

La Grande School District Greenwood and Island City Elementary Schools

LastMile Connectivity Grant Application

La Grande School District – Island City Elementary School and Greenwood Elementary School, La Grande, Oregon

1. Project Description: *(describe the telecommunication challenge you seek to overcome, and how your proposal provides a viable, long-term solution)*

La Grande School District is seeking to provide equal access for all students to the educational tools available through the World Wide Web. Of the District's four elementary schools, two (Greenwood and Island City) have limited connectivity due to the current point-to-point copper T-1 lines used to carry data and voice. Of the remaining elementary schools, one is connected using gigabit fiber and the other elementary school (which also houses the district office) is connected via a 180 megabit wireless connection. All remaining education facilities (the middle school, high school, and our alternative education program) are connected to the gigabit fiber backbone, creating the inequality previously mentioned.

The current point-to-point copper T-1 lines for Greenwood and Island City Elementary Schools are configured such that we have 1.0 meg for data and 540 k for voice. Under this configuration, throughout the day we are repeatedly exceeding the capacity of the copper T-1 lines resulting in poor performance, lost connections and a general inability for staff and students to utilize many of the education resources available online. The limited bandwidth also inhibits the ability of these two elementary schools to provide the state mandated tests under Oaks.

In addition, the limited connectivity is preventing us from providing regular system updates for computers located in these buildings, further hampering system performance.

La Grande School District (LGSD) has partnered with Umatilla-Morrow Education Service District (UMESD) interconnecting for data and video services and utilizing NERO (Network for Education and Research in Oregon) for Internet access. La Grande School District has made significant investments in the development of a gigabit fiber backbone connected to Eastern Oregon University, where our fiber connects to NERO, the district's ISP. As previously discussed, this backbone extends to many of our buildings and we are now seeking, through this grant application, to complete the network and give all students equal access to online resources.

This proposed project will build upon infrastructure already established and increase the Greenwood and Island City Elementary School capacity to a gigabit backbone connection, with a minimal increase in our current net monthly reoccurring costs. The minimal cost increase will insure that this is a long term solution in these very difficult economic times.

The need to provide high speed connectivity to our students at all schools is further emphasized by the fact that our district covers approx. 812 square miles, encompassing the communities of Starkey, Hilgard, Perry, Island City, and La Grande. The combination of rural locations and depressed economic conditions limits many of our students access to high speed internet, thus they are dependent on the capabilities of the school's network.

As highlighted, this project will provide the delivery of essential K-12 instruction by supporting learning environments that engage students through educational technology activities. Under the current conditions, the ability to utilize video conferencing, video streaming, distance education, internet-based curriculum or in-building wireless technologies at Greenwood and Island City Elementary Schools is **NOT** an option in an efficient or effective manner. In summary, La Grande School District looks forward to an opportunity to partner with ODE and EESC to help achieve improved connectivity and equality at these two elementary schools.

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2. Description of how the proposal satisfied the Criteria outlined in Section E:

This broadband fiber solution falls in the OSI model physical link to address our "last mile" connectivity issues. The project involves the installation of gigabit leased fiber and Cisco switches to interconnect to the established gigabit network. This is necessary to replace our current leased copper T1 lines which currently provide shared data and phone connectivity at 1.5 Mb/s. It will build upon the existing infrastructure already established to deliver the capacity essential to support the instructional technology efforts of our staff and students.

3. Description of site(s) covered and projected numbers of students and educators served:

La Grande School District (La Grande, OR, Population 13,000) serves a large geographical area in rural Northeast Oregon. LGSD has four elementary schools, one middle school, one high school, and one alternative high school. The school district has a student population of about 2150 students for the 2009-2010 school year. This project covers Island City Elementary School and Greenwood Elementary school serving a total student population of 487 students and 61 educators.

Island City Elementary School

Island City Elementary is located in Island City, Oregon but is a part of the La Grande School District. It serves 217 students in grades 1-5. The student population of Island City Elementary has steadily grown the past couple years from 174 students as reported in the 2006-2007 school report card to 217 students in the current 2009-2010 school year. Island City Elementary is a Targeted Assist Title I school with 49% of the student population receiving free or reduced lunches. Island City School has a higher percentage of Special Education Students than the district and state averages.

Island City Elementary has an administrator serving as Principal (.5 FTE), 13 certified teaching staff (10.8 FTE), and 11 Classified employees (7.64 FTE). According to the 2007-2008 Report Card from the Oregon Department of Education, Island City Elementary has met Federal Adequate Yearly Progress (AYP) and received an overall rating of Strong in the areas of academic achievement/student performance; student behavior; and an Exceptional rating in school characteristics.

Island City Elementary is committed to technology resources and to improving the ratio of students and staff to functioning networked computing devices. Island City School has a total of 48 networked computers for student use. There is one lab of 30 workstations located in the Media Center. The current student to computer ratio is 6 students to each computer. Each certified staff member also has at least one workstation in his/her classroom.

