

Year 2000 Contingency Planning

Supplier: AT&T

A. Introduction

AT&T's network, like that of any other network provider, has potential for problems created by other interconnected networks or systems outside the company. AT&T has always exercised safeguards to help protect its network from external risks. Year 2000 doesn't change that.

Continuity services (network recovery in the event of crisis or disaster), is a core competency of AT&T. We have a long heritage of dedication to customer service and industry-leading recovery processes and capabilities. All of this is being applied to the Year 2000 challenge, in the event of Y2K compliance failures by other networks or systems outside AT&T.

B. Principles

AT&T provides network services on a 7x24 basis. With that in mind, continuity of services is critical to our business. The principles surrounding Year 2000 contingency planning include:

- Protect critical functions necessary for service continuity
- Implement pro-active measures to prevent outages
- Plan for early detection and clear contingency activation
- Partner with suppliers and compliance teams for planning and activation
- Ensure flexible crisis management plan to handle multiple events
- Safeguard capabilities for internal and external communications

C. Approach

Contingency plans to maximize service availability in the event of a crisis or disaster are embedded in AT&T's existing business processes. These plans are being enhanced with safeguards and controls specific to Year 2000 to further mitigate risks surrounding the transition into the next century.

To ensure continuity of network services, AT&T's Year 2000 contingency plans are defined using a process-centric approach. In essence, risk assessments of Y2K exposures for business processes / sub-processes and associated work functions have been performed to:

- Identify areas most critical to our operations and ability to serve our customers
- Understand areas of high Y2K risk
- Identify controls that are in place and evaluate their effectiveness to reduce exposure
- Rate and prioritize risks based on probability of occurrence and associated business impacts
- Perform risk-to-mitigation tradeoffs
- Determine the needs for contingency plans and prioritize plan development
- Ensure that operational alternatives are in place in the event that Y2K interruptions occur
- Ensure that Y2K contingency plans take a holistic view, taking into account process partners, suppliers, and customers

In addition to the process risk assessments, AT&T is analyzing risks and developing contingencies at the infrastructure component level (e.g. network elements, work centers/facilities) to further mitigate risks.

The business processes were defined along a critical path (i.e. functions that must be performed in the event of a business disruption) and triaged as critical, important or supportive.

Year 2000 Contingency Planning

Supplier: AT&T

Critical processes are those directly necessary for service delivery
Important processes are those directly supportive of critical processes (such as sales and marketing)
Supportive processes are those determined to be administrative in nature with no direct impact on services (such as internal time reporting)

Upon development of Y2K specific contingency plans, plans are exercised/tested to ensure the viability of the contingency solution and the implementation capability. This encompasses:

Training the operational personnel in the execution and testing of the plan
Testing the plan for effectiveness
Based on test results, adjusting and re-testing the contingency solution as appropriate

The final step is deployment of the already tested/certified plans to ensure accessibility to employees responsible for business resumption in the event of a disruption.

To maintain a continued state of Y2K readiness, plans are maintained and reviewed regularly by the responsible organizations so that changes occurring over the natural course of business can be incorporated into the contingency solution.

D. Key Areas for Special Attention

There are several areas that are particularly important relative to AT&T's Year 2000 contingency plans.

I. Personnel Availability

Due to the critical nature of the Year 2000 event to our corporation and our customers, AT&T is committed to ensuring that sufficient resources are in place during the year end transition to address Y2K related business emergencies that may arise. Specifically, AT&T has issued a year end vacation advisory to its employees to ensure proper personnel coverage between December 15, 1999 and January 15, 2000. AT&T resources supporting customer contact jobs (e.g. Customer Care) and technology-impacted areas (e.g. networks, systems, centers, and platforms) will be pre-positioned during this period to assist in the unlikely event of service disruptions. Individuals performing other important support functions will also be available to assist in service repair and restoration if necessary.

Similarly, AT&T has secured agreements with our key vendor/suppliers to provide support/ assistance in the event that a network or IT component should experience problems related to the Y2K rollover. Collectively, these highly trained, competent, and specialized resources constitute business resumption teams with clearly defined roles in executing rapid repair and recovery procedures if necessary.

Similarly, AT&T has secured agreements with our key vendor/suppliers to provide support and assistance (on site and on call) in the event that a network or IT component should experience problems due to the Y2K rollover.

II. Network Monitoring

AT&T monitors its networks on a 7x24 basis to provide the highest level of quality service to customers. During the Y2K transition, AT&T's network monitoring and control capabilities will play

Year 2000 Contingency Planning

Supplier: AT&T

an even more crucial role in minimizing service disruptions to its customers.

AT&T will be carefully monitoring access and egress traffic conditions relative to incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), foreign carriers and international gateways to identify warning signs and implement proactive measures using network traffic management controls. For example, if certain international carriers are experiencing Y2K problems, AT&T will re-route traffic where possible through alternate routing paths within the impacted country or other countries. By leveraging the diverse routing capabilities inherent in its dynamic network (e.g. international switching centers, earth stations, undersea cables), failures can be bypassed and traffic delivered to destination countries based on pre-arranged contractual agreements with administrations around the world.

