Case Study: Validating Entity Common Codes

When integrating the Gas Industry Standards Board (GISB) electronic data interchange (EDI) or Internet Customer Activities into your company it is increasingly more important to understand how entity common codes fit into the equation.

Whether the entity common codes are D&B D-U-N-S® Numbers, digital certificates, or PGP encryption keys. These type of entity identifiers are becoming more common in all industries. What role the entity plays in the electronic business transaction drives which type of common code may be needed. GISB standards use D&B D-U-N-S® Numbers within EDI transactions, GISB Electronic Delivery Mechanism (EDM) and for Customer Activity Web Sites. The common entity's business relationship with a company may be contractual and non-contractual in nature which makes attaining, maintaining and validating these codes a challenging process. The process described in this case study is a pragmatic approach to validating multiple D&B D-U-N-S® Numbers.

Why validate common codes?

When implementing a company's first EDI or Customer Activity trading partner it may not appear to be necessary to validate the entity common codes used for the transactions. So long as the both companies have a common understanding and mapping of the company codes a successful implementation will probably occur. When dealing with multiple trading partners, who use different or invalid common entity codes representing the same company, the importance of validating common entity codes becomes apparent. The Nomination and Confirmation process within and across transportation service providers will result in unconfirmed and not scheduled nominations as a result of invalid common entity codes. Many information systems that capture company information do not allow for more than one D&B D-U-N-S® number to be associated with a single company. Informa-

tion systems may be modified to support a different common entity code database for each trading partner; but that is an inefficient solution for the industry. So the validation process is a necessary component of any electronic commerce implementation.

Validation Alternatives

The use of D&B D-U-N-S® numbers in electronic commerce, and EDI need not be confined to interstate transportation service providers so this case study will mention a number of alternatives. The D&B D-U-N-S® Numbers that are used as the GISB Common Entity Code are proprietary to D&B and are licensed to you for your internal use for electronic data interchange, and electronic commerce transactions. The D&B D-U-N-S® Numbering system is subject to the copyright and other proprietary rights of D&B and you agree that you will not commit or permit any acts or omissions by your agents, employees, or any third party which would impair D&B's copyright or other proprietary rights in the D&B D-U-N-S® Numbers.

First, D&B offers for a free service on their Internet web site to search for a specific company and their D&B D-U-N-S® Numbers. https://www.dnb.com/product/retail/menu.htm A company with a small number of trading partners may want to utilize this process to validate the entity common codes.

Second, Dun & Bradstreet offers a variety of for fee services to assist in validating and utilizing a list of D&B D-U-N-S® Numbers.

Third, this case study describes a step by step process utilizing a combination of desktop software and D&B's free service on their Internet web site to validate multiple D&B D-U-N-S® Numbers. The case study utilized the un-validated list of 8,729 D&B D-U-N-S® Numbers found on the GISB home page.

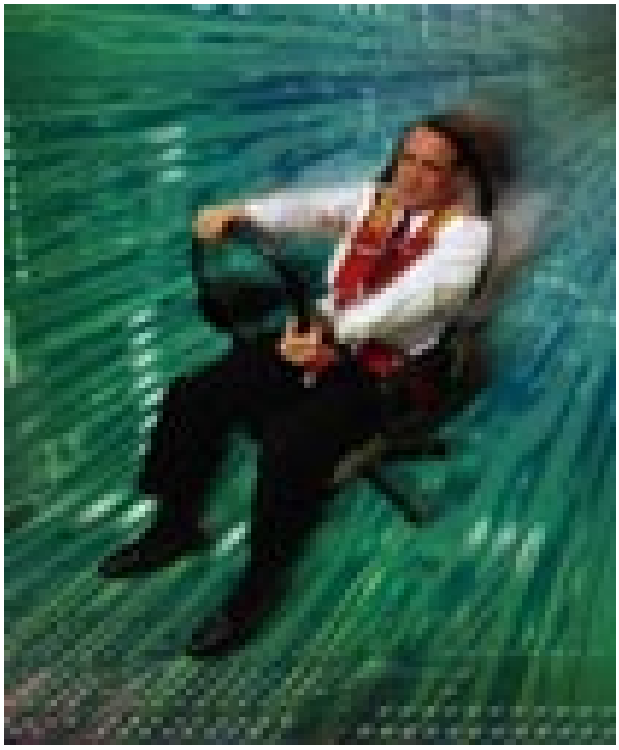
Description of Process: Setup

1. Register with Dun & Bradstreet web site https://www.dnb.com/product/retail/register.htm

2. Download Microsoft Excel® spreadsheet lookup.xls from http://sites.netscape.net/cpcaldwe/default

3. Download freeware URL2FILE from http://www.chami.com/free/url2file_wincon.html The version used in this case study is the DOS version of the software.

4. Create a separate directory TEMPA for the spreadsheet and the uncompressed URL2FILE. This is a working directory for the program and data files and needs to be a short name so it can be easily typed on a DOS command line.



