CONNECTIONS SUMMIT

Staffing for Successful Technology Projects

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Abstract

Planning the staffing requirements for your technology project is a critical step for a successful project. This presentation will discuss the different responsibilities that must be staffed through project implementation and also on-going operations. It is discusses roles the can possibly contract out versus those that should be done internally.

And we will discuss lessons learned for successful projects, and where we continue to see problems

Foundations

What is Your Favorite Metaphor for IT Projects?

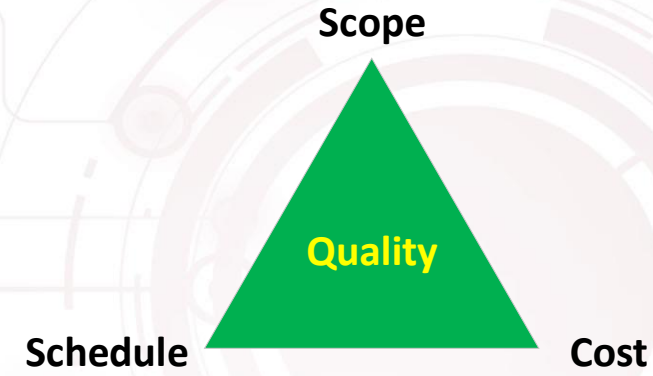
- Box of Scope
- To have the best probability for a successful project, you need to complete all of the work in the box

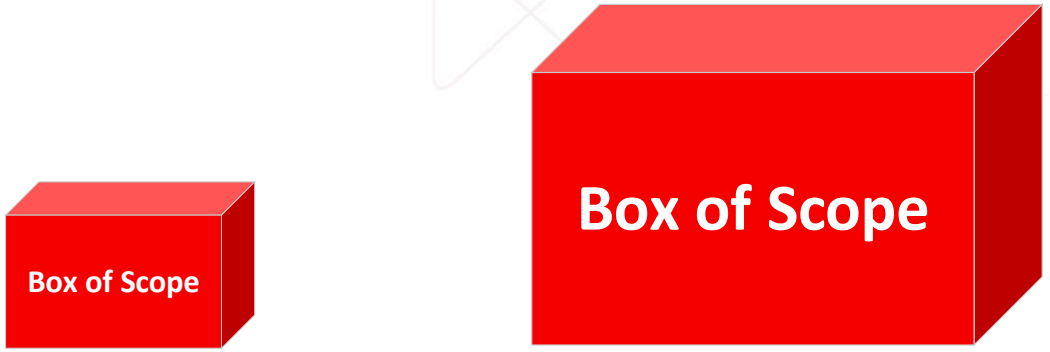
Some Assembly Required

Batteries Not Included

Projects Come In All Different “Sizes”

- “Size” can mean
  - Cost, Schedule, Scope
  - Visibility
  - Expectations





IT Project Assumptions for Today's Discussion

- You are implementing a commercial vendor product
- It will be installed on-premise, in your data center (not SaaS)
- You plan to staff the project with internal resources
- You need the project to be successful (business needs, expectations, and visibility)
- Success is defined as
  - Delivering the business functionality and processes defined in your Project Charter
  - You expect a high-quality project delivered on-time and within budget
  - But the schedule can slip (some) to deliver a high-quality project

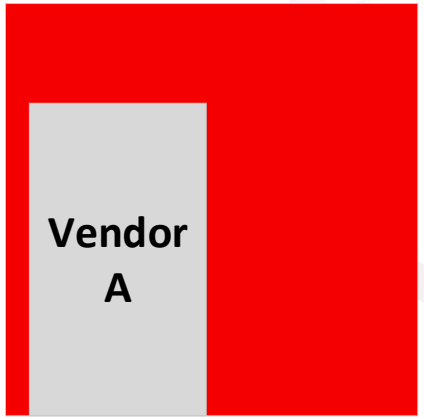
Implementing Successful IT Projects is not the Norm for Utilities

- Gartner study completed approximately 10 years ago
  - 80% of utility IT projects fail to meet their technical, cost, or schedule objectives
    - Some 30% of projects were cancelled
    - Approximately 50% exceeded their original cost estimates
- PMI and others have done studies across industries that show similar levels of "success"

Staffing Your Project

A Key Member of Your Team – Your Software Vendor

- The scope of work you negotiate with your software vendor is a critical step in determining the future success of your project
- The scope of work defines
  - The implementation methodology for the project
  - The work the software vendor will perform
  - A good scope of work will define what the vendor expects of you – workshop attendance, deliverables to review, items they need from you (integrations, test data, etc.)
- Good vendors will faithfully execute their scope of work
- If it isn't in their scope of work, **you** are responsible for it



