

Changing roles of data drives Xentity Corporation

The only one who likes change is the one who suggests it. Yet, technology is still changing at Moore's Law speed— doubling every two years. "The volume of data, too, is doubling along with storage and compute advances. Data maturity is not," says the team at Xentity Corporation, a data consulting and support services firm. "Maturing the data lifecycle depends on more linear change factors - people, cultures, legacy collection & processing practices, and aging infrastructure. So, the promises of more data have fallen behind". Xentity's tagline actually is '**CHANGE. IT HAPPENS. ESPECIALLY TO YOUR DATA.**' "We believe as technology accelerates, and 'commoditizes', the focus needs to shift to quality, accessible, usable data. It's about the data and the information, and valuable knowledge organizations can derive from it that will build trust back in IT solutions. At Xentity, we are focused on putting the "I" back in IT and GIS."

When bad data is not an option

As technology advances and data volume grows, so do the complexities. Large mission programs are adjusting to the rapidly changing world of data – open data, big data, geospatial data, data lakes, data se-

curity, remote sensing and Internet of Things, data and the cloud, wrangling dirty data, creating amazing visualizations. "MIS used to just be simple to complicated – defined divisions, workflows, roles, isolated technology stacks. Now the world of data is complex and fluid – changing rules, users needs change, and many new interfaces. This hyper convergence is great but is threatened by the lack of management, good metadata, and cross-mission integration." Xentity works with missions and enterprises from consulting upfront through executing implementation on these problems: creating value from data.

What keeps the company a step head of its competitors in the domain is its relentless focus on the mission space. "CIO shops in the 2000s had to focus on the enterprise technology problems – compliance, security, infrastructure, policy, rotating assets, service levels. This left missions generally on their own to address data lifecycle operating models and solutions." Many of these solutions are now aging, and more costly to maintain quality, usability, and accessibility. While meeting with Xentity, we were amazed to hear where the data problems stem from and how

many organizations are just not addressing these challenges. This is where Xentity comes in.

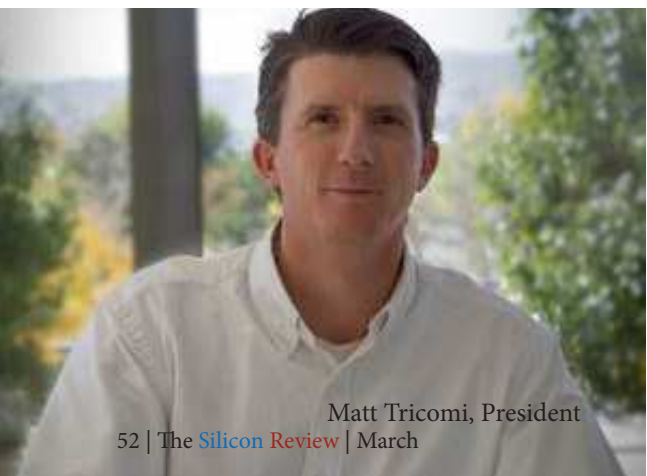
"It starts at the 'eye candy' demo. Usually what goes unsaid is to make the 'tech demo' work, cleaned up data is used. This demos the 'tip of the iceberg' only. Even with complicated procurements, the

technology gets approved nonetheless without identification of the data problems scope. Technology migration could take a year, but application and data migration could take a few to several years." Regardless of cloud solutions, thin provisioning or storage reclamation, data scope creep trickles down to higher storage and compute costs, larger data production issues, increased security risk, more costs, longer timeframes, and ultimately missing pieces in end product as the data does not meet end-user requirements and lacking the end promise of data value. This means, hard to find the data, data can't be used, or data quality is sub-par and advanced users cannot use in their applications. "During the demo 'wrap' and RFI responses, we want to shed light on the data readiness, complexity, and maturity, and suggest agile, iterative ways to move towards this solution space. We want expose just how much CAPEX and missed value is at risk."

Xentity can help missions and CIOs consider new data operating models, governing data flows, modernized solution architectures or audits. Then for implementing support, Xentity can develop, migrate, and support data applications, tools, ETL, wrangling, visualization, products, or policy/metadata management. "The hardest part of it all is still at the C-level negotiating and consolidating silo'd efforts and 'moving people's cheese.'"

