

IBM Global Services Business Continuity and Recovery Services “Mobile Recovery Center Solution”



IBM Global Services



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*IBM Global Services (“IBM”)
International Business Machines Corporation*



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IBM Business Continuity and Recovery Services Workplace Recovery Solutions

Protect Your Business

The critical data that supports your business was once managed and maintained in traditional data centers, protected by a disaster recovery plan that was developed and managed by IS staff. But changes in our environment are creating new challenges. The Internet revolution, proliferation of distributed computing, and evolution of client/server applications demand more complete solutions emulating real workplace environments that integrate information and communications systems. The focus must be to support business functions and users. It is a tall order for any business, but there are many new options that marry your resources and those of recovery vendors, such as IBM, to create functional and timely solutions.

Workplace Recovery Options

Developing a recovery solution for your critical business functions is an integral part of your ongoing Business Continuity Program. You and IBM BCRS have reviewed some of the workplace recovery strategies and solution options being implemented in the marketplace today. As we discussed, most companies are not implementing a single solution. They are blending a number of options together to address recovery time objectives, financial objectives, and—most importantly—the human side of recovery.

IBM BCRS has been providing premier recovery solutions to support workplace recovery since 1993. Over the last nine years, we have enhanced our workplace services to provide very sophisticated business recovery to include call center environments, mobile facilities, voice and data satellite bandwidth connectivity options, and large server farms.

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In 2001 and 2002, many customers started taking a closer look at the business recovery aspects of their continuity plan as well as the information technology piece. They recognized that in many cases they were woefully unprotected should a major disaster affect their ability to conduct business on a day-to-day basis. Customers came to us with a new set of requirements:

- Larger user populations to recover
- Reduced recovery windows
- Immediate voice recovery issues
- Improved internal communication plans
- Work at home technology
- Dedicated or reduced risk options for space
- Plan assessment expertise

IBM BCRS has many solutions to address these burgeoning requirements, and has embraced new solutions and new ways to leverage not only our resources but also our customers' resources. We have worked closely with our customers on creative ways to blend solutions that meet their recovery objectives.

One of the most popular and exciting new solutions customers are deploying today are our mobile recovery centers.

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IBM Mobile and Workplace Recovery Solutions

A combination of events is now driving businesses to re-evaluate their workplace recovery facility options: The horrific events of September, 11th; the trend toward corporate facility downsizing; issues surrounding traditional shared risk recovery solutions; and general focus on the need for complete business recovery and not just Information Technology recovery.

With this increased customer focus, IBM BCRS has created new offerings to assist our customers in determining the most effective way to provide customized facility recovery solutions to support the relocation of your critical employees during a disaster.

Our Workplace Mobile Recovery Centers are delivered to your site—fully configured and self-contained—within 24 to 96 hours of an outage emergency declaration. They support full-function recovery with ACD/Call Center recovery, PC technology, command centers, and office work environments. Coupled with our satellite technology, these workplace environments can now be configured as standalone facilities without dependence on external utilities.

By combining IBM BCRS' unique service delivery team, voice recovery solutions, technology recovery solutions, and mobile facilities, it is now possible to provide an affordable and fully functional local recovery solution.

The unique design and functionality of IBM's Mobile Recovery Centers set this solution apart from any other mobile solution in the industry. Key features include:

- Local access to facility/workplace recovery configurations
- Complete voice and call center capabilities
- Critical PC technology
- Satellite connectivity for voice and data
- Delivery of the mobile unit(s) and equipment within 24 hours of disaster declaration
- On-site technical resources to set up configuration
- Local Testing available on a fee basis

Details about the design of the Mobile Recovery Center are provided in the pages that follow.

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IBM's Mobile Recovery Services

Command Center Unit

At the heart of every mobile recovery solution is the IBM Command Module, a self-contained "nerve center" for the entire facility. It maintains the network connectivity, environmental, and systems that support the additional add-on units.

The PC workstations, systems, and LAN/WAN technology available in these mobile units can be configured to your unique specifications. Network connectivity for voice and data can be provided using the satellite solution.

