



Business Continuity for your Voice Services

White Paper

Abstract

This paper outlines the issues involved in creating a communications business continuity plan to protect the telephony services of businesses.

The profile attached to business continuity in boardrooms across the UK has increased in recent times. This can be attributed to a combination of media coverage of high-profile disasters, the increased need for legislative compliance and a desire to seize a competitive advantage. Also, technological developments mean that today's solutions are now flexible and cost effective enough to appeal to a wider target market.

This paper investigates customer requirements with regard to business continuity. In particular, it looks at the benefits of using personal numbering, call flow management and hosted services in a business continuity plan.

Introduction

Business continuity and disaster recovery are often confused, despite having very different underlying philosophies. Indeed, 47% of companies don't currently differentiate between the two (source: PMP 2006).

Business continuity seeks to *avoid* commercial set-backs, whilst disaster recovery focuses on mitigating damage *once an incident has actually occurred*.

Whilst many companies have, for some time, acknowledged the need to have effective disaster recovery plans - to protect mission critical appliances and data - business continuity programmes have, until recently, been lower on the corporate agenda. This seems strange, because the costs and consequences of short term loss of telephony are certainly significant and the likelihood of needing to implement a business continuity plan is much higher than would be the case for disaster recovery.

Loss of contact with customers, suppliers, partners, and between co-workers, can have dire consequences for any organisation. These range from financial problems and customer churn, to damaged brand reputation and expensive, protracted litigation.

As analysts estimate that up to 80% of incoming traffic to organisations is still voice communication, any factors that affect a company's ability to use the telephone to carry out its day-to-day business must be taken seriously. The impact of loss of service is starkly illustrated by combining the following independent statistics:

- 13% of companies that suffered a loss of voice service in the last 12 months lost that service for 'a number of days'¹
- 60% of companies that experienced a loss of normal telecoms for a period of 10 days ceased trading within a year.²

Whilst loss of carrier service is relatively uncommon, the factors that *do* affect telephony service provision range from global pandemics such as forecast for bird flu, to localised incidents such as the Boscastle flood disaster. More often than not, it is the mundane events, such as local fires and leaks, that have a detrimental effect on telephony service.

PMP research also reveals that 74% of companies that believe they have a business continuity plan in place simply re-route incoming calls to an alternative office. PMP also outlines that severe weather and problems with transport systems combine to represent some 90% of all incidents affecting company operations. In these circumstances, a significant number of commuters would find it difficult to reach an office of any description, irrespective of location and communications with customer and suppliers would suffer. The reliance of an alternative office appears to be a less than complete solution.

It would appear, therefore, that despite being undeniably important, communications business continuity has not traditionally been treated with the gravitas it deserves. 27% of UK companies

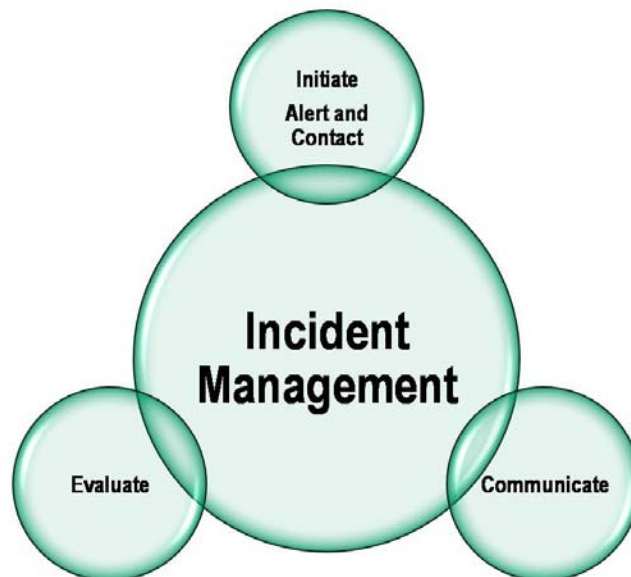
¹ PMP, 2006

² Henley Management Institute 2006

have no procedures in place to ensure continuity of service³. Of the companies that have addressed the situation, the majority appear not to have in place a solution that can be regarded as truly effective.

1.1 Business Continuity Requirements

Organisations share the same requirements of a business continuity solution – to ensure that voice traffic is not disrupted and avoid the associated pitfalls: revenue erosion, customer migration and brand damage. The solution would, typically, support three key phases: Initiate, Communicate and Evaluate. The three phases fall into the broader banner of 'Incident Management'.



