Implementation of a Visibility and Collaboration Platform
.. enabling full end2end shipment visibility
# Agenda

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<tbody>
<tr>
<td>1</td>
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<td>6</td>
<td>Result of POC</td>
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What does shipment visibility mean for Infineon?

Accessibility of information which is useful to stakeholders for transit related tasks, e.g. shipment status or notifications about events.

**REACTIVE**

- Inbound/Internal/Outbound Shipments

**LIVE**

- Inbound/Internal/Outbound Shipments

**PREDICTIVE**

- Inbound/Internal/Outbound Shipments

Route ➔ Assumed/Known/Predicted Location of Goods ➔ Actual Location of Goods ➔ Disruption ▲
What do we want to achieve?

Vision
› Real-time visibility and predictive intelligence, e.g. identifying risks of disruptions, and incl. reporting functionalities and scenario capabilities

Scope
Shipping
› Customer shipments
› Internal shipments (incl. to/from Sifo/Subcon)
› NOSTAS, Samples, QMR,…
› Inbound shipments

Content
› Timely and accurate milestones
› Integration of transit related info in one place
› Improved risk assessment, e.g. alerts for unscheduled events
› Analytics: freight costs, freight development, carrier RFQ, …
› What-if simulations, …
Pre-Analysis and Concept phase

- Define content and concept for the visibility and collaboration platform
- Provide a business case incl. tangible and intangible benefits
- Select an appropriate platform and service provider
- Specify the data requirements

Methodology

- Literature research
- Stakeholder interviews
- Questionnaire
- Service provider evaluation
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Currently lots of non-value adding activities and communication in the CLM community

- Useful information to answer customer requests and make informed decisions is missing or late
- High effort to search information in multiple systems, write emails or call

**Survey Response Rate**

Sample:
- Invitation of ~160 CLMs in Asia, US and Europe
- Participants: 66

<table>
<thead>
<tr>
<th>Why are you not able to answer a customer shipment requests?</th>
<th>How many shipments are missing what information?</th>
</tr>
</thead>
<tbody>
<tr>
<td>20% Information is too late</td>
<td>6% none</td>
</tr>
<tr>
<td>43% Information is missing</td>
<td>17% Air Waybill Number</td>
</tr>
<tr>
<td>28% Information is inaccurate</td>
<td>19% shipment status</td>
</tr>
<tr>
<td>9% other reasons</td>
<td>58% other</td>
</tr>
</tbody>
</table>

Deaths | 41%
Where is Infineon currently standing in terms of invisibility?

**REACTIVE**

- Latent EDI based status updates
- Not enough visibility to understand where our shipments are at any time
- Blind spots
- Inability to predict and avoid supply chain disruptions

Data dispersed in various systems:
- SAP
- TMA tool
- Saperion
- Mail
- Excel
- Tracking tools of carriers

TMA tool already has gaps and does not meet the future demand
- E.g. not all information sources integrated
- Additionally no alert or advanced analytic functionalities
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Growing customer satisfaction due to better visibility

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<tr>
<th>Proactive customer service</th>
<th>Easier and unified tracking</th>
<th>Customization of early warnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>› Automated shipping notification</td>
<td>› One platform to track all shipment independent of carrier</td>
<td>› Early warnings can be sent after a defined threshold is reached</td>
</tr>
<tr>
<td>› Alerts in case of ETA changes</td>
<td>› Possibility to put tracking link into customer’s systems</td>
<td>› Customer specific information only</td>
</tr>
</tbody>
</table>

Optimized customer service increases overall customer satisfaction

› Faster response times for customer inquiries
› Better planning on customer side
› Trustful relationship
Transparency creates awareness and enables immediate action

- Real-time statistics
- Pattern finding
- Trend prediction

- Real-time statistics
- Find inconsistencies
- Trend predictions

- Root causes analysis
- Identification of irregularities
- Faster counter measurements

- Consistent reporting

- Carrier performance monitoring
## Agenda

1. Overview
2. Current pain points
3. Benefits of a visibility platform
4. Value of in-transit visibility
5. Service provider
6. Result of POC
Business Case: Value of in-transit visibility in the IFX Supply Chain

