Dear Reader,

Welcome to the third issue of the project newsletter. CASSANDRA is at its mid-term and we would like to give you new insights on our work increasing security and visibility in global container transportation. On the one hand, this issue focusses the project’s benefits for businesses which means we would like to inform on tangible benefits for shippers and freight forwarders through the adoption of the CASSANDRA approach. On the other hand, the newsletter introduces the business dashboards for visualisation of supply chain data. Considering that, I would also like to recommend the interview with one of our technical solution providers which are creating these dashboards and make CASSANDRA’s concepts alive. In addition, I am pleased to announce our workshop at the transport logistics fair in Munich and invite you to use this opportunity to meet us and get involved in our project.

Best regards and enjoy reading!

Rainer Müller, CASSANDRA Dissemination Leader
INTRODUCTION - SECURITY THROUGH VISIBILITY

CASSANDRA addresses the supply chain visibility needs of both business and government in the international flow of containerized cargo. The main strategic goal is to enhance supply chain visibility to improve business operations as well as government’s cross-border security inspections.

The strategic impact for businesses is an improved supply chain performance and cost efficiency by reducing administrative and planning errors along the chain. For government agencies CASSANDRA improves efficiency and effectiveness. The project helps customs to assess business processes and procedures and identify secure supply chains. By minimizing the attention given to these secure flows and businesses, government agencies can focus on high-risk flows resulting in a higher hit rate and greater effectiveness of security related government inspections.

In general, CASSANDRA facilitates the European and global trade by enhancing corporate social responsibility and by improving product and societal safety.

RISK BASED APPROACH

Businesses and government agencies are struggling to find efficient and effective means to ensure full supply chain control and security, minimizing supply chain risk. These challenges have a common solution: supply chain visibility by access to existing supply chain data.

**System-based supervision**

In CASSANDRA government agencies shift to a risk-based approach by relying on self-regulation of businesses. In this system-based supervision government agencies use an audit methodology to assess compliance to rules and regulations based on the evaluation of the integrity, reliability and internal consistency of the business and IT systems.

**Risk-based supply chain management**

An important prerequisite for system-based supervision is the introduction of a risk based supply chain management. This means that supply chain management should be based on a transparent and reliable assessment and treatment of risks. The assessment of risks depends to a large extent on the availability of timely, reliable and complete information.

DATA PIPELINE CONCEPT

To provide supply chain actors and government authorities with these accurate data, the project develops a data-sharing concept. CASSANDRA achieves interoperability of heterogeneous systems by combining state of the art IT innovations. Access rights and security mechanisms are implemented in the data pipeline concept to enable secure data sharing. Furthermore, dashboards for supporting businesses and customs for risk management and supply chain visibility are implemented.

**Piggy backing principle**

The Piggy backing principle is a significant building block in the CASSANDRA project. Businesses can share supply chain visibility data for risk management, and the same data can be optimally re-used (“piggy-backed” upon) for governmental purposes. Piggy backing can take place on data generated by businesses and used by them to buy, sell, ship and to also assess risk.

LIVING LABS

The Living Lab research approach demonstrates the CASSANDRA innovations in complex real world settings. There are three global Living Labs: EU-Asia, EU-USA and EU-Africa. Each Lab holds one or more trade lanes. Rotterdam, Bremerhaven, Felixstowe, Barcelona and Setúbal container ports are involved. The freight forwarding companies DHL, Kuehne+Nagel, Seacon and BAP provide the Living Labs with actual container flows.
Interview with Eric Geerts from Descartes, member of the CASSANDRA project consortium.

Eric, what is the role of Descartes in this project?

The Descartes Systems Group (“Descartes”) fulfills multiple roles within the CASSANDRA project. Descartes is one of the Cassandra hubs or ‘Business Community Systems’ that are part of the data pipeline with its Global Logistics Network (“GLN”). The GLN is one of the largest multi-modal logistics networks in the world used to exchange electronic information.

As a partner of the CASSANDRA project Descartes creates a business dashboard for the companies within the different Living Labs. Information is collected from various sources within the project’s data pipeline and consolidated into one single view.

