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DEPARTMENT OF
ADMINISTRATIVE SERVICES

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CHIEF INFORMATION OFFICER

CITY OF SACRAMENTO
CALIFORNIA

September 17, 2002

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City Council
Sacramento, California

AG 2002-173

Honorable Members in Session:

SUBJECT: SHARED FIBER OPTIC CABLE AGREEMENT

LOCATION AND COUNCIL DISTRICT: Citywide – All Districts

RECOMMENDATION:

This report recommends that the City Council adopt the attached Resolution which authorizes the execution of an Agreement by and between the City, the Corporation for Educational Initiatives in California (CENIC), and the Regents of the University of California, on behalf of its Davis and Sacramento Medical Center campuses, to install a shared fiber optic network and to use, improve, or connect this shared network in the best interest of all three parties in order to provide cost-effective access to the educational and research community.

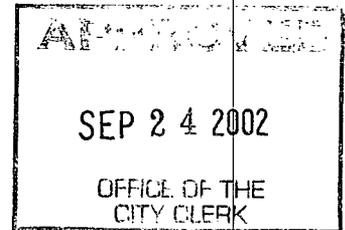
CONTACT PERSON: Sally W. Nagy, Chief Information Officer, 264-8600

FOR COUNCIL MEETING OF: September 24, 2002

SUMMARY:

Information technology has become an integral part of the nation's higher education and research programs and is of increasing importance in the K-12 curricula. The backbone of modern information technology systems is composed of broadband communications networks that enable ready communications and access to a wide range of resources and services.

UC Davis, in collaboration with CENIC, established a facility in Sacramento at 1107 9th Street as a facility that would meet the joint needs of CENIC to upgrade the California Research and Education Network (CalREN) and to link UC Davis and its Medical Center. There were, however, critical gaps in connecting the necessary dark fibers between UC Davis and its Medical Center through this facility as well as between CENIC's CalREN network and other critical telecommunications carriers located in 770 L Street. Since the City of Sacramento had already



City Council Staff Report
Shared Fiber Optic Cable Agreement
September 17, 2002

established fiber paths in this area of the City, CENIC proposed a partnership with the City for a fiber sharing agreement that had the potential to benefit all parties. It is only through this partnership with the City of Sacramento that the full benefits of the CalREN high-speed network can be realized in the Sacramento region.

As part of the agreement, the City of Sacramento will make available some fiber to finish the connection between the City and the Medical Center. In addition, CENIC and UC Davis will connect some of the City's fiber from the 770 L Street vault to the UC Davis facility at 1107 9th Street for the City's use.

COMMITTEE/COMMISSION ACTION: None

BACKGROUND:

The rapidly increasing demand for advanced data communications services for the nation's higher education and research programs has resulted in significant new costs that must be borne by higher education institutions. In response to this challenge, five of California's higher education universities joined together to form a non-profit corporation whose primary goal is to achieve cost-effective advanced communication services for all education and research institutions in California. CENIC, the Corporation for Education Network Initiatives in California, represents the common interests of California's higher education academic and research communities in achieving robust, high capacity, next generation Internet communications services.

CENIC, comprised of representation from Stanford University, the University of California, the California State University, the California Institute of Technology, and the University of Southern California and Information Sciences Institute has articulated a common vision for the innovative use of communications technology to deliver the next generation of data communications services. Fundamental to this vision is the existence of an advanced wide area communications infrastructure serving all institutions of education in California and linked seamlessly with the new advanced national and international research network infrastructure.

In 2000, CENIC unveiled a comprehensive planning initiative to create a powerful optical infrastructure that will meet the networking needs of all of California's research and educational institutions. The planning has been completed and implementation is underway to put into place a statewide infrastructure to serve the multi-tiered needs of the California research and education community. This network will be known as CalREN and serve several broad groups of users.

In order to achieve the objectives, CENIC believes that acquiring bandwidth through dark fibers to be the most cost effective and scalable solution for the needs of the California research and education community. It further believes that it is necessary to place the carrier grade network equipment (e.g. very high-speed routers and/or optical transport systems) in hubs that will be located in carrier neutral facilities.

