Submission to The World Bank on

*Concept Note for the World Development Report 2021 – Data for Better Lives*

June 16, 2020

The Global Data Alliance\(^1\) welcomes the opportunity to share its views on the World Bank’s Concept Note for the World Development Report 2021 – Data For Better Lives (“Concept Note”), issued on May 5, 2020.\(^2\) We have attached as appendices to this submission the Alliance’s [Position Paper](#) on cross-border data transfers, as well as several documents describing the economic benefits of cross-border data transfers.\(^3\)

The Alliance is a cross-industry coalition of companies, headquartered in different regions of the world, that are committed to high standards of data privacy and security. Global Data Alliance members share a deep and long-standing commitment to supporting economic development, building trust in the digital economy, and protecting personal data across regions, technologies, and business models. Alliance member companies rely on the ability to transfer data responsibly around the world to create jobs and make local industries more competitive. Cross-border data transfers power growth across the globe and all sectors of the economy — from farming, fisheries, and mining; to services of all types; to the manufacturing industries. Data transfers are critical for companies of all sizes — from micro, small, and medium-sized enterprises (MSMEs) to multi-national corporations (MNCs).

We welcome the opportunity to participate in the consultation on the World Bank Concept Note. The ability to responsibly transfer data across borders is the lifeblood of the digital economy in countries at all levels of economic development. For this reason, we endorse the Concept Note’s support for the more effective use of data across borders to facilitate economic development goals.

The Global Data Alliance is of the view that cross-border data transfers are important to many of the policy priorities outlined in the Concept Note. Data and digital tools, accessed via the cloud across networks and national boundaries, are important to:

- Helping governments understand impacts of proposed policies and improve the delivery and effectiveness of government services;
- Facilitating transparency and government accountability to better serve vulnerable populations;

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\(^1\) The Global Data Alliance is a cross-industry coalition of companies that are committed to high standards of data responsibility and that rely on the ability to transfer data around the world to innovate and create jobs. Alliance member companies are headquartered across the globe and are active in the advanced manufacturing, aerospace, automotive, consumer goods, electronics, energy, financial services, health, supply chain, and telecommunications sectors, among others. BSA | The Software Alliance administers the Global Data Alliance. For more information on the Global Data Alliance, please see: [https://www.globaldataalliance.org/downloads/aboutgda.pdf](https://www.globaldataalliance.org/downloads/aboutgda.pdf)


\(^3\) Please see the appendices for the following resource documents:
- [Cross-Border Data Transfers Facts & Figures](#);
- [Infographic of Jobs that Depend Upon Data Transfers](#); and
- [Cross-Border Data Transfer – Creating Jobs and Trust in Every Sector](#)
● Improving living standards and services available to populations in underserved regions (e.g., through cloud-enabled access to microcredit finance, remote health services, data-driven insights that can improve crop yields); and

● Realizing the value of data to developing country populations (e.g., by improving interoperability and linkages across data types and sources and by consolidating data sets across jurisdictions for the benefit of developing country populations).\(^4\)

Enabling cross-border data transfers and avoiding of data localization mandates are critical to solving these and other development-related challenges. In the sections that follow below, we discuss: (1) the benefits of cross-border data transfers to economic development; (2) potential risks and costs associated with transfer restrictions and localization mandates; and (3) common policy arguments relating to cross-border data transfers.

A. The Benefits to Economic Development of Data Connectivity and Cross-Border Access to Cloud-Based Technologies

Cross-border data transfers are critical to economic development. Cross-border access to data, which may embody knowledge, technological tools, and new business opportunities, are critical to enhancing living standards for the world's most vulnerable populations.

As explained below, the ability to transfer data across borders and leverage the benefits of data originating from different geographies is critical to: (1) delivering productivity benefits to MSMEs and other companies, and helping them access overseas markets and supply chains, and buyers and suppliers; (2) growing agricultural output; (3) delivering diagnostic services, developing new medical treatments, and otherwise protecting population health; and (4) ensuring digital trust and security. We address each of these points below.

The ability of MSMEs in developing countries to access global markets and to offer and sell their services and products abroad depends upon cross-border access to the data and cloud-enabled technologies. Cross-border access to e-commerce platforms, purchasers, suppliers, and other commercial partners allow local MSMEs to engage in international transactions and create jobs at home. Kenya, one of Africa's leading digital economies, makes this case in its 2019 Digital Economy Blueprint, noting that “[e]very citizen will benefit and find value” in a cross-border digital economy that makes their “goods, services and expertise... accessible across borders, opening up markets and catapulting Kenya to join 1st world markets where citizens benefit from direct access to global markets.” Cross-border digital market access offers Kenya “a leapfrogging opportunity on economic development.”\(^5\)

Agricultural output in developing countries can be increased through technologies that depend upon cross-border access to data and cloud enabled technologies. Small- and large-scale farmers alike are better positioned for success in planting, harvesting, and selling their agricultural products when they benefit from cross-border access to: (a) satellite and meteorological data across regions, (b) real-time insights on planting and harvesting seasons, and (c) information on cost-effective techniques for crop development and protection as well as sales opportunities.

