

Enabling Lean Through Customer-Focused Metrics

LFM 2009 Internship Project

Dell Inc. Global Consumer Services & Support, Process Engineering

Site supervisor: Tomasz Wala, LFM '99

Management Advisor: Dr. John Sterman

Engineering Advisor: Dr. Deborah Nightingale

Avijit Sen ■ June 4, 2009



Big Idea

- Re-cast Dell's call center metrics in terms of LEAN metrics (value added vs. non-value added), project code name: CustFM
 - **Customer Focused Metrics**
- Break away from an agent-facing measurement system and calculate metrics from the customer perspective
- Uncover blind spots in Dell's contact-center performance

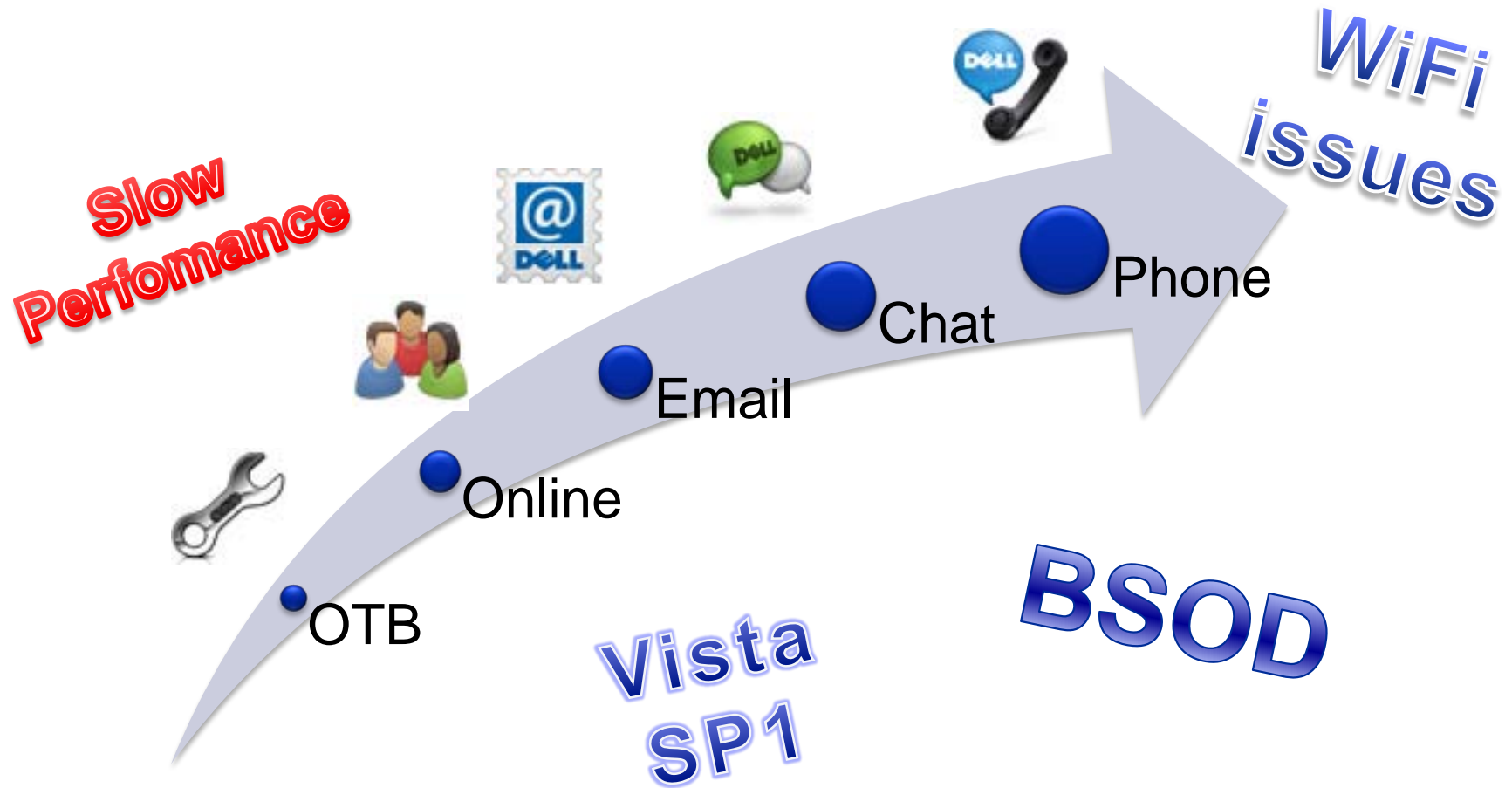


Context in 2008: Tumultuous

- Dell still recovering from “Dell Hell” blog posts, and lawsuits about customer service
- Leadership Change: “Maniacal” focus on cost-cutting
 - Major layoffs in Consumer group
 - Project cancellations
 - Cancellation of Lean call center initiative
- World’s largest Siebel ERP implementation underway
- Cannot reconcile two key objectives:
 - Customer Experience vs OpEx



