

1.	Q.	In hours, how much emergency backup power is required at Microwave sites?	
	A.	It is essential that the Microwave system maintain a very high level of availability under all conditions, but particularly in a crisis such as a hurricane. Emergency power must be provided by uninterrupted power source (UPS) for a period of at least four hours, with an additional requirement to provide generator power to the system using the existing on site generator capacity if available, or a stand alone generator if necessary. The Respondent will be expected to work with the tower owner to coordinate the solution. We recognize that there are unknowns in this area that must be addressed in the proposal as options. For example, it may be expressed as a cost assuming that generator power is available from the tower owner and a cost assuming generator power is not available from the tower owner.	
2.	Q.	Does West Tisbury Elementary School have emergency power generation capability? If so, how much?	
	A.	West Tisbury Elementary is not currently a microwave location. OpenCape and the successful Respondent will work together with the stake holders of Martha's Vineyard to determine the best shelter location on the Island to service. Part of the selection criteria will be the availability of generator power.	
3.	Q.	Does the Penikese Island School have emergency power generation capability? If so, how much?	
	A.	Unknown at this time. This will be determined by the successful Respondent.	
4.	Q.	Have site surveys been completed for CO locations?	
	A.	Only the most preliminary assessment of space availability has been conducted. The RFP 2010-09-001 (Field Data Survey, Licensing and Permitting, and Engineering) successful Respondent will perform a complete assessment of central offices that will be provided to the successful Respondent of this RFP 2010-10-001. This will include an assessment of power and space.	
5.	Q.	Please confirm there is room to place additional equipment racks and/or caged areas at sites targeted for collocation	
	A.	See 4. The Regional Collocation Center will be an all new space for this purpose.	
6.	Q.	Can OpenCape confirm that sufficient power is available at all sites targeted for collocation? If not, is it the contractor's responsibility to cover potential power plant upgrade costs?	
	A.	See 4 and 5. OpenCape cannot confirm at this time if sufficient power is available at collocation sites with the exception of the Regional Collocation Center, which will be purpose built. If insufficient power is available at other sites solutions will have to be developed by the Respondent with the building owner, or alternative solutions considered.	
7.	Q.	Can OpenCape confirm that sufficient heating and cooling is available at all sites targeted for collocation? If not, is it the contractor's responsibility to cover potential upgrade costs?	
	A.	See 4, 5 and 6.	
8.	Q.	Can OpenCape please confirm who will be responsible for collocation fees? If it is the operator, what are the total expected fees associated with collocation at each site?	
	A.	OpenCape will be responsible for all collocation fees.	

9.	Q.	Is there any cost of collocation for the operator at the OpenCape Barnstable datacenter?	
	A.	There will be no collocation fees for equipment and space that the operator uses to operate the OpenCape network, though there will be utility and related charges for that space, and some share of common space costs within the building. Any additional space or resources used by the operator to expand its own business opportunities will be charged at normal commercial rates as charged by the Collocation Center Operator.	
10.	Q.	Will the Operator be obliged to use Common Language TM coding schemes (circuit generation)?	
	A.	Unknown.	
11.	Q.	Please identify the CAD, GIS and data management software/formats that the contractor will be required to submit documentation in.	
	A.	OpenCape uses Microsoft Office V 10 Excel and MS Visio to read CAD files and as a data interchange format for moving data in and out of ESRI ArcView, V10.	
12.	Q.	Please identify all costs that the contractor must bear associated with the fiber link to Nantucket?	
	A.	OpenCape will pay the cost fees charged by National Grid for use of this link. The operator will be responsible for providing and operating equipment as needed at both ends.	
13.	Q.	Can OpenCape provide a definitive list of all expected CO/PoP locations and the type of Facility expected at each location (Collocation with Verizon or other, new shelter, etc). Additionally please provide the finalized address for each CO/PoP location.	
	A.	A listing of CO's is provided in the RFP.	
14.	Q.	Regarding Colocation, If any of this information is not available at this time please indicate if it will be made available to allow finalization of proponent costs.	
