



British Gas Smart Meter roll out and the Value Obtained from OSIsoft's Enterprise Agreement (EA) Programme

Presented by **Iain Boba**



Smart Meters – Revolutionising the way you see your energy

At British Gas we want to help customers engage with their energy usage, cut back on waste to make savings on their bill. That's why we're leading the way in the nation's smart meter upgrade



Business Challenge

- Replace over 16 million traditional meters with Smart Meters in 12 million homes by 2020, on a scalable and stable IT infrastructure

Solution

- OSIsoft PI System with AMI support for SAP IS-U
- OSIsoft Enterprise Agreement (EA) Programme

Results and Benefits

- Over 700,000 domestic Smart Meters installed
- Smart Customer bills generated automatically from a Smart Meter Read

Agenda

- Introduction to British Gas Residential
- Introduction to the British Gas Smart Metering Programme
- Smart Metering Landscape
- The Challenge of Volume
- How the Enterprise Agreement helped
- Future Challenges
- Conclusion

Introduction to British Gas Residential



- Founded in 1812
- **centrica** is our parent company



- We employ 35,000 people
- We have 16 million meters in 12 million homes



- We don't just supply gas & electricity
- We are the UK's leading energy services company

British Gas Smart Metering Programme

- What is a Smart Meter?
 - Provides the consumer with energy consumption information
 - Allows 2-way communication
 - Receive readings, financial data, alerts and events
 - Send tariffs, top up credit values, update firmware



British Gas Smart Metering Programme

- The Beginning...

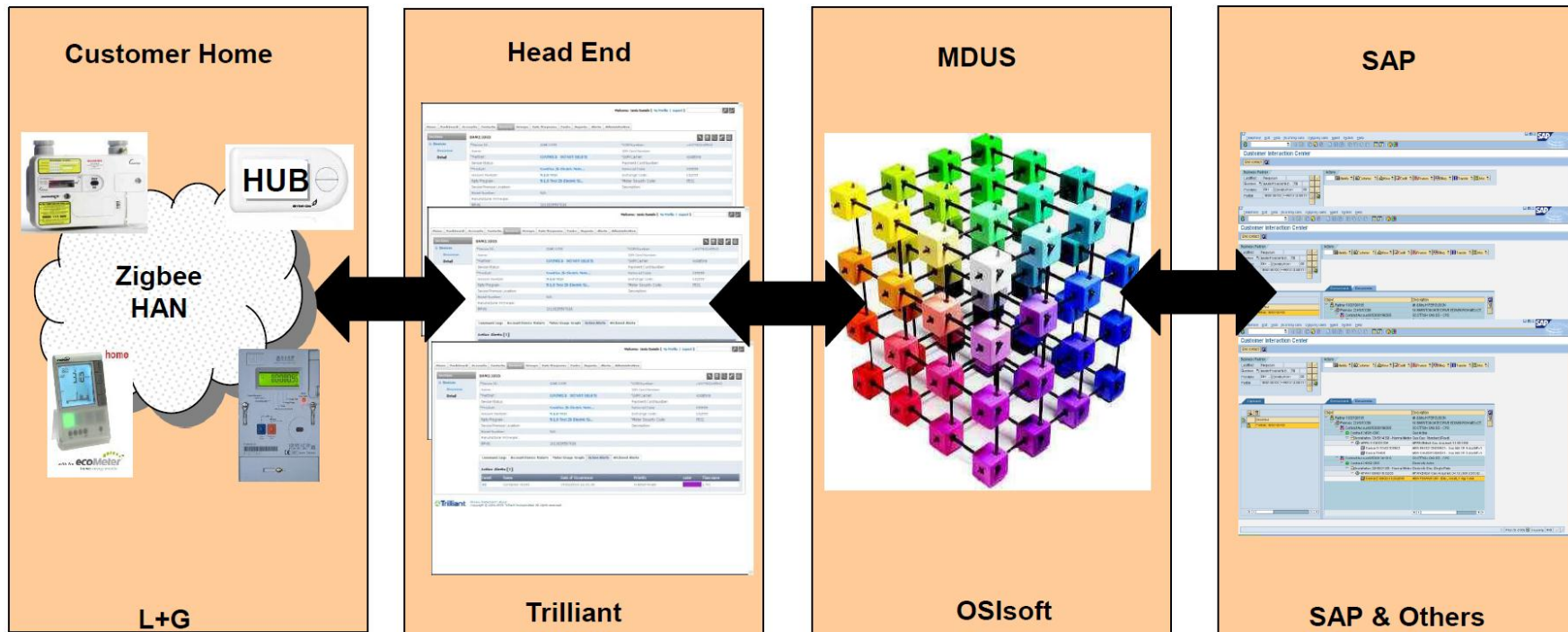


- Our Smart Meter rollout started in 2010
- UK Government mandated to finish 2020
- British Gas adopted a “go early” approach

