

REPORT  
OF  
INFORMATION AND COMMUNICATION TECHNOLOGIES  
WORKING GROUP

DATED

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## EXECUTIVE SUMMARY

### **Introduction**

At the request of City Councilman, William Peduto, a working group was formed in July 2004 to evaluate the current information and communications technologies (“ICT”) environment in Pittsburgh and make recommendations on ways the City can improve the ICT environment. The ICT Working Group is composed of ICT users, service providers and members of the academic and government communities. A listing of the participants is attached as **Exhibit A** to this report.

### **Summary of Current Environment**

The Working Group based its evaluation of the current ICT environment in Pittsburgh on both the various participants’ individual and organizational experience as well as recent local and national studies and news reports. The Working Group reviewed the level of competition for three ICT services: (i) telephone service, (ii) television service and (iii) internet access. The consensus is that the market for each of these ICT services is competitive in Pittsburgh. Several different provider options exist for individual consumers and business for each of these services. Additionally, although in the past the dominant providers of these services in the City did not compete across service types, they are now beginning to compete aggressively across service types which should be positive for both the cost and quality of these services.

### **Summary of Recommendations**

The Working Group believes the ICT environment can be improved by facilitating increased competition among ICT providers. Specifically, the City government should: (i) encourage open access to buildings and right of ways, (ii) reduce bureaucratic time and cost for ICT providers, and (iii) increase consumer awareness of ICT provider options. Three initial concrete steps the City government can take are: (i) conduct a review of current zoning and permitting ordinances to ensure they facilitate competition, (ii) create a one stop/single point of contact within City government for ICT providers, and (iii) work with ICT providers and regional economic development agencies to create a list of available ICT provider choices and increase awareness of these choices among individuals and businesses.

As a final matter, the Working Group discussed whether a more formal body should be created to advise and monitor ICT issues for the City. The conclusions of the Working Group are that although some type of formal body may be helpful in the future, the current creation of such a body was likely to create bureaucracy, stifle creativity as well as the open and free exchange of information among interested parties. Further, the Working Group believes that the development of a robust and competitive ICT environment is a regional issue. The Working Group therefore recommends that an informal group continue to meet on a quarterly basis to review and discuss these issues and that this group expand participation and input to the broader Allegheny County/Southwestern Pennsylvania region.

## A. Introduction.

Information and communication technologies involve a broad range of services, from high speed internet access to basic telephone service. The economic viability as well as quality of life of a region is dependent on a vibrant ICT environment.

With this in mind, City Councilman, William Peduto requested a working group be formed as a subcommittee of the Pittsburgh Cable Communication Advisory Committee to assess the current ICT environment in the City of Pittsburgh. The ICT Working Group was formed in July 2004 and has met on a monthly basis to discuss and assess the ICT environment in Pittsburgh and make recommendations as to how Pittsburgh can improve this environment.

The Working Group is comprised of a collection of users (both business and personal), providers and members of academia and government. A listing of participants is attached as **Exhibit A** to this report. All members served on a voluntary basis without compensation. As the Working Group had limited resources to conduct detailed research, its assessment of the ICT environment in Pittsburgh is based on the knowledge and experience of the members as well as limited review of various national studies and news reports.

The Working Group started its analysis by asking five basic questions:

- Where are we?
- Where are others?
- Where do we want to be?
- How do we get there?
- How do we measure our progress/success?

Before working on these questions, the Working Group decided to review previous reports prepared on this issue for the City. Given its limited resource, the Working Group did not want to duplicate efforts and also wanted to ensure previous recommendations had been fully implemented. The Working Group was able to identify and review two previous reports:

*Telecommunications Working Group Report (1997).*

In 1997, in response to changes in telecommunication technology and the enactment in 1996 of the Telecommunications Act of 1996, the City of Pittsburgh initiated a project to ensure that the City had the best possible telecommunications infrastructure for its citizens and businesses as well as the most effective organizational structure to address the City's telecommunication future. Under the auspices of the Mayor's office, a working group of

representatives from each of the City's departments most directly responsible for and affected by telecommunications were assembled. This team was assisted by professional experts from the Baller Herbst Law Group and Benton & Associates. Although this effort was entirely comprised of City employees, its report (which can be reviewed on the City's website) contains many excellent recommendations and should be reviewed by the City to evaluate the level to which its recommendations have been successfully implemented.

