Digitalization of Canadian Marine Transportation and Trade

Submission to Transport Canada and Global Affairs Canada

Association of Canadian Port Authorities

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On behalf of the seventeen Canada Port Authorities, the Association of Canadian Port Authorities (ACPA) welcomes the Government of Canada's work to advance digital and paperless trade. Canada's ports are critical gateways for international commerce, operating in complex, multi-party supply chains. For Canada's port system, digitalization is part of the trade-enabling infrastructure that must be advanced alongside the federal government's broader objectives for trade diversification, supply chain resilience, productivity growth, economic security, and strengthened internal and international trade corridors.

To achieve these outcomes, Canada should move beyond a narrow objective of replacing paper with electronic documents. The goal should be a standards-based, interoperable, secure, and trusted digital trade and compliance ecosystem that allows information to be submitted once, shared appropriately, and used by authorized parties to improve cargo fluidity, border performance, infrastructure planning, and resilience across Canada's marine gateways. Together, these inputs point to a common conclusion: digitalization will only succeed if it is paired with modernized border capacity, sustained infrastructure funding, financial flexibility for Canada Port Authorities, streamlined approvals, clear federal data stewardship, and implementation models that preserve port autonomy while enabling national interoperability.

This submission is reflective of recent ACPA submissions and member input and offers a view of the need, the barriers, and recommendations for digitalization of marine transportation and supply chains in Canada.

Context

Canada Port Authorities (CPAs) are trade-enabling infrastructure operators and convenors within their respective gateways. They do not control every supply chain actor, but they are well positioned to help government and industry identify where data gaps, process duplication, paper-based requirements, and inconsistent federal systems create friction.

The federal digitalization strategy should be aligned with broader trade corridor and transportation policy objectives. This submission is intended to complement, not duplicate, ACPA's broader recommendations on trade and transportation modernization.

ACPA's response to the One Canadian Economy consultation supports the government's focus on digitalization, supply chain visibility, paperless trade, a digital single window, harmonized data collection standards, and a 'Tell Us Once' reporting system. These initiatives should be implemented in a way that improves efficiency for users, enhances regulatory compliance, and supports international competitiveness.

ACPA's pre-budget recommendations also reinforce the need to connect digitalization to the wider port policy framework. Modern digital trade systems require Canada Border Services Agency (CBSA) technology and service capacity, infrastructure funding, project approvals, financial agility, and expanded partnership tools. Digital systems cannot resolve supply chain bottlenecks if inspection capacity, permitting delays, data-governance uncertainty, or limited port financial flexibility continue to constrain implementation. The policy recommendations that ACPA has expressed to date extend to the matter of digitalization, including the following:

- Financial agility and dynamic borrowing limits are needed so CPAs can invest in digital infrastructure and related supply chain improvements without relying exclusively on federal grants.
- Expanded partnership and revenue-generation authorities are needed so CPAs can participate in port community systems, data platforms, technology partnerships, inland terminal development, and Indigenous or private-sector joint ventures.
- Trade corridor funding should explicitly recognize digital infrastructure as an eligible and strategically important class of investment.
- Project approval reforms should apply to both digital and physical infrastructure needed to improve port capacity, inspection capacity, and cargo movement.
- CBSA funding and modernization are essential to make digital trade facilitation real at the front line, including at marine gateways where outdated technology or limited-service capacity can undermine otherwise well-designed digital systems.
- Governance reforms should be proportionate and should avoid creating new reporting burdens that fall disproportionately on smaller ports. Digitalization should reduce administrative burden for ports and users, not expand it.

Common Barriers and Inefficiencies Identified by Members

CPAs have flagged the following as barriers and inefficiencies to be tackled and considered through digitalization:

- **Paper-based and physically stamped customs documents**: Some customs-related processes still require physical preparation, movement, and stamping of documents. This is inconsistent with modern gateway operations and creates avoidable delays, especially where in-bond cargo moves between terminals, transload facilities, and the border.
- **Digitized documents rather than fully digital processes**: PDFs and email attachments may reduce paper, but they do not create automated, machine-readable, auditable data flows. These practices still require manual review, re-keying, reconciliation, and follow-up.
- **Lack of interoperability**: Ports, terminals, carriers, railways, truckers, brokers, shippers, and government agencies often use different platforms and data standards. This leads to duplicated data entry, inconsistent information, and manual intervention.
- **Limited data sharing and visibility**: Legal, commercial, privacy, cybersecurity, and operational constraints can limit timely information sharing. A recurring operational example is the lack of visibility into the quantity, shipping line, size, and arrival timing of empty containers needed by exporters.