- We did not hire a System Integration partner
- We used a combined team of Centrica and OSIsoft
- Developed in-house knowledge of the PI System.
- Installing 8,000 meters per week in the PI System



Smart Metering MDUS Landscape



Smart Metering MDUS Landscape



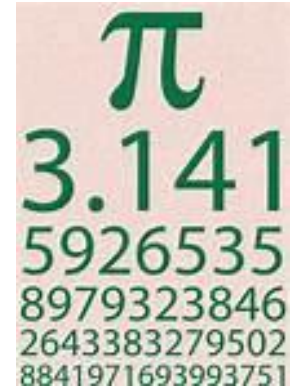
It's not a fruit pie.



It's not a pi pie!

What does our PI System look like?

It's not the
mathematical
constant pi.

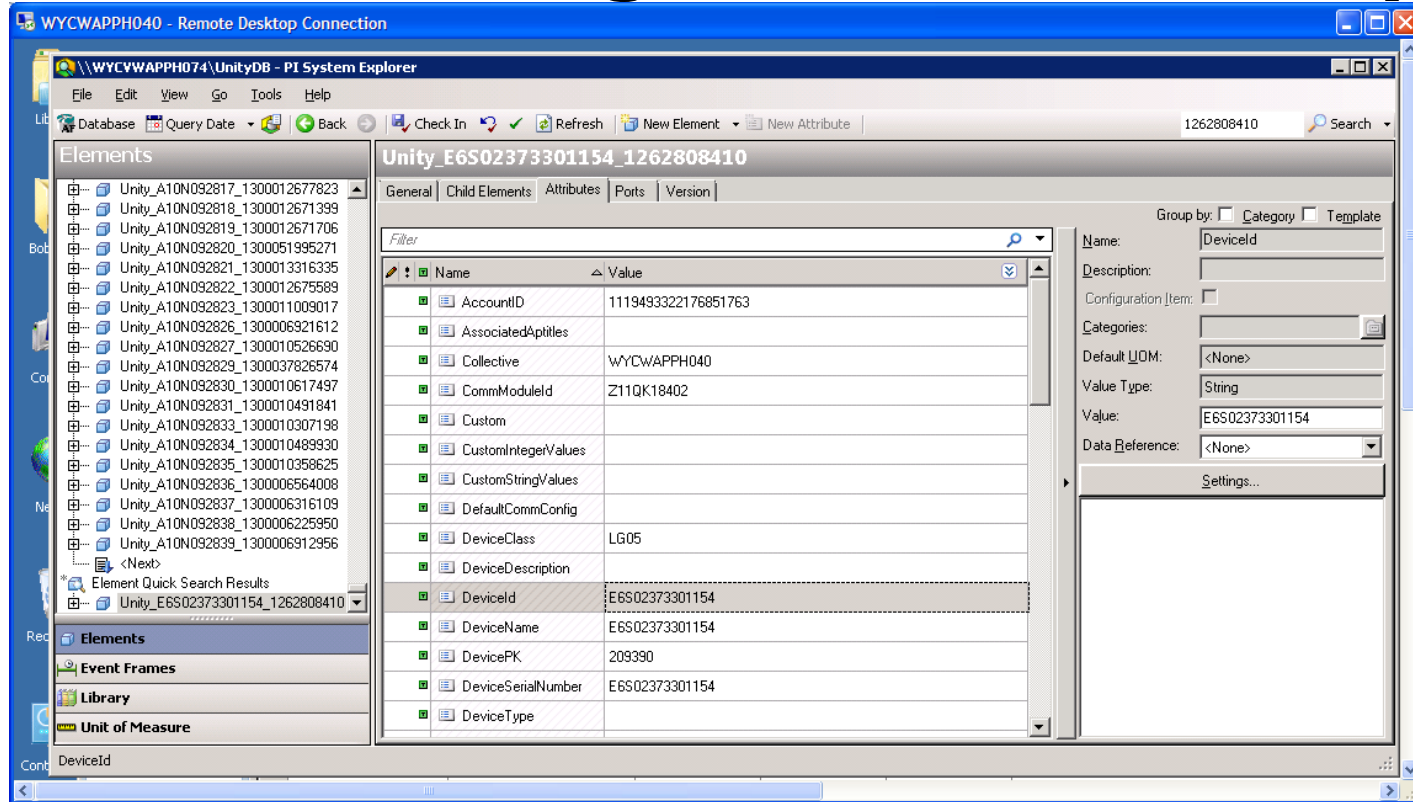


Smart Metering MDUS Landscape

What does our PI System look like?