Descartes also contributes its expertise in worldwide Customs compliance and supply chain visibility solutions. We are currently involved in both Living Lab 1 and Living Lab 2 trade lanes. The goal is to create a multi-party collaborative solution for businesses that will allow for better risk analysis and allow opportunities for Customs Authorities to piggy back on quality information from the source, such as packing lists, house bill of ladings or even purchase orders. The security model is very important in ensuring that data access is efficiently and securely managed and controlled by the participating companies.

Descartes is the global leader in providing on-demand, software-as-a-service solutions focused on improving the productivity, performance and security of logistics-intensive businesses. We are proud to participate in this project to develop opportunities for innovation in supply chain visibility and Customs compliance. Previously we were also engaged in other EU projects like Smart CM on container tracking, one of the projects leading to CASSANDRA.

Screenshot of the business dashboard by Descartes for the companies within the different Living Labs
If you look at the heterogeneous systems in a supply chain - how can it be connected?

Connecting different systems in a supply chain is one of the major primary challenges for businesses. With Descartes’ GLN we have extensive experience in exchanging electronic information with over 40,000 companies worldwide, directly or through other networks and community systems.

Every business community (e.g. retail, air transport, ocean transport, customs) has its own standards and often we see that the companies and regulatory authorities within these communities are not using the same standard. The GLN eliminates the problems caused by differing data formats, business logic and communications protocols because it supports all types of communication protocols by converting them to standardized data formats using either industry standards where available, or through several of Descartes’ standard message formats developed for use between business partners and allow the re-use of mappings, speeding up on-boarding of new companies and savings costs.

What will be the benefits for your users?

The advantages for users of the system will include lower safety stocks, alert notifications on possible delays and better performance reporting. With the consent of the traders, Customs Authorities will benefit with the ability to piggy back on the trader’s data.

We hope that the increased data quality for Customs will also lead to additional benefits and simplification of Customs formalities for the traders.

Eric, many thanks for the interview!
MEET CASSANDRA AT TRANSPORT LOGISTICS EXHIBITION IN MUNICH

From 4th to 7th June 2013, the leading transport logistics exhibition will take place in Munich. During the event, CASSANDRA organizes a workshop which focuses on reports by logistics practitioners and their motivation to be involved in the project, their expected benefits from implementing the CASSANDRA approach as well as their experience from the activities in the Living Labs.

Workshop profile:

<table>
<thead>
<tr>
<th>Title:</th>
<th>EU Project CASSANDRA - Supporting Tomorrow's Logistics Chains: The Future of Supply Chain Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizers:</td>
<td>CASSANDRA project consortium, represented by Institute of Shipping Economics and Logistics, Bremerhaven/Germany</td>
</tr>
<tr>
<td>Date:</td>
<td>Thursday, 6th June 2013 from 3:00 to 4:30 pm</td>
</tr>
<tr>
<td>Venue:</td>
<td>Messe München (Munich fair), Conference room B11</td>
</tr>
</tbody>
</table>

Main lectures, topics and discussion:

- CASSANDRA mission and objectives
- Improving efficiency, security and compliance in international trade and logistics
- CASSANDRA in the scope of European transport policy
- Statement from the European Commission
- CASSANDRA's benefits from the practitioner’s view
- Reports from logistics partners on expected benefits and experiences from the Living Labs

For registration or questions please contact Dr. Nils Meyer-Larsen, meyer-larsen@isl.org.
Further information: www.transportlogistic.de
CASSANDRA’S BENEFITS FOR BUSINESSES

To provide supply chain partners and government authorities with accurate, reliable and timely data, CASSANDRA uses the “Data Pipeline”-data-sharing concept. The implementation of this concept is the “backbone” of the project, a global, scalable data sharing network based on open standards. It is implemented by various partners in the project like Port Community Systems, GS1 and Descartes.

In order to visualize the supply chain data provided by the CASSANDRA backbone, business dashboards have been created. These dashboards support businesses in operational risk management based on supply chain visibility and assist in the analysis of supply chain performance.

