

## **1. Applicant Information**

### **1.1 Applicant Contact Information**

Name: Devin Koch  
Company: Exwire, Inc., dba. Oasis Broadband, Inc.  
Title: CEO  
Email: [REDACTED]  
Phone: [REDACTED]

### **1.2 What type of legal entity is applicant? C-Corp**

1.3 Exwire is a rural broadband Internet Service provider with a 16 year history of serving the areas most in need of high speed Internet primarily in the Sierra Foothills and High Mountain areas. Exwire was the first company to provide high speed Internet in most of North Lake Tahoe including parts of Truckee, Squaw Valley, Alpine Meadows, many communities around Lake Tahoe. Exwire acquired Foothill.net in 2006 giving it access to the Colfax, Auburn and Grass Valley areas where it has also enlarged its footprint. Exwire provides Internet service using Fixed Wireless technology primarily but uses fiber optic and Ethernet transmission systems in circumstances where those capabilities are warranted.

Most recently Exwire has delivered high speed Internet to 100% of the remote community of Juniper Hill in Truckee which has also served Martis Peak and parts of Glenshire that were unserved. We are in the middle of deploying a system that will service 100% of the residents of the Kingswood neighborhood in Tahoe Vista, long an area that is recognized as un- and underserved.

Exwire has never accepted any grant money from any public or private institution.

## **2. Project Overview**

**2.1 Project Name:** Truckee Prosser Area

**2.2 Project Technology:** Fixed Wireless

**2.3 Describe the proposed network design.**

This project is to provide service to a community in Truckee that has been ignored by the cable providers and where DSL is dying and no longer available to buy (homes are now too far away from DSLAM to buy or get more than 2 mb/sec. Exwire has network elements near this community that just need to be extended to two new sites to service this entire area.

Two wireless technologies will be deployed in the proposed Access site to provide as much wireless coverage as possible and the absolute fastest speeds possible to each subscriber. Exwire will deploy

- 5Ghz Line-of-Sight high performance technology
- 3.65 LTE non Line-of-Sight technology

3.65 LTE technology has proven to be very effective at penetrating dense trees over short distances however and will provide a very high level of service through difficult terrain, through moderate foliage and over the longest wireless connections required in this deployment

5Ghz technology provides the absolute fastest speeds to subscribers who need 100/20 service.

**2.4 Proposed Service Area Describe geographic area to be served, including service area boundaries, place names, buildings, road/street names and addresses, bordering highway, bodies of water, or other features that clearly identify the project coverage area.**

The area is broken up into two parts - home along Prosser Dam Rd after Gray's Crossing ends all the way to the end of the road and homes in Pannonia Ranchos accessed from Prosser Dam Rd and just to the East of it.

Here is a visual representation of the area in purple.



KMZ File is in Google Folder called "Prosser Dam Project Area"

### **2.5 Project Permitting**

**Include a schedule of all required permits for the project including permit type, fee, permitting agency or regulatory board and status of the permit. Ensure that the application is complete and that all of the required local/city/county/state approvals necessary for this project to proceed been considered (planning commission, zoning, route and road authorities, railroad crossing, etc.) Indicate clearly what remains to be done and what is required for completing the process of obtaining approvals. Include this information in the project timeline/schedule.**

The only permits required are Truckee Business Location permit (site is on private residential land) and a Truckee Electrical permits. The site will be on private land.

**2.6 Service and Pricing Levels**

Business Model	Exwire Services	Unit Cost	Mb/sec	
			dn	up
Revenue	HC (HomeConnect) 5G+	\$65	10	1
	HC Plus 5G+	\$85	20	2.5
	PH - Stream 5G+	\$95	50	5
	PH - Stream HD 5G+	\$115	100	20

**2.7 Project Schedule**

Truckee Prosser Equal Access Schedule	2020												
	1	2	3	4	5	6	7	8	9	0	1	2	
Negotiation With Owner		N	N										
Design and Permit				D	D								
Build					B	B							
Test						T							
Launch							L						

**3. Level of Service Verification**

**3.1 Provide evidence of current service levels, which may include but is not limited to:**

Suddenlink does not offer service in this area. Their website says they do but when you call, they eventually figure out they don't have service.

ATT won't sell to this area any more:



Your address 12364 PROSSER DAM RD 96161 >

Internet TV

I'm a business customer.

