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White Paper on the Core Principles of the Operation of Systemically Important Single Windows

Summary

The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) has recommended the implementation of Single Windows to facilitate trade since the early 2000s. The base principle of a Single Window is to create a single entry point for the submission of data and their responses between the private sector and the government. As Single Windows represent an essential infrastructure for the national economy (described in this paper as being systemically important), any disruption can negatively impact the economy. UN/CEFACT has therefore launched a recommendation project on this topic. The current White Paper provides the base principles which will be further developed over the coming year in order to complete such a recommendation.

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I. Introduction

1. The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) has been working on the topic of Single Windows since the early 2000s and has developed a definition which has been largely accepted by national implementation and international organizations. This definition has been recently updated in a new revision of the United Nations Economic Commission for Europe (UNECE) Recommendation N°33¹.

“A Single Window is defined as a facility providing trade facilitation that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements. Individual data elements should only be submitted once electronically.”

2. If a National Single Window has been developed in line with UNECE Recommendations N°33, 34 and 35, and it fully or partially ceases to function, this would result in considerable losses in international trade. These losses would be of “systemic importance” to an economy. In other words, the failure of the Single Window facility could potentially trigger an economic crisis.

3. The basic principles (outlined in section 3 of this White Paper) are meant to serve as universal benchmarks to help design Systemically Important Single Windows that are resilient and globally efficient.

4. These principles should be of particular importance to Governments because of the effort required to improve and facilitate foreign trade procedures in order to promote a nation’s position in international markets. Indeed, the establishment of a Single Window can improve the trade environment, making the country more attractive for trade flows and foreign investment.

5. These basic principles are intentionally broad enough to apply under a wide range of circumstances and to have lasting utility.

6. Single Windows may be subject to many risks, including the following:

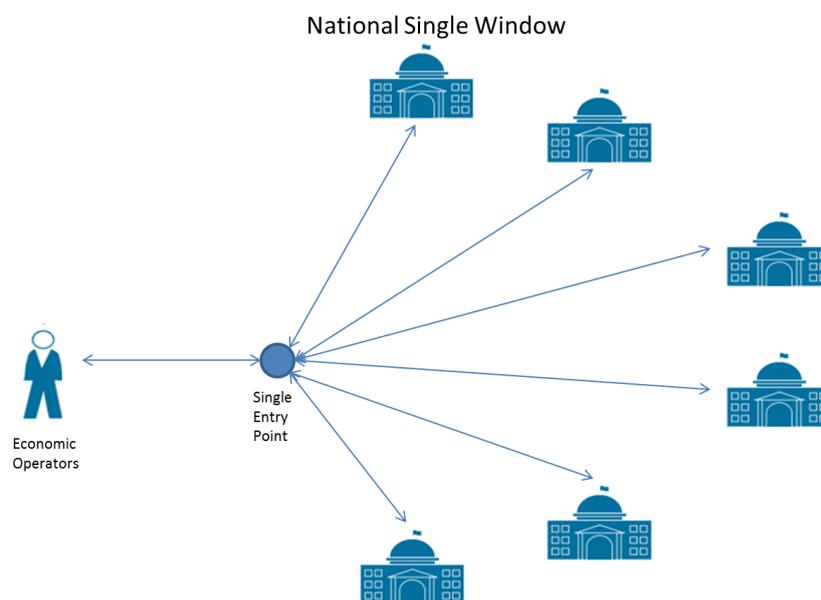
- **Compliance risk:** Single Windows handle procedures that are governed by changing national and international regulations. Compliance risk occurs when an actor cannot comply due to an inability within the Single Window facility to apply a new regulation. This inability is often due to technical, conceptual and/or organizational constraints.
- **Operational risk:** This is the risk that operational factors, such as technical or infrastructure failures or operational errors, will cause or increase the risk of dysfunction.
- **Force majeure risk (a type of operational risk):** Involves the risk that an event beyond the control of anyone prevents one or many stakeholders from complying with any of its obligations, including acts of God (earthquakes, drought, tidal waves and floods) war, hostilities, invasion, acts of foreign enemies, mobilization, requisition, revolution, insurrection, radioactive contamination, radioactive toxic explosions.
- **Risk of dysfunction:** the risk that a government agency within the system is unable to offer all or part of a service in the context of its exchanges with the Single Window.
- **Systemic risk:** In the context a Single Window system, one of the above risks results in significant reduction in the foreign trade operations of the Single Window.

