From Requirements to Design

Keys to Success

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Agenda

NetworkD and Business Analysis

The NetworkD Implementation Lifecycle
  Balanced Design
  Implementation Team Skill Sets

Two Key Risks to Implementation Success

Mitigate Risk with Business and User Centric Design
  Optimize the processes
  Follow the (Business) Rules
  Make Usability a Success Factor
  Involve the User throughout the process

You Get the Behavior you Measure

Define Success Metrics and Benchmark Baseline
  For Adoption of the Technology
  For Efficient and Effective Work Execution
NetworkD and Business Analysis

- Consultant/Reseller of IT Service Support and Desktop Management SW
- IT Service Support programs are robust workflow and business rule engines for automating and controlling processes
- Out of the box configurations are too "vanilla" to fit most business models
- We must apply the best practices for development to our configuration and customization at each Client
The NetD Implementation Lifecycle

Functional Requirements
- Business Requirements and Rules
- User Goals
- Process Analysis and Improvement
- Success Measures
- Technical Constraints

PREREQUISITES:
- Current State Analysis
- Gap to Best Practice
- Process Redesign

Design Specifications
- Business Rule Logic
- Data Requirements
- User Interface
- Workflow Programming (Inputs, Tasks, Outputs)
- Integrations
- Technical Architecture
- Report Requirements

Build
- Build to Design Spec

Test
- Test to Design Spec AND Requirements (UAT Scripts by Requirement)

Deploy
- Consider Pilot then Rollout
- Communicate and Train
Balanced Design

Usability
What do Users need and desire?

Viability
What will improve and sustain the business?

Capability
What can we buy or build?
Two Key Reasons Why Implementations Fail

VIABILITY

The processes and business rules of the organization are not understood, documented, optimized and enabled by the technology

USABILITY

The User interfaces are designed by technical engineers without user participation or input during the entire lifecycle
Technology does not solve problems, it enables good process

Add process expertise to the implementation team *during requirements*

Map Inputs, Work Steps and Outputs for every process

Compare to known best practice and lean principles in a Gap Analysis

Redesign the process to:

- Repair any broken flow
- Embed best practices for efficiency and effectiveness
- Automate where appropriate
- Include what will be measured for process success
Business rules define the constraints that exist within each process

Example for purchasing an IT asset:

- A purchase order may be issued to one and only one vendor
- Each purchase order will have at least one purchase order line item, but it may have a maximum of X line items.
- A purchase order may not exceed $XX without Finance Dept approval
- Each purchase order line item may order one and only one part type
- No purchase order may be placed that orders parts for more than one customer order
Mitigate Risks
Understand Business Rules

- Use Business Rules to facilitate automation
  - State any conditional logic to enforce business rules (if, then) and any actions required based on the condition (do)
    - Rule: All laptops must be purchased from current contracted vendor
    - If a ‘Part #’ = “1234”, then fill ‘Contracted_VendorID’ field with “Dell”

- Document the relationships between rules
- Define clear change management for the application when an enabled process’ business rules change
Mitigate Risks
User Centric Design

YOU HAVE CHRONIC MAHJOBBIS CRAPPUS BUT THAT'S NOT WHY YOU PUked.

HAVE YOU BEEN EXPOSED TO ANY USER INTERFACES DESIGNED BY ENGINEERS?

YOU HAVE INTERFACE POISONING. YOU'LL BE DEAD IN A WEEK.

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Mitigate Risks
User Centric Design

Functional Requirements
- Understand the User and their goals/needs
  - Process and Task Analysis
  - Context and Concepts

Design Specifications
- Design concept with User and Task Requirements
  - Rapid prototyping

Build
- Evaluate (and redesign) the Concept with the User throughout development
  - Usability

Test

Deploy
Mitigate Risks
User Centric Design

- Is not a User-designed system
- Is a system designed to support users’ needs
- Emphasizes an early focus on Process/Tasks
- Uses empirical measurement and evaluation
- Advocates iterative design based on evaluation results
- Advocates participatory design
- However, *Preference DOES NOT EQUAL Performance* – balance with process improvement
Mitigate Risks
User Centric Design

Business Benefits of UCD:

**Improves**
- A system’s usefulness
- A system’s usability
- A user’s acceptance/adoPTION
- A user’s work efficiency and effectiveness

**Return on Investment**
- Reduced development cost
- Reduced documentation
- Reduced user training
- Reduced liability
- Increased product quality
- Increased customer satisfaction
- Increased sales
- Reduced service & maintenance cost

*If you do not do usability evaluations on your product, then the customer will do it for you.*

_Bias & Mayhew 1994_
Keys to Metric Design:

- Define the strategic goals and success criteria
- Define the questions that need to be answered to know the goals are met
- Define the metrics required to answer the questions
- Define the data required to produce the metrics
- Define the calculations on the data sets to produce the desired result
- Assure required data elements are present in the design
- Assure a vehicle is present to extract, calculate and display results
Drive design success through:

- Mapping, analyzing and improving processes
- Understanding and enabling Business Rules in the design
- Involving the User throughout the lifecycle
- Defining success criteria and measuring performance