

BSA Response & Recovery Agenda

The global outbreak of COVID-19 presents one of the most complex challenges governments have faced in modern times. With many governments implementing measures to increase the physical distance among populations to reduce spread of the virus, the pandemic has rapidly forced many aspects of public life to a remote environment. As governments around the world continue to navigate and respond to the public health crisis, policymakers must consider actions that protect the safety of the public and the vitality of the economy. BSA's Response & Recovery Agenda identifies the policy priorities and strategic initiatives that will enable governments and their citizens to prepare for and implement increased remote working, resilient education systems, and other remote-based activities.

Introduction

The sudden shift to remote working in response to the COVID-19 outbreak has transformed the global economy. Remote working, health services, and learning play a critical role in responding to the pandemic, and increased levels of telecommuting will likely be sustained after the immediate public health crisis wanes. Using software and cloud services can improve the ability of employees to collaborate, companies to reach consumers, and governments to reach citizens in a secure and efficient manner. Although not every job may be performed remotely, given the importance of remote work to society's health and vitality during COVID-19 and to ensure the workforce is more prepared and resilient to deal with future crises, governments should enable and facilitate remote work now and in the future in all areas where remote working is possible.

Members of BSA | The Software Alliance are trusted leaders in the global software industry. They build the enterprise technology platforms that enable the remote economy to thrive, developing cutting-edge collaboration, communication, and management tools that allow people to work remotely and securely.

BSA's Response & Recovery Agenda advocates government policies that power the remote economy, maximize public health and safety, provide resiliency to education and training systems, and maintain essential functions that people all over the world depend on for critical business and personal needs.



BSA's Response & Recovery Agenda identifies the policy priorities and strategic initiatives that will enable governments and their citizens to prepare for and implement increased remote working, resilient education systems, and other remote-based activities.

Specifically, BSA supports government policies for **responding** to the immediate health emergency, by ensuring that (1) information technology (IT) and related workers can provide needed services during lockdowns (including construction, installation, and maintenance); (2) businesses have resources to access digital services and address the challenges of remote working practices; and (3) strong data privacy and security practices are maintained throughout the emergency response.

And over the longer term, BSA supports government policies for **recovering** from the pandemic, based on principles that (1) promote affordable and universal high-speed Internet access, including through secure 5G technologies; (2) remove barriers to cross-border collaboration; (3) promote responsible migration to cloud services; and (4) enhance workforce policies, education, and training.

Responding to the Pandemic

The COVID-19 pandemic has put enormous pressure on operations across sectors, posing unprecedented challenges to public health providers, governments, education systems, social service organizations, small businesses, and many others. Needs for responding to this crisis are many and diverse, but policymakers should not lose sight of the importance of maintaining and expanding vital IT services that businesses, first responders, health care providers, and other stakeholders depend on to sustain their operations and for economies to begin to reopen. An effective response should include the following measures to ensure continuity and mitigate public health and economic crises.



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Ensuring essential IT workers can do their jobs.

Cloud services, software platforms, and other IT infrastructure support functions are vital, during COVID-19's spread, to enable effective public health responses, to support continued and future economic activity, and to meet essential personal needs of individual citizens. Health care providers, first responders, the vendors of food and essential supplies and their supply chains, education systems, business and government enterprises, and numerous other sectors rely on IT and IT infrastructure. Stay-at-home orders and similar policies that cause substantial disruptions to or closures of significant operations could cripple these functions. **Governments should ensure the continuity and stability of these services by including IT and IT infrastructure in essential business exemptions in stay-at-home orders and similar policies**, or by taking other measures to enable workforces in these industries to support these vital services.¹ Additionally, national governments should facilitate the continued operation of key industries across borders and industry subsectors, and with the movement of people.



Encouraging and enabling the use of software and cloud services for continued business and government operations.

Business software, cloud computing, and cloud-edge computing services are as crucial to businesses as physical equipment, if not more so, in this period of remote working and communication. Businesses depend on software tools and cloud services to support essential business functions, such as managing payrolls, sustaining e-commerce, training employees, and ensuring the

¹ Such exemptions should include IT and IT infrastructure as well as their essential services vendors, including the provision of essential global, national, and local infrastructure for computing services, business infrastructure, communications, web-based services, and critical manufacturing supporting these services. For more, see <https://www.bsa.org/covid19/bsa-actions>.

resilience of supply chains. **Governments should enable businesses to maintain secure cloud and software services, including on a cross-border basis, and to meet unexpected costs and the potential cybersecurity risks of transitioning to remote work.** Governments face many of the same challenges as businesses: depending on software technology to support essential operations and working to quickly transition to remote work. Therefore, governments should invest in software, cybersecurity, and cloud tools and services, even in nontraditional remote work fields such as public infrastructure maintenance and construction, to meet increasing constituent needs, maintain high standards of operational resilience, and keep government services open.



