CapMetro

UT Interns - Spring 2026 Projects

4 Projects & 11 Students

Summary of Deliverables & Recommendations

6/10/2026 FAA Committee Meeting

CapMetro – UT Audit Intern Program

- CapMetro joined UT Audit Intern Program in the 2018 Fall semester.
- UT's #1 ranked Masters of Professional Accounting Audit class requires volunteer audit work at about 5 hours per week on assigned projects.
- Course Syllabus Objective: "…introduce students to the current scope of internal auditing that extends far beyond the traditional external audit attestation of financial statements."
- Teams of three students are assigned to each audit project.
- Audit project objectives and deliverables are identified and set at the beginning of the project in the planning stage.
- The audit projects require a combination of auditing skills, business acumen, and consulting and advisory capability.
- UT Audit Interns work under the guidance of the Chief Audit Executive and staff.

Deliverables from UT Interns

	Process Review	Flowcharting	Contract or Policy Review	AI benchmarking	RACI Chart	SOPs or Revised Forms	Reconciliation or Data Analytics	Presentation with Recommend ations
Bus Operations SOPs Pull Out; Pull In; Critical Incidents; Lost Time Mgt	☑	☑	☑	☑	☐	☑	☑	☑
Fare Revenue Mapping RACI Chart (Transit Store, Discount Fares & Revenue Teams)	☑	☑	☐	☐	☑	☑	☐	☑
UMO Contract Cashless Transactions & Reconciliation	☑	☑	☑	☐	☐	☑	☑	☑
Brinks Contract Cash Collections & Reconciliations	☑	☑	☑	☐	☑	☑	☑	☑

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Bus Operations SOP's

The University of Texas at Austin Interns:
Hanyu Wang (Alex), Amaury Pimentel, Daniel Garcia

Spring 2026

Project Scope, Objectives & Deliverables

Project Purpose & Deliverables:

- Process Review & Update SOP's; Flowchart Processes; Data Analytics; Contract & Policy Review; and Develop Recommendations.

Scope and Process Focus Areas:

- Pull-Out: the process by which buses are prepared, released, and dispatched from operating facilities to begin scheduled service, involving coordination among Operations, Maintenance, Dispatch, and Yard Supervision.
- Pull-In: the process for receiving buses returning from service, including documentation of vehicle condition, identification of defects or incidents, and communication with Maintenance and Operations staff.
- Critical Incident Management: the process used to identify, escalate, document, and respond to safety-related and operational incidents during revenue service, involving frontline staff, supervisors, operations management, and support functions.
- Lost Time Management: the process for identifying, tracking, classifying, and reporting service delays and lost operating time, used to support operational oversight and performance reporting.

Operating hours shift duration analysis

Bus shift length distribution and key delay insights

Operating hours shift ..... | 3:00 AM | March 20, 2026 | 2910

Bus Shift Statistics

Mean	Median	Mode	Standard Deviation	Min	Max
14:23	16:16	18:00	5:52	1:11	23:56

Shift Duration Distribution



Overall, many buses are being overexerted in their usage.
34% (73/214) are operating for more than 18 hours.

Most Common Delay Causes:

