

# Memorandum



CITY OF DALLAS

DATE August 22, 2008

TO Members of the Transportation and Environment Committee:  
Linda L. Koop (Chair), Sheffie Kadane (Vice Chair), Jerry R. Allen, Carolyn R. Davis, Vonciel Jones Hill, Angela Hunt, Pauline Medrano, and Ron Natinsky

SUBJECT Network Technology Refresh Briefing

Attached is the "Network Technology Refresh" briefing that will be presented to you on Tuesday, August 26, 2008 at the Transportation and Environment Committee meeting.

Please contact me if you need additional information.

A handwritten signature in black ink, appearing to read 'R. Miguez'.

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

c: The Honorable Mayor and Members of the City Council  
Mary K. Suhm, City Manager  
Thomas P. Perkins, Jr., City Attorney  
Deborah Watkins, City Secretary  
Craig Kinton, City Auditor  
Judge Victor Lander, Judiciary  
Ryan S. Evans, First Assistant City Manager  
David O. Brown, Interim Assistant City Manager  
Jill A. Jordan, P.E., Assistant City Manager  
A.C. Gonzalez, Assistant City Manager  
David Cook, Chief Financial Officer  
Jeanne Chipperfield, Interim Director, Office of Financial Services  
Helena Stevens, Assistant to the City Manager  
Edward Scott, Interim Director, Office of Financial Services

# Network Technology Refresh Briefing

Presented to the Dallas City Council  
August 26, 2008

**Communication & Information Services**



# Outline – Network Technology Refresh

- Background
- Why should we refresh the Network?
- What are the key issues that drive and affect the Network Refresh?
- Why will City of Dallas be better off as a result?
- Implementation plan?
- What is the cost and how will we fund?

# Background

- In 2000, the City upgraded the telephone and data network hardware and software serving the City's operations.
- In 2004, the City entered into a managed service agreement with AT&T for the equipment and software purchased in 2000. The AT&T managed service agreement provides:
  - 24 hour network and security monitoring
  - on-site help desk
  - technical support
  - a software tracking system

# What the City of Dallas Network does?

- After eight years, the network components are obsolete, beginning to fail, and are no longer under warranty. In most cases, replacement parts are not available and may be more expensive than purchasing new components.
- The services we offer as a city government are highly dependent on both the data and voice communications network.
- If the network does not work, we lose critical services such as:
  - Computer Aided Dispatch system
  - Payroll
  - Internet
  - E-mail
  - Phones

# What the City of Dallas Network does?

- **SUPPORTS**

- 531 computers that run the applications
- 7,250 desktop and laptop computers
- 6,873 Cisco Telephones

- **TRANSPORTS**

- 260,000 CDs of data annually
- 19,520 phone calls daily
- 154,132 e-mails per day



- **CONNECTS**

- 314 City buildings network wired
- 1,325 router & switch devices

# What the City of Dallas Network does?

- **Supports the following systems/services:**
  - Computer Aided Dispatch
  - Online Phone and Web Payment Services
  - Video Communications for Surveillance Cameras
  - Employee Payroll & Benefit Services
  - City Administrative Services (i.e., City Council Offices, City Manager, City Attorney, City Secretary, etc.)
  - Park & Recreation Services
  - Financial and Billing
  - 3-1-1
  - Food Inspection
  - Public Library Services
  - Online Building Inspection Notification
  - And Many Other City Services and Information

# City of Dallas Future Network Needs

- **Greater use of internet technology as a means for exchanging information, providing services and transacting with citizens, businesses, and other government agencies;**
- **Streaming video and telephone automation to communicate and engage dialogues with citizens, businesses and employees;**
- **Customer contact channels (voice, email, web, fax, etc.) with computer systems;**
- **Higher dependency for wireless communication with expanding mobile computing needs, such as GPS, in-car video, field operations, work-order management, public safety, etc.**

# Key Issues That Drive & Affect Network Refresh

- **Manufacturer declares technology end-of-life**
  - End-of life means
    - No replacement parts
    - No software upgrades
    - No technical help
- Security effectiveness
- Progression of new business application systems
- Degraded reliability, capacity & performance
- Increased business growth
- Equipment has reached end of life
  - 1% in 2006
  - 83% in 2007
  - 14 % in 2008
  - 1% in 2009

# Why will City of Dallas be better off as a result?

## Benefits of the network refresh and new design

- **Security**
  - Additional security features:
    - encryption - a technology that scrambles information traveling on the network and making it unreadable, except for those with the need to know
    - adding better internet defenses against viruses, hacker and intrusion prevention
- **Capacity**
  - Increasing the network size to process greater amounts of information
- **Reliability**
  - Providing back-up and recovery capabilities to reduce network downtime

# What is the Implementation Plan?

# Two-Year Implementation Plan Overview

## 1st Phase: Voice/Data Network (3Q2008 – 4Q2009)

- Upgrade the obsolete equipment at City Hall
- Enhance current network
  - Implement GREEN strategy:
    - Reduce the number of computers from 17 to 8
    - Install hardware that goes into hibernation when no use is detected
    - Reduce electrical power and cooling consumption
  - Improved internet security to scramble data in transit
  - Improve the back-up and recoverability of the network, which reduces the risk of interruptions with City services
  - Improved network capacity to allow more information moved throughout the network
- Implement new capabilities and features
  - Intercom
  - City-wide phone directory
  - Extra security defenses to protect against viruses, hacker and unauthorized access

# Two-Year Implementation Plan Overview

## **2nd Phase: Voice/Data Network (4Q2009 – 4Q2010)**

- Upgrade network at Dallas Police Headquarters
- Upgrade network at Oak Cliff Municipal Center
- Upgrade network at Central Library
- Upgrade all remote city facilities network data routers and switches
- Increase capacity to support a higher volume of information

# Procurement & Cost of the Network Refresh

- Utilize the current AT&T service contract that will:
  - Save the city almost \$3 million (\$2,901,121.20) in maintenance cost
  - Purchase all equipment at AT&T cost plus 8%
- The total solution project value is \$11,205,979.00
  - Approved FY07-08 Budget \$6,000,000.00
  - Proposed FY09-10 Budget \$5,205,979.00

**QUESTIONS?**