GenTech
CASE STUDY

Executive Summary

Problem Introduction

Metrics & Baseline of Measure

Root Causes

Improvement & Outcomes

Team 334

GenTech TECH SUPPORT

Abstract

- **P&L Status**: Achieved an 18% revenue reduction over the past two years

- **Employees**: 150,000
  (25 sellers and 100 bid support specialists)

- **Business Operating Mode**: Implemented a streamlined proposal process by eliminating unnecessary hand-offs, reducing complexity, and shortening cycle times

- **Products**: zSeries, xSeries, SWG, Consulting, ESW

Project Significance

Project Charter

Process Map

Prezi

Project significance

* **28%** of proposals exceed a 35-day turnaround

* Proposal development ranges from approximately **10-70 days**

* Bids Lost to Competitors Due to Prolonged Cycle Times

* Non-standard practices, unnecessary approvals, inefficiencies, and redundancy

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Project Charter

Optimising Proposal Creation for Global Market Competitiveness

Business Problem

Gentech, a leading provider of software, hardware, and comprehensive business solutions, has seen a significant decrease in its annual revenue. In particular, there has been a $108 million downturn, marking an 18% decline over the past two years due to operational inefficiencies.

Executive Sponsor
- Elliott Smith(CEO)
- Black Belt Champion
- Jeff Hugh

Objective

To reduce the cycle time of the proposal creation process by 15% by the end of Quarter 4, 2023. Thereby increasing operational efficiency and competitiveness in the marketplace.

Steering Committee
- Elliott Smith
- Grace Monroe
- Jeff Hugh

Scope:

In-Scope	Out-of-Scope
• Review and re-engineering of the current proposal creation process. • Training and reorganization of the bid support staff to handle requests more efficiently. • Implementation of streamlined communication protocols between sellers and bid support staff. • Optimization of the ERP system for better request management and tracking. • Adoption of new practices that contribute to the reduction of overall cycle time.	• Overhaul of the entire ERP system. • Changes to the product design and pricing structures. • Reassignment or reduction of the current sales force. • Modification of brand management strategies outside the scope of proposal pricing approval.

Process Owner: Grace Monroe, VP of Supply Chain Operations

Black Belt: Jeff Hugh

Investment:

Risks:
- Resistance to change within the global sales and support teams.
- Delays in implementation across different geographies.
- Misalignment between different teams and process owners.

Team Members
- Sellers from North America, South America, EMEA, Asia Pacific, and Japan.
- Bid Support Specialists
- Product Design Team
- Pricing Team
- Proposal Support Managers
- Brand Manager

DMAIC	No. of weeks	Operational Metric	Baseline	Target
Define	2	Current average cycle time for proposal creation	31 Days	15% reduction in the current cycle time without compromising the quality of the proposals
Measure	4			
Analyze	4	**Expected Benefits**		**Projected Savings**
Improve	6	**Hard Benefits:** Enhance bid acquisition and RFP response capacity to boost project completion rates and elevate revenue. **Soft Benefits:** Enhance seller engagement and customer relationships due to more focus on core sales activities. Improve employee satisfaction due to clearer processes and less time on administrative tasks. **Strategic Benefits:** Reasserting Gentech's position in the market as a responsive and customer-centric company. Long-term increase in market share and profitability through enhanced operational agility.		**Low-Value Proposals:** Cycle Time Reduction: 47.5% decrease to 12.5 days, fostering a smoother workflow. Defect Rate Reduction: 33.7% decrease, enhancing quality on $4M worth of proposals. **High-Value Proposals:** Processing Time Reduction: 17% faster, boosting response and delivery times. Defect Rate Reduction: 34% fewer defects, improving success on proposals up to $550M.
Control	4			