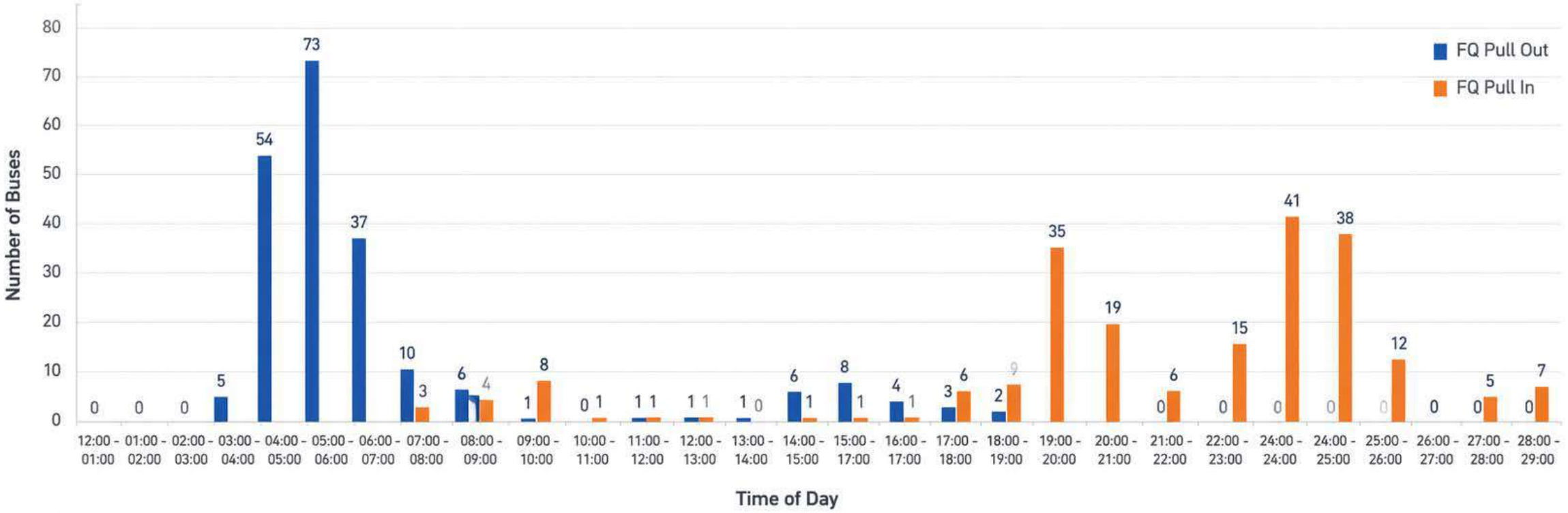
1. Vehicle Shortage
2. Mechanical Error

Overall, many buses are being overexerted in their usage. In fact, 34% (73/214) are operating for more than 18 hours.

This is then leading to shortages and unplanned mechanical errors.

Pull-In Pull-Out Analysis (Scheduled Weekday)

Pull-in and pull-out activity by time of day



Most Pull Outs occur between 4 - 6 AM

Overall, this leaves very little time for cleaning and maintenance activities in between

Pull Ins are less congested. Many occur at 7PM and another wave comes in between 11PM - 1AM

Findings & Recommendations

Observations/Findings:

1) Vehicle availability and mechanical issues are a primary driver of service delays.

2) Definitions of “critical incidents” and “incidents” are ambiguous and inconsistently applied across Bus Operations.

3) Buses do not have assigned parking locations, resulting in operational inefficiencies during pull-out and pull-in.

4) Daily bus parking maps are manually prepared.

Recommendations:

1) Recommendation: evaluate maintenance capacity, staffing, and workload to ensure alignment with fleet size and service demands.

2) Recommendation: establish organization-wide incident categories with clear definitions for minor, critical, and severe incidents

3) Recommendation: implement clearly labeled parking locations or technology-enabled bus location tracking to improve yard efficiency.

4) Recommendation: replace manually prepared paper-based parking maps with digital method to improve accuracy and accessibility of information. Look at Geo-fencing the bus yard to allow real time mapping of parking locations.

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Fare Revenue Mapping & RACI Chart

The University of Texas at Austin Interns:
Jiayi Hu, Tanner Woodruff, & Jonathan Sanchez Pereda

Spring 2026

Project Scope, Objectives & Deliverables

Project Purpose and Deliverables:

- Process Review & Create/Update SOP's; Flowchart Processes; RACI Chart; Reconciliation; Policy Review; update Order Delivery Receipt (ODR) form; Fare Media Sales Process Map; and Develop Recommendations

Scope and Process Focus Areas:

- Transit Store: recently transitioned oversight from Finance to Customer Service Department.
- HEB Consignment Program
- Fare Media Products and account-based system: Reloadable Fare Cards; UMO App; Tap-to-Pay; Metro Access Passes; Discount Fare Passes.
- Discovery and understanding impacts of various changes (e.g. Management Oversight; new account-based systems; upcoming new fareboxes and validators; etc.