	A.	See 4, 5 and 6.	
15.	Q.	Regarding Colocation; Please also confirm that agreements/permits have been attained for collocation or construction of all required CO/PoP locations	
	A.	See 4, 5, and 6. Regarding the Regional Collocation Center OpenCape expects to submit a response the Barnstable County RFP for the former Public Safety Building in early November with the anticipation it will be successful in obtaining a lease to the building by the end of the year. Once the lease is in hand OpenCape will issue an RFP for renovation and another RFP for the data center construction in short order with completion of the renovation and data center construction by fall of 2011.	
16.	Q.	Does all traffic need to be optically protected at the DWDM layer, or is desired that the protection be handled at another layer and the DWDM layer only need to be engineered for diverse path?	
	A.	OpenCape believes it is imperative that customers be provided the highest level of security options possible considering the nature of potential customers in the region - research, military, public safety and health care customers – but it should be a customer selected option. The core must be engineered to allow protection at the DWDM layer, but this should be a customer option. The OpenCape regional area network will require this level of protection.	

17.	Q.	Regarding Figure 2, are we to assume that the connection out of Cataumet to New Bedford, then to Barnstable and Plymouth requires that Cataumet be a 3 degree or 4 degree ROADM site? 3 degrees connects Cataumet with New Bedford CO and Barnstable. A 4 degree ROADM connects New Bedford CO, Barnstable and Plymouth, each with a unique fiber pair.
	A.	All ROADMs are 5 degrees with a variable number of lit degrees. In the case of Cataumet there should be 4 lit degrees.
18.	Q.	How is the fiber along Sandwich Road connected into the network? Are the connection points just fiber splices or is there a site available for equipment?
	A.	We are not sure what section of Sandwich Road this refers to.
19.	Q.	Regarding Figures 5 & 6, can you explain how these two figures are related? Figure 5 is for Ethernet traffic between nodes and Figure 6 is the DWDM network, with a requirement for route diversity. Are the demands between the two figures independent of each other? Or is the requirement for the 40G Ethernet traffic in figure 5, but with an 'any-to-any' capability of Figure 6?
	A.	The Ethernet rings are a particular logical overlay that is expected to be carried on one or more wavelengths provided by the supporting DWDM structure.
20.	Q.	Regarding Figures 5 & 6, in order to maintain a true diverse path, are we to assume there is a connection from another carrier between Brockton and Providence? Do we terminate the signal at those locations to be transported by other means?
	A.	Providence and Brockton are termination points where multiple Tier 1 through Tier 3 Internet service providers are available. It is assumed that OpenCape customers, through the operator, will obtain access from them as they chose. Several carriers connect at both Brockton and Providence which customers may choose to use to enhance reliability. This is outside the scope of OpenCape operations.
21.	Q.	Regarding Figures 5 & 6, does Figure 5 network simply run on one lambda on the Figure 6 network?
	A.	It is up to the designer/operator to determine how the Ethernet services required by OpenCape are to be provided in a robust manner.
22.	Q.	Regarding Figures 5 & 6, what is the intent of the figure 5 network, is to be the core routed layer for the 50+/- node RAN network?
	A.	Yes.
23.	Q.	Regarding Figure 6, what do colors indicate on Figure 6?
	A.	Blue indicates the termination points, red is the Regional Colocation Center, and green is the remaining nodes (central offices).
24.	Q.	In Appendix G pricing, what is meant by ROADM type 1,2,3?
	A.	This is to allow respondents to configure different capacity ROADM units.
25.	Q.	From Appendix C: could you please clarify the sentence that follows, it appears the link should have less availability than the service (public safety) running across it: Ensure each path established meets a high standard for availability no lower than 99.99% on the entire link with a base requirement to deliver to public safety consumers at 99.999% availability.

	A.	This is intended to give the Respondent some flexibility in designing the microwave component. There may be a need for a variable availability of service for different purposes.
26.	Q.	Is there a traffic matrix that defines what needs to be transported on the DWDM layer? The text above Figure 6 specifies: "1Gbps, 2.5Gbps, and 10Gbps are the transmission rates of the most commonly requested services today, but the network must accommodate 40Gbps and be scalable to 100 Gbps per wave."
	A.	Respondents should understand that the usage of the network will evolve over time. Please read the RFP carefully to understand the types of services that, at a minimum must be offered.
