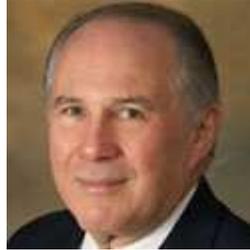8/12/2014

[Allan Grody]

LEI + COU = GLEIS

The legal entity identifier (LEI) project has been off to a rough start. The newly installed board of the Global Legal Entity Identifier Foundation (GLEIF) intends to bring structure and guidance.

The Global Legal Entity Identifier System (GLEIS) is supposed to be a game changer. Its objective is to replace all proprietary codes of business entities represented in automated systems in the global financial supply chain. However, without guidance by financial institutions' professional technology core, the project that has already set sail may not reach its promised destination... giving the industry STP, lower infrastructure costs, and reduced risk.

There have been 300,000 LEIs already issued with no official mechanism in place to access an LEI and its business card data wherever it is stored across globally disbursed LEI registries. A Central Operating Unit (COU) is to be the mechanism that creates that capability, but it is not yet in place. Transfers from the first Local Operating Unit (LOU), the US's GMEI Utility (formerly the CICI Utility), are continuing to other LOUs. This transfer process was necessitated after a central utility concept was abandoned in favor of a virtual data base maintained in component parts in multiple sovereign jurisdictions.

The LEI codes have initially been assigned to financial market participants involved in the newly regulated swaps markets. The LEI registries are operated by LOUs that are sponsored by regulators in multiple sovereign jurisdictions. There are 30 LOUs, with 15 already issuing LEIs. LOUs are comprised of a diverse set of facilities operators -- FMUs, data providers, business register operators, patent issuers, banks, exchanges, and sovereign standards bodies.

That a code that is to replace all other codes was issued across multiple LEI registries without a consolidating mechanism is certainly surprising in that it violates all sound systems design principles, although it was understandable when the CFTC first requested an LEI system before other regulators. That there was no standard for each of the LEI registries to define their stored business card data was likewise surprising, although one is promised shortly.

Even more surprising is that these codes have been assigned with no mechanism for maintaining them when corporate reorganizations retire or change ownership of the business entities assigned LEIs. The most surprising is that these codes are being used in live operation in an attempt to fulfill regulators' newly designed swaps data reporting and record-keeping requirements. What is not surprising is that it is not working well.

Swaps transactions are being sent to multiple swaps data repositories (SDRs). They contain the assigned LEIs along with 60 other data elements comprising the details of the swaps transactions. These transactions are neither able to be ingested by the SDRs nor aggregated for risk analysis. Industry members are shoveling them out the door, but swaps regulators can't use them.

The COU is to be the technical core of a federated GLEIS. The GLEIS is supposed to be organized as a virtual data base of all the separate LEI registries. The GLEIS is to conform to an "Internet-like" federation using a "network-card" within a "plug-in architecture." These design criteria had been recommended to the G20's Financial Stability Board, the governing body of the GLEIS, and accepted as the design of the GLEIS.

The June 8 Financial Stability Board whitepaper, "A Global Legal Entity Identifier for Financial Markets," reads:

> The COU will support the maintenance of a 'logically' centralized database of identifiers and corresponding reference data – as with the Internet, the database will appear to users to be from a single seamless system, but again as with the Internet, the data will be physically stored on different systems across the globe. Technology will deliver the logical centralization...

> In particular, the FSB recommends the rapid development of the standards for LEI reference data on ownership and corporate hierarchies, as these data are essential to achieve one of the key objectives of risk aggregation for the global LEI system.

However, the mechanism of the COU is yet to be defined in any operational or technical detail. The newly installed board of the Global Legal Entity Identifier Foundation (GLEIF) has recently been chartered to implement such a mechanism. The Board members are, in the main, from the industry. A CEO has been selected, previously a technology strategist from a data vendor. Perhaps we will now get on with matching political aspirations with reality.

The overall objective for the GLEIS is to provide an identity standard so that financial transactions that contain the LEI can be aggregated for determining risk exposure. The FSB's "Consultation Paper: Feasibility study on approaches to aggregate OTC derivatives data," of February 4, reads:

> The development of global standards for derivatives data and their aggregation is a foundational requirement under any data aggregation model. Standards form the basis for the interoperability of derivatives data; they are agnostic to choice of aggregation option as they are a prerequisite for every option...

The following data elements have been identified in the Data Report as key to the aggregation process.