Description of Process:
Individual file validation process

1. Compile the list of D&B D-U-N-S® Numbers from your trading and business partners and enter them into the spreadsheet lookup.xls in column B. **Note: The list of numbers (e.g. 111111111) and names in the example spreadsheet are all invalid due to restrictions imposed by D&B on publicly listing valid D&B D-U-N-S® Numbers.**

2. Logon to the Dun & Bradstreet web site

https://www.dnb.com/product/retail/menu.htm

after the login select the second option D&B Global Seek. On the D&B Global Seek page look at the address in the URL portion of the browser. It should look something like this:

https://www.dnb.com/scripts/
productretriever.asp?
sessionid=9290822057&requesttype=cashwbentry

3. Copy the SESSIONID number from the line (eg. 9290822057) to cell A2 of the spreadsheet lookup.xls.

4. Save the populated spreadsheet lookup.xls

5. Copy column D from the spreadsheet lookup.xls and Paste the contents to Wordpad or Notepad. It should look something like this:

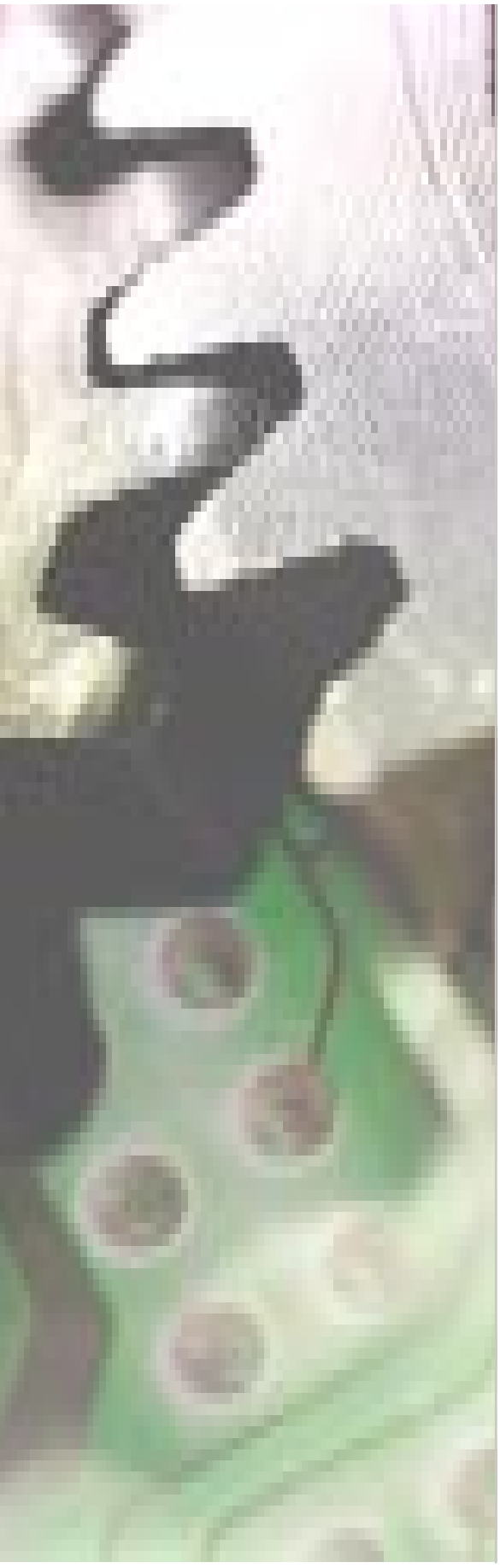
URL2File https://www.dnb.com/scripts/
ProductRetriever.asp?
SESSIONID=1011955459 00&
requesttype=CEGIM&duns=111111111
dn111111111.html
URL2File https://www.dnb.com/scripts/
ProductRetriever.asp?
SESSIONID=1011955459 00&
requesttype=CEGIM&duns=222222222
dn222222222.html

6. Save the Wordpad or Notepad file in the TEMPA directory as CCVALID.BAT

7. Establish an Internet Connection

8. Open a DOS prompt window, change the directory to TEMPA and enter CCVALID.BAT

9. The result of the URL2FILE process are data file with a HTM extension. Those responses can be printed or parsed and merged into a database.



Case Study: GISB list of un-validated D&B D-U-N-S® Numbers

As an example, GISB and D&B has posted a file of un-validated D&B D-U-N-S® Numbers on their web site (file dated 7/30/99). The outlined process with a 56K Internet connection was used to validate the file and create a database. Duplicate numbers were removed from the file before validation.

The results were as follows:

Total number of records in file	8729	
Records with un-validated numbers	8564	(165 blank)
Unique records with an un-validated number	6716	(1848 duplicates)
Total number of records		
with a valid D&B D-U-N-S® Number	4886	
with an invalid D&B D-U-N-S® Number	1830	
Total number of Locations		
Headquarters	2294	
Single	2356	
Branch	236	

The composition of companies included 4,785 United States based companies, 92 Canadian, 5 Mexican and one each from England, France, Japan, and Australia.

The validation process started and ran virtually unattended from 6:30AM and concluded at 8:30PM the next day. The process ran in roughly 26 hours on a 56K internet connection.

This type of validation process may not be ideal for all companies but it is alternative to clerical workers using the D&B web to validate multiple numbers. The Nomination and Confirmation process within and across transportation service providers will be more streamlined once this validation process is completed for the entire natural gas industry.

If you have any questions concerning this validation process or Electronic Commerce or EDI implementations; please email Carl Caldwell, Manager Energy Practice, CGI at **Carl.Caldwell@CGIUSA.COM.**

About CGI

Based on its annualized revenue run-rate of CDN$1.5 billion, CGI is the largest independent information technology consulting firm in Canada and the fifth largest in North America. CGI's more than 10,000 professionals provide end-to-end IT services and business solutions to some 2,500 clients in Canada, the United States and 23 countries around the world. CGI's shares are listed on the New York Stock Exchange (GIB), as well as on the Toronto and Montreal exchanges (GIB.A).