## INTERNET

### Internet isn't available

We're sorry. Internet isn't available at your address.

**[REDACTED]** TRUCKEE, CA 96161

[Enter a different address >](#)

See testimonials in testimonials section.

### 3.2 Passings.

Passings Tally Sheet	Households	Businesses	Community Institutions
Currently UNSERVED Number of passings expected to improve to at least 25/3 as a result of the project	55	0	0
Currently UNDERSERVED Number of passings expected to improve from between 25/3 & 100/20 to 100/20 and above as a result of the project	45	1	0

### 3.3 Describe the methodology used to determine the number of locations (e.g. number of meters, existing customers, address points)

We counted the homes and businesses underneath the polygon on our proposed service map by hand. We know that in this area of Truckee many people run businesses from home.

### 3.4 With respect to density, what is the average number of homes, businesses and institutions per square mile within the proposed service area?

The project area is a little less than a square mile so density is slightly greater than 100 homes per square mil.

**3.5 In terms of infrastructure installation, explain why this area was chosen for the grant and is unlikely to be served without grant funding. Include an explanation of terrain, population density, or other factors contributing to the overall cost of the project.**

**If necessary, provide any additional information on the grant area that may be helpful during the scoring process that was not asked on the application.**

We chose this area for the grant because:

1. We have been getting many requests from this area for a long time
2. We know the area well and know we could service it but the cost was too high
3. It's a relatively small area so
  - a. A great for a test of your grant process
  - b. Buildable in a short time-frame to show results pretty quickly
4. It is mostly primary home owners and many home-based businesses due to larger lot size
5. It is an older community that never had cable and is unlikely to ever get it since areas next to it have been developed but the cable company declined to build out this area at that time
6. Is partially DSL served but only speeds of less than 2mb/sec. Homes are now unable to sign up for DSL We qualified the whole area as unserved since homeowners can not buy DSL now due to lack of availability
7. We believe all homes can be hit from a single new site as it's all relatively flat with a large hill next to it
8. Won't be very expensive to provide service per home given all of these factors -- so a relatively efficient build cost.
9. Will have a very high take rate as these home owners can afford broadband and are moderately to very sophisticated users
10. The business model for us is not very good since we have to do a major upgrade to a backhaul link that will service this site. The Net profit after one year is shown on the Business Model spreadsheet and copied it here.

<u>\$1,233</u>	<u>\$1,233</u>	<u>\$1,233</u>	<u>\$1,233</u>	
\$3,243	\$3,243	\$3,243	\$3,243	
\$3,077	\$3,077	\$3,077	\$3,077	
-\$1,000	-\$1,000	-\$1,000	-\$1,000	Cumulative Profit Year 1
\$2,077	\$2,077	\$2,077	\$2,077	\$11,883
			Total Labor costs	\$59,660
			Without Grant - Net cumulative profit Year 1	(\$47,777)

We have been able to service a few of these customers from one of our sites but not well and only those with with very tall trees. We started searching for a place to provide internet

from but have not been able to find one and given the economics of the project gave up. This initiative will require an intensive effort to find an Extension site to service this area.

**3.6 Anticipated Improvements Using the “Anticipated Improvements” table below, provide the *number* of households, businesses, and community institutions that will be able to receive improved broadband services as a result of the proposed project. Identify the speeds currently available for each type of location, using the ranges provided on the table, and the speeds that will be offered if the project is awarded grant funding.**

**To the extent possible, identify location types by household, business (including home-based business or telecommuter, farm, etc.) and community anchor institutions.**

Anticipated Improvements						
	# of Passings	Speed Now	0/0*	<10/1	0/0	<10-1
		Speed After Build	25/3	25/3	100/20	100/20
Households					90	10
Businesses					1	
Anchors						
* not including satellite and 4G						

**3.7 Include a description of the business model and plan to sustain operation of the network. Include estimated take-rate in grant area**

See Spreadsheet Tab “Business Model”

**4. Project Cost Analysis**

**A full project budget must be completed and attached as part of this application. Provide a summary in section 4.3 below.**

See attached Exwire Nevada County Grant Spreadsheet, tabs “Equipment Budget” and “Labor Budget” for project budgets