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Process Map

Diagram Key
- Seller
- Bid Support Staff
- Proposal Support Manager
- Product Design Team
- Pricing Group
- Brand Manager
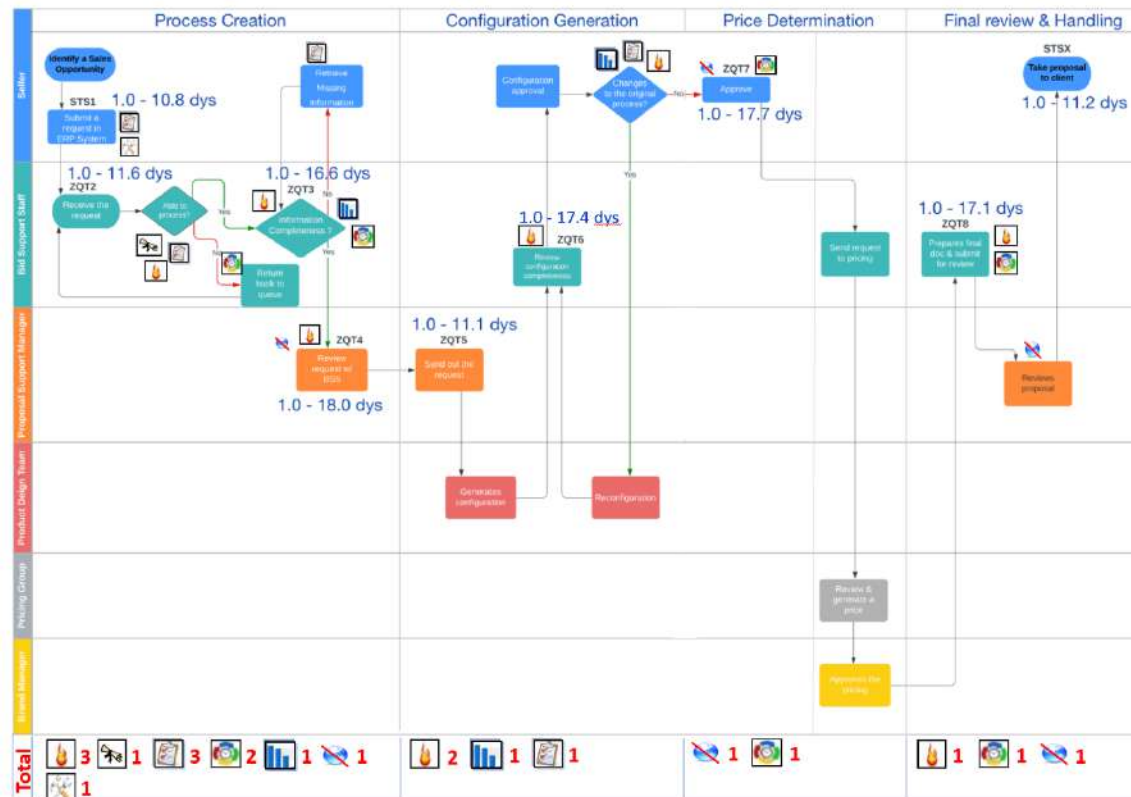
GenTech Proposal Process

Pain Points
Education / Skills
Reporting Gap
Poor Data Quality
Technology Failure
Redundancy
Delay

Process Creation | **Configuration Generation** | **Price Determination** | **Final review & Handling**

Seller:
- Identify a Sales Opportunity
- STS1 1.0 - 10.8 dys
- Submit a request in ERP System
- Retrieve Missing Information
- Configuration approval
- Changes to the original process? —No→ ZQT7 Approve 1.0 - 17.7 dys
- STSX Take proposal to client 1.0 - 11.2 dys

Bid Support Staff:
- 1.0 - 11.6 dys ZQT2 Receive the request
- Able to process?
- 1.0 - 16.6 dys ZQT3 Information Completeness?
- Return back to queue
- 1.0 - 17.4 dys ZQT6 Review configuration completeness
- Send request to pricing
- 1.0 - 17.1 dys ZQT8 Prepares final doc & submit for review

Proposal Support Manager:
- ZQT4 Review request for BSS
- 1.0 - 11.1 dys ZQT5 Send out the request
- 1.0 - 18.0 dys
- Reviews proposal

Product Design Team:
- Generates configuration
- Reconfiguration

Pricing Group:
- Review & generate a price

Brand Manager:
- Approves the pricing

Total:
- Process Creation: 3 | 1 | 3 | 2 | 1 | 1 | 1
- Configuration Generation: 2 | 1 | 1
- Price Determination: 1 | 1
- Final review & Handling: 1 | 1 | 1