Remote health services for medically underserved populations, and the search for tomorrow’s medical treatments also depend upon cross-border access to data and cloud enabled technologies. Cross-border access to remote health service technology platforms help remote and medically underserved population groups secure diagnostics, consultation, and preventative care and treatments that might otherwise not be available. Similarly, cross-border access to clinical testing and other

\(^4\) As the concept note States, “government failures can lead to both an undersupply of data and missed opportunities from data agglomeration,” and that “lower-income countries where the relatively weak Data systems and limited interoperability” are most vulnerable to these missed opportunities. Concept Note, p. 14.

biopharmaceutical R&D data aids in the study and development of treatments for diseases – including infectious and lifestyle diseases that are globally prevalent, as well as rare and neglected diseases.

**Building trust in developing digital economies by keeping personal data confidential, secure, and free from misuse** often depends upon cross-border access to data and cloud enabled technologies. Cross-border access to cloud-based and AI enhanced cyber security solutions that reside in data centers abroad helps protect developing country users from cyber-crime, fraud, theft of valuable information, and other abusive online behavior. A digital economy that can support economic development requires first and foremost an environment that offers adequate security and confidentiality for persons to be able to freely engage remotely with others in personal and business interactions without fear of being compromised. From a technological perspective, cloud-enabled software security solutions require the real-time ability to consolidate and analyze data from diverse sources and regions in order to identify anomalies and security risks.

Cross-border data transfers are also critical to **remote work in developing economies**, which is particularly relevant in dense urban environments in an era of social distancing. In many economies, cross-border data transfers enable the deployment of tools that facilitate teleworking, virtual collaboration, online training, and the remote delivery of services, including virtual healthcare solutions. These tools — which include cloud-based libraries and databases, video-conferencing applications, and interactive collaboration platforms — help foster cross-office R&D and innovation; build workforce productivity and skills; contain costs and carbon emissions; and promote public health and safety. Data transfers enable the remote workplace economy tools that are critical to enabling entrepreneurs and companies of all sizes to create new kinds of jobs, to keep existing personnel employed and productive, and to retrain workers in new digital and other relevant skill sets suited to a remote workplace economy.

**Advances in financial inclusiveness, financial transparency, and financial security** across developing countries also depend upon cross-border access to data and cloud-enabled technologies. There are over 2.5 billion unbanked people worldwide, many living on remote and isolated locations lacking in banks or other on-the-ground financial service providers. Technologies that leverage data flows are powerful tools to increase access to financial services, helping individuals achieve sustainable livelihoods. These include:

- **Microlending**: Increasingly, microfinance institutions use technologies based on data flows to allow them to provide better loans, achieve greater repayment rates, and lower interest rates for applicants. For example, in many developing countries, local financial institutions are able to offer micro-loans to citizens and businesses that would not otherwise have access to credit, using cloud-enabled data analytics to determine credit risk profiles and deliver loans through automated processes.

- **Remittances to developing countries**: More than ever, remittances are of vital importance in developing countries. According to the World Bank, remittances to low and middle-income countries reached a record high of $529 billion in 2018. Companies are also exploring the use of emerging technologies such as blockchain to provide speedier and cheaper remittance processes. Financial institutions that participated in the program reported savings between 40 and 70% in foreign exchange costs, and payment times averaging a few of seconds. Various other financial service companies are exploring innovative ways to leverage similar technologies to reduce costs and provide better remittance services to benefit more people.

- **Credit-scoring for MSMEs and individuals in developing countries**: MSMEs, as well as some specific demographics may not have access to optimal lending opportunities if traditional credit scoring methods are employed. Cutting edge technologies such as data analytics (to review

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available past data) and artificial intelligence (to anticipate future outcomes) play an important role in the expansion of credit channels available to these underserved customers. These technologies heavily rely on cross border data flows. Oftentimes, the data used to enable the cloud-based service being delivered must travel across borders, even if the financial service provider and its customer are in the same country.  

- Financial transparency, anti-corruption, and anti-money laundering: As compared with cash-based transactions, increased use of “mobile transfers” and “mobile money”, which often depend upon cross-border access to cloud-based financial service platforms, allow for enhanced transparency in public sector spending; reduced corruption and ‘off the books’ cash transactions; and increased confidence, efficiency, and predictability in the banking system. Access to cross-border technologies also allows for data analytics that are better able to identify potential cases involving money laundering, terrorist financing or other criminal financial transactions. In these ways, cross-border data transfers enhance financial legal compliance and improve the ability of financial regulators to identify and respond to emergent criminal activity or other risks.