Maintaining strong privacy and cybersecurity practices.

The response should not be used to sacrifice privacy or security. As businesses and governments are responding to the pandemic, millions of people are embracing remote work and education, dramatically changing how data is stored, processed, and transmitted. And governments are seeking to leverage data to improve responses to the pandemic, for example by tracking contagion patterns or identifying vulnerable populations. These changes create new demands for ensuring cybersecurity and protecting privacy. **Governments should prioritize cybersecurity by supporting robust security practices among the remote workforce, enabling cybersecurity professionals to sustain their operations, and maintaining capacity for robust incident response.** Near-term education and awareness activities are needed to make sure new remote workers and organizations dealing with remote work and distance learning for the first time can understand and apply appropriate security measures.² Additionally, governments should encourage remote monitoring tools to ensure the health and security of networks during response periods. **Governments must also ensure that pandemic response policies and activities are privacy-protective, such as by implementing privacy-by-design practices into the development of new technologies.** Different types of data used to combat the pandemic may be fit for different purposes—and each use of data must be subject to privacy and security safeguards that reflect the sensitivity of that data and the purpose for which it is used.



Ensuring the availability of network infrastructure for remote health services, work, and learning in the COVID-19 environment.

The World Trade Organization reports that some 80 countries have imposed export and other trade restrictions in reaction to the COVID-19 epidemic.³ Such trade restrictions impede the ability of populations to comply with social distancing mandates, reduce the spread of disease, and remain economically productive. **Governments should expeditiously and responsibly lift export and import restrictions—including quotas, customs duties, and non-automatic import licensing requirements—on all medical and IT equipment and supplies needed to respond to the COVID-19 outbreak.**

² Governments must ensure cyber defense activities can continue or expand as needed, ensuring that stay-at-home orders or similar measures do not disrupt the cybersecurity workforce, and that government incident response units maintain sufficient resources to respond to hackers taking advantage of this crisis.

³ World Trade Organization, *WTO Report Finds Growing Number of Export Restrictions in Response to COVID-19 Crisis* (April 2020), https://www.wto.org/english/news_e/news20_e/rese_23apr20_e.htm.

Recovering From the Pandemic

The economic and societal effects of the COVID-19 pandemic will likely last much longer than the immediate public health crisis. As we begin to plan for recovery from the COVID-19 outbreak, governments should seek to build more resilient and flexible economies capable of adapting to future crises. Government leaders should promote policies based on the following principles to aid their communities in recovering from the pandemic, and to ensure government operations, businesses, and individuals are better prepared in the long term for future crises.



Universal, affordable, and secure high-speed Internet access.

An easily available, reliable, and secure Internet connection is critical for maintaining economic activity under social distancing measures and for economic growth in the aftermath of the current crisis. This access is also important to support distance learning efforts, which are critical to economic development. Unfortunately, Internet access is unavailable or unreliable for a large part of the global population. To address these shortcomings, governments should:

- » **Expand broadband access.** Governments should prioritize policies that promote the **deployment** of broadband in areas lacking broadband infrastructure, particularly rural areas. Even in areas where broadband infrastructure is available, **access** widely varies among income groups, and across and within geographies. Policies should focus on facilitating affordable and universal broadband access.
- » **Deploy and secure 5G networks.** With their exponentially faster connection speeds, capacity, and communications response times (i.e., low latency), future 5G networks will make possible an astonishing range of innovative products and services. 5G networks will allow organizations to maintain critical operations in a secure, virtual manner, and will create myriad new opportunities for business and individuals by powering the Internet of Things and other emerging technologies. Government policies should accelerate 5G adoption, and create a reliable and safe 5G architecture by:
 - Emphasizing the need for open standards and open-source-driven architectures, and
 - Investing in innovative software solutions to cybersecurity and supply chain challenges (e.g., open radio access network (O-RAN)/virtualized radio access network (V-RAN)).



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Removing barriers to cross-border collaboration to advance remote health, work, and education.

