

Business Continuity Technology Parks (BCTP)

(A proposal supporting infrastructure, economic development and business continuity)

Abstract: *Instant Access Networks, LLC (IAN) is exploring opportunities and speaking with partners regarding the establishment of multiple business continuity technology parks around the country. This idea is based on IAN's modular approach to all-hazards planning including electromagnetic pulse (EMP) protected data and communications centers and microgrids that utilize renewable energy resources. The first location is being developed at Frostburg State University (FSU) in western Maryland. Public Technology Institute (PTI) is working within its vast local government and private sector network to assess interest in creating remote backup and disaster recovery sites in rural locations. The following is a brief overview of some of the critical program elements.*

Modular approach to data/communications center and distributed energy benefits:

- *Enables fast and low-cost start-up for tech parks*
- *Provides development to cash strapped local governments and universities*
- *Creates highly scalable growth potential*
- *Attracts new businesses and infrastructure providers*
- *Incorporates renewable energy sources*
- *Reduces energy costs by reducing peak energy demand*
- *Provides diverse and sustainable communications and power in times of disaster*
- *Supports rural communities and universities*
- *Fosters R&D in sustainable local energy sources and advanced communications*

Overview of Rural Business Continuity Technology Parks for Urban Mission Critical Systems

Alternate Locations Required by Continuity of Operations Plans (COOP) Plans: Continuity of Operations Plans such as those recommended by Federal Preparedness Circular (FPC) 65, require the preservation of critical data, interoperable communications, and alternate work places with housing that employees can report to with limited notice.

Modular All Hazards Protected Data Centers and Microgrids: All-hazards protected data and communications centers, supported by microgrids potentially utilizing renewable energy, can be a quick and relatively inexpensive way to create highly scalable alternate data centers and work environments outside of an urban area, but, close enough so that employees can maintain operations.

Mutual Advantages for Urban Users and Rural Hosts: Rural areas need the on-going data traffic and participation of urban users in order to build out and to sustain state-of-the-art resilient facilities. Even though rural area sustainability is important to urban areas, the required technical infrastructure needs the financial sustainability that comes from the

aggregated use of both rural and urban users. Urban users need remote back-up, disaster recovery sites, and COOP locations that can be cost effectively provided in rural areas that may be 2-5 hours away.

All-Hazards Approach: “What is important is not so much what causes a consequence, but how we prepare and respond to it. In the built environment, there are certain things that we have to do regardless of whether the environment is impacted by a natural event, a terrorist strike, or simple obsolescence through neglect. We need to anticipate and decide up front what we are going to do when we see a given situation manifested. Anticipation is especially critical with the concept of resilience, because resilience is not just the after-the-fact response of infrastructure; it is thinking up front. Do we understand the risks involved? What do we need to do to build resilience in?” General Carl A. Strock, P.E., M.ASCE, the commander and chief of engineers of the U.S. Army Corps of Engineers.

Electromagnetic pulse (EMP) protection is another important component of the all-hazards approach for this work as outlined in the business continuity fire code NFPA 1600. EMP can be caused by solar storms, high-altitude nuclear burst, and radio frequency weapons. Extensive investigation has been carried out by the US Congressional Commission whose reports are available at www.empcommission.org. IAN and PTI are currently conducting pilot projects to further understand user requirements for mass produced solutions that would avoid the larger costs of custom solutions.

Continuity Parks Jump-start Local and Renewable Energy Technologies: Many corporate users may postpone adoption of renewable energy technologies until renewable technology prices come down or until fossil fuel prices go up even higher. However, mission critical facilities users adopting all-hazards planning are encouraged to review a broader range of scenarios, such as EMP, in which a fragile electric grid or remote fuels may not be available to them. In those instances, EMP-protected local and renewable energy sources can be cost-justified sooner.

Role of Anchor Tenants in Business Continuity Technology Parks™ (BCTP): Rural areas often have universities or town centers with robust communications technology infrastructure in place. These locations prove perfect for BCTPs. This infrastructure can be complemented with additional routes and carriers as urban users commit to place their back-up capabilities within these Business Continuity Technology Parks. Universities often have research and educational interests of their own that can be enhanced by mutual R&D and educational agreements with IAN and its R&D program.

Role of PTI: Public Technology Institute is a national, member-supported organization based in Washington, D.C. As the only technology organization created by and for cities and counties, PTI works with a core network of leading local government officials - the PTI membership - to

identify opportunities for research, share best practices, offer consultancies and pilot demonstrations, promote technology development initiatives and present educational programming. PTI is working with Instant Access Networks, LLC, to jump-start a number of Business Continuity Technology Parks in different regions around the country. PTI will enlist local government participation and facilitate fulfillment of user requirements.

Role of IAN: IAN will provide the core modular EMP-protected technology environments within which user organizations may place their critical infrastructure elements (such as racks of servers or fiber optic network nodes). IAN will assist in obtaining the financing and provide the overall project management in coordination with local organizations organizing the BCTP.

Initial Financing and Matching Funds from IAN: IAN proposes financing of the business continuity technology park so that the university or local government hosts do not need to provide much if any cash. The initial modules can be purchased by 2/3 of cash from users and 1/3 of in-kind contributions by the university or local government host. IAN will match the in-kind contributions of land or prepaid rents with a 1/3 discount of the facilities. In this way, the land owner will have access to 1/3 of the EMP protected data center space for itself or its customer without a cash payment. The in-kind contributions will enable IAN to establish a location that will be prepared for use by additional business continuity clients that will result in additional pods, buildings and renewable energy microgrids resulting in growth of the BCTP, its infrastructure and the local economy. This makes it possible for the local facility owner to participate without having to provide cash while minimizing the additional cash requirements of IAN beyond its own investment into its infrastructure and products.