B. The Costs of Data Transfer Restrictions and Data Localization Mandates

The unintended economic consequences of unreasonable data transfer restrictions and data localization mandates must not be underestimated. Such measures have consequences in terms of jobs, exports, and investment. For both local enterprises and foreign-invested enterprises, such measures disrupt operations; raise the costs and challenges of providing services and manufacturing goods; and make it harder to invest and keep local workers employed. Among other things, such measures effectively deprive end-users of advanced services and put them at a competitive disadvantage compared with companies in other countries. We elaborate on each of these points below.

First, data localization mandates and unreasonable data transfer restrictions are particularly damaging to local industries, including agriculture, logistics, and manufacturing (e.g., textiles). In fact, it has been estimated that 75% of the value of data transfers accrues to traditional industries. Data transfers enable MSMEs to connect and find prospective customers in overseas export markets. MSMEs and other firms also rely on data flows to increase their productivity, drive quality, and improve output in other ways. Companies depend upon the ability to integrate software and other emerging technologies at every stage of the production and value chain. Data-enabled software innovations are connecting suppliers, manufacturers, and service providers around the world, while accelerating efficiencies relating to product design, engineering, production, logistics, marketing, and servicing. Cross-border data transfer restrictions impede the ability to realize these efficiencies.

Second, data localization mandates and unreasonable data transfer restrictions raise the costs of international trade. Data transfers are critical to reducing the costs to local firms of exporting to other markets. One recent study estimates that digital tools helped MSMEs across Asia reduce export costs by 82% and transaction times by 29%. Likewise, electronic commerce platforms, which operate on the basis of cross-border data transfers, are estimated to reduce the cost to local firms of distance in trade by 10%.

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10 Innovative technologies based on data are important to enhance the accuracy of credit scoring for MSME’s, which employ a large percentage of the population worldwide and help fuel the global economy. For example, Tradeteq, a smart technology trade finance platform, uses a credit model based on artificial intelligence that goes beyond financial information, and includes socio-economic, geographical and other information about the company, that are used to base finance investment decisions. The algorithms used to power this tool also rely on a large amount of data collected, processed, and analyzed in various parts of the world. Tradeteq, the AI-driven trade finance investment platform, available at https://www.finyear.com/Tradeteq-the-Al-driven-trade-finance-investment-platform_a40656.html


60%. When countries impose unreasonable data transfer restrictions and data localization mandates, they prejudice their local industries’ ability to realize these significant welfare-enhancing benefits and efficiencies.

Third, data localization mandates and unreasonable data transfer restrictions hurt local innovation and competitiveness. A country that limits cross-border data transfers limits its own industries’ access to technologies and data sources that are critical to growth and innovation, business operations, and the transfer of technology. These include: (a) productivity-enhancing software solutions; (b) scientific, research, and other publications; and (c) manufacturing data, blueprints, and other operational information. Faced with higher software costs and an unpredictable environment for R&D investments, local industries face challenges keeping technological pace with foreign competitors — threatening both domestic and export market sales. Furthermore, as data restrictions place an undue burden on industries operating in countries imposing them, they also undermine those countries’ attractiveness as a destination for investment and R&D.

Fourth, data localization mandates and unreasonable data transfer restrictions undermine access to tailored data-enhanced analytics and insights that can help address economic and societal challenges. A country that limits cross-border data transfers also may exclude itself from the development of data analytics and AI-driven technology solutions that can help address economic and other challenges. Local industries and economies can face competitive harm if they are deprived of the insights that come from consolidating local data sets within larger regional or global data sets for purposes of data analysis.

In the foregoing ways, data localization mandates and data transfer restrictions harm local MSMEs and other local enterprises.

C. Policy Arguments Relating to Data Transfer Restrictions and Data Localization Mandates

The Concept Note observes that, “data localization … restricts cross-border data flows for a variety of economic and political reasons that merit deeper analysis.” We address several common arguments below.

Some argue that data restrictions are necessary to ensure cybersecurity. In fact, how data is protected is much more important to security than where it is stored. Data localization requirements and limits on data transfers often undermine data security. Cross-border data transfers are often important for cybersecurity for several reasons. Companies may choose to store data at geographically diverse locations to reduce risk of physical attacks, to enable companies to reduce network latency, and to maintain redundancy and resilience for critical data in the wake of physical damage to a storage location. In addition, cross-border data transfers allow for cybersecurity tools to monitor traffic patterns, identify anomalies, and divert potential threats in ways that depend on global access to real-time data. When governments mandate localization or restrict the ability to transfer and analyze data in real-time, they create unintended vulnerabilities.