- **No single window for marine and customs reporting**: Users may need to provide vessel, cargo, and customs information through multiple channels, creating administrative burden and inconsistent data across agencies.
- **Data residency and cross-border data considerations**: Trade is inherently global. Differing data sovereignty, residency, and access requirements can complicate seamless cross-border exchange with foreign customs and trade authorities.
- **Unclear federal data stewardship**: Supply chain users need clarity on which federal entity is accountable for data governance, operational responsiveness, privacy and security safeguards, and integration with CBSA and other authorities.
- **Risk of added reporting burden**: Digitalization should reduce duplication, not create new compliance layers. Smaller port authorities in particular may face disproportionate impacts if new reporting requirements are not practical, proportionate, and aligned with clear policy objectives.

Detailed Recommendations

Given this context and the identified barriers, ACPA puts forward the following recommendations:

1. Establish a national marine supply chain digitalization roadmap

The Government should publish a roadmap that identifies priority documents, priority data flows, required legislative and regulatory amendments, responsible departments, implementation timelines, funding mechanisms, and performance indicators. The roadmap should focus first on high-volume, high-friction processes that materially affect cargo movement and border efficiency. It should also clarify how federal digital trade frameworks will connect to port community systems, commercial platforms, provincial and municipal systems, and international customs and trade authorities. The roadmap should be developed with port authorities, terminal operators, carriers, railways, trucking interests, brokers, shippers, Indigenous partners where relevant, and federal agencies involved in border, security, trade, safety, and transportation functions.

2. Implement a practical "tell-us-once" model

ACPA supports a tell-us-once approach under which businesses submit core trade and transportation data once, and authorized government entities reuse that data for defined purposes. This should reduce duplication and support more predictable border and transportation processes. Tell-us-once should not mean creating a single large portal that replaces every existing system. It should mean common data standards, common identifiers, secure APIs, and clear rules that allow existing systems to exchange information reliably. The model should include service standards for government use of submitted data and a mechanism for users to correct errors, track status, and receive digital acknowledgements.

3. Digitalize CBSA's A8A process and other high-friction customs workflows

ACPA recommends that CBSA and Transport Canada prioritize the digitalization of the A8A in-bond movement process; the A8A process allows in-bond cargo to transit through Canada without immediate application of taxes and duties. The physical stamping requirement of the A8A process as a clear impediment to efficient gateway operations. In gateways such as Prince Rupert, in-bond U.S. cargo may move from a marine terminal to a transload facility and then onward toward the Canada-U.S. border. Requiring a physical form and stamp at each step is inefficient and becomes more significant as transload activity and U.S.-destined volumes grow. A digital A8A process should include legally valid electronic approvals, secure identity management, time-stamped audit trails, status visibility for authorized participants, and integration with terminal, port, carrier, and customs systems.

4. Create a marine and cargo single-window capability
The Government should move toward a single-window capability for vessel and cargo information required by marine, customs, safety, and security authorities, as per its requirement as a signatory to the International Marine Organization (IMO) Facilitation Convention (FAL). This could be delivered through a federated model that connects systems rather than forcing all users into one platform. A single-window approach should reduce the need for ports and supply chain users to provide similar data to multiple federal departments and agencies. It should also support pre-arrival risk assessment, improved planning, and stronger operational coordination during disruptions. The single window should support both large gateways with advanced systems and smaller ports that may require shared tools or lower-cost integration options.

5. Adopt common standards and require interoperability by design
The government should define and adopt common data standards for marine trade information, including vessel, voyage, cargo, container, conveyance, customs status, terminal status, and event data. Standards should align wherever possible with international norms and with the systems already used by carriers, ports, terminals, brokers, and government agencies. Federal funding and procurement should require API-based interoperability, machine-readable data, secure authentication, and the ability to exchange information with industry systems. The Government should avoid creating new stand-alone portals that increase duplication or require manual re-entry. A standards-based approach would allow Canada to connect more easily to foreign customs and trade authorities and would reduce the cost of integration for private-sector users.