Example Implementation Methodology

Task	Description
Task 1 – Project Mgt	Daily planning, control, and monitoring of the project
Task 2 – Project Communications	Keeping stakeholders informed (internal & external), staying ahead of rumors, preparing the organization for the changes to come
Task 3 - Design/ Configuration Workshops	Make and document all the business, process, and IT decisions to configure the product to meet your needs
Task 4 – Hardware Track	Define the hardware specs for each environment (Prod, Dev, Test, etc.) Build environments and deploy software
Task 5 – Build	Vendor configures their product You configure your integrations
Task 6 – Testing	Unit testing, integration testing & user acceptance testing
Task 7 – Training	Train-the-trainer and on-line training
Task 8 – Go-Live	The reason you have done all this work

Example Implementation Methodology – Extra Tasks

Task	Description
Data Migration	Needed if you are replacing a system with historical data the new system needs (CIS, financials, asset management, etc.) Design, build and test the migration
AMI – Network and Meter Deployment	Planning the network deployment, make ready work, etc. Planning meter installations, customer communications, deferral/ opt-out strategy, strategy for repairing damaged services, etc.

- Some projects are implemented in a “big bang” approach – all functionality delivered in one phase
  - Common when you are replacing a system
- Other projects can be implemented in multiple phases – repeat the implementation methodology for each phase
  - Better suited to new systems

Project Staffing to Support Project Implementation

Task	Utility Team
Task 1 – Project Mgt	Project Manager
Task 2 – Project Communications	Communications Lead
Task 3 - Design/ Configuration Workshops	Business SMEs Integration SMEs
Task 4 – Hardware Track	IT – Server, Network, Desktop Technicians
Task 5 – Build	Integration SMEs
Task 6 – Testing	Test Lead, Business SMEs
Task 7 – Training	Trainer, Business Users, IT (technicians, DBA, etc.)
Task 8 – Go-Live	All hands on deck
Data Migration	Business SMEs, IT SMEs
AMI – Network and Meter Deployment	Installation Crews, Network SMEs Deployment Lead, internal or external service techs

Project Staffing – Lessons Learned

- Have an initial plan on how you want to transition from project mode to operations at the start of the project
  - Who will run the system and processes every day?
  - Who will provide on-going training, answer questions, train new people?
  - Who will be the sys admin and DBA for the system?
  - Who will monitor the system for service level agreements, exception reports, problem meters, etc.?
- The project phase is your opportunity to build system expertise and super-users that can roll from project mode to operations
- The operations staff needs to be included in the project phase
- Senior managers may have the business expertise, but they won't be operating the systems

Project Staffing – Full or Part-Time?

- For “big projects”, we highly recommend the PM be a full-time position
- Other positions will be “nearly full-time” for stretches of the project
  - Lead business SMEs – design, testing, training, go-live
  - IT leads – design, integrations, testing, go-live
  - Meter Shop (AMI) – first article testing, mass deployment, transition to operations as soon as the first meter is installed
- Do you have full-time positions on projects?
- What will they do with their regular jobs during the busy project periods?

Business and IT Responsibilities

Collaboration Builds Successful Projects

Business Roles

- Overall project management
- Vendor/contract management
- Requirement definition (clear & prioritized)
- Business process definition
- User acceptance testing
- Roll-out planning, training & execution
- Ongoing Subject Matter Expertise

IT Roles

- Technical input to PM
- Technical guidance for vendor/contract management
- Design – IT requirements, integrations, system modifications, security, hardware, network, etc.
- Build – hardware, integrations, modifications, etc.
- Testing – unit, integration, system
- Transition to maintenance

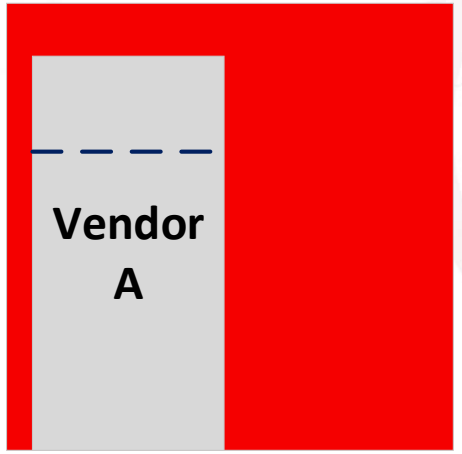
Overall Project Team

Task	Utility Team	Vendor Team(s)
Task 1 – Project Mgt	Project Manager	Project Manager
Task 2 – Project Communications	Communications Lead	NA
Task 3 - Design/ Configuration Workshops	Business SMEs Integration SMEs	Solution Architect(s)
Task 4 – Hardware Track	IT – Servers, Network, Desktop	IT Engineer
Task 5 – Build	Integration SMEs	Configuration Team
Task 6 – Testing	Test Lead, Business SMEs	Solution Architect, IT Engineer
Task 7 – Training	Trainer, Business Users, IT (analysts, DBA, etc.)	Trainer (Train-the-Trainer)
Task 8 – Go-Live	All hands on deck	Solution Architect, IT Engineer
Data Migration	Business SMEs, IT SMEs	Solution Architect
AMI – Network and Meter Deployment	Installation Crews, Network SMEs Deployment Lead, internal or external service techs	TBD

