UC San Diego

Telecom Inventory Process Overhaul

Overview

Project Team Sponsor:

Team Leads/Process Owners
Veronica Garcia & Justin Clow

Resource Team:
Finance (Alison Kibble-Koshi)
Installation & Repair (Ynez Hicks)
Service Desk (Geri Powell & Chuck Rose)
Programmers (Luis Valdez & Marina Rusakoff)

Define

Business Case:

ITS currently has annual telephone equipment charge-offs of $3,600 and misses an estimated $5,500 in telephone hardware upgrade and replacement billing opportunities annually.
Improvements to either of these metrics would result in a direct dollar-for-dollar increase to the department's bottom line.
If this project is not completed, ITS will continue to lose potential revenue and misspend administrative and customer time investigating and solving problems associated with this issue.
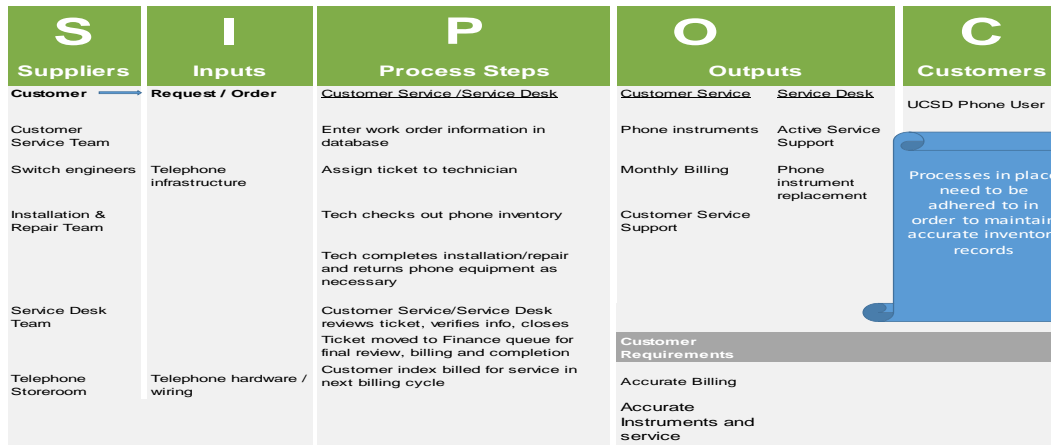
Voice of the customer (VOC)

Problem Statement:
The ITS Service Desk and Customer Service groups dispatch repair technicians to install and repair telephone equipment for campus users. As part of this process, technicians check out and return telephone equipment from inventory which is tracked and accounted for by the Finance department. Yearly inventory counts and customer billing records have been indicating a significant inaccuracy in these measures, with an estimated 540 telephone lines currently being billed incorrectly and an average of 72 phones being written off per year due to inaccurate inventory counts.

Goal:
The goal is to change work procedures in order to remove primary causes of inaccurate inventory counts. Decrease annual telephone equipment charge offs by 50% by the end of 2017.
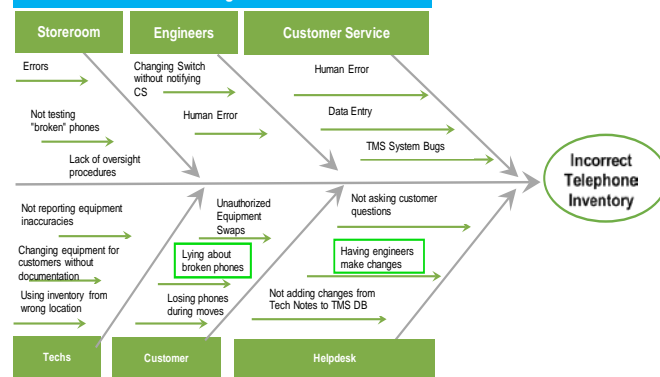
S Suppliers	**I** Inputs	**P** Process Steps	**O** Outputs		**C** Customers
Customer	Request / Order	Customer Service /Service Desk	Customer Service	Service Desk	UCSD Phone User
Customer Service Team		Enter work order information in database	Phone instruments	Active Service Support	
Switch engineers	Telephone infrastructure	Assign ticket to technician	Monthly Billing	Phone instrument replacement	Processes in place need to be adhered to in order to maintain accurate inventory records
Installation & Repair Team		Tech checks out phone inventory	Customer Service Support		
		Tech completes installation/repair and returns phone equipment as necessary			
Service Desk Team		Customer Service/Service Desk reviews ticket, verifies info, closes Ticket moved to Finance queue for final review, billing and completion	**Customer Requirements**		
Telephone Storeroom	Telephone hardware / wiring	Customer index billed for service in next billing cycle	Accurate Billing		
			Accurate Instruments and service		