Fare Media Types by Sales Channels & Order Systems

	Fare Media Types	Sales Channels									Order Systems					
		In Person - Transit Store	In Person - HEB	HEB Consignment (RFCs & 10-Ride Booklets only)	In Person - Other Retailers	CapMetro Marketplace	Umopass.com	Ticket Vending Machine (TVM)	On Demand/ At Boarding	Rail Conductor via Handheld Validator	Umo	Core BT/ iPayment	HEB consignment order email -> Oracle Requisition	InComm (RFC reloads - cash only)	Square	Flowbird
1	Umo Reloadable Fare Card (RFC)	✓	✓	✓	✓	✓					✓	✓	✓	✓	✓	
2	Umo Digital Code					✓					✓				✓	
3	Umo App [1]	✓	✓		✓		✓				✓	✓		✓		
4	Umo QR Paper Token [2]					✓					✓				✓	
5	Umo Tap-to-Pay								✓		✓					
6	Photo ID with RFID Chip [3]	✓				✓						✓			✓	
7	Metro Access Monthly Pass	✓				✓	✓				✓	✓			✓	
8	MA Single Ride Pass (also avail via Umo app)	✓										✓				
9	Metro Access 10-Ride Booklet	✓	✓			✓						✓		✓	✓	
10	Paper Ticket (Rail-Single Ride; & Commuter Bus-Day Pass) [4]							✓		✓	✓				✓	✓

Footnotes:

1 - Customers typically use the Umo app to reload with a credit/bank card but can reload using cash/credit in person. Can also buy Metro Access Single Ride passes via Umo app.

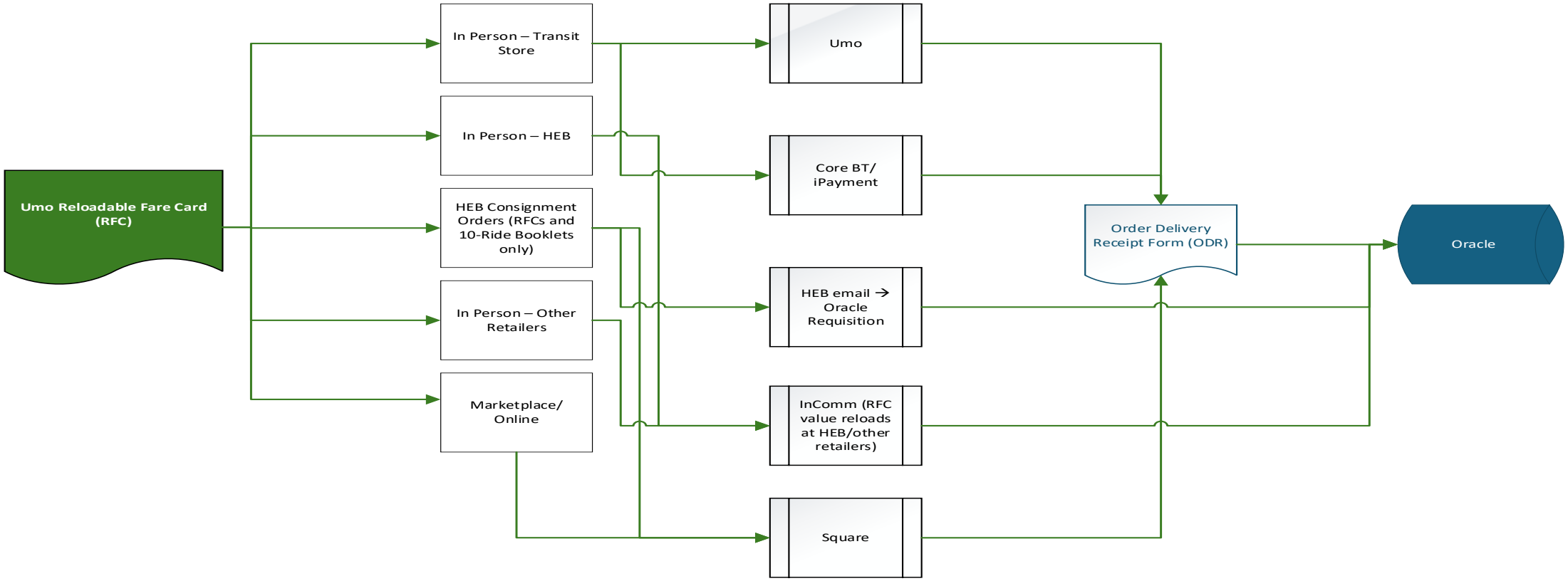
2 - Used for CapMetro Rail, with limited availability for approved programs/agencies (e.g., Travis County Sherrif's Office, Criss Cole Center, DPP, TEF, etc.) for Bus

3 - Used by qualified individuals for Metro Access, Reduced Fare, K-12 IDs for Local, Commuter/Rail

4 - Fares sold via handheld validators by Rail Conductors can go through Umo - but can also sell paper tickets via Square (manually created in Square app and customer uses tap to pay with the validator)

Sample: Fare Sales Process Map by Media Type

Umo Reloadable Fare Cards (RFCs)



NOTES:
1 – Media Type: Stored value/account based. Used for Local, Commuter/Rail, CapMetro for Business and Discount Fare Programs.
2 – A $3 charge per new or replacement RFC will be charged starting 1/1/2027.
3 – Discount Fare Programs: A – DPP & TEF are currently charging $3 per card. B – The Transit for Unhoused Program does not charge for RFCs. The RFCs are loaded for free rides for 1 year after activation and distribution by the receiving organization.

