



**WISCONSIN DEPARTMENT OF  
ADMINISTRATION**

# BadgerNet Converged Network Solicitation

Tuesday, July 6, 2004

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## **1. INTRODUCTION**

The State of Wisconsin Department of Administration (DOA), Division of Enterprise Technology (DET), Bureau of Infrastructure and Networks, in collaboration with the Wisconsin Collaborative Network Initiative (WCNI), is seeking to procure services for an enterprise network that will converge data, video; and, if desirable and financially feasible at a future date, voice services.

Details regarding the genesis of the project have been detailed in both the Functional and Technical RFIs released in late 2003 and 2004. Public documentation can be found at <http://www.doa.state.wi.us/wcni/index.asp>.

DOA intends to procure and implement the converged network under DOA's Exception Authority as detailed in Chapter 16.75 (6) of the Wisconsin State Statutes. DOA intends to purchase a managed network service from a prime contractor and does not intend to purchase individual networking components such as codecs, switches, routers, and bridges or gateways. The University of Wisconsin will be responsible for network design, management and operations of its component of the network to meet the advanced research needs of its education community. Infrastructure may be shared by both components of the network as appropriate. WCNI will ensure seamless interoperability between the two network components.

The state will also require unmanaged end points on the network as an optional offering. Unmanaged end-points would primarily support Wide area networking or Internet access. Respondents are encouraged to utilize current and next-generation technology as well as alternative last-mile solutions to design the optimum network.

## **2. BACKGROUND / CURRENT ENVIRONMENT**

Today, all three networks (voice, data and video) are independent of each other. The long-term goal is to converge them into a single, cost effective, efficient network capable of supporting current state and municipal government, library, and educational applications, emerging applications, and the needs of all users to the year 2010 and beyond. Successful completion of the procurement will result in the following:

- Replacement of the current BadgerNet video network (current contract expiration date of December 6, 2005).
- Replacement of the BadgerNet data network (current contract expiration date of February 18, 2005, with three possible one-year extensions).
- Providing the groundwork to allow the state's voice communications to converge with the data/video network at the point in the future when it proves to be feasible and cost effective.

### **2.1. Project Goals & Outcomes**

Through this procurement, the Department of Administration will meet the needs of its users by providing an enterprise, standards-based, flexible and scalable network with adequate bandwidth to the building level or main distribution point of the end user. The services provided via this network to educational users, state agencies, and optionally counties, municipalities, and other authorized users such as libraries must support their applications at a cost-effective, statewide price.

The BadgerNet converged network contract is intended to initially support the following:

1. Educational Institutions including:
  - Public and private PK/12 schools, and private higher education institutions.
  - Wisconsin public libraries
  - Other educational entities that are now or become eligible for DOA/TEACH Telecommunications Access Programs.
  - University of Wisconsin System institutions.
  - Wisconsin Technical College institutions.
2. State of Wisconsin Agencies, Boards and Commissions as identified in the current edition of the *State of Wisconsin Blue Book*.
3. Wisconsin political subdivisions (city, county, village, township, etc.) that might wish to utilize BadgerNet converged network contract services as authorized users.

Users	Type of circuit	# of circuits	Status
State Agencies	DS1 (Data)	≈ 715	Existing
State Agencies	DS3 (Data)	≈ 10	Existing
State Agencies	OC3 (Data)	≈ 45	Existing
Education / Libraries(TEACH)	DS1 (Data/Internet)	≈ 565	Existing
Education (TEACH)	DS1 (VOTS)	≈ 450	Existing
Education (TEACH)	DS3 (Video)	≈ 355	Existing
Education (TEACH)	Alt. Network Video	≈ 50	Existing
Private Colleges & Universities (TEACH)	DS3 (Data/Internet)	≈ 28	Existing
County/Municipal Gov		≈ 200	Potential
Education (Non-TEACH)		≈1,000	Potential

The Joint Legislative Council Special Committee on Public and Private Broadband submitted a recommendation to the Wisconsin Legislature in 2003 encouraging additional investment in telecommunications infrastructure within Wisconsin to serve the private sector's need for affordable broadband service.

Additionally, Governor Doyle, through his Grow Wisconsin Initiative, is seeking to promote broadband deployment throughout the state. To that end, Governor Doyle has issued a challenge to his administration, the legislature, the private sector and local governments to provide universal access to competitively priced broadband for every business and home in Wisconsin in five years. Through cooperative effort with the selected vendor, DOA hopes to help meet that challenge with the results of the BadgerNet converged network procurement project.

The service provider of the BadgerNet converged network will provide high capacity data capability, managed and unmanaged video services, and eventually may provide transport for future voice services. The size of this procurement along with the variety of services procured requires the vendor community to think competitively and creatively. We encourage innovative partnerships among vendors (traditional and non-traditional) where the effect is to reduce the expense of any given circuit or service. Also encouraged are alternative transports such as wireless, cable, DSL, dark fiber or satellite transmission.

## **2.2. Convergence**

The Department of Administration has several goals associated with the network procurement. The new BadgerNet converged network must be capable of supporting both data and distance education applications that include video and audio components. A single infrastructure capable of supporting educational and state agency applications as well as university research and education needs will provide the most cost-effective solution for the citizens of Wisconsin.

## **2.3. Standards-based Network**

The WENCC-sponsored focus groups and the subsequent business case documented the following priorities for a BadgerNet converged network with flexible, scalable bandwidth to the building level or the main distribution point of the end user:

- Standards-based
- Affordable
- Adequate bandwidth to support multiple applications
- Capable of statewide connectivity.
- Seamless connectivity between network components.

The state believes that the necessary standards exist in both the data networking and video transport industries to meet all of these goals.

## **2.4. Wide Area Network Capability**

In order to achieve convergence in the relatively independent data and video networks that exist today, the BadgerNet converged network needs the capability to provide wide area networking at the same level of functionality as is currently available. This is a fundamental requirement, and it must be met as a condition for winning the award for the next BadgerNet network. The state's vision is that the existing state agency data network will migrate from its current infrastructure to the next BadgerNet network.

## **2.5. Creative Solutions for the Expensive Last Mile**

One of the limiting factors to expansion of the current BadgerNet data and BadgerNet video networks is the overall expense. Every school, state agency, county, municipal government, and authorized user wants and needs more cost-effective solutions. Achieving improved cost effectiveness statewide is an absolute requirement for this procurement. DOA understands that an expensive piece of the current BadgerNet video and data networks is the cost of transport from the end site (e.g., school) to the nearest switch site. Given that the DOA component of the BadgerNet converged network will support video; data and possibly voice traffic, the cost of these end-site-to-switch segments must be reduced without increasing costs for other elements in the network.

DOA expects price stability and predictability during the course of the contract and is open to ways to accomplish this creatively. To be the winning vendor, you will need to demonstrate that you have seriously pursued and will use alternative transport when it is the most cost-effective option.

### **3. ECONOMIC DEVELOPMENT**

Governor Doyle, Department of Administration executive management, the Joint Legislative Broadband Study Committee, and the Wisconsin Educational Network Collaboration Committee Business Case consider implementation of the BadgerNet converged network to be an integral part of meeting Grow Wisconsin's economic development objectives

The state has clearly communicated to the vendors during this procurement process that it is willing to become an anchor tenant on a commercially provided statewide telecommunications infrastructure. The state is willing to be the anchor tenant in a manner that allows the prime contractor to share the infrastructure with commercial business and residential customers throughout the state. Sharing the infrastructure also includes facilitating competitive access to choices for Internet service providers.

