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Standards for Utility Centric Integrations

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Steven Dyer

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Central Service Association

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Integration Agenda

- Software Hairballs and You…
- The Good, Bad and Ugly…
- Who is Responsible…
- Get Control of Your Data…
- Making Your Own Master API…
- Don't Reinvent the Wheel…
- I Don't Want To and You Cant Make Me… :-)>

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Software Hairballs and You…

- Unlike Software
- Multiple Databases
- No Real Direction of What's Needed
- No Ownership
- Utility Nightmare
- Vendor Nightmare

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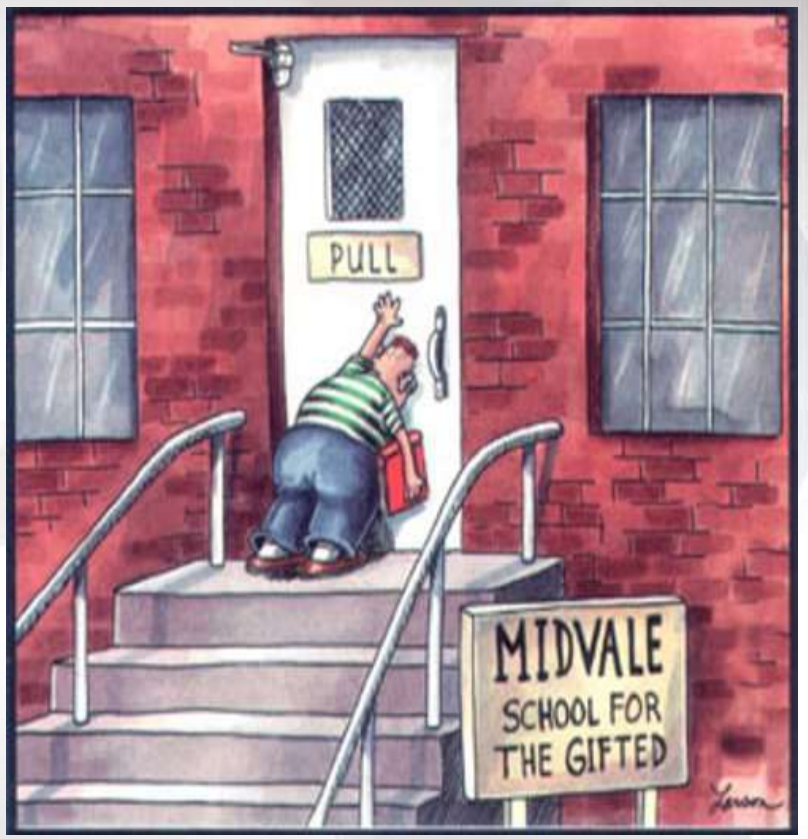
The Good, Bad and Ugly…

- Manual Import/Export
- BATCH Files
- Email Injection
- Near Real Time Batch
- Web Services
- Yoda Programming

"Your data integrated it must be"



