

e

GE Appliances

*Using Six Sigma to Digitize
Commercial Processes...*

Creating a Culture

April 12, 2001



“...turn the face of Six Sigma outward toward the customer, and make that customer’s profitability the number one priority in any process improvement...”

Customer Satisfaction Equation

$$\text{Satisfaction} = \text{Matched Expectations} * \text{Performance} * \text{Relationship}$$

Customer Y's: "VALUE" "RESPONSIVENESS" "RELIABILITY" "GROWTH"

CTQ's

Innovative Products
Pricing
Asset Efficiency

Ans. Rate/Speed
Complaint Res Time
QOS

Product Quality
Availability (Product & Parts)
On-Time Delivery
Billing Accuracy
Undamaged Product

Brand Commitment
Customer WOW!s
e-Initiatives/Productivity

Six Sigma Projects

All Projects are Linked to the Satisfaction Equation

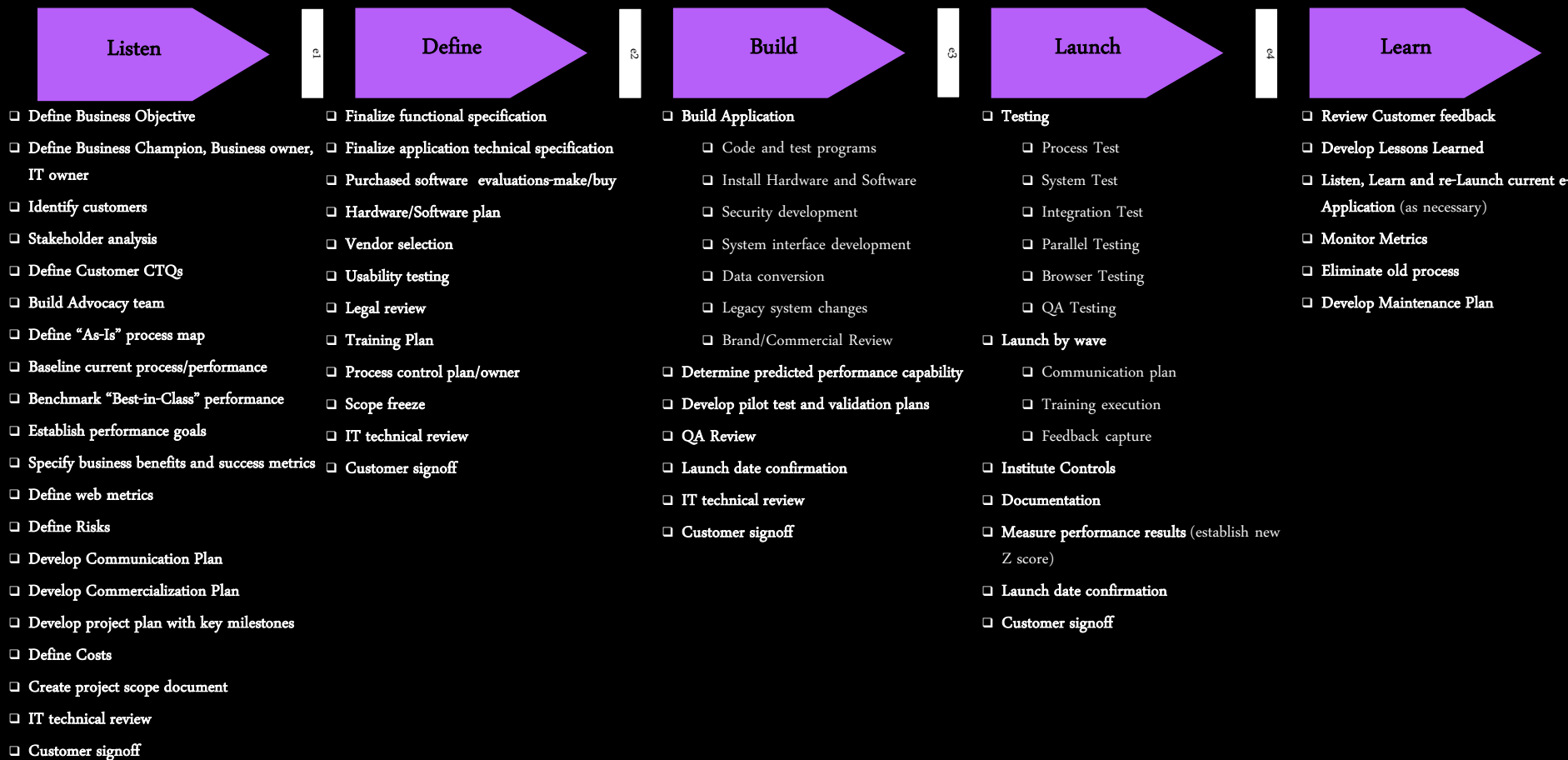
Value - 'you give me products that meet my needs'

