



GLN application in the public sector
Case Study: Ministry of Finance, Denmark
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Background

The GS1 Global Location Number (GLN) is now a mandatory component of the Danish government's eInvoicing initiative where each public sector institution is required by law to have a GLN.

Denmark is a progressive and modern knowledge based economy that has embraced the electronic age and was reported by the World Economic Forum as "the most networked country in the world" in 2007-2008¹. Denmark is also a proud recipient of the European Commission's eCom readiness award which was achieved through its application of an innovative eInvoicing programme initiated by the Danish Ministry of Finance in 2002. In 2003 a Danish law on public sector payments was passed paving the way for the mandatory use of the electronic invoice when raising an invoice on the Danish public sector.

Over the last two years, the application of eInvoicing within Denmark has become a European showcase for a successful implementation of Business to Government e-commerce.



The collaboration between GS1 Denmark's Global Location Number (GLN) allocation and the Danish administration has been a small, but essential, part of the whole B2G eProcurement invoicing solution.

Many countries are now looking towards Denmark's eProcurement model as a successful blueprint for their own government initiatives. The adoption of the GS1 GLN in the public sector is an example of the type of application which is serving to add value to the public sector supply chain whilst being in harmony with established private sector GLN usage.

eProcurement in the Danish public sector

From the 1st Feb 2005 all public sector institutions in Denmark were required have a GLN and to accept electronic invoices from suppliers. The expected gains from digitising the invoicing system in the public sector were calculated by the Danish government to be in the region of 120,000,000 Euros annually².

Key figures 2008 - post implementation of eInvoice:

- eProcurement savings.....€300,000,000 Estimated to date
- Invoices digitised...45,000,000 Estimated to date
- Private sector companies affected.....440,000
- Danish Municipal regions affected.....98
- Danish State regions affected5
- Danish State agencies and ministries affected ...19

A main component of the electronic invoice was the portion of the Danish eProcurement solution which dealt with identification of public sector entities. The Danish Finance Ministry required a unique, unambiguous numbering identification system for public sector entities based on two primary requirements:

- To be a tool for routing electronic messages via the VANs (Value Added Networks).
- Be a mechanism to identify public sector entities in electronic messages



¹ Source: World economic forum 2008

² A Danish government best practice case study, "eInvoicing in Denmark"

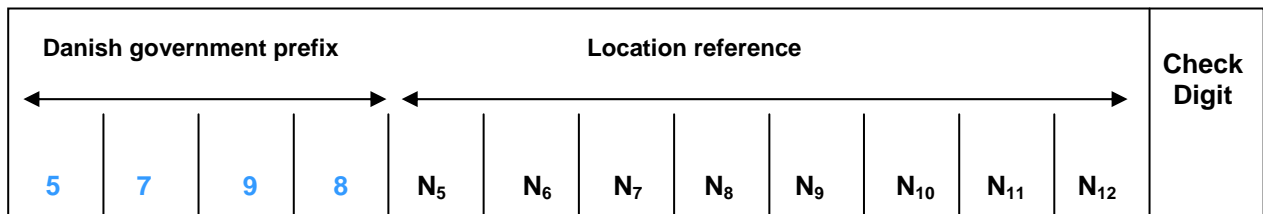
What is the GS1 GLN in Denmark?

As the name implies, the Global Location Number, like in every other MO, is a 13 digit GS1 identification key for locations.

The GLN in Denmark is used in a variety of ways, specifically in electronic messages as a routing mechanism by Value Added Networks and as a location and legal entity identification key, and is also a mandatory component of the GS1 Denmark datapool.

The GLN can be used to identify physical locations and official entities where there is a need to retrieve pre-defined information (Master data) to improve the efficiency of communication within the Danish supply-chain. In Denmark, GLNs are of course a prerequisite for GS1 XML eCom messages but also mandatory in the GS1 Denmark simple electronic business profiles based on EANCOM.

The GLN in Denmark for the public sector is constructed as follows:



(Source: GS1 Denmark)

The Danish GLN is not based on a company prefix as is the case with some GS1 organisations however, a 'faux' company prefix was used as shown in the configuration above for the Danish government. All GLNs in Denmark start with 579, yet the Danish public sector's GLNs are all prefixed with 5798. This special allocation process ensures that there is sufficient capacity for any future expansion in the Danish public sector.

GLN - The identification solution

Why is the GS1 GLN a good choice for the public sector?