¹ UNECE Recommendation N°33: Recommendation and Guidelines for Establishing a Single Window (ECE/TRADE/C/CEFACT/2020/07)

- **Interfacing risk:** This is the risk that an established Single Window is not able to interact with the technology of the user community or it cannot be correctly understood by the user community because of different semantic understandings. The Systemically Important Single Window will have the ability to exchange unambiguous data; this is a requirement to enable data federation between the Single Window and the connected actors (i.e. interoperability between the Single Window and users' systems).

II. The key role of a Single Window in international trade

7. A Single Window is considered systemically important because it is the unique, official single entry point for the country's international trade operations. When the Single Window does not cover all processes in international trade within a country, it will likely manage one or more operations that are critical for international trade.



8. This White Paper is addressed to all actors in international trade, and agencies wishing to establish a Single Window facility.

9. Single Windows that are already operational can rely on the recommendations detailed in this document to improve their organizational and technical models.

10. The basic principles are also addressed to advisers who provide international technical assistance on the security and efficiency of Single Windows.

Definition of a Systemically Important Single Window

11. Systemically Important Single Windows (abbreviated SISW) are Single Windows which have the characteristic that a failure of one of the system's key stakeholders, or a disruption in the system itself, could potentially result in the inability of other system stakeholders or institutions in other parts of the economy, to meet their obligations as they become due (systemic risk). Such a failure could threaten the stability of the system or of the economy. This effect is often due to the nature of the transactions they process or by the value and importance of these transactions for the economy.

12. The core principles apply to Systemically Important Single Windows - that is, systems which could trigger or transmit systemic disruptions in the economy because of the size or nature of the individual transactions which they handle or because of the aggregate value or importance of the processed transactions.

13. A Single Window can be considered systemically important if one or more of the following criteria are met.

- It is the only system available for national foreign trade operations;
- It's the single system for managing one or more operations on the critical path of one or more important process of foreign trade in a country;
- It can paralyze a service provided by a nationally vital system when impacted;
- The country will be unable to supply essential goods for economic and social peace when out of service;
- The national economy could face a crisis because the Single Window manages important transactions characterized by large numbers or involves strategic operations.

III. Summary of the core principles for managing risks and contingencies in the operation of a National Single Window

A. A well-founded legal basis

14. A Single Window should have a good legal foundation representing all relevant jurisdictions; a system that is not legally robust, or in which the legal issues are poorly understood, could endanger its participants. Poor understanding or misinterpretation of procedures can lead to a false sense of security, which can lead, for example, to the underestimation of a player's exposure to risk.

15. The legal environment applicable to this principle includes the general legal infrastructure of the relevant jurisdictions (such as trade, port, security, banking, customs, etc.), laws, contracts (e.g., Single Window rules) and other relevant documents.²

16. It is important to have a clear definition of the jurisdiction under which the rules and procedures of the facility must be interpreted. In most cases, the most important legal framework will be the nation's internal law, though—especially when the facility involves cross-border elements such as foreign currency and document exchange—it will also examine whether there are significant legal risks under other relevant jurisdictions.

17. A Single Window must have regulatory and legal oversight to anticipate national or international regulations that may influence its activities or strategy. This principle of anticipation allows the authorities of the Single Window to take the necessary measures in order to ensure absolute compliance.

B. A good understanding of the impact of the facility on stakeholders

18. The Systemically Important Single Window rules should enable stakeholders to fully understand the impact of the facility on each of the risks to which they are exposed.

² A full list of legal aspects to be considered related to Single Window implementation and operation is available in UNECE Recommendation N°35.

Stakeholders, the network operator and other parties involved (including users) must clearly understand the various risks involved in using the facility and how they will be supported in the face of these risks.

19. The rules and procedures of the facility should clearly define the rights and obligations of all parties concerned, and should be published in up-to-date explanatory documents. In particular, the relationship between the rules of the system and the components of the legal environment should be clearly understood, explained and accessible to the general public.