III. Emergency Communications

AT&T's emergency communications are essential in providing connectivity between network centers and field offices in the event of a crisis or disaster. As part of its strategy to protect communications, AT&T will leverage diverse technologies and paths if necessary to maintain communications between critical network locations. Diversification includes the following types of communication technologies:

- Public switched telephone network
- Dedicated voice connections
- Wireless phones
- HF Radio
- Satellite phones (laptop and hand held)

IV. Infrastructure Dependencies

As part of AT&T's normal recovery procedures, power back-ups (battery and diesel fuel generators) are in place to maintain continuity of network services and facilities in the event of loss of external power. As part of its Y2K risk mitigation strategy, AT&T is proactively staging power, fuel, and water supplies in the event that supply chain problems are encountered with these key infrastructure dependencies. Further, AT&T has accounted for infrastructure necessities such as heat, ventilation, air conditioning, sanitation, and security in its overall Y2K contingency plans. Also included under this umbrella are provisions for alternate site access procedures and manual surveillance of work sites.

E. Network Centers

I. Network Control Center (NCC)/ Network Operations Center (NOC)

AT&T has designed redundancy within its command and control centers as well as its networks. Specifically, AT&T has a Network Control Center (NCC) that maintains the network across the continental United States. As part of AT&T's normal disaster recovery procedures, the NCC is automatically backed-up with a disaster recovery center capable of assuming control in the event the NCC experiences problems. In the unlikely event that a catastrophic failure impairs both the NCC and its backup disaster recovery center, AT&T's Network Operations Center (NOC) offers another layer of redundancy through its capabilities to oversee and assume control over the network.

II. Emergency Operations Centers

In anticipation of the Year 2000 event, AT&T's regional Emergency Operations Centers (EOCs) will

Year 2000 Contingency Planning

Supplier: AT&T

be staffed, activated and prepared to act should a disruption of service occur. The EOCs coordinate the appropriate regional processes and personnel should contingencies be required. The EOCs manage field resources and interface with local suppliers, emergency agencies and appropriate authorities within a geographic region, as necessary.

F. Other Pro-active Measures

I. Interoperability Testing

In addition, AT&T has been executing a robust and comprehensive interoperability testing program to exercise and verify the readiness of network services on an end-to-end basis. Year 2000 interoperability testing is the verification that telecommunications services will function properly across network carrier boundaries in an environment representative of the next century. The telephone network is actually a series of complex and interconnected networks owned and operated by many carriers in which a typical call is often handled by more than one carrier. Because of the interconnections and interdependencies that exist within the telephone network, interoperability testing is crucial to ensure that services will continue to operate satisfactorily across network boundaries into the Year 2000 and beyond.

AT&T's interoperability testing strategy involves a number of domestic and international carriers around the world. Our testing plans include services covering 80% of our average daily call mix and is targeted to cover countries and foreign carriers that use major network switch vendors. AT&T is also partnering with customers from an array of critical industry sectors (e.g. financial companies, power utilities, etc...) by jointly conducting Year 2000 interoperability tests. Many of these testing programs have already completed and results are available on AT&T's Y2K web site at www.att.com/year2000/interoperability.html.

II. Independent Verification and Validation

To further reduce the possibility of service disruptions due to Y2K, the AT&T established an independent verification and validation (IV&V) program with outside vendors to verify previously remediated systems can correctly process date and time data. Specifically, IV&V is designed to:

- Identify impacted code possibly missed during assessment
- Validate that previously remediated systems have in fact achieved compliance
- Verify the continuing compliance of systems put back into production

IV&V increases the likelihood that network services will not be adversely impacted by Year 2000. Results of the IV&V process to date indicate a very high quality level for AT&T's software remediation efforts.

III. Network Capacity Expansion

AT&T is proactively engineering additional network capacity to absorb anticipated volume increases around the Year 2000 rollover. There are two specific drivers behind AT&T's Y2K network expansion strategy. The first is the "psychology of Y2K" or the public curiosity factor. Many people will likely place a call during the Y2K rollover to see if phone service is still available or to check on the welfare of family and friends. The other is potential incremental traffic on AT&T's network in the event that some other carrier is experiencing problems during the Y2K transition.

Year 2000 Contingency Planning

Supplier: AT&T

To minimize potential problems introduced by heightened calling volumes, AT&T is proactively provisioning tens of thousands of additional trunk groups between June, 1999 and October, 1999 for domestic and international services. AT&T's network expansion strategy also includes geographic locations with a high density of customers in particular industry segments (e.g. financial) who have forecasted marked increases in calling volumes to their call centers around the Y2K transition.

Additionally, AT&T will leverage overflow capacity within its network where possible. For example, if the public switched telephone network is experiencing unusually high call volumes, excess capacity potentially available on other AT&T networks will be utilized to minimize potential blockages and congestion problems.

IV. Y2K Quiet Period

To eliminate risks associated with changes and potential instabilities introduced later this year, AT&T is considering imposing a Y2K "quiet period" between December 1, 1999 and January 15, 2000. This policy would restrict the introduction of software releases and hardware upgrades during this critical period and help maintain a state of Y2K readiness into the Year 2000 and beyond.

