

Memorandum



Date May 22, 2009

To Members of the Finance, Audit & Accountability Committee:
Chair Mitchell Rasansky, Vice-Chair Jerry Allen, Mayor Pro Tem Dr. Elba Garcia,
Vonciel Jones Hill, Angela Hunt, Ron Natinsky, and David Neumann

Subject Mainframe Audit

The purpose of this memo is to provide further information and clarification in regards to the City of Dallas Uninterruptible Power Supply (UPS) System, CIS Fire Suppression System, and Mainframe Applications Migration Plan.

City of Dallas UPS System

The City currently has three UPS systems supporting the data center, with 5 generators supporting City Hall.

- The two Exide UPS systems were installed in 1996 with two power sources. These systems are currently fully operational and can handle a full load in the data center in case of an outage. Systems connecting to the Exides UPS Systems include the mainframe, HRIS, CAD, Pay1, SAN (Storage Area Network) storage, and several smaller systems.
- The third UPS which is an International Power Machines (IPM) is at end of life. The IPM was installed sometime mid to early 70s and no longer charges the batteries correctly. Due to this fact, CIS and EBS have a project funded to convert all systems off of the IPM switch to the newer and functional Exide UPS systems. The architectural designs are complete, the contracts have been signed for the work, and we are in the process of scheduling the mandated outage required to facilitate the move. The move to the newer Exide UPS system is expected to occur late summer or early fall. Systems connecting to this UPS include HRIS, CAD, AMS, 311, Email, Weather Alert System, and several smaller systems.

CIS Fire Suppression System

The existing Halon Fire Suppression system was inspected and yellow tagged by the Fire Marshal in 2007 because of issues with some of the fittings. While the fire suppression system will activate in the event of a fire, it may not be fully functional on the fittings in questions. The fire suppressions system will be replaced as part of the Green Data Center Initiative. CIS and EBS are working with Campos Engineering in the design which includes current fire suppression technology. Final architectural designs will be completed late this summer. The City will then issue an RFCSP, with plans to begin actual construction in first quarter of 2010.

Mainframe Applications Migration Plan

The migration of the systems off the mainframe is contingent on budget approval. The estimated cost to migrate the remaining applications off the mainframe is \$59,236,000.

Attached is a list of all the systems currently remaining on the mainframe. The list also depicts the systems that have been removed from the mainframe.

CIS Tape Management

The Auditor's office and the CIS department had some disagreement as to how tapes are managed by the CIS department. CIS responded **incorrectly** to question 1.f of the City's Mainframe Operating Systems, Security, Operations and Utilization audit report. CIS' response in the audit report is as follow:

"1. f. Purchase and install a bar code inventory system and perform a periodic inventory of all tapes. The bar code system would allow inquiry of the tape inventory database and reports could be routed to management for their review.

Response:

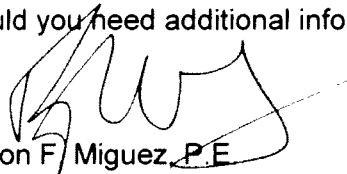
1. *The CIS department currently inventories all tapes in the rotation process by use of a barcode system.*
2. *A Budget Adjustment Form will be submitted for FY 2008-2009, and subject to funding authorization to address the situation of bar coding of all tapes not currently in the rotation process."*

The correct response to 1.f is as follow:

Response:

1. The CIS department currently uses barcode technology to inventory tapes that are used **within the automated tape back-up system only**.
2. Currently CIS uses the following process for managing tapes not used within the automated tape backup system:
 - a. The mainframe tapes are inventoried and the tape numbers are manually entered into the BMC (stands for Boulett, Moores, Cloer: the founders of BMC Software, Inc.) software program that keeps track of the tapes.
 - b. All tapes taken off site are inventoried and tracked in the BMC software program. Tapes are taken off site and stored at a separate location for disaster recovery purposes.
3. CIS is currently investigating disk technology, Virtual Tape Library, which will eliminate tapes for daily backups. In the future, tapes will only be used for Disaster Recovery.

Should you need additional information, please let me know.