Some also argue that data localization and data transfer restrictions are necessary for privacy reasons — i.e., to ensure that companies process and use data consistent with a country’s data protection laws. This is not the case. Data localization mandates and data transfer restrictions do not increase personal data protection. To the contrary, for a variety of reasons including, organizations that transfer data globally typically implement procedures to ensure that the data is protected even when transferred outside of the country. Different organization types and business models require the use of different transfer mechanisms that are not interchangeable. It is important that businesses be able to rely on a range of data transfer mechanisms, which may include, where relevant, adequacy decisions, certifications, codes of conduct, Binding Corporate Rules (BCRs), and Standard Contractual Clauses (SCCs). These

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13 Concept Note, p. 30.
14 Concept Note, p. 31.
mechanisms are critical to support global data flows and are built with strong safeguards. Where differences exist among data protection regimes, governments should create tools to bridge those gaps in ways that both protect privacy and facilitate global data transfers. Taking into account widely accepted privacy principles and industry best practices, governments should also aim to ensure that privacy frameworks are interoperable and allow for the seamless flow of data across borders.

Some claim that data localization and data transfer restrictions are necessary to ensure that regulators and law enforcement authorities have access to data relevant to conduct investigations. The location of the data, however, is not the determining factor. Responsible service providers work to respond to lawful requests for data consistent with their obligations to their customers and to protect consumer privacy. If the service provider has a conflicting legal obligation not to disclose data, law enforcement authorities have several options: International agreements — including Mutual Legal Assistance Treaties (MLATs) or Agreements (MLAAs), multilateral treaties, and other agreements, such as those authorized by the United States Clarifying Lawful Overseas Use of Data (CLOUD) Act — can establish foundations for mutual legal assistance and reciprocal transfers of law enforcement data. Courts may also issue requests to authorities abroad for the transfer of data through letters rogatory.

Finally, the Concept Note identifies an emerging trend in some countries towards “data mercantilism,” a policy perspective that is often associated with both data-related trade barriers, as well as other types of domestic preferences or measures discriminating against foreign products, services, enterprises or technologies. Data mercantilism appears to be premised upon the view that cross-border data restrictions or data localization mandates offer protectionist economic benefits. Such policies may be grounded in assumptions that cross-border data restrictions and data localization measures will foster the creation of jobs and “local champion” enterprises, and increased domestic innovation, investment, and GDP growth. However, these assumptions are not supported by economic evidence. In fact, development benefits from an increase — not a decrease — in connectivity. By some estimates, just over 50% of the world’s population was connected to the Internet in mid-2017, and cross-border data restrictions or localization mandates (whether premised on “data sovereignty” or other grounds) serve only to limit the economic opportunities for those who are connected, as illustrated in the graphic below.

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Countries that unreasonably limit cross-border data transfers and impose data localization mandates isolate themselves from the global digital economy. Such self-imposed restrictions on data transfers and access to enterprise software solutions hinder economic development, reduce productivity, limits public policies and depress export competitiveness.

D. Conclusion

In conclusion, for all of the aforementioned reasons, we strongly support the World Bank’s close examination of the development benefits associated with cross-border data transfers.
APPENDIX I
ABOUT THE GLOBAL DATA ALLIANCE

The Global Data Alliance is a cross-industry coalition of companies that are committed to high standards of data responsibility and that rely on the transfer of data around the world to innovate and create jobs. At a time of rising digital protectionism, a multi-sector voice is needed to support sensible and responsible cross-border data policies in capitals around the world. The Global Data Alliance provides that voice.

WHO WE ARE

The Global Data Alliance supports policies that help instill trust in the digital economy while safeguarding the ability to transfer data across borders and refraining from imposing data localization requirements that restrict trade. Alliance member companies are headquartered across the globe and are active in the advanced manufacturing, aerospace, automotive, consumer goods, electronics, energy, financial services, health, supply chain, and telecommunications sectors, among others. The Alliance is open to companies in all sectors that transfer data across borders for business purposes and that support data responsibility. It is administered by BSA | The Software Alliance.

WHY WAS THE ALLIANCE CREATED?