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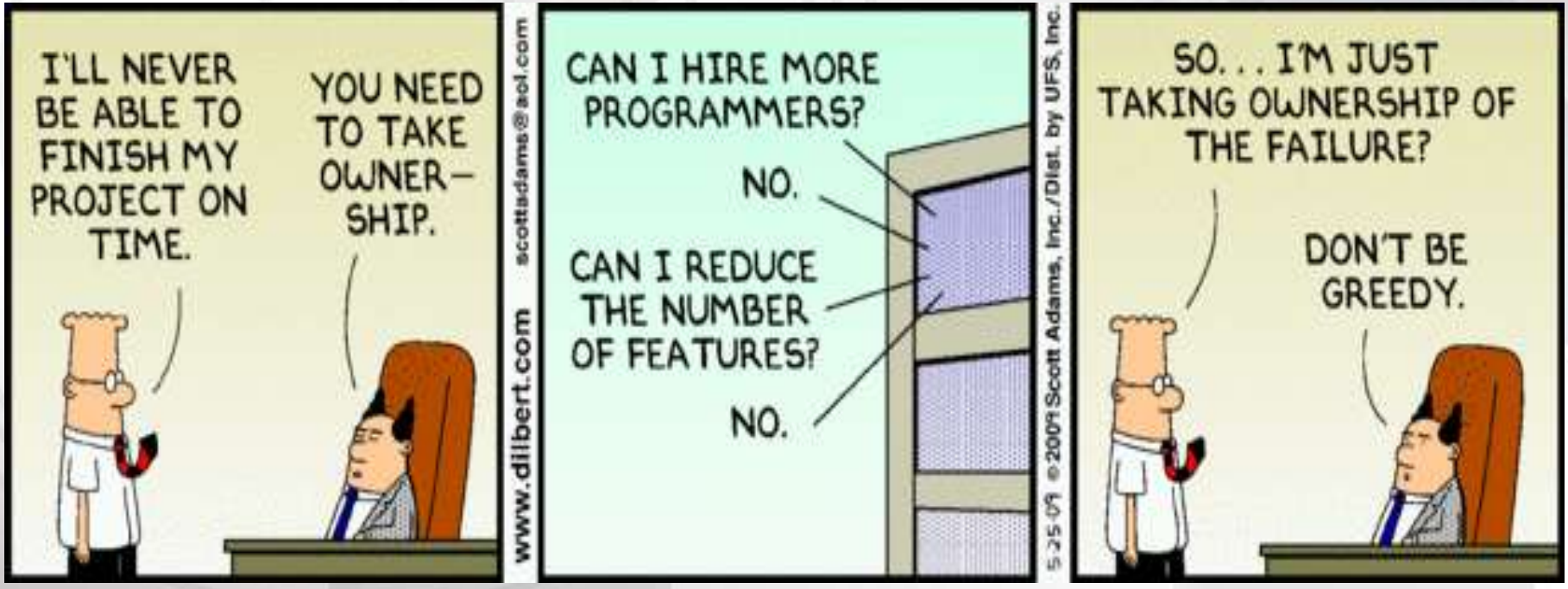
Who is Responsible...



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Who is Responsible…

- Ultimately You ARE
- It Does Not Matter You Did Not Choose the Product
- Is Your Voice Heard Before A Product Is Selected???
- Do You Have A Seat At the Table???
- Make Yourself VALUABLE!!!!!!

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accounts

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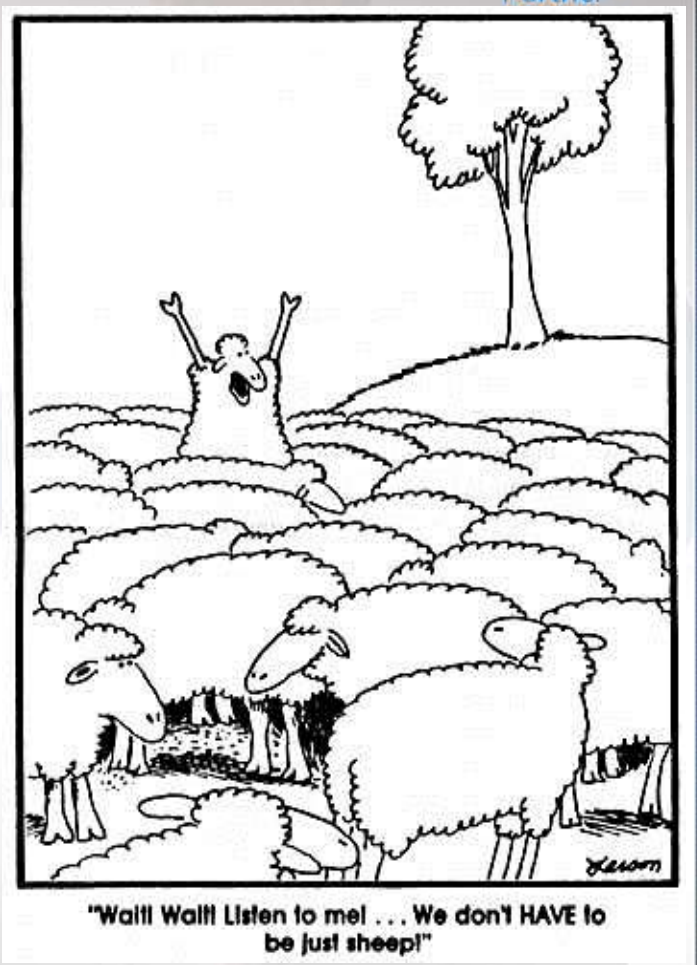
Get Control of Your Data…

