



## Tools for Achieving U.S. Technology Independence and Job Growth: Responding to the Challenge

An important opportunity exists to solve two of our country's serious challenges: enhancing the security of our information resources and providing quality jobs to residents in disadvantaged regions. This report by Johns Hopkins University's Dr. Lester Salamon analyzes an array of tools, already in place, that could be useful in seizing this opportunity but that are embodied in programs scattered across numerous agencies and, therefore, difficult to mobilize. The administration can capitalize on this opportunity by implementing the approaches this report identifies to accelerate growth of IT capacity as a national resource.

There are multiple barriers in the way of creating information and other technology businesses within the United States that can compete effectively with overseas locations. Overcoming them will require the involvement of a variety of actors, both public and private. At least four such barriers must be addressed:

- **The infrastructure gap.** To be economically competitive with overseas sites, new IT locations in the United States will need to be put in historically underdeveloped rural and central city areas, where wage levels even for technology-related jobs are typically 20 to 30 percent lower than in IT hotspots. However, these areas often lack the broadband connectivity infrastructure needed to support IT businesses.
- **The skill gap.** Skilled personnel are a must to create viable, new IT businesses in less-developed regions. These skills require sophisticated, specialized training.
- **The enterprise gap.** Because other countries have taken the lead in developing attractive options for IT outsourcing by investing in infrastructure and skill development, U.S. businesses have been understandably obliged to take advantage of these options to remain viable in highly competitive global markets. To attract these businesses to U.S.-based investments, special incentives will be needed to offset the disadvantages these domestic sites impose.
- **The integration gap.** Many programs embodying a wide variety of tools are already available to stimulate competitive IT businesses in underdeveloped U.S. regions. However, few of these tools specifically target this particular purpose and are scattered among a plethora of agencies, making their assembly difficult to support priority national objectives.

There are tools of government that the new administration can choose to apply to overcome these barriers: tax expenditures, grants, loans, vouchers, and procurement set-asides. Additional government leadership is necessary to apply and integrate these tools to maximum benefit in accelerating job growth in rural and disadvantaged locations, and to grow domestic IT capacity as a national resource. The following outlines a model the new administration may consider implementing:

- Review grant, loan, tax expenditure, voucher, and procurement set-aside programs to verify their ability to be used to support growing domestic IT capacity as a national resource, or find ways to augment them with new federal policies, regulations, or legislation to reach the goal.
- Designate a specific agency to be responsible for integrating federal, state, local, and private-sector activities to accelerate growth of U.S. IT capacity, either by chartering an agency or creating a new agency dedicated to promote developing new IT centers in evolving regions.
- Expand grant programs to support organizations that facilitate local IT growth initiatives, either through existing programs or by creating a new National Technology Initiative Grant Program.
- Form a President's National Technology Initiative Subcabinet led by the president's chief domestic policy adviser and involving the administrator of the National Technologies Administration, and the undersecretaries of the Small Business Administration, the General Services Administration, and the departments of Labor, Education, Agriculture, and Commerce. The purpose would be to ensure cooperation of the affected federal agencies in making the various tools they use available to support the local technology initiatives.