Department of Alcoholic Beverage Control

Lean Six Sigma Project
Procurement Process

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Project Charter

Objective: To reduce the procurement process so that 95% of Purchase Orders are completed within 14 days.

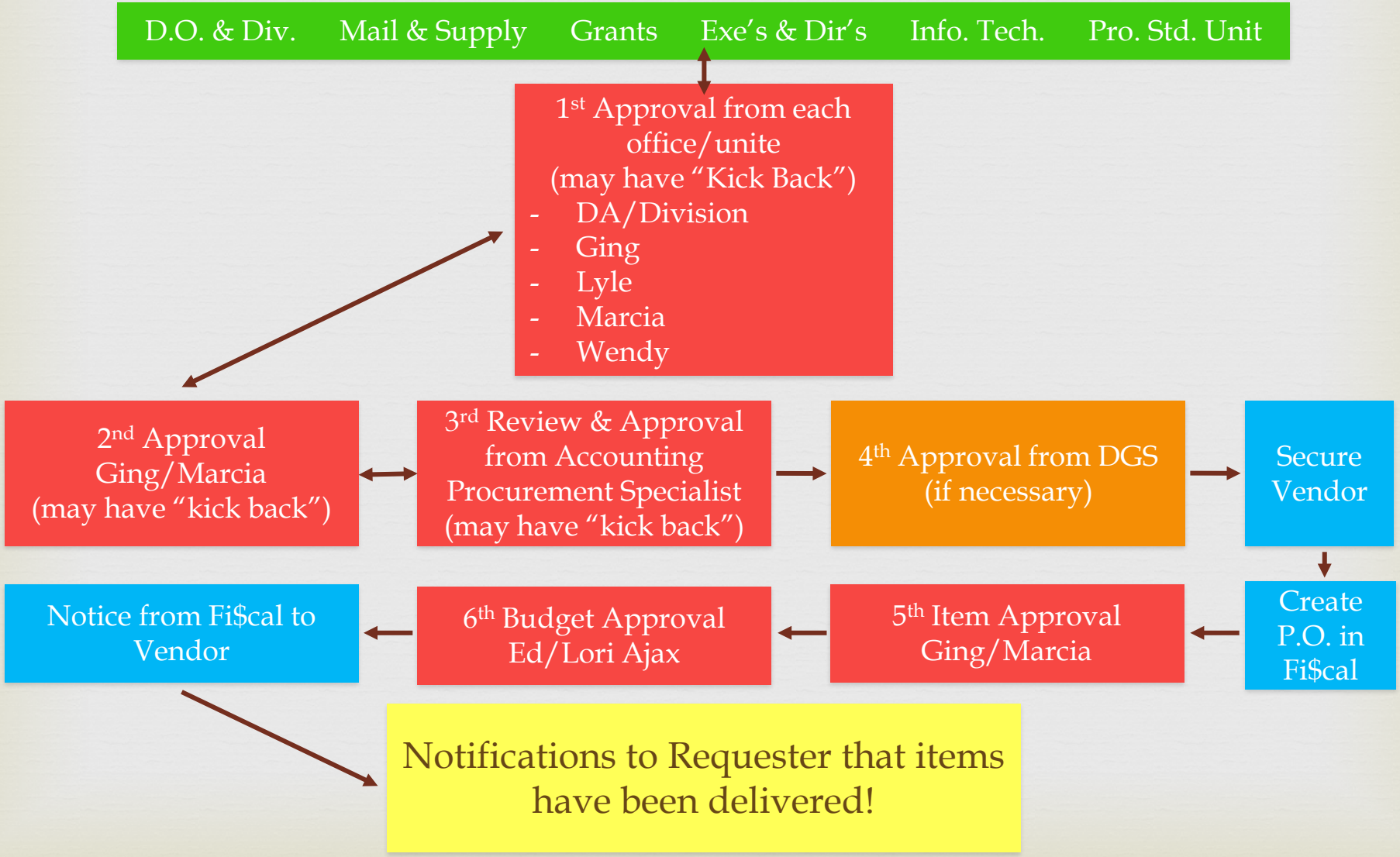
Project Scope: All processes from request to delivery.