*Analysis to Address Southwestern Pennsylvania's Information Infrastructure Needs (1998).*

In 1998, 3 Rivers Connect retained the consulting firm, The Hill Group, and the Center for Economic Development at the H. John Heinz III School of Public Policy and Management at Carnegie Mellon University to (i) review the current state of telecommunications technology and (ii) to benchmark Pittsburgh against other metropolitan areas and identify the most progressive telecommunication infrastructure development strategies in place. A report was issued in July of 1998. Once again, this report contains several interesting conclusions and recommendations and should be reviewed in its entirety. However, the Working Group found a portion of the executive summary of this Report particularly relevant and wished to include it as a part of this report.

The benchmarking analysis of progressive information technology areas such as Austin, Texas; Seattle, Washington; Alexandria, Virginia; Atlanta, Georgia; and San Jose, California revealed some persuasive similarities and trends:

1. Generally, a positive correlation exists between productivity levels and growth rates of a region and the existence of a sophisticated and innovative telecommunications infrastructure.
2. In addition to having a technologically advanced infrastructure, these areas also experience high levels of competition among providers and numerous public-private initiatives to enhance public accessibility to information services.
3. In many cases, a collective effort to improve a region's information infrastructure evolved from expiration of a pending cable franchise agreement and subsequent cable negotiations.
4. A formal or informal public-private partnership oversees the strategic development of the local telecommunications infrastructure. Most have

adopted a formal strategy or regional vision and have a dedicated staff and support network to implement the strategy.

There appears to be no single technology or infrastructure investment that acted as a critical path to improve service or economic growth. Rather, each progressive region used special demonstration-type projects to incrementally develop a more advanced infrastructure and, hence, competitive position.

The analysis of Southwestern Pennsylvania's stakeholders found general agreement that the region should work to encourage competition among private sector service providers while the public sector should focus on establishing and maintaining a positive, proactive environment to capitalize on a resultant increase in competition. The concept of *universal access* is viewed as a positive, viable goal for the region especially in terms of developing a more competitive workforce, increasing commerce, and addressing problems of economic distress. As in the progressive national models, no single emerging technology was identified as a critical investment here and, regardless; local market demand was thought likely to drive such investment.

Although almost seven years have passed since the date of this report, these comments are as relevant today as they were in 1998.

#### B. Current Environment.

The Working Group evaluated the current level of competition in the City in three areas: telephone, internet and television services. With respect to telephone services, the Working Group believes that strong competition exists for the dominant carrier, Verizon, for both local and long distance service. This competition exists from both wired and wireless providers. In addition, emerging technologies like VOIP, which involves providing telephone services using the internet, will increase this level of competition. With respect to internet access, both high speed and dial-up, good competition exists. Numerous providers such as Verizon, Comcast, DQE Communications, Blue Point, Telerama and Nauticom are competing in this space. Finally, a solid level of competition exists in access to television services. Although Pittsburgh's topography makes basic antenna service limited, the dominate provider (and franchisee with the City), Comcast, is experiencing competition from satellite providers. Also, recent developments indicate that the dominate telephone provider, Verizon, may begin to compete in this space.

The overall assessment of the level of competition in the City for these basic ICT areas is good. The trend is that these areas are converging and the dominant providers will be competing

against each other in all three. Smaller providers will continue to choose their niche to compete. The City should encourage competition decreasing bureaucratic road blocks and educating individuals and businesses about the various options.

The Working Group also discussed several other issues such as a City owned Wi Fi network and the use of ICT services to facilitate the democratic process. In particular, the deployment of the Wi Fi network in Philadelphia was discussed, however these discussions did not result in any consensus on the part of the Working Group.

### C. Limited Benchmarking

The Working Group reviewed and discussed the ICT environment in Pittsburgh versus other regions. This review was based on several recent studies and news reports found by the members as well as the members' personal and their businesses' opinion of the environment in this region versus other regions. As a preliminary note, an analysis of Pittsburgh to other cities is always difficult because studies and news reports vary between city to city comparisons and region to region comparisons.

The City of Pittsburgh was one of the 12 largest cities (based on population) from 1900 to 1950. Beginning in the late 1950s, Pittsburgh's population declined and currently, the City ranks 53<sup>rd</sup> based on 2000 United State Census data.

