A DIGITAL STRATEGY FOR
COMPETITIVENESS AND INTEGRATION
IN THE NORTHERN TRIANGLE

MATTHEW ROONEY
MANAGING DIRECTOR, GEORGE W. BUSH INSTITUTE - SMU ECONOMIC GROWTH INITIATIVE

JENNY VILLATORO
ASSISTANT, GEORGE W. BUSH INSTITUTE - SMU ECONOMIC GROWTH INITIATIVE

ANDREA DURKIN
ADVISOR, GEORGE W. BUSH INSTITUTE - SMU ECONOMIC GROWTH INITIATIVE

JUNE 2020
ACKNOWLEDGMENTS

The authors wish to thank Pamela Argüelles, Kati Suominen, Monica Kladakis, Nicholas Saliba, and Kristin Spanos; and George W. Bush Institute Central America Prosperity Project members Marcos Andrés Antil, Guatemala, Alfredo Atanacio, El Salvador, Maria Isabel Bonilla, Guatemala, Miguel A. Cálix Martínez, Honduras, Albertina Candra, El Salvador, Julieta Castellanos, Honduras, Marielos Chang, Guatemala, Marjorie Chorro de Trigueros, El Salvador, Dr. Juan José Daboub, El Salvador, Johanna Hill, El Salvador, Mey Hung, Honduras, Maria Kaltschmitt, Guatemala, Amalia de Martínez El Salvador, Yolanda Maya, Guatemala, Sofia Menchú, Guatemala, Karla Menocal, Guatemala, Guillermo Miranda, El Salvador, José Morán, Honduras, Juan Carlos Paiz, Guatemala, Guillermo Peña Panting, Honduras, Claudia Ramírez, El Salvador, Laura Rivera-Marinero, El Salvador, Miguel Ángel Simán, El Salvador, Elena Toledo, Honduras, Carlos Ulbán, Guatemala, Claudia Umaña, FUSADES, El Salvador, Kathia Yacaman, Honduras, and Juan Carlos Zapata, Guatemala.
In the fall of 2018, the George W. Bush Institute launched the Central America Prosperity Project (CAPP) which convened a select group of proven and emerging leaders from El Salvador, Guatemala, and Honduras—these three nations constitute the Northern Triangle. Our purpose was to develop action-oriented strategies for achieving inclusive growth by leveraging the advantage of regional economic integration in the Northern Triangle.

CAPP includes both experienced leaders and emerging leaders from nonprofit organizations, the private sector, the media and academia, and benefits from the resulting combination of youthful creativity and experiential wisdom. Since the participants offer diverse vantage points, the group is united in the belief that a bright future for the region is within reach and that concrete actions with tangible results are urgently needed to bring that bright future to fruition.

With strong support from our CAPP leadership network, the Bush Institute identified the implementation of modern national digital strategies as an urgent priority for the Northern Triangle and called on governments to work with civil society and the private sector to advance such strategies as a region. As a group, CAPP agrees this implementation is an indispensable and foundational step. Digitization offers cross-cutting benefits, including opportunities to curtail corruption, increase trust in government among the region’s citizens, improve access to critical social services in education and health, and enable the region’s businesses to access new customers, create jobs, tap investment opportunities, and successfully compete in the global economy.

**The Imperative of Implementing Digital Strategies**

Digital transformation represents a strong opportunity for the region to overcome its historically stubborn obstacles to governmental, societal, and economic stabilization and growth. Conversely, if El Salvador, Guatemala, and Honduras fail to digitize, they risk exclusion from modern global value chains, diminished investment opportunities, a widening social welfare gap, and sustained levels of outmigration. Governments could also miss a critical window to develop an open architecture that ensures the region’s digital infrastructure stimulates growth and competitiveness through trade facilitation and regional economic integration.

We found this to be a strong rationale prior to the COVID-19 pandemic. Governments should now do everything possible to hasten digitalization as a critical and immediate priority — not despite the current circumstances but because of them. We can see the differences. Digital services in well-connected countries have enabled the continuity of critical systems such as education, government services, banking, retail, and health care accessibility through telemedicine during this unprecedented crisis.

As our CAPP leaders have witnessed, digital connectivity has become a lifeline to countries with well-developed digital economies, offering governmental, societal, and economic cohesion at a time when...
physical interaction is limited. But in the Northern Triangle, millions remain disconnected in the wake of COVID-19. Moving as many people and services online as possible will be critical not only to economic recovery but also to prevent the region from sliding further behind.