Primary Metric: Purchase order processing time (from request of goods/services to delivery of contracted item(s).

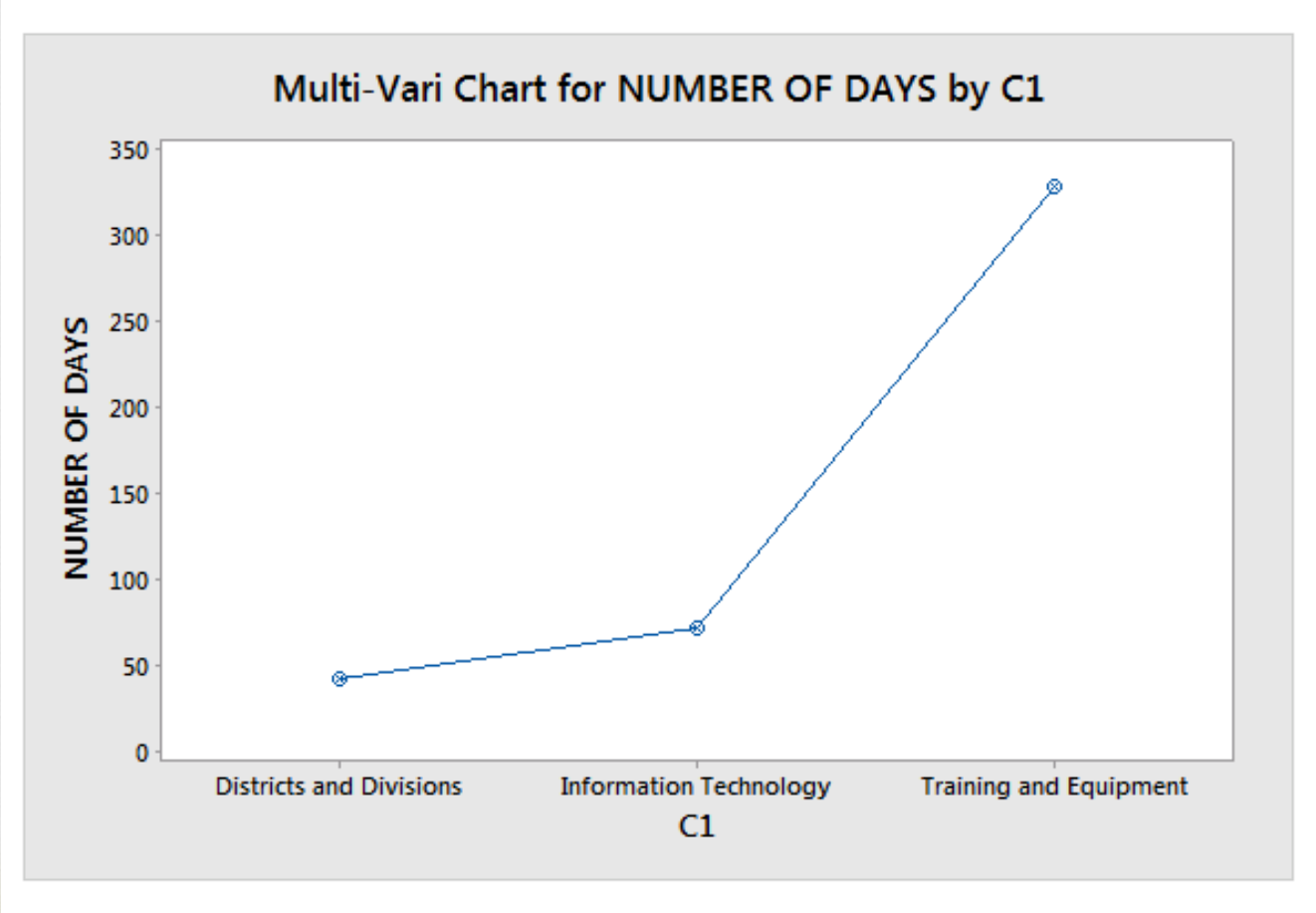
Out of Scope: Any external processes required by other customers or state agencies.