27.	Q.	Is there a way to show required for pricing lambda demands i.e. What would you like included for client side interfaces on the WDM layer, for this RFP? Should we assume on only one client service (the 40 Gig core) for pricing the RFP?
	A.	As noted in the RFP, lit services, lambda services and dark fiber must all be offered to customers. An element of the RFP Respondent's proposal is to state how they will provision these services and charge for them.
28.	Q.	Is there a place at the Sandwich Rd junction where the fibers terminate and we can put equipment to direct the multi-degree traffic, or are there multiple fibers connecting the sites together. So leaving Cataumet, does it have a point to point fiber pair to New Bedford, another to Plymouth and another pair to Barnstable as well as a pair that connects Plymouth to Barnstable.
	A.	OpenCape sees this as work to be performed in part under the OSP RFP 2010-09-001 and in part by the successful Respondent of this RFP.
29.	Q.	Is the 700Mhz mobile public safety network being constructed separately expected to collocate within facilities and towers built/operated by the operator? If so, please identify these requirements
	A.	It is assumed base housing should be adequate to contain and protect both Microwave and 700Mhz components. OpenCape sees this as work to be performed in part under OSP RFP 2010-09-001. The remainder will be performed by the successful respondent of this RFP.
30.	Q.	The bidder responsible for tower collocation fees or is that outside the scope of the proposal? (i.e. Similar to pole attach fees?)
	A.	At this time tower collocations fees are considered outside the scope of this RFP. It is safe to assume these will be the direct responsibility of OpenCape.
31.	Q.	What assumptions can be made about the status of tower make-ready?
	A.	None. OpenCape sees this as work to be performed in part under the OSP RFP 2010-09-001. The remainder will be performed by the successful respondent of this RFP.
32.	Q.	Are the cost of design and installation of attachment structures at the proposed tower sites to be included in the proposal?
	A.	Yes
33.	Q.	Have the owners of the towers/structures proposed, agreed to their use for the wireless WAN?
	A.	These are the subject of on-going negotiations between the Tower owners and OpenCape. It is anticipated that the successful respondent will join those

		negotiations for final resolution.
34.	Q.	Are there any contract terms with the tower/structure owners?
	A.	Contract terms will be in the form of MOU's which will be negotiated as stated in Question 33, above.
35.	Q.	Is the bidder responsible for the costs of negotiating contract terms with the tower/structure owners?
	A.	In part, OpenCape will lead in the negotiation of these contracts, but the Respondent is expected to allocate time and resources to supporting the process.
36.	Q.	Can the bidder assume that the specified tower locations will be available, usable and permits agreed, or must we allow for the cost of selection, acquisition and permitting of potential alternate sites.
	A.	Assume the sites described will be available. OpenCape will be responsible for securing new locations if required.
37.	Q.	How much space is required for collocation of future 700 MHz public radio system in each facility?
	A.	OpenCape anticipates radio systems will be contained to the tower sites. The precise size of the systems will be decided at a later time by the selection of a provider. Calculation of the space requirement at the tower will be the responsibility of the Respondent.
38.	Q.	Police Details: It was mentioned in the Pre bid Conference that all Police Details would be the responsibility of the contractor and would not be a pass through. Please confirm.
	A.	The cost of police details should be considered part of the Respondents costs to perform the contract and ARE a recoverable cost under the contract.
39.	Q.	Since Design documents are not completed and all permits not identified, will these permits be a direct pass through and the cost associated with obtaining them a pass through or will these be part of the engineering firm?
	A.	OpenCape sees this as work to be performed in large part under the OSP RFP 2010-09-001. The remainder will be performed by the successful Respondent of this RFP.
40.	Q.	Make Ready Cost? Open Cape said that all utility cost for Make Ready and walk down will be paid by OpenCape. Please confirm.
	A.	The OSP RFP 2010-09-001 contractor will perform the surveys on behalf of OpenCape. Following negotiation of the Make Ready requirement by this contractor with the pole owners and obtaining potential temporary attachment licenses, OpenCape will then contract directly with the pole owners to perform the Make Ready. OpenCape will likely require both the OSP RFP 2010-09-001 contractor and the successful Respondent to this RFP to coordinate with one another and the pole owners to ensure Make Ready is accomplished in an optimum way to support the build and timeline.