**Developing National and Regional Digital Strategies**

Through the negotiation of the Central America Free Trade Agreement (CAFTA) with the United States 16 years ago and ongoing capacity-building initiatives, the Bush administration sought to support the strategic integration the region aspired to for decades. Technological innovation offers a path to accelerating results already achieved via these long-term efforts.

The Bush Institute is focused on assisting CAPP civil society leaders — in partnership with their governments — to further develop national digital strategies that work for the whole region. We also seek to attract sustained support from experts, investors, and donors outside the region to advance implementation.

In the fall of 2019, the Bush Institute convened roundtables in El Salvador, Guatemala, and Honduras that included a variety of stakeholders who contributed policy, technical, commercial, and social context to the discussion. Participants examined successful approaches in other countries and reviewed expert recommendations such as those from the World Economic Forum’s Digital Protocol Network. We seek to build upon important ongoing initiatives by organizations such as the Inter-American Development Bank (IDB) and various U.S. government agencies to implement improvements in the region’s digital infrastructure.

In that spirit, the Bush Institute offers the following recommendations to drive forward a digital strategy designed to benefit all governments, citizens, and economies in the Northern Triangle. Time cannot be wasted — digitalization of the Northern Triangle’s economy holds the key to putting the region on the right footing to recover and thrive in the world after COVID-19.

**Five Recommendations**

1. **Establish a Comprehensive Digital Governance Framework**

   Digital regulations provide a critical framework in which private stakeholders can invest, innovate, and operate. All stakeholders need to understand and have the ability to make informed decisions about how digital data is generated, accessed, used, shared, and protected.

   Each country in the Northern Triangle has been working to develop regulations to govern digital transactions and online platforms, including addressing the legality of digital documents and defining ways to access, use, and share data with appropriate protections. Since the region’s societies and
economies are small and highly connected, a unified strategy and a collaborative approach to regulation would enable deeper economic integration through interoperability, would attract higher investment in digital technologies, and would serve to strengthen the resiliency of digital systems.

Among the many benefits of a regional digital system, an integrated digital market would enable any small- and medium-sized enterprise (SME) to market and sell products and services online to any business or consumer in the Northern Triangle and harness the data from these transactions to strengthen its engagement with customers. Citizens could open bank accounts and access financial and insurance services anywhere in the region and enjoy uniform, high-standard consumer protections. The Northern Triangle’s national law enforcement agencies and emergency responders could share digital intelligence securely and without friction to improve the quality of life for all residents. The spread of pandemics like COVID-19 could be more quickly tracked and defeated together.

A regional strategy with common principles, objectives, and actions to guide policy decisions should include the following:

- Data privacy governing both public and private sector data collection and secure storage of personal data
- Data transfer across national borders
- Regional digital IDs and ID validations for individuals and firms so they could transact confidently with each other online
- Protections around the maintenance of national digital ID registries and ID validation by banks and other businesses
- Provision of e-commerce, online banking, and e-signature and e-invoicing capabilities
- Public access to government data
- Cybersecurity, including protections for national infrastructure, resilience, data recovery, and business continuity
- Interoperability of critical digital systems

Among these, the first two — data privacy and cross-border data transfer — are essential pillars. They provide the parameters and norms for how governments and private actors properly accumulate, use, and share personal data securely and efficiently across organizations and borders. These parameters and norms will be necessary components for innovation to thrive.

A common data privacy-and-transfer regime would ensure organizations could access and validate digital identities on a regional basis, conduct regional e-commerce transactions, participate in online banking, and e-invoice for B2B transactions.

El Salvador
In January of 2020, El Salvador’s ministry of innovation released their Digital Agenda 2020-2030 consisting of four pillars: digital identity; innovation, education and competitiveness; modernization of the state; and e-government. A comprehensive digital agenda signals to businesses, investors, and relevant stakeholders that digitalization is a government priority and likewise inspires those stakeholders to move forward confidently in the same direction.
A clear commitment on the part of governments to implement a unified strategy and compatible regulations would give greater confidence — especially for SMEs — to invest in digital capabilities and online business models.

2. Expand Key E-government Services to Increase Access and Reduce Corruption

E-government — or the provision of digitized government services to citizens — often streamlines workflows within government agencies, saving time and money while expanding citizens’ access to public services and promoting transparency. Greater transparency reduces the incidence of corruption. E-government practices also promote improved compliance with tax and labor laws.

Northern Triangle countries remain in the bottom third of the United Nations’ E-Government Development Index (EDGI), which benchmarks government use of information and communications technologies to deliver public services. The region ranks in the second quartile on the United Nations’ E-Participation Index that measures how well governments provide information and interact with citizens online, which indicates a good basis exists on which to build the offering of more public services.