Process Map

Current



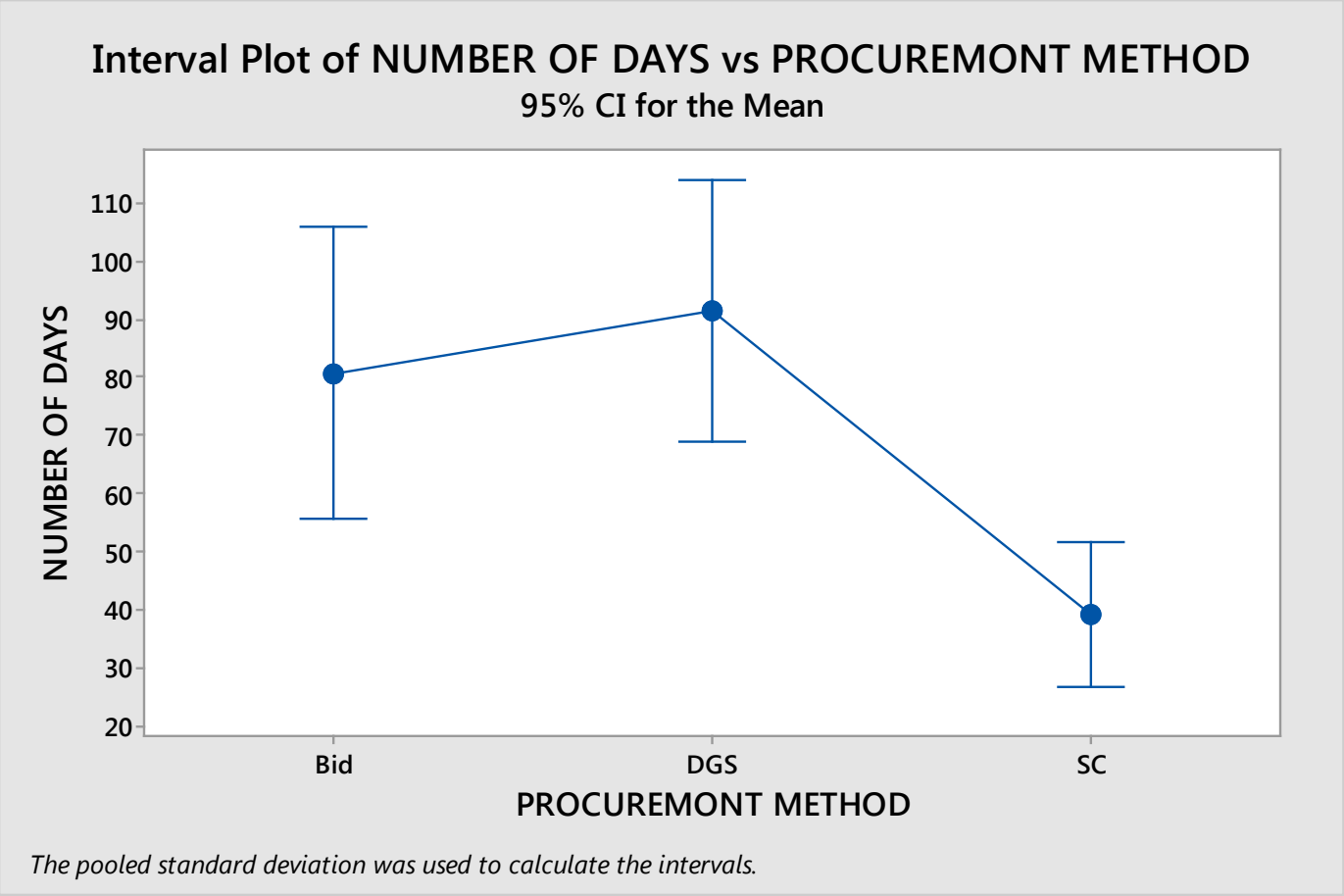
Multi-Variable Analysis



Null hypothesis: All three procurement methods are equal

Significance Value $\alpha = 0.05$

Alternative hypothesis: At least one mean is different



Completion Time

(Reviewed 42 items)