20. When a participating government agency does not adequately control the systems it contributes to the facility, its response and flexibility in times of crisis will not be effective and will represent an obstacle to the quick restoration of normal conditions within the entire system.

C. A clear and effective basis for procedures and rules

21. The rules and procedures governing the interactions of a Single Window with the different stakeholders should be effective and their consequences foreseeable. For the management of operational and dysfunction risks, the Single Window should have clearly defined procedures specifying the respective responsibilities of the operator of the Single Window (and other actors) and should provide appropriate incentives for managing and containing these risks.

22. A Single Window must have a complete and evolutive set of procedures and rules of exchange between its actors and stakeholders. This foundation of procedures and rules must be established with the participation of all stakeholders. They must also participate in its evolution and maintenance.

23. These procedures will also stipulate responsibilities for managing and controlling risks. They therefore constitute a first-rate tool for dealing with the different types of risk.

D. Single Window and partner systems must have significant scalability

24. In order to mitigate compliance risks, the Single Window and partner systems must have a rapid and effective capacity to evolve. This recommendation comes from the regulatory and economic environment which impacts the way international-trade players operate. This environment is subject to permanent changes dictated by national and international political guidelines.

25. In order to respond to these rather frequent changes (and minimize compliance risk) the design of the Single Window facility and its ecosystem must take seriously the evolving and agile nature of international trade procedures.

26. In addition to compliance risk, the Single Window must respond quickly to changes in national and international strategic directions. Technology monitoring is recommended to avoid possible obsolescence, which may impact the agility of the facility.

E. A Business Continuity Plan is a primary mechanism for managing a Single Window

27. Operational risk is one of the risks most likely to be realized. The development of a Business Continuity Plan and an IT continuity plan are recommended to minimize the damage caused by the realization of this risk.

28. The nature, frequency and cost of crises have evolved significantly over the past two decades. Today, it is better understood how closely the various dimensions of these events are intertwined, how strongly they disrupt the functioning of organizations (both public and private) and how the consequences can be felt until the definitive cessation of activity.

29. Experience feedback from major crises has shown that organizations who have undertaken preliminary measures to ensure the continuity of their business are the most resilient in the face of disruptive events.

30. In the case of Systemically Important Single Windows, the development of Business Continuity Plan is no longer considered a best practice, but an obligation as it mitigates the impact of operational and systemic crises on the overall international trade activity of a country.

31. The different actors interacting with the Single Window must contribute significantly to the definition of this plan and participate in the various tests, whose main objective is to ensure that the various actors are ready to manage a possible crisis.

32. The different actors must also define a Recovery Time Objective (maximum permissible interruption time) and a Recovery Point Objective (maximum data recording time loss that is acceptable during a failure). The definition of the RTO and the RPO not only make it possible to plan the actions to be taken in the event of a disaster, but also (and above all) to adopt an IT investment strategy that anticipates the technological systems (such as failover mechanisms) required to deal with catastrophic situations.

F. Integration of security measures into the life cycle of a Single Window

33. The Single Window must have risk management measures in place for its information system. This system must control the security of information by providing protective measures that are proportionate to the stakes involved and which are specifically designed for the type of risks they mitigate.

34. This management involves the regular identification, assessment and mitigation of risks. It must also ensure that safety measures are appropriate. The choice of measures should be determined by ensuring that the planned actions and the resulting costs are proportionate to the reduction of risk.

35. All participating partner agencies must be able trace any event affecting (or likely to affect) the availability, integrity, confidentiality or traceability of the information interacting with the Single Window.

36. An emergency related to the security of the information system is the result of any alert or incident, involving one or more information systems, that causes a major dysfunction in the activities of international trade. Such a situation requires a strong reaction and the pre-emptive, strategic coordination of the various actors concerned. It is therefore imperative that Single Window partners consider the security of the information system in the creation of their crisis management strategy and their business continuity and recovery plans.

37. The security of the Single Window is handled daily, using published practices and procedures which define the basic acts involved in maintaining safe conditions during the design, development or withdrawal phases of a facility.

38. The security measures are not solely applicable to the information system but will have a direct impact on other areas such as human resources, premises and computer centres.

