

**CITY OF PALO ALTO  
MEMORANDUM**

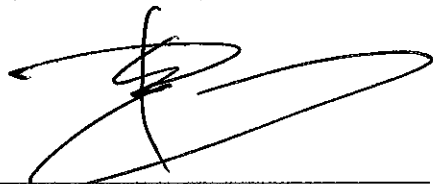
**TO: HONORABLE CITY COUNCIL**

**DATE: July 7, 2008**

**SUBJECT: Request for Council Direction Concerning Citywide Ultra-High-Speed  
Broadband System Negotiations**

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The attached Broadband CMR is being distributed in this packet for early review prior to the July 14, 2008 City Council meeting.



LALO PEREZ  
Director, Administrative Services



STEVE EMSLIE and KELLY MORARIU  
Deputy City Managers

**TO: HONORABLE CITY COUNCIL**

**FROM: CITY MANAGER**

**DEPARTMENT: ADMINISTRATIVE  
SERVICES**

**DATE: JULY 14, 2008**

**CMR: 304:08**

**SUBJECT: REQUEST FOR COUNCIL DIRECTION CONCERNING  
CITYWIDE ULTRA-HIGH-SPEED BROADBAND SYSTEM  
NEGOTIATIONS**

**RECOMMENDATION**

Staff is requesting direction from the City Council concerning the Citywide Ultra-High-Speed Broadband System negotiations to:

- 1) Confirm the City's commitment to proceed with negotiations based upon one of the two options below:
  - a) Direct staff to develop a final Business Plan with the 180 Connect Network Services, Inc./PacketFront Inc./Axia NetMedia Corporation consortium that would be approved by Council. Following the completion of the Business Plan, negotiations on specific agreements between the parties would occur; or
  - b) Direct staff to expedite the process by entering into a Letter of Intent with the 180 Connect Network Services, Inc./PacketFront Inc./Axia NetMedia Corporation consortium that would include the key elements of the required agreements. Following Council approval of the Letter of Intent, the parties would negotiate final agreements.
- 2) Provide staff with direction regarding the nature and value of the proposed City contributions, as follows:
  - a) The City would provide 36 dark fibers at the existing public agency discount rate of approximately 20 percent or at a new bulk fiber discount rate established by Council action; and
  - b) The City would use commercially reasonable efforts (not best efforts, as requested) to purchase broadband services from retail service providers on the Broadband System, provided that the purchase is effected strictly in

compliance with the competitive bidding requirements of the Palo Alto Municipal Code; and

- c) The operator of the Broadband System would provide management services for the City's dark fiber commercial license program and receive a management fee from the City for the services rendered, after covering all Dark Fiber Optic Fund fixed costs; and
- d) The City would contribute existing, but currently unused, FTTH trial assets; and
- e) The City would provide access to spare conduit, denying the Consortium's request for a waiver of Electric Utility Fund conduit usage and General Fund street cut fees.

## **BACKGROUND**

At the Council's direction, a Citywide Ultra-High-Speed Broadband System Request for Proposals (RFP) was issued on September 27, 2006. The RFP identified several goals of the last-mile broadband network ("Network") deployment: 1) an "open system" that would promote competition among multiple service providers; 2) the capability of providing each customer with a minimum bandwidth of 100 megabits per second ("100 Mbps") symmetrical service; 3) the provision of "triple-play", namely, data transmission, video services and telephony services; 4) the construction and operation of a citywide network at minimal financial investment and risk to the City; and 5) eventual City ownership of the network. On January 9, 2007, two firms submitted proposals. On March 5, 2007, the Council directed staff to enter into negotiations with 180 Connect Network Services, Inc. ("180 Connect"). At that time, then Mayor Kishimoto designated a two-member citizens' committee to participate in this process in an advisory capacity. On May 5, 2008, Mayor Klein appointed a third member to the citizens' committee.

The initial proposal of 180 Connect consisted of a consortium of firms that would partner with the City to develop the Network. The consortium ("180 Consortium") included: 180 Connect, which would be responsible for Network design, engineering and construction; PacketFront, Inc. ("PacketFront"), which would provide Network hardware, software and operations; and Royal Bank of Canada Capital Markets, which expressed interest in financing the Network's construction.

In March 2007, staff initiated pre-contract negotiations with the 180 Consortium. As a first step, the 180 Consortium indicated that it must prepare a Business Plan to determine and otherwise assess the Network's economic feasibility and requested \$30,000 from the City to cover a portion of its Business Plan preparation costs. On July 9, 2007, the Council invited 180 Connect to undertake the development of a Business Plan at its own expense. The Council directed staff to support the 180 Consortium's efforts and invited staff to consider leveraging those City assets that could be integrated with the Network without making any General Fund cash contributions, pledges or guarantees.