41.	Q.	It was mentioned that we will receive Construction Drawings from the Open Cape selected engineering firm. Please define the division of services between the Engineer and the Operator/Builder? Is the role of the Operator Builder to provide assistance to the selected engineering company and facilitate the access with the Utility companies.
	A.	OpenCape sees the transition/coordination point between the OSP RFP 2010-09-001 contractor and the successful Respondent to this RFP to be twofold: 1) As reflected in #40 above, and 2) We expect the OSP RFP 2010-09-001 contractor to

		provide comprehensive OSP engineering drawings, strand maps, pole descriptions, and permits and at least submitted complete license applications to the pole owners. The successful Respondent will be expected to evaluate the quality of the materials provided by the OSP RFP 2010-09-001 contractor and work with that contractor to ensure the materials are correct and complete for construction to begin. The two contractors will also be expected to coordinate on the production of as built drawings.
42.	Q.	Will the collocation be on a separate bid?
	A.	Yes. See 15.
43.	Q.	Could we suggest a larger fiber count to be installed on these runs?
	A.	The fiber counts are fixed within the funded grant and environmental assessment. Changes are difficult and discouraged. However, should a Respondent wish to make the case that a particular count should be increased they may do so and provide rationale and costs as an option.
44.	Q.	The Rail Road Bridge is a drawbridge: is there a conceptual design for the crossing.
	A.	The fiber would run in existing open-trough wiring trays (catenaries) which run on either side of the elevator span from tower to tower. 144 strands will be run across each of the two catenaries. The fiber will not be located on any movable elements of the bridge.
45.	Q.	If the Spare conduit over the Sagamore bridge is required, who is the present owner? Verizon?
	A.	The Sagamore Bridge, its abutments, and the 12 conduits that are attached to it are the property of the Army Corps of Engineers.
46.	Q.	For Transmission Fiber Installation do you anticipate using Trac Resistant? Will the installation be on Metal poles or wood Poles? If metal will the vangs be welded or banded?
	A.	This will in large part be discovered by the OSP RFP 2010-09-001 contractor. The remainder will be performed by the successful respondent of this RFP.
47.	Q.	What will be the building entry demarcation point. Are we required to bring just inside the buildings to a demarcation point?
	A.	Demarcation points are inside buildings.
48.	Q.	What is the preferred trench method and conduit size?
	A.	This will in large part be discovered by the OSP RFP 2010-09-001 contractor. The remainder will be performed by the successful respondent of this RFP.
49.	Q.	Is the first installment of the \$2M required within 5 days of November 22 (Respondent Selection Date) or within 5 days of contract completion?
	A.	The first installment is due within five days of contract completion rather than Respondent selection. <b>This is a change to guidance provided in the Question 62 of the Bidder Conference Questions.</b>
50.	Q.	Can OpenCape confirm that the customer list on page A7 and A8 contains all premises that must be connected by the operator? If not please include any additional premises
	A.	This is a list of anchor institutions that must be connected to satisfy our grant requirements. Additional locations are expected to be added as more customers sign up for services but those are out of scope of this RFP and represent business

		opportunities for the Operator.
51.	Q.	Please clarify who is responsible for the costs incurred if the fiber network is required to be moved, i.e. there is an issue through the proposed bridge path as an example
	A.	The allocation of those costs will be situation dependent. In some cases they may be mandated by the Commonwealth and the cost included in the related funding. In some cases the Operator may recommend the move to OpenCape and the Operator absorb the cost. In other cases the move may be a joint decision of OpenCape and the Operator and the cost shared.
52.	Q.	What is OpenCape's current plan for leveraging approved NTIA funding that is in excess to the selected bid for total construction and engineering? Is OpenCape prepared to work cooperatively with the selected Operator to best determine how this remaining funding could provide maximum benefit?
	A.	OpenCape may have remaining funds following completion or near completion of the OpenCape System to include all costs associated with design and construction of the fiber and microwave network, Regional Collocation Center, 700Mhz mobile system, etc. No contingency plans have been made for such a situation. OpenCape would include the successful Respondent in the discussions about the most effective use of those excess funds.