Responsiveness - 'you are quick to help'

Reliability - 'I can count on you'

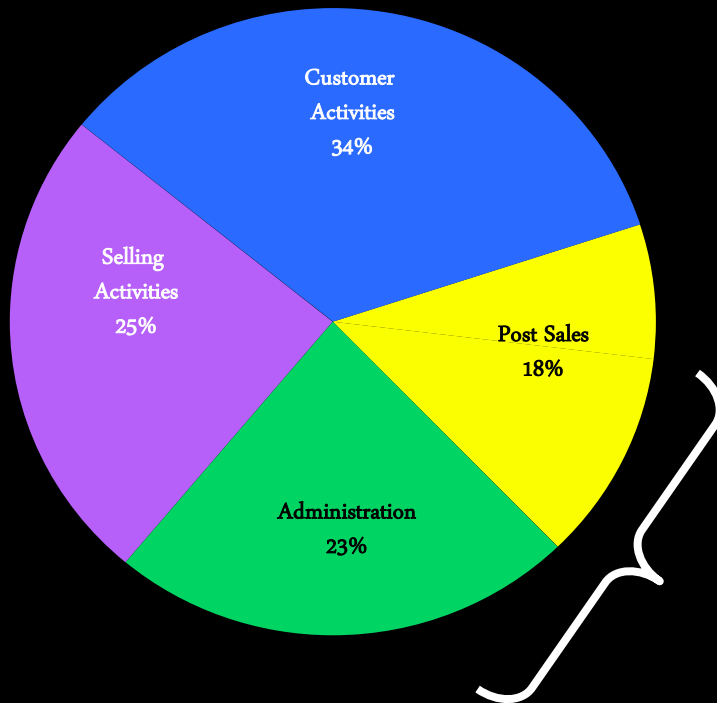
Growth - 'we can build our business as partners'

e-DFSS Process



E-DFSS Process Followed

ASM value added time



ASM Time Study

Six Sigma Initiatives in Productivity

Goal: 80% customer touch

Tools:

Post Sales

- Spiff ExpressNet
- Nat'l Acct Sell Thru

Order Mgmt

- e-Order Tracking
- Wireless - Customer and ASM

Pre-Sales

- e-Agreements
- Mix Tools

Increasing sales effectiveness with 17% fewer people

Showcase On-Line:

Digitization using Six Sigma



e-Agreements Phase I and II

Summary

- Project Name
- Project Description
- Performance Goals
- Customer CTQs

Current Process

- **Baseline:** Before Process Map
100% paper agreements filed in Region office.
Created and filed in triplicate
- **Benchmark:** Digital signature technology

Project Members

- Business Owner
- IT Owner
- Customers
- Stakeholders
- Advocacy Team

Project Metrics

- **Financials:** **\$M**
 - Benefits **\$255M (annual)**
\$80M paper out Showcase
 - Costs **\$90M Capital investment**
- **Metrics:** Number of agreements submitted
and touch points eliminated.