39. The responsible entity for the management and supervision of a Single Window shall:

- Define the scope for the implementation of safety standards;

- Establish a single authentication tool that helps public services partners to authenticate and access the different applications on the Single Window;
- Implement a common identity management system;
- Provide authentication methods in line with the needs of the Single Window facility;
- Provide tools for security oversight and integrity of the Single Window.

G. Responsible, efficient and transparent Single Window governance

40. Single Window governance procedures cover all the relationships between the management of the facility, its board of directors and the various stakeholders. These procedures establish the structure which allow to facilitate the definition of the global objectives of the facility, the modes by which these objectives will be realized and the evaluation of their performance.

41. Since Systemically Important Single Windows are likely to exert a direct influence on the international trade community, there is a need for effective, accountable and transparent governance.

42. The success of a Single Window depends on the involvement of the stakeholders in the creation of processes that are managed and in the governance of the body that manages it. Finding consensus among these stakeholders is sometimes difficult to achieve given the multiplicity of actors and their dependence on different authorities or ministries.

43. The entity managing the Single Window must have a governance structure that includes most stakeholders, which enables them to participate in the definition of general policies and allows them to express their opinions regarding the prioritization of work relating to the dematerialization and facilitation of procedures.

44. Effective and transparent governance enables the achievement of objectives that align with the expectations of all actors in the foreign trade community. It also ensures that the management of the Single Window has the appropriate tools and competencies to achieve the set objectives.

45. One of the most common forms of governance are public-private partnership contracts, which may take different forms, each with its own characteristics. This model makes it possible to have an efficient Single Window shop at the start of the concession period. However, issues related to the financing of platform developments and the transfer of competencies at the end of the contract must be well thought out when designing partnership contracts.

H. Access criteria which are objective, published and fair

46. Systemically Important Single Windows should have objective and transparent criteria for equitable and open access. The facility should not serve the interests of restricted communities.

47. These criteria should encourage competition between stakeholders and enable low-cost business operations to be carried out; however, the principle of openness will need to be continuously monitored in order to protect the Single Window systems from exposure to imminent risk. The rules governing access restrictions must be objective, based on appropriate risk criteria and must be accessible by all actors.

I. The delicate balance between cost, quality, safety and efficiency

48. The ultimate interest of the various actors linked to a Single Window is the ability to carry out operations at the lowest possible cost while guaranteeing the highest possible standards in terms of optimization, quality and safety.

49. A compromise is normally required between this desire to minimize costs and other objectives such as increased levels of security. The design of the facility and the technological choices to be made must balance the value of the resources to be leased, the requirements of the specific features of the Single Window, and the effects of the facility on overall international trade for the country.

50. The design and operation of the Single Window should allow it to adapt to changes in foreign trade procedures and expectations at the national and international levels. The choices made in terms of technology, business orientation and governance should be flexible enough to evolve in parallel with demand.

J. Maturity of the private and public ecosystem and its technological and organizational capacity

51. Because all connected actors are playing a part within the network, each is obligated to upgrade to the technological level required to reduce the risk of an eventual technological failure.

52. The design and technical choices made during the implementation of the Systemically Important Single Window must be accompanied by the upgrading and growing of competencies and capacity throughout the entire public and private ecosystem with which the Single Window interacts if it is to respond to increases in trade transaction volume and scope.

53. Organizational cooperation could also be insured by finding instruments to formalize mutual assistance, joint action and interconnected business processes between the Systemically Important Single Window and the connected actors.

54. Crisis avoidance solutions become more complex in the event of technological and organizational maturity mismatches between the Single Window and its ecosystem.

IV. Responsibilities of Governments in applying the core principles

55. Governments should consider the following principles in their Single Window context:

(a) The Government should clearly define its Single Window objectives and should disclose publicly its role and major policies with respect to Systemically Important Single Windows.

(b) The Government should ensure that the Systemically Important Single Windows it operates—directly or through a government agency—complies with the core principles.

(c) The Government should oversee compliance with the core principles by Systemically Important Single Windows it does not operate, and it should have the ability to carry out this oversight.

(d) The Government, in promoting Systemically Important Single Window safety and efficiency through the core principles, should cooperate with other Governments and with any other relevant domestic or foreign authorities.