Measure

Data Collection Plan

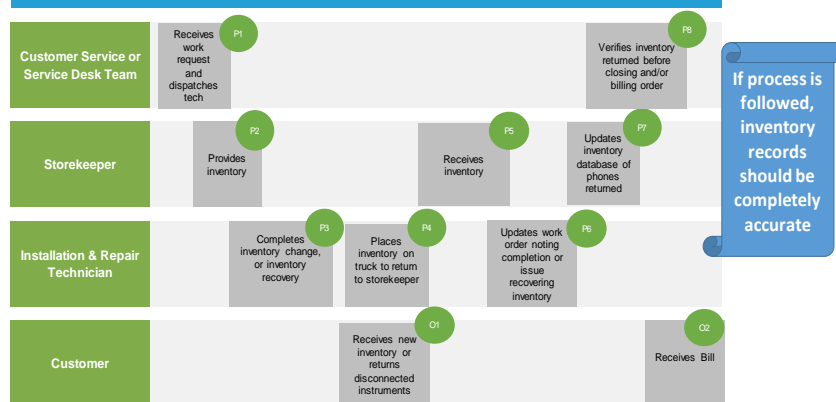| Measure	Data Type	Operational Definition	Stratification Factors	Sampling Notes	Who and How
Number of Telephone Inventory Discrepancies	Discrete	The number of entries in the TMS telephone unit inventory billing database which do not match the actual model of phone equipment actually leased to the phone line -according to the Telephone Switch database. These discrepancies represent units for which the customer is being billed inaccurately.	None	Pull reports weekly from TMS and Switch databases and run a comparison to find campus phones which have discrepancies between the two databases.	Veronica to request reports, Justin to perform cross-checking.
Percentage of replacements for damaged phones with a fee levied to the customer	Discrete	The percentage of replacements for missing or broken telephone units for which the department successfully levies the appropriate replacement fee. The majority of these units are currently being written off without recuperating any costs with a fee.	None	Check with TMS programmers for reports and verify against number of written off damaged phones with the telecom storeroom clerk.	Veronica to request reports and check.

Analyze

Fishbone Diagram

Storeroom · Engineers · Customer Service
Errors · Changing Switch without notifying CS · Human Error
Not testing "broken" phones · Human Error · Data Entry
Lack of oversight procedures · TMS System Bugs
Not reporting equipment inaccuracies · Unauthorized Equipment Swaps · Not asking customer questions
Changing equipment for customers without documentation · Lying about broken phones · Having engineers make changes
Using inventory from wrong location · Losing phones during moves · Not adding changes from Tech Notes to TMS DB
Techs · Customer · Helpdesk
→ Incorrect Telephone Inventory

Improve

FMEA

Process Step/Input	Potential Failure Mode	Potential Failure Effects	SEVERITY (1 - 10)	Potential Causes	OCCURRENCE (1 - 10)	Current Controls	DETECTION (1 - 10)	RPN	Action Recommended	Resp.	Actions Taken	SEVERITY (1 - 10)	OCCURRENCE (1 - 10)	DETECTION (1 - 10)	RPN
What is the process step or feature under investigation?	In what ways could the step or feature go wrong?	What is the impact on the customer if this failure is not prevented or corrected?		What causes the step or feature to go wrong? (how could it occur?)		What controls exist that either prevent or detect the failure?			What are the recommended actions for reducing the occurrence of the cause or improving detection?	Who is responsible for making sure the actions are completed?	What actions were completed (and when) with respect to the RPN?				
Staff creating or accepting orders without verifying customer's current equipment	Allows inaccuracies	Incorrect billing, unhappy customers	2	Staff is not trained to verify customer's current telephone equipment and are assuming the database is correct.	10	Annual Inventory count always off	7	140	Staff training, creating automated verification steps to be added into the ticket creation process.	Veronica	ETA 1/2018	2	10	7	140
Service Desk Process for inventory	Service Desk not updating TMS database when a lost phone is replaced with another taken out of stock	Inventory will be inaccurate	5	Majority of staff do not have TMS installed on PC's	9	Access to webTMS install base to verify line typed and leased models	8	360	Train employees	Geri	Trained on 5/20	5	3	8	120
Technicians process for changing inventory codes	Tech replaces instrument with model other than what customer is leasing	Inventory will be inaccurate	5	Not following procedures in order to make the customer happy	9	Techs can contact SD or CS if instrument descrepancy found when completing order	7	315	Train employees	Ynez	Trained on 5/20	5	3	8	120
Switchroom process for changing phone line programming	Telephone switch engineers changing telephone models in switch without a corresponding change to TMS billing database.	Inventory will be inaccurate	5	Not following process and making changes based on actions requested by service desk or technicians to help customer	8	Can notify SD or CS if programming is other than what is in an order	8	320	Train employees	Alf	Trained on 5/20	5	3	8	120

Control

Process Control Plan

Customer Service or Service Desk Team — Receives work request and dispatches tech (P1) · Verifies inventory returned before closing and/or billing order (P8)

Storekeeper — Provides inventory (P2) · Receives inventory (P5) · Updates inventory database of phones returned (P7)

Installation & Repair Technician — Completes inventory change, or inventory recovery (P3) · Places inventory on truck to return to storekeeper (P4) · Updates work order noting completion or issue recovering inventory (P6)

Customer — Receives new inventory or returns disconnected instruments (O1) · Receives Bill (O2)

P = Process Measures, O = Output Measures

If process is followed, inventory records should be completely accurate