

Memorandum



CITY OF DALLAS

DATE February 27, 2015

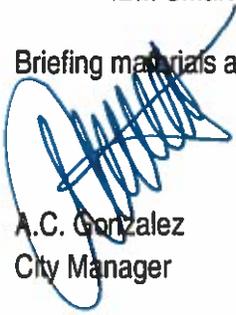
TO Honorable Mayor and Members of the City Council

SUBJECT **City Manager Update (CuSP Report)**

On Wednesday, March 4, 2015, I will be briefing the Council on the following topic during my update to the Council:

- IBM Smarter Cities Challenge

Briefing materials are attached for your review. If you have any questions, please let me know.



A.C. Gonzalez
City Manager

c: Warren M.S. Ernst, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, First Assistant City Manager
Eric D. Campbell, Assistant City Manager

Jill A. Jordan, P.E., Assistant City Manager
Mark McDaniel, Assistant City Manager
Joey Zapata, Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Sana Syed, Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor & Council



CuSP Report

Culture. Systems. People

Dallas City Council Briefing

March 4, 2015

CuSP Focus: Systems

- ▶ Improve customer service and operational efficiencies through enhanced technology
- ▶ Use outside experts to challenge our approaches and bring us the latest thinking
- ▶ Recently, we were fortunate to attract outside expertise through a competitive process which:
 - ▶ IBM Smarter Cities Challenge
 - ▶ Brought top talent; multi-disciplinary team with international experience
 - ▶ No cost to City

CuSP Focus: Systems

- ▶ Current IT strategic plan focusing on:
 - ▶ Infrastructure
 - ▶ Personnel
 - ▶ Connectivity
 - ▶ Data
 - ▶ Security
- ▶ This outside engagement focused on connectivity and data
 - ▶ Critical public safety data and applications
 - ▶ Identifying and overcoming obstacles to data silos
 - ▶ Creating Actionable Recommendations for Implementation
- ▶ Additional strategic planning proceeds on other areas

Dallas Smarter Cities Challenge - the Team and the Study



Mandi Hanks, Joe Doria, John Black, Judy Lyne, Anand Ranganathan, Rajesh Sukhramani

- ▶ Study period: Feb 2nd -20th 2015
- ▶ Over 80 City leaders interviewed:
 - ▶ City Manager and Assistant City Managers, Chief of Police, CIO
 - ▶ City of Dallas Departments (DPD, CIS, Fire & Rescue, Libraries, Planning, City Attorney, Community Prosecutor, City Courts, OEM)
 - ▶ Community Leaders (Safer Dallas, CrimeWatch, Habitat)
 - ▶ Dallas County CIO
 - ▶ Chamber of Commerce
- ▶ Study of city datasets, websites and apps
- ▶ Research and comparison with other cities
- ▶ Presentation to be followed with a full written report
- ▶ Estimated value is \$500,000 in consulting fees

Questions Asked

- ▶ How can the City of Dallas and its citizens best use the multiple data stores they own and have access to?
- ▶ How can we use the latest available technologies to derive insights from this data, and to share and publish information, in order to make the city a safer, more pleasant environment for all its inhabitants?
- ▶ What organizational/technology improvements can be made on a short and/or long-term basis to effect change?

Summary of Findings

- ▶ Data and insights trapped in silos



- ▶ Poor user experience to get relevant data for a given task
- ▶ “Protective” culture around data limits sharing; users do not know where data exists outside of their domain
- ▶ Trust and perceptions are critical issues to address between the City, Neighborhoods, and Citizens
- ▶ CIS sponsored enterprise-wide IT projects are challenging to fund

Summary of Recommendations

Focus Area	0-12 months	1-3 years	Year 4 & beyond
Organization & Culture	<ul style="list-style-type: none"> • Create the Office of Chief Data Officer under the CIO with support staff to execute City's data strategy* <ul style="list-style-type: none"> • Create governance policies around data sharing and access control* • Implement & enforce governance policies 		
Organize and Govern Data	<ul style="list-style-type: none"> • Inventory different databases & analytic capabilities across the city <ul style="list-style-type: none"> • Create and populate a 'data lake' - city owned, public databases and other data sources • Establish required controls: encryption, access control, expungement • Enable export of data, in a privacy-preserving manner, for community consumption • Complete migration of data to 'data lake' – close down local DBs • Investigate possibility for 'whole city/shared' data lake with other agencies 		
Provide Search & Analytics	<ul style="list-style-type: none"> • Identify key data items: e.g. PERSON / ADDRESS / CAR <ul style="list-style-type: none"> • Develop/install query tools for different user and data types <ul style="list-style-type: none"> • Establish cross-department team of data scientists to uncover insights and patterns from multiple data sets • Use analytics and generated insights to optimize specific city operations <ul style="list-style-type: none"> • Set up query capabilities to external (county, state, federal) data • Develop real-time analyses on streaming data <ul style="list-style-type: none"> • Investigate natural language query tools 		
User Experience	<ul style="list-style-type: none"> • Appoint "User Champions" for major user groups focus on user centered design <ul style="list-style-type: none"> • Identify 3-5 key 'quick wins' and develop new user experience <ul style="list-style-type: none"> • Embed user-centered design in all systems selection and delivery 		
Other	<ul style="list-style-type: none"> • Extend 'Buy-not-Build' thinking to infrastructure – exploit cloud* • Invest in network bandwidth as a key enabler* 		
	<p>1</p> <p>Lay the foundations Reset the culture Execute 'quick wins'</p>	<p>2</p> <p>Implement the vision Track the results</p>	<p>3</p> <p>Augment the vision</p>

* Currently underway

Next Steps

- ▶ Full Report from IBM due in 6-8 weeks
- ▶ Incorporation into City-wide Strategic IT Plan due Spring, 2015
- ▶ Continue implementation of recommendations