Proposal For Collaboration – City of Sacramento

With this in mind, UC Davis, in collaboration with CENIC, established a facility in Sacramento at 1107 9th Street as a facility that would meet the joint needs of CENIC to upgrade CalREN and to link UC Davis and its Medical Center. There were, however, critical gaps in connecting the necessary dark fiber between UC Davis and its Medical Center through this facility as well as between CENIC's CalREN network and other critical telecommunications carriers located in 770 L Street. Fortunately, the City of Sacramento had the vision to establish fiber paths in this area of the City. As a result, CENIC proposed a partnership with the City for a fiber sharing agreement that had the potential to benefit all parties. It is only through this partnership with the City of Sacramento that the full benefits of the CalREN high-speed network can be realized in the Sacramento region.

As part of the agreement, the City of Sacramento will make available a loop totaling eight strands of fiber to finish the connection between the City and the Medical Center. CENIC and UC Davis shall connect four strands of fiber from its 770 L Street vault to the UC Davis facility at 1107 9th Street for the City's use.

This is an important collaboration for the Sacramento area. From the perspective of the K-12 education community, this provides a method for connecting K-12 schools to the high bandwidth on-line network. CalREN-DC extends into all 58 counties. Sacramento becomes the major hub for connecting most of the counties in northern California. CalREN-DC provides enhanced speed, quality and reliability of on-line educational materials by leveraging existing higher education resources for the Sacramento K-12 education community; it enables distance learning programs such as AP courses or advanced courses otherwise not available statewide; it lowers internet costs to these schools because of aggregated usage and high volume purchases; and it allows teachers and administrators to participate in professional development and educational leadership courses.

From the perspective of CENIC, and specifically UC Davis, this "last mile" connection provides cost-effective access to the educational and research community. Advantages will soon be realized in connecting the School of Medicine with the UC Davis Medical Center for remote imaging, analysis and diagnosis. Network connectivity may also provide access to University resources that are being proposed in the September 11th aftermath to assist with bio-containment and bio-terrorism programs on the West Coast.

From the perspective of the City, this Agreement to cooperate with CENIC and UC Davis is a good opportunity to partner with others in our community and this sharing of communication facilities will benefit each party and will provide each with improved access to information. In addition, this cooperation may open the door for further collaboration in the future.

FINANCIAL CONSIDERATIONS:

As a part of this Agreement, the UC Davis shall pay \$45,000 to the City for the right to use the eight strands of fiber for the term of this agreement. These funds will be used to maintain/expand the City's fiber network.

ENVIRONMENTAL CONSIDERATIONS:

The current project has been determined to be exempt from the requirements of the California Environmental Quality Act (CEQA), under Section 15061(b)(3), which states that CEQA applies only to projects that have the potential for causing a significant effect on the environment. The current proposal involves only the sharing of existing fiber optic cable strands among CENIC, UC Davis, and the City. Therefore, it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment.

POLICY CONSIDERATIONS:

The City's involvement in the Shared Fiber Optic Cable Agreement is consistent with existing policy promoting regional cooperation, especially where increased efficiency and better service to citizens can be achieved as a result. In addition, the City's participation supports the Goal in the City's Strategic Plan to "Establish and strengthen community and regional partnerships to enhance the quality of life" as well as the Goal in the City's Information Technology Strategic Plan to "Leverage Technology Investments."

ESBD/SBE CONSIDERATIONS:

As vendors are needed for this project, every effort will be made to utilize ESBD in accordance with the City's ESBD program.

Respectfully Submitted,



SALLY W. NAGY
Chief Information Officer

APPROVED:



ROBERT P. THOMAS
City Manager

APPROVED

SEP 24 2002

OFFICE OF THE
CITY CLERK

RESOLUTION NO. 2002-643

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF _____

**RESOLUTION AUTHORIZING EXECUTION OF AN AGREEMENT BY
AND BETWEEN THE CITY, THE CORPORATION FOR
EDUCATIONAL INITIATIVES IN CALIFORNIA, AND THE REGENTS
OF THE UNIVERSITY OF CALIFORNIA, TO INSTALL A SHARED
FIBER OPTIC NETWORK**

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SACRAMENTO THAT:

The City Manager and City Clerk are hereby authorized to execute an Agreement by and between the City of Sacramento, the Corporation for Educational Initiatives in California (CENIC), and the Regents of the University of California, on behalf of its Davis and Sacramento Medical Center campuses (UC Davis), to install a shared fiber optic network and to use, improve, or connect this shared network in the best interest of all three parties in order to provide cost-effective access to the educational and research community.

MAYOR

ATTEST:

FOR CITY CLERK USE ONLY

RESOLUTION NO.: _____

DATE ADOPTED: _____