With the growth in student population and the need to access internet more often, a slow internet access has greatly reduced the availability to properly access programs at Island City Elementary School. Many of the servers that the school connects to are located across the T1 WAN. The 1 MB pipe is inadequate for many of these programs.

Greenwood Elementary School

Greenwood Elementary has a long history of being a true neighborhood school with a tradition of caring for students, family involvement, teaching to diverse learners, and academic excellence. Currently Greenwood School houses 270 students, with 64% of the students receiving free or reduced lunches. Greenwood School is a school wide Title One School with a higher than average percentage of Special Education students. According to the US Census

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Bureau, the median income is over 20% lower than both the Oregon and national averages. Over the past several years, Greenwood has fared well with the Oregon State School Report card. Receiving ratings of Satisfactory, Strong, and in 2005, Exceptional. Greenwood has received many honors, being selected as the Exemplary Reading Program for the State of Oregon in 2005 by the International Reading Association and cited by Oregon School Boards Association as one of ten "Salute to Success" Schools. Greenwood is currently staffed with one full time principal (1 FTE) and 18 certified teaching staff (16 FTE) in addition to 17 classified staff (12.56 FTE).

Greenwood Elementary is committed to technology resources and providing technology tools for staff, students and parents. The current student to computer ratio is 3.2 students to 1 computer. There are a total of 84 internet linked computers for student use in addition to staff computers for all certified staff. Greenwood has a 32 station computer lab. The lab is used for OAKS (Oregon Assessment of Knowledge and Skills) testing, internet access for research, student learning programs, and staff training (Special Ed, SWIS, District Program training, etc. for staff development). There are student workstations in the library, resource room and learning center. Most classrooms have mini-labs with 2-4 workstations.

Grande Ronde Child Center (GRCC) partnered with La Grande Public Schools to construct the Rising Star Program at Greenwood School in the summer of 2009. This is a program for emotionally disturbed children that GRCC is working to reintegrate back into the regular classroom environment. This involved constructing a new building on the Greenwood campus and connecting to the network services at Greenwood. This has further taxed our networking resources by adding more staff and students at the Rising Star program. Rising Star currently has 5 staff members and serves three students.

In both of these elementary schools, media instructors cannot teach core, essential media/research skills with our current bandwidth when a full lab of students are involved with online curriculum. At times, even the simplest tasks such as Library circulation is impeded by the lack of bandwidth. Our schools have hosted district and regional technology training and staff development and due to bandwidth concerns, often have to move training to other district sites. This affects our ability to inservice and educate our staff and regional partners on emerging instructional technology resources.

The following is a list of networked resources used daily at both Island City and Greenwood schools.

- LGSD servers and databases located at LHS main campus including: Destiny (Follett Circulation system w/online card catalog), Renaissance (STAR Math/Reading, Accelerated Math/Reading), Mealtime (Student Lunch Program), Open District (District Student SIS), Winschool (Student Management System), Enterprise (Purchase order System), Rosetta Stone language learning software, Windows Updates Server, Filemaker Pro server, Groupwise Email Server at LHS, and the district file servers
- Internet resources include: OAKS (Oregon Assessment of Knowledge and Skills – Online testing), Spelling City.com, Mathematics.com, Math magician, Discovery.com, National Geographic kids.com, Fun Brain.com, Academic Skill Builders, Book Flix (Online interactive ebooks w/activities), Discovery Videostreaming, Learn 360 Video Streaming, Worldbook Online Encyclopedia, OSLIS, Google Earth, Extensive other online websites for student research, Teacher created websites (ex. mrslester.tumblr.com)
- All book orders are placed online through vendors such as Follett, Bound to Stay Bound, Grolier, Capstone, etc.

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4. Key ESD and/or school staff involved in Proposal:

This proposal has been drafted with the help of Island City Principal, John Tolan, Greenwood Principal, Mike Gregory, Greenwood and Island City Media Specialist, Ellen Lester, Superintendent Larry Glaze, Business Director Chris Panike, and IT Director Tim Welch.

La Grande School District (LGSD), in partnership with Umatilla-Morrow ESD (UMESD), has submitted a RFP seeking broadband connectivity of a minimum 45 megabits to Greenwood and Island City Elementary schools. The RFP is posted on the [ESD website](#) and was also posted as an Erate 470 at USAC (Universal Services Administrative Company). The RFP was posted for the necessary 28 days and elicited four responses.

The technology needs of the district are supported by 1.0 FTE IT Director Tim Welch (541-910-8231) under the direction of Business Director Chris Panike (541-663-3206). In addition, LGSD has a long history of technology support from Umatilla-Morrow ESD. La Grande School District contracts with Umatilla-Morrow ESD for network analyst and helpdesk technician support. This includes, but is not limited to Networking support, including desktop support, network analyst support, and Instructional Technology Support. LGSD Maintenance support staff also provide support as needed.