No business with an international operation can function without the ability to transfer data across borders. Yet, there is a trend to impose data localization requirements and restrict cross-border transfers, including in India, China, Russia, Indonesia, and Vietnam. These measures are a serious threat to many companies, in sectors including:

- Advanced manufacturing
- Aerospace
- Agriculture
- Automotive
- Energy
- Finance
- Hospitality
- ICT services, including analytics, cloud computing and cybersecurity
- Healthcare
- Retail
- Supply chain logistics
- Transportation

WHAT WE BELIEVE

The Global Data Alliance subscribes to the following principles:

- Countries should allow for the seamless movement of data across borders for business purposes. This movement is critical to innovation, investment, and competitiveness in all sectors.
- Data localization mandates and cross-border data transfer restrictions are neither necessary nor efficient means to advance objectives relating to cybersecurity, supply chain security, privacy, or law enforcement access.
- Any rules relating to the movement of information across borders should be:
  - necessary to achieve a legitimate objective;
  - narrowly tailored and not impose greater restrictions than necessary;
  - non-discriminatory and technology neutral; and
  - developed and maintained in a transparent manner and subject to reasonable limits on government discretion.
- Countries should work together to:
  - create trust-based frameworks that are interoperable and support the seamless movement of information across borders; and
  - support the use of accountability models for personal data protection and cybersecurity to foster responsible data transfer practices.

The Global Data Alliance is working to advance these principles through in-country advocacy in the markets in which it is active, and through engagement in international fora around the world.
JOBS IN ALL SECTORS DEPEND UPON DATA FLOWS

In sectors from agriculture to advanced manufacturing, cross-border data transfers provide benefits—enabling innovation, creating jobs, and promoting productivity, safety, and environmental responsibility—through 21st century technologies like cloud computing, blockchain, data analytics, and artificial intelligence (AI).

**R&D**
Multinational R&D teams collaborate across borders to develop new products, cures, and other advances using cloud-based software solutions and research data produced globally.

**Market Forecasting**
AI tools analyze data from around the world to identify patterns that can help predict market demand, customer design preferences, and risk factors relevant to global investment decisions.

**Safety and Productivity**
Real-time analytics of data gathered from sensors embedded in global production facilities, machinery, and other assets can alert operators before hazards or breakdowns can occur—allowing for predictive maintenance and safe, productive working conditions.

**Sales**
From order fulfillment, to invoicing, to responding to customer feedbacks—businesses can meet global customer needs only if they can receive and respond to customer queries transmitted across borders.

**Regulatory Compliance**
Legal compliance teams gather data from global operations to demonstrate that products and services meet regulatory requirements for transparency, safety, and effectiveness.

**Inventory Control**
Data analytics and AI can be used to adjust global inventories—avoiding shortages and freeing up resources for more productive uses.

**Supply Chain**
Real-time electronic data exchange allows companies to authenticate documents seamlessly, optimize shipping routes, and manage transportation assets for purposes of time, cost, and energy efficiency.

**Post-Sale Service**
Cross-border data transfer allow manufacturers to trace and recall products, and address service requests, transparently, safely, and quickly.

WWW.GLOBALDATAALLIANCE.ORG
Cross-border connectivity—the movement of data across borders—powers innovation and job growth in all sectors and for people across the world. The statistical evidence is compelling:

**Growing the Global Economy**

- **2.5 quintillion** data bytes are generated every day.
- **60% of global GDP will be digitized** by 2022, with growth in every industry driven by data flows and digital technology.
- **25 billion** connected devices and **6 billion** connected consumers by 2025.

**Benefitting All Sectors**

- **75% of the value of data transfers** accrues to traditional industries like agriculture, logistics, and manufacturing.
- For SMEs in Asia, digital tools reduce export costs by 82%, and transaction times by 29%.

**Building International Consensus**

- **164 countries** have WTO services commitments, often covering cross-border supply of digital services.
- Sharp increase in regional negotiations on cross-border data transfers.

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8. As of 2010, approximately 50 countries (including 21 APEC members, 34 OECD members and various TPP negotiating parties). As of 2020, over 100 countries (including WTO members engaged in the Joint Statement Initiative e-commerce negotiations, African economies engaged in the African Continental FTA digital trade chapter negotiations, as well as the countries engaged in relevant negotiations in ASEAN, RCEP, the Pacific Alliance, and other bilateral and regional fora).
THE CROSS-BORDER MOVEMENT OF DATA:
CREATING JOBS AND TRUST ACROSS BORDERS IN EVERY SECTOR

The seamless movement of data across borders—often referred to as “cross-border data flows”—is essential to the global economy. What exactly are cross-border data flows and how do they affect you?

“Cross-border data flows” refer to the movement or transfer of information between servers across country borders. Companies need to be able to freely move data around the world so that wherever you are, you have access to the information and services you need. Everyone from individuals to large corporations relies on transferring data.

Data moving across borders is critical for the services that sustain global commerce, protect consumers from fraud and counterfeit products, improve health and safety, and promote social good.