In particular, business dashboards visualise consignment information which have been collected from exchanged business documents by capturing data upstream from the source - the Consignment Completion Point (CPP). By usage of extra data sources, such as carrier events, export declaration or purchase orders, dashboards will visualize a full picture of the supply chain. In detail, dashboards offers businesses container and shipment monitoring functionality in order to be informed on the current status of e.g. purchase order status. In addition, following the risk based approach of CASSANDRA, business dashboards indicate on risks and support risk based supply chain management.

Data access to business data is secured by usage of a security model based on actor relationships (inheritance principle), actor roles and data groups (layers).

Businesses are expected to benefit not only directly from the CASSANDRA solution but also indirectly, from trade facilitation by customs. Participants are expected to experience administrative benefits through better quality information, which can be shared digitally, which negates the need of re-enter and re-check all data. With this, businesses can focus on their core activities and improve their operations based on better quality information, e.g. improving order compliance or hinterland and warehouse planning. Also, by having more visibility in supply chains, parties can evaluate transaction costs, supply chain risks, partner performance, and work jointly on quality improvement. Furthermore, shippers can work on improving inventory management by reducing safety stocks and working capital. Customs authorities are expected to benefit from higher quality information that directly improves the quality of their risk assessment. By being able to better target high-risk containers, businesses can expect that inspection duties on safe and secure supply chains can diminish in the future. Together with the participating businesses, the project will investigate if the CASSANDRA approach can help to push

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uncertainties related to customs compliance towards the origin of the chain.

The CASSANDRA results have various advantages for different stakeholders. For shippers these are in particular:

- Improved working capital (stock reductions throughout the supply chain, improved cash flows)
- Increase reliability of deliveries
- Increase integrity of cargo and monitoring of its quality
- Monitoring of legal compliance, e.g. CO₂ footprint, dangerous goods, Customs duties

For forwarders / logistics service provider:

- Improved agility to respond to disruptions during transport
- Improved efficiency of administrative process based on better data
- Reducing unnecessary delays by increased knowledge of required administrative procedures
- Reduced administrative costs

CASSANDRA SURVEY FOR SHIPPERS

Shippers face issues of sharing business data, both with their business partners and with authorities. Data is often insufficiently accessible, available too late or lacks quality, leading to inefficiencies in logistics and complex administrative processes. The administrative burden for shippers is further increased by security and safety requirements from governmental and inspection agencies. The electronic sharing of business data can improve efficiency and effectiveness of logistic flows and can be the basis for re-engineering of supply chains. Improved data quality and completeness not only can reduce administrative errors, thus simplifying administrative processes, but also reduces inefficiencies in logistics by reducing risks. Customs and other authorities can increase the efficiency and effectiveness of their risk analysis by re-using business data and risk analysis. This can enable seamless green lane logistic flows for shippers, importers and exporters.

We would kindly like to ask you to collaborate in a survey about this risk management in global supply chains in order to help realizing CASSANDRA’s goal to reduce administrative burden.

To start the survey, please click or type the following link or scan the QR-code on the right.

» http://erim.3uu.de/uc/iromochkina/edf5/

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ECITL 2013 - CALL FOR PAPERS

We would like to invite you to meet CASSANDRA at the 6th European Conference on ICT for Transport Logistics (ECITL) from October 23rd to 25th, 2013 in Zaragoza, Spain. This year’s conference will focus on “Logistics Research: Solutions and Innovation through Cooperation”. The ECITL aims to close the gap between research and innovation and the logistics industry, moving research results into real world innovation and driving the competitiveness of European companies in the transport logistics sector.

Scientists, PhD candidates and PhD students as well as graduate students in the field of transport logistics, supply chain management and ICT are invited to submit a scientific paper for the conference until End of May 2013. Contributed scientific papers may deal with, but are not limited to the following topics: Intelligent cargo, competitiveness through innovation, ICT in logistics: New solutions and approaches / ICT as enabler for innovative logistics, applications of ICT in transport logistics, knowledge sharing, open data / data protection, semantic framework in logistics, ontologies, integration and standards, risk management and business continuity as well as robustness and resilience in transport logistics.

Further information: www.ecitl.eu/callforpapers
CASSANDRA
COMMON ASSESSMENT AND ANALYSIS OF RISK IN GLOBAL SUPPLY CHAINS

PROJECT PARTNERS

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