



**ASC X9 Inc. – Financial Industry  
Standards**

**BUSINESS CONTINUITY PLAN**

**Approved: May 31, 2005**



## **BUSINESS CONTINUITY PLAN for ASC X9, INCORPORATED**

### **INTRODUCTION**

#### **Purpose benefit of an X9 business continuity plan or BCP**

Every business can experience a serious incident or disastrous event that can prevent it from continuing normal operations. This can range from a flood or fire to a serious computer malfunction or information security incident. Events such as extreme weather including; blizzards, flooding, tornadoes, hurricanes, ice storms, earthquakes and resulting or incidental, long duration power or communications failure can impact business continuity. Area evacuation due to chemical spills, etc. or terrorist attacks, criminal actions or structural damage, roof collapse (Sears Hickory Hill) fire, water pipe burst all affect a business's ability to continue normal services.

The best time to respond to a disaster is before it happens. A relatively small investment of time and money now may prevent severe damage and disruption to the business in the future. Today, the goal for companies with no business tolerance for downtime is to achieve a state of business continuity, where critical systems and networks are continuously available, no matter what happens. This means thinking proactively; engineering availability, security and reliability into business processes from the outset – not retrofitting a disaster recovery plan to accommodate ongoing business continuity requirement.

A successful X9 plan for business continuity **must** have X9 Board level sponsorship. The plan must be realistic about relative importance to the overall business, overall size of business and the cost of implementing the plan. Any plan must be periodically tested, results reviewed, and modifications made, if required.

Plans for a small business are decidedly different from a large corporation but similar risks for interruption and similar solutions are present. The leadership of X9 made business continuity planning an objective for the X9 organization. Working with the membership the X9 Business Continuity Plan was developed.

ASC X9, Inc is located in space allocated to the association in staff residences (Silver Spring and Annapolis, Maryland) that are approximately 30 miles apart, both reside within 30 miles of the Washington DC and Baltimore, Maryland areas. Each staff has dedicated office space, business telephones, personal computers and business notebook computers and both staff have cellular phones. The X9 website server is housed in a secure hosted facility in Ashburn, Virginia. X9 stores archived paper records in a rented storage facility in Annapolis, Maryland.

## **GENERAL**

### **I. RESPONSIBILITY TO RECOVER**

The Board of the Accredited Standards Committee X9, Inc., has a responsibility to its members, to its public/users and its employees to recover from incidents described in the introduction in the minimum amount of time, with minimum disruption and at minimum cost. Continuing the business is critical to processing and maintenance of standards for the financial services industry and to maintaining the accreditation agreement with ANSI and to ISO through ANSI.

There are two key components to this Business Continuity Plan for X9 and they are based upon X9's two key resources. Those resources are employees and website/communications.

### **II. IMPACT ASSESSMENT**

One of the first contingency planning tasks undertaken was to prepare a list of the potentially serious incidents that could affect the normal operations of the business. The second task was to rate against each item a probability rating as noted. The severity and their impact are rated related to this unique business.

From this information, it is much easier to frame the plan in the context of the real needs.

### **III. RISK ASSESSMENT**

The risk assessment model developed below is in no particular order. We have identified and weighed the most probable risks and correlated those risks with business functions and size of the organization (a small business). The events listed include ratings of the probability and impact severity level. Certain notations are made in reference to timelines and locations of events. The assessment is based upon current locations of X9 offices, outsourced service providers and current activity level.

**ASC X9, INC. BUSINESS CONTINUITY PLAN**

**IV. BUSINESS CONTINUITY PLAN for ASC X9, INCORPORATED**

Risk Assessment Chart

**Event Probability Rating**                      **1** low                      **5** medium                      **10** high  
**Impact severity level**                      **1** low                      **5** medium                      **10** high  
 Summary and Summary rating