VCP

Customer Satisfaction
Improve satisfaction for our customers

Transport Cost Reduction
Better visibility and enhanced analytic capabilities enable to reduce transportation costs

Workforce Efficiency
Reduction of non-value adding tasks and communication in various departments

Transparency & Optimization
Mitigate disruptions before they happen and counteract deviations to minimize impact

Standardization
Create a standardized and harmonized foundation for all in-transit data worldwide

Projected overall savings
<table>
<thead>
<tr>
<th>conservative</th>
<th>optimistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.642.328€</td>
<td>3.344.998€</td>
</tr>
</tbody>
</table>

Projected workforce efficiency
<table>
<thead>
<tr>
<th>conservative</th>
<th>optimistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.555 man hrs</td>
<td>20.030 man hrs</td>
</tr>
</tbody>
</table>

Year 5

2019-10-20 restricted

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Infineon Proprietary
In-transit visibility enables multiple optimization strategies to reduce transportation costs by ~2%.

1. **Capacity balancing**
   - Balance shipment capacities can avoid peaks in weekend arrival at DCs where only a limited amount of/no DNs can be processed and goods would only need to wait until Monday.

2. **Faster reaction time**
   - Constantly updated cost development detects abnormalities in service levels faster and countermeasures can be implemented at least 4 weeks earlier.

3. **Frequency adjustments**
   - Detect frequent early arrivals and shipments remaining at transshipment point for some time to understand where a daily pick-up is not necessary but ship only every 2-3 days.

4. **Service Level optimization**
   - Understand where service levels can be optimized while keeping the timing, e.g., using truck instead of air freight, and freight is still arriving in time.

5. **Patterns/Synergies**
   - Identify volume patterns (seasons/destinations/weekdays) to optimize pre-bookings and initiate new RfQs earlier.

6. **Consolidation**
   - Recognize lanes that have a common leg and hence can be consolidated to negotiate better rates.

Software provider promise 3-17% transportation cost savings*

Infineon is already well-positioned with TMS department, EDI connections, TMA tool,… and hence additional benefit of a visibility platform will be assumed between 1-2%.

*based on information of 3 software provider
** IFX potential based on pairwise comparison
Agenda

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What Infineon is looking for in a visibility software

- Innovation driven
- Powerful analytics capabilities included
- Established market solution
- Existing carrier connections
- Available now and not in 3-5 years
- Preferably, provider already existent at IFX
Service provider evaluation: after the first round three providers are remaining

- Powerful combination
- Still focused on manufacturing
- Multi-party network
- 2 years behind*
- Strong vision
- Only add-on

* After thorough discussions, IT and LOG commonly decided that SAP is currently no fit for the VCP
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Timeline for the POC with Region Americas

Responsibilities:
- Mutual
- Company
- Customer

<table>
<thead>
<tr>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kickoff</td>
<td>Data Feed</td>
<td>Data Feed: Air</td>
<td>CDI P2L: Port to Port Air Tracking</td>
<td>Forwarder Integrations</td>
</tr>
<tr>
<td>Phase 1: Port to Port Air Tracking</td>
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<td></td>
<td></td>
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<tr>
<td>Setup / Config</td>
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| Phase 2: All Parcel and Truck | | | | |
| Data Feed | Data Feed: Ground | CDI P2L: All Parcel and Truck | Parcel and Truck Integrations |
| | Config | | |

| General Subscription | | | | |
| P2L UI Access | Access to TransVoyant Insight Library | Weekly: Project Status Calls | Project Management and Support |
What did we want to achieve with the PoC?
What did we want to evaluate during the PoC?

› Running cloud platform to monitor all shipments in almost real-time
› Alert for delayed shipments
› Reporting, Data Analytics (e.g. Prediction of Transit Time, volume/weight reporting, transit time development forecast...)
› Reporting to prove timestamps are delivered in a more timely manner, complete and qualitatively high compared to our current solution (EDI set-up)

› KPI measurement
  › Timeliness, Completeness, Quality of received milestone timestamps
  › Reduction of Emergency Shipment
  › Accuracy of Predicted Time of Arrival
  › Alert effectiveness

› Feedback of user experience from Biz community
Part of your life. Part of tomorrow.