management or help desk software is used to log a call. The call is then screened to determine priority and severity. Problems such as interruptions to a critical system (eg a flight check-in system at an airport) need to be dealt with swiftly.

Finally, the incident is assigned to the appropriate person to deal with that particular problem. Support staff can determine who is working on a problem, what action they have taken, and whether or not they have resolved it through the use of tracking software.

Procedures – questions to be answered

Developing procedures for each of the incident management functions involves answering the following questions:

- What will be done? (the scope of the procedure)
- Who will do it?
- How will it be done? (eg onsite, over the telephone, etc.)
- How long will it take?

In addition, we need to know the answers to the following in order to establish the overall support procedures:

1. What is the primary method of contact? (eg phone, email, fax, web)
2. When - and by whom - will the procedures be reviewed?
3. What performance targets are set by the procedures? (eg respond to priority one requests within one hour)
4. What reports should be generated by the support function?
5. How will the support function be reviewed and improved?

When you have answered all of these questions, you have basically written your procedures. All that is left to do is to put them into a standard format. The following is suggested:

- Title of procedure:
  - Reception of support calls
- Scope of procedure:
  - This procedure covers the initial reception, screening and logging of help desk calls at ABACUS Computer Support Services Pty Ltd.
- Procedure details:
  - Contact with Help Desk: ACSS shall staff a help desk that enables supported clients to contact it by phone or email.
  - Phone contact: Help Desk staff shall establish the legitimacy of the caller and the potential incident. If legitimate, then the call shall be logged on the Incident Management System.
  - Email contact: Help Desk shall acknowledge email requests, then screen and log in the same manner as phone requests.
- Performance indicators and targets:
  - Help Desk staff should answer the telephone within three rings.
  - Help Desk staff should acknowledge email requests on the same working day they were sent.
- Review of procedure:
  - This procedure shall be reviewed every six months.
  - Date of approval and name of the person responsible for the procedure.

These documented procedures can then be used as part of the agreement with your client. An agreement has traditionally been called a contract. However, as delivering IT support is a service and a business expense that managers often want to monitor and measure, it has become popular to use a service level agreement to document the type and level of support, the procedures and the targets that must be used and achieved.

Write the service level agreement

A **service level agreement** (**SLA**) is essentially a contract that binds a service provider to giving a certain level of service. An SLA has the same legal standing as a contract, in that it legally binds two parties.

An SLA is usually written; however, two organisations could agree verbally about the level of service to be provided or could exchange emails. Verbal SLAs or those agreed upon via email are harder to enforce, and it is easier for misunderstandings to occur using these more informal means.

Why use a written SLA?

- **To clarify expectations:** The SLA describes in detail the terms of service and the responsibilities of the customer and service provider.

- **To incorporate indicators of quality:** This is done by specifying performance indicators and performance targets. For example, a performance indicator could be the amount of time taken to acknowledge an emailed help request. The performance target in this case could be that all emailed requests are to be acknowledged within one working day of reception; this enables managers to quantify the quality of the service by measuring how much the service varies from its performance targets.
- **To assist communication and prevent disputes:** Written documents can still be disputed, but less than verbal agreements.

What does an SLA contain?

The broad structure of an SLA contains

- the name of the service provider, customers, etc.
- the objectives of the service
- the process of requesting service (eg method of contact, forms to be used, etc.)
- the service provider's responsibilities
- the customer's responsibilities
- service measurements and targets (discussed earlier)
- maintenance and review of the agreement (includes how often the agreement will be reviewed and the date on which the agreement will cease (for example, it may only have a life of one year if it is not an ongoing agreement))
- signatures of the customer and service provider and the date on which the agreement was signed.

In general, an SLA should consist of the following:

- a brief general statement summarizing the services to be provided
- definitions of the two parties to the agreement – who is providing the services to whom
- the duration of the agreement
- the arrangements for monitoring and review
- a procedure for settling disputes
- what resources, information or other help the user may have to provide
- contact points for both parties
- the basis of any charges – what has to be paid and how this is to be paid.