One-stop Sales Agreements management tool via the web

Voice of the customer is critical...

DILBERT

BY SCOTT ADAMS

WEDNESDAY

MAY
10

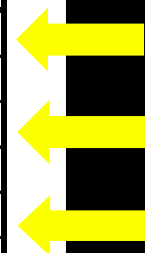


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Project QFD (Top CTQ's)

Product Requirement

Customer Expectation	Importance	Product Requirement							Total
		Accessability of App	Data Element Storage	Click Stream	Intuitiveness of App	Pre-Populated	Mandatory Info Only	Minimum Touch Points	
Ease of Use	4	H	L	H	H	H	H	M	184
Accuracy/Legal	5	L	H	L	L	L	H	L	115
Customer Ease of Use	5	H	L	H	H	H	L	L	195
Minimize Paper/Productivity	3	L	L	H	H	H	H	H	141
Speed/Reduce Cycle time	4	M	L	H	H	H	H	H	196
Total		101	61	149	149	149	149	73	



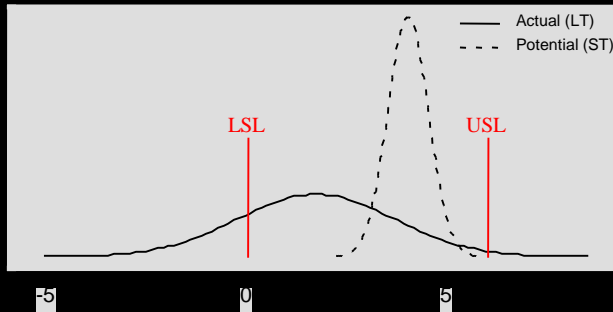
Big Y's: Ease of Use for ASM's and Customers, and Speed

Measuring the Big Y's

Speed

Measuring speed using Loadrunner^R Speed Testing Tool

Process Performance



Cnet mean =
6 sec upper spec

GE benchmark =
4 sec target

Process Benchmarks

	Actual (LT)	Potential (ST)
Sigma (Z.Bench)	0.83	3.95
PPM	203354	39.3725

Connection Speed		DSL								
Runs	Page	1	2	9	10	Total	Average	Max	Min	STDEV
1	M_SalesTools	6.8098	8.7025	6.5394	6.3692	28.4209	7.105225	8.7025	6.3692	1.080194
2	reports_more	0.5608	0.5608	3.5651	0.5808	5.2675	1.316875	3.5651	0.5608	1.498846
3	eAgree_admin	1.0014	0.9113	0.7013	0.8612	3.6752	0.9188	1.0014	0.8612	0.059169
4	Sales_agreements	0.9113	1.7826	1.8927	1.7826	6.3692	1.5923	1.8927	0.9113	0.456957
5	P2	0.711	0.691	0.691	0.671	2.764	0.691	0.711	0.671	0.01633
6	Cust_Code	0.681	0.681	0.671	0.681	2.714	0.6785	0.681	0.671	0.005
7	cust_acct	1.7225	0.7911	0.8112	0.681	4.0058	1.00145	1.7225	0.681	0.484095
8	cust_acct_v2	2.9242	2.0029	2.1231	2.093	9.1432	2.2858	2.9242	2.0029	0.428653
9	log_out	0.5708	0.4707	0.4807	0.5508	2.073	0.51825	0.5708	0.4707	0.049973
	Total Process Time	15.8928	16.5939	17.6755	14.2706		16.1082	17.6755	14.2706	1.427761
	Average Page	1.765867	1.843767	1.963944	1.585622		1.7898	1.963944	1.585622	0.15864
	Target (Internet)	36 sec.	36 sec.	36 sec.	36 sec.					