Step 1
Request reviewed and 1st Approval
- 19 days

Step 2
2nd Approval
- 13 days

Step 3
3rd Review and Approval
- 13 days

Step 4
4th DGS Approval (optional)
- 22 days

Step 5
Vendor/Fi$cal
- 5 days

Step 6
P.O. in Fi$cal
- 2 days

Step 7
5th Budget Approval
- 4 days

Step 8
6th Items Approval
- 2 days

Step 9
Fi$cal to Vendor
- 1 days

Step 10
Items to Requester
- 6 days

Takt Time

The Rate of Procurement Orders Received

- **Takt Time =** $\frac{\text{available work time}}{\text{number of orders}}$
- **Available Work Time =** (6.5 hrs/day) x (5 days/wk) = 32.5 hrs/wk
- **Number of Requested Items per week** = 12 items
- **Takt Time =** $\frac{32.5 \text{ hrs/week}}{12 \text{ items/week}}$ = 3.10 hrs/item

Work in Progress

Procurement Specialist	Request-in-Hand/Week	Request Delivered/Week
Lisa Adamson	12	1
Shawn Allgeier	12	4
Laurie Nelson-Crawford	45	3
Total	69	8

FMEA

Failure Modes and Effects Analysis

Evaluated our process using FMEA to identify where and how it fails.

- Severity of the failure
- Potential causes
- Occurrence
- Controls to detect or prevent failures

FMEA Results

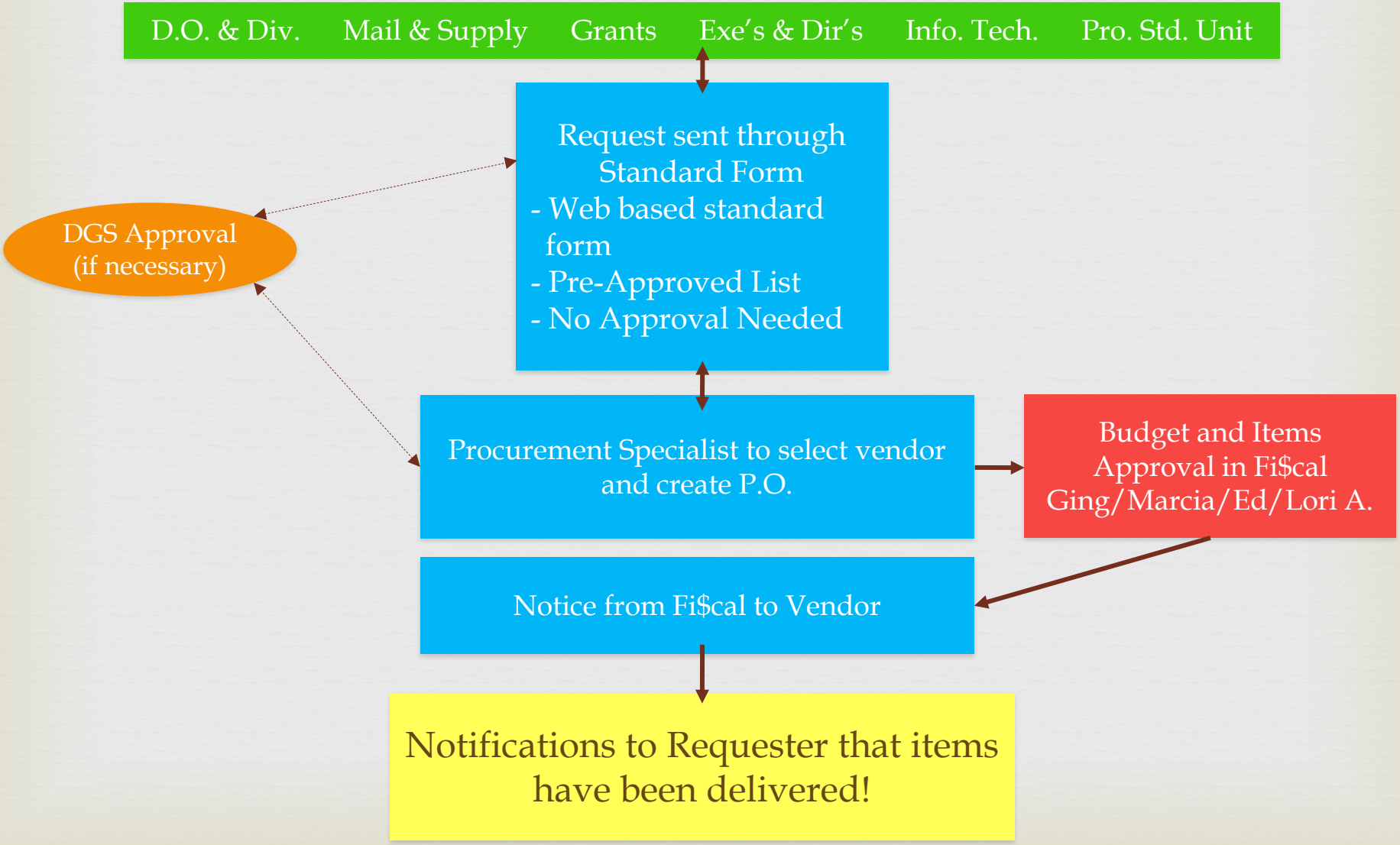
- **16** Failure Modes
- **9** of which do not have controls in place to detect or prevent the failure
- Most significant and reoccurring failure was lack of information.