Specifying the services

Specifying the services to be provided puts flesh on the bones of the SLA. Specifications for all types of support services could set out the following:

- the precise nature of each function or service provided

- the volumes and quality to be achieved for each of these services
- whether optional services are on offer – and, if so, what they are and what they cost
- what procedure should be followed if it becomes necessary to vary the agreement or specification
- where applicable, the response times to be achieved by the provider when receiving requests for assistance
- sanctions for non-supply or poor quality.

SLA examples

Assign support personnel

You should already know about determining support areas and developing support procedures. This resource will help you to assign support personnel within an information technology environment.

In this topic you will learn how to:

- identify IT skills to assist each organisational unit with support activities
- assign personnel according to human resource processes
- verify availability of selected personnel
- provide support using agreed procedures
- obtain feedback from the appropriate person on a regular basis.

Identify IT skills

The skills that may be required will vary greatly depending on the technology to be supported.

However, we can classify skills into two categories:

- **Technical skills** – knowledge of particular hardware (build shells) and software (experience in Novell, Linux, MS Office or Dreamweaver). This could include other technical skills such as the ability to write technical documentation, do programming and analyse databases.
- **'Soft' skills** – communication skills (eg. being a clear communicator, being customer focused); time management skills; problem solving skills; and the ability to learn new procedures quickly and ability to work in teams.

In order to determine the skills you require, you should examine the service level agreement (or contract). The SLA will tell you which particular hardware and software needs to be supported.

Remember: it is very rare these days that individuals are experts in all areas of IT. The sub-areas have become so specialised that most IT professionals in the last decade have selected a few key areas to train in (eg databases, multimedia or networks etc).

In addition, the organisation must consider which skills mix is necessary. If the job involves explaining or demonstrating complex IT concepts to prospective business clients, then they must be able to communicate and motivate effectively. In the past, some businesses have left this task to IT developers (who may be great programmers); however, if they also have the skills to 'sell' the product and win over the client, then the project will even make it to first base.

In some areas of the IT industry, soft skills have been undervalued. Remember: communication and explanation of systems is a vital component of the project, along with the technical aspects!

Find the right person

Having listed the technical and 'soft' skills required to deliver the support, you must now find the person or people who have these skills.

There are several alternatives:

1. The person you need already works in the organisation either in an IT role or a non IT role. You may be able to negotiate to obtain that person for the support team.
2. The person you need does not yet work in your organisation. If you find yourself in this situation, you have several options. For example, you could
    - advertise for a new employee and go through the interview and selection process
    - engage an employment agency to find the right person for you (eg http://www.seek.com.au/
3. The skills you require are too diverse, and it is therefore unlikely that any one person has all of the required skills. If you have this situation you could
    - employ more than one person
    - outsource part or all of the support function.

Again, it is vital to realise that the interview process is often a poor way to select the best applicant. Interviews generally favour applicants that are confident, can verbally express themselves, know the jargon and sell their 'assets'.

If at all possible, attempt to ask for samples of their work or employ them for a short period to assess them. Generally, one can gain a good idea of someone's skill levels within a few days.

If this is impossible, then attempt to look at short-term contracts before offering full-time employment. This also works both ways, as the employee is able to gain an idea of the work environment and can assess whether it suits them.

Technical skills

In the IT industry, technical knowledge, experience and hands-on skill is essential in most areas. These days, most staff specialise in particular fields:

- security
- web (eg web design, flash, multimedia)
- desktops

- operating systems (eg Windows/Linux)
- networks (eg Novell)
- databases (eg Oracle)
- project management
- business analysis
- software development/programming.

These areas are not always distinct areas of the industry. Many IT professionals' skills are broad and encompass many of the above areas. However, it should be noted that few have comprehensive experience in all.

