



Finance Department

Presentation to the City of Houston Budget and Fiscal Affairs Committee

Enterprise Data Warehouse Demo and Appropriation of Funding for Infrastructure

September 3, 2013

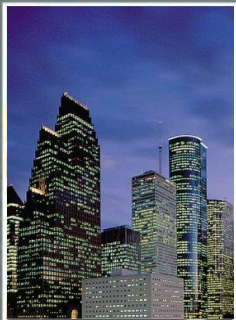
Charles Thompson, CIO and Director, Houston Information Technology Services (HITS)
Bruce Haupt, Deputy Assistant Director, Finance Department



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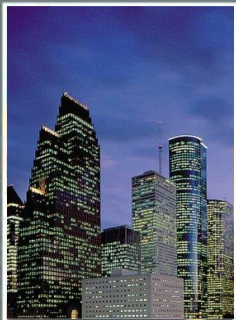
Enterprise Data Warehousing Objectives

Data Warehousing Objectives

1. Enable Citywide reporting and analysis of accounts receivable and collections revenues
 - ❖ Citywide consolidated dashboard
 - ❖ Dashboard by revenue stream
 - ❖ Vendor management scorecards
 - ❖ Ad hoc reporting capabilities
2. Apply data warehousing industry best practices
3. Provide the architecture and infrastructure to support the City's current and future business intelligence needs

Data Warehousing Definitions

- ❑ Data Warehouse: The complete end-to end environment including data marts and business intelligence. The systems helps manage the business for tracking, monitoring, analysis, exception reporting and planning
- ❑ Data Mart: A collection of data that is organized for end user ease of use and performance.
- ❑ Business Intelligence: Interactive, flexible environment to support business decision making, which can present results in variety of formats (report, spread sheet, chart, map ...)

