Evaluating Work Ticket Management Systems

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- ❖ **What**
  - ❖ is a Work Ticket Management System?
- ❖ **Why**
  - ❖ did we do this?
- ❖ **Who**
  - ❖ we are (our Environment)?
- ❖ **How**
  - ❖ did we do this?

Overview

❖ Not an "IT Help Desk Ticket System".

❖ Managing, Tracking and Recharging of Work Requests

  ❖ "Sprinkler overflowing", "Paint office", Preventative Maintenance, Request Parts from a Stockroom Inventory, "Room too cold", and so on.

❖ Computerized Maintenance Management System (CMMS)

Evaluating Work Ticket Management Systems

- ❖ Current System is "TMA Enterprise", Installed 07/01/1997.

- ❖ 45 "Full" Licenses and 650 "Service Desk", for Facilities and Housing

- ❖ "My Opinions"
  - ❖ Not active in development means potential security risk.
  - ❖ Not utilizing many of the modules that have been purchased.
  - ❖ Shared by Facilities and Housing, and both organizations use TMA differently.
  - ❖ Many of the current business practices need to be evaluated and upgraded.

Why Did We Do This?

- ❖ About 25,000 Students.

- ❖ Over 10,000 Work Requests Last Year.

- ❖ About 20,000 Work Tickets, including Over 2500 for Preventative Maintenance.

- ❖ About 105 Custodians, 30 Grounds Keepers, 51 Skilled Trades and 11 Building Maintenance Workers.

UCSB - Our Environment

❖ Facilities Associate Director attended a Facilities conference in Sacramento.

  ❖ Presentation by Fresno State University on AssetWorks

  ❖ Key Words: Less Paper, Mobile Devices

❖ Review by APPA (Association of Physical Plant Administrators)

  ❖ TMA Outdated.

  ❖ Suggested: Less Paper, Mobile Devices

❖ Formed the "Innovation Team" to Explore How We Can Improve Things.

❖ Fresno State demonstrated AssetWorks implementation to the Innovation Team.

❖ Began the Evaluation Process.

How Did This Begin?

- ❖ Formed the Evaluation Team.

- ❖ Selected Several Candidate Vendors for Evaluation.

- ❖ Drafted a Set of "Work Ticket Requirements".

- ❖ Invited Vendors for the "Dog and Pony Show".

- ❖ Created List of Customer Survey Questions.

- ❖ Conducted Customer Surveys.

- ❖ Performed Business Process Analysis.

- ❖ Created "End User Scenarios".

The Evaluation Process – Part 1

- ❖ Created the "Benchmark Scenarios".

- ❖ Invited Vendors for the "Benchmark Scenarios".

- ❖ Rated the "Benchmark Scenarios".

- ❖ Asked for "Ballpark Estimates".

- ❖ Reviewed the Costs and the Evaluations.

- ❖ Made the Choice!

- ❖ Cost Justifications.

- ❖ Asked for Approval.

The Evaluation Process – Part 2

❖ Formed the Evaluation Team.

❖ Selected Several Candidate Vendors for Evaluation.

❖ **Drafted a Set of "Work Ticket Requirements".**

❖ Invited Vendors for the "Dog and Pony Show".

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The Evaluation Process – Part 1

	Computerized Maintenance Management System (CMMS) User Requirements	Prio? (0 - 5)	Reqd?	Mobile?
5	Ability to implement customized workflows such as for trades. For example, Electrician marks work ticket as complete then ticket goes to Carpenter, who performs work then marks ticket as complete, then ticket goes to Painter for job completion.			Y
6	Ability to manually override a customized workflow at the job site.			Y
7	Ability to request parts for a work ticket and be notified if part in stock or needs to be ordered.		Y	Y
8	If a requested part needs to be ordered, inform ticket assignee of estimated delivery date based on past order history.			Y
9	Send email with Work Request Status to Work Requestor / Reporting Party (RP). If someone other than the Reporting Party is submitting the Work Request, then system must be able to allow Reporting Party's email address to be entered.		Y	Y
10	Support GPS in the field job site as part of the Work Request.			Y
11	Work Request Review and Routing to Customer Service.		Y	
12	Separate Task Codes from Housing.			
13	Enter Inspections.		Y	Y
14	Attach pictures to Inspections.		Y	Y
15	Timer to Track Work Request from Start to Finish, and allow Pausing such as when waiting for Parts.		Y	Y
16	Alert Work Assignee when needed Part becomes Available.		Y	
17	Create Work Order from a Work Estimate.			
18	Ability to Create a Work Order.		Y	Y
19	Requesting Party receive confirmation (or denial) of a Work Order Request.		Y	Y
20	Ability to view status of Work Order Request.		Y	Y
21	Send automatic email message to customers as work status			
22	Ability to Close the Work Order.		Y	Y

