



Issues and ideas

- I. Harden the primary / technology site:
 - A. Uninterruptible Power Supply (UPS) for all critical task equipment, with battery capacity for whatever time period is required either to switch to generators, alternate power or back-up, shut-down and divert calls to the back-up site.
 - 1. Switch
 - 2. ACD
 - 3. IVR
 - 4. Servers
 - 5. Hubs
 - 6. Routers
 - 7. At least a portion of the TSR desktop equipment, depending on technology and mission.
 - B. Back-up power feeds with automatic transfer switching from one or both of the following:
 - 1. Secondary power from alternate grid or sub-station.
 - 2. Diesel powered generator, sized to feed full UPS loads, life safety (emergency lighting, fire pumps, pressurizing fans), operational lighting, cooling of telecom/ data room, any other mechanical loads deemed necessary to continue operations for the specified time..
 - C. Redundant and hardened connections to telco service.
 - 1. Diverse routing.
 - 2. Secure enclosure for demark points.
 - 3. Possible wireless connections for primary or secondary service..
 - D. Provide spaces and amenities for crisis mode operations (personnel not able to leave site)
 - 1. Convert conference rooms and other areas to dormitories.
 - 2. Showers
 - 3. Access to or stocks of food, water, cots, bedding and other essentials.
 - E. Protection from risks
 - 1. Maximum seismic design of structure, enclosure, and utility service for risk zone.
 - 2. Separate and protect areas of higher fire risk.
 - 3. Protect people and property from acts of violence and vandalism.
 - 4. Protect critical equipment with specialized fire detection and protection systems.

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- II. Provide a redundant site.
 - A. Second site to cover different geographic/market area.
 - 1. Some ability to handle extra load for short term.
 - 2. Can be planned to double up TSRs on short notice to add extra personnel or relocate personnel from downed site.
 - 3. Sites can back-up or share data on a regular basis allowing quick shift from one site to another.
 - B. Second site in reserve:
 - 1. Located in connection with other operations, but not a full-time, on-line call center.
 - 2. Requires time to relocate personnel to back-up site.
 - 3. Requires either investment in duplicate technology with mirroring / transfer of data, or time to move equipment and data from primary site.
 - 4. Provide living quarters for relocated personnel.

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