Ramon F. Miguez, P.E.
Assistant City Manager

- c: Honorable Mayor and Members of the City Council
 Mary K. Suhm, City Manager
 Deborah Watkins, City Secretary
 Thomas P. Perkins, Jr., City Attorney
 Craig D. Kinton, City Auditor
 Judge C. Victor Lander, Administrative Judge
 Ryan Evans, First Assistant City Manager
 Jill A. Jordan, P.E., Assistant City Manager
 A.C. Gonzalez, Assistant City Manager
 Forest Turner, Interim Assistant City Manager
 Dave K. Cook, Chief Financial Officer
 Worris Levine, Jr., CIO/Director, Communication & Information Services
 Helena Stevens, Assistant to the City Manager

Strategic Applications Planning/Development

CIS Supported Applications

Application Name	Application Description	Platform	KFA	O.S.	Estimated Replacement Time Frame	Funding	Estimated Cost to Replace	Current Status
Geographic Information System	The GIS system contains a listing of all the streets within the City of Dallas. It performs a role in verifying the accuracy of street location data for many systems in the city including Police and Fire Dispatch, Code Enforcement, Street Inventory, Street Maintenance and Service Request. This system contains geographic and political boundary information also.	Mainframe	Economic Dev	LINC	To be decommissioned with implementation of the new RMS System: FY 11-12	\$3M in Grants and submitted additional funding for Budget FY10	19,000,000.00	Reviewing RFCSP received from vendors.
Police Download of all MF data to server	Process to support the moving of data from the mainframe to a SQL server in preparation to migrate to client server applications.	Mainframe	Public Safety	MVS	To be decommissioned with implementation of the new RMS System: FY 11-12	\$3M in Grants and submitted additional funding for Budget FY10		Reviewing RFCSP received from vendors.
Police Arrest System and Reporting	System that supports the entry and filing of adult arrest reports. DEFRS (Direct Entry Field Reporting System) and DEARS (Direct Entry Arrest Reporting System) Systems.	Mainframe	Public Safety	LINC	To be decommissioned with implementation of the new RMS System: FY 11-12	\$3M in Grants and submitted additional funding for Budget FY10		The implementation of the DCIM (Indico) project will replace the arrest but it will be a phased approach
Police Support Systems	System that includes police personnel system, equipment management and security systems.	Mainframe	Public Safety	LINC	To be decommissioned with implementation of the new RMS System: FY 11-12	\$3M in Grants and submitted additional funding for Budget FY10		Reviewing RFCSP received from vendors
Geographical Information System Parcel	A system that contains parcel information originating from the Dallas Central Appraisal District (DCAD); the system is associated with the LINC mainframe GIS system	Mainframe	Economic Dev	LINC	To be decommissioned with implementation of the new RMS System: FY 11-12	\$3M in Grants and submitted additional funding for Budget FY10		Reviewing RFCSP received from vendors.
Water LINC Shadow Files System	Citywide system that is an interface to the Water CIABS system; developed so that DPD personnel could access DWU account information without having to obtain a CICS terminal.	Mainframe	Public Safety	LINC	To be decommissioned with implementation of the new RMS System: FY 11-12	\$3M in Grants and submitted additional funding for Budget FY10		Reviewing RFCSP received from vendors.
Courts Case Management System	System that includes warrant processing, court scheduling, citation processing, cash handling, IVR support and various administrative functions.	Mainframe	Public Safety	LINC	To be decommissioned with implementation of the proposed Court Case Management System. Proposed in FY09-10 Budget to be replaced in FY 11-12	Submitted for Budget FY10	12,000,000.00	Court is looking to bid for a new Courts Case Management System combined with Courts Imaging system. New system selection and implementation is dependent on the budget approval.
Courts Imaging System	System that allows for the entry, imaging, indexing and printing of all documents utilized by CDS personnel.	Mainframe/Client Server	Public Safety	OS/2	To be decommissioned with implementation of the proposed Court Case Management System. Proposed in FY09-10 Budget to be replaced in FY 11-12	Submitted for Budget FY10	14,000,000.00	Court is looking to bid for a new Courts Case Management System combined with Courts Imaging system. New system selection and implementation is dependent on the budget approval.
E-Gov Citation payments	Solution that will allow for the issuance of e-citations that will achieve greater efficiencies in the creation and routing of citations, allow greater access from the field by city personnel, reduce data entry costs and enhancing the processing of citations.	Mainframe and Web	Public Safety	LINC	To be decommissioned with implementation of the proposed eCitation System. Proposed in FY09-10 Budget to be replaced in FY 10-11	Submitted for Budget FY10	2,500,000.00	

