



DECISIVELY

**DECISIVELY STS
Consultation Paper 2023
Response**

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STS CONSULTATION PAPER RESPONSE

Both the STS consultation documentation and the recent presentation by the Commissioner of Australian Border Force, Michael Outram, acknowledge the impact of outdated IT solutions and paper-based systems on the complexity of navigating the trade system and the duplication of effort. This submission is relevant to the following section of the STS reform options:

3. Modern Digital Systems and Processes

The STS reforms are intended to enable the adoption of modern, whole-of-government digital systems and processes, including:

- **Information accessibility and guidance:** making trade information and guidance accessible to business.
- **Trust and risk:** trust that better integrates current levels of assurance and sharing of trust data across the Australian Government.
- **Identity:** apply digital identity that aligns to the whole-of-government digital identity strategy.

The consultation paper states that “*We are taking a whole-of-government, whole-of-trade approach in addressing these issues. We are considering the following principles to drive a better user experience for traders:*”

- *Advancing ‘tell us once’ digital trade capabilities, including by rationalising disparate sources of information, and improving data sharing to reduce instances of manual input of data,*
- *Digitisation and automation of manual and paper-based processes,*
- *Use of data to inform policy design and enhance service delivery,*
- *Using modern interfaces and decommissioning legacy systems to enhance cyber resilience, and*
- *Reuse of existing whole-of-government platforms.”*

This submission will highlight how Decisively can assist in furthering the principles stated above, particularly:

- *Advancing ‘tell us once’ digital trade capabilities, including by rationalising disparate sources of information, and improving data sharing to reduce instances of manual input of data,*
- *Digitisation and automation of manual and paper-based processes,*
- *Use of data to inform policy design and enhance service delivery,*

Therefore, this submission focuses on how the Decisively platform could play a role in assisting the STS reforms of the adoption of a modern digital system and processes with reference to the following questions:

Q18. What global best-practice examples of digital improvements might be relevant in the Australian context?

Q19. What are the priority improvements from a whole-of-government digital services perspective you would see delivering early benefits to business?

ABOUT DECISIVELY

Decisively is an Australian developed platform with a mission is to make it easier, faster, and more intuitive for organisations in regulated industries to make better decisions. Decisively removes the barriers between the complex rules that exist in legislation, policy and regulation, and the systems that people use when seeking to engage them. By simplifying the extraction of complex decision logic from source rules material, making them more accessible and faster to update, Decisively enables the ideal user experience that supports the Government’s stated principles of driving a better user experience for traders.

Decisively brings a technology capability and delivery methodology that promotes better decisions using digital policy-driven executable logic. Delivered as guided digital interviews, perfectly aligned data models, and modern APIs, we enable organisations to support complex application, assessment, calculation, and decision processes. The Decisively platform has been designed to make it easy for anyone in the organisation to use - including policy and knowledge experts, business analysts, experience and UI designers, developers, compliance, audit and legal teams and more. This aspect of the Decisively platform would assist by providing validated data in formats that can inform policy design and enhance service delivery.

APPLICATION OF DECISIVELY IN THE STS SOLUTION

Q18. What global best-practice examples of digital improvements might be relevant in the Australian context?

The STS Rules are fundamental to how trade operates. These rules are documented in artefacts like legislation, law, regulations, policies, and manuals. In relation to STS, these rules are complex and wide-ranging, making them hard to navigate. In addition, the rules are expressed in forms that computer systems don't natively understand.

Traditional approaches have been focused on an inefficient, error-prone, and expensive process of manually converting the complex and nuanced rules into a multitude of computer programming languages. In almost all cases the rules would be generalised or standardised to reduce complexity, stripping out the critical nuances and creating a flow-on need for specialised human resources to manually process complex scenarios. This approach to "digitising" rules is inefficient and unsustainable, while the use of complex rules embedded in computer systems is rapidly increasing.

In the context of the STS, Decisively believes there is a better way. Rather than try and simplify the complex rules and potentially lose the true meaning, intent and nuance, a more modern and effective approach is to enable an efficient and elegant transition to digital rules and logic that are faithful to the source, whether regulatory or otherwise.

Decisively is a world-leading, Australian-built and developed platform designed around an approach that allows the digital rules to be authored and maintained in a natural language syntax derived directly from the source material. The Decisively platform can:

- Ingest natural language documents (such as policies, laws, knowledge etc.) into a simple, web-based editor that empowers rule authors to understand the rules without the need for software or IT development resources.
- Handle the complexity of modern rules, including time-based reasoning, complex entity relationships, and the creation of new data from old. Decisively was developed specifically for very complex rule calculations.
- Provide novel and useful ways to interact with the rules engine, from API calls, Interviews and Chatbots.

Users can upload and ingest source rule materials directly into the Decisively platform, creating the foundation from which it is possible to model and verify digital rules. This gives the ability to preserve the important structure and syntax of source rule material, ensuring that the operational intent is reflected in the digital rules. This means the solution can:

- Allow the user or the administrator to start the rules digitisation process quickly and easily.
- Preserve the important structure and syntax of the source rules material.
- Promote very high levels of accuracy, efficiency, and scale.
- Maintain source rule material alongside the digital rules estate.