Type	EVENTS	Probability Rating - timeframe	Severity Level
<b>Weather Events</b>			
Weather	Blizzard	5 January-March	5 - if power outage
Weather	Flooding	1	5 - if power outage
Weather	Tornadoes	5 - July-October	5 - if power outage
Weather	Hurricanes	5 - July - November	5 - if power outage
Weather	Ice Storms	5 - January - February	5 - if power outage
Weather/other	Earthquakes	2	5 - if power outage
<b>Weather ASSESSMENT Summary</b>	<b>ANY WEATHER EVENT could cause power outage this is major impact to business continuance.</b>	<b>5</b>	<b>5 or greater depending on timeline</b>
<b>Facility Damage Event</b>			
Facility Damage	Structural Damage	1	5 - home office
Facility Damage	Roof Collapse	1	5 - home office
Facility Damage	Fire	1	5 - home office
Facility Damage	Water pipe burst	1	5 - home office
Power Failure	Power Failure	5	5 - home office
<b>Facility Damage ASSESSMENT Summary</b>	<b>ANY FACILITY EVENT could cause power outage, could cause loss of business office.</b>	<b>5</b>	<b>5 RECOVERY WITHIN THREE DAYS</b>
<b>Communications Failure Event</b>			
Communications Failure	Communications Failure (phone, website, e-mail)	10	10
Destructive Events	Network failure	10	10 -
Destructive Events	Computer viruses	10	If the effect were at the server level
Destructive Events	Computer hacking	5 - Linux	If the effect were at the server level
Destructive Events	Denial of services attacks	5	If this were at the server level
<b>Communications Failure Event ASSESSMENT Summary</b>	<b>COMMUNICATIONS/WEBSITE EVENTS - if event caused website shutdown could be serious business problem</b>	<b>10</b>	<b>10 RECOVERY PLAN REQUIRED</b>
<b>Personnel Issues</b>			
Personnel problems	employee loss or other employee issues	10	10
Personnel loss or problem	Personnel Loss - could cause serious business problems	10	10 Plan required

Based upon the above analysis the assessment and conclusion is that the key concerns based upon severity to the business continuance are as follows;

1. Website/communications failure in whatever form is a serious concern to the continued operations of X9 and therefore to ensure business continuity X9 would need to insure back up services.
2. Loss of key employees related to continued operations and program of X9, and therefore the plan will initially focus on these two issues.
3. Fire, flood, or other event could create a problem to home office location but would simply require seeking a new location.

## **V. BUSINESS CONTINUITY PLAN**

Before moving directly into the two key areas of concern (personnel and website/communications), some mention should be made related to weather and facilities damage as assessed above. All of the listed weather events occurred during 2003, with their attendant electrical problems, so management has first hand knowledge in dealing with these problems. Although electric power was down for just two days at one office (area), the other office was fully operational and because offices are in geographically different parts of the state of Maryland this provides a unique business continuity option.

Both office locations are within 30 miles of two major US cities, and terrorist attacks have taken place in Washington, DC (9/11/2003). However, due to distance separating the two office facilities, one of the two staff should be able to continue working in the event of power outages or weather related events. If, as a result of a weather event, and if there is no destruction present, the greatest business continuance problem becomes the attendant extended power outages. The business continuance when there is a power outage is employee work related and not necessarily related to Website outages since all are housed in different locations and connected via the Internet.

A massive electrical power grid outage could impact an entire section of the Mid-Atlantic states however is less likely than intermittent localized outages. Power outages can and do occur outside of weather events and so contingency planning is important for either. Storm destruction presents a different problem. In the event of a hurricane and destruction of a staff office, the business location is lost. Obviously, a new location will be sought if the employee is unable to work from the office site.

So, in conclusion the attendant power outage may present the greatest concern and it is not expected that a power outage would extend to more than 5 business days at any one location. And, if it were more than three days alternate work arrangements would be made as explained in the section below.

### **Contingency related to Weather and Facilities Damage Event:**

If required, staff has identified an office location offering temporary office space in Annapolis, Maryland. Staff, each have laptop computers and have access to records via an internet connection (assuming power loss is not Mid-Atlantic US). Each staff member is equipped with a laptop computer and wireless network and cell telephones and thus would continue to perform work at an alternative location in the

event of a longer term power (24 hours plus) outage. If, current records are stored on PCs those could not be accessed until power returns and in the event of a home office destruction would be destroyed, however as stated current work is backed up the internet website.