Why Government data?

Xentity was founded in the back of a garage in 2001 and has grown to multi-million dollar 8(a) Prime Contractor primarily servicing primarily



Matt Tricomi, President

the Civilian Government sector with over 100 projects across the nation and multiple countries involving data under its belt. “We started supporting Government Programs focused primarily on ‘earth’ missions focused on collecting, reporting or producing data.” This data is very powerful – in helping private sector, academics, and public in natural resource planning, emergency, transportation, health, energy, environment, more. “Our private sector support is growing helping them unlock the power of this free data.”

Before the more recent push to public open data, Xentity focused on connecting data within the Enterprise. “The way government programs have always been funded by Congress, they are almost incentivized not to collaborate. The challenge with creating enterprise views, warehouses, marts, lakes, repositories was more of a cultural engagement challenge that usually takes an ‘event’ to coalesce.” At the Department of the Interior, this focus led to millions in savings for the agency through increased collaboration, improved shared analysis methods, and knowledge. Also, DOI received multiple national recognition awards for changing the way CIO planning efforts worked with program planning efforts using enterprise architecture (EA) techniques. These new techniques for EA were solid, and lifted as best practices promoted by to the U.S. President’s Office of Management and Budget.

Leaders in Open and Geospatial Data

A great majority of data is geospatial. Everyone has GPS and maps in their pocket. “Half the U.S. population have smartphones. Satellites the size of washing machines are launching. The “Internet of Things” are in cars, phone, social media, houses, and growing. These advances are changing how data is collected, causing new bigdata processing

infrastructures, and what data products and services are needed and being invented. The ‘where’ or ‘geo’ dimension is at the forefront of this change. Warehouses and Lakes more and more are needing to integrate ‘Geo’ and open data sources, increase data management, improve metadata, and improve ease of use and access.”

When asking about their results, we didn’t expect such big name outcomes. Described by the team at Xentity, they supported the architecture of data.gov; helped transition the primary mapping program for the nation - The National Map (nationalmap.gov) from paper maps to an open data geospatial program; redesigned massive satellite portfolios seeking to reduce billions in costs; and, brought NoSQL and cloud solutions to major records programs. “Imagine cooking for a living, and then being asked to farm instead. Our clients go through just that.” At the state level, Xentity supports the State of Colorado as the data management provider for Go Code Colorado, an innovative, first of its kind and multiple award-winning state-wide application development challenge aimed at using open data to address business intelligence problems for Colorado businesses. “We helped the State take their emergent opendata catalog, and fuel it with over 150+ value-add datasets - data.colorado.gov is now truly valuable.”

Xentity has been rapidly growing and repeating efforts with programs at DOI, EPA, USDA, USGS, dozens more, and multiple states. On top of Xentity data consulting and support services, they develop outreach videos and communications for these data programs. “We get asked often – why outreach? Well, data can be, well, is boring – slide decks make it worse. Data needs a story to help convey its impact. Our Video studio, branding and other outreach capabilities help get the word out. The client story videos on Xentity.com

prove it.”

The company believes that whatever may be the size, they can customize an engagement to meet the customer’s data challenge: develop new operating models, new requirements and architectures, develop new product standards, pilot new services, wrangle and ETL dirty data, develop data solutions and applications.

Xentity’s Service Areas:

- Data Program Planning, Strategy and Governance
- Data Program Design and Architecture
- Data Solution Development
- Data Production and Wrangling
- Data and Information Management Operations
- Data Communications Strategy and Support

Xentity’s Service Engagement Types:

- 1 to 2 month – Demonstrate immediate value in agile workshops, develop project definition, immediate analysis or development sprints, and alternative analysis
- 3 to 6 months – Execute tactical or strategic analysis or project implementation
- 6 to 12 month – Execute Architecture, Development, and Analysis Project Phase lifecycle from definition, design, development, transition and rollout
- Multi-Year – Support data programs in staff augmentation, data operations & maintenance, expert policy/metadata management.

“When progressing up the data, information, knowledge, and wisdom maturity path, whether strategic or tactical, short or long-term, project or program, Xentity is prepared to support our customers invest and execute in truly valuable data solutions.”