Since the state, its authorized users, and the educational community have presence and need in all 72 Wisconsin counties and many cities, towns or villages, the technology deployed to meet our requirements will lend itself to making it physically, logically and economically available to the public.

In addition, DOA must prudently manage the use of the Wisconsin Universal Service Funds associated with TEACH programs. The Wisconsin Public Service Commission also has responsibility to insure TEACH funds are used prudently. Annually, the PSC tracks the infrastructure development and deployment of broadband services.

- 3.1.1 Describe your specific plan to meet the objective to allow sharing the infrastructure deployed for this procurement with commercial business and residential customers throughout the state in addition to political subdivisions being provided with services. Sharing the infrastructure also includes facilitating competitive access to Internet prime contractor choice where that is geographically restricted today.
- 3.1.2 Describe your plan and what is required to make broadband services economical for commercial sale. While it is not expected that you can provide pricing during the contract negotiation period, the state expects to meet quarterly regarding your economic development plan to discuss progress, review the plan and determine where the state can assist you in meeting this partnership objective.
- 3.1.3 Are there any public service commission rules or requirements that either help or detract from meeting the economic development objectives in this section? If there are, be prepared to discuss them during the contract negotiation process and be prepared to consider an action plan recommendation.
- 3.1.4 Describe how you will build out the infrastructure to provide service under the state contract and provide services to the commercial and residential public. What engineering principles and design philosophy will be used?
- 3.1.5 Describe how you will develop your marketing plan to sell the services to the public and how long it will be before they are available.
- 3.1.6 List services you could offer the public as a result of winning this contract and deploying this kind of infrastructure statewide.



## 4. SOLICITATION RESPONSE PROCEDURE AND INSTRUCTIONS

### 4.1. Submitting Responses

Responders must submit one original plus ten (10) paper copies of their response and three (3) copies of the cost proposal to DOA (see note below). Duplex printing is requested. In addition, responders must submit ten (10) CDs (*without any pricing*) **in both PDF and MS Word formats.**

An original plus three (3) paper copies of the **Cost Proposal** and one copy in excel format on CD must be sealed and submitted as a separate part of the solicitation response. The outside of the envelope must be clearly labeled with the words “Cost Proposal, BadgerNet Converged Network Solicitation” and name of the vendor and due date. The cost proposal is due to the addressee on the due date and time noted below.

Responses must be submitted to DOA by **12:00 p.m. CDT, Monday, August 9, 2004** to:

Andrea Konik  
IT Acquisitions Analyst  
Department of Administration  
101 East Wilson Street, 9<sup>th</sup> Floor  
Madison, Wisconsin 53702

An attendant in the above office must receive your hard copy response. All responses must be time-stamped by the Division of Administrative Services, 9th Floor. Responses not so stamped will be considered late. Receipt of a response by the state’s mail system does not constitute receipt of a response by the Division of Administrative Services, for purpose of this Solicitation.

To ensure confidentiality of the document, all responses must be packaged, sealed and show the following information on the outside of the package:

- Responder's name and address
- BadgerNet Converged Network Solicitation Response
- Response due date

### 4.2. Contract Term

The contract term will either be five years with eligibility for five one-year renewals or seven years with eligibility for three one-year renewals.

### 4.3. Procurement Contact

All questions regarding this procurement should be sent via e-mail to:

Andrea Konik  
State of Wisconsin Department of Administration  
Division of Administrative Services – Purchasing Section  
101 East Wilson Street, 9<sup>th</sup> Floor  
Madison, Wisconsin 53702  
Telephone: (608) 264-9775  
Fax: (608) 264-9500 E-Mail: [andrea.konik@doa.state.wi.us](mailto:andrea.konik@doa.state.wi.us)

#### **4.4. Vendor Questions**

Vendors are expected to raise any questions, concerns, exceptions or additions they have concerning the Solicitation document at this time in the Solicitation process. If a Vendor discovers any significant ambiguity, error, conflict, discrepancy or omission or other deficiency in the Solicitation, the Vendor must immediately notify the above named individual of such error and request modification or clarification of the Solicitation document.

In the event it becomes necessary to provide additional clarifying data or information, or to revise any part of the Solicitation, supplements or revision will be provided **to all recipients** of the initial Solicitation.

Each Response shall stipulate that it is predicated upon the terms and conditions of this Solicitation and any supplements or revision thereof.

#### **4.5. Multiple Responses**

Multiple responses from a Vendor will be permissible; however, each response must conform fully to the requirements in the solicitation document. Each response must be separately submitted and labeled as response #1, response #2, etc. on each page included in the response.

#### **4.6. Incurring Costs**

The State of Wisconsin is not liable for any cost incurred by a vendor in the process of responding to any Request for Information, Solicitation or any associated on-site presentations that a vendor may make.

#### **4.7. Press Releases**

News releases pertaining to the Solicitation or to the acceptance, rejection or evaluation of this shall not be made without the prior written approval of the state.

#### **4.8. Format of Response**

Vendors responding to this Solicitation **must comply** with the following format requirements. The State reserves the right to exclude any responses from consideration that do not follow the required format as instructed below:

**Tab 1 - Cover Letter:** Include here a cover letter from the person who is responsible for decisions as to the prices being offered in the response or by a person who has been authorized in writing to act as agent for the person responsible for the decision on prices.

By submitting a response, the vendor's signatories certify that in connection with this procurement: (a) the vendor's organization or an agent of the Vendor's organization has arrived at the prices and discounts without consultation, communication or agreement with any other respondent or with any competitor for the purpose of restricting competition; (b) the prices, discounts, or margins quoted in the response have not been knowingly disclosed by the vendor's organization or by any agent of the vendor's organization and will not be knowingly disclosed by same, directly or indirectly, to any other respondent or to any competitor; and (c) no attempt has been made or will be made by the vendor's organization or by any agent of the vendor's organization to induce any other person or firm to submit or not to submit a response for the purpose of restricting competition.

**Tab 2 - Management Summary:** Provide a narrative summary of the response being submitted. This summary should identify all product(s) and/or service(s) that are being offered in the response. A brief description of the vendor's organization and its history may also be included. Pricing and discount or margin information is to be submitted separately.

**Tab 3 - Organization capabilities:** Describe your firm's experience and capabilities in providing similar services to those required. Be specific and identify projects, dates, and results.

**Tab 4 - Staff qualifications:** Provide resumes describing the educational and work experiences for each of the key staff whom would be assigned to the project.

**Tab 5 - Response to Requirements:** Provide a point-by-point response to each and every requirement specified in this Solicitation. Responses must indicate that either vendor's response "does comply" with specifications or that it "does not comply." A succinct explanation of how each requirement can be met or cannot be met must be included where requested in order for the State to review your response.

**Tab 6 - Additional Information:** Include additional information, which will be essential to an understanding of the response. This might include diagrams, excerpts from manuals, or other explanatory documentation, which would clarify and/or substantiate the response document. Any material included here must be specifically referenced elsewhere in the response.

**Tab 7 - Financial Requirements:** Vendors responding to this Solicitation must be able to substantiate their financial stability. Current financial statements along with additional supporting documentation must be submitted with each response. The state may request reports on financial stability from independent financial rating services in order to further substantiate stability.