In the event of a 24 hour power outage, X9 business telephone(s) would be forwarded to another number (cell or other staff). X9 answering services are within the telephone company network and therefore operating at least to take messages. The telephones lines can be forwarded and could either give a message of where to reach staff or state when the staff will return to the office, or reach the staff member at a new number.

In the event of a major electrical grid power outage (extending to the site of the server) the X9 website would continue to operate on diesel back up for up to one week. Staff could relocate to a grid where power is available, if the outage is longer term. As long as the website is working, staff can send and receive email, access files and continue to do business.

### **Website/electronic Communications management**

Dependence on information systems means X9 needs to carefully assess its BCP and ensure that it is protecting an area of its business that is vulnerable.

The X9 computer servers which operate the X9 website ([www.x9.org](http://www.x9.org), staff email and their archives and full storage of X9 documents) house all ANSI required 5-year cycle documents such as ANSI filings. X9 and international ballots, storage of ballots, all email history. Replicative financial summaries are kept on the server but current and historic financial records are stored and backed up on two PCs and with the CPA/Auditor. Prior year financial records are stored in paper records in an off-site storage facility. No arrangements are currently made for paper record back-up.

Again, using offsite back up of the Website, X9 would need to rebuild if there was complete destruction. The X9 servers are co-located in a secure IBM facility in Ashburn, Virginia. The facility has back-up diesel power generation and is a facility secured against a great number of catastrophic eventualities including most listed above. X9 servers are within an IBM facilities hosting service in a hardened 24 x 7 internet data center. The data is backed up every night to an IBM storage server located within the IBM facility.

Within this reliable and secure IBM e-business hosting centers; X9 owns the servers that operate all of its own purchased software, designs the solutions and control and manages its Web infrastructure. The facility provides redundant reliable network, no single point of failure, flexible bandwidth options and "burstable" capacity on demand. The service provided is a responsive service and support 24x7 monitoring and notification, single point of contact, and 24x7 onsite support staff. To date, the facility has not had a full shut down in 36 months so that resiliency is a key factor in using this facility and its location with attendant back ups.

If the Ashburn facility were destroyed, it is possible using backed up software and backed up data that Aureus Solutions could prepare a temporary server on which to run the X9 website or a rentable back up site would be found.

Immediately, X9 could build its backup server. X9 could then run a backup every night. This would require Aureus Solutions to travel to Ashburn and remove the current week, and rotate tapes in and out of the system so there would always be a maximum of 7 days if rebuilding is required. This option would speed and expedite recovery time as Aureus Solutions would have a current set of tapes in their possession in case anything happened. Forty-eight to seventy-two hours would be a reasonable amount of time if we had a back-up server and tape library offsite. We could find a place to rapidly set up new servers in the event the facility was to go offline due to natural disasters.

At its March 2005 Board meeting, X9 approved a quoted disaster recovery system including; a small server to run the tape back-up system, the tape drive itself, the software with operating system, the tape drive with 6-tape-loader, a small supply of media and the software. The server will not need an Ashburn IP address only an internal address for the cabinet. One ongoing maintenance cost in this proposal is the cost from the offsite storage facility for their travel to Ashburn to rotate tapes out to the vault where they will be ready if needed for a disaster recovery situation.

The following information is added into this BCP at the Board's request. The IBM facility where the X9 website is housed has the following characteristics:

Network Specifications:

- Level 3-OC-3 Internet connection
- Dual CISCO 6509 Switches
- UUNET – OC-3 (155 Mb/s) Internet connection

Facility Specifications:

- Dry pipe suppressions systems
- High sensitivity smoke detection Fenwal sniffer system uses laser to set off alarm with a particulant in the air.
- Two utility feeders for power
- Satellite platform

Systems Management

- Netview 24x365 system and network monitoring
- Tivoli – storage management and resource monitoring
- Siebel-problem tracking and trouble ticketing
- Aperture- infrastructure management system

Security

- Sophisticated computerized access control
- Biometric scanning required for hosting space access
- Video surveillance at all entrances on raised floor
- 24x7 security staff
- Biometric access to customer cages – hand geometry
- Cipher lock cabinets for shared space customers
- Mantrap entry

Power Conditioning

- Six 1500 kVA generator systems for backup power, N+1 design load design to assure uninterruptible power
- Equipped with uninterruptible power supply (UPS) bank, 2N redundancy
- Power service deliver 100 Watt per square foot
- A/B PDU's for customer redundancy.