Sample Layout of Mobile Recovery Command Center Unit

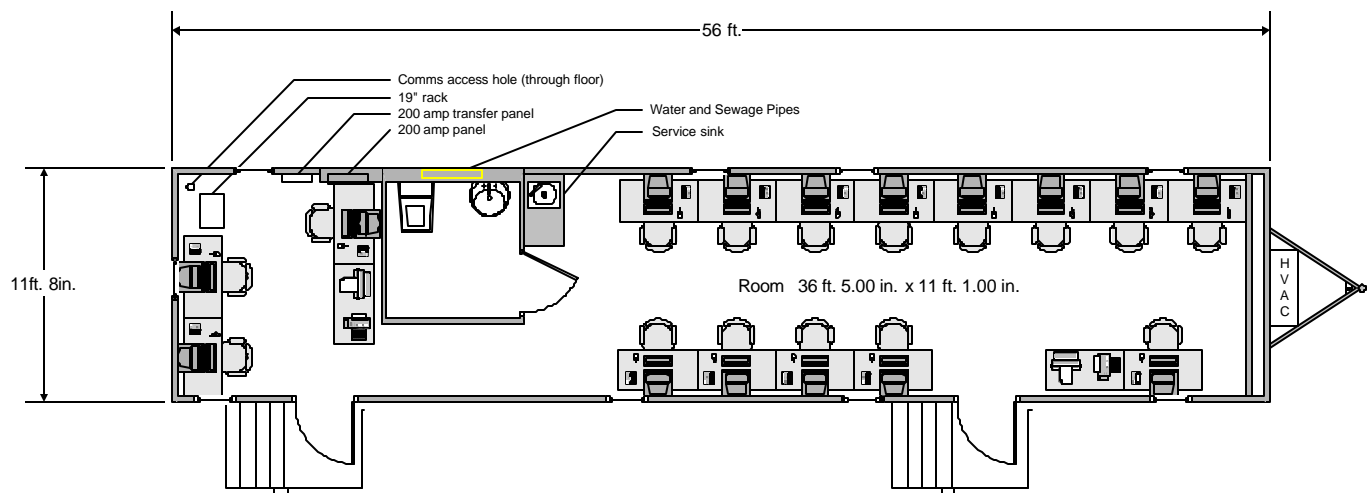


Figure 1: Command Center layout

The command center module is typically configured to include:

- Secure work environment
- Diesel generator support
- Communication connection
- Power/HVAC
- Workspaces for the recovery team
- Support for PC server technology

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Workplace Unit

For customers who require a transportable solution for workplace recovery, the workplace units offer significant capacity and technology to address the demanding requirements of restoring critical business functions locally. With the potential to begin deployment of these units adjacent to or near your company within 24 to 48 hours of a disaster declaration, critical employees will have less personal disruption and be more productive during and after a disaster event, possibly sparing your company lost business and revenues.

Workplace Seats



Figure 2: Internal View of End User Unit

The Workplace Units are configured to include:

- Initial support for 100 users within 24 to 48 hours of disaster declaration
- Approximately 48 spaces per unit
- Self-contained generator power
- Satellite communication support
- Fully functional IBM ACD Voice Recovery Solution
- PC, LAN, and workstation technology
- LAN connectivity
- WAN connection capability
- Amenities: lounge, restroom, etc. (optional)

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Satellite Solutions—Recover Anywhere

When used in conjunction with our mobile recovery services, the mobile satellite provides robust voice and data capability at your site eliminating the need for a permanent network “hitching post” or connection point into local network carriers.

The satellite consists of a portable KU band-dish and terminal quick-shipped with your mobile solution within 24 to 48 hours of disaster declaration. Cisco routers and switches provide the base network infrastructure, and telephones or ACD workstation agents are connected with inbound and outbound call capabilities. A dedicated data pipe handles integrated voice and data traffic via an American-based satellite transmission. The solution is scalable and functions in nearly all weather conditions. The teleport (earth station) is a secured, hardened, 7 x 24 operation with full redundancy. The stationary satellite dish and terminal and an aggregate Cisco router for management of all voice and data connectivity and connection into the Public Switched Network are included in the solution.



Figure 3: Satellite Dish

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Figure 4: Exterior View of End User Unit



Figure 5: Shipping Cases

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Mobile Solution Implementation and Test Time

IBM mobile recovery solution comes with a Mobile Information Guide and four hours of telephone support to assist in the implementation of your unique environment. Additional on-site testing is available and can be configured as part of the overall contract.

Additional fee-based services are available from IBM such as special support teams that can help develop comprehensive recovery strategies, plans, implementation procedures, and recovery test scripts to support the successful design of your mobile recovery center solution

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Mobile Recovery Site Location Information

Site pre-determination is one of the most critical issues affecting the potential success of any initiative, which expects to utilize Mobile Recovery Services.

Listed below are some key issues that the customer will need to consider when choosing a Mobile Recovery location.