**Tab 8 - Supplier Diversity - Minority Business Program**

The State of Wisconsin is committed to the promotion of minority business in the state's purchasing program and a goal of placing a minimum of five (5) percent of its total purchasing dollars with certified minority businesses. Authority for this program is found in Wisconsin Statutes 15.107(2), 16.75(4), and 16.75(5) and 560.036(2). The Department of Administration is committed to the minority business program and with this procurement, the successful contractor is encouraged to purchase 5% of services and supplies from minority businesses certified by the Wisconsin Department of Commerce, Bureau of Minority Development.

Given the size and scope of this procurement, the successful contractor is strongly encouraged to purchase 10% of services and supplies from minority businesses certified by the Wisconsin Department of Commerce, Bureau of Minority Development.

4.8.1 Proposing vendors must submit both a narrative of their current programs or activities related to supplier diversity as well as a subcontracting plan of action indicating its utilization of certified minority businesses for this contract.

4.8.2 The Department of Administration will require from the successful contractor a quarterly report of purchases of such supplies and services necessary for the implementation of this contract.

A listing of certified minority businesses, as well as the services and commodities they provide, is available from the Department of Administration, Office of Minority Business Program, (608) 267-7806. The list is published on the Internet at: [http://www.doa.state.wi.us/dsas/mbe/minority\\_search.asp](http://www.doa.state.wi.us/dsas/mbe/minority_search.asp)

**Tab 8 – Forms:** Include completed and signed where noted copies of the Affidavit, Designation of Confidential & Proprietary Information, Vendor Data Sheet and Vendor Agreement for Wisconsin's Cooperative Purchasing Service, all of which can be found at the end of this document.

**Tab 9 - Vendor references:** Using the provided Vendor Reference Sheet, vendors must include in their Solicitation, a list of a minimum of four (4) references with whom the vendor has done business like that required by this Solicitation. For each client, the vendor must include the name, title, address, and telephone number of a contact person along with a brief description of the project or assignment, which was the basis for the business relationship. The state will determine which, if any, references to contact to assess the quality of work performed and personnel assigned to the project. It may also utilize other

sources of information about the product(s) and/or service(s) proposed by the vendor where these sources are publicly available and are equally available for all competing vendors. The vendor must not be present during site visits.

**Tab 10 – Cost Proposal/Pricing Sheets:** Under separate cover as detailed in Section 4.1, provide price information on the price sheets included in this Solicitation. Identify any and all assumptions. Failure to provide any requested information in the prescribed format may result in disqualification of the proposal.

**Note:** No mention of the cost proposal may be made in the response to the technical requirements of this Solicitation.

#### 4.9. Calendar of Events

Listed below are important dates and times by which actions related to this Solicitation must be completed. In the event that the state finds it necessary to change any of these dates and times, it will do so by issuing a supplement to this Solicitation.

Solicitation Timeline	
Release BadgerNet Converged Network Solicitation	Tuesday, July 6, 2004
Vendor Questions Due	12:00 p.m. CST, Monday, July 19, 2004
State Responses to Questions	Monday, July 26, 2004
<b>Solicitation Responses due</b>	<b>12:00 p.m. CDT, Monday, August 9, 2004</b>
Vendor Presentations, if necessary as determined by the State	Thursday, August 12, 2004
Conduct Proof of Concept	Mid-Late August 2004
<b>Solution Selected (tentative)</b>	<b>Late August 2004</b>

### 5. RESPONSE ACCEPTANCE, EVALUATION AND AWARD

#### 5.1. BadgerNet Project Procurement Process Overview

Responses to the Solicitation document that do not meet the requirements and specifications may not be considered. The low cost responsive and responsible (as defined by the State of Wisconsin) Solicitation submission that meets the state’s specifications (including conducting a successful Proof of Concept) will receive the award. Please keep in mind that the Solicitation document and vendor responses will become part of the final contract.

#### 5.2. Response Acceptance

Responses that do not comply with instructions or are unable to comply with specifications/requirements contained in the Solicitation may be rejected by the State. The State retains the right to accept or reject any or all responses, or accept or reject any part of a response deemed to be in the best interest of the state. The state shall be the sole judge as to compliance with the instructions in this Solicitation.

#### 5.3. Response Review

The proposals will be reviewed initially to determine if mandatory requirements are met. Failure to meet mandatory requirements may result in rejection of the proposal. This verification may include contacting references furnished in the vendor’s response, requesting reports on the vendor’s financial stability, conducting site visits, product demonstrations, requesting resumes of employees who will support

contracts, and reviewing results of past awards to the vendor by the State of Wisconsin. Vendors may not contact the state's reviewers except at the state's request. In the event that all vendors do not meet one or more of the mandatory requirements, the state reserves the right to continue the evaluation of the proposals and to select the proposal that most closely meets the requirements specified in this Solicitation.

#### **5.4. Method of Award**

Award of this contract will be made per the following instructions. Respondents are being asked to provide actual prices in the Solicitation phase. Vendors must be willing to bind their companies contractually to these numbers. Responses that do not comply with these requirements may be rejected.

5.4.1 Responses received without pricing and discounts for all items may be rejected. The state will make an award to one prime contractor.

5.4.2 The state reserves the right to increase the number of awarded vendors as is determined to be in the best interest of the state.

#### **5.5. Notification of Intent to Award**

All vendors who respond to this Solicitation will be notified in writing of the state's intent to award the contract(s) as a result of this Solicitation.

### **6. NETWORK SERVICES**

#### **6.1. Description of Terms**

##### **6.1.1 Access Circuit**

The state defines an "access" circuit as the transport from the end-user location to the aggregation node. The aggregation equipment is not included in the access circuit. This delineation is made so that different levels of availability can be assigned to the access portion of the network, the aggregation portion of the network, and the Core of the network in Service Level Agreements. It is expected that the circuits in the access network will often *not* be redundant, so reliability is extremely important.

##### **6.1.2 Access Layer**

The state defines the access layer as the circuit connecting the end-user interface which includes either the managed Ethernet interfaces or the unmanaged prime contractor interface, to the aggregation node.

##### **6.1.3 Aggregation Node**

The state defines the aggregation node to be the service equipment that aggregates access circuits and routes them either to the Core or to another aggregation node.

##### **6.1.4 Aggregation Layer**

The state defines the aggregation layer as the aggregation node and the transport connecting it to the Core. The aggregation layer requires higher availability than the access layer of the network.

##### **6.1.5 Core Node**

The state defines a Core node as a high-speed router or switch that connects aggregation nodes to the Core and routes traffic among other Core nodes.

#### 6.1.6 Core Layer

The state defines the Core Layer as the equipment provided at the Core nodes and the transport connecting them together. The Core layer requires the highest availability in the network.

#### 6.1.7 Service Delivery End point

The state defines the Service delivery end point as the location where the user (WAN, Internet Access or Video) is connected to the requested service. Examples of service delivery end points are a video MCU, state agency head-end router, or the alternative ISP hand-off location.

#### 6.1.8 Alternate ISP POP

The state intends to allow multiple ISPs to connect to the prime contractor's network to receive Internet traffic. The prime contractor will install and provision the equipment to which the alternate ISPs will connect. The circuit is the responsibility of the ISP.

#### 6.1.9 On-Net Video Gateway

To allow BadgerNet video users to connect to different hardware platforms and maintain continuous view capability, MCUs are required. The prime contractor will provision and maintain the MCUs and allow the state to schedule the gateway ports.