Over the past nine months, staff has conducted 36 in-person meetings and/or teleconferences with the 180 Consortium to develop a Business Plan. Staff has provided the 180 Consortium with extensive information about the City's assets, including fiber optic infrastructure, facilities and services, which could be made available to an entity that would deploy the Network, provided mutually acceptable terms and conditions could be developed. The parties have evaluated several options for leveraging City assets and reviewed a number of business relationships and associated agreements that could be established. The 180 Consortium has conducted field surveys and basic market research, and has completed a constructability review to define probable construction costs and establish a roll-out plan for the network. It has also prepared a financial forecast for the project.

In furtherance of the City's broadband service goals, staff recommended that the City's dark fiber optics program be set up as a separate Fiber Optics Utility Fund in the 2008-09 Enterprise Fund Budget. This is in recognition of the different purposes and characteristics of the electric and broadband telecommunications businesses. Integral to the separation is the condition that the Fiber Optics Utility Fund repays the loan (of \$1.9 million) and all indirect cost advances that the Electric Utility Fund made to the dark fiber optics program in order that it could commence business. In 2008-09, this new Utility is expected to have adequate resources to meet its reserve requirements (emergency plant replacement and rate stabilization reserves) and revenues that will cover operating and capital expenses.

The 180 Consortium anticipated it would take six months to complete a Business Plan, which could be presented to the Council in the fall of 2007. The delay in presenting a Business Plan to the Council can be attributed to several important organizational changes involving the 180 Consortium. These organizational changes include team member departures and additions, changes in project leadership, a merger involving 180 Connect with Ad.Venture Partners, Inc. and the acquisition of DynamicCity, the other responder to the City's RFP, by PacketFront, as addressed in CMR:464:07 (Attachment A).

Most recently, on April 18, 2008, 180 Connect signed a merger agreement with DIRECTV Inc. that would result in 180 Connect becoming a wholly-owned subsidiary of DIRECTV. 180 Connect's stockholders will vote to approve the merger agreement on July 8, 2008. 180 Connect has informed staff that this merger constitutes a positive direction for the company and will provide a strong financial basis for the company's continued success. As DIRECTV plans to operate 180 Connect as a stand-alone business, this merger should not adversely impact 180 Connect's commitment to the Network and implementation of the Plan. While staff believes all of these changes have enhanced the 180 Consortium's bottom line, they also serve to highlight the fluid and ever changing nature of the telecommunications industry. This dynamic represents a potential pitfall that awaits local government agencies that would risk venturing into, the highly competitive, evolving telecommunications market.

## DISCUSSION

On March 7, 2008, the 180 Consortium presented staff with its conceptual Business Plan (the "Plan"). Based on its business model, the 180 Consortium concluded that there is a sound business case for building a Network in Palo Alto. On June 16, 2008, after a series of meetings and teleconferences with staff to refine the key elements of the Plan, the 180 Consortium provided staff with a modified Plan (Attachment B), attached hereto as a document entitled "Overview."

The Plan, if successfully executed, would enable the City to achieve its goal of securing a Ultra-High-Speed Broadband System offering advanced communications service to Palo Alto's residents, businesses, schools, and government facilities. The proposed Network would provide a platform for innovative broadband applications and further enhance the City's status as the premier center for leading-edge technology companies. New and substantial economic growth and social and political benefits could be realized if this technology is brought to Palo Alto.

This report provides the Council with a high-level summary of, among other aspects, the proposed governance structure and the desired City contributions that are proposed in the Plan. In light of this information, staff seeks the Council's affirmation of its intention that staff continue to assist the 180 Consortium with its refinement of the Plan in order to facilitate contract negotiations. Staff also requests further direction of the Council regarding the development of a final and detailed Plan, on which contracts between the City and the operator of the Network and the members of the Consortium would be ultimately formulated.

### Governance Structure

The Consortium has proposed the formation of a privately-held special purpose entity (the "SPE") as the vehicle for achieving the City's goal of deploying an open-access Network in the community. The SPE would be responsible for implementing the Plan and would bear much of the substantial risks of the venture. This entity would finance, build, own, operate and maintain the Network. The SPE would grant the City a right of first refusal to acquire the Network following the SPE's successful long-term operation, estimated to occur on or about 25 years after the City and the SPE execute a contract. Should the City elect to take title to the Network in year 25, the SPE would be offered the opportunity to continue to operate the Network (under a ten-year renewable contract). The Consortium believes this model offers the best approach to insulate the City from financial and regulatory risks.