Critical Xs

- Critical Xs determined by the analysis tools:
  - Excessive Approvals and lengthy management review process.
  - Rework due primarily to incomplete staff work.
  - Rework due to incorrect information.
  - Imbalance in procurement staff workloads due to some staff having specialized skills.
  - Excessive number of hand-offs.

Process Map

After



Procurement Specialists Current Duties

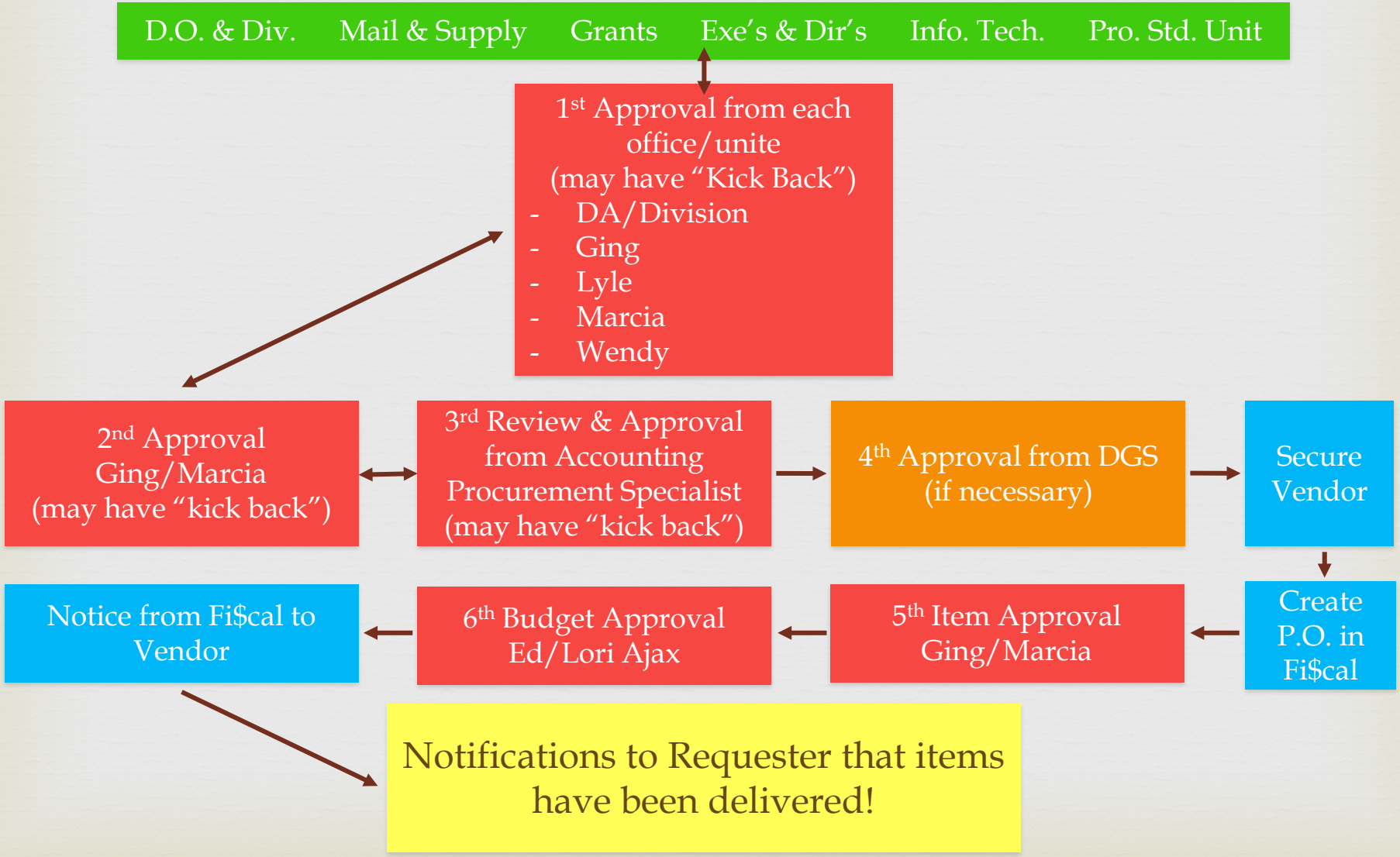
- **Lisa Adamson**
  Equipment for Professional Standards Unit
- **Shawn Allegeier**
  General Office Supplies
- **Laurie Nelson-Crawford**
  Information Technology
  General Office Supply
- **Shahla Howell**
  Information Technology Prep Work
  Hand off prep work to Accounting

Procurement Specialists New Duties

- **Lisa Adamson**
  All Acquisitions and Informal I.T. Acquisition
- **Shawn Allegeier**
  All Acquisitions and Informal I.T. Acquisition
- **Laurie Nelson-Crawford**
  All Acquisitions and Informal I.T. Acquisition
- **Shahla Howell**
  Information Technology Specialist Acquisition