**4.1 What are the total eligible project costs?**

**Remember to figure in both time and expenses for the required local and state environmental reviews and permits.**

\$105,799 is the total project budget

\$4,210 are the ineligible costs

\$101,589 are the eligible project costs

Details are shown on the Budget and “Src & Use” tabs in the workbook

**4.2 How much grant money are you seeking from the Nevada County Last-Mile Grant program for this project?**

***\*up to 50% of the total broadband development cost is eligible to be reimbursed the county broadband grant, to a maximum of \$225,000. Points will be awarded to projects that leverage greater local match funding – more than 50% -- from alternative sources.***

\$52,900

**4.3 Fill out the PROJECT BUDGET TABLE below indicating the sources, uses, and amounts of all funds that will be used for eligible broadband development costs as defined in the guidelines. Use the recommended Use of Funds categories where possible, creating other categories where anticipated expenses do not fall within one of the recommended categories. Attach your full project budget to the grant application. Be sure to include a contingency for project completion.**

See attached Exwire Nevada County Grant Spreadsheet, Tab "Source and Use" for Summary and tabs "Equipment Budget" and "Labor Budget" for detailed categories

**4.4 Attach all written funding commitments from all project funding partners, including public, private, and non-profit or philanthropic sources.**

See document in Folder called "Ritalia Approval Letter EXWIRE"

**4.5 If the grant request was approved for this project, is the remainder of the financing (the local match) in place for building this project?**  
 NO, the local match funds are not yet in place. If funds are not secured yet, what is the process to secure the funds and what is the timeline in which they will be obtained?  
 YES, all of the local match is in place. If yes, you must attach evidence that local match funds secured.

It has not been approved yet.

**4.6 Are there additional costs related to this project that are not eligible costs that will be incurred as part of the overall project costs for deploying broadband to this area? If yes, what are those costs?**

No

**4.7 Is this project part of a larger build for which the applicant is not requesting grant funds? Is there any additional relevant information regarding the investment in the area surrounding the grant project area?**  
**If yes, please explain and/or attach proof of leveraged financing.**  
*(Attachment optional)*

No

## **5. Financial and Governance Plan**

**5.1 Describe the need for funding from the Nevada County Last-Mile Grant fund and why the project could not proceed without this funding. Refer to your stand-alone financial plan/budget and demonstrate the financial model with and without grant funding. Be as specific as possible.**

1st, We tried to find a site for this project previously and have not and have always tossed it to the back of the project pile. So, the time to find, negotiate and contract this site already spent is high and will be significant. This work is high value and expensive and we don't have budget to work on "hard sites".

2nd, the way we have to service this site requires that one of our backhaul links get upgraded to a licensed link to have the capacity required on a six mile link where there is the potential for 5Ghz interference. The licensed link costs alone will be \$15,000.

3rd, on the bottom right of the business model spreadsheet there is a number called, "Without Grant - Net cumulative profit Year 1" which is shown as a negative number given the fully loaded model and financing costs for the equipment not provided in the grant. We have lots of projects that break even after a couple months.

We show the project losing \$47,777 in the first year of operation.

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			Total Labor costs	\$59,660
			Without Grant - Net cumulative profit Year 1	(\$47,777)

**5.2 Provide an organizational chart, applicant's history including experience relevant to the proposed project, and an indication of readiness to build, manage, and operate the proposed broadband project. Include resumes of key officers and management personnel.**

**Devin Koch - Founder and CEO**

Experienced Wireless Architect, Entrepreneur and Project Manager

Devin founded Exwire in 2003 from his home in Tahoe Donner after being frustrated with the lack of available Internet service. He raised funding, built the original team and proceeded to roll out wireless broadband as the first real source of internet for Tahoe Donner, Alpine Meadows, Squaw Valley, most of the communities around the Northwest shore of Lake Tahoe and eventually bought two additional companies expanding the company's reach to Auburn Colfax and Grass Valley area. Exwire continues to grow mostly through organic growth limited only by capital.

Devin has planned dozens of similar projects, many with much larger scope than the target project.



Prior to Exwire Devin was a programmer and project manager for Andersen Consulting for 5 years.

Devin was a management consultant in Telecommunications for Booz Allen & Hamilton Co before their acquisition. For three years he ran teams of 30+ consultants for clients like T-Mobile and Telligence Telecom who were both German Mobile carriers focusing on operations, finance and provisioning.

