

LOGISTICS MALL – »CLOUD COMPUTING FOR LOGISTICS«



logistics mall®

aided by:

Ministerium für Innovation,
Wissenschaft und Forschung
des Landes Nordrhein-Westfalen



LOGISTICS MALL – LOGISTICS ON DEMAND

Logistics will take on a completely new role in the future. It already cannot be equated with just the transportation of goods. Logistics is what makes the complex supply chains of today possible. International production networks, such as the automotive industry, are only possible through the use of precisely controlled flows of information and material. Concepts such as Just-In-Time or Just-In-Sequence became the standard long ago. The task of logistics is changing from the control of the flow of goods to the integrated management, coordination, and control of information, material, financial, and energy flows. The logistics of the future has to rise to the challenge of increasing relevance and constantly growing requirements and develop new comprehensive solutions.

Market Requirements

Logistics is both a cost factor and a competitive factor for industry and trade. Customers demand fast, available, customized, and inexpensive logistics services. These demands require the vendors to have IT systems that meet the needs of their logistics and warehouse processes.

Synergetic Cooperation

In order to help companies meet these requirements, the Fraunhofer Institute for Material Flow and Logistics (IML) collaborated with the Fraunhofer Institute for Software and Systems Engineering (ISST) to create the innovation cluster “Logistics Mall - Cloud Computing for Logistics”. The close collaboration linked logistics and IT and used the synergies of both areas of expertise to create a central trading centre for individual logistics functions or complete process chains.

The Innovation Cluster

The Logistics Mall group project resulted in the creation of the necessary requirements for making logistics IT services and logistics processes available as commodities in the cloud. The Logistics Mall was developed in several steps and rolled out at several industry partners when it was finished. It took less than three years to create an infrastructure that makes it possible

to sell combined logistics and IT services over the Internet. The first step involved developing semantic models that standardized the description of the services. A cloud-based toolbox was developed in the second step, which was used to design and combine the IT and logistics components. The final step involved creating the concept of the virtual trading centre and opening the Logistics Mall.

Trading Centre in the Cloud

The Logistics Mall functions as a virtual store and provides a comprehensive service to the vendors and customers of logistics and IT services. It also provides the infrastructure for designing and combining process chains. Logistics service providers can offer individual processes and transport services in the Logistics Mall, IT vendors configure their software modules, and logistics process designers combine these components into complex process chains. The customer can select prepackaged IT services or they can use tools to put together their own custom package of services. They can use these services directly in the cloud to provide individual support for their processes.

Service-oriented Platform

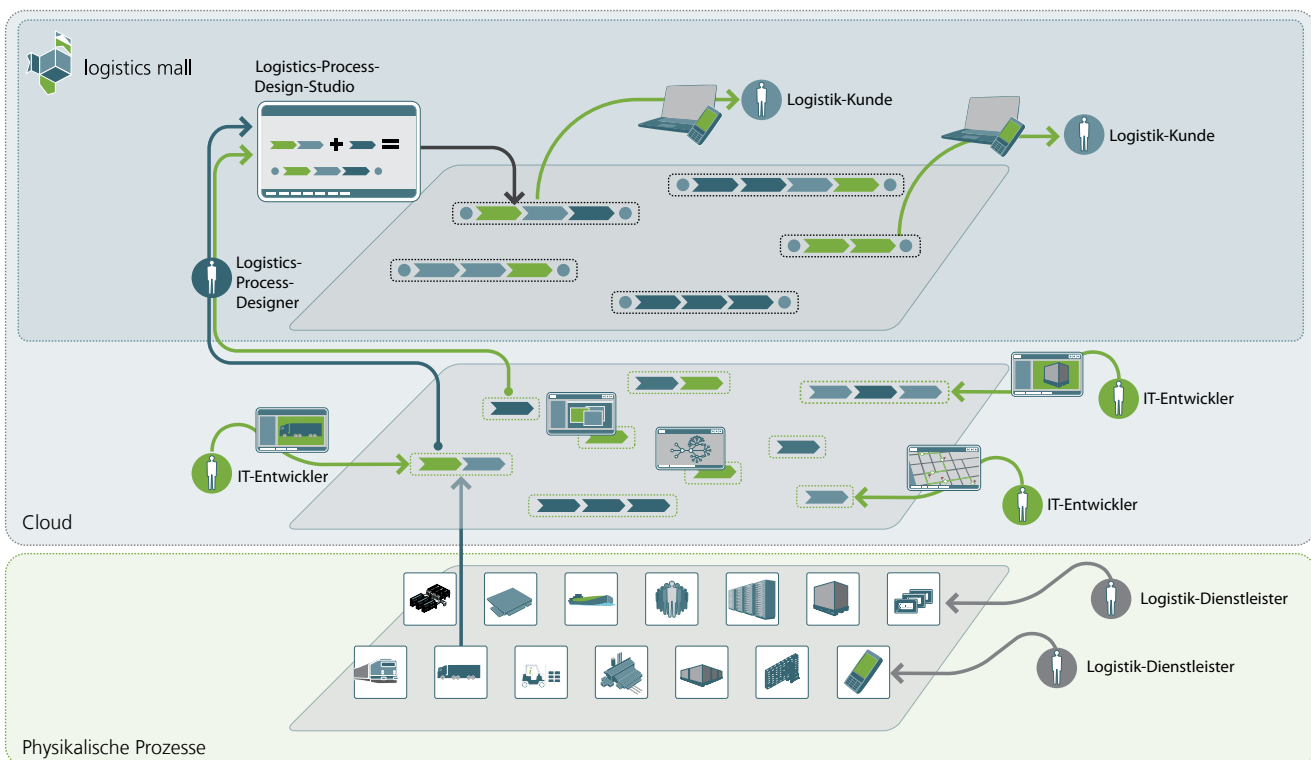
The operator of the Mall is responsible for designing and providing the tools and the platform. Even the instantiating and



LOGISTICS MALL CREATES THE FUTURE OF LOGISTICS IT. JOIN US NOW.

executing of the process chains is done directly in the cloud. The complete virtualization of the IT environment replaces costly server structures and together with cloud computing offers IT support "from the plug". The logistics service provider can focus on its core business and, like the IT service provider, gets the chance to tap into a bigger customer base without having to make a large investment in hardware and software.

For more information, visit: logistics-mall.de



Fraunhofer Innovation Cluster »Cloud Computing for Logistics«

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