Though El Salvador, Guatemala, and Honduras have each launched e-government initiatives, we believe these e-government plans must accelerate digital delivery of essential citizen services. E-procurement processes are also a key priority to stimulate economic growth while delivering corruption-free and cost-effective infrastructure projects.

We recommend each government in the Northern Triangle prioritize the following on their e-government agendas:

- Create citizen portals to promote easy access to all government services
- Implement digital signatures to support regional digital identity
- Ensure digital business registration and licensing
- Move tax filing and collection online
- Expand e-procurement opportunities with transparent criteria, decision-making, and complaint procedures
- Complete the transformation to e-filing and e-processing of business and customs documentation

Offering online business registration lowers the cost of entry for new businesses, particularly micro and small businesses. E-filing also encourages businesses to register their employees, pay employment taxes, and pay workers and contractors through direct deposit, all of which can reduce labor informality and enable employees to access public health benefits for which they may qualify. E-processing speeds up responses to those filings.

Honduras

The Honduras National Registry of Persons (RNP) manages the issuance of Honduras national registry ID cards. Under their newest initiative, #Identificate, the national ID card will be updated with HD QR codes and anti-copy technology. The registry will also be digitized and easily accessible with simply a fingerprint on a small Bluetooth device (linked to a police officer’s tablet, for example). During the COVID-19 pandemic, the national registry phone app was updated to include a feature where citizens can fill out a survey and electronically report their symptoms to 911.
In return, businesses gain faster access to government services. For example, to secure permits, the private sector and individuals can save the time and the expense associated with queuing and filing paper forms at government offices.

Effective e-procurement bidding, payment, and reporting processes would improve the ability of Northern Triangle governments to manage invoices and reconcile payments, increase small business participation in procurement opportunities, and expand the diversity of vendors awarded government contracts. Both the public and private sectors would operate in the e-procurement space with good faith by committing to increased transparency.

The region’s governments have been coordinating to implement digital so-called single windows for filing customs paperwork, which can facilitate customs verifications of the origin of goods, lower clearance times, and reduce opportunities for trade-based money laundering. An optimal approach is to ensure interoperability across government agency software and systems for border procedures.

Expanding e-government services will create important efficiencies while reducing labor informality and corruption — two of the region’s main barriers to development. Ideally, citizens would have access to a single platform for government services and governments would provide transparent data on its operations. In these ways, the capacity of government institutions will be strengthened, along with citizen trust in those institutions.

3. Improve Broadband and Spectrum Allocation by Collaborating with Supporting Partners

In the past decade, internet connectivity has grown dramatically, but much work still needs to be done to connect all citizens in the Northern Triangle and improve the quality of existing connections. Inefficient broadband and spectrum allocation remain critical barriers to private investment in the region’s internet connectivity.

According to the World Bank, only about one-third of citizens in El Salvador and Honduras had access to the internet in 2017. While 65 of every 100 Guatemalans were connected, internet penetration remains very low outside the capital region. Just 35 percent of the region’s population has 4G coverage, much behind other Latin American countries. By contrast, 87 percent of Americans are connected to the internet, and 4G coverage is available to 93 percent.

These connectivity gaps require urgent attention, especially as many other governments race to roll out 5G coverage in their countries. The region’s businesses must be able to leverage 4G and eventually ultra-fast 5G technologies to boost productivity across sectors ranging from manufacturing to agriculture and health care and to enhance interactions with global vendors and customers.

Citizens in residential and rural areas must be connected by mobile broadband to access government services and business-to-consumer services and avail themselves of digital banking and mobile payments.
Important initiatives by the World Bank, the Inter-American Development Bank (IDB), the United Nations Economic Commission for Latin America and the Caribbean (UN ECLAC), the Millennium Challenge Corporation (MCC), the Latin American Business Council (CEAL), the Regional Technical Commission for Telecommunications (COMTELCA), Secretariat for Central American Economic Integration (SIECA), the Central American Bank for Economic Integration (CABEI/BCIE), and many others are underway in the region to provide the capital, expertise, and technologies necessary to build out the physical infrastructure that supports a digital economy. We recommend each government work with development partners to evaluate approaches to more efficient broadband and spectrum reallocation. Political leaders should hold themselves publicly accountable by setting measurable goals for increased internet and broadband subscriptions, broadband speeds, share of firms that use the internet to buy and sell services, share of students with access to e-learning and digital technologies, share of citizens able to access mobile banking services, and so on.