Findings and Recommendations

Observations/Findings:

1) Multiple systems are used for ordering and fulfillment of fare media requests, with limited reporting on order/transaction level details requiring the use of a manual order tracking form (ODR) for invoicing and reconciliation details.

2) The ODR process is manual and subject to potential errors and irregularities. The prior ODR form was updated to reflect new fare media types, prices, etc., but the interim process still requires quite a bit of manual effort for process execution.

3) Many SOPs have not been updated or were in process of being updated to reflect current processes, roles and responsibilities.

4) The Customer Call Request (CCR) refund process requires issuing checks for very low dollar amounts and a significant amount of administrative time, many of which are never even cashed by the customer.

5) Reevaluate the HEB consignment program for potential changes re: inventory management, loss provisions, etc. considering plans to begin charging for RFCs on 1/1/2027.

6) Accounting and Transit Store management have started discussions and planning for continuing fare media types that will require inventory control, tracking and management, and working with Legal/Records Management on plans for the destruction of retired media types/passes.

Recommendations:

1) Investigate order systems to identify where they can be consolidated or streamlined and if reporting can be enhanced to reduce the need for manual order tracking via the ODR form.

2) Develop an automated webform/repository for the ODR form and reduce reliance on manual input.

3) SOP updates are underway. Continue to update the SOPs to reflect current practices.

4) Complete a cost/benefit analysis of the fare refund options to determine the most efficient process for both customers and CapMetro.

5) Revisit the agreement with HEB to validate risk of loss provisions for the cards that will have intrinsic value and ensure that consigned inventory control processes are updated accordingly.

6) Continue to define and formalize procedures for fare media inventory management, tracking, and the destruction of retired passes.

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UMO Contract - Cashless Transactions Processes & Reconciliation

The University of Texas at Austin Interns:
Isabella Bose, Lindsey Mullins, and Tobi Ajayi

Spring 2026

Project Scope, Objectives & Deliverables

Project Purpose and Deliverables

- Process Review & Create/Update SOP's; Flowchart Processes; Contract & Policy Review; UMO Fees and Reconciliation; and Develop Recommendations

Scope and Process Focus Areas:

- Identify and analyze the contract between CapMetro and Cubic/Umo.
- Validate fees from Umo, Fiserv, and Incomm related to the reconciliation process.
- Review reconciliation and analyze supporting documentation related to Fiserv and Incomm processors.
- Analyze the monthly reconciliations for the period October 2025 – March 2026.

UMO Transactions – Overview

Transaction Initiation	Customers load funds into their Umo accounts through the mobile app or reloadable fare cards. These transactions are referred to as stored value loads.
Fare Payment Transactions	When a rider boards a transit vehicle, the fare payment is deducted from the rider's stored value balance or tap-to-pay on the rider's device. These transactions are now recognized as fare revenue.
Payment Processing	Credit/debit card payments are processed by Fiserv, which deposits payments (net of fees) to the JP Morgan bank account on a daily basis. Reloadable card transactions purchased (with cash) in-store are processed by Incomm and deposited (net of fees) into the JP Morgan bank account.
Reconciliation Process	Each month, the Accounts Receivable Manager reconciles all Umo-related revenue and cash collections to ensure that recorded sales match bank deposits and payment processor records.
Financial Reporting	After reconciliation is completed, the Accounts Receivable Specialist prepares journal entries to record the period's financial activity.

Findings and Recommendations

Observations/Findings:

1) After opening the additional Fiserv accounts and receiving the additional reports, the March 2026 reconciliation was balanced correctly with no discovered variances.

2) Incomm is a separate processor from Fiserv and therefore is not included in the monthly reconciliation process.

3) Umo processing fees total around $19,000/month (~$240k/year) to handle the thousands of transactions that occur each month.

4) Umo charges an $82.40 monthly fee per active vehicle, this increases by 3% per year totaling ~$34k/month and $410k/year.

5) Prior to this engagement, there was not an existing flowchart for the reconciliation process, and the last draft SOP was from July of 2025.