Devin was a principal in a boutique marketing company in Connecticut called the The Atlantic Group, expanding it out to San Francisco in 1998 before starting his own consulting company and working with a dozen companies in the San Francisco Bay area until starting Exwire.

Since founding Exwire, Devin has founded 3 additional companies and in 2015 sold a company he was a partner in that made Aerodynamic Wings for Semi-Trailers called ATDynamics to Stemco.

#### **Jay Evans - Lead Field Technician**

Jay is responsible for taking designs from Devin and making them real. He and Devin make final equipment choices and then Jay test and prep equipment on the bench and stage it before deploying it in the field which Jay also leads.

#### **Don Arndt - Lead Field and Electrical Engineer**

Don handles design documentation, engineering and electrical planning and installation. He has a 30 year career working in various roles from technician to CTO of several wireless companies.

#### **Erik Ramirez - Field Technician**

Erik is responsible for assisting Jay on Infrastructure builds and does customer installations

#### **Lynzie Francis - Operations and Administration**

Lynzie handles Customer Provisioning, Procurement, Reporting, Scheduling any many other operational/administrative tasks for Exwire and continues to increase her skill as an assistant project manager.

Exwire has a team of three Tower and Tree Climbers who provide installation services for our Infrastructure Sites and Customers. Hilton and Emily are employees and Henry is a contract climber.

This project and the required servicing of the customers after the project is exactly what Exwire does on daily basis. We are an ISP and are prepared to build, maintain, bill and support customers. We are experienced, competent and have been working very hard to improve our network reliability, customer service and expand to new communities. New technology made available in the last two years as shown on our Equipment plan has increased, reliability, capacity and tree penetrating capability to the point where now have a very small performance gap to cable Internet. We are able to deliver speeds of up to 100 mb/sec to a customer's home with new 4x4 Mimo technology from Cambium for the first time last year -- at a reasonable cost.

We recently built a system in Tahoe Vista using exactly the same hardware and last year built a system comprised of 3 sites using almost the same technology. We are experienced with all of the technologies that will be used in this project.

## 6. Community & Economic Development Impact

**6.1 Describe the economic and community development potential of the project, including how the project will provide opportunities for existing business retention and expansion, new business attraction, increased jobs, and/or other expanded business and community opportunities such as improve public safety, health care delivery, service to economically distressed area, and improved educational access.**

This community is comprised of larger lots. Many homes have out-buildings or in-laws. A very significant percentage of them run home-based businesses - excavation, construction, vehicle repair, accountants and vacation home rentals, real estate, high tech and property management are some that we know of.

I think the best description comes from the letter of reference written by one of our prospective customers in 6.3

**6.2 Describe any partners or subcontractors associated with the project's deliverables related to deployment and service delivery. Please describe each party's role in the project. Please include copies of any applicable executed contracts or anticipated contractual language and/or insurance requirements.**

None.

**6.3 Attach evidence of community support for the project. This may include resident surveys, local government resolutions, and/or letters from residents, businesses, government officials, other stakeholders or the partners listed above. Note: the upcoming public comment period is not designed to extend the application period. Members of the public may comment during this time, but all community support intended for application must be included at time of submission. (Attachment required)**

Customer Expressions of Support:

*Very excited to hear you are pursuing the much needed grant for broadband expansion to the Prosser area residents. Most (if not all of us) have internet based or supported businesses. My personal business is short term vacation rentals. I have a licensed STR with Town of Truckee ...it's on my property. I have personally pulled it off the market this past year because lack of internet has made the economic value too low to be worth the effort and loss of privacy. The number one required amenity is internet. Without that - it's like camping but without the 's'mores'.*

*In addition, my STR business covers rentals in other areas and the lack of quality internet access has affected my home based rental business negatively. I have lost business as a result of regular slow or intermittent speeds and frequent service interruption that I have experienced with standard DSL. I am a long time member of VRBO and Homeaway featuring beach front rentals in Oceanside, Ca.*

*Both of my children attend public school in Truckee, and both of them have informed their teachers of the lack of reliable internet in our home with a request for educational accommodations when we cannot submit school work online.*

*In terms of public safety, we rely on telephone lines using the oldest technology to receive safety warnings or to reach public safety personnel. Modern warning system use internet based warnings. I am unable to run a security system on my property because I have insufficient internet access.*