The SPE would be formed and funded by a new Consortium member, Axia NetMedia Corporation ("Axia"). The SPE likely would be a wholly-owned subsidiary of Axia. Axia was introduced to staff on April 22, 2008, and confirmed its interest in joining the Consortium on May 12, 2008. Axia is an open-access, fiber-optic network operator, headquartered in Canada and listed on the Toronto Stock Exchange. Axia has recently entered into a strategic teaming agreement with PacketFront to jointly pursue high speed broadband market opportunities. Under the proposed business model, Axia would be

responsible for providing 70 percent, or at least \$30 million, of the initial project funding requirements. Axia has indicated that it is able to finance this project using current cash resources along with funds to be provided from future operations. At the present time, Axia has cash reserves in excess of \$48 million and no long-term debt. It has also generated \$11 million of cash flow from operations for the nine months ending March 31, 2008. As of June 30, 2007, Axia had \$97 million in total assets on its balance sheet. Of these assets, \$52 million was held in cash and short-term investments. The Consortium is confident that Axia provides the additional financial, technical, and managerial expertise necessary to successfully execute the final Plan. Axia has been active in bringing broadband to areas of Canada and France, particularly to commercial customers, and has recently submitted a broadband proposal in Singapore in partnership with other firms.

The SPE would operate the Network on an open access wholesale basis, making the physical Network infrastructure available to qualified service providers under competitively neutral terms and conditions. The SPE itself would not provide any retail services on the Network. Instead, it would secure the services of several broadband retail service providers. These service providers would ultimately determine the rates and service offerings provided on the Network.

After the SPE is established by Axia, the SPE would enter into at least five agreements with the City (e.g., Dark Fiber License Agreement; Pole Attachment Agreement; Conduit Occupancy License Agreement; Management Services Agreement; and Facilities Use Agreement) to facilitate the establishment of the Network and its interconnection with the City's fiber backbone and other City assets. As part of the agreements, the Network requirements (e.g., open system platform, 100 Mbps service) would be ascertained. The SPE would then secure the services of several voice, video and/or data transmission service providers. The SPE also would enter into separate contracts with 180 Connect (for Network design and construction), PacketFront (for Network hardware and software), and potentially with Axia (for funding and Network operator center services). Apart from undertaking obligations under their contracts with the SPE and funding the Plan, neither 180 Connect nor PacketFront would have any financial investment or ownership interest in the Network.

#### Proposed City Asset Contributions

Under the Plan, the City would provide as consideration the remaining 30 percent of the Network's initial funding requirements, or \$13 million, in the form of asset contributions. The 180 Consortium has confirmed that the 30 percent is needed in order for Axia to be willing to financially commit and contribute funds to the SPE in order to develop the Network. The Consortium has indicated that it must gain an understanding of the City's commitment to this level of contribution as a crucial prerequisite to moving the project forward.

The Consortium's proposed request of six separate contributions from the City is described below. Although the Plan indicates that the value of these six contributions

must total \$13.0 million, the final value of each of the six separate contributions will not be determined until negotiations are complete.

#### 1) Long-Term Use of 36 Dark Fibers

Consortium Proposal: The Consortium has requested the use of 36 of the City's 144- to 288- dark fibers on the backbone. Its members have proposed that the City enter into a 25-year agreement with the SPE for the "right to use" the fibers. The nature of the agreement and the rights and obligations of the parties have not yet been broached. The Consortium has preliminarily valued the City's consideration or contribution of the 36 fibers at \$4.4 million, based upon a replacement cost estimate of the fibers. The Consortium does not wish to pay for the use of any of the 36 fibers.

Staff Response: This arrangement, which would require the City to permit use of dark fibers without charge, is legally infeasible under the Charter and the Palo Alto Municipal Code. The City could not accede to the Consortium's request, because this is, effectively, a request to waive the collection of Enterprise Fund utility rates and charges for these fibers.

Staff's perspective is that it would be appropriate for the City to grant the SPE a discounted rate for the 36 fibers, based on sound economic and public policy grounds. To promote the greater utilization of dark fiber not now licensed to third parties and/or to advance sound public policy, that all Palo Alto residents and businesses should enjoy access to state-of-the-art broadband communications in order to foster economic growth and new community services, the City could by adoption of a new utility rate resolution, authorize a bulk dark fiber rate, which would be set at a discount to the current rate. The new discount rate would be made available to any party that desired to acquire bulk dark fiber for the purpose of providing open access network services to the general public.

By comparison, the General Fund, which currently serves the entire Palo Alto community, pays for its use of dark fiber for the City's IT network services at the "public agency" rate. The "public agency" rate is approximately 20 percent lower than commercial customer dark fiber rates. A similar bulk fiber discount could be established by the Council by the adoption of a utility rate schedule resolution, as required by the Palo Alto Municipal Code. The SPE would be eligible to take the 36 fibers under the new utility rate schedule.