Strategic Applications Planning/Development

CIS Supported Applications

Application Name	Application Description	Platform	KFA	O.S.	Estimated Replacement Time Frame	Funding	Estimated Cost to Replace	Current Status
Police/Courts Mobile Electronic Citation	System to support the entry of citations through the mobile workstation, handheld device or desktop applications.	Mainframe/Client Server	Public Safety	LINC	To be decommissioned with implementation of the proposed eCitation System. Proposed in FY09-10 Budget to be replaced in FY 10-11	Submitted for Budget FY10	2,861,000.00	
Courts/DPD Regional Wanted Persons	North Central Texas Crime Information Center (NCTCIC). Contains regional warrants from 130 law enforcement agencies in the North Texas area. DPD Intelligence also uses this system to store known offenders and sex offenders.	Mainframe	Public Safety	LINC	FY09-10	Budgeted in FY09	200,000.00	Money has been budgeted to replace Regional Warrants system in current Fiscal Year. In beginning stages of gathering requirements.
Police Weapons and Property Inventory System (WEPI)	Subsystem to assist in maintaining police property, personal weapons, devices and equipment used by police personnel.	Mainframe	Public Safety	LINC	Personnel to be trained on Replacement of the WEPI Systems to HardCAT. FY09-10	NA	0.00	We currently have a replacement system (Hard Cat) in place that is used today. We just need to educate/train the Qtr master on how to use this system.
Child Immunization System	Provides for the online entry, display and tracking of immunizations given by the City of Dallas to children within the area.	Mainframe	Public Safety	Ideal / Datacom	Migration of Data from Mainframe to Client/Server in FY10-11	Budget to be proposed for FY10-11	250,000.00	EHS used in 1995. State law requires that the data be maintained until the youngest child has reached their 21st birthday. We are in the 13th year, therefore the data must be retained for eight (8) to nine (9) more years. EHS now uses the State of Texas' systems "TWICES" and "MTRACK" to capture child immunization data entry for new records. Should a request for historical data be received the turnaround time to complete the request would be a "couple of weeks". EHS wants to keep the historical data for citizens request and maintained for State Law.
Police Pawn Shop Interface (w/TCIC)	System that provides support for DPD in performing checks on pawned items via the Texas Criminal Information Computer (TCIC) for stolen property.	Mainframe	Public Safety	LINC	Need TriTech to incorporate a change to allow lookups via the TCIC System through VisiCAD Command. Will be proposed in FY10-11 Budget	Budget to be proposed for FY10-11	100,000.00	
Vital Statistics Datacom system	System that stores and reports births, deaths, and stillbirths occurring in the City of Dallas. It uses the City's Geographic Information System's (GIS) street file to obtain census tract data (for later reporting). Reports produced by the system are sent to the State of Texas, the Centers for Disease Control (CDC) and other national agencies.	Mainframe	Public Safety	CICS / Datacom	Vital Statistics is in the process of converting data to Fortis Document Management System. Completion is estimated for FY10-11.	NA	0.00	They are using CICS (mainframe system for record look up record number to find the hardcopy record from books) they are not entering new data into CICS from 4 January 2009. They are in the process of converting all hardcopy images and enter into the Fortis Document management system.