The Decisively solution would provide a best practice, truly digital solution for traders to navigate the complexity and specificity of trade rules. For regulators, it would reduce the likely duplication of effort in retaining system interaction data.

If the STS Taskforce was to adopt an approach and technology like Decisively, we believe there would be significant benefits for all stakeholders – government, industry, users, regulators, and even consumers.

Q19. What are the priority improvements from a whole-of-government digital services perspective you would see delivering early benefits to business?

The Decisively platform can provide rapid benefits to business. It can be deployed quickly and easily as a portal for the trader to engage with the disparate sources of information, and the Decisively platform can also target the needs of each individual trader through the interview process. Through the consistent application of the rules, and the audit trails automatically produced by our platform, use of the Decisively platform will result in improved data sharing capabilities and a reduction in manual input of data across systems.

Decisively's approach allows IT to focus on core trade systems, not time-consuming, traditional "business rules translation" exercises that drain specialised resources and create significant levels of technical debt. Importantly, Decisively allows for the creation of a centralised, headless, regulatory "rules-as-a-service" capability that can be exposed as guided consumer interactions (chat, interview, etc) or as APIs for businesses to consume within their processes and systems.

Decisively's approach is to simplify the process (not the rules) with a unified digital trade rules framework to:

- **Decouple business rules** – transform (and maintain) operational trade rules from all agencies into a unified framework embeddable into multiple systems (or a trade window).
- **Automate decisions** – automate millions of decisions, compliance checks and calculations across the digital trade rules framework, every day, in real-time.
- **Simplify experience** – simplify the human experience across an evolving regulatory landscape using a no code platform that understands relevancy.

To accompany our innovative technology, we have developed a delivery methodology called the Decisively Agile Rules Methodology (DARM). It embraces the natural complexity that exists in regulation without requiring simplification of the rules and/or elimination of complex edge cases. DARM has been developed and refined based on more than 20 years of successful rules digitisation projects delivered in regulated industries.

The methodology aligns with the unique way the Decisively Platform operates, avoiding many of the laborious, time-consuming activities associated with traditional business rules approaches. We do this by taking a business-led and top-down policy-driven approach to the ingestion and digitisation of business rules, at extreme pace. The result is a simpler, more reliable, lower-cost, and personalised experience that respects the unique characteristics of all citizens and their journey through life.

DECISIVELY AGILE RULES METHODOLOGY (DARM)

DARM consists of a four-phased best practice delivery methodology, designed to take a rule digitisation idea (or use case) to full automation within the Decisively Platform and integrated with a customer's business processes and systems. The methodology has been designed to embrace ongoing change across business rules and business goals. The methodology supports ongoing business continuous improvement, such as further digitisation of new knowledge, applying further automation, and enhanced customer experiences.

LEARN PHASE

Our customers are knowledge and rule experts within their industry domain. Through customer elaboration sessions Decisively aligns on the rules digitisation goal(s) and extracts operational knowledge, regardless of format, and other relevant source materials where rules are defined. Learn is designed to understand the enterprise context for applying declarative (or deterministic) automation, and to analyse and refine the source material through initial prototyping.

INGEST PHASE

Decisively focuses on the ingestion of the customers source material into the Decisively Platform. This includes the creation of the overall rules architecture and data model, ingestion and modelling of the source material, interrogations of the rules logic to ensure alignment with the rules architecture, and visual testing and verification with customer experts.

CONNECT PHASE

This phase focuses on enabling the digital rules created in the previous phases into the broader customer enterprise architecture, with the embedding of guided dynamic interviews and/or decision API(s) into the customer business processes and enterprise systems.

RELEASE PHASE

Decisively works closely with the customer to ensure business readiness to accept a deployment of a specific collection of business rules (typically categorised as a 'product') into production operation. Upon readiness, Decisively works with the customer to deploy into Production operation. This includes planning knowledge transfer, planning for ongoing rules management, rules change management and continuous rules improvement to ensure the customer is prepared to maintain and evolve the operations, or alternatively Decisively or its partners is engaged to provide ongoing management of the rules as they change.

CLOUD AGNOSTIC

Decisively has been designed to be an open, headless, and cloud-adaptive business rules engine that can easily embed into a user's existing enterprise architecture, business systems, and business processes. The Platform supports multiple integrated methods to cater for a myriad of use cases.

It has been developed using modern application best practices and designed to be infrastructure and cloud agnostic. The components that make up the Decisively can be deployed on a variety of different infrastructure platforms, enabling flexibility in adapting to sovereignty and security requirements in regulated industries.

