



High performance. Delivered.

PCA Conference, Parmelia Hilton

Developing an equipment catalogue based on ISO 15926 for nuclear power plant operation

13 October 2011

Copyright © 2011 Accenture All Rights Reserved. Accenture, its logo, and High Performance Delivered are trademarks of Accenture.



What We See in the Industry Our Offering Recent Engagements Galaxy

accenture Accenture at a Glance

Company

- 210.000+ people
- US\$21.6 billion (ending 31/08/10)
- 120 countries
- 200+ cities
- Ticker : NYSE/ACN

Clients

- 94 of Fortune Global 100
- 75%+ of Fortune Global 500
- Top 100 clients have been clients for 5+ vears
- 92 of top 100 clients have been clients for 10+ years

Industries EnergyUtilities CNR C&HT 18 % 21% PROD FS 23% 21% H&PS 17%

Services

Management Consulting

- Strategy
- Customer Relationship Management
- Supply Chain Management
- Talent & Organization Performance
- Process & Innovation Performance
- Risk Management
- Finance & Performance Management

Technology

- Technology consulting
 - information management, analytics, security, enterprise architecture, IT transformation, ...
- Systems integration
 - SAP, Oracle, IM, ...
 - bespoke development
- Avanade
 - Microsoft

Outsourcing

- Infrastructure outsourcing
- Application outsourcing
- Business process outsourcing
 - Human Resources
 - Finance & Administration
 - Supply Chain
 - Industry specific
 - Custom

Technology offerings depend on client's accenture vision and industry



© 2011 Accenture. All rights reserved

accenture EPDM – Capability overview

Providing a comprehensive capability for new plant strategy, permitting, design, engineering and construction.



Intermediary Data Services all revolving around the "Essential Data Core" concept

Data Acquisition and Assimilation Master Data Intermediary Data Data Taxonomy Management **Services** Contents M Soline Data Load into **Essential Data Staging** and Configuration **O&M** Systems **Data Core** Data Cleansing TextMining Data Enrichment

Data Quality and Transformation

EPDM is based on an interoperable process framework to support Construction



>Owner/Operator –accentureReference Capability Framework



>Owner/Operator –>Owner/Operator –accentureReference Capability Framework



EPC – accenture Reference Capability Framework



Owner/Operator –accentureReference Capability Framework



Galaxy is the advanced IT platform to support the life cycle data needs of the new plant

accenture

- Minimizes the cost of poor interoperability (estimated at \$15B+ for capital projects in US in 2002 (per NIST 04-867)
- Minimizes construction schedule risk and delays through increased collaboration, reduced cycle time and reduced rework
- Serves as a single platform for integration of license, design and as-built data that can be extended to consortium partners
- Enables effective owners oversight of licensing and EPC activities with key data / information and decision support tools
- Positions the plant for operational efficiencies from Day 1 of operation with full data model, margin register and operational tools
- Enables data and document interoperability with partners, customers, and vendors while protecting all sensitive data with appropriate safeguards
- Designed, hosted and managed by the leading systems integrator based on industry requirements as well as technology and regulatory trends



UniStar and Accenture to Develop Nuclear Fleet Enterprise Architecture

والجيمار والتطليقين والتكاطيص والكرو

"Galaxy" can support data needs for UniStar'snew nuclear plants for 60-plus years.

BALTIMORE, April 7, 2008 /PRNewswire/ - UniStar Nuclear Energy (UNE) announced today that it is partnering with Accenture (NYSE: ACN) to develop an advanced information technology (IT) platform capable of supporting the lifelong data needs of a potential new fleet of nuclear power plants.

... Galaxy will enable nuclear plant partners, suppliers and customers to more efficiently meet and accelerate project work schedules and budgets while improving performance through cycle time reductions.

"Galaxy will be a valuable tool --and a required asset --that will help future nuclear plants operate more efficiently," saidGeorge Vanderheyden, UNE president and chief executive officer. "It will speed the flow of information that nuclear plant owners need during plant, licensing, design, construction, operation and maintenance."

He added that in order for new nuclear to be successful, worldwide equipment venders and U.S. EPR owners must be able to share information 24/7

Galaxy Conceptual Framework Process-centric Approach for Large Capital Build



- Full Capability Model as basis
- Life Cycle "Advanced Data Core"
 - Basis Control
 - Configuration Management
 - Change Control
 - Impact Assessment
 - Collaboration
 - Workflow
 - Requirements Management
- Plant data "DNA" in the Core
- Industry "Application Rings"
- Rings fed by the Core DNA
- Hardened infrastructure
 - Security & IP
 - Doc & Records Management

Accenture Senefits Lifecycle Data Management Benefits

The benefits for UniStar include the following:

 IT Standardization The ability to have people use the same processes within the same IT platform, which allows all personnel to be more efficient. Staff movement between sites without need for training on IT systems. An implementation of repeatable processes that can continue to be enhanced 	 Cost Savings Understanding the business needs and planning early to create a cohesive enterprise IT platform for UniStar drives down future support and maintenance costs. Architected to reduce implementation and maintenance costs, resulting in lower IT spend. Overall system cost is spread over the total number of units – per unit costs decrease as number of units / users rise. 	Efficiency in UniStar business. • Information can be easily located and analyzed, allowing better visibility into changes and a resulting adherence to schedules. • New functionality can be added and quickly integrated with the existing platform in support of new business requirements and needs.	 Ability to operate a safe, reliable, efficient nuclear fleet. The timeliness and accuracy of information gathered through all phases will allow for better analysis and educated decisions. Availability of information allows for a more proactive approach to plant maintenance.
 Provides better visibility into the entire UniStar program A single version of the truth exists, allowing change impacts to be fully understood by all A "green field" opportunity to develop a platform that is designed for the future. Information needed for operations can be captured and 			JniStar and or market success v and availability of allows for more meeting timelines

- operations can be captured and related today avoiding the need to transition from EPC only systems.
- reliability in meeting timelines and budgets.
- Delivering UniStar units on time and on budget enhances the reputation of all involved parties.

• Risk of design and planning errors is decreased.

parties.



Inspections, Tests, Analyses, And Acceptance Criteria





High performance. Delivered.

Copyright © 2011 Accenture All Rights Reserved. Accenture, its logo, and High Performance Delivered are trademarks of Accenture.