- Put It In Your Contracts
- Learn How Things Work
- Play In A Controlled Environment
- Break Stuff In A Controlled Environment



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Making Your Own Master API…

- Ask Someone Who Knows How Things Work
- Push Your Vendors For Options
- Understand Your Knowledge Level and Limitations
- Have Fun With It
- Share Your Programs and Ideas With Others

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Don't Reinvent the Wheel…

- MultiSpeak

MultiSpeak has evolved into a leading specification for enterprise application interoperability. It is important to both the utility and the vendor communities. The MultiSpeak specification contains a common set of data and service definitions that provides the foundation for comprehensive and cost-effective software integration. The MultiSpeak specification has been designed with interoperability as a key goal and as a result vendor-provided software that is compliant with the MultiSpeak specification can often be installed with little or no modification.

MultiSpeak® INTEGRATOR™

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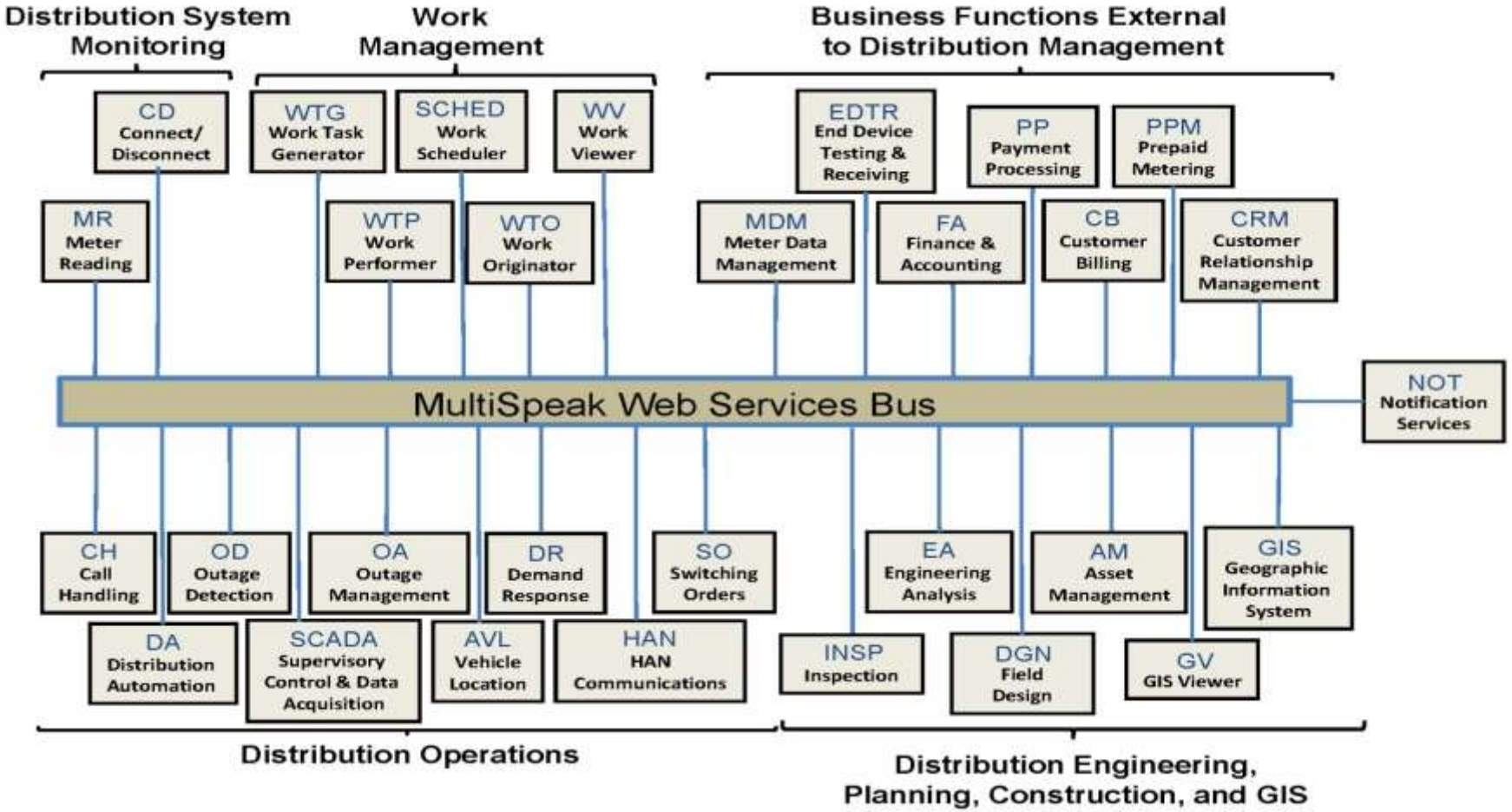
Don't Reinvent the Wheel…