Signing into "My Sales Tools" longest time, excellent speed during process

Gantt Chart

Showcase (Phase II) Accelerated

Action	Sep-00	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	March	April
Business Need Identified	█							
VOC CTQ's Identified	█							
Functional Specs		█						
Technical Spec		█	█					
Begin Coding			█	█	█			
Prototype Review				█	█			
VOC Feedback				█	█			
Usability Studies				█				
Adoption of Input				█	█			
Code Modification					█			
Final User Acceptance Testing					█			
Rollout					█			
Phase II Identification						█		
Showcase On-line Scope						█		
Begin Coding						█		
Prototype Review						█		
VOC Feedback						█	█	
Usability Studies							█	
Testing							█	
Rollout								█

Code Re-use was key to accelerated second phase

Simple "Click and enter" to create

GE e-Agreements: Customers List - Microsoft Internet Explorer provided by GE Appliances

Address: http://genet2-dev.appl.ge.com/eAgreements/Dispatcher

SALESnet

Home Hot Line Feedback Help Logout

List of customers for asm code: NC [Back To Search Window](#)

Customer Name	Lead Customer Code	Customer Id	Action	Status	Created Date	Signed Date	Process
CHENOWETH FURNITURE&APPL	FFD37	136737					
		2001_Showcase_Program	Create	Not Created			
		2002_Showcase_Program	Create	Not Created			

Send Questions To: [@GEA Sales Agreements](#)

Local intranet zone 1:59 AM

ASM clicks on "Create" to start a 2001 Showcase Display Registration Form.

Operationalizing Mix Index with customers

GEA e-Agreements: 2001_Showcase_Program - Microsoft Internet Explorer provided by GE Appliances



2001 GE Showcase Dealer Registration Form

Dealer Information:

Dealer name: CHENOWETH FURNITURE&APPL Dealer Account Number: FFD37
Mailing Address: 10312 TAYLORSVILLE RD Ship to Address:
City: LOUISVILLE City:
State: KY Zip: 40299 State: Zip:
Phone: 5022678571 Inventory Finance Company: GE
Fax:

Floor Display Information:

Number of GEA Units Displayed: 60 Total Display Amount \$: 25000
Total Units on Floor: 100 Sales Volume Penetration: 65
Floor Penetration: 60 Total GEA GSB 2000: 350000
Mix Index 2000: 3
Value Added Score: **3.07**

Display Requirements:

Profile:	18
GE:	27
Hotpoint:	8
Total Units:	53

<u>Summary</u>			
SxS Refrigerator:	8	Freezers:	2
Ranges:	11	Washers:	6
TF Refrigerators:	8	Dishwashers:	6
Dryers:	6	Spacemakers/Advantium:	6
			Total Units: 53

Showcase Dealer Audits:

GE Appliances reserves the right to randomly audit our dealers throughout the year. If dealers are found to be less than 90% compliant, they will have 30 days from the time of the audit to become compliant. Dealers found to be less than 75% compliant will have all benefits associated with the Showcase Program revoked until another audit is performed and dealer has become compliant.