Connectivity and cross-border data transfers have become essential for countries that wish to secure the benefits the global remote economy can bring in jobs, wages, productivity, innovation, health, and education. Without cross-border connectivity and the ability to transfer data, countries will find it challenging to achieve these benefits. To harness the benefits of the global remote economy, governments should:

- » **Allow cross-border data transfers to optimize workforce health, safety, and productivity.** For companies with international operations or sales, realizing the benefits of a remote workforce often depends on cross-border data flows, which (among other things) allow overseas branch office employees to communicate with colleagues at headquarters; enable improvements in corporate health, safety, and productivity based on analytics of internal HR and operational data sourced from

around the world; and permit employees to do their jobs by accessing the digital tools and software solutions stored on servers abroad. In numerous ways, cross-border data transfers are directly determinative of effective and productive remote work, and thus contribute to keeping employees safe and healthy, and improving employee quality of life, morale, and retention. Governments should therefore avoid unnecessary restrictions on the transfer of data across borders.

- » **Promote cross-border connectivity to help keep economies and employers competitive.** Companies increasingly rely on remote workplace and cloud-based software tools to innovate and compete in a global marketplace. Remote workplace tools—including cloud-based libraries and databases, video-conferencing applications, interactive collaboration platforms, customer relationship managers, and other enterprise software solutions—build stronger, more resilient companies, open new job opportunities, and grow technology skills. Conversely, closing borders to collaboration denies local employers access to the most innovative services and market opportunities, and will undermine the country's workforce.
- » **Maintain a secure, reliable, and predictable IT supply chain.** The remote economy depends on well-integrated and reliable international supply chains that can provide IT equipment to global workforces and that facilitate the cross-border flow of software, knowledge, and data-enabled services. Countries should refrain from imposing unreasonable import or export restrictions on the products—from semiconductors and other components to computing equipment—that comprise the building blocks of the digitized remote economy. Countries should also eliminate customs duties on IT equipment; should permanently ban any customs duties on software, digital services, or other electronic transmissions; and should forego future discriminatory taxation frameworks.
- » **Grow the size of the digital economy.** As the global workforce transitions to the remote economy, it will be important for governments to collaborate in ensuring open markets to the economic outputs created by those workers. These outputs include digital products (e.g., business, educational, entertainment, and other software; music and sound recordings; audiovisual content); a wide array of digital services; and services that are now being remotely delivered—from remote teaching to medicine to the purchase and delivery of groceries and household staples.



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Promoting responsible migration to cloud services.

Cloud services enable businesses to access, process, and transmit data across diverse geographies and work environments at the push of a button, building in speed, scalability, flexibility, and mobility—which makes them essential for efficient remote work. Moreover, cloud-based technologies enable businesses to protect the privacy and security of data wherever that data moves, mitigating challenges that remote work could introduce. To lay a sound foundation for the future remote economy, governments should:

- » **Lead by example in responsible cloud adoption.** Governments themselves should adopt cloud services in ways that advance their missions and support their privacy and security goals. Cloud technologies are critical to creating agile governments that can accelerate and scale to keep pace with advances in technology, changes in policies, and growing public expectations. Governments can send powerful signals to the business community about the benefits of cloud services by creating forward-leaning cloud migration policies.

- » **Establish clear, accessible security guidance for cloud migration.** Governments should develop cybersecurity guidance for cloud environments that is accessible and practical for businesses large and small; stresses interoperable approaches to security and internationally recognized standards, such as the International Organization for Standardization (ISO) 27000 series; promotes good cyber hygiene; and emphasizes the importance of resilience. Governments should avoid mandatory national standards or conformity assessment procedures that do not adhere to internationally recognized, consensus-based standards.
- » **Enforce clear, consistent privacy standards.** Governments should have a harmonized, interoperable privacy law that provides robust consumer rights, creates strong obligations for businesses, and reflects companies' roles as either controllers or processors in handling consumer data. Governments should work with the private sector to build and maintain public knowledge and trust in the cloud through policies that prioritize transparency and accountability.
- » **Modernize regulations to facilitate cloud adoption.** Government should review regulations to ensure policies do not restrict remote work by hindering migration to cloud services, including ensuring export control regulations are not triggered by uses of cloud services that are encrypted to prevent unauthorized access.
- » **Support interoperability and portability.** Governments should support interoperable approaches to data governance and data portability, so that information may flow between systems.



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Transforming the global workforce.