The UMESD Network analysts are involved in the RFP for bandwidth services and will help in network design and implementation. Tom Hutchinson, network analyst, is the contact person at UMESD. Tom can be reached at 541-969-6470.

5. Description and role of any contractors involved in Proposal:

After analyzing the responses to the RFP, LGSD intends to secure services from Inland Development Corporation (Inland) to deploy the proposed Gigabit Ethernet fiber project (dependent on grant funding). Inland will provide a turnkey solution with all necessary fiber connections, switches, and other equipment to complete the last mile fiber interconnect to the district's MDF at La Grande High School. This project will complete the fiber buildout for La Grande School District, and will provide our students and staff at Island City and Greenwood Elementary Schools with the much needed bandwidth and the ability to facilitate future bandwidth growth.

Attached to this proposal is the quote submitted by Inland Development Corporation with the additional details of the project.

6. If applicable, a description of how the grant funds leverage other resources and their value:

Over the past 10 years La Grande School District has aggressively worked to improve their network and this grant truly represents the "last mile" of these efforts as it brings about the sought after equality to our outlying elementary schools. In 1998 the local voters passed a \$3.65 million bond, a large part of which was used to develop the gigabit backbone discussed in this grant application. Advances in technology and the availability of fiber optic cables in close proximity to Greenwood and Island City Schools now places the culmination of this project within reach of this grant. Both Island City and Greenwood Elementary Schools are fully wired 100 megabit networks with gigabit fiber connectivity between two main wiring closets. The final bottleneck in our network is the pipe from the main La Grande School District campus at La Grande High School to both Greenwood and Island City Elementary Schools. In other words, the schools are fully wired internally with network drops in all classrooms and a gigabit fiber backbone within the schools. The project leverages the existing network to provide the students and local property owners the opportunity to realize the full capacity of this network which they

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helped develop. (The bonded debt used to develop the existing network is still being paid for and is due to mature in 2012.)

The schools have invested in new computers to enhance student learning. School PTO's and other fundraising projects have contributed annually to help La Grande School District update and expand computer technology in the local schools. This grant would help leverage the capabilities of this new equipment by providing significantly better broadband access to the educational content on the Internet and within the district servers and systems.

The current network pipe from Island City and Greenwood Schools to the main La Grande School District campus at La Grande High School is over leased point to point copper T1 lines with 1 MB for voice and 540k for data. The project leverages the existing network infrastructure to improve the schools connection out to the LGSD main campus and the internet.

This solution involves purchasing transport in the form of leased fiber from an optical fiber service provider. The connection would provide Gigabit Ethernet backbone. La Grande School District will continue to participate in the Federal E-Rate program to leverage discounts on telecommunications costs to offset increased costs of the fiber solution.

7. If Equipment is part of the funding request, a description, manufacturer and make of equipment is required.

This project proposes a turnkey solution that requires LGSD to purchase no other equipment.

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8. Proposal budget Page:

Expense Detail	UMESD and La Grande School District In-Kind Support	Connectivity Grant Funds Requested
Develop, configure, install and support network connectivity issues for migration to gigabit fiber	La Grande School District IT Staff Support	\$0
Develop, configure, install and support network connectivity issues for migration to gigabit fiber	UMESD network analyst support staff	\$0
Contract with Inland Development Corporation to install Gigabit Ethernet fiber link to connect Island City and Greenwood with La Grande High School	LGSD IT Staff and UMESD IT staff	\$47,580.15

INLAND DEVELOPMENT

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162 N. Main, P.O. Box 815
 Heppner, OR 97836
 Phone (800) 862-8508 Fax (541) 676-9655

DATE November 12th, 2009
Quotation # 16001
Customer ID 10123

Customer:

La Grande School District
 C/o Tom Hutchison
 Greenwood, Island City to La Grande High School
 1305 N Willow St
 La Grande, OR 97850

Quotation valid until: March 12, 2010
Prepared by: Pat Lauritsen

Description	Non-Recurring Cost	Monthly Recurring Cost
La Grande HS- 708 K Ave, La Grande, OR		
Ethernet Service 45Mbps (12 month contract)	\$ 8,397.15	\$ 125.00
Greenwood ES- 2300 N Spruce St, to La Grande HS- 708 K Ave.		
Ethernet Service 45Mbps (12 month contract)	\$ 27,987.00	\$ 125.00
Island City ES-10201 W 4th St to La Grande HS-708 K Ave.		
Ethernet Service 45Mbps (12 month contract)	\$ 11,196.00	\$ 125.00
Greenwood ES 2300 N Spruce St La Grande, OR 97850	Island City ES 10201 W 4th St Island City, OR 97850	La Grande HS 708 K Ave La Grande, OR 97850

Notes: All sites, Greenwood and Island City will be terminated at the La Grande HS.

If you have any questions concerning this quotation, contact Pat Lauritsen at 541-571-8695
 or pat.lauritsen@windwave.tc

THANK YOU FOR YOUR BUSINESS!