Initiate – This would involve a means of invoking the business continuity plan in the event of an incident and informing staff and key personnel, such as the incident management team. This is best achieved through a number of means to ALERT personnel and ensure CONTACT is made to confirm safety and meet employer's duty of care requirements. This could include text messages via SMS, automatic outcall to nominated phone numbers with a pre-recorded message and would need to cover issues such as identifying absentees (sick and annual leave) and third party employees (contractors and visitors). It would include the ability to set up on-the-fly Business Continuity Team members to communicate, initially and ongoing, to ensure the incident is being managed effectively and to keep people informed. Services such as SMS, voice messaging, wide area call distribution and automatically initiated periodic audio conferencing can offer significant advantages here.

³ PMP 2006

Communicate – Once all staff are alerted and the business is confident contact is in place, the next key issue is to ensure that communications between staff, customers and suppliers are handled smoothly and professionally in order to maintain as near to ‘business-as-usual’ operations as possible. For organisations using personal numbering, staff will be able to ‘pull’ calls to their current work location. Auto attendant and voice activated directory facilities might be deployed to replace unavailable operator services and proactively inform and update employees and customers. Call flow redirection to facilitate telephony continuity is a part of this phase of the incident management.

Evaluate – The third phase is post-event and comes into play once the incident has been resolved and the business is ready to return to normal operation. There is a need to advise employees, customers and suppliers of resolution. Call routing needs to be reinstated as do the company standard interfaces and team working profiles. Once back to normal, a review of the incident management, measuring and reporting on achieved response times, evaluating performance and highlighting areas for improvement, is needed. This serves both to protect the company from possible criticism by ensuring that all duty-of-care expectations were achieved and best efforts to ensure business as usual were made, and to update and modify, if needed, the business impact analysis and business continuity plan.

Throughout the three phases of the incident, key considerations will be confidentiality/security of personnel, communications (in its broadest sense), integrity and availability.

1.2 Considerations for a Voice Service Business Continuity Solution

A competitive advantage

If business continuity implementation can help to deliver an edge, then it becomes an attractive proposition. Any businesses wanting to deliver services to a BS7799 compliant company must now be able to demonstrate their business continuity credentials. Similarly, in a tender scenario, being able to prove an ability to deliver continuity may be a crucial differentiator.

Appropriate application of technology

Whilst companies seek to provide their customers with ‘good old fashioned’ customer service, the underlying technology should certainly not be antiquated. Staff should be able to access the company voice network from remote locations, preferably via a variety of devices such as a home landline, a mobile and an IP phone.

Fit for purpose and future proof

A business continuity solution should be flexible enough to adapt to changing working practices and business requirements, but also robust and resilient enough to deliver a competitive edge.

Economically viable

New solutions should also, ideally, integrate with legacy equipment. This allows a clear return on investment (ROI) case to be built, tailored to individual customer requirements.

The nature of a business can have an effect upon the solution it adopts. For instance, what can be easily implemented within a small management consultancy might be totally unsuitable for a large contact centre. Similarly, the greater the number of offices a company has and the more mobile or distributed their employee base, the more detailed the solution will be. It could be based around personal numbering with an existing PBX system. Whereas, the small and mid size business is more able to move entirely to a hosted solution with inbuilt telephony continuity advantages.

Customer service centric

Maintaining customer contact is vital for practically all organisations – if inbound calls are not answered, then customers will simply take their business elsewhere. Therefore, the demand for business continuity provision is significant, as born out by the following PMP research:

Whilst 63% of companies (ranging in turnover from £5m to £10b) acknowledge that losing voice communications for a period of time would have a 'great effect' upon their business, 27% currently have no plans in place to address the danger. 23% are planning to implement business continuity solutions in the near future. Of those organisations that already have provision, 37% are of the opinion that their existing solutions are inadequate.

The need for business continuity provision, therefore, appears to span organisations of all sizes within both the public and private sectors, with widely varying operational models. The position of the key decision maker for a business continuity solution also varies widely between respective companies. This would generally be a board level 'champion' who understands how the business can benefit, but who could hold any of the following positions: CIO, IT manager, operational head, finance director, business continuity manager, disaster recovery manager, or data centre manager.