Objective: Reduce Cost of Expensive Support in All Channels



Key Insight

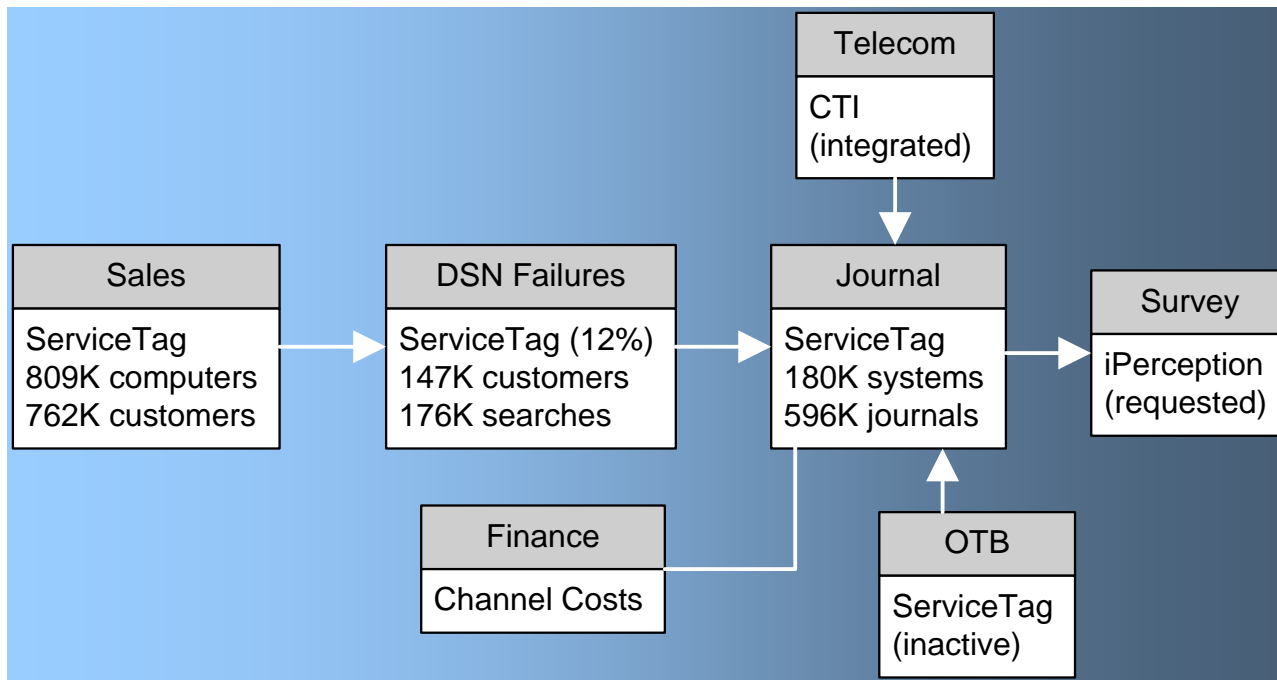
DELL has *no* visibility into cost of supporting individual customers

CustFM is an analytics framework that delivers this visibility

- High resolution
- Emphasizes OpEx reduction
- Tracks with CE

CustFM Approach: Massive Data Integration

- 1 Entire Quarter of data (millions of records)
 - Consumer laptop and Desktop sales
 - Web, Email, Chat, Phone presence (all queues)