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Objectives

Cycle Time Baseline: 31 days

Defect: Exceeding 35 days

Target: Achieve a 15% reduction in cycle time

Improve **efficiency** and **effectiveness** of each step of operations

Cycle Time
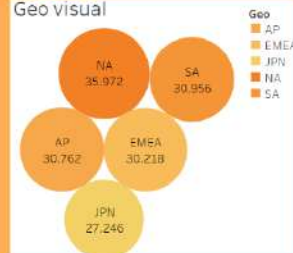
Defects

Correlations

Cycle Time

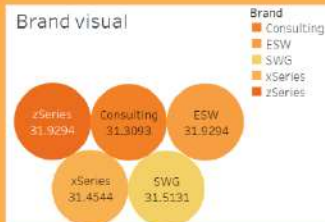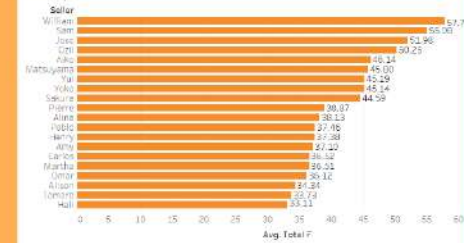## Root Causes Analysis of Long Cycle Times

Cycle Time Analysis

	Days
Avg. Sts1	1.899
Avg. Stsx	2.000
Avg. Zqt2	2.008
Avg. Zqt3	3.070
Avg. Zqt4	3.573
Avg. Zqt5	1.983
Avg. Zqt6	7.435
Avg. Zqt7	3.128
Avg. Zqt8	6.532

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0
Days

By Seller

Seller perform

Seller

Seller	Avg. Total F
William	57.78
Sam	55.00
Carl	51.98
Jose	50.23
Aiko	49.14
Matsuyama	46.00
Yui	45.29
Yoko	45.14
Sakura	44.59
Pierre	39.07
Alina	38.13
Pablo	37.46
Henry	37.38
Amy	37.13
Carlos	36.52
Martha	36.01
Omar	35.10
Alison	34.84
Tamara	33.74
Hall	33.11

0 5 10 15 20 25 30 35 40 45 50 55 60
Avg. Total F

By Geo

Geo visual

Geo
- AP
- EMEA
- JPN
- NA
- SA

NA 35.972
SA 30.956
AP 30.762
EMEA 30.218
JPN 27.246

By Brand

Brand visual

Brand
- Consulting
- ESW
- SWG
- xSeries
- zSeries

zSeries 31.9294
Consulting 31.3093
ESW 31.9294
xSeries 31.4544
SWG 31.5131

By BSS
(Only the best and worst five)

BSS best+worst perform

BSS

BSS	Avg. Total F
66	46.78
55	43.39
38	40.49
17	39.56
64	39.50
08	25.55
37	25.28
47	25.08
51	25.04
41	24.52

0 5 10 15 20 25 30 35 40 45 50
Avg. Total F

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Defects

Defect: Proposals exceeding 35 days are considered defects.