It is imperative that before you hire your 'guru', you must a have a reasonable idea of what is expected and be able to measure this in their initial interview and their subsequent work performance. This is easier said than done.

Many projects have not been completed on time as a result of poor selection of staff and unrealistic management expectations. If you don't know about programming then how are you going to be able to judge pay rates, timeframes, coding quality etc.?

In truth, as some software changes occur every 12-24 months, your new 'guru' may be in fact learning along the way, just as much as you are!

Verify availability

The person or people you decide you want on your support team may or may not be available.

Normally, when you offer somebody a position of employment, they must tell you if they accept that offer or if they decline the offer.

The person you want may be available but there may be complications, such as the following:

- they may not be available full-time
- they may not be available to work at the times your customer needs support
- they may not be available to start immediately
- they may be in the process of attending numerous interviews and they could play one employee against each other.

In these cases, you may decide to offer the position to somebody else or negotiate with the person you have chosen.

Also, as many services are now available twenty four hours a day and technology is changing to make telecommuting easier, it may be worthwhile discussing other possibilities such as part-time, late or early starts, telecommuting, etc.

Remember: a satisfied worker often proves to be a productive worker, and if your objectives are being met, sometimes some flexibility is a useful strategy. This may not work in all industries, but it certainly has merit in the information technology industry.

Provide support

Now that you have the support agreement and suitably skilled staff, you are ready to start providing the support. The support will be provided in accordance with the service level agreement.

You will not only provide the customer with support, but you will also do some reporting. This is covered under the next heading 'Obtaining feedback'.

You will probably find that there will be some tension between you and the customer regarding the provision of the service.

The most common problem is a lack of clarity regarding what is supported and what is not or the customer's expectations regarding the support.

Generally you should avoid sticking to the letter of the law by merely quoting the agreement and refusing to go beyond it. Remember: the user just wants their problem fixed!

However, often you may have to inform your customers on the boundaries of the agreement.

The best way to do this is proactively. Possibly advertise the available support (eg. posters, by email or internet/intranet). The advertisement could contain the parameters of service contained in the agreement.

Good customer service skills come into play here too. If your customers are asking for support that is beyond the scope of the agreement, you could suggest where they could find that help and even help them navigate to an alternate source of support instead of just saying: 'It's beyond our SLA, sorry I can't help you.'

Obtain feedback

Feedback is a necessary part of the delivery of the support function. It is information that you receive from the following people regarding the delivery of the support service:

- your support team
- your customer
- any other appropriate person (eg. hardware or software vendors).

Why?

Why do we need feedback on delivery of support?

- to learn of problems occurring in the delivery of the service. This can help you be proactive and head-off conflicts before they occur.
- to improve your service to the client by finding out where the problems are occurring and fixing them. These problems may be recurrent problems in the system you are supporting or problems with the delivery of the support.

How?

Feedback may take the following forms:

- **reports** – as detailed in the SLA. These may include the number of support issues dealt with over a fixed period of time, the time taken to resolve problems and any outstanding support issues.
- **meetings** – may be detailed in the SLA, but in any case, it is a good idea to meet with your support team and your customer to discuss the support service you are providing. This can be an informal meeting over coffee or a formal meeting with an agenda.
- **impromptu feedback** – you should always be open to receive feedback from any source at any time, especially if it means that – ultimately - you can improve the service you deliver.

Many professionals believe that comments received back in forms or evaluation sheets are not always completely honest, as many do not like criticising via writing. Speaking to a cross-section of users in an open and frank way is a much better way of obtaining accurate, substantive feedback.

Here is an example:

ETSA Utilities, South Australia's electricity distributor, provide online reports detailing how they are *performing against the performance indicators* they have set for themselves in their customer charter. Go to http://www.etsautilities.com.au/default.jsp?xcid=96

This feedback may come

- by phone call
- by email
- by text message
- by fax
- verbally
- by web form
- or any other process you have set up for contact between you, your customer and your team.