The U.S. government is an important supporting player for governments that commit to such targets and is invested in the region’s success for myriad reasons. The U.S. National Cyber Strategy calls on U.S. government agencies to build the cyber capacity of our allies and partners so they may foster adoption of U.S.-aligned international standards, to encourage cross-border data flows with appropriate safeguards, and to counter authoritarian influences on communications infrastructure development.

We encourage the U.S. government to prioritize support and assistance to El Salvador, Guatemala, and Honduras as they work to implement their internet connectivity goals, which we believe can play a strong role in reducing migration, improving the quality of life for citizens, ensuring the region’s businesses thrive, and strengthening the integrity and efficiency of their governments as trade and security partners.

4. Foster High-tech Ecosystems

Economies with extensive high-tech sectors are innovative and productive. They attract world-class companies, talent, and capital. High-tech sectors are not just “tech” — they include a wide range of industries, such as basic chemicals, life sciences, and telecommunications that employ STEM talent, offering employees good salaries and advancement opportunities. The region’s high-tech sector and related occupations are still relatively few in number and have relied mainly on the ingenuity of individual entrepreneurs. The sector should be cultivated more systematically by the region’s governments and education systems.

To scale and multiply success stories requires a multi-stakeholder approach. We recommend the region and its supporters identify localities ripe for high-tech clusters around a trinity of universities, local governments, and entrepreneurs. Governments and the private sector can support the creation of high-tech hubs where accessibility to high-speed internet is assured, where start-ups can work with academia and mentors, and where tech innovators can connect with traditional industries like textiles and agriculture to help integrate digital technologies into their business models.
Many international models for such high-tech hubs abound, from Silicon Valley and Tel Aviv to Mexico’s hubs in Monterrey and Guadalajara. Thailand’s Digital Park houses digital startups and promotes global collaborations among investors, innovators, and manufacturers. Guatemala’s Campus TEC, a privately funded initiative that houses, trains, and finances startups on a modern campus in the heart of Guatemala City, is a model for the region to scale and replicate.

As small businesses employ the bulk of the region’s workforce, we also recommend a focus on helping small businesses adopt digital technologies on a wider basis. The region can leverage its Small Business Development Center (SBDC) network to shorten the learning curve associated with the introduction of new technologies. These centers can also become focal points for providing broader workforce training on digital skills — but their own digital capabilities must be enhanced significantly for them to drive broad-based change.

5. Invest in a Digital-ready Workforce

No resource is more essential for cultivating the high-tech sector in the Northern Triangle than human capital. Governments, higher education, private sector, and nongovernmental organizations (NGOs) should focus on incorporating digital literacy, data science, and cyber security into public education. We also strongly encourage more investment and effort to streamline the incorporation of teaching digital skills into private higher education and corporate training.

As technologies and business models evolve quickly, governments and businesses must also invest in continual digital skills improvement within the workforce through the provision of publicly available coursework and corporate training. Regardless of the degree to which citizens are directly involved in high-tech sectors, investments in education will serve to promote confidence and user uptake of digital services.

We are excited about the potential for digitization to leverage a key strength of Northern Triangle countries — their young populations, who are familiar with smartphones, computers, and technology; who are entering their prime working years; and who often offer bilingual capabilities. Offering this segment of the population new opportunities in a stronger high-tech sector holds potential to reduce outmigration from the Northern Triangle by strengthening participation in a growing economy at home.
Conclusion

The Bush Institute, along with the CAPP leaders, believe the Northern Triangle has a tremendous opportunity to address some of its most pressing challenges through technology. Each country has taken important steps to achieve digital policy goals, but more action and regional coordination are needed to catch up with the rest of the region and with the world beyond this hemisphere.

We have kept our recommendations limited to policy frameworks and regionally integrated soft infrastructure — regulations, e-government services, and investments in human capital. We nonetheless believe collaboration among governments will be needed to improve the availability of affordable and reliable power necessary for regional digital expansion. That might include, for example, initiatives to integrate the region’s electrical grid with neighboring energy-rich countries like Mexico and Colombia to support an increase in the region’s broadband capacity and digital operations.

We stand ready to work with changemakers inside and outside the region to advance these priorities and recommendations in service of a brighter future for the citizens of the Northern Triangle.

COVID-19 has created a situation in which not only have livelihoods been jeopardized but also millions have lost their jobs. For the future well-being of the citizens and companies in El Salvador, Guatemala, and Honduras, we urge their governments to work together to implement a Digital Strategy for Competitiveness and Integration in the Northern Triangle to overcome the setbacks the COVID-19 pandemic brought about and put the region on a solid path to recovery and growth.