53.	Q.	Please clarify that there are zero direct costs to the Operator in dealing with the federal funding, process, administration and reporting.
	A.	OpenCape will assume all direct costs associated with Federal reporting requirements related to the grant funding. The successful Respondent is a contractor/vendor of OpenCape. As such it is required to provide required documentation of competitive purchasing, invoices and other materials required by OpenCape to fulfill its reporting requirements. The Respondent must also be prepared to comply with any accounting, audit and compliance requirements as stated in the RFP.
54.	Q.	In Appendix H, Maximum Pricing Model, what is the difference between "On OpenCape Network" vs. "Off OpenCape Network PoP to PoP" Services?
	A.	On OpenCape Network refers to prices for connections that begin and end on the OpenCape network. Off OpenCape POP to POP refers to connections that start on OpenCape network and terminate off of it (Brockton, Providence, or beyond). Respondents' pricing models may differ from the one given in Appendix H but at least must cover the range of services and variations shown.
55.	Q.	If the Operator invests in additional lateral extensions to other premises, can the Operator charge higher rates than indicated in Appendix H or a connection fee?
	A.	No, not for similar services. The pricing model must be consistent for all like services using the OpenCape network all or in part.
56.	Q.	Bid Bond Requirements
	A.	As stated in Section 5.16, a bid guarantee equivalent to five percent of the total bid price is required. A bid bond is an acceptable form of bid guarantee. As required by applicable federal regulations, the bid bond must be obtained from a company holding certificates of authority as acceptable sureties, as described in 31 CFR Part 223. It is the responsibility of the Respondent to ensure that the surety providing the bid bond meets this requirement.

		<p>A bid bond written on AIA Document A310, Bid Bond, will be acceptable to OpenCape. The attorney-in-fact who executes any bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.</p> <p>The bid security from the successful Respondent will be retained until such successful Respondent has executed the contract documents and furnished the required payment and performance bonds, whereupon the bid security will be returned. If the successful Respondent fails to execute and deliver the contract documents and payment and performance bonds within thirty (30) days, OpenCape may annul the selection of the successful Respondent and the bid security provided will be forfeited.</p> <p>The bid security from unsuccessful Respondents will be returned within seven (7) business days after the selection of the successful Respondent.</p>
57.	Q.	What form of bid bond do you require?
	A.	See 56.
58.	Q.	What is the required term of the bid bond?
	A.	See 56. At a minimum, the bid bond should be for a term of at least ninety (90) days from the date of submission of a bid to OpenCape. The bid bond must remain in place until the successful Respondent has executed the contract documents and furnished the required payment and performance bonds.
59.	Q.	Regarding Page 16 – 5.16 Bid Guarantee; If you are not the successful contractor for the project, when will the bid bonds be returned?
	A.	See 56.
60.	Q.	Regarding Appendix Page C5 C Optical System; Does the platform need to be 40G enabled or is the expectation 40G rings lit on day 1?
	A.	The solution provided by the respondent should be compatible with the specification as written.
61.	Q.	Will OpenCape consider a different payment schedule to properly reimburse capital expenditures as they are incurred to the RFP bid responder?
	A.	OpenCape is required to provide match contributions proportionate to the drawdown of funds from the federal government. This requires that with each drawdown of federal funds that OpenCape also draw down from the Respondent 6.5%.
62.	Q.	Out of the entire run list, item by item, of the Microsoft project plan, which items can run past the due date of xxx/xxx/2013 due to delays out of the control of the RFP bid responder?
	A.	January 31, 2013 is the deadline for reimbursement under the grant. At this time there are no provisions in the Federal guidelines for an extension to the grant deadline
63.	Q.	With the recent acquisition of NSTAR by North East Utilities, what is the expected impact on pole attachment?
	A.	We are still exploring potential impacts, but as of this time have discovered no

		discernable changes.
64.	Q.	Section 3.1 of the RFP states "...Respondent(s) shall provide a two million dollar (\$2,000,000.00) cash match contribution to OpenCape's Broadband Technology Opportunity Program grant award or an appropriate proportion if responding only in part to this RFP." Please explain in further detail OpenCape's cash match contribution expectations if a respondent DOES NOT submit a proposal for the entirety of the RFP.