Essential steps in creating a business continuity strategy

- Step 1 – Business Impact Analysis

Organisations can determine their vulnerability to any service disruption by conducting a Business Impact Analysis (BIA). This process encompasses more than just telephony; it will help to identify critical business functions such as computer/back office operations, data, communications and utilities. Undertaking a BIA will also help to identify risk implications, such as lost sales, potential fines, lawsuits and erosion of market share.

- Step 2 – Continuity Planning

The next step is to use the information gathered in the BIA to construct the continuity plan itself. Important factors for consideration when planning voice continuity are: call frequency, volume, type and priority. Furthermore, organisations should be able to determine how calls will be deployed and handled in the event of any loss of communication capability.

Many organisations perceive mobile phones (personal and work issued) as the bedrock of their continuity planning. This is not without difficulties, however, because continuity planning needs to incorporate procedures for how calls are to be diverted to mobiles, and how a voicemail service can be used to catch missed calls. Issues surround telephony escalation procedures for unanswered calls and voicemail storage, collection and forwarding. This is because these

commercial features are not always replicated in standard personal mobiles. Mobile phones certainly have a part to play in business continuity, but should not be regarded as a panacea.

- Step 3 – Testing and Adaptation

Any business continuity plan should be regularly tested and updated because organisations and their operating environments change over time. The four broad steps of a business continuity test are: event creation, participant notification, plan enactment and test evaluation.

Like a regular fire drill, some companies run these tests at scheduled times or within a 'live' business environment. The objective being to test both the effectiveness of the business continuity infrastructure and the performance of participating team members. By measuring key deliverables, such as downtime and missed calls, an organisation will be able to identify any problems with their plan and implement improvements accordingly.

PMP research indicates that organisations are not always as stringent in their testing procedures as they should ideally be - 47% of companies only test their voice continuity procedures annually and 16% never test them at all. A practical way around this problem is to incorporate business continuity practices into an organisation's day-to-day processes. For example, if a company uses a solution that allows calls to be transferred to another location, such as a mobile or a home phone, at the request of users, then testing is done as part of normal working practice.

Solutions

The two most common facilities put in place by companies looking to provide continuity during loss of voice communication are re-routing calls to other offices (74%) and re-routing calls to personal mobiles or employees' home phones (61%)⁴. We've already discussed the potential problems with each of these approaches. Several alternatives exist, however, including personal numbering, hosted services and IVRs that can be used, either individually or combined, to form more robust, flexible and efficient business continuity solutions. The three most successful are addressed here.

a) Personal Numbering

Personal numbering allows a user to pull calls to any voice enabled device: office, mobile, home, or even satellite phones. The technology ensures missed calls are captured within a centralised personal mailbox. Voicemails can then be accessed directly – from any telephone, by email as voice attachments, retrieved over the net, or even forwarded on to colleagues.

In scenarios when key staff cannot get to the workplace (through sickness, transport strikes, heavy snowfall, etc), they can dial into the system and redirect calls to either their home number, or, if they are stuck in traffic for instance, their mobile. A centralised unified messaging centre allows geographically disparate staff to access missed voicemails.

In a more severe scenario - for instance, where a security alert has forced the evacuation of the primary business premises - personal numbering can prove highly effective. Having a 'portable' number means that staff can be contacted quickly, irrespective of their whereabouts. Another telephony capability to enable a smooth handling of the situation is an instant conferencing service via any handset; this can help key staff implement continuity plans. All staff can be

⁴ PMP 2006

notified of the evacuation via an automated company-wide SMS to all mobiles, whether work-issued or personal. Inbound calls that would normally go through to desk phones in the evacuated office can be easily re-routed to alternative phone numbers, including mobiles, ensuring that the customer experiences minimal disruption and that a high degree of professionalism is retained.

b) Hosted Services

Until recently, companies wishing to safeguard their voice continuity would have needed to invest in additional hardware. It would be designed to work with the signalling on their PBXs and link to the mobile and home phones of their employees. This invariably required sizeable capital expenditure, with more equipment needing to be deployed within all of their office premises.

With the advent of hosted services, all requisite hardware is located away from a client's premises and is owned and managed by the supplier, rather than by the customer.

There are several significant advantages to this approach. Potential cost savings, both at the outset and in terms of ongoing call and maintenance charges are significant. There is no need to house or maintain additional customer premise equipment (CPE), or to employ or retrain specialist staff. Hosted solutions can replicate the functionality of traditional 'on-site' PBXs, by delivering intelligent numbering using distributed call processing servers located in secure data centres and a mix of land lines, mobiles and WiFi phones. The result is an extremely robust and flexible system that provides a fixed cost for telephony and can scale as the business grows.

