



# CIS Implementation Trends and Lessons Learned

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# About F1 Presenter

- CEO of F1, Inc.
  - F1 is a consulting firm based in Indiana providing Project Management, design and development services, primarily to the utility industry
- Vice President of Diamond Concepts and Consulting.
  - Diamond is a software development company. The Diamond Billing Engine is a software solution that retrofits into an existing Customer Information System, aimed at extending the life of a Utility CIS.
- Participated in multiple Customer Information System implementation projects
- Former IT Director/Corporate Controller at a Public Utility



# Presentation Sources

- Gartner
- Five Point Partners
- Convergys
- Duke Energy
- Toronto Hydro CIS Implementation



# CIS Replacement Akin to Heart Surgery

- Costly:
  - "Back of a napkin budget number" \$50/customer\*  
\*external spend (internal additional \$13)
- Risky:
  - 30% are abandoned or do not provide expected results
- Long way back to recovery:
  - Takes up to 24 months to get better





# CIS Replacement Business Case

- NPV ROI does not work under "normal" circumstances:
  - Legacy CIS is functioning
  - No business changes or mandated regulatory requirements (retail restructuring)
  - Value-to-cost <1
- CIS replacement should be evaluated as an investment using real option analysis
  - ROA heavily favors moves that give you more flexibility if market condition/corporate strategy change
- CIS should not constrain your business



# Traditional CIS Replacement Business Drivers

## **Retail market liberalization**

- Requires new functionality (customer centricity, flexibility, unbundling, market interfaces) which legacy CIS usually does not support. Also requires solution that provides low cost to sell/serve.

## **M&A**

- Increased number of M&As in energy and utilities will seek CIS consolidation as a cost reduction instrument (economies of scale)

## **Operational Excellence**

- M-2-C cost reduction and end-to-end business processes integration to support customer service optimization

## **Technology Obsolescence**

- Reducing risk associated with lack of resources to support application or cost of supporting technical platform



# Smart Grid Related Business Drivers

Regulatory mandated advanced metering initiatives to:

- support price transparencies
- influence customer behavior
- integrate consumer owned renewable sources

Can your CIS address upcoming needs?

- Transformation of the energy provisioning
  - From commodity products to information “heavy” product
- Change in billing paradigm
  - From batch cycle billing to incremental “real time” billing
  - “Just in time” billing update
  - Time-of-Use/Dynamic Pricing
  - Feed-in-Tariff
  - Electric vehicle charging



# A History: From Monolithic to Modular

## Evolution of Customer Systems at Utilities







# Why It's Occurring:

In the face of uncertainty, it lowers risk vs. rip and replace

## Specific benefits for Utilities

- Flexibility
- Scaled investment
- Lower risk
- Best of breed enablement
- Solve targeted pains
- Project transparency
- Test technology on a smaller scale
- Maintain good parts of legacy – extend investment



# Toronto Hydro – Key Success Factors

- Project Team
- Data Conversion and Go-Live Dress Rehearsals
- Functional/Performance Testing & Parallel Billing
- Training and “day in the life”
- Production Environments/Batch Processing
- Stakeholder Reporting
- Customer Communication/Social Media
- Post Go-Live Day 2 Project
- Transition to IT support



# Project Team

- Toronto Hydro did not use an overall System Integrator but they had
  - SME's from each business area assigned full time to the project
  - Vast majority of the team located together at one location
  - Separate conversion team dedicated to the project
  - Effective Project Management Office and tools
  - External partners for select roles



# Data Conversion and Go-Live Dress Rehearsals

## Data Conversion

- Dedicated PM for Data Conversion
- For development, we contracted with a vendor who specialized in data conversion
- 20 partial and 9 full practice runs
- Customer history not converted – Read only Banner

## Dress Rehearsals

- Dedicated PM for Dress Rehearsals
- Conversion plan was built up through 9 Dress Rehearsals
- Final go-live plan was well over 1,000 tasks, involved 50+ people and took place over 8+ (24 hr) days



# Stakeholder Reporting

- Reporting to executive stakeholders was monthly and then changed to bi-weekly 3 months before go-live
- Status reports included the one page summary and metrics to back up each of the task lines
- Gave executive stakeholders confidence in the accuracy of the reporting
- Introduced the concept of the “assembled, converted, configured” system or AC2 and the rule of thumb that it typically takes 3 months to go-live after achieving AC2



# Lessons Learned

- Project Team
- Business Process
- Automated Testing
- Reporting
- Risk Management



# Project Team

- Use an overall System Integrator to mitigate execution risk for interface and other development work
- With 34+ integration points, we approach as a development project and less as a configuration of packaged software
- Business SME's played the role of Business Analysts on the project but they were effectively lost to the project when they were most needed, i.e. post go-live.
- The core project team should continue with the Day 2 activities for a longer period of time, ideally, at least 12 months



# Business Process

- Projects need to educate process owners on the impact of the new system and engaging their input and “ownership” as early as possible
- Realistically budget for the dip in performance that happens at go-live. This can take up to 12 months to stabilize
- “Operationalize” the system from a business perspective. E.g. train supervisors in new business processes





# Reporting

- The reporting scope was defined early in the project and that was what was delivered
- As the SME's became more familiar with the system, the reporting needs changed but the project stuck to the approved scope
- The result were gaps in operational reporting at go-live some of which are still not closed
- In addition, some reports were in reality, analytic applications and required a much different approach. A thorough review of the requirements would have identified this gap earlier and appropriated the correct resources from the beginning



# Risk Management

- Project manager role can't be understated
- Be realistic about capabilities
- Track and talk about the risks continuously and mitigation strategy
- Staffing is the biggest risk
  - Many people have full time jobs



# Top Reasons Why CIS Projects Fail

## Planning Phase

- The lack of strong executive involvement and project sponsorship, especially if multiple utilities and departments are involved.
- Failure to adequately set expectations via a robust business case.



# Top Reasons Why CIS Projects Fail

## Vendor/Product Selection

- Utilization of third party implementers and consultants who have little knowledge of the CIS product.
- Work is awarded and contracts are developed based solely on RFP responses without conducting due diligence, scope, and confirmation work to fully understand what the vendor or system integrator has proposed and what they believe is in the scope of their work.



# Top Reasons Why CIS Projects Fail

## Implementation

- Inability of the utility to adequately staff the project with experienced and qualified resources who are capable of implementing new software and technology.
- Lack of project/program management to administer and control the entire project, especially the lack of a strong project work program.
- Customization of a product solution versus configuration instead of a goal toward zero modifications.
- Lack of a comprehensive Organizational Change Management (OCM) program that integrates utility policies, business processes and procedures into system training.
- Inadequate planning for data cleansing and a general misunderstanding that this is the utility's responsibility, not the systems integrator or vendor's responsibility.
- The utility goes live before the system and the business is ready for production.



# Questions