#### 6.1.10 Off-Net Video Gateway

To allow other network users to connect to BadgerNet, a gateway will be provisioned in cooperation with the University of Wisconsin Instructional Communication Systems (ICS). The prime contractor will provision and maintain connectivity to an ICS MCU on a 'managed' basis. The prime contractor will facilitate session scheduling with ICS and the Inter-Network scheduler.

#### 6.1.11 Internet Transport

The state defines Internet transport as bandwidth required for the end-user to connect to an Internet service provider. Transport carries Internet traffic from the end-user location through the network to the ISP service delivery point.

#### 6.1.12 Internet Access

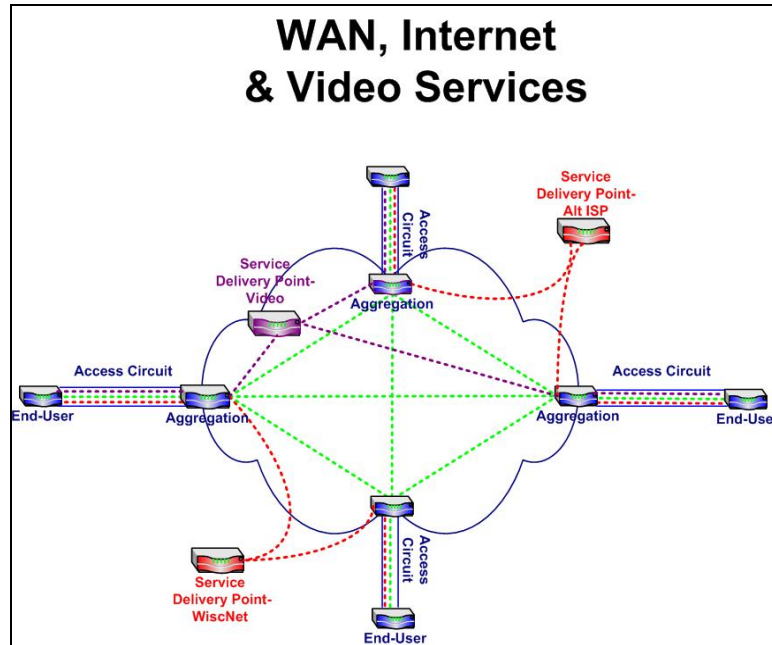
The state defines Internet access as service required for an end user to connect to the Internet. Internet access does not include bandwidth.

#### 6.1.13 Scalable Bandwidth

The state defines scalable bandwidth as flexible increments of access network from 256 Kbps through 1,000 Mbps and perhaps higher. The prime contractor will provide prices for increments of bandwidth that significantly differentiate each increment.

## 6.2. Description of Wide Area Network

The following describes the necessary components of the wide area network required to support the State of Wisconsin's BadgerNet converged network:



For each of the following sections, describe in detail how your solution will meet the listed requirements:

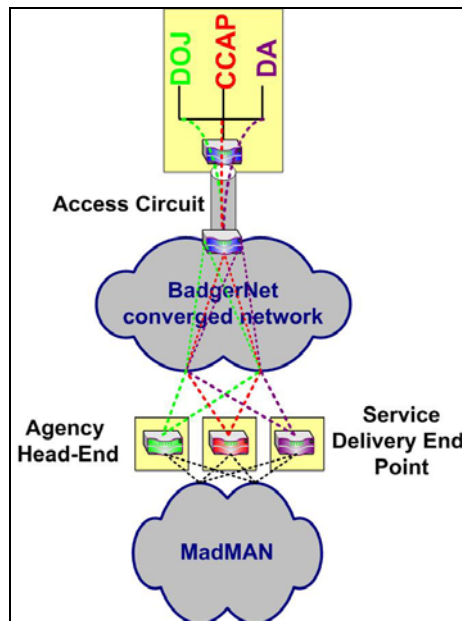
- 6.2.1 The state requires convergence within the network so that data, video and eventually voice traffic are served on the same access circuits from the customer premise to the aggregation node.
- 6.2.2 MPLS is the label switching protocol required throughout the network.
- 6.2.3 The network requires redundancy, resiliency, and diverse (physical and logical) routing in the following areas:
  - 6.2.3.1 Core network equipment (required)
  - 6.2.3.2 Aggregation node equipment (required)
  - 6.2.3.3 Transport between the core and aggregation nodes (required)
  - 6.2.3.4 End point equipment (desired as an option and only where specified by the customer)
  - 6.2.3.5 Access circuit (desired as an option and only where specified by the customer)
- 6.2.4 The following interfaces at the users' side of the access circuit are required or desired:
  - 6.2.4.1 Ethernet Interfaces (required)
  - 6.2.4.2 Additional Ethernet interfaces in multi-tenant buildings (required, but only when requested)
  - 6.2.4.3 Serial interfaces (desired when requested)
  - 6.2.4.4 Wireless (desired when requested)
  - 6.2.4.5 Others (desired when requested)

### 6.2.5 Core Bandwidth to the Service Delivery Point

The state requires the aggregation and core layers of the network to be managed by the vendor including the bandwidth necessary to deliver applications to the service delivery end point. Examples of service delivery end points include, but are not limited to, video MCUs, alternate ISP POPs, and state agency head-end routers. Engineering for aggregation and core bandwidth must also meet the Service Level Agreements outlined in Section 11 of the Solicitation. Describe how your solution will meet these requirements.

### 6.2.6 Logically Separated Networks

For reasons of security, many state agencies and other customers require logically isolated networks. The data networking service must logically separate agencies, clients and applications starting at the end-user side of the access circuit, through the backbone and to the service delivery end point. (See drawing below) Examples of this kind of separation include:



- Multiple agencies share one router at a physical location.
- Multiple user communities within the same agency.
- Multiple applications from the same user community within an agency.

### 6.2.7 Network Class of Service Requirements

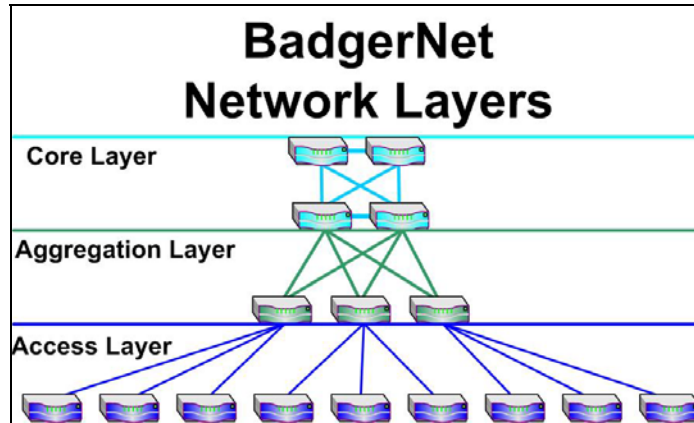
The network must be able to support multiple service levels:

- High priority – Latency sensitive
- High priority – Data
- Low priority – Data and normal Internet
- Low priority – Best effort Internet



### 6.3. Network Availability

The BadgerNet network can be viewed in three layers as network availability is reviewed. Each layer, progressing from the edge to the core, has its own availability requirement.