With hosted services, business continuity is provided as an ongoing service which ensures disruption to the main premises does not disrupt communications for key personnel or key business lines. Used in this manner – as part of a business's normal working processes – the hosted service provides high levels of continuity, without incurring significant cost. So, as well as being relatively inexpensive, a hosted solution can be deployed flexibly and can also, where necessary, integrate with legacy voice systems.

To illustrate the effectiveness of a hosted solution, let's consider an organisation where its primary business premises have been closed due to a serious gas leak. All IT infrastructure and telecommunications services are unavailable. All employees need to be relocated and the time frame to reinstatement of business critical infrastructure is unknown. The hosted service would continue to operate normally and, using personal numbering, calls could be taken from any location on any device. The business would continue to operate during the period of disruption.

c) IVR (Interactive Voice Response)

In a crisis situation, IVR systems could be used to handle all calls that would normally be taken by the company's switchboard operator. Because IVRs can gather information from customers and match this with data from back-office systems, enquiries can be handled without the need to transfer to a live agent. In situations of extreme crisis, this could prove highly beneficial – customers receive quick answers to their queries, whilst staff are unavailable to handle calls.

IVRs can also be utilised in preparation for any events that may adversely affect business continuity. A number of tailored scripts can be created within the IVR system, addressing specific scenarios that may occur. These scripts can be activated remotely via any phone or web connection when required, to most appropriately manage incoming calls normally handled by the main switchboard. Calls can also be redirected to either staff mobiles, or to another branch.

Conclusion

Commercial organisations are waking up to the importance of communications business continuity provision, from both damage mitigation and competitive advantage perspectives.

Loss of communication can spell disaster for a company – causing financial problems and irreparable damage to the reputation of the brand. Conversely, business continuity is gaining importance as a means of brand differentiation and maintaining a competitive edge. In today's economy, a firm's ability to prove they can deliver when others fail is pivotal in their gaining new business. Indeed, moving forward, formalised business continuity planning will be an essential requisite for survival in an ever more competitive marketplace.

With this in mind, the solutions outlined in this paper should in no way be regarded as a necessary evil. Recent legislation surrounding flexible working practices, an increasingly mobile workforce and positive moves by many organisations to actively promote home working, all make business continuity vital to an organisation. Any solutions that effectively gel mobile and fixed line voice provision together, with no detrimental effect upon stakeholders, must surely represent a competitive advantage.

New technology and deployment methods such as hosting mean that business continuity is less complex and less costly than ever before. Rather than lying dormant until a crisis arises, today's solutions can be used cost-effectively in day-to-day operations, throughout the year. Organisations will become more flexible and fleet of foot as a result, with features such as personal numbering transforming the way these companies do business.

TeleWare and our accredited sales partners have the necessary experience and expertise to help clients through every step of the business continuity process, from undertaking the Business Impact Analysis, to recommending the most suitable solution. We use packaged applications with both standard and customised solutions, that include solutions for alerting employees, contacting personnel and communicating throughout the incident, with final solutions depending on the needs of individual clients.

About Teleware

TeleWare is a privately owned PLC registered in Thirsk, North Yorkshire.

The company is the leading supplier of intelligent telephony solutions provided as packaged and tailored application software. TeleWare's applications provide local and wide area unified communications capabilities to businesses, improving communications contact with individuals and teams and providing full multimedia messaging services.

TeleWare Hosted Services is the centre of excellence for the delivery of TeleWare's IP Softswitch and multiple applications portfolio in a hosted environment. The TeleWare telephony services are delivered across TDM or IP networks. The Hosted Services can be delivered from TeleWare's hosted environment in Thirsk, IP hosting centre in London or from a service provider's own hosted environment or approved co-location facilities.

Abbreviations

BIA	business impact analysis
CIO	chief information officer
CPE	customer premises equipment
IP	internet protocol
IVR	interactive voice response
PBX	private branch exchange
ROI	return on investment
TDM	time division multiplexing
WiFi	wireless fidelity

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Headquarters/Registered Office

TeleWare plc

TeleWare House, York Road, Thirsk,

Registered in England No 4756742

Asia Pacific Regional Sales Office

TeleWare NZ Ltd

Level 8, TeRenCo Finance House, 86 Victoria Street,

E: enquiry@teleware.com

W: www.teleware.com