Supply chain management (SCM) solutions focus on the planning and execution of the chains, integrated with the companies’ enterprise systems (ERP).

Its ultimate goal is to make the right amount of products arrive to the destination, in the least time and with the least cost.

The main obstacle to their effectiveness is outdated and imprecise information.

High-resolution traceability systems can be built to track goods individually and provide your company more answers:

Where are our goods?
Where have they been?
What is their state?
How many goods are at a location?

TrakChain is an assessment framework that contains a set of tools to estimate and measure the computational and communicational effort of operating traceability networks.

With it your company can:
- estimate response times,
- validate functionalities,
- define and test security policies.

What is your supply chain hiding from you?

References

- K. Traub, The EPCglobal Architecture Framework 1.4, GS1 Std., 2010
  www.epcglobalinc.org/standards/architecture/
Traceability covers wide geographic areas and crosses frontiers

→ “network of networks”
→ Internet of Things

With just a few statistics we can analyze and compare alternatives to improve your business, follow legal requirements and respond to new opportunities.

**Product**
- Distribution of products by category
- Number of items for each type of product
- Time in the chain
- Incoming/outgoing quantities per location per day
- ...

**Supplier**
- Suppliers by product category
- Middle-men (chain length)
- Transportation
- Frequency and size of orders
- ...

**Customer**
- Customers by product category
- Rate of consumption and seasonality
- Frequency of orders
- ...

**Information systems**
- Stock management and update needs
- Production planning and change response needs
- Recall, pedigree, bill-of-materials, asset management, etc. – When? How often? With which granularity?
- ...

We can also use detailed scenario descriptions for deeper analysis.

**TrakChain**
High-resolution traceability

http://TrakChain.net

**Challenges:**
- **Scale** – management of data sets on a regional or world scale
- **Security** – definition and enforcement of highly dynamic data sharing policies

**Traceability Information Systems**

ERP – Enterprise Resource Planning
SCM – Supply Chain Management
EPC – Electronic Product Code
EPC IS – Information Services
DS – Discovery Services

www.gs1.org/epcglobal