The job losses resulting from the economic hardship caused by the COVID-19 pandemic are extremely concerning. The digital economy offers new opportunities for displaced workers if they can receive appropriate training on skills necessary to perform jobs that are and will continue to be in high demand. This includes acquiring the skills necessary to develop digital technologies and the skills to use such technologies in a wide array of professions. Many of these jobs, in various sectors of the global economy, are created or supported by software-driven technologies. Additionally, education pathways to work need to be short, flexible, and inclusive so that students can navigate to the changed skills needed in economies altered by the pandemic. To encourage remote work and prepare workers for the future of work, governments should:

- » **Improve access to STEM education.** STEM education is essential to building a highly skilled workforce, but too few students currently have access. Enhancing government investments in early STEM interventions, expanding public-private partnerships, and training more STEM-qualified school teachers are critical priorities policymakers should address. STEM curricula should also consider market demands to ensure investments in STEM education translate into a properly skilled workforce. Finally, STEM education should be made widely available, including to underrepresented groups.
- » **Leverage technology for workforce development across industries.** We can count on increasingly rapid workplace transformation into the future and technology can provide critical tools to connect people with opportunities. Policymakers and stakeholders should incent the use of technology that can help the workforce adjust to these changes that are occurring globally across industries. Machine learning is being used to organize and identify skills needed in the workforce, including new and emerging skills. Governments can enable a skills-based approach to hiring by enabling real-time data on trends in roles and employment. In addition, blockchain-enabled digital credentials offer the potential for workers to easily demonstrate their skills in a

timely manner. Governments can encourage interoperability and expand accreditation measures to increase the footprint of credentials.

- » **Remove obstacles in education systems that prevent short, flexible pathways from classroom to work.** Funding should be provided for shorter education programs that are most relevant to those seeking certifications and other stackable credentials. Policies should also eliminate obstacles to apprenticeships and other earn-and-learn pathways.
- » **Support new approaches to workforce training, re-training, and upskilling.** Traditional education and training models may not equip workers with the skills needed to succeed in the digital economy. Moreover, many workers find themselves unable to work due to the current crisis. This provides an unusual opportunity to invest in worker training, especially for low-wage workers who cannot typically afford time off to invest in their education. Policymakers and stakeholders should support public-private partnerships, streamline eligibility for, and identify incentives to advance short-term and nontraditional training and education programs to respond to jobseeker and employer needs for rapid reskilling and upskilling. Community colleges, technical schools, apprenticeships, credentialing, online training resources, and other training programs can offer the education and skills necessary to thrive in 21st century careers. Investing in these types of programs could prompt employers to shift to a nimbler skills- or competency-based hiring system and increase learner access to digital and technology skills training and recognized credentials. This approach would also help employers fill open positions more efficiently, benefiting the global economy.
- » **Help industries adopt technologies that facilitate remote work and collaboration, and make them more resilient to future disruption.** The social distancing necessary to address the current health crisis has forced many industries to move to remote work and adopt technologies to facilitate this. This is an ongoing effort with many industries only slowly adapting. With remote work needs likely to continue for a while and to help make industries more resilient for future disruptions, the government should provide resources and training to help industries adopt these technologies to facilitate business continuity and keep people working. It will also help modernize industry sectors—such as construction—that have to date been slow to adopt technological innovations and in so doing improve their delivery of products and services.
- » **Promote smart long-term remote work policies.** Although stay-at-home measures were rapidly implemented to slow the spread of the coronavirus, many workers were not prepared to rapidly transition to remote working; governments should lead by example in developing and implementing remote work policies, including regularly reviewing remote work policies in need of updating. These policies should consider the childcare and eldercare support workers may need to work from home, particularly if social distancing requirements are extended for a long period, and the health and well-being impacts of increased remote work. In addition, government guidance on how companies should approach the return to work once it is safe to do so will be important to ensure the needs of workers can be accommodated considering their particular circumstances.



To meet the needs of our rapidly evolving economy, policymakers must act now to respond to current demands and pave the way to a more agile, connected, dynamic future.

COVID-19 has initiated a massive and urgent transformation in workplaces of millions of people around the world, driving the expansion of remote working and online collaboration to enable businesses to continue operations. For some, this transition will be temporary; others will join the accelerating long-term trend toward remote work. To meet the needs of our rapidly evolving economy, policymakers must act now to respond to current demands and pave the way to a more agile, connected, dynamic future.