Based on existing rates, the annual cost for the use of 36 fibers system-wide would total approximately \$2.9 million. At the "public agency" discount rate of 20 percent, the annual cost for the use of 36 fibers system-wide would total \$2.3 million annually, a yearly savings of \$0.6 million.

#### 2) City Use of Broadband Network Services

Consortium Proposal: The 180 Consortium has requested that the City “use its best efforts” to purchase broadband services from one or more retail service providers signed on to the Network following a competitive price quote process. The Plan characterizes this as a “RFQ process.” The estimated scope and value of this request has not been defined and will require further research by the City and the 180 Consortium.

Staff Response: Staff supports the goal of having one common Network for City and community use. In the 2008-09 Budget, the General Fund will pay the Fiber Optics Utility Fund approximately \$0.8 million for dark fiber services. In addition, the General Fund pays approximately \$0.5 million annually for telephone services. These funds, totaling approximately \$1.3 million, could be used to procure data and/or voice service on the Network, provided the City first complies with its purchasing ordinance, rules and regulations in the procurement of these services and a Network retail service provider is determined to be the successful bidder.

### 3) Management of Existing Commercial Dark Fiber License Agreements

Consortium Proposal: The 180 Consortium has requested that the SPE be permitted to take over operation of the City’s existing (approximately 45) and any future dark fiber optic commercial customer license agreements. The SPE would assume full or partial responsibility for the day-to-day activities, operations and maintenance of the City’s dark fiber license agreement program, and possibly engage in sales, perform connections, and/or prepare billing statements and collect revenues, from commercial customers. A determination of the details and the fee for this arrangement has not yet been established. Although the 180 Consortium has not valued this portion of the City’s consideration, based upon discussions with the 180 Consortium, staff believes the value may fall somewhere between \$5 and \$7 million.

Staff Response: The City’s commercial dark fiber customers generated revenue of \$1.5 million in fiscal year 2006-07, and are expected to generate \$1.7 million in revenue in fiscal year 2007-08 and \$1.8 million in fiscal year 2008-09. In fiscal year 2008-09, commercial customers are budgeted to contribute net income of approximately \$0.7 million to the Fiber Optics Utility Fund.

Prior to “contracting out” administration of the City’s commercial dark fiber program, staff would need to evaluate the impact of this arrangement on the Fiber Optics Utility Fund. This would require identification of the various types of cost reductions that could be implemented before the management of these customers would be transferred to the Consortium. Also, as part of this evaluation, staff would need to ensure all fixed costs that would remain in the Fiber Optics Utility Fund (e.g., Electric Fund pole attachment and conduit usage fees, capital improvement costs of the backbone, etc.) are covered.

Staff would also develop a transition plan for the Utilities Department staff that currently supports the infrastructure and business systems for the delivery of service to these customers. Because the proposed management services (or sub-operations) contract is expected to impact the job descriptions and work requirements of several SEIU unit employees, the “meet and confer” process will likely be triggered. Staff would work with the union to address any staffing implications prompted by the Plan and to comply with all associated SEIU Memorandum of Agreement requirements.

The fiber optic backbone supports critical utility and public safety systems such as the Utilities Department’s SCADA system and the connectivity of the City’s fire stations. For system integrity and security reasons, it is critical that Utilities Department staff work with the 180 Consortium to develop and implement a plan to safeguard these vital functions before the City would permit the SPE to assume Network operations that directly affect the City’s backbone operations. All fibers used for essential City functions will remain in the City’s control.

4) Use of Previous FTTH Trial Assets

Consortium Proposal: In 2005, the City of Palo Alto Utilities completed a trial program that tested the delivery of fiber optic services to approximately 66 households, when the Council suspended the program. The cables serving the FTTH trial project are still located in the public rights-of-way. The 180 Consortium has requested the use of idle fibers that remains from the FTTH Trial. The Consortium has preliminarily valued this asset at \$100,000.

Staff Response: In order to permit the SPE to use these assets, the City may be required to develop a new utility rate schedule for these cables pursuant to the adoption of a rate resolution.

5) Waiver of Electric Conduit Usage Fees

Consortium Proposal: The 180 Consortium has requested access to spare conduit, owned by the City’s Electric Utility Fund, for the placement of fiber optic cable. It has also requested that the City waive its standard conduit usage fees. The estimated value of this request has not been defined and will require further research by the staff and the 180 Consortium.

Staff Response: The Charter and the Palo Alto Municipal Code do not permit the waiver of Enterprise Fund utility rates and charges. If the City granted a waiver of the conduit usage fees, the Electric Utility Fund must be compensated by the Fiber Optics Utility Fund, which compensation could substantially reduce reserves, or the General Fund. The Council’s direction to staff was to leverage the City’s assets without making any cash contributions from the General Fund. As this request likely could constitute, in effect, a cash contribution by the General Fund, staff has preliminarily declined to support this request.