IBM can provide, for additional charge, an on-site inspection to ensure the customer's pre-determined site is suitable for mobile recovery.

Site Access:

- The site must be accessible 24 hours a day, 365 days a year.
- The site must allow for the delivery, placement and setup of the Mobile Units.
- These units will be delivered by truck, so turning radius and access dimensions must be considered.
- The dimensions of the individual units must not exceed state or province transportation size restrictions or regulations.
- The site should be secured or have on-demand security measures available.

Physical Site Requirements:

- The site must allow for the safe placement of the Mobile units, with respect to type of ground (concrete, packed dirt, grass, blacktop, etc.) and the grade or slope of the ground upon which the units will be placed.
- A level concrete or blacktop area is preferred, allowing for a quicker and easier installation, although placement on more challenging ground can be accomplished.

Examples of some site options:

- Satellite offices, warehouse, or other building sites owned by your company.
- Hotel / motel property or parking areas.
- Local shopping mall or other business' parking area.
- Municipal office building in small communities, where your company is a major employer.
- Public parking garage area.
- Any relatively level and hard surface.
- The Site checklist will help to determine the site's appropriateness.

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Mobile Site Checklist

The following is a checklist to determine the viability of your selected site for the Mobile Recovery solution. Individual responses to questions will not automatically disqualify a site, but may highlight areas of concern.

Location:

Do you own the site where the vehicle is to be parked? _____

What is the street address? (Is it marked?) _____

If so, do you need a permit to park semi-permanent vehicles? _____

If not, have you secured permission to park the vehicles? _____

Is there access to the site 24 hours per day, 365 days? _____

Is there more than one access route to the site (major highway)? _____

Is the site secured (security guards, video, and fencing)? _____

What is the distance from your production facility? _____

Have all local codes been considered when planning this site, including ADA requirements? _____

Physical Site:

What are the dimensions of the selected site? _____

What is the surface (i.e.. cement, blacktop)? _____

What is the approximate grade of the surface? _____

Are there any overhead obstacles (wires, bridge)? _____

Is the entranceway wide enough (i.e. 15 feet)? _____

Is the entranceway free of obstacles (gates, curbs, and hydrants)? _____

Does the site have adequate lighting? _____

Connections:

Do you plan to tap into the existing network at your recovery site? _____

If so, how far from the building is the recovery site? _____

Is there a logical point to access wiring in the building?
(Telephone, data network) _____

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How far from the power source is the recovery site? _____

Miscellaneous:

Do you have an arrangement with or knowledge of local supplier of diesel fuel? _____

Do you have access to a licensed electrician? _____

Phone technician? _____

Is there adequate parking for staff? _____

Is there ready access to food and drink for the staff? _____

Do you have trash disposal arrangements? _____

Do you have arrangements for rest room disposal? _____

Please describe your LAN/WAN infrastructure. Include cabling requirements in the event of disaster and any other information which may be relevant (Provide a Diagram if available)

(Use back if necessary to give us as much information as possible)

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Satellite Reliability and Availability

IBM's reliability and availability of the Satellite link include:

- Remote Terminals at the Recovery Site
- Satellite
- Weather affected link between ground and satellite
- Earth Station at the Tele-port
- Tele-port Support Systems
- Land-lines at the Tele-port

1. Remote Terminal:

- Full redundancy through the spares for all critical components except the antenna itself. At most 10 minutes of outage during replacement. Antenna only susceptible to weather. Antenna can be dismantled and stored if damaging weather expected.

2. Satellite:

- The world's leading satellite provider and the basis for most standards for commercial satellites throughout the world provide the following:
 - i. Average availability since 1981 is 99.9967%, or only ½ hour/year per satellite
 - ii. Operational goal is 99.995%, or only 4.5 hours/year per satellite
 - iii. 1998 statistics:
 1. only 129 hours of total outage time out of 7,200,000 hours of transponder operation
 2. for each outage, average time -to-restoration was just 14 minutes 26 seconds
 3. out of all outages, 96.5% were restored within one hour

3. Satellite Link:

- Industry standard is designed for 99.7% availability for the weather-affected link for our Ku Band link. Outages are typically in the 5-10 minute range. Require no operator action.

4. Tele-Port Earth Station:

- Tele-port electronics are fully redundant. Switchover from failed component is virtually instantaneous (much less than 1 second). Maintenance personnel without affecting the on-line system can then replace any failed component. Antenna can be replaced by other Tele-port systems almost immediately while repair actions are taken.