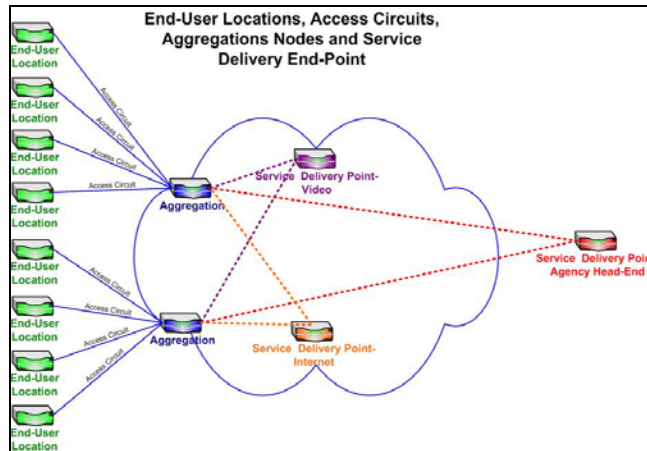
- 6.3.1 The state defines the Core Layer as the equipment provided at the Core node and the transport connecting them together. The Core layer requires the highest availability in the network. The network must be 99.999% available.
- 6.3.2 The state defines the aggregation layer as the aggregation node and the transport connecting it to the Core. The aggregation layer requires higher availability than the access layer of the network. The aggregation layer must be 99.99% available.
- 6.3.3 The state defines the access layer as the circuit connecting the end-user interface which includes either the managed Ethernet interfaces or the unmanaged prime contractor interface, to the aggregation node. The access layer must be 99.5% available.
- 6.3.4 The state requires access to near real-time availability data, either directly to the network elements logging this information or to a server collecting this information.

### 6.4. MadMAN

In the functional and technical requests for information, the state asked for input regarding integration with the MadMAN fiber network. After reviewing the responses to the requests for information and discussions with the vendor community the state has decided to retain ownership and management of MadMAN facilities initially. The prime contractor will be responsible for delivery of service from agency remote locations through the network to a managed head-end router. The vendor is not required or expected to interface with MadMAN at all. The state will continue to use MadMAN to interconnect inter-agency traffic and aggregate state agency Internet traffic.

### 6.5. Wide Area Network-Data Service (WAN)

The generic drawing below shows elements of the network described in the Wide Area Network-Data Services section of this Solicitation. Specifically, those elements are the end-user location, the access circuit, the aggregation node and the service delivery point. Examples of service delivery end points are a video MCU, the Internet, or state agency head-end.



The following descriptions outline the data service required to run over the wide area network (WAN). Describe in detail how your solution will meet the following requirements:

- 6.5.1 The state requires scalability of access network bandwidth from the end-user location to the aggregation node from 256 Kbps through 1,000 Mbps and perhaps higher.
  - 6.5.2 If multiple services exist at the same location, the state requires that WAN service can burst above the purchased WAN increment. WAN service must be able to burst to the total bandwidth purchased for all services when that bandwidth is available.
  - 6.5.3 In the event of a significant network failure, the network is required to re-establish high priority traffic first and lower priority traffic second. That is, sites supporting public safety must have a higher restoration priority.
  - 6.5.4 This network must support the following routing protocols:
    - a) BGP
    - b) OSPF
    - c) RIP
    - d) EIGRP (optional) Please see Section 7 Conversion for further detail.
- In addition to these specific routing protocols, the network must have the ability to encapsulate the following protocols:
- e) IPX
  - f) DLSW (SNA)
  - g) DECNet

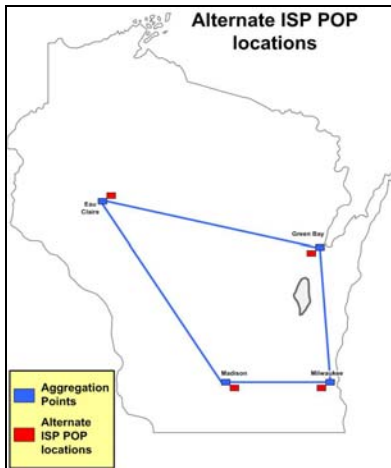
- 6.5.5 Various government entities are constructing County Area Networks (CANs) and Regional Area Networks (RANs) with private fiber to support public sector connectivity needs. These networks must be given the option to connect to the state network in some way.
- 6.5.6 The state requires the prime contractor to offer a managed end point for wide area network-data services as well as unmanaged end points.
- 6.5.7 The state requires enterprise class equipment but does not have vendor specific preferences other than the interfaces described in the pricing section of this document.
- 6.5.8 At a minimum, the state and its end-users must be able to read the configuration and any statistics being gathered by access layer devices.

- 6.5.9 The state requires access to management platforms that collect statistics with near real-time data available for viewing.
- 6.5.10 The state requires WAN service to be offered on a flat-rate basis.
- 6.5.11 Web-based access to the end-user and management platform equipment is a desirable option.
- 6.5.12 The state desires the ability for DOA Tier 2 engineers to make configuration changes to the end-user location on-premise equipment owned and managed by the vendor. These changes will be administered by the DOA operations center to the vendor operational center and will follow the vendor's change management procedures.

## **6.6. Internet Transport & Service**

The following list describes components of the Internet service that the state requires our prime contractor to supply. For each section listed below, explain in detail how your solution will meet this requirement using text, maps, graphs or any other visual that will help explain your answer more clearly. The state requires that the following list of specifications be met:

- 6.6.1 The state requires Internet *transport* service to be offered on a flat-rate basis.
- 6.6.2 The state requires Internet *access* service to be offered on a flat-rate basis.
- 6.6.3 If the service is competitive and comparable, the service provider is assured to be one of the suppliers of Internet access to the state.
- 6.6.4 The state requires that Internet transport be rate limited to the speed agreed to between the end-user and the ISP.
- 6.6.5 If requested by a customer, Internet service must be able to burst to the total bandwidth purchased for all services when that bandwidth is available.
- 6.6.6 For Internet service provided to state government users, the state requires that Internet traffic must have more than one physically diverse path leaving the State of Wisconsin. Please provide a map showing the physical diversity your proposed network has as well as the amount of bandwidth currently in those routes.
- 6.6.7 The State of Wisconsin desires authorized users (e.g., cities, counties, etc) to be able to purchase service through this contract. Please see Wisconsin's Cooperative Purchasing Service form in Section 15.
- 6.6.8 The state requires that the prime contractor interface with multiple ISPs to deliver traffic to the alternate ISP POP locations located in Madison, Milwaukee, Green Bay and Eau Claire.



- 6.6.9 The prime contractor will provide Gigabit Ethernet ports at all four alternate ISP POPs (Madison, Milwaukee, Green Bay and Eau Claire). This port is the service delivery end point, so the cost of these interfaces must be included in your Internet transport price.
- 6.6.10 The prime contractor must support standards-based multicast protocols, not a proprietary multicast protocol.
- 6.6.11 The state requires support for BGP, OSPF and IS-IS when delivering traffic to an alternate ISP.
- 6.6.12 When delivering traffic to an alternate ISP, the prime contractor must maintain IP address integrity.
- 6.6.13 The state requires the ability to shut down Internet traffic at each of the alternate ISP POP locations as a way to protect the network from unauthorized use.

## 6.7. Video Services

The state has made a decision to include only H.264 in the video network. This is a significant change from the technical and functional RFI's. All specifications below pertain to the H.264 protocol only.

For each specification listed below, explain in detail how your solution will meet the requirement:

- 6.7.1 The network must be provisioned to recognize video traffic and allow it to flow through the network with appropriate (latency sensitive) priority.
- 6.7.2 Video service cannot be offered on a metered basis, it must be a monthly fixed (flat) rated service.
- 6.7.3 The video service must be capable of providing 1x3 full mesh continuous view sessions at all sites and continuous audio for session involving more than four sites.
- 6.7.4 The video service must be capable of registering any BadgerNet video location with the North American Master Gatekeeper operated by the Video Development Initiative (ViDe)
- 6.7.5 The video service must support the use of ViDe compatible numbers, ITU E.164 URI (universal resource identifier) to make the connection. A list of the standard equipment found in most BadgerNet classrooms can be found in Appendix A. The video network solution must be capable of re-using and fully integrating the existing classroom equipment.
- 6.7.6 The video network must support far-end camera, source (input) selection and ancillary equipment control.