6) Waiver of General Fund Street Cut Fees

Consortium Proposal: The 180 Consortium has requested a waiver of the Public Works Department's street cut fees. The estimated value of this request has not been defined and will require further research by the staff and the 180 Consortium.

Staff Response: There is precedent for the waiver of General Fund fees in the public/private context. However, the City/SPE relationship is not equivalent to the public/private partnerships the City has negotiated with non-profit groups. Hence the application of this waiver policy to the SPE, a for-profit business entity, could be challenged by anyone seeking to perform construction in the public rights-of-way.

Staff would note that the 180 Consortium did not request a waiver of: 1) Utilities Department's pole attachment fees and charges; 2) Planning Department's architectural review fees; or 3) Public Works Department's street work permit and encroachment permit fees.

Staff Recommendation

Overall, the 180 Consortium's conceptual approach to the Network meets many of the goals identified in the City's Broadband System RFP. This approach, however, has evolved significantly since it was first presented to staff in early March 2008 and many critical elements lack sufficient detail and require further analysis, definition and refinement.

Staff's preferred and traditional approach to a conceptual plan is to finalize it as a detailed plan and present it to the Council for review and approval prior to commencing contract negotiations. This would give the Council and the community an opportunity to review and comment on an in-depth business plan before substantial time, effort and resources are expended to draft the agreements that would be presented in final form for award of contract. It would also provide the parties with a detailed blueprint upon which to negotiate agreements, thereby expeditiously facilitating the contract negotiation process. In addition, it would give staff the ability to complete its due diligence by focusing on a document that would contain substantially greater detail than the Consortium's conceptual Plan now provides. Since the City does not have the requisite telecommunications expertise in-house, staff would utilize legal and telecommunications consultants to support this effort.

Staff recommends that the work to finalize the Plan include incorporating any direction provided by the Council along with the following:

- Identifying and specifying the agreements that would be required between and among the affected parties and the key components of those agreements.

- Defining the details of the proposed City asset contributions. Staff would analyze the values assigned by the 180 Consortium to these contributions and identify the impacts on the City's General Fund and the Fiber Optics Utility Fund. Staff would work with the 180 Consortium to develop a plan to address any financial, operational, and/or staffing impacts that are identified.
- Incorporating a discussion of the impacts on neighborhoods (e.g., street closures, street cuts, and above-ground equipment, etc.). Provide information on the utility cabinets (i.e., number, size, and planned locations) that will be in plain view. Ensure the utility cabinets and their placement complies with the City's existing architectural and land use planning requirements.
- Staff would conduct a comprehensive review of the Plan's financial forecast, including revenue estimates, capital and operating cost projections. Ensure there is sufficient service provider interest to support the Plan's revenue assumptions. Perform and include a sensitivity analysis on the project's financial model.
- Evaluate the potential impact of price competition on the project's financial projections.
- Develop a plan to safeguard City fiber that would be located in the same conduit as the SPE fiber and ready the City's dark fiber backbone for SPE use. Staff would analyze the 180 Consortium's construction cost estimates to ensure these costs are included.
- Define responsibility for maintenance, repair, and capital replacement for the dark fiber components of the City's fiber optic backbone.
- Evaluate the inclusion of a fourth phase for low-density areas of the City, at an estimated additional cost of around \$2.0 million.
- Incorporate lessons learned from other municipal broadband projects such as the UTOPIA and the Alameda projects. A status report on the Seattle, Washington, the UTOPIA, Utah and the Alameda, California projects is attached as a reference (Attachment C).
- Incorporate the basis for all key assumptions in the final Plan. Staff would validate the residential and commercial take-rate and revenue share assumptions.
- Staff would complete a comprehensive analysis of Axia's financial position, experience and qualifications.

Instead of expending the time and effort to add this level of detail to the final Plan, the 180 Consortium wishes to accelerate the process. It has requested that the City consider approving its conceptual Plan as the model for achieving the City's goals identified in its RFP and move directly into contract negotiations. Its desire is for staff to return to the Council in September 2008 for final contracts approval, thereby allowing it to connect the first residential and business customers to the Network before the end of calendar year 2008.

Although the Consortium views this approach as more expeditious, staff is concerned this may not be optimal. Because the Plan is not fully developed, the contract negotiations process may prove to be lengthy and complex. Also, in light of the short timeframe within which to negotiate multiple contracts between the City and the SPE, staff would

be forced to forgo some of the due diligence it planned to perform on the Plan, as discussed above. These due diligence efforts are directly related to the quantum changes that the Plan has experienced over the past three months. It also limits the amount of Council and community involvement that would go into shaping the final Plan.

