



Trade Developments



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E-Business and How Governments in Developing Countries Can Promote Participation in Global Trade *Lessons from the CAFTA Region*

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We can draw some lessons from recent experience with e-business in the CAFTA region. To stimulate e-business, developing countries need to build and strengthen institutional capacities and public-private communication, promote the development of network infrastructure, find ways to make hardware and software more available, invigorate the development of local talent, eliminate legal and regulatory barriers, and place government agencies online.

1. Build and Strengthen Institutional Capacity

Many governments in the CAFTA region and elsewhere have hastily undertaken ICT initiatives better suited to the private sector, while the private sector waits for the public sector to eliminate obstructions to innovation, investment, and growth. Yet e-government and e-business initiatives can be transformational only if embraced jointly by public and private leadership. Credible channels for public-private cooperation and communication are rare, yet e-government and e-business strategies alike require such channels to meet

the challenge of global competition and generate sound priorities for national action. This has been the key to success in Canada, Chile, Singapore, Korea, and other countries.

2. Promote Network Infrastructure

Extend Coverage. Governments should promote the creation of voice and data networks with extensive geographical coverage. Where private telecommunications providers compete for business, regulators should require them to subsidize some level of connectivity in even the remotest areas ("universal service," including public telephony) as a condition of participation in the market. That agriculture and tourism, two of the largest contributors to international commerce in Central America and other regions, are often in remote areas makes this extension of connectivity especially important.

Control Costs. Regulators should ensure that the costs of basic voice or data transmission services are kept low to prevent "digital divides" in access to networks between the rich and the poor. They

should also promote regulations and market conditions that favor reasonable prices for, and proliferation of, newer services such as high-speed dedicated "broadband" connectivity and "Voice over Internet Protocol" (VoIP). With these services, local businesses can participate in nationwide or even international exchange of high volumes of voice and data transmissions at manageable prices.

Assign Frequency Bands Efficiently. Likewise, regulators should promote the use of wireless transmission (cellular telephony, wireless broadband), since the cost of extending wireless coverage is far lower than the cost of extending wire and cable networks. Successful growth in wireless telecommunications requires that the government efficiently manage the assignment of frequency bands in the electromagnetic spectrum. Inefficient management is a source of constant friction and frustration in Central American countries.

Ensure Reliability. Frequent loss of service, chronic network congestion, transmission errors, and slow resolution of these problems can prove fatal for e-commerce, especially when local businesses trade with customers in developed countries who expect them to be constantly and reliably available. To help ensure reliability, regulators need to require telecommunications providers to maintain certain levels of network availability, limit numbers of transmission errors, and improve response times to customer complaints. In truly competitive markets, the ability of customers to move from one provider to another is especially effective at guaranteeing network reliability, as well as reasonable costs and wide availability.

Concentrate Telecommunications. Where it is not possible to provide first-class connectivity throughout a country, it is reasonable to concentrate intensive telecommunications use in a single location, such as free trade zones, industrial or technology parks, industry clusters, or even office centers. Concentration allows one or a few high-speed, very reliable network connections to serve multiple businesses involved in international commerce.

3. Make Computers and Software More Available

Governments are not as involved in providing computers, operating systems, and applications as they are in providing telecommunications services, but they can and frequently do help make computers more available. They create "telecenters" in underprivileged or remote areas so residents can use Internet-connected computers at subsidized rates. (All Central American governments sponsor telecenters, and Honduras is a world leader in innovative

strategies in this field.) They also negotiate the donation of refurbished computers with organizations in other countries, mount national initiatives to provide state-backed financing for inexpensive computers (e.g., Costa Rica's Programa Acceso), provide individual loans on reasonable terms through government development banks, and manage import taxes and tariffs to make the purchase of imported computers and software possible for a wide range of citizens.

In addition, governments in developing countries (though not Central American countries) often promote the use of open-source software, thereby helping businesses avoid license fees and discouraging software piracy. Savings from open-source software, however, may not be as great as expected because support services for the software do have a cost, and technicians trained in the software may be harder to find or more expensive than persons trained in licensed software. The threat of losing business has forced some large software providers to lower licensing costs in some larger developing countries.

4. Promote ICT Skills in the Current and Future Workforce

Governments should do everything possible to promote the use of information and communication technologies, starting with formal primary education. Students should learn how to type, use a mouse, manage files, navigate the Internet, etc. while using computers and the Internet in as many activities as possible. This will make them aware of how technology can help them reach their goals and broaden their horizons.