	A.	Though not preferred, Respondents may respond to one or the other component individually. These single component responses will be considered should a qualifying comprehensive response not result, thus requiring OpenCape to develop an alternative solution that could include independent Network Design and Build, and Network Operation contracts. These single component responses must include a match contribution. The amount of that contribution is completely at the discretion of the Respondent, but OpenCape must generate a total match amount of \$2,000,000 should it be required to piece together responses to create a comprehensive solution.
65.	Q.	Please make available to Respondents the contents of OpenCape's memorandum of understanding with NSTAR executed September 15, 2010
	A.	This will be made available to the selected respondent during contract negotiation.
66.	Q.	What is the current status of OpenCape's access negotiations with Verizon and other Pole Owners?
	A.	OpenCape has engaged all three pole owners and is in the overall attachment application process. OpenCape sees this as work to be performed under the OSP RFP 2010-09-001.
67.	Q.	Will OpenCape allow the use of subcontractors to complete some or all of the work contemplated by the RFP? If yes, are there any specific requirements to which a Respondent must adhere when employing subcontractors?
	A.	Subcontractors can be used, but they are subject to the same obligations and requirements as the primary contractor with regard to federal and state law and regulation, and grant accounting, audit, and compliance required in the RFP.
68.	Q.	Open Cape will require virtually all of the fiber to be deployed in the Power Space, which in turn will require use of ADSS. This has implications for which sub-contractors we may choose to hire since only power space certified union members are allowed to work in NStar's Power Space, as well as the cost of the fiber and from whom we may buy it.  Since this requirement doesn't seem to be obvious from the RFP including all the Appendices, please answer the following, albeit it is past the deadline for submitting questions.  What is your estimate of the percentage of fiber that will need to be installed in the Power Space? How will this impact the time to completion. How will this impact the make ready costs?

	<p>A. OpenCape seeks to build a system that can evolve over time to serve the needs of the region for the next fifty years and beyond. We seek to use dense wavelength division multiplexing (DWDM) as the underlying transport system of the network. In order to satisfy these goals the underlying physical infrastructure must be capable of both evolving and supporting DWDM.</p> <p>The high order design provided by OpenCape in the RFP describes the physical layer fiber generally, but does not specify what type(s) of fiber must be used. This is done deliberately in order to permit the Respondents the broadest possible latitude in submitting the best possible solutions in terms of technology and value. OpenCape knows what capabilities it wants, but relies on the expertise of the Respondents to identify and propose solutions and options that best suit our goals.</p> <p>There are some requirements that must be addressed. For example, OpenCape intends to install its fiber in the power space throughout the NSTAR service region only – thus requiring the use of All Dielectric Self Supporting (ADSS) cable in those applications. In addition, some paths along utility rights of way may have non-standard span lengths. These requirements must be satisfied in the proposals.</p> <p>Working in the electric space will also dictate specific qualifications of those working in the space. We estimate about 80-90% of the build-out will occur in NSTAR territory. The OSP RFP 2010-09-001 contractor will provide detailed percentages as part of its work. We estimate the use of the power space will significantly reduce Make Ready costs and timelines.</p> <p>OpenCape’s goal to build a DWDM transport system that can evolve over time also brings forth a requirement to use a more capable fiber - non-zero dispersion shifted fiber (NZDSF) at least in part.</p> <p>Beyond these requirements OpenCape is open to the recommendations of the Respondents, described as options if necessary, to set forth the many variables that must be considered in these decisions. Striking a balance of optimum system performance and cost requires careful consideration. Optimum performance for both current and future system needs requires careful consideration. Striking a balance between the fiber requirement for transport and short laterals off of the transport system requires careful consideration.</p> <p>OpenCape does not know all of the questions, solutions and options that will influence the final design and specification. For example, is the best solution to use all NZDSF, or a combination of NZDSF and standard single mode fiber (SSMF)? What is the nature of that mix? Can a single bundle of combined NZDSF and SSMF be procured? Is the distinction best made at laterals? What is the impact on Test</p>
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	<p>Plans, labor certifications, etc?</p> <p>For these questions and more we look to the Respondent and their expertise to propose solutions, options, and cost models with their recommended solution in the RFP responses.</p>
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