To address the Consortium's request, staff proposes an alternative recommendation for Council consideration. As an alternative, the City would enter into a Letter of Intent with the SPE and the three members of the Consortium identifying the key terms and conditions of the required contracts, including the rights and obligations of each of the five parties. This approach would ensure the parties quickly agree to the most essential terms and conditions and in any event would serve as the foundation of the contracts to be negotiated.

#### Project Risks

As Council considers staff's recommendation and the alternatives, it is important to disclose potential risks in moving ahead with the broadband project.

#### Third Party Challenges

The nature of this project provides a very real threat to incumbent providers. Based on experience in other cities planning to build broadband systems, the City of Palo Alto can expect vocal and perhaps legal challenges from incumbent providers. Strong opposition occurred in such jurisdictions as Seattle, Alameda, Lompoc, and Truckee-Donner from cable and telecommunication companies. Despite efforts to minimize risk, it is likely there will be resistance from third parties trying to protect their significant infrastructure investment. Any legal action could delay initiation and/or implementation of the project. Staff would look to the 180 Consortium to indemnify the City against third party legal action.

#### SPE Risks

The SPE faces a number of risks in undertaking this project including:

- a) Cost Over-Runs: Even with the experience the 180 Consortium brings to the project, cost over-runs can occur. Moreover, there are often factors affecting costs that can't be controlled such as fuel price increases, material shortages, and labor cost increases.
- b) Ability to Attract Service Providers: The 180 Consortium believes the Network's attributes and characteristics are far superior to any existing network in the City today. Despite this fact, service providers may be reluctant to augment their delivery platforms and invest the money needed to market services in Palo Alto. Seattle, for example, has approached service providers to determine their interest in an open network. The providers indicated reluctance unless the City either guaranteed exclusive use of the system (in other words a closed system) or a specific level of business.

- c) Competition: To protect their investments incumbent providers are likely to reduce rates to undercut competition. If price competition deprives the SPE of potential customers, it could threaten the SPE's ability to remain in business. In Alameda, Comcast quickly reduced their rates when the city introduced its coaxial system. This led to lower than expected market share in Alameda and is one of the factors causing the city's recent effort to sell its unprofitable system.
- d) Regulatory Risks: During the course of the project, changes in applicable law and/or regulations may impact the project's financial model, economic feasibility, or legal ability to operate.
- e) Technology Change: Fiber optic systems offering 100 Mbps currently are considered the best technology to accommodate broadband needs in the future. By having such a system, Palo Alto will join countries such as Japan, Korea, France and Sweden striving to build out robust data transmission systems. Although the FTTH industry is an evolving and seemingly robust industry, there is always the possibility, especially in the technology arena, that fiber optics and Internet Protocol will be supplanted by another technology rendering the Network obsolete. At this time, the 180 Consortium is not aware of any potential treats to the technology proposed.

#### Demand on General Fund if SPE Fails

Should the SPE's enterprise fail and another investor/operator is not found there may be a public expectation that the City assume responsibility for operating the system. The City's current staff does not have the background or expertise to take over operations of the SPE enterprise. New staff would have to be hired and significant agreements would have to be negotiated with service providers to transfer operations from the SPE. If such expectations materialize, the Council would have to make a difficult policy and prioritization decision as it weighs the numerous, competing needs on City resources. The City could be saddled with customer obligations which cannot be met.

#### Business and Ownership Changes

Since their initial response to the City's RFP, there have been numerous changes in both 180 Consortium company personnel and ownership. 180 Connect, for example, has been absorbed by two different companies. Axia is a relatively new and small company and it could potentially be purchased by a new company. Since such transitions are commonplace in the fluid world of telecommunications, it is possible that the City will be dealing with new and different owners of the SPE over time presenting some operational risk.

#### Lack of Municipal Success in Delivering Broadband Services

From research, discussion with staff in other jurisdictions, and talks with the Consortium, it is apparent that establishing a municipal broadband system is very much a work in progress. There is no "cookie cutter" approach to financing a system and, more importantly, no notable United States municipal success story to cite. The lack of a viable municipal model highlights risks to the City and Consortium with this project.

## **RESOURCE IMPACT**

The 180 Consortium initially requested that the City dedicate resources of about \$15 million to the project, the equivalent of 30 to 40 percent of the project's capital cost. The Plan now requests as consideration contributions from the City of \$13 million, representing about 30 percent of the project's initial capital cost. The staff recommendation proposes no direct General Fund contribution, pledge or guarantee.