5. Tele-Port Support Facilities:

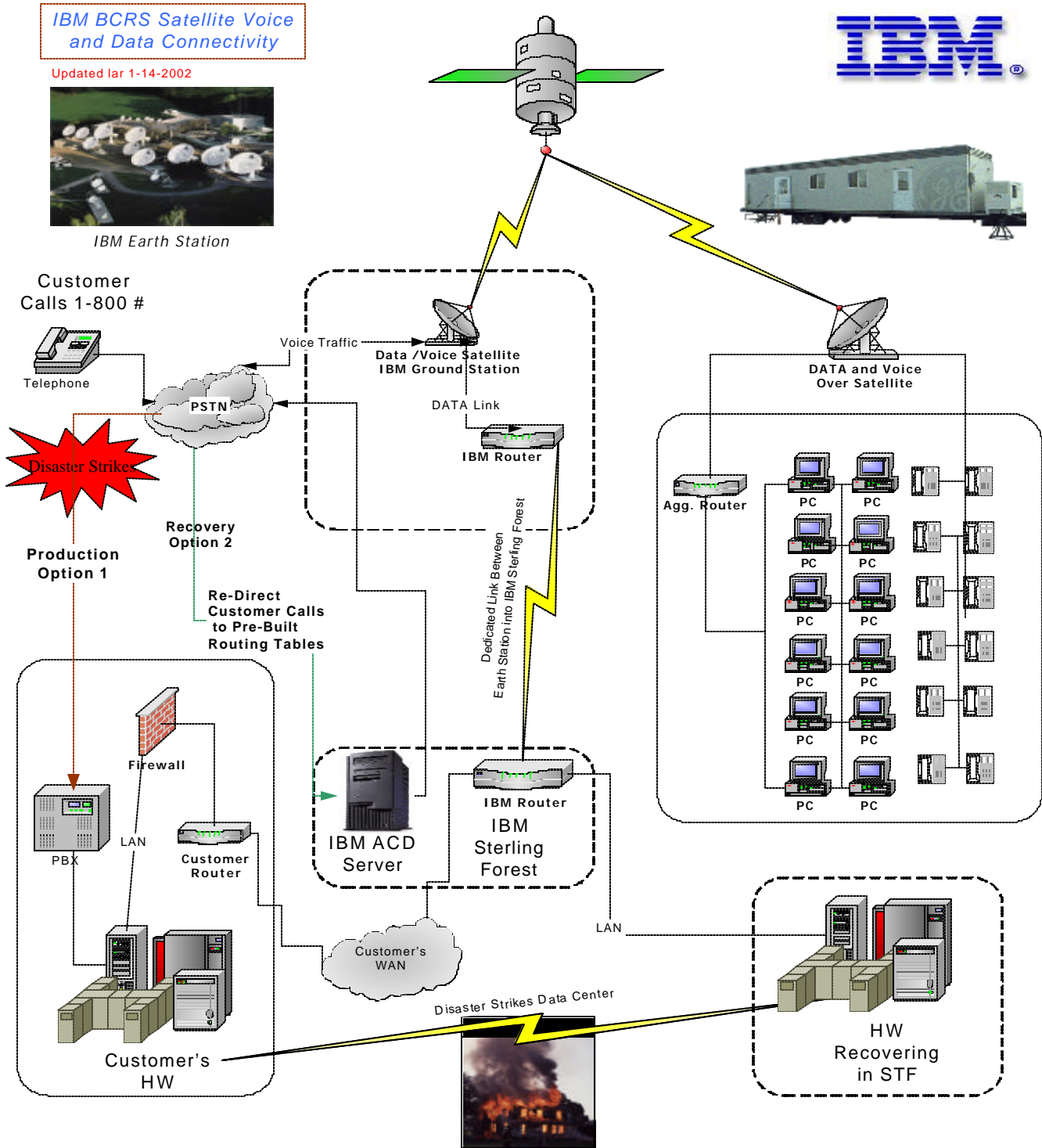
- The Tele-port has fully redundant power systems, fire suppression systems, and facilities built to strict environmental survival standards. The facility has been approved by AT&T to be used as a major Point-of-Presence for collocation of a Central Office, by VISA to support credit card services, and by Bell South for their services.