- 6.7.7 The cost to upgrade existing site or node controllers must be included in the monthly recurring charge for service.
- 6.7.8 The managed video solution must support both a fixed 1x3 classroom as well as a movable (roll around cart) codec solution.
- 6.7.9 Selecting the amount of bandwidth for a video session must be an option administered at the time the video session is scheduled. If a specific amount of bandwidth is not chosen, a default rate pre-determined by the state must be used. Explain how the proposed solution will meet this requirement.
- 6.7.10 The codec used in the H.264 solution must have an internal MCU capable of supporting a continuous view session with three other sites.
- 6.7.11 The video codec must be capable of handling high-resolution graphics either through an XVGA port or interface with similar capability.
- 6.7.12 The video solution that is offered by the prime contractor must be flexible enough to direct the incoming streams to an individual monitor showing each remote site. This will support our standard configuration (1x3, continuous view at all sites participating in conference).
- 6.7.13 The equipment must be capable of directing an incoming stream to a single monitor configured for a “Hollywood Squares” picture showing each of the remote sites. Describe how your solution will meet this requirement.
- 6.7.14 The H.264 video solution must have less than 225 milliseconds of latency from end-to-end. That is, the time taken to encode, transport and decode the video stream can be no more than 225 ms. Lower latency is more desirable.
- 6.7.15 The H.264 codec (not necessarily the H.264 protocol) must have an operational range of at least 384 Kbps to 1.5 Mbps.
- 6.7.16 Screen resolution for the H.264 codec solution must support SIF (352x288) 4SIF (704 x 480) and PC screen resolutions of SVGA (800 x 600) and XGA (1024 x 768).
- 6.7.17 The H.264 codec must be able to support 30 frames per second.

## **6.8. MCUs and Gateways**

### **6.8.1 *On-net MCUs & Gateway function***

On-net MCUs must be provisioned as part of the video service for a variety of reasons. BadgerNet customers have a requirement to connect more than four sites and have continuous audio. These MCUs must also allow external users operating an H.323 protocol to connect to internal BadgerNet customers. Finally, these MCUs must have the capability to support H.320 sessions.

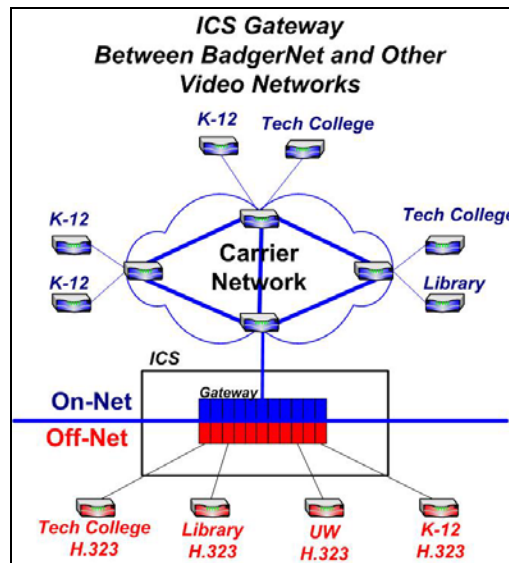
- 6.8.1.1 Each MCU in the network must be configured to support 10 simultaneous 1x3 sessions operating at 768 Kbps.
- 6.8.1.2 Each MCU is required have two H.320 ports configured to place or receive a call.
- 6.8.1.3 Each MCU must be accessible to the state for inter-network scheduling.
- 6.8.1.4 An MCU will be placed in Eau Claire, Appleton, and Milwaukee.
- 6.8.1.5 The MCU must be capable of supporting all video compression algorithms under the H.323.

- 6.8.1.6 The state requires the ability of the conference chairperson to have control of the MCU so that a manual, rather than automatic selection of sites or views is available.
- 6.8.1.7 The MCU must be able to scan all sites participating in a session or provide a “Hollywood Squares” representation of the sites involved.
- 6.8.1.8 The MCU must provide continuous audio for all sites involved in a multi-site conference.
- 6.8.1.9 The state requires direct remote access to the MCU scheduling functions.
- 6.8.1.10 The state desires a single scheduler for both the H.264 codecs and the MCU.

**6.8.2 Off-net MCU and Gateway through UW ICS**

The intent of the on-net MCUs and gateways is to replicate the type of service the BadgerNet video user community has today. There are other video user groups within the state, as well as new user groups, which have MCU and gateway needs that must also be met. For example, many of the two-year UW campuses use H.321 video and would like to connect to BadgerNet users. State agencies may require MCU sessions as well. Heavy On-Net MCU port utilization may also require BadgerNet users to request service from ICS.

This MCU capability requires interconnectivity to the University of Wisconsin’s Instructional Communications Systems (ICS) at 702 Langdon Street, Madison, Wisconsin. There are existing bridge resources that ICS has offered to BadgerNet. The state requires a 20 Mbps circuit provisioned for managed video service terminating at ICS. Codecs at the ICS end are not required as the circuit will terminate directly into the ICS MCU. The cost of the circuit will be paid for by the state allowing BadgerNet users to connect to the state side of the ICS MCU without charge. Off-net customers can contact ICS to arrange for a port on the Off-Net side of the MCU. The cost associated with the Off-Net portion of the service will be billed by ICS to the owner of the event (either the On-Net or the Off-Net customer).



Describe how your proposal provides the following:

- 6.8.2.1 The managed video service provisioned to ICS will have a Gigabit Ethernet interface.
- 6.8.2.2 The prime contractor must be willing to provide scheduling support for an Off-Net MCU session. (The state anticipates the Inter-network scheduler or ICS will schedule the ports, but the vendor must be prepared to resolve any scheduling issues that arise due to the gateway configuration).
- 6.8.2.3 The state requires the prime contractor to immediately assist ICS if a session cannot start on the gateway. The prime contractor will own that trouble until it is resolved.

## **6.9. Video Session Scheduling**

### ***6.9.1 Session Scheduling***

The state requires a reliable and robust scheduling system to meet the scheduling and administrative needs of the user communities.

- 6.9.1.1 The prime contractor must include the cost to purchase, install, manage and maintain the scheduler as part of the video service.

### ***6.9.2 User Interface***

Describe in detail how your solution will meet each of the following requirements:

- 6.9.2.1 The software must allow at least 20 simultaneous users to do scheduling and concurrent updates on their part of the network without degradation of throughput or scheduling performance.
- 6.9.2.2 The prime contractor must provide training and support for all aspects of the scheduler.
- 6.9.2.3 The scheduler must be accessible to users through the public Internet. Client support for PC or Mac using IE, Netscape, or other browsers of the customer's choosing must be provided.
- 6.9.2.4 Dial-in remote access to the scheduler and/or administrative software must be provided.
- 6.9.2.5 Access to the scheduler over the Public Internet or via a dial-up connection must be secure.
- 6.9.2.6 The software must provide secured access for authorized users, database partitioning from other clients (if the server is shared) and must also provide access for view only (browse level) and other user privilege levels within the client database.
- 6.9.2.7 The system must be configured to allow remote access by specified users into the scheduler administration and network management software. Describe in detail how your solution will meet these requirements.
- 6.9.2.8 The software must allow authorized users to set up new users at or below the authorization level of the originating user.

