

OSME Showcase: Increased Visibility of Order Delivery Process

Uwira, a Leinol Group company, and Wärtsilä have worked together in OSME to enhance the transparency of the production order management processes. The existing communication methods have proven inadequate in facilitating efficient and adaptable exchanges between the two entities. By facilitating transparency and fostering a more seamless integration between the IT systems of both companies, the management of product orders can be streamlined, resulting in heightened efficiency and a reduction in errors.

The objective is to facilitate a reliable and seamless flow of data between Uwira and Wärtsilä by establishing a dedicated data space. The developed solution will be seamlessly integrated with pre-existing IT infrastructures including API Management provided by Wärtsilä and SQL database provided by Uwira.

The solution is grounded in the framework of the **International Data Spaces (IDS)** reference architecture. IDS connectors serve as the communication interface linking the two companies and their existing IT systems. Wärtsilä can selectively disclose data from their production environment to Uwira without the fear of data leakages. Uwira receives only data that is essential for them and there is no need to locally extract meaningful insights and valuable information from big data sets.

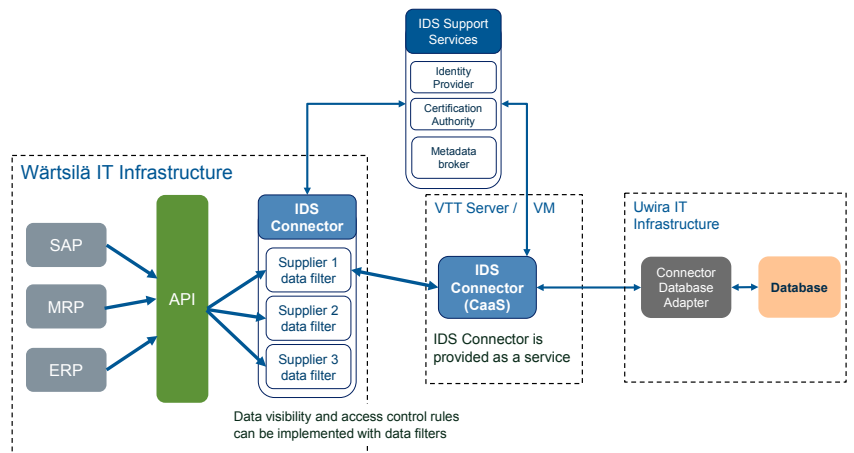
With connectors, a data provider can **define the rules and conditions** (usage policies) under which data is shared with a data consumer. These rules include scenarios, e.g., restriction of data usage for a specific group of participants, restriction of usage to specific purposes, or the usage of data not more than a specified number of uses.

The overarching goal of IDS is to provide a **standardized approach for inter-company data exchange**, leading to improved interoperability, transparency, trust, security scalability and solution reusability.

Up to this point, **the collaboration has proven to be efficient and fruitful**. Every party involved has contributed their insights and actively engaged in organized use case meetings. The details of the use case have been specified as a collaborative effort. Both Uwira and Wärtsilä have enlisted the involvement of their respective IT departments and service providers in this use case, which has provided valuable support.

We are currently **moving from the design phase into the implementation phase**. In the design phase, we created detailed descriptions of the necessary data exchange

interactions using sequence diagrams. Additionally, we outlined the requisite IT architecture essential for bringing the use case to life. As we approach the upcoming implementation phase, the focus will be on seamlessly integrating the previously developed IDS connectors with the existing IT systems of both parties. This will encompass tasks such as the development of a dedicated adapter that facilitates communication between Uwira's IDS connector and the established database.



Impacts:



- More effective communication
- Risk management process more accessible and transparent to collaborative problem solving
- Increased resilience to disruptions
- Better opportunities to develop cost-efficient solutions
- Long-term partnership built on transparency, mutual understanding and respect

Collaborators: Wärtsilä, Uwira and VTT

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For more information on the Open Smart Manufacturing Ecosystems initiative, please visit mexfinland.org/osme