Several recent studies have reflected positively on the ICT environment in Pittsburgh. Although not excelling, Pittsburgh is performing well, ranking consistently higher than its population rank. Popular Science ranked cities on 36 technology indicators and Pittsburgh had an overall rank of 37 (on a population rank of 53). With respect to the specific factors, Pittsburgh scored 33<sup>rd</sup> in Broadband Telecommunications Capacity, 3<sup>rd</sup> in Computer Use in Schools and 39<sup>th</sup> in Internet Backbone. In March of 2002, Pittsburgh was ranked as one of the top 60 cyber cities by Site Selection. In 2004, Pittsburgh was ranked 46 on the list of best cities to do business by Forbes Magazine. On the negative side, in September 2004, Nielsen/Net Ratings ranked Pittsburgh as the 8<sup>th</sup> largest market connected by narrow band internet access.

The consensus of the Working Group is that Pittsburgh is competitive with other regions with respect to the availability, quality, cost and use of ICT services. However, in order to gain a competitive advantage, Pittsburgh has to not only encourage increased competition among providers, but encourage its citizens and businesses to become more aggressive users of ICT

services as well as early adopters of emerging ICT services. The City can lead by example by increasing the use of ICT services in the provision of its services to citizens.

#### D. Recommendations

The consensus of the Working Group is that the ICT environment in Pittsburgh can be improved by facilitating increased competition among ICT providers. An increased level of competition will result in a better array and quality of ICT services at a lower cost. Although the level of competition is good right now, it can be improved. Specifically, City government should: (i) encourage open access to buildings and right of ways, (ii) reduce bureaucratic time and cost for service providers, and (iii) increase awareness of ICT provider options. Three concrete steps the City government can take are: (i) conduct a review of current zoning and permitting ordinances to ensure they facilitate competition as opposed to acting as a barrier to competition, (ii) create a one stop/single point of contact within City government for ICT providers, and (iii) work with ICT providers and regional economic development agencies to create a list of available ICT provider choices and increase awareness of these choices among individual consumers and businesses.

The City should encourage developers and building owners to create “open access” buildings. Currently, many developers and building owners design and permit access to their buildings only to the dominant providers. By a combination of education and friendly encouragement the City can increase the level of competition by ensuring that smaller ICT providers have the same access to potential customers as the dominant providers.

Currently in order to comply with the City permitting process, providers must negotiate a several step process. As an example, in order to permit a vehicle to be in a right of way (such as opening a manhole to work on a cable), a provider has to first fill out and fax a permit request to the Cable Bureau, next the provider has to physically take this signed form to the Department of Public Works to obtain a permit application and finally to the Department of Public Safety. This process should be streamlined and providers should be able to accomplish these tasks electronically.

ICT users (both businesses and individuals) need to be better educated about their options for ICT services from providers other than the dominant providers such as Verizon and Comcast. The City can facilitate this by working with providers and regional economic development

agencies to ensure individuals as well as new and existing business are aware of their choices. A simple way to accomplish this is to prepare, publish and update a list of providers and available services on the City's website.

The City should also review the professionally prepared reports it and others have commissioned in the past and evaluate the level to which it has implemented the recommendations of these reports. Further, the City should task one individual to be the point person for the City to focus on ICT issues, not only on a day to day basis, but on a strategic basis.

#### E. Proposed Future Role of ICT Working Group.

As a final matter, the ICT Working Group discussed whether a more formal body should be created to review and advise the City on ICT issues. Several other cities were reviewed to evaluate how they are structured. San Francisco has a formal planning body, the San Francisco Telecommunications Commission, which sets strategic direction for the city on information and communication technologies. Austin, Texas also has a formal body, the Austin Telecommunications Commission, which reviews and makes recommendations on information and communication technologies to city council. The Working Group reviewed publicly available documents from both these bodies.

The conclusions of the Working Group at this time are that, although some type of formal structure may be helpful in the future, the current creation of a formal body was likely to create bureaucracy, stifle creativity and restrict the open and free exchange of information among interested parties. Further, the Working Group believes that the development of a robust and competitive information and communication technologies environment is a regional issue. The ICT Working Group therefore recommends that an informal group continue to meet on a quarterly basis to review and discuss these issues and that this group expand participation and input to the broader Allegheny County/Southwestern Pennsylvania region.

## EXHIBIT A

### ICT WORKING GROUP

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