Total opportunities: 75,000 proposals

DPMO: 281053.33 proposals

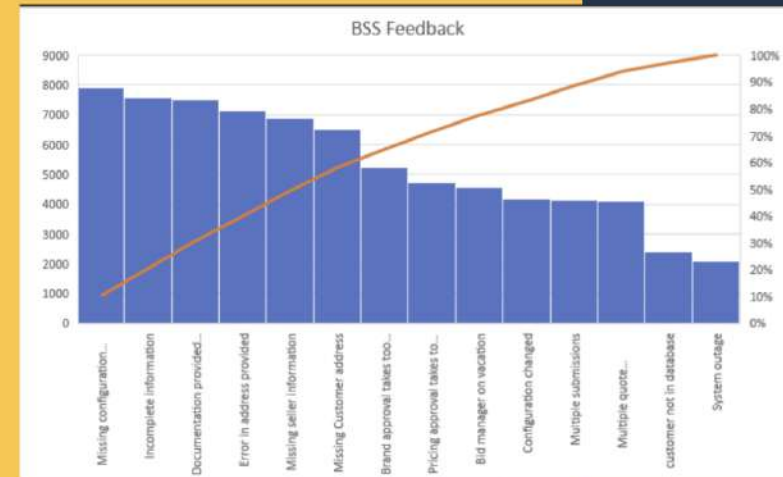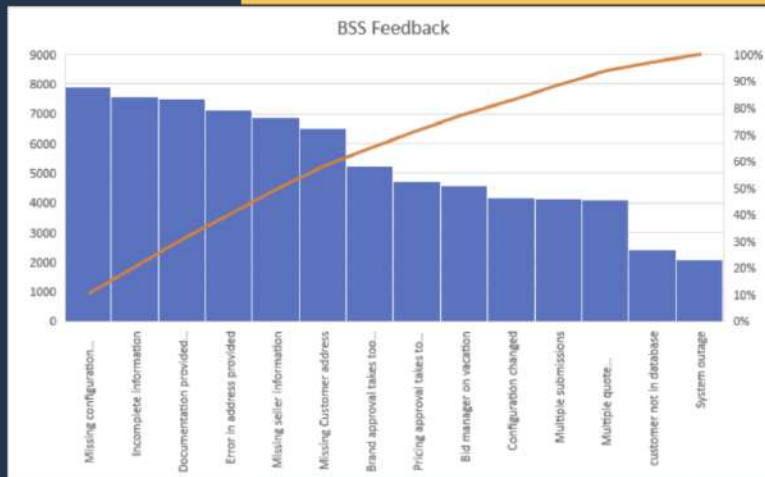**Sigma Level**: 2.1
(3.6 w/ process shift of 1.5 sigma)

Major Correlations Focus Points

	STS1	ZQT2	ZQT3	ZQT4	ZQT5	ZQT6	ZQT7	ZQT8	STSX	Total	Bid Size ($)
STS1	1										
ZQT2	0.101309	1									
ZQT3	-0.10586	-0.13143	1								
ZQT4	-0.10328	-0.12391	0.747953	1							
ZQT5	0.085429	0.148809	-0.12349	-0.11936	1						
ZQT6	-0.03199	-0.03949	-0.176	-0.19211	-0.03751	1					
ZQT7	-0.10829	-0.12669	0.735311	0.739591	-0.12818	-0.17896	1				
ZQT8	0.008186	0.021898	-0.17789	-0.18246	0.042244	-0.06492	-0.17107	1			
STSX	0.080086	0.156091	-0.13851	-0.13577	0.140764	-0.03989	-0.13371	0.018197	1		
Total	0.071533	0.084065	0.780255	0.803509	0.085756	0.034517	0.783361	0.047521	0.065502	1	
Bid Size ($)	0.065922	0.075962	0.621812	0.628602	0.081348	0.056419	0.618945	0.054745	0.054996	0.808052	1

- correlation between bid complexity and cycle time --> 0.81
- Positive Correlation

Correlation of Bid Size & Average Total Cycle Time

Root Causes

ERP System

BSS Agents

Bottlenecks

ERP System

Fishbone Diagram

Delay

Multiple Submissions
Multiple Quote Submissions
Customer Not in Database
Submission Tedious
ERP is Poor
Missing Config Details
Incomplete Information
Missing Seller Info
Missing Customer Address
Incorrect Configuration
Errors in Configuration
Incomplete Requirements

BSS and Seller Feedback	
Difficult to identify BSS agent	11,383
Incorrect configuration	7,499
Errors in configuration	3,796
Incomplete requirements	3,791
Submission process is tedious	3,786
ERP system doesn't work well	3,677
Missing configuration details	7,915
Incomplete information	7,592
Missing seller information	6,877
Missing Customer address	6,516
Multiple submissions	4,137
Multiple quote submissions	4,081
Customer not in database	2,418
Total	73,468
# of Feedback by BSS and Seller	150,000
Percent of Problems that can be solved via and ERP:	49%

***

From all of the 150k feedbacks provided by the BSS and the Seller, nearly 73500, which is about 49% of all the feedback can be resolved by a better ERP

