

Getting Real... Smart Meter Interoperability?

Bob Gohn — September 28, 2010

There is no shortage of smart metering communications standards, though there is a distinct lack of actual smart meter interoperability. European smart meter standards development was a major topic at the Metering Europe event last week in Vienna, and it seems industry efforts to conform to the European Union's M/441 mandate for open standards are unlikely to bring much order to the current chaos. Europe's largest smart meter projects, including those in the UK, France (ERDF), and Spain (Iberdrola), are each effectively defining their own "open" standards. The OPENmeter project, formed and funded to respond to the M/441 mandate, appears to have capitulated by accepting all of these standards (plus some others, including the newly renamed "Meters & More" technology already deployed by Enel in Italy) into their framework. Each project is large enough to induce customized multi-vendor support, but this approach will not create the economies of scale that a small but robust set of standards might offer. Never has the old lament been more apropos: "the great thing about standards is there are so many to choose from".

So it is notable that a small group of leading European meter makers is making progress toward actually choosing from the standards menu to deliver true multi-vendor interoperability. About a year ago, Iskraemeco, Itron, and Landis+Gyr banded together to form the Interoperable Device Interface Specifications (IDIS) Industry Association, leveraging their existing collaboration with ERDF (an EDF subsidiary) in France. The IDIS Association goal is not to specify yet another set of standards, but rather to "close the gaps" within existing standards implementations for certifiably interoperable smart meters. "IDIS Release 1, package 1", to be fully published by year end, specifies a specific Power Line Communications (PLC) implementation, list of metering objects, and interface to a PLC data concentrator. A second "package" will define an IPv4 profile and additional interfaces. IDIS compliance requires conformance testing by an independent test lab, and membership requires actual delivery of compliant products.

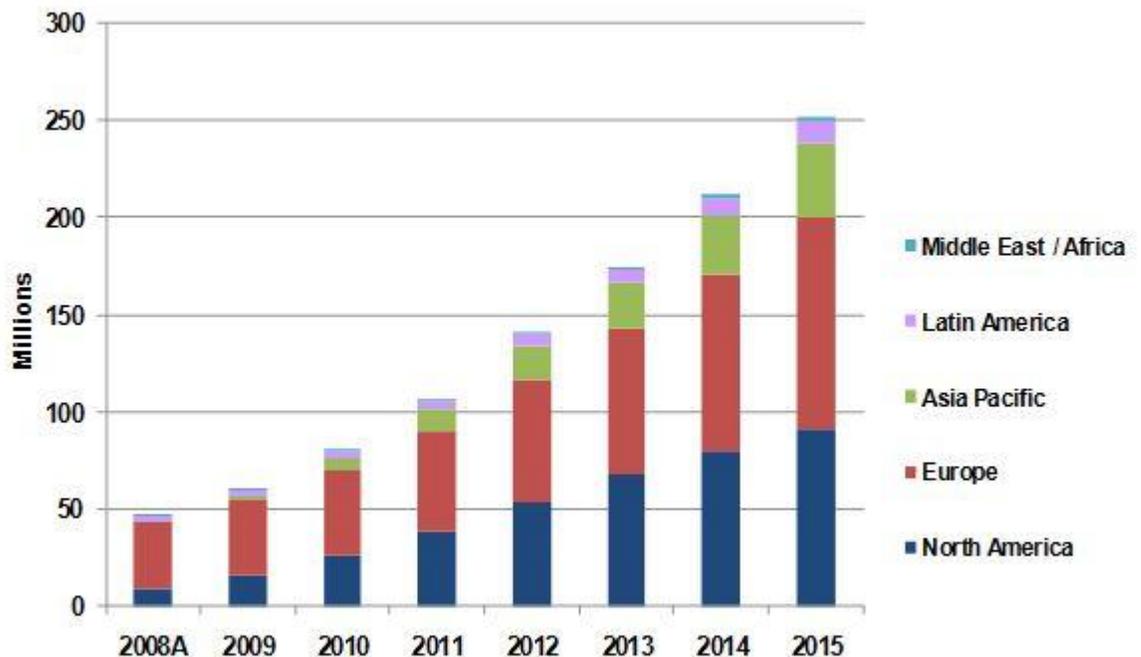
Interestingly, the first release is focused on rather mature PLC standards, not the latest and greatest technologies being pushed smart meter vendors. Future releases that will add newer OFDM-based PLC protocols and IPv6 are planned for 2012. And no utilities have publicly announced support for, much less a requirement for, IDIS-compliant devices – not even ERDF who effectively inspired the collaboration. However, judging by the expressions of interest at last week's event, I expect this effort will be a boon for small-to-medium sized utilities without the clout to attract multiple vendors to their own "standard". By specifying IDIS-compliant systems, they can get multi-vendor competition and flexibility without having to do months-to-years of vendor cajoling and testing, reducing their overall risks.

What do IDIS vendors get from this? They hope to accelerate and grow the overall market, short-circuiting the “pilot-itis” at each utility that delays production deployment (and hence time-to-revenue) and endlessly consumes precious support resources. They see time as the most important result of “economies of scale”.

Sadly, this is the only true open, multi-vendor interoperability effort we can point to worldwide. The US-based NIST efforts have a considerable way to go to even have a decent communications standards menu to choose off of, and Asian countries are each specifying their own standards with an eye toward giving indigenous suppliers an advantage under the guise of supporting “special local requirements”.

Ultimately, the utilities that make the buying decisions are responsible for what vendors deliver. We’ll see whether European utilities will reward the IDIS vendors for their pioneering efforts.

Smart Meter Shipment by Region, World Markets: 2008-2015



(Source: Pike Research)