We support common deployments across major hyperscale cloud providers today, such as Microsoft, Oracle, and AWS. Decisively's supported cloud versions include deep integration with relevant infrastructure and platform services of hyperscale cloud providers, ensuring the deployment is optimised, efficient, resilient, robust, and secure. Decisively continues to expand its native support for other cloud vendors. Customers using modern infrastructure components in their own data centre or environment can also deploy the Private SaaS Edition of the Decisively Platform as an alternative to our public Software as a Service (SaaS) model.

INFRASTRUCTURE ARCHITECTURE

The Platform leverages a serverless approach to infrastructure that runs within scalable clusters. This allows the Platform to automatically instantiate multiple containers, containing the code of the various Platform components. This allows the Platform to quickly build new instances to scale itself as load increases, or to cater for data centre outages. The cluster takes care of load balancing requests across containers, scaling up containers based on automatic or manual means, or re-firing and cleaning up failed containers.

The availability and resiliency of the Platform is typically a joint effort between Decisively and the customer, pending the approach to integration and interviews. The Platform itself is designed to scale-up and scale-out as needed to replace failed components.

SECURITY

Zero Trust Architecture is leveraged throughout the Decisively Platform. This is an architectural pattern whereby each component within the technology has no implicit trust of any other. This requires every component to verify a request before it can process it, even if that request came from another internal process. This pattern ensures that even if a single component was compromised it would have no further impact on other processes. This has the added benefit that every interaction within the technology must be checked against the identity provider, to ensure that the user or system provided token is still valid and authorised. This allows the identity provider to then monitor, record, and assess every interaction.

SYSTEM INTEGRATION

The Decisively Platform has been designed to integrate into any existing ICT operating environment, including into monitoring, auditing, and security systems that provide enterprise IT-focused controls.

The Decisively Platform will integrate with your identity provider to control user authentication and authorisation. This will be configured to manage logging, alerting, and monitoring of user behaviour. Every interaction with the Platform will be checked against the identity solution to ensure that the user is authenticated and authorised to complete it.

HOW DECISIVELY CAN SUPPORT THE GOVERNANCE FRAMEWORK

In addition to the above, the appendix of the STS consultation paper notes under Governance and Processes that “*Operation and maintenance of the Framework will require appropriate governance and processes to ensure that data sharing continues to support the cross-border trade system. These arrangements will be designed to be responsive to the evolving needs of businesses, government, and external influences, including legislative and technology changes*”.

Decisively’s native ability to provide automatic decision audit trails, and consistent application of the regulatory rules, would support the Governance Framework of the STS through the following mechanisms:

- *Consistent input application of rules graph to inputs.*
- *Ability to evolve.*
- *Audit trails.*

Decisively was developed using a human-centred design approach to ensure each user cohort feel comfortable and productive by providing capability that is aligned to their role, needs and common work patterns. This means that business rules custodians and domain experts operate in an environment that looks and feels familiar, with the structure and syntax of the digital rules close enough to the source material that it is readable and understandable by humans and computers alike. Using Decisively, the digital rules that closely resemble the source materials *are the code* that computers understand, so the same experts who author the digital rules can test them for accuracy, intent, and appropriateness without needing specialised IT skills. This enables a transformational shift when it comes to the pace of rules digitisation, change and innovation.

The digital interview module provides drag-and-drop capability that enables experienced designers to create the ideal experience for their target user group or channel (or both). The Platform (being a headless design) also provide the ability to interrogate the digital rules logic via API from an entirely bespoke engagement layer, eliminating any boundaries to creating immersive, amazing customer experiences. This empowers designers with endless opportunities to embed complex, automated decision capabilities into any channel and for any user cohort.

Decisively provides a visual representation of all input and derived attributes in the form of a data model, as expressed within the source business rules material. This significantly reduces the effort to design the data model for downstream system of record system(s) for architects and business analysts.

The Platform provides all the modern tools necessary for the development of integrations, monitoring, security, tests, and APIs. The Platform removes the need for the developer to understand and code an IT specification that contains an interpretation of the source business rules and thus enables the developer and integrator to focus on high value tasks that support the most effective use of the digital rules in an enterprise IT environment.

Decisively provides a detailed decision report after every assessment, determination and/or calculation made on the platform, with direct links back to the specific parts of the source material to explain why a particular determination or calculation was made. This applies to all users of the platform or consumers of the outcome, whether they be the traders, the various border force entities involved in the STS, or even auditors. The Platform provides an intuitive decision report visualisation capability for these users and makes it available via our streaming service, so any subscribing system can consume and leverage the reports as required to support system of record, analytical, auditing, records management, and other enterprise needs.

In combination, these elements mean the Decisively Platform could support and meet the governance goal of *“The arrangements will be designed to be responsive to the evolving needs of businesses, government and external influences, including legislative and technology changes”*.

CREDENTIALS

The Decisively team has decades of experience and credentials in relation to the application of successful rules digitisation projects delivered in regulated industries. The Decisively platform has been built from this expertise and has application in projects in a wide range of regulated industries such as global taxation, global mobility, healthcare, financial services, and insurance.



DECISIVELY
POWERING BETTER DECISIONS