Here, the most common barrier is the scarcity of computers and Internet connections in public schools. In Costa Rica, the Central American leader in computer use in public schools, 46 percent of primary school students have access to computers in school, and 29 percent have access to the Internet. In other Central American countries, these figures are below 5 percent. Governments in the region must make enormous efforts to improve school access if their citizens are to participate readily in a globalized society.

Governments can also promote ICT skills by supporting technical schools and technical certification programs offered by hardware and software vendors. Educational partnerships, such as that between the Costa Rican Chamber of Software Producers and local universities, can quickly produce workers with the skills necessary to conduct programming for local and foreign customers. Businesses in developed countries are increasingly interested in outsourcing ICT skills such as programming.

5. Resolve Legal and Regulatory Issues

Pass "Digital Signature" Laws. Commercial agreements are increasingly developed and finalized in digital formats. Developing countries need to pass laws recognizing "digital signatures" on electronic documents as legally binding evidence of identity and intent. Drafts of laws have been submitted to legislatures in most Central American countries, but none have been passed, and some have been withdrawn for revisions. This is not necessarily a bad thing because many drafts were based on obsolete approaches that should not be enshrined in law. Here, progress requires keeping legislators abreast of technological trends.

Respect IP Rights. Developing countries that are not signatories to various international agreements to respect intellectual property rights, or that do not make credible efforts to prosecute violations of these agreements, put their businesses at a competitive disadvantage in pursuing international commerce in "information economies." Foreign customers will be reluctant, for example, to contract services such as industrial design, research and development, or programming to businesses in developing countries if local workers are free to make use of the results for their own purposes. Central American countries are almost uniformly signatories of all major agreements and treaties in this area, though implementation and enforcement capacity varies widely.

Protect Privacy and Data. Developing countries must establish standards and laws for the protection of privacy and security of data. Without such standards and laws, the ability of developing countries to benefit from the outsourcing of processing of financial, medical or tax information will be jeopardized. Such information must remain confidential, especially when "identity" theft has become rampant in developed countries. This is an area where regional and international cooperation is critical.

Weigh the Costs and Benefits of Taxing Electronic Commerce. Several Central American governments are considering taxing Internet commerce. The potential loss of revenue represented by not taxing such commerce must be weighed against the possibility that taxing it will stifle innovation and growth. No decisions have been reached on taxation, which is complicated by the practical challenges posed by gathering information on the sale of "digital goods" (music, computer programs, consulting reports) to foreign customers.

6. Devise Programs to Promote ICT Use in International Commerce

All national governments in Central America have programs to promote ICT use—a vital step in facilitating the commercial use of ICTs. But no program has aimed to improve international commerce through ICTs, nor have any produced the results that programs in Ireland, India, and Singapore have. This may be due mostly to lack of financial resources and concrete action plans.

Other popular programs for improving the competitiveness of local businesses through use of ICTs are notable for their absence in Central America: promotion of knowledge-intensive business clusters; formation of ICT-related trade or industry associations; grants, subsidies, or tax concessions to stimulate technological innovation; and support for quality certification programs, such as those of the International Standards Organization (ISO) or the Capability Maturity Model (CMM), in ICT industries, among others.

7. Put Government Functions Online

Placing customs paperwork and forms online will facilitate international trade that uses ICTs. Most Central American countries have elementary forms with searchable texts available as downloadable PDFs (e.g., www1.hacienda.go.cr/aduanas, www.centrex.gob.sv, www.seadex.org.gt). Some agencies in charge of export promotion and foreign trade also use websites to make commercial opportunities visible to foreign customers (e.g., Guatemala's www.seadex.org.gt and Costa Rica's www.marketplacecostarica.com).

8. Consider a Range of Other Incentives

To jumpstart e-business, governments can provide many other incentives:

- Subsidies or programs that support enterprise digitization (e.g., through technical cooperation with consultants offering Internet business services or with the international bar code organization, EAN-UCC).
- Public procurement portals with the payment component available to the private sector (e.g., recent World Bank project in El Salvador).
- Alternative dispute resolution centers for online disputes.
- Seal of trust programs (e.g., Better Business Bureau online).
- Online Invoice programs (e.g., factura electrónica).

Central American governments are capable of creating and maintaining sophisticated online systems, as the existence of their world-class state Internet banking applications, financial intranets, and government procurement sites show. This same capability must now be directed toward the facilitation of export activities if these countries are to participate effectively in global trade.

Contacts

John Ellis, CTO
Trade Capacity Building Project
USAID/Washington
jellis@usaid.gov
202/712-5711

Erin Endean, Chief of Party
Trade Capacity Building Project
Nathan Associates Inc.
2101 Wilson Boulevard
Arlington, VA 22201
eendean@nathaninc.com
703/516-7702