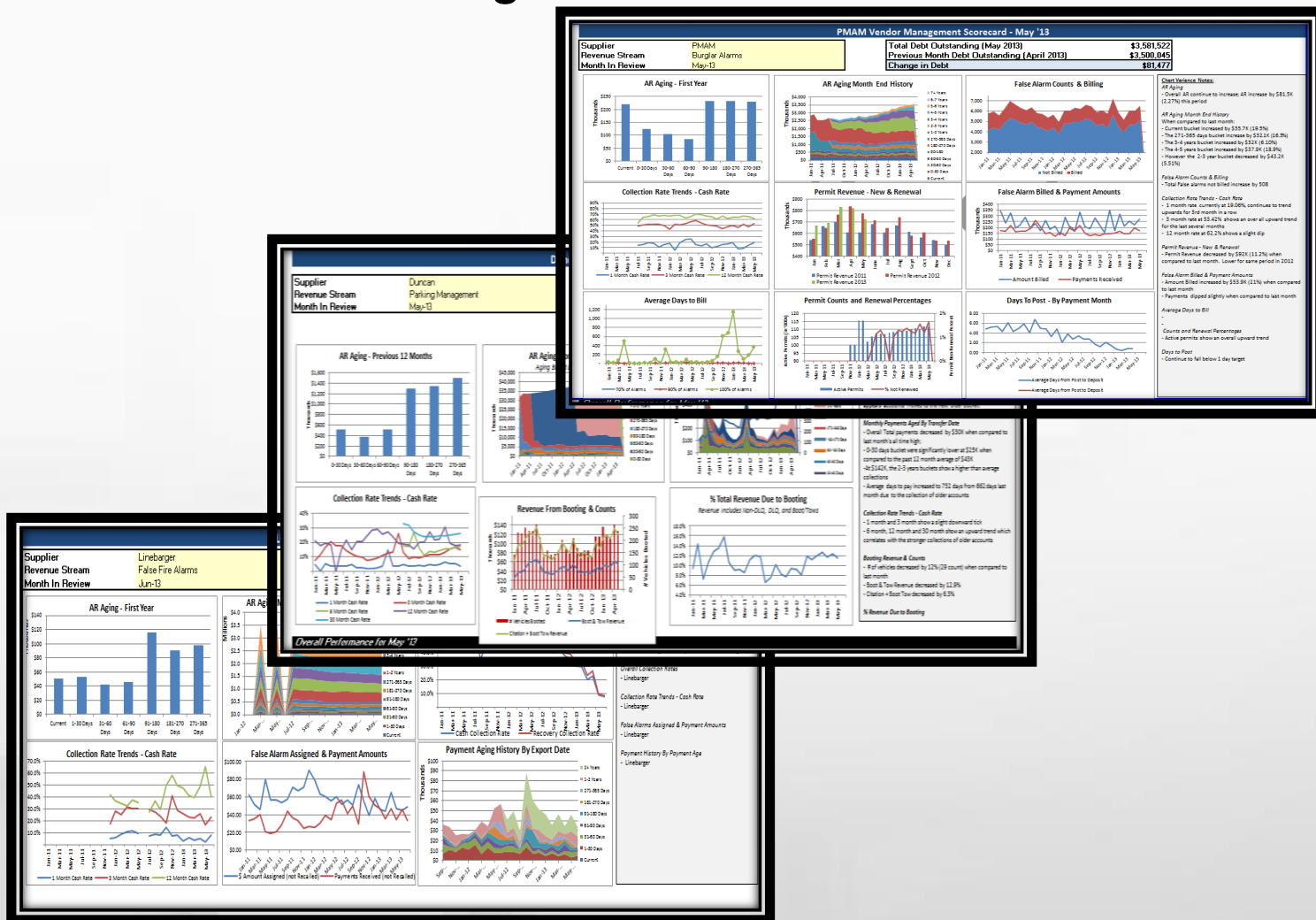




Enterprise Data Warehousing

AR Data Mart

Current Vendor Management Scorecards





Enterprise Data Warehousing

AR Data Mart

Vendor Management Scorecard Layout

City Of Houston Finance Accounts Receivables
Datamart Reporting

Vendor Scorecard | Ad-Hoc Reporting - Financial Transactions | WebFOCUS Metadata | Vendor Scorecard With Reports

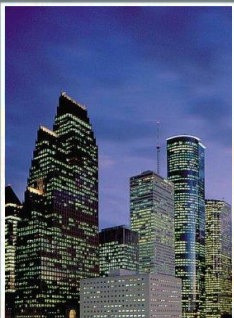
Vendor Management Scorecard

Revenue Stream: ALL
Revenue Type: Burglar Alarm
Vendor: 0000106846 - LINEBARGER GOGGAN BLAIR & SAMPSON L
0000113115 - PMAM CORPORATION

Month In Review: **Select**

Standard | Revenue Specific | Parking | Fire | Burglar

1. The dashboard has standard and ad hoc report capabilities
2. Reports can be generated across all revenue streams (i.e. data sources) or for a specific revenue stream
3. Scorecards are configured to track the performance of each collection vendor
4. The dashboard generates a set of Standard reports across revenue streams as well as revenue specific reports

