

# Finance and Effective Infrastructure

## Meeting of December 7, 2012

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### Executive Summary: Information Technology Update

#### Issue

*Provide Council Committee members information on current/recent Information Technology issues and strategies. Specific guidance is requested on the Siting of Cellular Towers and Antennas item that is included in this Summary.*

#### Background:

Below are brief summaries of current and recent Information Technology initiatives:

- **IT Governance/Operational Efficiencies**

The Information Technology Division has developed measurable standards of performance for all major operations. In order to track performance and measure costs, we have implemented the Innotas system, which enables us to monitor the costs of all hardware and software used by IT, as well as the programs/systems that we support in the operating departments. We are tracking the time spent by IT employees on various functions so we can calculate more accurate costs associated with operating functions.

Our improved performance measurements will enable us to make better cost-benefit decisions when it comes to replacing hardware and software and allocate IT resources more efficiently.

- **Radio Interoperability and the Regional Wireless Cooperative (RWC)**

Five plus years ago Tempe's existing, disparate Fire, Police, and Municipal radio systems were nearing the end of their useful lives, and the City aggressively pursued an interoperable radio system solution that would allow us to communicate with one another and with other first responders from throughout the Valley.

Representatives from Tempe's Police, Fire, and Finance & Information Technology Departments played significant roles in the development of the Regional Wireless Cooperative (RWC), which is comprised of Police, Fire, and municipal radio users of 19 jurisdictions throughout the Valley, including Tempe, Avondale, Buckeye, Chandler, Daisy Mountain Fire District, El Mirage, Glendale, Goodyear, Guadalupe, Maricopa, Paradise Valley, Peoria, Phoenix, Scottsdale, Sun City Fire Department, Sun City West Fire District, Sun Lakes Fire District, Surprise, and Tolleson. Further, Tempe City Manager, Charlie Meyer, played a pivotal role as the Chair, and now a member, of the RWC Board of Directors. The RWC is one of two regional cooperatives that work closely together to provide interoperable communications to first responders throughout the Valley.

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As with most complex technologies, the interoperable radio system requires ongoing software and hardware upgrades, maintenance, and oversight. Tempe remains involved at the Board level and Executive Committee level to ensure good decision making and wise investments for the protection of our community.

- **311 Call Center**

The Tempe-311 Call Center was successfully launched in May of 2012 and has continued to grow both in customer usage and expanded responsibility. The system is currently handling 6,500 calls monthly and integrates with three other IT systems for real-time service entry and call resolution. Staff is in the process of testing a mobile application for smart phones that will make Tempe-311 a tool for both citizens and employees to report issues while in the field. Tempe is the first city in the state to have a fully operational call center of this type to service its residents and businesses.

- **Community Broadband Initiatives**

The City is actively exploring ways to attract new (and market existing) ultra-high-speed fiber optic and wireless broadband services in our community. Tempe has signed on to a partnership with ASU and other well-known research universities to leverage resources and collaborate on initiatives to ignite growth of high-speed networks in our research community. This partnership, called GIG.U, and it has already begun to produce results in the form of national attention for the concept of “smart communities” and local government participation in broadband networks.

In the spring of 2012 Tempe issued an RFP to solicit proposals for the use of our streetlights and existing Wi-Fi network equipment as a potential starting point for building a wireless broadband network serving Tempe. Once a contract is awarded, the selected bidder will have access to the abandoned networking equipment on the light poles and the ability to use the right-of-way to deploy a privately operated network for residential and business access. We are currently in discussions with one respondent and will begin contract negotiations early next year.

- **Siting of Cellular Towers and Antennas**

For Tempe to thrive as a technology hub and continue to be a “smart place to live” it must embrace an effective policy for siting cellular towers and antennas in the rights-of-way, public spaces (e.g. parks) and municipal buildings, that is a balance between aesthetics, safety, and antenna sprawl.

Traditionally the City has encouraged co-location of cellular antennas on existing towers when possible. We have discouraged the location of cellular towers and antennas in parks and in the public right-of-way. With one exception, we have not pursued the siting of commercial antennas on public buildings. The result is a proliferation of towers and antennas on private land and school property. Smaller, more directed antennas have become popular with carriers for the delivery of data

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services in an urban environment. The City has allowed commercial use of streetlights for such services in the past. The abandonment of these antennas on our infrastructure has left a bad taste in our mouths. The City continues to receive requests for the use of our streetlight infrastructure. We will most likely see a rise in the requests for placement of smaller antennas in the right-of-way as newer more compact technology is developed and deployed. Tempe needs to take a stance on the use of public land and assets for the deployment of commercial technology and draft policy to reflect this stance.

### Potential Solutions

Encouraging the use of public land and assets for cellular tower siting will potentially allow the City to have more control over the placement of antennas throughout Tempe. If it is easier to deal with the City to add antennas, carriers can build out more quickly in Tempe and offer new services sooner, as well as offering improved coverage for residents. There is potentially revenue to be created by leasing assets to carriers for the deployment of commercial antennas.

### Potential Problems

Cell towers and antennas are inherently ugly. They can clutter the right-of-way with street-level enclosures and pole-attached boxes. Towers and antennas rarely fit in with the architecture of a building. We would need to give 24x7 carrier access to the building or rooftop, creating a potential security issue.

### Short-term Guidance Needed

What is the City's stance on encouraging the use of public buildings, City parks, public rights-of-way and other public assets for the siting of cellular antennas?

### Sources

November 15<sup>th</sup> meeting with FIT representatives Ken Jones, Dave Heck, Cyndy Lawshe, Mark Wittenberg, as well as Brenda Buren and Shelley Hearn. Additional follow up provided by Ken Jones and Dave Heck.

### Representatives/Presenters at December 7, 2012 Committee Meeting

Ken Jones, Finance & Information Technology

Dave Heck, Finance & Information Technology