V. Management Control Bridge

AT&T's Management Control Bridge (MCB) is comprised of the leadership team responsible for the overall network maintenance and recovery effort, information flow, and decision-making in the event of a network service disruption. Traditionally, the MCB is only activated during a network incident. However, due to the critical nature of Year 2000, AT&T will proactively establish its Management Control Bridge (MCB) at the end of this year and stand ready to manage any Y2K network anomalies should they occur.

VI. Vendor & Supplier Support

AT&T has developed contingency plans specific to vendor and supplier support through:

Validating contingency agreements and expectations (e.g. vendor service level agreements, on site and on call support requirements, etc.)

Contracting with secondary suppliers and vendors

Stockpiling compliant spare inventory and commonly used equipment

Establishing shipping /distribution accounts with alternate vendors

G. Customer Communications

Customers are encouraged to use existing communication procedures and channels (e.g. AT&T Customer Centers) during the rollover to the Year 2000. Our Customer Care centers will have a full staff available for the transition period to handle call volumes. In the event a particular center is not accessible, customer calls will automatically be re-routed to alternate centers through routing logic for appropriate handling. Other contingencies include implementation of manual processes for recording, logging, and tracking of customer trouble calls if required.

In addition, customers will be able to call a toll free status line on 877-Y2K4ATT (877-925-4288) to hear a recorded message with regularly updated status of AT&T's networks. Also, AT&T's Y2K web site at www.att.com/year2000 will be updated on a regular basis to provide status on the AT&T networks and critical business processes during the Year 2000 transition.

Year 2000 Contingency Planning

Supplier: AT&T

H. Billing

In a continued effort to provide our customers with a quality product and service, an extensive endeavor has been underway within AT&T since 1996 to ensure all billing systems and the equipment in our offices are prepared for Year 2000. The billing applications have been updated with the appropriate software changes and were tested for Year 2000 readiness in 1998. Furthermore, the software changes have been verified and tested by both internal and external sources to mitigate the risks for failures or disruptions in the process.

In addition to testing the billing applications, contingency planning efforts are also in progress for the support functions that are performed to invoice our customers. Contingency Plans have been developed for the AT&T billing processes and for Bill Print Centers in the event of unforeseen Year 2000 disruptions that may impact operations. AT&T has engaged in Year 2000 re-programming of systems and equipment as necessary, tested them, and deployed updated systems and equipment in production environments. We have also received confirmation from the vendors of our billing processes that their equipment and products are Year 2000 compliant or have been upgraded to compliance status.

I. Ask Yourself About Y2K Program

Over the past several years AT&T's network services organization has utilized the "Ask Yourself" program to continually re-emphasize critical reliability principles in the work place and maintain the need for customer focus. The "Ask Yourself" program has proven to be a highly successful training vehicle which improves reliability through AT&T's people resources.

The "Ask Yourself" program is now heavily focused on Year 2000. The objective is to ensure AT&T's network services organization is fully engaged in Y2K awareness, preparedness and potential response. To reach these objectives, the program seeks to guide organization behavior by:

- Creating awareness to Y2K issues
- Communicating strategy & plans
- Supporting preparedness efforts
- Acting on feedback
- Empowering individuals to act
- Mobilizing and pulling together to address any potential problems

NRIC Contingency Planning Scenarios

To further promote contingency planning efforts with the telecommunications industry, AT&T partnered with the Network Reliability and Interoperability Council (NRIC) in developing numerous hypothetical Y2K failure scenarios that could affect a telecommunications company and its ability to serve customers. NRIC is a private sector council advising the Federal Communications Commission (FCC) on critical Y2K telecommunications matters with representation from an array of network service providers, equipment manufacturers, and customer groups. The NRIC contingency scenarios include such categories as network elements and operational support systems, power/infrastructure, international carriers, crisis management/communications, and customer issues and describe business impacts of failures and potential prevention/risk mitigation actions. The scenarios can be accessed via the NRIC web site at www.nric.org/fg/fg1/index.html.

K. Summary

Year 2000 Contingency Planning

Supplier: AT&T

AT&T stands prepared to continue providing uninterrupted service into the Year 2000 and beyond. Since 1996, we have been executing a strategic, corporate-wide plan to manage the challenges introduced by the onset of Year 2000 in an effort to avoid any interruption of our operations or ability to serve customers. As of June 30, 1999, AT&T's network elements and applications (including AT&T Local Services but excluding recently completed acquisitions) are Year 2000 compliant, meaning they have been assessed for Year 2000 impacts, repaired if necessary, tested and fully deployed in live network environments.

In addition to the disciplined and rigorous approach used to remediate and test network services, AT&T's Year 2000 initiative includes contingency plans designed to mitigate risks in the event of failures within our networks or caused by external sources. The contingency plans focus on maximizing service availability through expeditious network recovery procedures and coordination of reconstitution efforts. This dual approach of remediation and contingency planning has put AT&T on the trajectory to successfully meet the Year 2000 challenge.