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Don't Reinvent the Wheel…

- Is ready to implement today
- Has been proof-tested in multiple existing installations.
- Offers true interoperability in "off-the-shelf" products available in today's market.
- Is extensible without compromising the basic interoperability of the interface.
- Is scalable to allow use for any size utility or information demand.
- Is supported by wide range of vendors.
- Has an existing, modestly-priced commercial testing process to help utilities and vendors ensure interoperability.
- Has a large number of individuals trained in the use of the specification.

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I Don't Want To and You Cant Make Me…

- FINE You Are Not A Programmer
- Learn What's Around You
- Pester Your Vendors
- MAKE SURE YOU KNOW HOW SECUITY WORKS ON ALL YOUR PRODUCTS

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Smart Grid...

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LOOKING INTO THE EYE OF THE METER

Presented By:
Don C. Weber

July 25

When you look at a Smart Meter, it practically winks at you. Their Optical Port calls to you. It calls to criminals as well. But how do criminals interact with it? We will show you how they look into the eye of the meter. More specifically, this presentation will show how criminals gather information from meters to do their dirty work. From quick memory acquisition techniques to more complex hardware bus sniffing, the techniques outlined in this presentation will show how authentication credentials are acquired. Finally, a method for interacting with a meter's IR port will be introduced to show that vendor specific software is not necessary to poke a meter in the eye.

This IS the talk that was not presented at ShmooCon 2012 in response to requests from a Smart Grid vendor and the concerns of several utilities. We have worked with them. They should be okay with this.....should.....

HERE BE BACKDOORS: A JOURNEY INTO THE SECRETS OF INDUSTRIAL FIRMWARE

Presented By:
Ruben Santamarta

July 25

PLCs, Smart Meters, SCADA, Industrial Control Systems...nowadays all those terms are well known for the security industry. When critical Infrastructures come into play, the security of all those systems and devices that control refineries, Water treatment or nuclear plants pose a significant attack vector.

For years, the isolation of that world provided the best 'defense' but things are changing and that scenario is no longer valid. Is it feasible to attack a power plant without ever visiting one? Is is possible to hack into a Smart meter...without having that Smart Meter? Yes, it is. This talk discusses the approach followed to do so, mixing theory and practice.

This presentation pivots around the analysis of firmware through reverse engineering in order to discover additional scenarios such as backdoors, confidential documentation or software, vulnerabilities... Everything explained will be based on real cases, unveiling curious 'features' found in industrial devices and finally disclosing some previously unknown details of an interesting case: a backdoor discovered in a family of Smart Meters.

We will navigate through the dark waters of Industrial Control Systems, where the security by obscurity has ruled for years. Join us into this journey, here be backdoors...

Questions???

Steven Dyer

sdyer@csa1.com 662-491-2661

"Whoa! *That* was a good one! Try it, Hobbs—just poke his brain right where my finger is!"