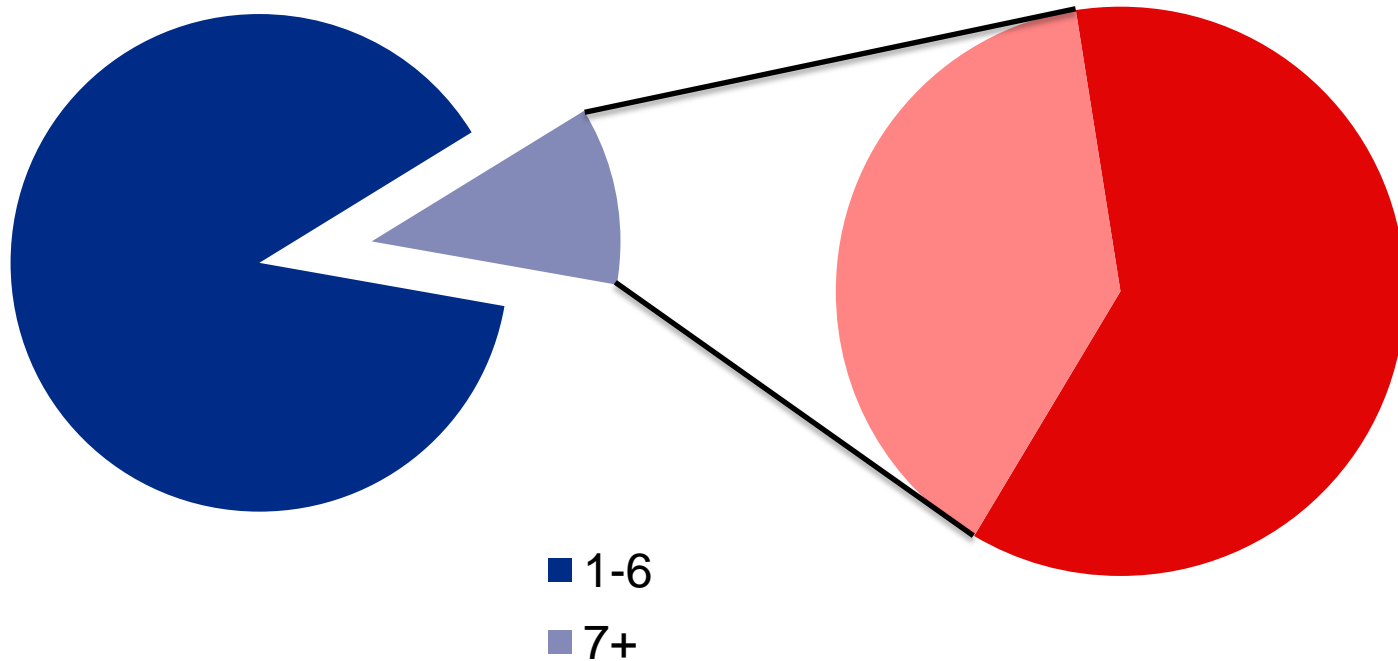
Approach: Create Lean Metrics

Metric	Description	Formula
<u>cCPR</u>	Customer Contacts Per Resolution across all possible channels (OTB, Online, email, chat, phone).	$\frac{\sum_{CustID} \text{Cases}}{\sum_{CustID, CaseID} \text{Contacts}}$
<u>cTPR</u>	Customer Time per Resolution, time between first contact and final resolution	$\sum_{CustID, CaseID} (T_{\max(\text{JournalSeq})} - T_{\min(\text{JournalSeq})})$
<u>cVART</u>	Customer Value-Added Resolution Time	$\sum_{CustID, CaseID} \text{Interaction Time}$
<u>cNVART</u>	Customer Non-Value Added Resolution Time	$\sum_{CustID, CaseID} (cTPR - cVART)$
<u>cNVANRT</u>	Customer Non-Value Added Necessary Resolution Time	$\sum_{CustID, CaseID} (\text{QueueTime} + \text{HoldTime})$
<u>cVAR</u>	Customer Value-Added Ratio	$\frac{cVART}{cTPR}$
<u>OwnR</u>	Ownership Ratio: Agents per Resolution	$\frac{1}{\text{distinct}(\text{Badge})_{CaseID}}$
<u>cCUPR</u>	Customer's Channels used per resolution	$\sum \text{distinct}(\text{ContactType})_{CaseID}$

Shocking Findings

Unique Users

Proportion of Contacts



Next Steps: Numerous Areas of Application

People

- Metrics usable by several Dell departments, e.g., call center forecasting, service monetization

Process

- Call center CRM
- Issue early-warning
- Kaizen impact measurement

Technology

- SQL Server
- SAS
- Siebel CRM

Product

- CustFM dashboard
- Customer satisfaction Cpk capability



Lean Metrics Approach Compatible with Dell Culture

- Dell is driven by measurement. Measure the right thing and people will do the right thing for the customer!



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