SUSTAINING GLOBAL COMMERCE

Transforming Aviation
Digital innovation is transforming the global aviation industry. Data-driven software solutions and technologies improve customer experience and drive predictive maintenance, equipping airline companies with the tools they need to reach new heights.

- 2.7 billion passengers use Panasonic Avionics solutions each year on more than 2,500 connected aircraft. Inflight entertainment, ecommerce analytics platforms, and personalized inflight maps all help enhance the passenger flight experience and drive business value for airlines. Panasonic relies upon the rapid and seamless movement of information across the globe to provide these services to airlines and passengers.¹

- United Airlines connects to Airbus’ global cloud-based platform to store, manage, and analyze data more effectively. By analyzing real-time flight data and other performance indicators across its 4,900 daily flights, this data-driven platform helps United Airlines enhance predictive maintenance while also decreasing costs.²

Connecting Global Businesses
Businesses that operate globally—including hotels, car manufacturers, freight and logistics enterprises, and restaurant chains—benefit from data analytics that allow them to reach more customers, improve customer experiences, and work more efficiently. Businesses use cloud-based services to pool large amounts of data from their operations around the world to accomplish these goals.

- When international and local firms partnered to redevelop Terminal 1 at San Francisco International Airport, Autodesk’s cloud-based BIM 360 Design software brought team members together. Staff from San Francisco, New York, Melbourne, New Delhi, and Dubai were able to coordinate in real time through one common cloud-based model. The ability to transfer data between countries helped studios, contractors, and stakeholders partner with their colleagues across the globe to tackle this complex project.³

Data transfers contribute USD $2.8 trillion to global economic activity, or 3.5 percent of global GDP, according to the Organization for Economic Cooperation and Development.
Global retailers leverage solutions that enable them to track products and shipments from around the world. A multi-edge computing system running on Verizon’s network empowers retail supply chain managers with increased visibility into the movement of their shipments. The free flow of data helps retailers locate and track products along the supply chain in near-real time, reroute shipments to avoid extended delays, and calculate accurate arrival time data based on traffic conditions and machine learning. 

The free flow of information around the world helps businesses connect with international customers and develop products that closely meet their needs. Companies in many industries use Salesforce software to provide employees with real-time customer insights from across the globe. This 360-degree view gives companies’ R&D, supply chain, and product groups insight into evolving customer needs and opportunities.

Elevating Global Manufacturing

New digital innovations drive manufacturing today by boosting job growth and efficiency, with economic impacts as transformative as those sparked by the first industrial revolution. Powerful software-driven technologies help expand a manufacturer’s strategic options—enabling companies to create new kinds of jobs, drive quality, and improve output.

• Mahindra & Mahindra, an India-based automaker, uses an end-to-end life cycle management solution from IBM to connect employees to teams and projects located across the world. From the design and initial development of a new vehicle to testing and product delivery, the ability to rapidly transfer data across the globe enables closer coordination and transparency in the development stage, helping bring vehicles to market faster and minimizing defects in those vehicles.

• Headquartered in Italy, Biesse Group is a global leader in wood, glass, stone, plastic, and metal processing technology. The company relies on Siemens software to reduce errors and make product information available to all stakeholders across different business areas and roles. Centralizing company data means Biesse can share product information with 1,000 employees in China, India, and Italy. The free movement of information also facilitates collaboration with external partners, design offices, and material suppliers and subcontractors.

PROTECTING PEOPLE

Fraud Detection and Cybersecurity

Detecting payment fraud offers one of the clearest examples of the benefits of cross-border data flows. Effective fraud mitigation depends on cross-border data flows as it demands sophisticated monitoring of historical payment transaction information and global or multi-country data sets.

• Mastercard’s Decision Intelligence™ uses artificial intelligence (AI) to detect fraud patterns. By analyzing multiple data points, the solution helps banks make better decisions before authorizing or declining a transaction. This results in an increase in approval rates, a better consumer experience, and a reduction in the number of legitimate transactions that could otherwise be declined based on “false positives.”

Detecting Counterfeits

Each year, counterfeit goods cost the global economy billions of dollars—and some phony products can even endanger lives. To combat this problem, brand owners invest time and effort to track down and remove fraudulent products from the market. These efforts help ensure that the products you buy are safe and trustworthy.

• The free movement of data around the world helps brands identify the sources of counterfeit and infringing products. WD-40 Company, which manufactures some of the world’s best-known brands, relies on data from e-commerce sites, webshops, social media channels, country registrars, and export and import records to aid them in their efforts to detect and take action against such products.

60 percent of global GDP will be digitized by 2022, with growth in every industry driven by digitally enhanced offerings, operations, and relationships.
KEEPING PEOPLE SAFE AND HEALTHY

Enhancing 21st Century Medical Care

Cross-border transfers of personal data allow hospitals and other care facilities to use clinical support software. The software analyzes electronic health records, health insurance claims, and data sets to help caregivers improve effectiveness of medical treatments and reduce risks.