8. Increase funding for CBSA's trade facilitation and digital modernization mandate
ACPA's pre-budget submission identifies limited inspection capacity, outdated technology, and uneven service coverage as sources of inefficiency and bottlenecks in key trade corridors. Digitalization will not achieve its full value unless CBSA has the capacity and tools to use digital information in real time. The federal government should increase funding to CBSA to expand trade facilitation capacity, modernize technology, support digital approvals, improve examination infrastructure, and coordinate more effectively with port authorities. Funding should support both national system modernization and practical front-line improvements, including service standards, escalation channels, digital status messaging, and operational support for ports and supply chain users.

9. Treat digital infrastructure as eligible trade corridor infrastructure
ACPA's pre-budget submission recommends expanding trade corridor funding, and its One Canadian Economy response supports the role of federal infrastructure funding in strategic transportation projects. Digital infrastructure should be recognized as a core part of trade corridor infrastructure. Eligible investments should include port community systems, data platforms, cyber-secure APIs, sensors, cargo visibility tools, digital identity and authentication systems, data integration, and analytics that improve supply chain performance. The Trade Diversification Corridors Fund and related federal programs should support digital projects that strengthen trade diversification, supply chain resilience, port productivity, and cross-border interoperability.

10. Enable port-led partnerships and financial flexibility for digital modernization
ACPA has consistently recommended greater financial flexibility, more nimble borrowing approaches, expanded partnership opportunities, and broader revenue-generating authorities for CPAs. These reforms are directly relevant to digitalization. Ports may need to partner with terminal operators, technology providers, Indigenous partners, logistics firms, railways, municipalities, provinces, and federal entities to deliver digital systems that serve the gateway. Current constraints on borrowing, joint ventures, subsidiaries, and permissible activities can limit port participation in these

investments. Modernizing the Canada Marine Act and Letters Patent frameworks to enable partnerships, revenue generation, and dynamic borrowing limits would help CPAs invest in digital infrastructure, supply chain innovation, inland terminals, and other gateway improvements that reduce pressure on federal funding.

11. Accelerate approvals for digital and physical infrastructure that improves supply chain performance

Digitalization must be linked to the physical infrastructure that allows data-driven decisions to translate into cargo movement. Better visibility into cargo flows is valuable only if ports, terminals, inspection facilities, rail connections, and road access can expand or adapt when needed. ACPA's pre-budget submission recommends prioritizing port infrastructure projects as national interest projects and extending regulatory reform to all project approvals and permitting processes, while the ACPA One Canadian Economy response also supports improved coordination across federal departments and streamlined permitting for transportation projects. The federal government should ensure that digitalization projects, inspection facilities, terminal improvements, and trade corridor infrastructure are supported by coordinated approvals and predictable timelines.

12. Phase implementation through gateway pilots and scalable solutions for all ports

ACPA recommends beginning with pilots in willing gateways and regional ports. Pilots should test the legal validity of electronic documents, data standards, APIs, cybersecurity controls, user experience, governance rules, and measurable benefits. Potential early pilots include digital A8A workflows, vessel and cargo single-window reporting, empty-container visibility, and automated status messaging among ports, terminals, carriers, and federal agencies. Pilots should include clear success measures, such as reduced processing time, fewer manual interventions, improved data quality, improved status visibility, and lower administrative burden for users. Solutions should be scalable to smaller ports and not assume that every CPA has the same internal technology or financial capacity.

Conclusion

ACPA strongly supports the Government of Canada's objective of advancing digital and paperless trade. For ports and marine supply chains, the highest-value opportunity is not simply replacing paper documents with electronic files. It is creating an interoperable, trusted, standards-based digital ecosystem that improves border performance, supply chain visibility, trade corridor reliability, and Canada's connection to global markets.

Canada's port authorities are ready to work with Transport Canada, Global Affairs Canada, Canada Border Services Agency, Public Safety Canada, other federal partners, Indigenous partners, and industry to design and implement practical solutions. A phased approach, starting with high-friction processes such as the A8A and marine/cargo single-window reporting, would allow Canada to demonstrate early progress while building toward a more comprehensive digital trade ecosystem.