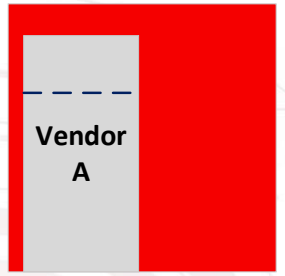
What If We Need Help?

What Options Are Available to Offload Your Scope of Work?

- You can offload work, but you can't offload accountability
- Possible options
  - Increasing the software vendor's scope of work
  - Consider Software-as-a-Service (SaaS)
  - Hiring external consultants
  - ElectriCities assistance
  - ~~Skip steps~~
  - Buy a turnkey system



Increasing the Software Vendor's Scope of Work



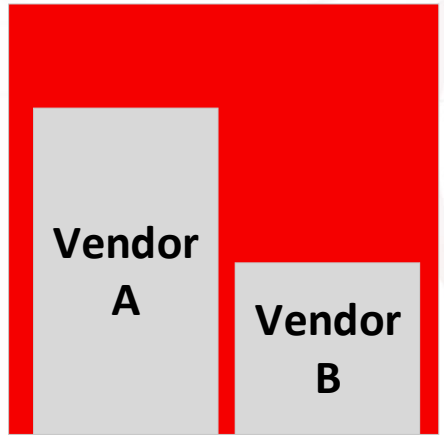
- What Do Software Vendors Do Well?
  - As a company, they know their software and they know how to implement it
    - If they violate this assumption you shouldn't have picked them
  - Their IT staff is usually good at guiding/helping your IT staff build environments and load software (option for extra help)
  - Their IT staff can help tune applications and improve performance (option for extra help)
- Personal opinion
  - It is difficult to ask vendors for assistance on the soft project skills – PM, communications, SME, and testing
  - Some vendors do business process modeling well
  - *Seasoned* solution architects will **generally** understand your business and business process, but they won't understand the **details** of your business

Consider Software-as-a-Service (SaaS)

- This leverages the IT strength of vendors
- This directly reduces some of your scope – for the project and on-going operations
  - It reduces the IT resources needed to configure and manage environments in your data center
  - It reduces system maintenance and DBA responsibilities
  - It increases your network technician responsibilities to initially configure communication paths to the vendor's data center
  - May need to evaluate performance and redundancy of existing communication paths

Hiring External Consultants

- Advantages
  - Consultants can provide expertise in many areas, including soft skills
  - Quality consultants bring expertise from other projects to your team
- Disadvantages
  - Cost (rates and travel expenses)
  - RFP process to select?



Where External Consultants Can Help

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Task 1 – Project Mgt	Project Manager
Task 2 – Project Communications	Communications Lead
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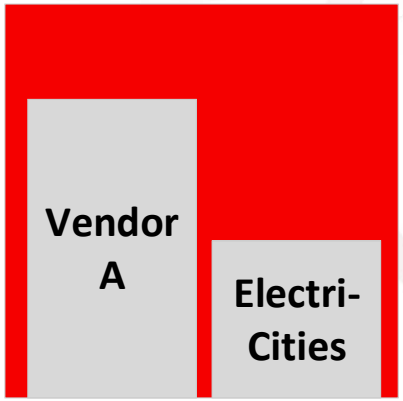
ElectriCities Assistance

- ElectriCities can provide assistance in many IT project implementation areas
- If you use them, you should have a scope of work
- Advantages
  - ElectriCities has experience with the vendors in their portfolio
  - You have a relationship with ElectriCities
  - They are local
  - Rates are lower than external consultants
- Disadvantages
  - I plead the 5th



