Leveraging Digital Infrastructure to Further U.S. Leadership

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ITI

Promoting Innovation Worldwide

More than ever before, **digital infrastructure** is the foundation connecting Americans to healthcare, education, economic opportunity, emergency response, and community; powering our economy through unprecedented challenges; and accelerating American leadership in critical technologies of the future.

ITI salutes the 117th Congress and the Biden Administration's commitment to pursue a transformative investment strategy to renew American infrastructure. The tech sector shares the Biden Administration's commitment to tackling the climate crisis and promoting the rapid deployment of clean and energy-efficient technologies. We agree on the urgent need to prioritize digital infrastructure: the availability, affordability, and accessibility of secure, resilient connectivity in every community across the nation. Working together, we can at last eliminate the digital divide, ensuring plenty of bandwidth for the American dream.

Prioritize Investment in Digital Infrastructure:

In considering comprehensive proposals to modernize the nation's infrastructure, Congress should fully recognize the relative importance of secure digital infrastructure in providing access to every aspect of American life and devote resources realistically appropriate to achieve the critical bipartisan priority of eliminating the digital divide.

Connect Unserved and Underserved Communities:

Congress should build on the progress made through the FCC's Rural Digital Opportunity Fund with an additional $80 billion for a national competitive reverse auction to support the extension of technology neutral, secure, resilient, and modern connectivity into unserved and underserved American communities. Eligibility should be determined utilizing the improved broadband availability mapping already directed in 2020 by the Broadband DATA Act when it is available, and any funded projects should be completed within three years.

Supercharge American 5G and 6G Leadership:

A holistic infrastructure package should include significant support designed to supercharge American leadership in the deployment of 5G capabilities and use cases for multiple sectors, as well as the nascent research and development for 6G that is needed to ensure American competitiveness. Federal funding for secure 5G will ensure widespread access to this essential new technology, and to accelerate the research, development, and deployment of advanced wireless network architecture optimizing open and interoperable interfaces, performance, security, and cost-efficiency. Fundamental research in telecommunications, where there is no direct commercial application today, will benefit 5G and future generations of telecom infrastructure equipment. Congress should appropriate $10 billion in support for 5G deployment in rural areas, with funded projects required to be completed within four years, $10 billion for next generation wireless telecommunications technology research and development, including a public-private partnership establishing a 6G R&D Center in the United States, and funding for the programs already authorized in 2020 by the USA Telecommunications Act.

Incentivize Foundational Technology Development Critical for Connectivity:

Semiconductors are a critical component of 5G and advanced communications technologies and federal investment and incentives for research & development, design, and manufacturing of semiconductors will drive innovation across many different sectors for decades to come. Congress should fully fund the programs from the CHIPS for America Act that were authorized as part of the FY 2021 National Defense Authorization Act (NDAA) at $50 billlion, consistent with President Biden's American Jobs Plan . We should also use investment tax credits to help secure the semiconductor supply chain and further incentivize building new and modernizing existing semiconductor manufacturing facilities in the United States.

Expand Federal Cybersecurity Grants to Ensure Secure and Resilient Networks:

Congress should provide dedicated cybersecurity grant funding to ensure ongoing investment in the security of the digital infrastructure that is facilitating all aspects of American life. Critical national infrastructure such as the electric grid and water supply often rely on outdated industrial control systems and operational technologies which can be at high risk for abuse by nefarious cyber actors. Responding to the SolarWinds incident has strained already limited cybersecurity resources, both at the Federal as well at the State, Local, Tribal, and Territorial (SLTT) levels. At a time when SLTT governments are already under intense threat from the ransomware epidemic and struggling to modernize outdated technology, significant new funding for connectivity must be coupled with resources to advance cybersecurity.

Accelerate IT and Data Modernization.

Aging IT at the federal, state, and local levels of government has hindered the ability of government to effectively serve all Americans. Legacy IT can be difficult to maintain, is often supported by only a few remaining vendors at great expense, more exposed to cybersecurity risks and single points of failure, less resilient to critical events, and far less effective than modern commercial capabilities. Congress should build on recent investments in technology infrastructure and sustain the progress in modernizing IT now being made to ensure that all governments can safely, securely, and efficiently accomplish their missions of service by continuing IT modernization throughout the U.S. federal, state, local, tribal, and territorial public sector.

Promote Digital Inclusion:

Congress should address the affordability and accessibility concerns that are well known to reduce the adoption of broadband services, allocating $9.5 billion to ensure that all Americans have the means and the skills to access digital infrastructure. We should support vital connectivity for students and low-income Americans by making permanent the FCC's Emergency Broadband Benefit, supporting both wired and wireless connections and connected devices. We should also support community-based digital literacy efforts to increase the skills people need to effectively access the many benefits of broadband services.

Expand Workforce Development:

The effective deployment of a significant digital infrastructure investment will require measures to help close the existing workforce shortage in the telecommunications industry, especially as the demand rapidly increases for qualified, skilled telecommunications workers, including those with tech related skill sets such as cybersecurity experts and cloud system administrators. Congress should devote $500 million to tried-and-true registered and unregistered programs, including the Telecommunications Industry Registered Apprenticeship Program, as well as support the reforms and studies proposed by the Telecommunications Skilled Workforce Act. More broadly, ITI supports the Biden Administration's call for expanding workforce development to underserved communities, focusing training on growing, high-demand sectors such as the STEM fields, and targeting investments to Minority Serving Institutions such as Historically Black Colleges and Universities and Hispanic Serving Institutions.

Reduce Barriers to Deployment:

Regulatory barriers to digital infrastructure deployment should be reduced as much as possible, and opportunities for potential efficiencies fully realized to achieve rapid connectivity results for Americans. Reforms proposed by the Nationwide Dig Once Act should be included, and further efforts made to accelerate and streamline 5G small cell buildout, resiliency improvements, and access to federal lands and facilities for commercial deployment.

Better Leverage Technology in the Design and Construction of Infrastructure:

Digital design and construction management tools help planners, designers, engineers, and construction companies accelerate project delivery time, reduce cost, improve worker safety, and develop infrastructure that is more resilient to climate change (including modeling for flooding and sea level rise) and designed to minimize negative environmental impacts (e.g., reducing waste and using materials with less carbon emissions). These technologies include software, mobile platforms, and electronic devices that are used for the design and engineering, planning, management, and operations of construction projects. Additional federal efforts to increase technology adoption in infrastructure can help maximize federal investments and improve quality of life for all Americans.

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