



RCA Name Website over budget
 Report Date 5/8/2009
 RCA Owner Jon B

Root Cause Analysis Report

Problem Statement

Focal Point Website over budget

When

Start Date 5/7/2008 End Date 3/12/2009
 Unique Timing While launching new website

Where

Business Unit Website development group
 Location Seattle, WA
 Facility 5th floor

Actual Impact

Revenue Lost Revenue

	Cost
	475,000.00
Actual Impact Total:	\$475,000.00

Frequency 4 times per year

Frequency Notes The web dev group has projects that go far over budget about 4x year

Report Summaries

Executive Summary

Our agency had an opportunity to build a high-end e-commerce website for a world-class arts organization. This opportunity would allow us to add a marquee client to our portfolio and hopefully gain referrals to similar organizations in the future. Although we knew our margins would be lower than usual, we started the project anticipating a profit. However, a series of events occurred which caused the agency to lose money and deliver the project late.

Cause and Effect Summary

Many of the causes in this analysis relate to a lack of resources within the agency. Although there are certainly other causes contributing to the project's budget problem, when resources assigned to a project are unavailable it triggers a snowball effect of causes which increase the hours required to complete the work. This includes additional training time, additional meetings, and many instances of re-coding due to the lower experience levels of contract developers when they are assigned to the project.

One example is the cause 'Software development team understaffed'. This caused the agency to hire contract developers who were unfamiliar with the API or CMS. It also led to problems with fixing bugs in feature that had already been implemented, such as 3D Secure.

Another resource-related cause is 'Multiple SD's not in original dev plan'. If the team could have better anticipated the software resource shortage and planned for multiple developers from the beginning, a lot of time spent on additional planning and duplicate training efforts could have been avoided.

Solutions

ID	Label	Description		
1	Solution	Hire more full time Software Developers		
	Cause	understaffed		
	Note			
	Assigned	Choose	Criteria	Pass
	Due		Status	Selected
	Term	Choose	Cost	\$0.00
2	Solution	Only hire contractors familiar with the API		
	Cause	contractor hadn't worked with API		
	Note			
	Assigned	Choose	Criteria	Fail
	Due		Status	Identified
	Term	Choose	Cost	\$0.00
3	Solution	Only hire contractors familiar with the CMS		
	Cause	Contractor hadn't worked with the CMS		
	Note			
	Assigned	Choose	Criteria	Fail
	Due		Status	Identified
	Term	Choose	Cost	\$0.00
4	Solution	Plan for multiple software developers on large projects		
	Cause	Multiple SD's not in original dev plan		
	Note			
	Assigned	Choose	Criteria	Pass
	Due		Status	Selected
	Term	Choose	Cost	\$0.00
5	Solution	Don't use Ektron CMS for projects that involve load balancing		
	Cause	Problems with Ektron CMS		
	Note			

Assigned	Choose	Criteria	Pass
Due		Status	Selected
Term	Choose	Cost	\$0.00

6	Solution	Make sure full accessibility scope is understood and accounted for in estimates		
	Cause	Design didn't account for UK laws		
	Note			
	Assigned	Choose	Criteria	Pass
	Due		Status	Selected
	Term	Choose	Cost	\$0.00

7	Solution	Implement a process to define and finalize error messages before development		
	Cause	no process to gather error msg text		
	Note			
	Assigned	Choose	Criteria	Pass
	Due		Status	Selected
	Term	Choose	Cost	\$0.00

8	Solution	Charge for all out of scope items		
	Cause	out of scope changes not charged for		
	Note			
	Assigned	Choose	Criteria	Fail
	Due		Status	Identified
	Term	Choose	Cost	\$0.00

9	Solution	Pad 3D secure estimates to account for risk involved in dealing with multiple parties		
	Cause	3D Secure tested multiple times		
	Note			
	Assigned	Choose	Criteria	Pass
	Due		Status	Selected
	Term	Choose	Cost	\$0.00

10	Solution	Only assign PMs to large projects who are familiar with the API		
----	-----------------	---	--	--

Cause PM unfamiliar with API technology

Note

Assigned Choose

Criteria Pass

Due

Status Selected

Term Choose

Cost \$0.00

Team

ID	Label	Description	Label	Description
1	First Name	Jon	Last Name	Boisoneau
	Phone (1)		Phone (2)	
	Role	Project Manager	Group	
	Email			
2	First Name	Stephanie	Last Name	Cook
	Phone (1)		Phone (2)	
	Role	Quality Assurance	Group	
	Email			
3	First Name	Dan	Last Name	Pfingst
	Phone (1)		Phone (2)	
	Role	Software Developer	Group	
	Email			
4	First Name	Jennifer	Last Name	Smith
	Phone (1)		Phone (2)	
	Role	Technical Analyst	Group	
	Email			

Evidence

ID	Label	Description
1	Evidence Cause(s) Location Link Contributor Type Quality	client testimony Client max budget was \$650,000 (3,700 hrs) Design didn't account for UK laws UK accessibility laws are more stringent than US Color contrast values defined for UK sites client changed mind several times QA not able to complete all testing in time insufficient training agency wanted the work Choose Document ★★☆☆
2	Evidence Cause(s)	agency testimony Marquee client Marquee clients increase sales Marquee clients increase referrals actual hours = 6,425 Software dev (SD) hours over budget actual SD hours = 2,600 SD budget = 1,400 hours Inexperienced developer on project increased development complexity Problems with Ektron CMS hired a SD contractor SD resources needed company resources unavailable understaffed other projects need SD resources multiple SD's overlapping functionality Multiple SD's not in original dev plan project was late added resources business requirements shared components index search not working

doesn't work in load balanced environment
Website load balanced
CMS customer support poor
WD hours over budget
WD Budget was 600 hours
error msgs updated several times
out of scope changes not charged for
Didn't know color contrast values
Unaware the values existed
Didn't know to look for them
Agency decided to accept limited client budget
Budgeted QA hours were 430
More builds needed to be tested than planned for
Additional resource spec training
3D Secure tested multiple times
Tested 67 builds
planned for 30 builds
features required testing
regression testing needed
additional QA resources needed
resources didn't know the spec
didn't set change constraints with client
poor client communication
no process to gather error msg text
client requested changes
PM didn't charge
project was late
relationship in jeopardy
testing needed to be done
Original QA resources not able to complete it
multiple parties involved
multiple time zones
could not get immediate test results from bank
cumbersome process
needed testing
PM helped with QA
Lack of resources
Testing required more resources
PM helped with spec knowledge transfer
PM helped with company policy knowledge
PM helped with CMS knowledge
New devs required additional mgt
PM hours over budget
Budgeted PM hours were 600
PM unfamiliar with API technology
new to company
API is complex

not enough company resources to train
 company resources needed to train
 Knowledgeable emp busy with billable work
 training time is not billable
 budgeted hours = 3,700

Location

Link

Contributor

Choose

Type

Direct Statement

Quality

☆☆☆☆☆

3

Evidence

contractor testimony

Cause(s)

contractor hadn't worked with API
 Contractor hadn't worked with the CMS
 Testing needed to be completed

Location

Link

Contributor

Choose

Type

Direct Statement

Quality

☆☆☆☆☆

4

Evidence

Hours tracking logs

Cause(s)

Actual WD hours exceeded 600 (1,200)
 actual SD hours = 2,600
 accessibility issues exceeded estimate
 QA hours over budget
 Actual QA hours = 700
 Actual PM hours = 900

Location

Link

Contributor

Choose

Type

Document

Quality

☆☆☆☆☆