• Amgen, a multinational biopharmaceutical company, also uses real-world data to identify global and regional populations of patients whose needs aren’t being met by current therapies. This allows the company to optimize selection criteria for trials, which in turn helps speed recruitment of patients and ensure relevant results. The end result: greater understanding of how well different medicines fare in helping people around the world stay productive and healthy.8

• Fullerton Health operates an extensive network of about 200 medical clinics in Australia, China, Hong Kong, Indonesia, Malaysia, New Zealand, the Philippines, and Singapore. The organization regards itself as Asia’s largest vertically integrated health system and uses Microsoft’s cloud services to integrate health care delivery across its medical network. Clinic staff can quickly and securely access shared documents, patient notes, and care plans from any device, regardless of their physical location.9

Feeding the World

In farming, precision agriculture techniques and collaborative software are transforming the industry and maximizing agricultural opportunity. When widely deployed, precision farming technologies can increase global crop yields as much as 67 percent and cut food prices in half. These transformative technologies rely on the movement of data gathered from thousands of sensors located across countries and regions.

• Norway-based Yara, one of the world’s largest fertilizer producers, partnered with IBM to build a digital farming platform. Through the platform, which provides holistic digital services and instant advice to farmers across the globe, Yara and IBM aim to boost the efficiency, transparency, and sustainability of global food production. The initial focus of the joint work lies on farm and field data management as well as data-driven, joint innovation for farmers, which is already successfully launched in various markets across the world.10

• Nutreco is an international leader supporting livestock farming and aquaculture, which feed millions of consumers worldwide. AT&T helps connect each of their 200 locations in rural areas across Asia, Europe, Latin America, and North America. AT&T’s global network empowers Nutreco employees to connect and collaborate securely, whether they are working in the company’s Dutch headquarters or in a remote factory.11

PROMOTING SOCIAL GOOD

Responding to Disasters

Effective responses to natural disasters—which affect hundreds of millions of people globally each year—largely depend upon responders’ ability to locate, reach, and care for affected civilians. In recent years many public and private efforts have sought to leverage data analytics to assist in disaster response and recovery.

• Intel used AI to help the Red Cross map parts of the world that are particularly vulnerable to natural disasters and epidemics. The process began with satellite imagery. An AI model developed by Intel data scientists processed the imagery on Intel hardware and identified bridges that are critical for transportation in Uganda, which is prone to both viral outbreaks and severe flooding. Intel then worked with the Red Cross to validate the dataset and upload it to OpenStreetMaps, a free, volunteer-driven, editable map of the world used by the Red Cross and other NGOs for disaster planning and response to ensure that aid workers get to

According to the U.S. International Trade Commission, fully half of all global trade in services now depends on access to cross-border data flows.
people in need—both quickly and safely. This process depends on the ability of information to freely move across national borders.12

- After a natural disaster, 96 percent of small businesses see revenue losses, with 35 percent experiencing losses of greater than $25,000. Visa launched Back to Business in Australia to support small businesses, and mitigate their revenue losses, as part of bushfire disaster relief efforts and community rebuilding. The tool leverages global transaction data to locate small businesses in disaster-affected areas, and points consumers to those merchants that either remain open or have re-opened for business following the natural disaster.13

Fostering Sustainability

Global sustainability efforts rely on accurate data from many countries. Whether scientists are tracking endangered animal populations, analyzing climate data, or combating illegal poaching and fishing, the free flow of data is essential.

- Overfishing is a significant factor in the decline of ocean wildlife populations. The UN Food and Agriculture Organization estimates one-third of all fish stocks are no longer biologically sustainable. To combat this, nonprofit organization OceanMind uses Microsoft AI technology to map data and work with government authorities around the world to catch perpetrators. OceanMind’s system has the capacity to track millions of boats across the globe and gather data from a wide range of sources to identify and report illegal fishing.14

Protecting Children

Sharing information across borders can help law enforcement, nonprofits, and government agencies around the world focus their resources to protect children more effectively. The important work of these organizations requires monitoring, tracking, and information dissemination around the world.