HVAC

- Six 350 ton air cooled compressor chillers, N+1 load design facility in Ashburn Virginia.

Other communications provisions, include;

- telephone and computing capabilities - because the answering services are with the telephone company, immediately staff could move from hard wired to cellular telephones - forwarding the office telephone numbers to their cellular telephones. Back-up computing capabilities are staff laptops with direct internet access to the website and to portals where critical operations data is stored.
- Development of methods for restoration of critical data and systems - this is covered in the Website area.
- Desktop and laptop backup and recovery solutions - Staff should back up data from the PC and or laptop into "USB devices" or to the server.

**Personnel Issues related to Business Continuity**

At the heart of the X9 business are personnel to operate the business. Loss of personnel is a high risk assessment rating relative business continuation for any small business and therefore a focus area in the BCP.

General personnel issues, include:

- Loss of key employee
- loss of other personnel

**Loss of key employee**

For a planned turnover event, for example, in the event of retirement of key personnel it is critical that the X9 Board have a plan of action for the replacement of that employee.

In the event of a sudden loss of key employee X9 has the option of turning to an association management firm to run the general association business of X9. With well documented business processes and procedures this is an appropriate if often costly alternative. With the sudden loss of key employee that salary expense to the previous employee becomes the funding for some of the cost of an association management firm.

This option would run the business segment and not necessarily the program elements, but would buy the Board time to hire an executive search firm to do a planned search for a replacement.

X9 would, and should of course, look internally both with its present staff and among its membership. Additionally, the Board should turn to ANSI. ANSI would be available for training of new key employee in procedural elements, ANSI might be willing to put out a call for interested employees, however because X9 is the only financial industry standards group X9 might do better notifying financial associations of any opening.

X9 is an association. Any new key employee should have association management experience as much is translatable. The program elements are unique and different but the core association management experience is transferable. The background association management should be from a "business" association and not a philanthropic association. A college degree is required and an advanced degree is preferred but not required and a business degree is most beneficial. The key employee must be willing to attend staff meetings and to travel globally and extensively as an accepted part of the position.

### **Loss of employees**

During its transition (2001) to become an independent organization X9 lost 3 employees and continued its business with no lapse in program or other management requirements. Obviously, this required special efforts on the part of the remaining staff but X9 should understand that it is able to weather a major change. ANSI is available for training and key employee should also do program management training with members, chairs and key positions. And, again member assistance would be required but is not a significant part of the training. X9 Procedures, policy, business process documents are a key to a quality and effective transition and must be maintained in a current status for loss of any employee.

Loss of key employees in any business can be devastating but in a small business the loss of one employee is harmful to the overall business continuance.

Losses also surface from expenses associated with hiring and training a replacement for the key employee. Even if the company can promote from within, business losses may continue to accrue until the replacement becomes thoroughly familiar with the job. The X9 business processes and procedures, although managed by X9 staff, are known by other business partners and members. These business partners include ANSI, ISO, ABACUS bookkeeping, Mullen, Sondberg CPAs, Aurous Solutions, Annapolis Association Management Group and several X9 permanent management committees. When staff leaves the business the only solution is to hire and train new staff. Outsourced services allow these "business partners" to assist in the training and education of new key staff. X9 has a well documented Business Process Handbook and its procedures as adjunct materials.

Cross training is good for X9 because it provides more flexibility in managing the entire business or in the event of the loss of an employee and in the case of X9 the basic operations are now fully cross-trained. Businesses cannot expect individuals to behave or manage in the same way nor know everything about another employee's tasks but general understanding and knowledge is key along with well documented; instructions, policies and procedures such as X9 already has in place.

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**Summary:**

With good contingency plans in place, frequently tested and well audited, there is every likelihood that ASC X9 will cope with adverse events, continue in business, satisfying its customers, meeting its commitments, paying its bills, and making a return on investment.

The current policies, procedures and business handbook and accompanying outsourced services make the operation of X9 a stronger and more resilient organization in the event of a major catastrophe.