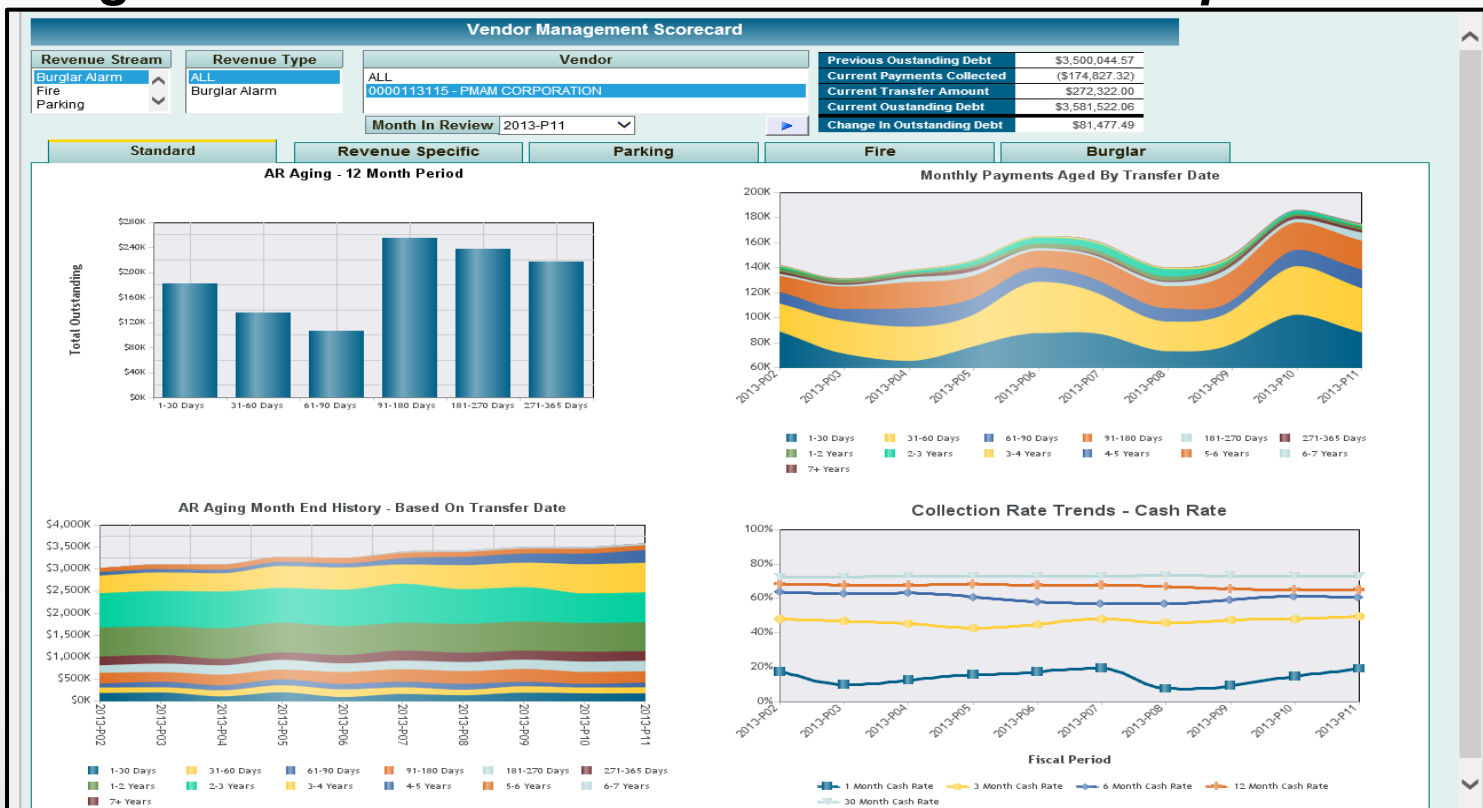




Enterprise Data Warehousing

AR Data Mart

Burglar Alarm Debt Collection Scorecard Example



- Vendor scorecard generated by selecting :
 - Revenue Stream (i.e. the data source)
 - Revenue Type (e.g. Parking citation, Boot/Tow)
 - Collection Vendor
 - Month in Review

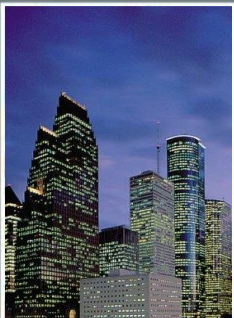
- Standard charts track
 - Outstanding AR and AR Aging
 - Monthly Payments
 - Collection Rate Trends