Characteristic	Benefit
The GLN is a major global routing key	Ensured GLN adoption by VANs as a routing key for EDI messages. The GLN is the de facto routing key for Danish EDI and is well established.
The GLN is a major global location identification key	GLN adoption by supply and retail in Denmark has been huge and is widely adopted in the private sector as part of GS1 Denmark's simple electronic business concept based on master data alignment.
Guaranteed Capacity	Large availability of numbers makes the GLN a scalable solution.
Unambiguous identification scheme	The GLN is recognised in UN/CEFACT EDIFACT and UN XML as a valid coding scheme for locations and routing.
Numbering integrity	Strong GS1 governance and control of the GLN system. The check digit algorithm helps number integrity.
Non-significant GLN number	Secure, GLN has no meaning attached to it (in Denmark) apart from identifying it as a GLN allocated to the Danish public sector.
Cost effective (Minimal investment)	Bulk purchase price negotiated. The cost of purchasing the 1,000,000 GLNs from GS1 Denmark for the project is only <u>0.006 %</u> of the annual gains achieved by applying eInvoicing in the Danish public sector.

Lessons learned for administrations

By the Danish Ministry of Technology, Science and Innovation.

Lesson learned	Why apply the lesson?
Need for legal regulation & strong political support	In order to ensure maximum uptake, administrations should consider legislation as a tool to gain momentum.
Need for standardisation	Common standards are a pre-condition for digitalisation. Choose an identification key and a standard that will scale.
Stay in control of public sector entities allocation	Keep a centralised database of identification key allocations. This enables the simple maintenance of the addresses the identification key relates to and facilitates the generation of statistics.
Need to apply market solutions	Proven market solutions are highly preferable if eInvoicing is to provide economic incentives for adoption.
Need communication and marketing	A broad range of communication channels have been applied in marketing the eInvoice solution which have proved crucial for implementing such a large project in a so short a period.
Think big, start small	Start with achievable goals. The Danish government started with a 'small' portion of eProcurement and is now expanding the concept. This approach keeps the initial project manageable and measurable.
Leave no one behind	For smaller organisations, free invoice scanning services have been offered in a transitional phase to gain momentum. This approach needs to be <u>time bound</u> with the clear intention of withdrawing the free service after a reasonable period.

Lessons learned for GS1 MOs

By GS1 Denmark.

Best practice for MOs

Create a good working relationship with your governmental agencies.

Be aware of public sector eProcurement activities in your country and where possible, participate in their creation to ensure market awareness of GS1 solutions.

Make the adoption of the keys easy for the governments and keep GLN prices low. This may include a special pricing structure for bulk purchases.

Inform your government about additional services that are enabled by the adoption of the GLN – e.g. GLN alignment services to ensure data quality & improve control.

GS1 Denmark offers a GLN web based tool that allows users to easily change address data and distribute new GLN data automatically. Inform governmental agencies of these types of tools that can enable them to maintain better control of GLN allocations.

There is still strong resistance to the 'new' name GLN. Inform your users about the application of the GLN in your public sector, it may still be known as the EAN location code.

When the GLNs were allocated to the institutions there were no rules or best practices on how to distribute them in the context of the government's requirements. The result was that the internal allocation of GLNs by the government was done differently in the various agencies - some gave a number to each employee, others just used one number per institution.

Analyse the government's requirements when implementing the GLN, i.e. eInvoicing, and in partnership with the stakeholders, develop a GS1 best practice guideline on how to allocate GLNs in your public sector.

Be prepared for an increase in GLN allocations! GS1 Denmark experienced a 20% rise in GLN allocations (not including the public sector allocation of GLNs) in 2008 mainly stemming from public sector suppliers that require GLNs to send electronic invoices to the public sector.

Final word

After the implementation of the eInvoice in Denmark's public sector there have been several lessons learned to come out of the project. One major consideration worth emphasising has been that the implementation of globally applicable standards that have already gained traction in the commercial market place is an effective method of ensuring adoption and success of an eInvoicing eGovernment initiative.

It is not always an easy task to apply a specific solution no matter how well proven or how well adopted the particular solution may be. There are external political factors that come into play and quite naturally governments do not wish to overburden their suppliers with any 'perceived' additional costs to their operations and so, governments strive for the adoption of completely open and non-fee paying solutions. However, as demonstrated by the Danish government's adoption of the GS1 GLN, governments are willing to pay a fee for a quality solution that enhances their offering to the private sector whilst fulfilling a need in the public sector, in this case, the GS1 GLN.

Due to the GS1 system's widely installed user base and the GLNs main role as a routing key for electronic messages, GLNs easily make the transference to public sector systems without causing undue divergences to private sector operations.

It is GS1 Denmark's experience that local GS1 member organisations can be a part of their national public eProcurement solution and that the application of the GLN in electronic messages paves the way for further adoption of GS1 tools and services.

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The global language of business.



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