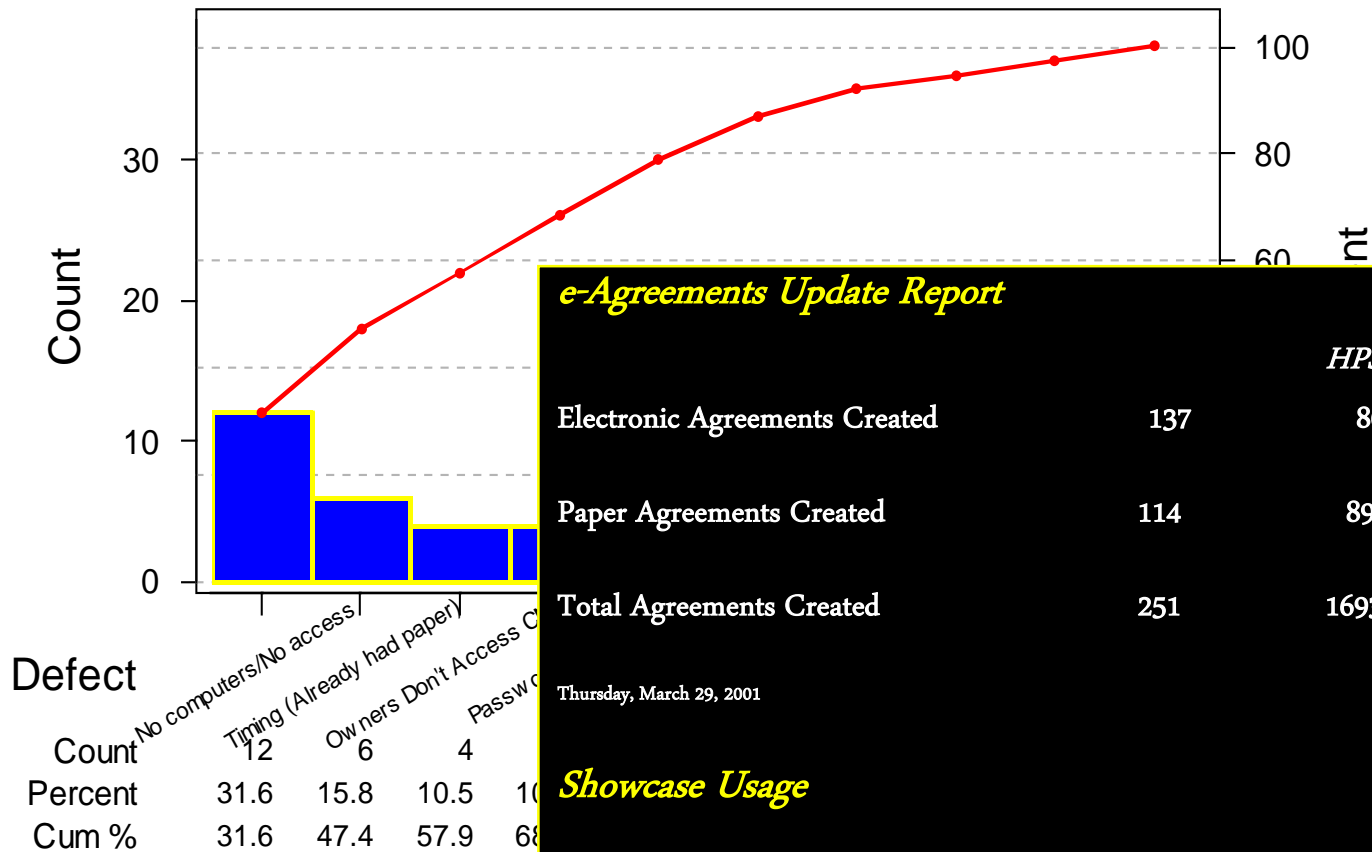
[Click Here to Print Agreement](#)

[Click Here to close](#)

All input information
is automatically input
into the registration form.
Value Added Score =
 $f((\text{GSB Index}).30 \times (\text{Mix Index})).70$

Sales Agreement (Phase I) Post Mortem

Reasons For Paper Agreements



e-Agreements Update Report

	HPS	RTL	TOTAL
Electronic Agreements Created	137	800	937
Paper Agreements Created	114	893	1007
Total Agreements Created	251	1693	1944

Thursday, March 29, 2001

Showcase Usage

Showcase Online 100%

Showcase agreement 100% on-line requirement

Keys to GE's Six Sigma Success

- Six Sigma has become a key element of business strategy, directly linked to financial performance and customer satisfaction
- Six Sigma is viewed as more than a toolset for quality; it's a cultural change, aimed at driving operational excellence and a customer-centric focus
- Six Sigma has been extended to Design for Six Sigma (DFSS) - the design of new products and business processes
- Still a Corporate Focus, 5 years after introduction

"This is the most important initiative this Company has ever undertaken. (It) will fundamentally change our Company forever."

John F. Welch, Jr.

Letter to GE Officers, May 18, 1996