Company Revenue at 5% conversion rate: $232 Million
Recommended Expenditure on ERP: 1%
1% of the Revenue: $23.2 Million
One time ERP Costs: $2.5 Million
Recurring Costs: $1 Million

ERP Diagram

- **System Disruptions**: Frequent system downtime and delays
- **Communication Challenges**: Fails to serve as an effective communication medium among processes
- **Data Quality Issues**: Inability to capture incomplete and inaccurate information
- **Inefficient Routing**: Lacks the capability to route requests based on bid size
- **Bid Size Differentiation**: Fails to distinguish larger bid-sized proposals

BSS Agents

Fishbone Diagram

Other Possibilities

BSS is Inexperienced

Delay

Too Many Errors by BSS

BSS Lacks Domain Knowledge
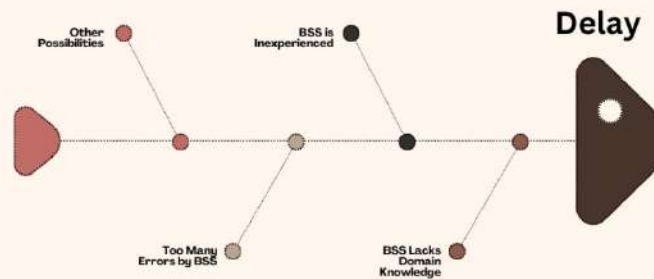
Seller Feedback	
BSS lacks domain knowledge	7,458
BSS inexperienced	7,415
Too many errors by BSS	3,735
Total	18,608
# of Seller Feedback	75,000
Percent of Errors Made by BSS	24.8%

★★★

Nearly a quarter of the Seller feedback points to BSS's mistakes directly

Exp.

BSS Agents

1. **Inadequate Proficiency in Task Execution**:
"Insufficient professional knowledge is resulting in suboptimal task execution, thereby impeding operational efficiency."

2. **Prolonged Request Processing Times**:
"Protracted durations for request processing are adversely affecting service delivery, necessitating urgent attention."

3. **Elevated Error Rates**:
"An excessive incidence of errors is undermining the quality of our outputs, necessitating a comprehensive error-reduction strategy."

4. **Suboptimal Resource Utilization due to Vendor Bias**:
"Human resource allocation remains underutilized, primarily attributed to vendor bias, which warrants a reassessment of resource allocation strategies."

Bottlenecks

- **Single Brand Manager Approval**: Over-reliance on a single brand manager for proposal approvals
- **Data Quality Issues**: Information incompleteness causing delays and slowdowns
- **Excessive Handoffs**: Inefficient processes with too many unnecessary handoffs

Employees BottleNeck

The number of employees has zero growth from 2018 to 2020, meanwhile company's proposal requests and proposal generated are increasing by 5000 each year.

Recommendations & Outcomes

- **Error Proofing**:
  ERP System & BSS Training
- **Process Changes**:
  Bid Size >/< $40,000
- **Cycle Time**:
  Overall reduced by 26.28%

Error Proofing

Process Changes

Defects & Cycle Improvement

Error Proofing

- **ERP System Optimization**:
  (Minimize downtime and delays)

- **Data Validation**:
  (Ensure information completeness and flag incomplete data)

- **AI-Driven Pricing**:
  (Utilize AI for precise bid price estimation (>$40,000 or <$40,000))

- **Strategic BSS Assignment**:
  (Optimize resource allocation by considering experience, seniority, and skills)

- **Seller Resource Allocation**:
  (Prevent human resource underutilization through systematic BSS agent assignment)

BSS Error-Proofing

1. **BSS Training Enhancement**:
-Invest in additional training and resources to reduce errors and boost expertise.

2. **Senior BSS Mentorship**:
-Implement a mentorship program for senior BSS agents to support junior colleagues.

