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**with the control  
you need...**

*At TATIS we know about risk.*

**TATIS.**

Customs and Tax Management Solutions

# TATIS Customs Management Solution Overview

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## 1. Background

Customs organisations worldwide are typically driven by the following often contradicting goals: trade facilitation, revenue collection and risk management. These organisations are required to act as gatekeepers, to protect the country from a wide range of threats, while at the same time facilitating trade and collecting revenue. Facilitating trade implies a quick and efficient clearance service, while protecting the country against risk and ensuring compliance with revenue and Customs legislation could mean the exact opposite. Customs organisations are thus faced with performing a fine balancing act between these opposing goals.

Customs processing is also taking on a more regional and even global focus. Bilateral or multilateral agreements enable an export declaration from one country to be automatically forwarded to another country as an import declaration. Member states of communities share information even more freely. Adherence to internationally accepted standards (for commodity codes, data transfer, etc) is essential to facilitate this process. In fact it is international conventions (such as Kyoto) and standards bodies (such as the UN and WCO) that provide the imperative for modernisation and common practices and data.



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Customs Modernisation is also extending its collaboration to other government agencies concerned with goods flows across borders resulting in information sharing becoming a major benefit to trade facilitation and assuring regulatory compliance. While Custom is often the first agency aware of goods movements, other agencies concerned include Tax, Agriculture, Farming, Border Agencies and Immigration Authorities. The concept of Integrated Revenue Management Services, where Customs and Tax authorities are effectively integrated, is becoming common practice. These inter authority and agency collaborations are often incorporated within a single window concept. Tax payer profiles could provide valuable Trader information for Customs authorities in supporting risk assessments and control decisions.

At the last WCO conference held in Cairo, Egypt in November 2010, safety, security and economic safety were raised as primary agenda items, highlighting the requirements for effective risk management and the importance of using technology to achieve this. Countering national safety and security threats will rely on leading edge technology counter measures. Border agencies will be forced to use very sophisticated detection systems supported by intelligent risk identification and management processes. This risk management must be automatically linked into the customs declaration process.

Electronic submission of customs declarations is essential and this should be provisioned through the use of on-line forms ensuring data integrity through data entry validation. Direct Business to Government (B2G) channels should be available to link trader ERP systems with Customs systems. On-line status tracking must ensure that traders and Customs officials are kept up to date.

Furthermore, Customs organisations must manage a complex set of party relationships such as manufacturers, importers, exporters, forwarding- and customs agents, banks and insurance companies, transporters and other intermediaries, all or any of which may affect the calculation of duties or the assessment of the risk posed by that particular consignments.

It is against this background that the TATIScms Customs Management Solution was developed. The primary solution goal is to automate all Customs processes to the fullest extent possible, automatically identifying risk (whether safety and security, or revenue), so that the Customs organisation can manage the conflicting goals that are imposed on it.

## **1. Implementation of a Customs Management Solution**

As a technology provider, TATIS is well aware that technology in itself is not the proverbial “silver bullet” required to meet all the demanding, multi faceted, functional and operational needs required by Customs operations. Technology is but one dimension. Policy, People, Processes and Information are the other dimensions making up an implementation framework within which the solution needs to be designed and delivered.

Our software architecture and engineers have shown that they can compete with the world’s best. TATIS’s current involvement in the European Union and South African Revenue Services is testament to our ability to provide innovative, flexible and robust solutions on the technology platform of your choice.

The open standards architecture provides integration to other revenue management systems enabling the future for Integrated Revenue Management Systems (IRMS).

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### 2. TATIScsm Solution Overview

#### 3.1 Core Functionality

The core business functions of the TATIScsm solution can be summarised as follows:

- Declaration processing (for goods movements related to cargo, import, export, transit, excise, and bonded warehousing and manufacturing).
- Tracking of single goods movements until completion
- Goods accounting to demonstrate acquittal between subsequent movements in storage areas and warehouses (cargo-to-goods, goods-to-goods, one-to-one, many-to-many).
- Automated duty calculations, managing all tariff measures, and their publication directly from the “electronic tariff book”.
- Integrated Risk and Inspection Management. The Risk Management is done based on configurable rules, that can make use of reference tables, as well as self-learning systems that adjusts based on the results of inspection outcomes.
- Permit and Certificate Management, including managing quotas for permits issued to Traders.
- Comprehensive data analysis and reporting.
- Integration capability to other national systems, and data transfer between other government agencies
- Integration capability to regional and community systems, and data transfer between Customs Authorities.