Enterprise Data Warehousing

AR Data Mart

Burglar Alarm Debt Collection Scorecard Example

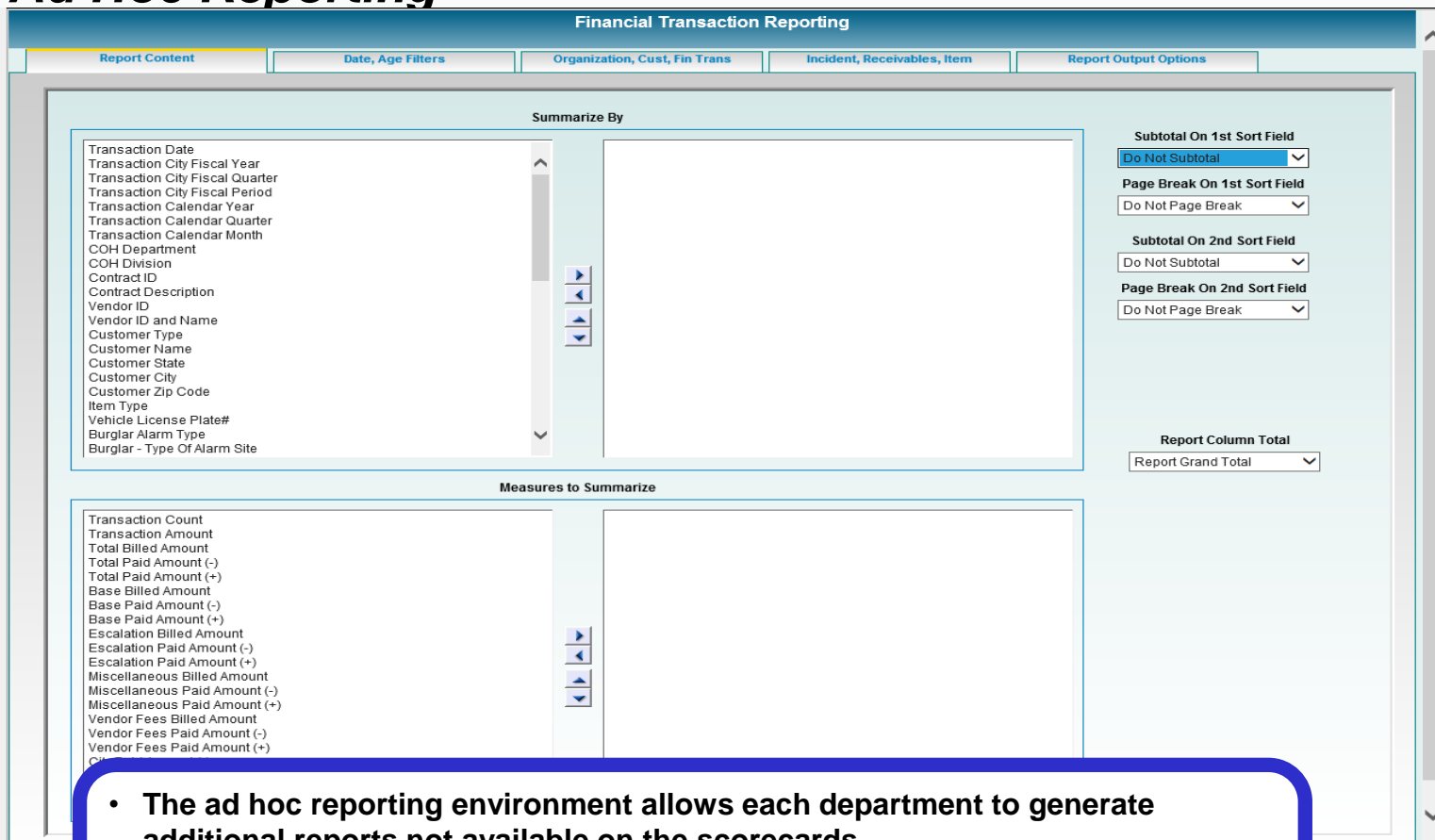




Enterprise Data Warehousing

AR Data Mart

Ad Hoc Reporting



The screenshot displays the "Financial Transaction Reporting" interface. At the top, there are five tabs: "Report Content", "Date, Age Filters", "Organization, Cust, Fin Trans", "Incident, Receivables, Item", and "Report Output Options". The "Report Content" tab is active. Below the tabs, there are two main sections: "Summarize By" and "Measures to Summarize".

Summarize By: A list of fields is shown on the left, including Transaction Date, Transaction City Fiscal Year, Transaction City Fiscal Quarter, Transaction City Fiscal Period, Transaction Calendar Year, Transaction Calendar Quarter, Transaction Calendar Month, COH Department, COH Division, Contract ID, Contract Description, Vendor ID, Vendor ID and Name, Customer Type, Customer Name, Customer State, Customer City, Customer Zip Code, Item Type, Vehicle License Plate#, Burglar Alarm Type, and Burglar - Type Of Alarm Site. A vertical scrollbar is present next to this list.

Measures to Summarize: A list of measures is shown on the left, including Transaction Count, Transaction Amount, Total Billed Amount, Total Paid Amount (-), Total Paid Amount (+), Base Billed Amount, Base Paid Amount (-), Base Paid Amount (+), Escalation Billed Amount, Escalation Paid Amount (-), Escalation Paid Amount (+), Miscellaneous Billed Amount, Miscellaneous Paid Amount (-), Miscellaneous Paid Amount (+), Vendor Fees Billed Amount, Vendor Fees Paid Amount (-), and Vendor Fees Paid Amount (+). A vertical scrollbar is present next to this list.

On the right side of the interface, there are three sections of controls:

- Subtotal On 1st Sort Field:** A dropdown menu with "Do Not Subtotal" selected.
- Page Break On 1st Sort Field:** A dropdown menu with "Do Not Page Break" selected.
- Subtotal On 2nd Sort Field:** A dropdown menu with "Do Not Subtotal" selected.
- Page Break On 2nd Sort Field:** A dropdown menu with "Do Not Page Break" selected.
- Report Column Total:** A dropdown menu with "Report Grand Total" selected.

- The ad hoc reporting environment allows each department to generate additional reports not available on the scorecards.
- The user has full control of what data to include or exclude from the report.
- Reports can be exported to Excel, PDF, HTML.



