What is GS1 Digital Link?

In simple terms, GS1 Digital Link is a web address with a GS1® key in it, that can enable connections to all types of business-to-business (B2B) and business-to-consumer (B2C) information.

e.g., https://example.com/gtin/09507000009060

GS1 Digital Link is a global standard that defines a URI (also referred to as URL) syntax for use as a web address for GS1 keys. GS1 Digital Link syntax, the structure of the URI itself, allows for interchangeability between the GS1 Application Identifier (AI) syntax and a URI.

GS1 Digital Link provides the ability to encode additional detail about a product that can then be used to serve up richer product experiences for brands, retailers, and consumers while being independent from any data carrier. This allows the potential to work with all barcodes as well as data carriers that do not require a line of sight to be scanned.

Why is GS1 Digital Link valuable?

More and more we are seeing multiple data carriers and other symbols on product packaging to provide consumer experiences and product-related information; all in addition to the U.P.C.*, which is still required to scan at point-of-sale (POS). The proliferation of data carriers takes up valuable package design space and some products require use of specific apps—or other proprietary solutions—to scan the data carrier in order to interact with product data or promotions, for example.

Without a standard way to encode a URI into a barcode, such as into a QR code, this proliferation of barcodes and symbols per pack will only get worse. GS1 Digital Link provides the ability to enable multiple experiences from a single barcode that will, eventually, also will work at POS. This could lead to a future where only a single barcode is needed on a product.

*In this publication, the letters “U.P.C.” are used solely as an abbreviation for the “Universal Product Code,” which is a product identification system. They do not refer to the UPC, which is a federally registered certification mark of the International Association of Plumbing and Mechanical Officials (IAPMO) to certify compliance with a Uniform Plumbing Code as authorized by IAPMO.
What is the role of GS1 US regarding GS1 Digital Link implementations?

In support of the GS1 Digital Link standard, GS1 US provides a geographically aligned GS1 Digital Link Implementation Guideline that can be used in conjunction with the GS1 Digital Link standard. As well, GS1 US solution partners can help in a variety of ways with GS1 Digital Link implementations. Solution partners offering this capability can be found in the GS1 US Solution Provider Finder Tool here.

Please see the GS1 US GS1 Digital Link web page for additional information regarding the standard and the value GS1 Digital Link can enable along with guidance for brands, retailers, and solution providers and links to reference materials mentioned in these FAQs.

What are some of the potential benefits of using GS1 Digital Link?

GS1 Digital Link provides numerous potential benefits that vary across supply chain stakeholders. A few examples are listed below:

**Brand Owner**
- Enhanced consumer engagement to access product information such as promotions, instructions, nutritional information, warranty and product registration, as well as product traceability information
- Simplified data sharing with trading partners which can reduce data latency
- Streamlined product information updates without product data carrier impact

**Retailer**
- Enhanced inventory management from more detailed point-of-sale data that can be gleaned
- Improved recall and expiry date management processes
- Simplified data sharing with trading partners which can reduce data latency

**Consumer**
- Simplified access to additional product information via the scan of a single barcode
- Easy access to product and warranty registration
- Automated discounting at point-of-sale for nearly expired products purchased
- Ability to be proactively notified for recalled products purchased

**GS1 US Solution Providers**
- Increased market opportunities for GS1 Digital Link-related service offerings
- Enhanced offerings for products carrying a GS1 Digital Link-embedded barcode

Is the GS1 General Specification being updated for GS1 Digital Link application?

Changes to the GS1 General Specifications will focus on consumer engagement applicability for mobile. This update will be available January 2021.

These changes will include GS1 Digital Link URI syntax for use with QR Code and native Data Matrix. Training will be provided around these changes via GS1 US Education and Training offerings.

While the GS1 Digital Link Standard supports additional use cases beyond consumer engagement, such as at point-of-sale and other enhanced B2B processes, these environments may not yet be able to leverage GS1 Digital Link. However, companies can use GS1 Digital Link for these more advanced use cases now or whenever they are ready.

GS1 US will work with early adopters regarding the potential value to different use cases GS1 Digital Link can help enable. GS1 US solution partners will be available to assist with implementations and technical details. As these capabilities progress, additional changes may be added into the GS1 General Specifications for open use.
How can I get started?

The potential benefits listed above and more can be implemented via a ‘glide path’ by starting with simpler priority use cases then building from there to add more. For a brand, a simple change at product redesign time to move to a 2D data carrier, such as a QR code, with an embedded GS1 Digital Link URI that only carries the GTIN (class level) is an easy way to start. This can then be expanded as you are ready to implement support for additional use cases that can be enabled by adding additional product uniqueness using batch/lot or serial numbers to the GS1 Digital Link.

You can view the Getting Started module in the GS1 US University in the GS1 Digital Link area for more information. Note that to access this, you must first create a free account for the GS1 US Learning Management System.

GS1 US Learning Management System: www.gs1us.org/education-training/overview

GS1 US University: www.gs1us.xceleratemedia.com

In addition, we suggest you consider finding a GS1 US Solution Partner who is working with GS1 Digital Link for additional guidance around the details of specific implementations you may be considering.

Tip for Finding a Solution Partner:

You can access the finder tool here. To find Solution Partners working with GS1 Digital Link, select ‘Digital Link’ from the Technologies/Standards solutions.