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### 3.2 TATIS design principles

The TATIScms was designed from the outset to conform to the following functional and software architectural design principles:

- Comply with evolving international Customs best practices, utilising the WCO3 standards for its database structure, terminology used and messaging interfaces.
- SOA Reference Model. The design of the architecture around a services model allows viewing the solution on various levels, namely a Business view, Functional view, Application view and a Technical view. This model makes it possible to apply business driven transformation through the various views.
- Modularity with respect to all the various TATIScms modules. This allows the maximum flexibility when integrating TATIScms into an existing IT environment. For example, TATIScms can do Trader Management, but if a Customs Authority prefers to use their existing Taxpayer Management system (which would typically be the case), the TATIScms Trader Management module can simply be unplugged. The TATIS provider for Trader Management integration layer is then simply configured to interact with the Taxpayer Management system instead of the TATIScms Trader Management. Another example is billing and accounting, which is typically handled by the Revenue Authority accounting systems. The TATIS provider for the Accounting Service is then configured, according to the integration requirements of the specific accounting system being used. TATIScms has already been integrated with Oracle Enterprise Taxation & Policy Management (ETPM), SAP PS-CD and SAP Financials.
- Strict J2SE standards compliance. This allows the deployment of TATIScms on various hardware platforms, operating systems and application servers. This allows the IT department of the Customs Authority to select a deployment architecture based on their existing skills base.
- TATIScms is database “agnostic”. The use of the Hibernate solution makes it possible to use any of more than 26 well known RMDB's for the database infrastructure for the TATIScms solution. This is again an opportunity to leverage existing skills in the IT department of the Customs Authority.
- TATIScms has been developed with the intention to enable the maximum amount of configurability. The content of drop-down lists, processing stages, validation rules are all examples of entities within the solution that can be configured as needs change.

### 3.3 TATIScms integration with Accounting Systems

The integration between TATIScms and the Accounting System entails the capability to process the following transactions and messages:

- Processing duty payments with deferred accounts: Messages transferred during this process include account validation, availability of credit in the deferred account, changing the available credit balance with the payable duty value and the final processing of the duty payment.

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- Processing cash duty payments: The required payment information is transferred to the Accounting System and after receipt of the cash payment confirmation from the Accounting System, the processing of the Customs declaration is finalised.

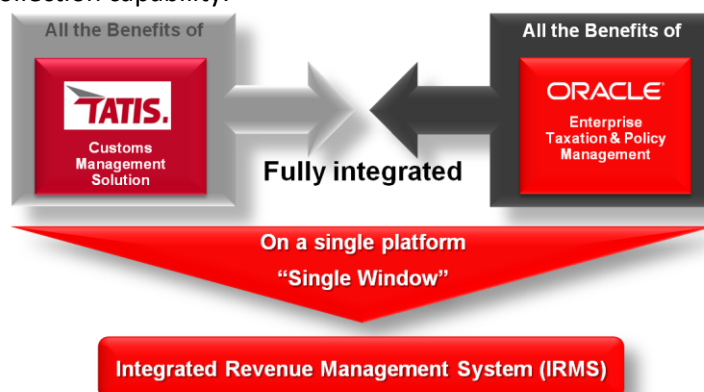
### 3.4 TATIScsm User Interfaces

The TATIScsm has the following three user interfaces:

- Inside Customs offices: Smart client user interface. This user interface is dynamically deployed from a web browser link and only requires that a Java runtime environment is installed on the users' computer.
- For use by Traders: Registered Traders will be able to access TATIScsm through a web browser interface using industry standard browsers (Firefox, Opera, IE). Traders will be able to submit Customs declarations, view the status of existing declarations and view messages that are automatically sent after each declaration status change during the processing of their declarations. The pages containing the forms for the submission of Customs declarations are complex pages that automatically update, displaying fields that are required depending on prior selections made by the Trader. Continuous validation of declaration content prior to, and on submission, enables immediate feedback to the Trader on submission success. Prior to submission to Customs for processing, the declaration status is "draft" and invisible to Customs. Only after final submission (status changes to "accepted") does the declaration become visible to Customs users.
- For use by large Traders: An electronic direct submission channel, though the use of XML messages, is available for large traders who would want to submit Customs declarations directly from their corporate ERP systems. Immediate feedback on successful acceptance of these declarations is done. The processing of these declarations can also be monitored through the web interface.

## 3. Integrated Revenue Management System

The concept of Integrated Revenue Management Solution (IRMS), where Customs and Tax authorities are effectively integrated, is becoming common practice. TATIS, in partnership with Oracle, is providing a Customs and Tax "in-a-box" solution delivering a fully Integrated Revenue Management Solution. The world class Oracle Enterprise Taxation & Policy Management (ETPM) application provides fully integrated Tax Management functionality providing Tax authorities with an effective revenue collection capability.



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### 4. Summary

TATIScms is thus a system, built on sound principles, using the latest technological architectural principles, conforming to international best practices that can form the core of a Customs modernisation programme. Integration with legacy and other government systems also means that TATIScms can be used as part of a Single Window solution enabling Traders to access all import- and export related services through interaction with a single system.

The open standards architecture provides integration to other revenue collections systems enabling the future for Integrated Revenue Management Systems (IRMS).

TATIS provides Customs and Tax Authorities with a platform to build their future Customs Modernisation strategy.

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