Strategic Applications Planning/Development

CIS Supported Applications

Application Name	Application Description	Platform	KFA	O.S.	Estimated Replacement Time Frame	Funding	Estimated Cost to Replace	Current Status
Street Maintenance Cost of Service	System that captures the cost of performing repairs on the streets within the City of Dallas. Work crew time sheets serve as the input and data is compiled by location indicating the types of work performed and the cost of each job. In addition, the system determines the cost of performing the different types of maintenance and repair activities on a monthly basis.	Mainframe	Quality of Life	CICS / Datacom	This will be replaced with implementation of SAP Work Order Management System. Depending on budget approval for FY10-11. Completion is estimated for FY11-12.	Budget to be proposed for FY10-11	5,000,000.00	
Pavement Management / Street Condition Inventory	System that tracks and analyzes the various types of pavement resurfacing techniques used on the City's streets for purposes of comparison of the efficiency of the pavement treatments.	Mainframe	Quality of Life	CICS / Datacom	This will be replaced with implementation of SAP Work Order Management System. Depending on budget approval for FY10-11. Completion is estimated for FY11-12.	Budget to be proposed for FY10-11		
Geographical Facilities Information System	The CICS / Datacom version of the Geographic Information System (GIS).	Mainframe	Economic Dev	CICS/Datacom	This will be decommissioned with implementation of SAP Work Order Management System. Depending on budget approval for FY10-11. Completion is estimated for FY11-12.	Budget to be proposed for FY10-11	NA	This system is to be decommissioned when SAP Work Order Management System is implemented and the Street Maintenance System and Pavement Management Systems are decommissioned.
City Secretary System	System that includes City Council minutes; ordinances; Police & Fire pension minutes; City code and other documents.	Mainframe	Staff Accountability	n/a	Solution to be determined and implemented by end of FY11-12	Budget to be proposed for FY11-12	2,000,000.00	
Radio Billing	System used to bill outside City departments for radio equipment rental. Data from CIS Communications is uploaded to the mainframe; and batch process are run, driven by user entries in a CICS transaction. There is a preliminary batch process and a final batch process that creates an interface billing tape that is loaded into the Advantage accounting system.	Mainframe	Staff Accountability	LINC	To be replaced with use of Billing/Assett System. To be proposed in FY10-11 Budget and to be replaced in FY10-11.	Budget to be proposed for FY10-11	250,000.00	
Internal Billing (CIS)	A series of batch programs used to generate the Resource billing for charges billed to CIS clients.	Mainframe	Staff Accountability	LINC	To be replaced with implementation of Pinnacle System. Proposed in FY06-07 Budget to be replaced in FY09-10.	Budgeted FY06-07	75,000.00	
Network Reporting System (TS)	System that produces operations data for billing other City departments.	Mainframe	Staff Accountability	LINC	To be replaced with use of Billing/Assett System. To be proposed in FY10-11 Budget and to be replaced in FY10-11.	Budget to be proposed for FY10-11	250,000.00	
TAX LINC Shadow files	Citywide system that allows access to real estate property tax information, particularly for DPD. System was developed so that departments would not have to obtain CICS terminals. This system is updated monthly with the latest tax roll information received from the Dallas County property tax system.	Mainframe	Public Safety	LINC	Solution to be determined and implemented by end of FY11-12	Budget to be proposed for FY11-12	750,000.00	
Payroll System (HR/Payroll) - LINC	Citywide payroll processing. The system includes Time sheet processing, pay and deduction calculations, pay check printing, labor distribution reporting, journal vouchers, tax reporting, personnel action processing, deferred compensation and tax reporting. System is still used for historical reference, research and prior year W-2 processing.	Mainframe	Staff Accountability	LINC	Terminated system and move files to retrievable storage by FY10-11 in conjunction with Workman's Compensation System			

Application Name	Application Description	Platform	KFA	O.S.	Estimated Replacement Time Frame	Funding	Estimated Cost to Replace	Current Status
Workers' Compensation System/Legacy mainframe and Renaissance vendor system	General support including historical reporting (LINC) and if necessary, the generation of replacement files (Renaissance) for the vendor application.	Mainframe and Client Server	Staff Accountability	LINC	Terminated system and move files to retrievable storage by FY10-11 in conjunction with Payroll			
Total Estimated Cost to Migrate Remaining Applications Off the Mainframe:							59,236,000.00	
The systems below have been migrated off the mainframe.								
Telephone Directory (TD)	Online Telephone Directory of City of Dallas employees. OUT OF DATE.	Microsoft SII	Staff Accountability	Microsoft Windows	Terminated system FY 07-08, consolidate to CoD intranet file			No Longer Used. Replaced by COD Intranet Solution
Employees Retirement Fund (ERF)	System used for ERF member tracking and retiree payroll processing (has been replaced by CPAS vendor system). Support is provided for historical reporting.	Mainframe	Staff Accountability	LINC	Terminated system and move files to retrievable storage by FY10-11 in conjunction with Police and Fire Pension Fund			This system has been decommissioned and is hosted by Cpas. Need to preserve data for historical purposes.
Police and Fire Pension Fund (PFP)	System that collects contribution data from active (fire/police) employees and processes retiree payroll (Has been replaced by a vendor package).	Mainframe	Staff Accountability	LINC	Terminated system and move files to retrievable storage by FY10-11 in conjunction with Employee			This system has been decommissioned and is hosted by LRS. Need to preserve data for historical purposes.
Collection Agency Interface - DWU - CIABS	Provides the Water Utility a file transfer interface and access to the Outsourced TPA (Penn Credit Corp) Collection application.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
E-Government/Electronic Bill Processing and Payment (EBPP) DWU ePaY	This Web/Internet service provides an implementation of the City's eGovernment initiative. It enables customers, online, to pay bills, review usage history and receive notices and other information. The resulting electronic transactions are interfaced to the CIABS application and processed within a 24-hr cycle. The service also provides reconciliation, statistical and payment-type reporting. It also provides Site-Trend information.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
Collection Agency Interface - DWU - Special Collections	Provides Special Collections a file transfer interface and access to the Outsourced TPA (Penn Credit Corp) Collection application.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP on 10-2008
DWU Sanitation processing	System that is imbedded into the CIABS/DWU System. The Sanitation CIABS system provides for the billing of sanitation services on the City of Dallas water bill format. This system has its own unique users and programs.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
DWU Payment Stations / Agents	This series of applications and interfaces enables a component of the eGovernment Initiative by creating electronic bill payment at various (hundreds) of locations around the City of Dallas. The PayStations/ Agents are networked electronically to City Hall and City banks, in some instances.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
PC Cash (Cabs Cash Transactions)	Provides for the Auto Draft capability that enables citizens to have automatic drafts from their checking accounts to pay their water bill, all without intervention.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
FIRE MARS (False Fire/Medical Alarms)	Provides for the permit issuance, billing and collection for the Fire/Medical and Security Alarms services.	Sun Server System	Quality of Life	Sun Solaris	FY 07-08 (Replaced with LMS/POSSE)			Replaced by SAP on 10-2008
DWU Fraud prevention	This mainframe application was created as part of the DWU Fraud Prevention initiative. It provides alerts and for the reporting of various types of transactions that affect account balances and status.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008