Recommendations:

1) Use the successful March 2026 reconciliation as a template to reconcile prior months.

2) Since Incomm falls under the Umo umbrella as one of their subcontracted processors, a similar reconciliation process should be implemented for Incomm transactions to ensure monitoring of revenue deposits and fee withdrawals.

3) Due to the volume of credit/debit card transactions, we recommend implementing processes for automated testing of fees. Establishing routine testing will ensure more diligence in monitoring and verifying that only the appropriate amount of fees are withdrawn.

4) This is a separate billing process handled by IT. It should be determined how IT is validating the number of active vehicles per month to ensure accurate billing.

5) As ongoing questions and challenges are addressed, it is important to implement periodic review of both the SOP and flowchart to keep both documents current.

CapMetro

Brinks Contract and Outsourced Treasury Controls

The University of Texas at Austin Interns:
Nathaniel Gonzales, Yun-Yue Lin (Janna)

Spring 2026

Objectives, Scope & Deliverables

Project Purpose and Deliverables

To review Brink's contracts and internal treasury controls related to the collection, deposit, and reconciliation of cash collected on buses. Deliverables: Update SOP; Flowchart; Reconciliation; and Recommendations.



In Scope:

- Physical cash flow originating from the Genfare bus fareboxes.
- Vendor compliance with Cash-in-Transit (CIT) and Cash Vault Services (CVS) contracts
- Month-end variance analysis and bank reconciliation processes.
- Focus locations: North Operations (9315 McNeil Rd) and South Operations (2910 E. 5th St)

Out of Scope:

- Digital fare collections and credit card transactions
- Ticket Vending Machine (TVM) operations and standalone revenue generation

Genfare & Brinks Transactions - The Cash Lifecycle

Step 1: Bus Cash Collections (Genfare System)

- Genfare fareboxes record expected revenue to the penny

Step 2: Vaulting & Transit

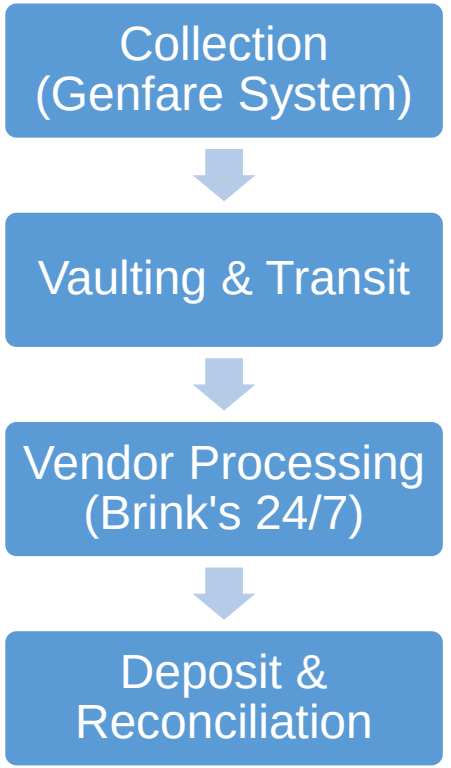
- Daily bus cash drops into secure, removable bins at NorthOps and SouthOps
- Brink's messengers pick up bins

Step 3: Vendor Processing (Brink's 24/7)

- Cash and coin are routed to separate facilities
- Coins are weighed in bulk; paper cash is piece-counted

Step 4: Deposit & Reconciliation

- JP Morgan receives consolidated deposits from Brinks.
- CapMetro Accounting manually attempts to match expected daily Genfare revenue to actual bank deposits



Findings and Recommendations

Observations/Findings:

1) Reconciliation process is complicated due to timing differences. For example, the CapMetro Genfare system accounts for bus collections daily, but Brinks collections from CapMetro periodically..

2) Brinks separates paper bills from coins, then does separate counts and separate deposits at different locations which complicates CapMetro's reconciliation process. Additionally, Brinks weighs coins to estimate value instead of physical count.

3) CapMetro tracks daily bus deposits by bin, but Brinks does not always report cash collected by bin.

Recommendations:

1) Appropriate details need to be provided by Brinks to account for the timing differences between when Brinks collects cash, and when deposited.

2) Appropriate details regarding Brinks deposits need to be provided by Brinks to account for the separation of paper bills from coins.

3) Appropriate details need to be provided by Brinks to allow CapMetro to track cash collected and deposits by bin number.

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Questions?