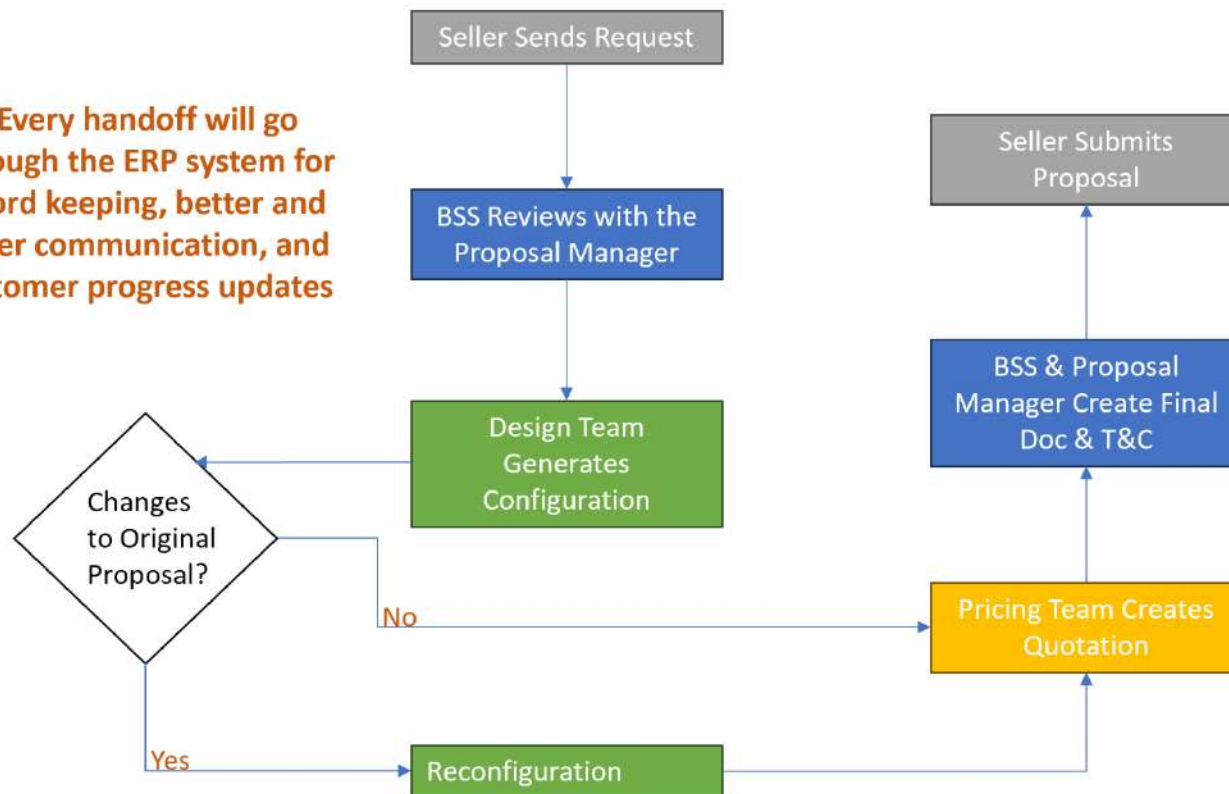3. **Efficient Request Processing**:
-Streamline request handling for improved accuracy and efficiency, with direct involvement of the Proposal Support Manager.

Adjusted Process

*** Kept only the value-added and non value-added but needed processes

Scenario One: Bid Size < 40K

***Every handoff will go through the ERP system for record keeping, better and faster communication, and customer progress updates

```
              Seller Sends Request
                      │
                      ▼
              BSS Reviews with the
              Proposal Manager
                      │
                      ▼
        Changes  ◄──  Design Team
        to Original   Generates
        Proposal?     Configuration

        No  ──────────────►  Pricing Team Creates
                             Quotation
                                  ▲
        Yes ──►  Reconfiguration ─┘

                             BSS & Proposal
                             Manager Create Final
                             Doc & T&C
                                  ▲
                             Seller Submits
                             Proposal
```

