



Frequently Asked Questions (FAQs)

GS1 Electronic Product Code Information Services (EPCIS) 1.1 and Core Business Vocabulary (CBV) 1.1 Standards Update

What is Electronic Product Code Information Services (EPCIS)?

EPCIS is a standard interface for sharing information about the movement and status of goods in the physical world. It enables capture of physical event data in the supply chain and supports query capabilities about those physical events in a structured format. EPCIS makes end-to-end supply chain visibility possible.

The EPCIS standard provides interface specifications built on top of very widely used business and Internet standards. EPCIS facilitates internal data capture as well as secure external sharing of information about movement and status of goods in the physical world by specifying a data and communication format. It provides what is necessary to share data, but does not provide application level functionality. The data that is defined to be captured answers the questions *What, When, Where, and Why* about a product's life cycle in the supply chain.

What is Core Business Vocabulary (CBV)?

The CBV is a companion standard to EPCIS, defining vocabulary elements for use with EPCIS which are applicable to a large set of business events and scenarios.

How are EPCIS and CBV related?

The CBV provides definitions of data values that may be used to populate data structures defined in the EPCIS standard. The use of CBV is critical to interoperability of EPCIS implementations by reducing the variation for expressing common intent. Together, EPCIS and CBV allow business partners to share non-ambiguous, real-time information about physical events in the supply chain.

Why is EPCIS important to industry?

Trading partners can leverage information on the location and history of individual items as they move along the supply chain, thereby increasing safety, security, accuracy, efficiency and visibility.

Does EPCIS only apply to RFID?

No, The EPCIS standard is data-carrier-neutral and applies to all situations in which visibility event data is to be captured and shared. The presence of "EPC" within the name is of historical significance only.



How is EPCIS 1.1 different from 1.0?

EPCIS 1.0 focused heavily on capturing and sharing events about serialised trade items.

EPCIS 1.1 includes the capability to share:

- Lot/Batch-based event data enabling to both document and (re)produce product attributes and all partners involved in the chain of custody (CoC) or chain of ownership (CoO)
- Instance/Lot Master Data (ILMD), which comprises descriptive attributes about specific objects or lots/batches
- Source/destination identifiers to provide supplemental information pertaining to the transfer of custody/ownership
- Geo-location coordinates for locations where a GLN is not feasible (e.g., precise point at sea where fish are caught)
- Transformation events involving the irreversible input of one or more objects into one or more outputs (e.g., processed food ingredients)

What business need is being addressed with EPCIS 1.1?

EPCIS 1.1 was developed to allow for the capability to share information about the transformation of a product beyond commission of a product AND to enable a reference to Batch/Lot information about a product, rather than a specific instance of the product (often referred to as serialised product data).

Which sectors are expected to benefit from EPCIS and CBV 1.1?

Implementations are expected in Food/Fresh Produce Packaging and Distribution, Fresh Fish Packaging and Distribution, Apparel Stock-taking and Cycle Counting, Asset Management and MRO in Rail, Digital Coupon Management and Pharmaceuticals.

What impact do EPCIS 1.1 and CBV 1.1 have on compliance with the DQSA?

In November 2013, President Barack Obama signed the Drug Quality and Security Act (DQSA) into law, granting the US Federal Drug Administration (FDA) authority to develop a national track-and-trace system to secure the pharmaceutical supply chain and minimise opportunities for contamination, adulteration, diversion, or counterfeiting of pharmaceutical products.

EPCIS 1.1 and CBV 1.1 provide a solid foundation for further Event-Based Traceability (EBT) standards and local recommendations – currently in GS1's standards development process – to satisfy user and regulator chain-of-custody (CoC)/chain-of-ownership (CoO) requirements in multiple industry sectors and geographic regions.

GS1 US is also working with its member companies to update its implementation guideline, "Applying GS1 Standards to U.S. Pharmaceutical Supply Chain Business Processes to Support Pedigree and Track & Trace," to address DQSA data requirements.



Work is already underway to specify Checking Services for the automatic collection and analysis of upstream event data, to check for gaps and inconsistencies, as well as a Security Framework to enable secure sharing of EPCIS event data on a “need-to-know” basis, typically within the individual supply chain path or chain of custody of an object. Upon ratification and availability of solutions conforming to the Event-Based Traceability standards, it is expected that EBT will supersede the former GS1 Pedigree standard (also known as Drug Pedigree Messaging Standard (DPMS)).