

Logistics Visualization Solution

DMICDC Logistics Data Services



Customer

DMICDC Logistics Data Services

Challenges

- Identifying the locations of shipments
- Reducing inventory overstocking
- Improving logistics efficiency and reducing costs

Solution

- Launched a joint venture company to provide logistics services based on NEC's Logistics Visualization Solution.
- Used RFID tags to identify shipment locations.
- Uploaded information to the cloud, where it can be shared with other logistics systems.

Results

- Could track the containers on a near real time basis simply by inputting the container number.
- Identified bottlenecks in logistics networks and improved efficiency.
- Will provide India's economy with an estimated US\$ 3.2 billion savings per year.
- Created a platform for improving governance and implementing performance evaluations of individual sections of the logistics supply chain.



NEC brings visibility to logistics supply chain to aid enterprise operations in India

Introduction

India is one of the fastest growing economies in the world today. The country is home to many manufacturing facilities and its output is increasing every year. Realizing that India's rapid economic growth was outstripping the capacity of its logistics infrastructure, the Indian Government launched a series of initiatives to build up the country's infrastructure with the aim of luring foreign investment, boosting exports, and enhancing international competitiveness. One of these initiatives took the form of a partnership with Japan's Ministry of Economy, Trade and Industry (METI) to create smart technology solutions. Through this initiative, the Delhi Mumbai Industrial Corridor Development Corporation (DMICDC) and NEC collaborated to provide logistics visualization services that would help to streamline India's complex logistics supply chains and reduce logistics costs.

Challenges

Introducing visibility into complex logistics supply chain

India's rapid economic growth has been causing trouble for the country's aging logistics infrastructure. Transporting goods around the country takes a long time and there are frequent delays. It is also very difficult to know exactly where shipments are at any given moment. Wishing to avoid the risk of running out of stock, consignors in the manufacturing industry have tended to overstock their inventories. The added costs of navigating complex logistics supply routes and overstocking have created barriers to attracting foreign investment and enhancing international competitiveness. "Our logistics costs are probably 13 to 14% of total GDP," explains Piyush Sinha, CEO of DMICDC Logistics Data Services (DLDS),



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CEO of DMICDC Logistics
Data Services

a joint venture company between DMICDC and NEC. “This really has to come down to 7 to 8% to make our exports more competitive.” In addition to constructing new logistics infrastructure, there was an urgent need to introduce visibility into logistics supply chains to identify where the bottlenecks were and find ways to make the entire supply chain more efficient as well as reduce logistics lead times and costs.

Solution

Introduced a Logistics Visualization Solution to improve efficiency and reduce costs

DLDS began providing logistics services in India based on NEC’s cloud-based logistics platform Logistics Visualization Solution (LVS). As part of these services, the new company affixes RFID tags to shipping containers starting their import journey and detaches the tags from containers leaving the country through ports in Mumbai. Positional information about containers in transit along the 1,500 km stretch between Delhi and Mumbai is obtained by RFID reader/writers installed at locations such as port entrances and exits, toll plazas on the expressway, and inland container depots where customs inspections are carried out and cargo is reloaded. This information is uploaded to the cloud and shared with other logistics systems such as port management systems. Consignors and freight forwarders only need to input the container number to track their containers on a near real time basis. NEC provides total support for all aspects of the logistics visualization platform, from construction to operations.



“The system is both economical and easy to adapt,” says Sinha. “Everyone involved in the logistics supply chain, from shipping companies to port authorities could all accept the solution.”

“Also, because this is a cloud-based Web system, you can access it from any location and from any device,” adds Satoko Suzuki from NEC. “This ease of access is vital for the logistics industry.”

By making transport container information visible, DLDS is helping logistics operators identify issues in their infrastructure and contributing to the advancement of logistics services through value added services such as transport time prediction based on Big Data analysis.

“The LVS allows operators to track all their consignments, whether

imports or exports,” explains NEC’s Suzuki. “This provides their customers with information and keeps them updated on all shipments.”

In discussing the development of the LVS, Suzuki talks about the difficulties the team had to overcome. “Logistics operators were all using different systems that had been optimized to their own operations,” she says. “We needed to build a system that could integrate information across the supply chain and present a unified view to the customer. But we were able to overcome all the challenges and provide the customer with the solution they needed.”

Results

Transparent and visible management of the entire logistics supply chain

DLDS rolled out services based on NEC’s LVS in July 2016. The company has since received very favorable feedback from operators who are finding it to be a revolutionary system that is transforming how they manage their entire logistics supply chain.



The system is also providing a range of other benefits.

“The visibility or the location of a container is just a starting point,” explains Sinha. “With this kind of database, we can do meaningful analysis and generate knowledge for the entire industry and also provide better governance and complete transparent and visible management for performance evaluation of ports, inland container depots and truckers.” As the system grows and spreads throughout India in the next five years, Sinha anticipates seeing definite savings of 3.2 billion US dollar per annum. “And this is just looking at entry-level services,” he says. “We believe that as the system is scaled out, there will be many more activities.”

Going forward, DMICDC is hoping to expand the service across the entire country. Through joint ventures such as this, NEC aims to use its expertise and track record in constructing and operating logistics visualization platforms that support all kinds of methods for collecting data, such as RFID, GPS, authentication technologies and sensing technologies, which can be freely linked with existing systems to improve logistics services not only in India, but in many other emerging countries throughout the world.