- *Counterparty identifier*
- *Product identifier/product identification taxonomy*
- *Transaction/trade identifier*

The ISO 17442:2012 code construction standard for the LEI is not very useful for aggregating transaction data. To see why, let's examine the code construction. It consists of 18 alphanumeric characters and two numeric check digits calculated from the previous 18 characters. This standard has been further defined by the FSB as follows:

The Current ISO 17442:2012 LEI code as modified by the FSB

- *Characters 1-4: A four character prefix allocated uniquely to each LOU.*
- *Characters 5-6: Two reserved characters set to zero.*
- *Characters 7-18: Entity-specific part of the code generated and assigned by LOUs according to transparent, sound and robust allocation policies.*
- *Characters 19-20: Two check digits as described in the ISO 17442 standards.*

There is no mechanism to tie the LEIs of the same business entity together, only to its LOU. And that is only at initiation of the LEI. Since the LEI can be ported to another LOU, the identity of the LOU changes even though the LOU code does not, as it is an integral part of the LEI code.

An alternate code construction has been proposed, staying within the current ISO/FSB LEI standard but capable of aggregating data directly from the code.

Aggregation Capable ISO/FSB 17442:2012 Compliant LEI

Characters 1 – 4 + 5 - |**7**---------------------------------**18]** +19-20

[prefix n (4)+expansion (00)] [RIDxxx-nnnnn+expansion(n)] + CD

Notes:

1 The prefix is currently assigned by the FSB and consists of 4 numeric digits. It is randomly chosen from a sequence of 10,000 numbers. Its purpose is to make all the entity specific codes assigned by each LOU globally unique when combined with the prefix and the expansion area, now set to 00.

2 Expansion digits, purpose not publically defined other than for expansion of code consisting of two zeroes (00)

3 Registration Domain (Registration Identifier - RID) consisting of six numeric digits randomly chosen and assigned as is the LOU prefix in note 1, but not by the FSB, by the COU. Its purpose is to make all the entity specific codes registered by each financial market participant globally unique.

4 Sequence code consisting of five characters assigned by the financial market participant (the Registrant)

5 Re-sequencing code used for re-sequencing of code hierarchy for corporate events that change the ownership of the LEI code

6 Check digits calculated as described in LEI ISO 17442:2012 standard

Further, if we would dispense with the prefix for the LOU completely as part of the code (it serves no purpose other than to preserve uniqueness of LEIs generated in separate venues) then we believe we would have an even better way of aggregating data from the code itself. The first characters 1-4 would be the Registrants' unique code, and characters 7-18 could be adapted from the corresponding internal codes of the Registrant's legal entities present in internal systems. Alternatively we can adapt a simple sequencing scheme for each LEI.

With the COU functions soon to be designed it is reasonable to think about conducting a proof of concept for redesigning the code for future use. The Registrant ID's can be assigned by the COU as the LOU's prefix is now, as a unique code randomly chosen. This Registrant prefix can then be used by Registrant's designated core LEI issuer, whether an internal department or outsourced to a third party.

Combing the randomly chosen RID with a registrant's own remaining portion of the code (the entity specific part, Characters 7-18) at the time each LEI is registered preserves uniqueness and non-intelligence. It also preserves synchronization between the internal codes and the external LEIs. This is particularly important to the larger financial institutions that have hundreds, if not thousands, of potential LEIs to be registered.

Getting the LEI right is important, not only for knowing the counterparties and what controlling interests they roll–up to, but because they are also used in constructing Unique Transaction Identifiers (UTIs) in the EU (the LEI is not allowed to be used in the construction of the UTI in the US) that are essential to matching component parts of a swaps transaction.

With the first "beta" test of the use of the LEI in the swaps reporting regime producing GIGO (garbage in, garbage out) results, isn't it better to reassess, regroup, and then set sail to the far shores of our promised destination... in a better boat.

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Allan is President and founder of financial industry joint venture development company Financial InterGroup Holdings Ltd; and strategy & acquisition consultancy Financial InterGroup Advisors. The companies are engaged in the capital, contract, currency, cash and investment markets with retail and institutional financial firms; and with financial firms and their client, vendors, suppliers and infrastructure institutions.

He has been consulting domestically and internationally to financial institutions on global strategies, capital and contract market restructuring, industry-wide financial business reorientation, information systems, evolving communications infrastructures, and risk management systems. His activities have included: countrywide restructuring of capital market regulations in the EC; strategic planning for the banking sector in the Persian Gulf; restructuring of capital and contract market trading in multiple market centers; visionary studies of the future of banking and finance for multiple financial industry trade associations, and expert witness testimony in landmark patent cases related to the electronic trading of financial instruments and

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He began in business with General Electric after being trained as a mathematician and worked in the investment, securities and international banking business with Neuberger Berman, Dean Witter Reynolds (now Morgan Stanley) and ABN-AMRO (now Royal Bank of Scotland).

He founded Coopers & Lybrand's first financial industry specialized advisory practice and was Partner-in-charge of their Financial Services Consulting Practice. Professor Grody founded and taught the only graduate level Risk Management Systems course at NYU's Stern Graduate Business School focused on financial industry systemic and enterprise risk.

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