

GS1 Policy, Principles and Process for the Adoption of New AIDC Data Carriers

1. Policy

GS1 AIDC (automatic identification and data capture) data carrier standards must be relevant and applicable to any supply chain, independent of who assigns, receives, and processes the standards. New AIDC data carrier and identification technologies should only be introduced to the standard if they enable new applications or better ways to perform existing functions. The AIDC data carrier must operate with existing carriers in existing applications without causing disruption.

If an Industry User Group requirement identifies a new AIDC data carrier technology that provides a better way to perform an existing function, then it can be added as a globally approved Data Carrier specification in GS1 General Specifications Data Carrier Section and to all applicable, global AIDC Application Standards and related Symbol Specification Tables (and the RFID equivalent). The addition is contingent on proper approval through GSMP.

2. Guiding Principles in Technology Adoption

2.1 Backward Compatibility

A new AIDC data carrier must be able to carry an application standard-defined subset of GS1 data structures, and hence allow users to work with existing systems that rely on data structures within the defined subset for the application. For example, an AIDC Application Standard requires the mandatory use of GTIN (Global Trade Item Number) and the optional use of GTIN attributes serial number, lot number, and expiration date. The new AIDC data carrier, if approved for use in this example, would be required to support AIs (01) Global Trade Item Number, (10) Batch or Lot Number, (17) Expiration Date, and (21) Serial Number.

2.2 Forward Capability

A new AIDC data carrier must be expected to show, over time, the capability to deliver the needed ranges of cost/performance.

2.3 Exclusivity. A technique must be available and allocated exclusively to GS1 in order to enable unambiguous identification of GS1 data structures.

2.4 Data Structure Use

When a GS1 Application Standard specifies the use of a GS1 AIDC data carrier, the AIDC Application Standard shall specify exclusive use of GS1 data structures.

2.5 Intellectual Property

AIDC data carriers must comply with the GS1 IP policy, with preference to AIDC data carriers in the public domain and freely available. It is very important to perform due diligence on a new AIDC data carrier.

2.6 Auto-discrimination

AIDC data carriers must not interfere with one another and must be capable of unambiguous translation.

2.7 Human Factors

Consideration should be given to efficient keystroke entry (or equivalent data entry method), error handling, and placement as key factors in effective implementation.

2.8 Performance Requirements

The new AIDC data carrier must have proven both cost/performance and quality across the expected range of applications, materials, and operational environments. This evidence must be properly documented.

2.9 Business Requirements

At a minimum, a request for a new AIDC data carrier must address why the new technology is required (what unmet business requirement is met) and what effect the new technology will have on legacy solutions built based on GS1 standards. An approval plan must include a migration path to support the new technology, must support current business practices, and must provide benefit above and beyond existing technologies.

3. Process

3.1 Global Standards Management Process (GSMP) Groups

The GS1 Global Standards Management Process (GSMP) is the mechanism to approve the adoption of new technology for the GS1 System. For Work Requests to add an AIDC data carrier that is not currently used in an AIDC Application Standard to an existing or new AIDC Application Standard and for it to be used exclusively in place of a currently approved GS1 data carrier, an evaluation based on the following conditions is required as a part of the GSMP approval.

1. Technology is freely implementable to the best of our knowledge
2. A technique must be available and allocated exclusively to GS1 in order to enable unambiguous identification of GS1 data structures.
3. Tested to ensure it will not substantially disrupt scanner or reader performance for existing AIDC data carriers
4. Capable of being compliant with equivalent specifications in Symbol Specification Tables (or RFID equivalent) for global AIDC data carriers (e.g., encodation, quality, placement, human-readable, size, read/write)
5. The new AIDC data carrier option can be implemented exclusively in 90%+ of installed scanner/reader locations for a given Operative Scanner Environment as defined by the GS1 General Specifications without significant disruption to the performance of existing AIDC data carriers.

The GS1 MB and General Assembly (GA) may decide to make an exception to the 90%+ minimum by establishing a Sunrise Date to reach the minimum and deploying Program Management to reach that goal.

3.2 Formation of policy and principles

The Architecture Group forms the policy and principles for evaluation of new AIDC data carriers and the GS1 Board Committee for Standards approves the policies and principles. These policies and principles steer the evaluation of AIDC data carriers throughout the entire GSMP.

Latest update – approved by the General Assembly on 19 May 2010