Sample Work Ticket Requirements

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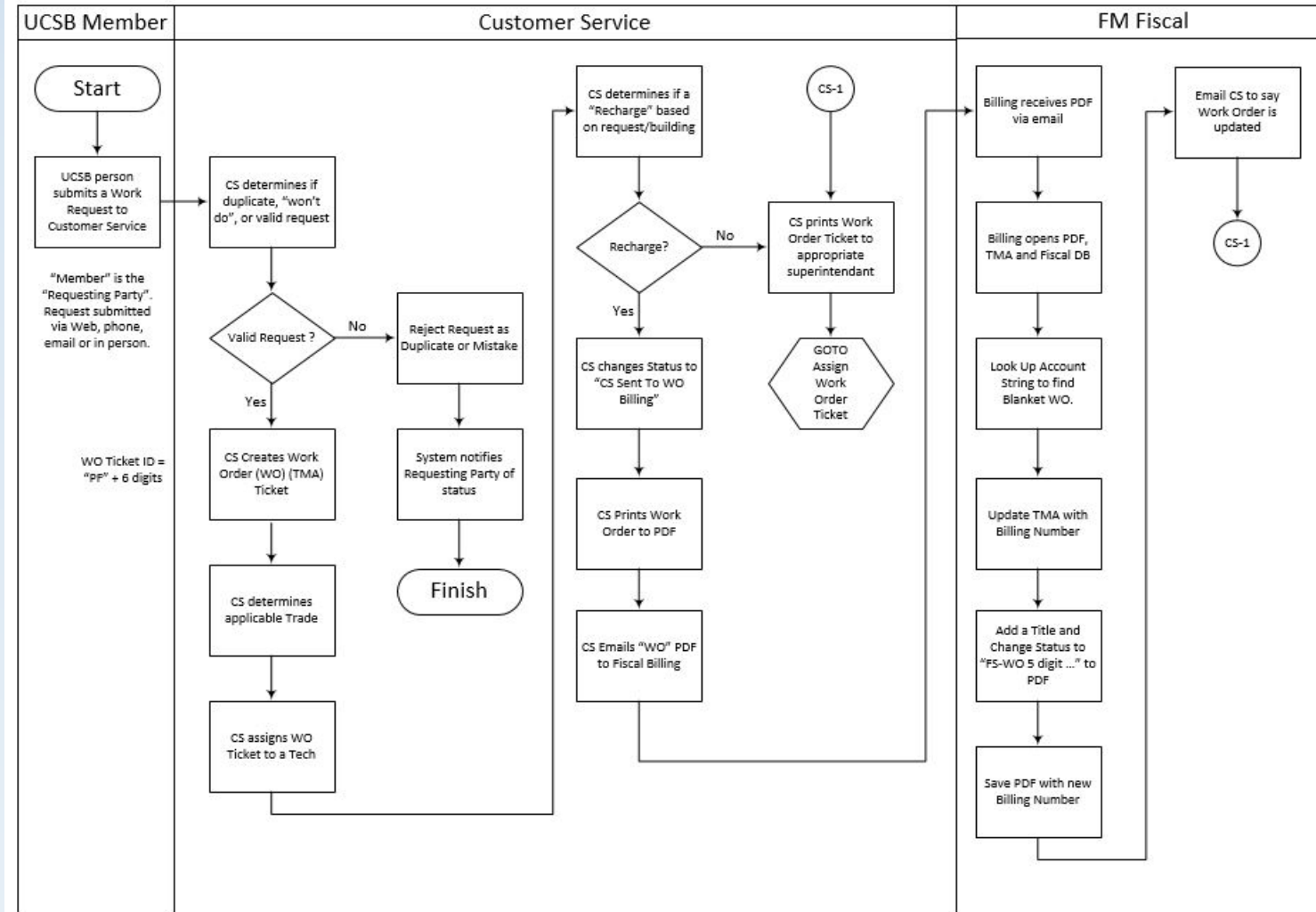
The Evaluation Process – Part 1

1. How long has your organization been using "Brand X" software?
2. What software was in use before you implemented "Brand X"?
3. Why did you replace the previous software with "Brand X"?
4. If you replaced a legacy software system with "Brand X", how would you rate the migration of data from the legacy system to the new system?
   a) Extremely Easy, Very Easy, Moderately Easy, Slightly Easy, or Not at all Easy?
5. What other software packages did you evaluate before selecting "Brand X"?
6. If you had to do it all over again, would you select "Brand X"?
   a) If not, why?
7. If you could make changes to the current "Brand X" software system, what would they be?
8. How is "Brand X" software being used within your organization?
9. Would you please describe your configuration for using "Brand X" software?
   a) Hosted internally, externally, or "in the cloud"?
   b) Single versus Multiple server configuration?
   c) Client interface: web, desktop, mobile?
   d) Operating system? Version? Database?
10. How many "in house" end users use the "Brand X" software?
11. How frequently do your end users use the "Brand X" software?
12. How many support personnel do you have "in house" to help your end users?
13. Would you recommend this software?
   a) Extremely Likely, Very Likely, Moderately Likely, Very Unlikely, or Extremely Unlikely?