Enterprise Data Warehousing

AR Data Mart

Ad Hoc Reporting Parking Example

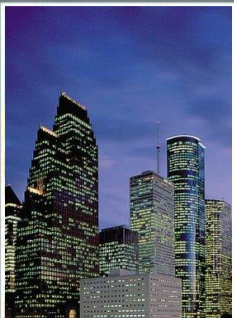
23462 of 23462 records, Page 1 of 412

City of Houston - Finance Accounts Receivable - ADHOC Reporting
Financial Transaction Ad-Hoc Reporting

Transaction Date - City Fiscal Year 2013
Incident Category Parking
Incident Type Parking Citation

Trans Fiscal Year	Incident Type	Incident Address Line 1	Transaction Count
2013	Parking Citation	1400 LUBBOCK	7585
2013	Parking Citation	400 TEXAS ST	6970
2013	Parking Citation	900 GIRARD ST	6632
2013	Parking Citation	4400 SAN JACINTO ST	5331
2013	Parking Citation	1400 LUBBOCK ST	4684
2013	Parking Citation	1600 CALIFORNIA ST	4474
2013	Parking Citation	7800 AIRPORT BLVD	4338
2013	Parking Citation	1000 TEXAS ST	4293
2013	Parking Citation	8300 TYBOR DR	4087
2013	Parking Citation	300 CAROLINE ST	3665
2013	Parking Citation	1500 KANE ST	3662
2013	Parking Citation	500 WALKER ST	3507
2013	Parking Citation	100 SAN JACINTO ST	3323
2013	Parking Citation	900 FRANKLIN ST	3248
2013	Parking Citation	1100 TEXAS ST	3227
2013	Parking Citation	1600 MCKINNEY ST	2623
2013	Parking Citation	1100 WOOD ST	2601
2013	Parking Citation	800 PRAIRIE ST	2486
2013	Parking Citation	1100 CONGRESS ST	2478
2013	Parking Citation	1000 DALLAS ST	2475
2013	Parking Citation	300 AUSTIN ST	2449
2013	Parking Citation	400 AVONDALE ST	2257
2013	Parking Citation	1500 MCKINNEY ST	2226
2013	Parking Citation	1300 FRANKLIN ST	2225
2013	Parking Citation	500 DALLAS ST	2207
2013	Parking Citation	1300 TEXAS ST	2204
2013	Parking Citation	2400 TIMES BLVD	2161
2013	Parking Citation	800 WALKER ST	2101
2013	Parking Citation	200 CAROLINE ST	2096

- This ad hoc report shows the number of Parking citations issued at a particular incident address in FY13.





Enterprise Data Warehousing

AR Data Mart

AR Data Mart: Results to Date

Data Requests and Analysis Results*

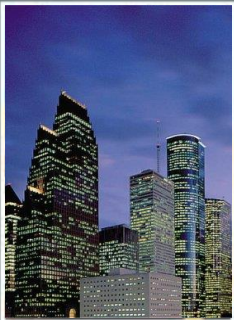
1. Parking true-up between source system and the collection vendor
2. Ad Valorem Reports
 - a) Information about railroad and railroad-related accounts to assist with researching during the Legislative Session
 - b) Information about airline accounts per Councilmember's budgetary request
 - c) Information about over-65 exemptions per Councilmember's budgetary request
 - d) Valuation trends for Houston HOPE/LARA project sites

Financial Results*

1. ARA – Burglar Alarm Penalties	\$347,671
2. HFD – Fire Alarm Penalties	\$143,665
3. <u>HFD – Fire Alarm Permits</u>	<u>\$256,858</u>
TOTAL:	\$748,194

** Results to date obtained by performing manual ad hoc analyses based on data extracts and integrated dimensional model that the AR Data Mart can supply once live.*

Note: Revenue impact of AR Data Mart will increase significantly with inclusion of Ad Valorem Property Taxes, EMS Transport Fees, Municipal Courts Fines and Fees, and Utility Billing and Collections





Enterprise Data Warehousing

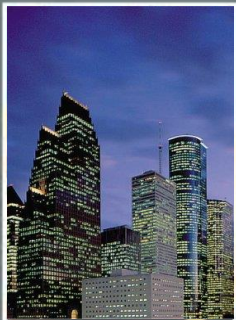
Next Steps: Phase II

Next Steps

1. AR Data Mart and Data Warehousing infrastructure
 - ❖ Upgrade Data Warehouse infrastructure (approved in Capital Improvement Plan)
 - ❖ Integration with City GIS environment
 - ❖ Incorporation of FIN Ad Valorem Property Tax data into AR data mart
2. Kickoff Governance to identify future Data Mart projects
 - ❖ Plan for revenue streams (EMS, HHS, HPL, and MCD) when new systems go live
 - ❖ Prioritization of non-AR Data Mart projects (e.g. parking meter revenues, fleet, etc.)
3. Build the Data Warehousing Center of Excellence

RCA for Data Warehousing Infrastructure Funding

Recommend appropriation of **\$404,000.00** for Data Warehousing infrastructure. This funding will support hardware (servers), software (database and business intelligence software licenses), project management and necessary training.





Finance Department

Questions?