- Save the Children, a nonprofit active in 120 countries, works to give children around the world a healthy start in life. In India, Save the Children works to uplift the 30 percent of the population living in poverty. Using Oracle’s cloud-based services, Save the Children India can tap into a global pool of employee specialists as candidates for their emergency-response units. Save the Children staff also rely on Oracle’s cloud services for access to real-time financial data from their global locations, which helps them track grants and report outcomes to donors.15

ENDNOTES

7 Mastercard, Decision Intelligence, https://globalrisk.mastercard.com/online_resource/decision-intelligence/.

The Global Data Alliance is a cross-industry coalition of companies that are committed to high standards of data responsibility and that rely on the ability to transfer data around the world to innovate and create jobs. The Alliance supports policies that help instill trust in the digital economy while safeguarding the ability to transfer data across borders and refraining from imposing data localization requirements that restrict trade. BSA | The Software Alliance administers the Global Data Alliance.
CROSS-BORDER DATA TRANSFERS & DATA LOCALIZATION

The Global Data Alliance is a cross-industry coalition of companies, with headquarters in different regions of the world, that are committed to high standards of data privacy and security. Alliance companies rely on the ability to transfer data responsibly around the world to create jobs and make local industries more competitive. Cross-border data transfers power innovation and growth across the globe and all sectors of the economy—from manufacturing and farming to local start-ups and service providers.

Cross-border data transfers also enable the deployment of tools that facilitate teleworking, virtual collaboration, online training, and the remote delivery of services, including virtual healthcare solutions. These tools—which include cloud-based libraries and databases, video-conferencing applications, and interactive collaboration platforms—help foster cross-office R&D and innovation; build workforce productivity and skills; contain costs and carbon emissions; and promote public health and safety.

Data transfers enable the digital tools and insights that are critical to enabling entrepreneurs and companies of all sizes, in every country, to create new kinds of jobs, boost efficiency, drive quality, and improve output.

The Alliance has come together to advance policies around the world that promote the responsible movement of data across borders without imposing unnecessary data localization mandates or restrictions on data transfers. Data localization requirements and restrictions on international data transfers are estimated to reduce growth by billions of dollars in countries that implement them. These measures hurt local companies by preventing them from accessing innovative technologies, which can preclude local industry from participating in global supply chains and accessing customers in foreign markets. Goods and services that use data in various phases of their lifecycles are more competitive if they can use data from around the world. In addition, because data transfer restrictions create a significant burden on the implementing country’s overall competitiveness, they also undermine the country’s attractiveness as a destination for investment and R&D.

Several grounds are frequently cited as the basis for imposing data restrictions, but they are based on misconceptions, as discussed in this document. The Alliance will work to correct such misconceptions and show policymakers that they can achieve their goals without impeding the free flow of data.

CYBERSECURITY

It has been argued that data localization and data transfer restrictions are necessary to ensure cybersecurity. In fact, how data is protected is much more important to security than where it is stored. Data localization requirements and limits on data transfers often undermine data security. When governments restrict a company’s ability to move data, they create unnecessary obstacles to data security. Cross-border data transfers are important for cybersecurity for several reasons. Companies may choose to store data at geographically diverse locations to obscure the location of data and reduce risk of

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physical attacks, to enable companies to reduce network latency, and to maintain redundancy and resilience for critical data in the wake of physical damage to a storage location. In addition, cross-border data transfers allow for cybersecurity tools to monitor traffic patterns, identify anomalies, and divert potential threats in ways that depend on global access to real-time data. When governments mandate localization or restrict the ability to transfer and analyze data in real-time, they create unintended vulnerabilities.

**PRIVACY**

It has also been argued that data localization and data transfer restrictions are necessary to ensure that companies process and use data consistent with a country’s data protection laws. This is not the case. In reality, organizations that transfer data globally should implement procedures to ensure that the data is protected even when transferred outside of the country. Where differences exist among data protection regimes, governments should create tools to bridge those gaps in ways that both protect privacy and facilitate global data transfers. Taking into account widely accepted privacy principles and industry best practices, governments should also aim to ensure that privacy frameworks are interoperable and allow for the seamless flow of data across borders.

**LAW ENFORCEMENT**

Some claim that data localization and data transfer restrictions are necessary to ensure that regulators and law enforcement authorities will have access to data relevant to conduct investigations. The location of the data, however, is not the determining factor. Responsible service providers work to respond to lawful requests for data consistent with their obligations to their customers and to protect consumer privacy. If the service provider has a conflicting legal obligation not to disclose data, law enforcement has several options: International agreements—including Mutual Legal Assistance Treaties (MLATs) or Agreements (MLAAs), multilateral treaties, and other agreements, such as those authorized by the United States Clarifying Lawful Overseas Use of Data (CLOUD) Act—can establish foundations for mutual legal assistance and reciprocal transfers of law enforcement data. Courts may also issue requests to authorities abroad for the transfer of data through letters rogatory.

These are some, but not the only, grounds upon which countries seek to impose data restrictions. The Alliance will work to promote the responsible movement of data across borders without unnecessary data restrictions, while accounting for countries’ legitimate policy concerns.