Sample Customer Survey Questions

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❖ Created List of Customer Survey Questions.

❖ Conducted Customer Surveys.

❖ **Performed Business Process Analysis.**

❖ Created "End User Scenarios".

The Evaluation Process – Part 1

Sample Business Process Work Flow

❖ Formed the Evaluation Team.

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❖ Performed Business Process Analysis.

❖ **Created "End User Scenarios".**

The Evaluation Process – Part 1

Scenario 1 – "Walk In" Work Request:

1. UCSB employee ("Reporting Party ") asks Customer Service to create a Work Request by web interface (preferred), by phone, by email, or in person.
2. Customer Service determines if request is a duplicate, if request should be rejected, or request is valid.
3. Assuming request is valid, Customer Service creates a Work Ticket, and determines applicable trade.
4. Ticket sent to Fiscal to determine if recharge is applicable.
5. Ticket returned back to Customer Service to be assigned to appropriate trade.
6. Superintendent receives Ticket on printer.
7. Superintendent decides when work is to be done. Either assign for now, or hold for later.
8. If Ticket is for an "Estimate",
   a) Customer Service creates a Work Request "Estimate" Ticket.
   b) Superintendent creates estimate,
   c) Writes estimate on Ticket,
   d) Returns Ticket to Customer Service.
   e) Customer Service sends email to Reporting Party (RP) with estimate.
   f) Customer Service (or Superintendent in some cases) closes Work Request Estimate Ticket.
9. If Reporting Party submits request through TMA, Reporting Party will get an automated email when Ticket work is completed.
10. If Requesting Party decides for work to be completed, Requesting Party will submit a request to Customer Service that includes a recharge number.
11. Customer Service creates a new Work Ticket.
12. Customer Service sends Ticket to Fiscal for assignment of 5 character Fiscal recharge "Work Order Number".
13. Scenario continues…

Sample End User Scenarios

❖ Created the "Benchmark Scenarios".

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❖ Rated the "Benchmark Scenarios".

❖ Asked for "Ballpark Estimates".

❖ Reviewed the Costs and the Evaluations.

❖ Made the Choice!

❖ Cost Justifications.

❖ Asked for Approval.

The Evaluation Process – Part 2

1. **Scenario 1 – "Walk In" Work Request**
   How would you rate the ease of use (Select one)?

Extremely easy	Very easy	Moderately easy	Slightly easy	or Not at all easy
Comments:				

2. **Scenario 2 – Mobile Device Request**
   How would you rate the ease of use (Select one)?

Extremely easy	Very easy	Moderately easy	Slightly easy	or Not at all easy
Comments:				

3. **Scenario 3 – Duplicate Work Ticket Notification**
   How would you rate the ease of use (Select one)?

Extremely easy	Very easy	Moderately easy	Slightly easy	or Not at all easy
Comments:				

4. **Scenario 4 – Copy Work Tickets to Create New Work Tickets**
   How would you rate the ease of use (Select one)?

Extremely easy	Very easy	Moderately easy	Slightly easy	or Not at all easy
Comments:				

Sample Benchmark Scenarios Rating

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The Evaluation Process – Part 2

	System "X"	System "Y"	System "Z"
One-Time	$331,000.	$25,000.	$106,000.
Consulting & Implementation	$175,000.	$175,000.	$100,000.
Mobile Devices 1-Time	$40,000.	$40,000.	$40,000.
Mobile Devices Annual	$4,000.	$4,000.	$4,000.
Total One-Time	$550,000.	$244,000.	$250,000.
Annual	$50,000.	$400,000.	$30,000.
10-Year Projection	$1,000,000.	$4,000,000.	$520,000.
10-Year after Savings	($800,000.)	$2,200,000.	($1,280,000.)
Benchmark Ratings	45 / 50	45 / 50	37 / 50

TMA/CMMS Alternatives Overview – July 12, 2016

NOTE: All amounts are for display purposes only and do not reflect any actual values.

The Cost Comparisons and Ratings

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The Evaluation Process – Part 2

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Questions?

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