With Bid Size less than $40,000

Eliminated processes:
-BSS not being able to process
(ERP)
-BSS checking for information completeness
(ERP)
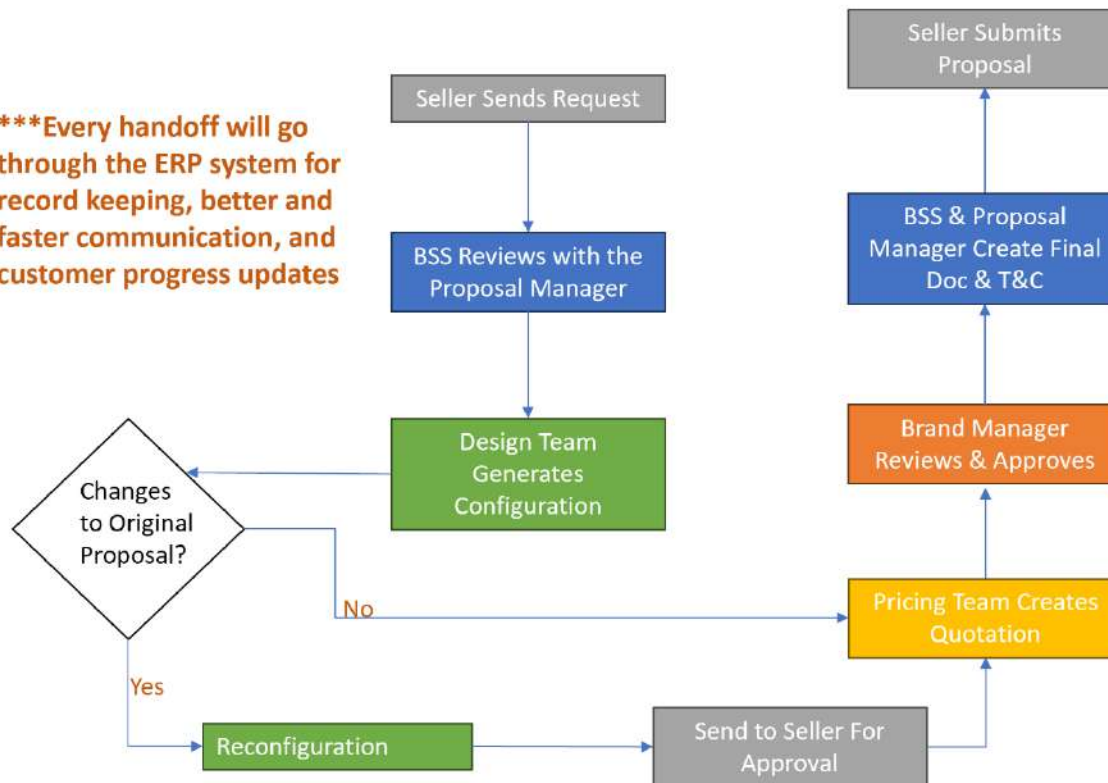-Sellers' approval of configuration
(ERP)

Adjusted processes:
-Integrate Proposal Managers' review of requests with BSS request processing
(BSS errors)
-If there's changes to original proposal, reconfigure and send directly to Pricing

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Adjusted Process

Scenario Two: Bid Size > 40K

***Every handoff will go through the ERP system for record keeping, better and faster communication, and customer progress updates

Seller Sends Request

BSS Reviews with the Proposal Manager

Changes to Original Proposal?

Design Team Generates Configuration

No

Yes

Reconfiguration

Send to Seller For Approval

Pricing Team Creates Quotation

Brand Manager Reviews & Approves

BSS & Proposal Manager Create Final Doc & T&C

Seller Submits Proposal

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With Bid Size greater than $40,000

Adjusted processes:
-pricing requires brand managers' approval
(High Value Bid couldnt be decided by BSS alone)

***
Delighters for updated process:
-Customers will be provided a rough estimate of the proposal receiving date
-ERP documents the process movement
-progress update and remaining days will be sent to the customer whenever occurred

Defects & Cycle Improvement

Streamlining Low-Value Proposals

- 47.5% reduction in the cycle time for orders under $40,000

- The average processing duration decreased from 23.8 days to 12.5 days

- Defects could be reduced by 33.7%

Enhancing High-Value Proposals:

- 17% reduction in cycle time for orders above $40,000

- The average processing duration decreased from 37 days to 30.7 days

- Defects coudl be reduced by 34%

THANK YOU !