### ***6.9.3 Scheduling and Reservations***

- 6.9.3.1 Reservations must be schedulable as one-time events or recurring events (daily, weekly, monthly, or custom calendar). Each on-going event reservation may require up to 30 exception dates.
- 6.9.3.2 Scheduling intervals must be granular to at least one-minute increments.

- 6.9.3.3 The software must have the capability of creating user defined "class period" lists. (desired)
- 6.9.3.4 Reservation information must include program information such as course type, number of credits, semester, session types, instructor/moderator name, and a text field for course description.
- 6.9.3.5 Reservation data must include fields for enrollments (number of participants) for each site/resource.
- 6.9.3.6 Resources (rooms) must have the ability to be grouped in a parent/child hierarchy, with the option for rooms to be listed under more than one parent.
- 6.9.3.7 Dial out numbers or aliases must be selectable from an administrator-managed phonebook or have the capability of being directly entered when the reservation is being made.
- 6.9.3.8 The software has to accommodate a minimum of 50 groups of locations or pooled assets, with each group having a capacity of at least 30 elements.

#### **6.9.4 Reservation Conflict Management**

Describe in detail how your solution will meet each of the following requirements:

- 6.9.4.1 The software has to track, report, and provide descriptions of site (room) or resource conflicts when events are scheduled or modified.
- 6.9.4.2 The software must allow for saving reservations with conflicts pending resolution of the contention.
- 6.9.4.3 The state requires a standard feature of the application to be able to search for open meeting times based on user definable parameters (e.g., custom class period definitions).
- 6.9.4.4 The state would like the software to provide detailed reporting of bandwidth contention.

#### **6.9.5 Notification**

Describe in detail how your solution will meet each of the following requirements.

- 6.9.5.1 The software is required to generate notifications of scheduled events, reservation changes, request for site clearance/authorization, and event cancellations.
- 6.9.5.2 The software is required to have the capability of automating site clearance/approval queries to user-specified sites or site contacts.
- 6.9.5.3 Automatic e-mail or fax notification must be provided as a standard feature for distribution of reservation notifications or room authorization messages.
- 6.9.5.4 The software must provide options for synchronizing reservations by sending an e-mail message in some standard way such that common e-mail and HR systems such as PeopleSoft are able to import it into the participant's calendar.

#### **6.9.6 Reports**

Describe in detail how your solution will meet each of the following requirements:

- 6.9.6.1 The proposed software must be able to create customized scheduling reports for the State of Wisconsin.



- 6.9.6.2 The software must allow the state and its users to generate utilization reports for current, future, and historical usage.
- 6.9.6.3 The software must generate reports to analyze system utilization and provide summaries of conference resources.
- 6.9.6.4 The state requires standard reports that include weekly or daily program schedules for each site or parent group. Daily and weekly schedules must list class times, course titles, origination site, instructor (contact) name, receiving sites, and session type. For events involving ISDN or IP codec resources, reports must include dial-in or dial-out numbers/address or aliases, as appropriate, assigned to the reservation.
- 6.9.6.5 The state desires the ability to retrieve all statistical information electronically from the scheduling system.
- 6.9.6.6 Additional user configured reports must include:
1. "Grid" format program calendars (events listed in a class period x selected sites matrices)
  2. Program (event) listings by participating site, program type, and site type (with alphabetical, chronological, sorting options)
  3. Monthly Calendar Format schedules
  4. Reports generated by the application must have an option to be created in HTML format for export to other web applications.
- 6.9.6.7 The application must have the capability of reporting utilization statistics (number of classes/sessions, number of hours, etc.) for each room resource, each reservation, program (event) type, and/or program originator.
- 6.9.6.8 A standard report must include enrollment (participant) totals for individual reservations, totals for specified sites (over a user specified time duration), total by originator types, totals by program types, and totals by regional network group.
- 6.9.6.9 The software must be able to export data to spreadsheet applications for calculation of contact hours, enrollment totals, and other statistical data.
- 6.9.6.10 For management purposes, users must be able to access the customer site information database via a web interface.

### **6.9.7 Conference Parameters**

Describe in detail how your solution will meet each of the following requirements:

- 6.9.7.1 The application must provide user definable parameters for reservations utilizing ISDN codecs, including:
5. Address book for dial out numbers or aliases (user accessible).
  6. Call status of compressed video connections (including manual dialing control, unsuccessful call completion reports, and notifications of early disconnects).
  7. User-defined dial out options (number of dial-out attempts, automatic hang-up of any calls after a user defined time period).
  8. Codecs can be set for auto-answer only, originate only, or both.
- 6.9.7.2 The scheduler must allow the following user defined features:

9. Specifying start buffer times between back-to-back reservations. That is, the scheduler can determine how much, if any, time to program between when one session ends and the next session starts (start buffer).
10. User-defined reservation data input options (direct entry of site names/numbers vs. pull down menu or drag and drop site selection when entering reservations);
  - 6.9.7.3 The software must provide network control to support the following session types:
    11. Point to Point
    12. Continuous view (3 or 4 site)
    13. Scanning/multi-point
    14. Continuous audio (site controllable, scanning video)
    15. Broadcast
  - 6.9.7.4 Each session type must be able to include an unlimited number of monitor-only (non-interactive) sites.
  - 6.9.7.5 The system must be able to schedule ad hoc sessions and allocate an appropriate amount of bandwidth to support it.
  - 6.9.7.6 The software must allocate and control gateway resources to provide mixed audio/quad split video to provide continuous view.
  - 6.9.7.7 The software must accommodate manual resource (bandwidth, link, codec, and gateway) allocation on a global or individual reservation/session basis.

### **6.9.8 Conference Control**

Describe in detail how your solution will meet each of the following requirements:

- 6.9.8.1 The application must allow for stopping, suspending, and resuming/restarting an active session reservation.
- 6.9.8.2 The application must allow for unobtrusive removal or addition of sites (including monitor sites) to active reservations.
- 6.9.8.3 The application must allow for unobtrusive extension of the end time of an active reservation.
- 6.9.8.4 The application must provide status of ISDN codecs (connected, dialing, unable to connect, number busy, etc.) and H.323 videoconference resources.

## **6.10. Disaster Recovery**

The state's network supports mission critical applications that cannot tolerate outages. Vendors must be cognizant that our network users include law enforcement and public health and safety organizations, so disruption during the conversion or during the term of the contract is not acceptable. The questions below have been segmented into two sections: recovery from a physical disaster and recovery from a catastrophic failure.

### **6.10.1 Catastrophic Physical Disaster**

The state defines a catastrophic physical disaster as one that eliminates network equipment or facilities due to fire, flood, earthquake, tornado, acts of war, acts of terrorism, etc. In this scenario, the building(s) that house your equipment cannot be occupied.

- 6.10.1.1 The state requires a plan for recovering from a physical disaster. Submit your plan for recovering from a disaster such as this.
- 6.10.1.2 The state requires that the prime contractor have catastrophic physical disaster recovery plans in place with all sub-contractors providing service under this contract. The state will require the winning vendor to submit such plans at the time the contract is awarded.
- 6.10.1.3 The BadgerNet converged network requires the highest priority for recovery of circuits and services participating in law enforcement and public health and safety. Please submit your plans that satisfy this requirement.