Under the Plan, it is anticipated that the City would receive a 5 percent franchise fee from each video service provider which utilizes the Network provided the video services are subject to a franchise fee. Parenthetically, in calendar year 2007, the City received franchise fees from Comcast in excess of \$600,000.

The preparation of the Plan has required the devotion of staff time valued at approximately \$60,000 through June 30, 2008. In July 2007, the Council authorized the use of Council Contingency funds in the amount of \$65,000 to support the City's role in the development of the Plan. To date, staff has utilized \$30,000 of this amount to pay for consultant costs, leaving \$35,000 in available Council Contingency funding.

Completion of the Plan and negotiation of contracts will require the continued devotion of significant staff and consulting resources. Staff anticipates it will exhaust the remaining Council Contingency money during this process. Staff would plan to return to Council as needed with a Budget Amendment Ordinance to pay for ongoing consulting assistance, including professional services rendered in connection with the negotiation of final contracts.

## **POLICY IMPLICATIONS**

This report is consistent with the Council's policy and program direction provided to staff.

## **TIMELINE**

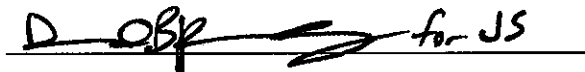
If Council directs staff to develop a final Plan, staff anticipates returning to Council in September 2008 for approval. Prior to returning to Council, the 180 Consortium plans to conduct a series of public education meetings throughout the City to discuss the Plan, answer questions and gather suggestions from community members. Following the Council's approval of the final Plan, staff would proceed to finalize contract negotiations with the operator of the Network. Staff would plan to return to the Council for approval of the agreements that would clearly delineate the rights and obligations of the City and the Consortium members, including the SPE, as soon as possible after the September 2008 meeting.

If Council directs staff to enter into a Letter of Intent, staff would commit to presenting a draft Letter of Intent to the 180 Consortium by the end of July 2008. Staff would make every effort to return to Council in the September 2008 timeframe for approval of a final Letter of Intent. Following Council approval of the Letter of Intent, the parties would negotiate final agreements.

**ENVIRONMENTAL REVIEW**

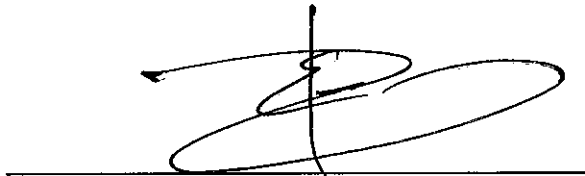
The actions requested in this report do not constitute a project for the purposes of the California Environmental Quality Act.

PREPARED BY:

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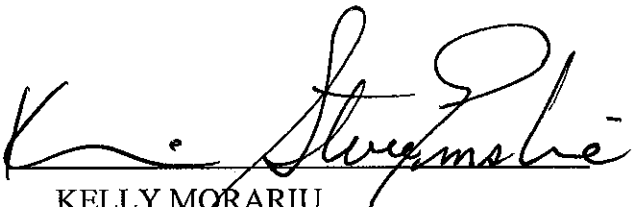
JOSEPH SACCIO  
Deputy Director, Administrative Services

DEPARTMENT HEAD APPROVAL:



LALO PEREZ  
Director, Administrative Services

CITY MANAGER APPROVAL:



KELLY MORARIU  
Interim Deputy City Manager

**ATTACHMENTS:**

- Attachment A: CMR:464:07
- Attachment B: 180 Consortium's Conceptual Business Plan Overview
- Attachment C: Comparison of Municipal Broadband Projects



## ATTACHMENT A

# City of Palo Alto City Manager's Report

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**TO: HONORABLE CITY COUNCIL**

**FROM: CITY MANAGER**

**DEPARTMENT: ADMINISTRATIVE  
SERVICES**

**DATE: DECEMBER 17, 2007**

**CMR: 464: 07**

**SUBJECT: STATUS REPORT ON THE ULTRA-HIGH-SPEED BROADBAND  
SYSTEM BUSINESS PLAN**

This is an informational report and no Council action is required.

### **BACKGROUND**

On July 9, 2007, the Council directed staff to proceed with the development of an Ultra-High-Speed Broadband System Business Plan with the 180 Connect Network Services, Inc. Consortium (180 Consortium). The purpose of this report is to provide the Council with information on the status of the Business Plan.

### **DISCUSSION**

The first phase of the Business Plan involved the collection of data about the City. During this phase, staff gathered extensive information about City assets, infrastructure, and facilities. In addition, staff provided the 180 Consortium with existing business case studies, business plans and customer survey documentation. Staff also identified and started to estimate the value of City assets that could be contributed to the project. The data collection phase of the Business Plan, for which City staff is responsible, is complete.