Application Name	Application Description	Platform	KFA	O.S.	Estimated Replacement Time Frame	Funding	Estimated Cost to Replace	Current Status
DWU 3-1-1 Service Order Reporting	Provides CRMS-like reporting that reflects the performance work, to Service Level Agreement (SLA) for DWU Service Orders (SO). Reporting, through Crystal Reports, is available by summary, Council District and SO type. Had been placed on hold but is starting up again; required support will increase.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
DWU Interactive Voice Response (IVR) for Account Information & Payment	The Interactive Voice Response (IVR) system receives information from the mainframe water accounts and provides responses to the majority of (80%) of caller inquiries including: clients requests for - account balance, payment due date, scheduled disruptions, - re-print of previous bills, printouts of water consumption. Phase II of the IVR implementation will include electronic bill payment and credit card authorization capabilities.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Implementation of Paymetric Credit Card Solution completed on 05-18-09 IVR Upgrade will be implemented during ATT/CISCO Network Refresh in FY10
DWU Water Stores/Inventory	Provides a bar-code based input and service for materials and small tools that are offered to DWU internal personnel as well as external customers (like local municipalities). It is an extension of the aging application and provides inventory accounting and control for the Material Distribution Services Division. The application maintains and tracks inventory / stock at eight (8) warehouse locations.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
POLICE MARS (False Security Alarms)	System to support the billing for False Security alarms and Computer Aided Dispatch (CAD) queries to verify valid alarm permits.	Sun Server System	Quality of Life	Sun Solaris	April 2008 (Replaced with LMS/POSSE)			Replaced by SAP on 10-2008
DWU StormWater	Subsystem of CIABS that provides for the management of stormwater fees. Very complex algorithms. Has to do with water runoff from customer properties.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
DWU/CIABS	Customer Information, Accounting and Water Billing System (CIABS) that provides core processing support for DWU operations. The system maintains account/tenant information and produces water bill statements. CIABS uses cycle, route and accounts data to create downloads (to handheld devices) that facilitates meter reading activities. CIABS uses input (water-meter reads) from the Multiple Vendor Reading Systems (MVRS) to create customer bills. CIABS also provides for meter tracking and Service Order issues and processing.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
DWU Automated Payments (AutoPay)	This application provides for the Auto Draft capability that enables citizens to have automatic drafts from their checking accounts to pay their water bill; all without intervention.	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
TAX LBR (Land based receivables)	Provides for the capabilities to assess fines and place, and manage, property liens on real property/ improvements for services provided by the City. Such services are provided for property owners in order that their property meets code requirements - for example demolition, secured closure and weed violations.	Sun Server System	Quality of Life	Sun Solaris	April 2008 (Replaced with LMS/POSSE)			Replaced by SAP in 10-2008
Water Share	Accept donations for charities from water bills	Sun Server System	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			Replaced by SAP in 02-2008
Courts Enterprise Interactive Voice Response (IVR)	New IVR system to process payments on citations and to notify potential jurors if their services are required.	Mainframe and IVR	Public Safety		Migrated to UNIX in 2007			Migrated in 2007
Fire Download of all Fire MF data to server	Process to support the moving of data from the mainframe to a SQL server in preparation to migrate to client server applications.	Mainframe	Public Safety	Datacom/DB	Decommissioned FY 07-08			No Longer Used

Application Name	Application Description	Platform	KFA	O.S.	Estimated Replacement Time Frame	Funding	Estimated Cost to Replace	Current Status
Water SQL Shadow Files System	Provides an environment for City Hall personnel to access County Tax information.	Mainframe	Quality of Life	Sun Solaris	Replaced by Pay1 07-08			To be replaced in FY09 by SAP Solution

Legend:

Orange: System has been Migrated and/or Decommissioned and no longer Operating on Mainframe System.