~~Skip Steps~~

- Back to the beginning….
- 80% of utility IT projects fail to meet their technical, cost, or schedule objectives
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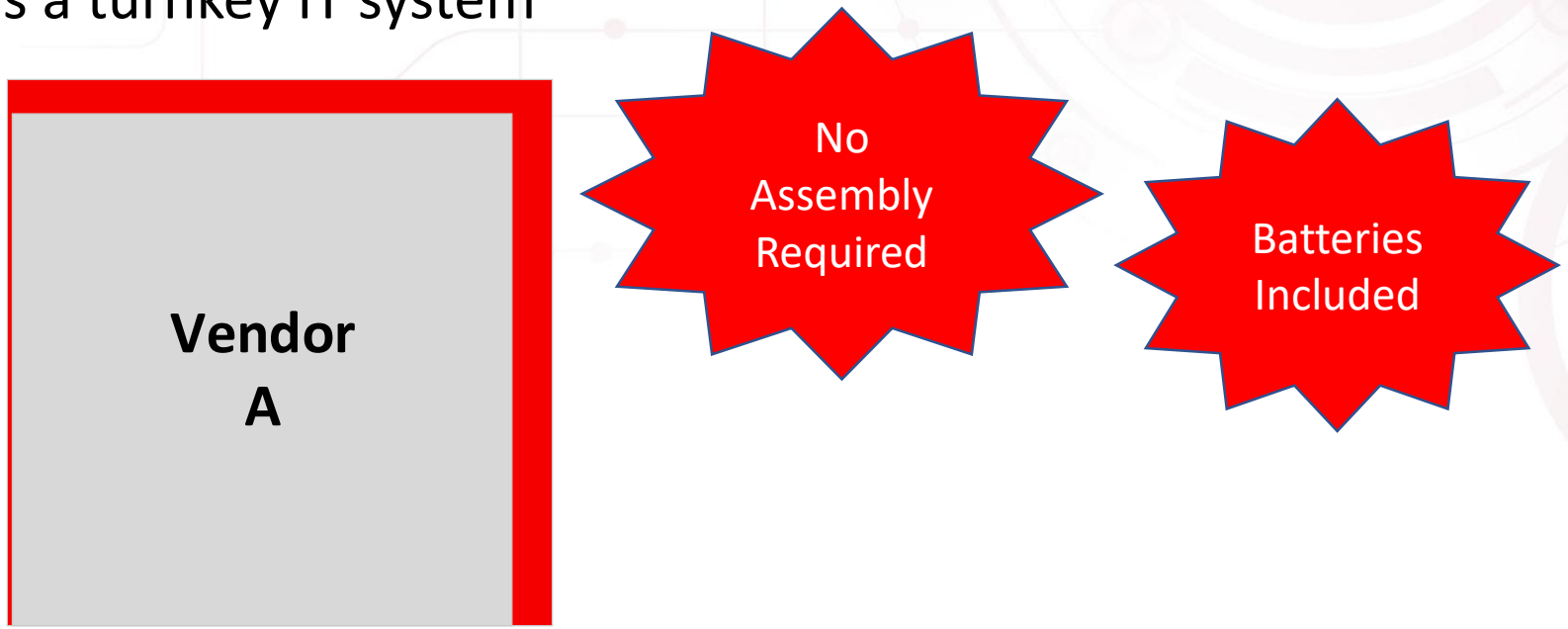
The Fallacy of Turnkey Systems

- The term “turnkey” is appearing in vendor marketing materials and in utility RFPs
- Definition – (adjective) built, supplied, or installed complete and ready to operate (Merriam-Webster)
- There is no such thing as a turnkey IT system



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Closing Thoughts

Where Do We Keep Messing It Up?

- We don’t take the vendor’s scope of work seriously enough
- Systems are more connected now and completing integrations, at a high quality and on schedule, continues to be a struggle
  - Both utilities and vendors have troubles with completing integrations
  - “But they do MultiSpeak…”
  - “We have integrated to that system before...”
  - “They are a partner”
  - “We are all the same company”
- Insufficient testing
- Insufficient time communicating with the people that will use the new system

Lessons Learned for Successful IT Projects

- The project starts when you issue the RFP
- The vendor's scope of work is critical to the success of your project
- Executive sponsors must define the project and define success – Project Charter
- Build contingency into the project budget
- Start well
  - Have your team ready to go
  - Spend time planning the project with the vendor(s)
- Provide strong project management
- Staff the project appropriately and clearly communicate team members' responsibilities
- During design, SMEs need to make decisions, close out action items, and review design documentation promptly

Lessons Learned for Successful IT Projects

- The more disruptive a project is to your staff, the more important project communications becomes

- Don’t expect a vendor to customize their system
- Don’t skimp on testing
- Don’t skimp on training
- If possible, set aside time after go-live to address users’ issues
- If you are not satisfied with the performance of the vendor’s team, speak up

Thank You

- Thank you for your time and the quality discussion
- Mark Hatfield mhatfield@excergy.com

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