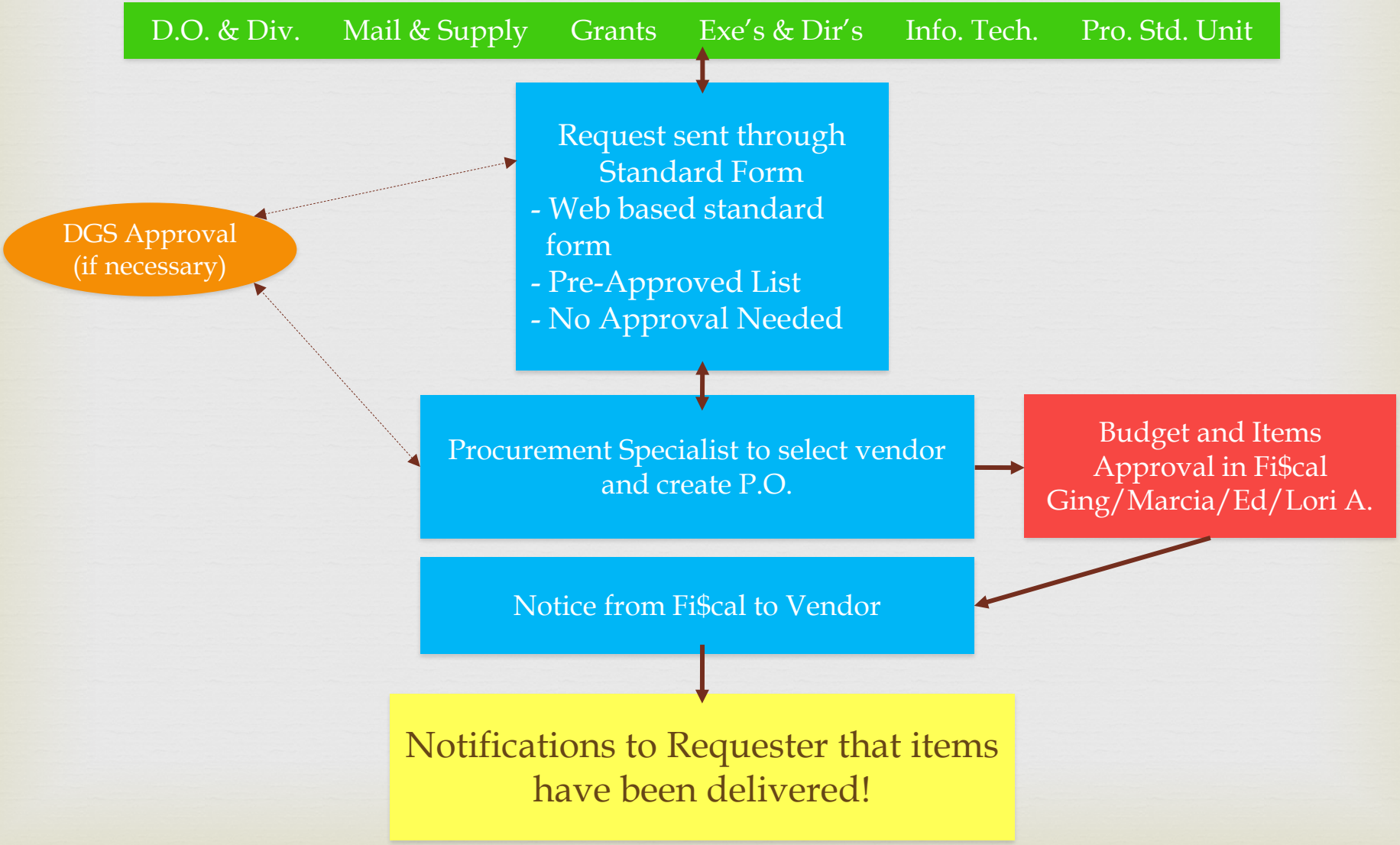
Process Map

Current



Process Map

New



Completion Time

Current

Step 1
Request reviewed and 1st Approval
- 19 days

Step 2
2nd Approval
- 13 days

Step 3
3rd Review and Approval
- 13 days

Step 4
4th DGS Approval (optional)
- 22 days

Step 5
Vendor/Fi$cal
- 5 days

Step 6
P.O. in Fi$cal
- 2 days

Step 7
5th Budget Approval
- 4 days

Step 8
6th Items Approval
- 2 days

Step 9
Fi$cal to Vendor
- 1 days

Step 10
Items to Requester
- 6 days

Completion Time

New

Step 1
Request
- 1 days

Step 2
Procurement Specialist/ Vendor to create P.O.
- 5 days

Step 3
5th Items & Budget Approval
- 1 days

Step 4
Fi$cal to Vendor
- 1 days

Step 5
Items to Requester
- 6 days

Major Improvements / Control Items

- Created a web based standard form for ordering, which includes built in approvals.
- Removed number of approvals .
- Balanced workload among buyers.
- Instituted training programs with the help of DGS.
- Deleted variances in types of request.
- Created transparency.
- Created built in measurement test.

Contact Information

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