6. Land-Lines at Tele-Port:

- The T1 phone lines that are part of the IBM/AGILITY RECOVERY SOLUTIONS Disaster Recovery Service come from AT&T's national fiber backbone that resides on a SONET ring. This means that earth station is a node on a ring such that service can be provided from one of two directions. If the ring fails or is cut on one side, communications are maintained from the end of the ring on the other side. IBM access is directly into the backbone of one of the most reliable fiber networks in the world. Redundant links at the Tele-Port to Sterling Forest are also provided by IBM, and any partial recovery could be provided from the ISDN lines that would still be available.

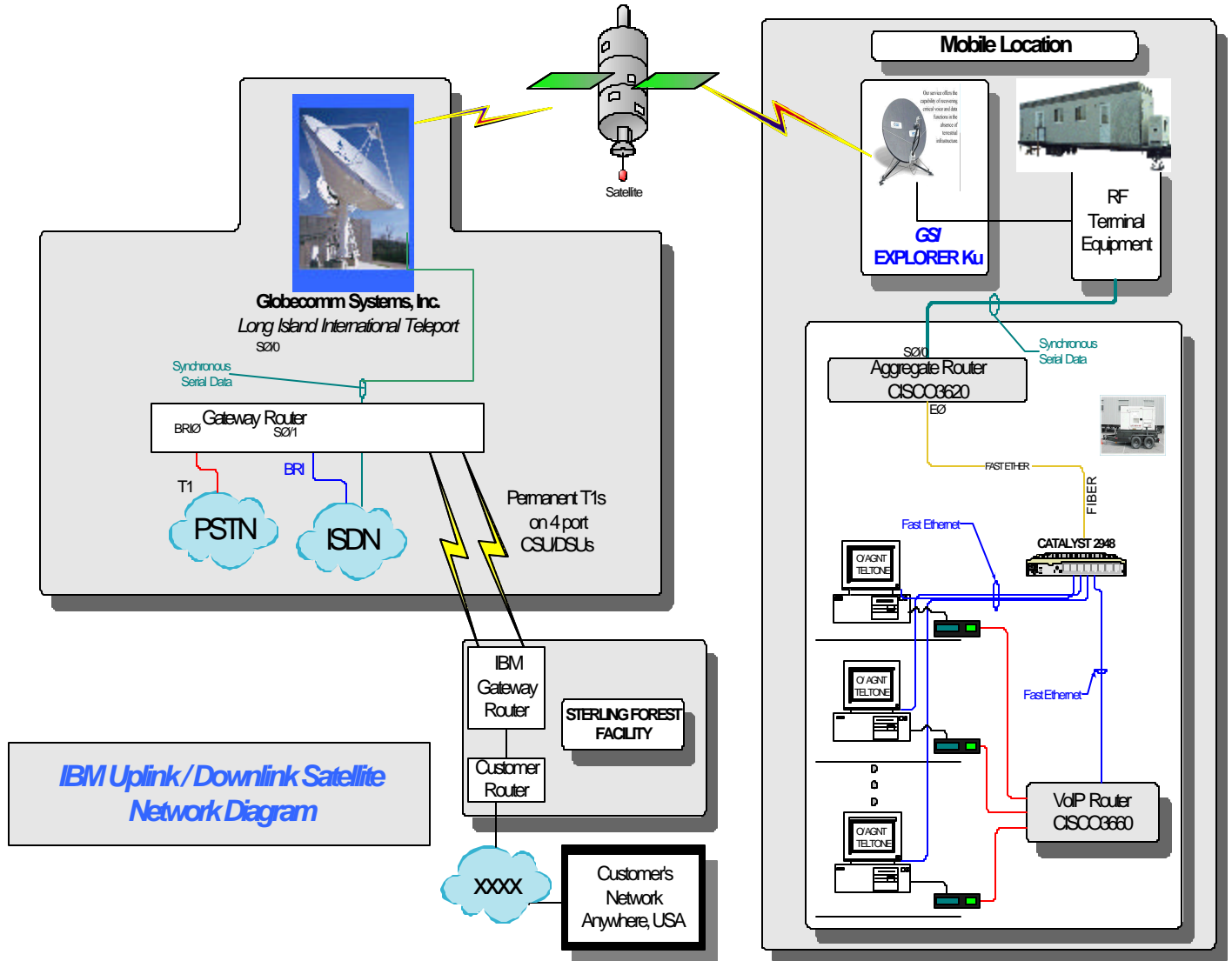
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Diagram 1 – Satellite Data and Voice Links



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Diagram 2 – Satellite Up-Link / Down-Link



For more information:

To learn more about IBM Business Continuity and Recovery Services or other IBM Global Services, contact your local IBM Sales Representative or Business Partner, or visit: www.ibm.com/services/continuity

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