The next phase involves market research and a constructability review to determine the most economical method of Broadband System construction. This phase was initiated in September 2007. Field surveys are underway, and site meetings will be held with Utilities and Public Works in the near future. A residential telephone survey will be conducted by the 180 Consortium in December 2007 to determine the level of interest in the Broadband System-based services.

The final phase of the Business Plan will focus on the economic feasibility of the project. Staff anticipates returning to Council during this phase to obtain direction on the level and type of contribution the City is willing to make to the project. It is expected that this phase will be initiated in early 2008.

The 180 Consortium originally anticipated it would take 6 months to complete the Business Plan. There have been several significant changes involving 180 Consortium members that have impacted progress on the Business Plan, as follows:

- 1) The original Consortium consisted of 180 Connect Network Services, Packet Front, and the Royal Bank of Canada (RBC). A new member, NorthStar Capital Partners (NorthStar), joined the Consortium as a representative of RBC, providing financial advisory services to the project. Jeffrey Mazer, a partner, represented NorthStar. In August 2007, Jeff Mazer was hired by Packet Front as its Head of Finance for the Americas. Mr. Mazer will continue his role of coordinating financing for the broadband project and NorthStar will no longer participate in the Consortium.
- 2) In August 2007, 180 Connect Network Services became a wholly-owned subsidiary of Ad. Venture Partners (AVP). AVP changed its name to 180 Connect Network Services. This merger provides the former 180 Connect Network Services with a cash infusion that gives it additional financial flexibility.
- 3) In July 2007, Packet Front acquired DynamicCity, the only other firm that had responded to the City's Broadband Project Request for Proposals (RFP).

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## **Attachment B**

### **Overview: Palo Alto Fiber to the Premise**

*click for link*

## **Attachment C**

### **Comparison of Municipal Broadband Projects in Selected Cities**

#### **Alameda**

Established in 1998, Alameda Power and Telecom's (APT) telecommunication (Internet and cable TV) operation is in financial distress. It has approximately \$77 million in debt (\$33 million in bonds and a \$44 million loan from the electric operation) and faces a balloon payment of \$33 million in June 2009. In addition to a somewhat outdated coaxial cable system, Alameda has faced "intense competition, high labor costs compared to non-municipal providers, high programming costs...and stagnant customer counts." (Alameda Sun, February 28, 2008).

A salient point in APT's experience is the immediate response to its project by the incumbent, Comcast. This provider cut prices on its services and reduced APT's expected market share and revenues. APT is pursuing a sale of its telecommunications system and is in the process of soliciting bids.

#### **Seattle**

The City of Seattle is expected to issue a broadband RFP in September 2008. It is awaiting a determination by Seattle City Light (SCL), its electric utility, on how it can use broadband services. SCL, for example, is examining using fiber optic service to perform automated meter reading. SCL has built a dark fiber ring in parts of their city. The RFP may include requests for private sector interest in building a broadband project.

Seattle is considering having a closed system for the first 4-5 years. Apparently, service providers are reluctant to participate in an openly competitive system given their concerns about recouping their investment in an open network. Like Palo Alto, Seattle has incumbent providers such as Comcast, Verizon, Broadstripe (video and internet cable provider), and Qwest. While Verizon's presence is limited to a small geographic area and Qwest is not interested in expansion of services, Comcast has a citywide system and has indicated it opposes the City's broadband plans.

Seattle has conducted extensive research into municipal broadband efforts. A staff person working on the project indicated that a viable and successful municipal broadband model has yet to emerge. While feasibility studies show bases for success, outcomes in other cities have not been as positive as originally anticipated. Staff indicated that where broadband systems are run by utilities that have demonstrated need, there appears to be a higher success rate.

Currently, Seattle estimates that it would need \$500 million in bond proceeds to build a Fiber to the Premises (FTTP) system. As in Palo Alto, Seattle has considerable infrastructure needs such as rebuilding a highway and bridge along Puget Sound and these priorities will compete with the broadband project.

### **Utopia System**

One of the most prominent efforts to implement a municipal broadband system is the Utopia system in Utah. Formed in 2002 and designed to reach underserved communities, 18 Utah cities banded together to deliver high speed broadband services to homes and businesses. Unlike the City of Palo Alto's current plan, Utopia issued municipal bonds backed by the revenues of the broadband system to construct the FTTP project. Member cities also pledged General Fund revenues in the event Utopia debt service and operating costs could not be covered. In addition to the bonds, Utopia expected a significant loan from a local utility to build out and operate the system.

Because of problems with the loan and other issues, Utopia has refinanced the original loan and increased their financing. Current take rates are at 28 percent, the national average, and customers have been loyal to the Utopia program despite initial service missteps. It appears that Utopia is re-examining its initial business model and business relationships in an effort to right its ship.