- 2 PI Server 2012 collectives
- 600,000 Smart Meters
- 6.2 million PI Tags

Smart Metering MDUS Landscape



Smart Metering MDUS Landscape

WYCWAPPH040 - Remote Desktop Connection

Tag Search

Basic Search | Advanced Search | Alias Search

PI Server: WYCWAPPH040\WYCWAPPH040

Tag Mask: *1262808410*

Descriptor: *

Point Type: * Point Class: *

Point Source: * Engineering Units: *

Value: *

Server:	Tag:	Descriptor:
WYCWAPPH040\WYCWAPPH040	Unity_E6S02373301154_1262808410.Event	
WYCWAPPH040\WYCWAPPH040	Unity_E6S02373301154_1262808410.Input001.Status	
WYCWAPPH040\WYCWAPPH040	Unity_E6S02373301154_1262808410.Input001._Indicating_Forward_Gas__(CV).Value	
WYCWAPPH040\WYCWAPPH040	Unity_E6S02373301154_1262808410.Input001._IntervalData_Forward_Gas__(Wh).Value	
WYCWAPPH040\WYCWAPPH040	Unity_E6S02373301154_1262808410.Input001._Summation_Forward_Gas__(CubicMeters).Value	
WYCWAPPH040\WYCWAPPH040	Unity_E6S02373301154_1262808410.Log	
WYCWAPPH040\WYCWAPPH040	Unity_E6S02373301154_1262808410.State	

Reads

List Count: 7

Favorites

Connections...

Search

Abort

Reset

Select All

Pt. Attr...

Pt. Values...

OK

Cancel

Help

Smart Metering MDUS Landscape

WYCWAPP040 - Remote Desktop Connection

Archive Editor - PI System Management Tools (Administrator)

File View Tools Help

Collectives and Servers

Search

Collective: wycw

☐ WYCWAPP030

☐ WYCWAPP031

Collective: WYCv

System Management

Search

Alarms

Batch

Data

Archive Editor

Current Values

State and Bad Point

Interfaces

IT Points

Operation

Points

Security

Unity_E6S02373301154_1262808410.Input001._Summation_Forward_Gas____(CubicMeters).Value

Event Count: 10 Retrieved: 10 Row: 1

Server: WYCWAPP040\WYCWAF Tagname: Unity_E6S02373301154_12E

Start Time: ^-10d End Time *

Merge Type: Replace Duplicates Boundary Type: Inside

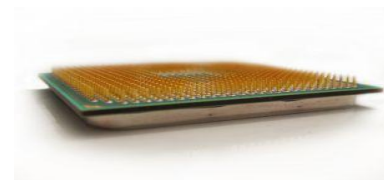
Show Filtered: Show Filtered Use String Annotations?

Filter Expression:

Value	Event Time	Questionable	Annotated	Substituted
3342.376	23/08/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3342.64	24/08/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3342.746	25/08/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3342.965	26/08/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3343.096	27/08/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3343.321	28/08/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3343.634	29/08/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3343.961	30/08/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3344.448	31/08/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3344.532	01/09/2013 00:30:03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Challenge of Volume

- Convert 16 million residential meters to Smart by 2020
- British Gas has already undertaken a programme of this scale in the 1970's
- 1,700 Smart Energy Experts carrying out the installations
- Increased Meter installations = increased data



How The Enterprise Agreement Helped

- What does British Gas get with its Enterprise Agreement?
 - Field Service Engineer support for software installations and upgrades
 - Centre of Excellence guidance on projects
 - NOC monitoring of systems with Managed PI
 - Annual training vouchers
 - Annual User Conference vouchers
 - Enterprise Project Manager as single point of contact



How The Enterprise Agreement Helped

- What has the EA delivered for British Gas?
 - Improved Performance
 - Stability
 - Growth
 - Business Benefit



Future Challenges

- No Estimated Bills
- Volume Volume Volume!
- Data Extraction
- Data and Communication Company



Department
of Energy &
Climate Change

Conclusion

- OSIssoft Enterprise Agreement has made our journey easier.
- British Gas and OSIssoft have been learning as the Smart Meter roll out progresses
- The Enterprise Agreement will allow British Gas to deliver a successful Smart Metering Programme and continue to be the leading provider of Smart Energy services in the UK.

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