#### ***6.10.2 Catastrophic Network Failure***

The state defines a catastrophic network failure as one that compromises or eliminates an important aspect of the network. The failure could be logical loss of service as well as a physical failure. A catastrophic network failure could be due to the loss of a critical network element, such as a core switch. In this respect, some of the network or the entire network is affected but could be remedied in a shorter time than a catastrophic physical disaster.

- 6.10.2.1 A plan for recovering from a catastrophic network failure must be submitted to the state. In your plan, thoroughly describe how you will recover from a catastrophic network failure.
- 6.10.2.2 The state requires that the prime contractor have catastrophic network failure recovery plans in place with all sub-contractors providing service under this contract. The state will require the winning vendor to submit such plans at the time the contract is awarded.
- 6.10.2.3 Wisconsin law enforcement and public health and safety services must have priority when recovering from a catastrophic network failure. Please submit your plans that satisfy this requirement.

#### ***6.10.3 Security Incident Recovery***

The prime contractor must have a plan for recovering from a security incident, such as a denial of service. Please submit a plan detailing how **quickly** this network will handle an attempted denial of service attack directed at a sufficient portion of the state's infrastructure that it affects the network as a whole.

### **6.11. Proof of Concept-Part 2**

During the Technical RFI phase of the procurement, each vendor was asked to demonstrate the services offered in its proposal. Minimum specifications were outlined at that time for the vendor community to demonstrate the capability to deliver services requested by the state.

Part 2 of the Proof of Concept will require a detailed demonstration with more stringent requirements to pass. The state expects to see working network facilities (access and core), an integrated video solution that includes a scheduler, MCU & gateway functionality, and a control unit for a video classroom (1x3 standard BadgerNet configuration). Also required will be wide area network and Internet Access demonstrations. Test requirements for each service will be delivered in advance of the demonstration.

Final details for Part 2 of the Proof of Concept will be released as an addendum separately from the Solicitation.

## **7. CONVERSION**

The project management and implementation plan for the transition of the current BadgerNet data and video network to the BadgerNet converged network will be complex and resource intensive for the state and the vendor. The conversion of state agencies requires flawless transfer of critical applications with either no interruption or a specifically scheduled interruption of service. Educational institutions with scheduled video class sessions have statutory instructional standards for required class hours during the semester or summer session in order to award credit for the class. The vendor will be required to insure class schedules are not disrupted and adhere to the agreed upon conversion processes.

### **7.1. Conversion process**

- 7.1.1 Individual site conversions must not negatively impact end users. Conversions must take place when the users will not be affected by the interruption that occurs during conversion.
- 7.1.2 The state requires a dedicated project manager who has the authority to make decisions regarding the costs and time frames associated with conversion.
- 7.1.3 The prime contractor will provide all the necessary support resources directly to DOA to insure the conversions are completed within the required time frames.
- 7.1.4 The prime contractor is responsible for coordinating the installation of network services at the end-user location.
- 7.1.5 The prime contractor is required to create a web-accessible conversion plan in cooperation with DOA that is updated on a weekly basis during the conversion.

#### ***7.1.6 Data Network Conversion***

- 7.1.6.1 The conversion of the legacy BadgerNet data network must be completed by January 31, 2006.
- 7.1.6.2, The conversion must be scheduled with the end-user and DOA. If a site is a 7x24 location, any outage must be kept to an absolute minimum.

#### ***7.1.7 Video Network Conversion***

- 7.1.7.1 The conversion of the legacy BadgerNet video network must be completed by December 5, 2005.
- 7.1.7.2 Video network users must have similar interconnection capability to legacy J-PEG sites during the conversion. Interconnection could be done using H.320, H.323 or other potential solutions.
- 7.1.7.3 The prime contractor must create and submit a plan to allow the state to schedule sessions in the legacy and new networks simultaneously.
- 7.1.7.4 The prime contractor is responsible for coordinating the conversion of the classroom equipment with the customer's classroom integrator during the conversion.
- 7.1.7.5 The prime contractor is responsible for insuring training to the end-user on the new site controller after the sites are converted.

## **8. ADMINISTRATION AND MANAGEMENT SERVICES**

Service Orders, Installation of Services, Repair Service, Billing, Upgrades and Maintenance, Account Management, Technician Qualification & Certification.

This section outlines the back-office system functions and the applications process requirements. The prime contractor must provide and support the information management tools necessary to manage the data derived from the state network conversion process and the ongoing daily operation and management of network/service information as conversion activity is completed.

Personnel charged with the responsibility for repair services, service order implementation and tracking, billing and account management, etc. who work for DOA, the end-user customer, and the prime contractor all need to share the same accurate information to complete their tasks successfully. A shared common database must be provided to support typical processes; some example processes are:

- Placing orders/tracking orders
- Managing billing/service provider billing, end user billing, collections
- Repair services/coordinating with the service provider and end user
- State audits/analysis of what is spent/what is collected/WI Universal Service Fund/E-rate Audit.
- Meeting internal service agreements between DOA and end users it supports
- Tracking contract revenue for volume discounts and contract milestones
- Strategic planning and decision making

## **8.1. Service Orders**

The number of circuits ordered for a complete network conversion will be significant. The order process must operate properly and efficiently, for both the conversion as well as on-going account activity.

- 8.1.1 A web based service order application must be provided by the prime contractor prior to the conversion of the network.
- 8.1.2 The state requires web access for all pending orders.
- 8.1.3 The state may require the prime contractor to electronically bond the service order application with the state's resource management system.
- 8.1.4 The prime contractor must provide multiple methods to submit, confirm and track service orders. Multiple methods include, but are not limited to, web-based forms, fax, email, and verbally by phone with written follow-up.
- 8.1.5 The state requires service orders to be confirmed within one business day.
- 8.1.6 The state requires the right to expedite orders when determined necessary by the state.
- 8.1.7 The order entry process must accommodate and track expedited requests.
- 8.1.8 The prime must notify all involved parties when the service order or work is completed. Notification can include verbal and electronic notification.
- 8.1.9 The state requires any disconnected service or circuit to be removed from the monthly bill within five business days after the prime contractor receives the disconnect order.
- 8.1.10 The monthly cost of service will be pro-rated for the month the service was disconnected.
- 8.1.11 The web based interface will identify the record is complete and post the disconnect completion order notification.

## **8.2. Installation**

Timely installation of service is important to both DOA and the end users. An end user's first perspective of how efficiently the network operates begins with the installation of the service.

### ***8.2.1 Project Management***

- 8.2.1.1 The state requires a dedicated project manager as a single point of contact to coordinate installations associated with conversion and ongoing day-to-day operations.
- 8.2.1.2 During the conversion, the project management function must be located in the Madison area.
- 8.2.1.3 The state requires the right to approve the person(s) who fills this position on a right of refusal basis.
- 8.2.1.4 The state requires that the prime contractor coordinate installations including physical access to the end-user location.
- 8.2.1.5 On the business day prior to the installation, the prime contractor must place a courtesy call to the end user that originated the service request, to DOA and to all affected end-users (e.g., in a shared router situation).
- 8.2.1.6 When the technician arrives on a shared end-user site, they must notify all the entities that receive service from that equipment.
- 8.2.1.7 The project manager must provide regular reports at intervals agreed upon with DOA regarding the project status.
- 8.2.1.8 The project manager must be available to meet with the state on both an ad hoc and regularly scheduled basis.

### ***8.2.2 Site Visit***

- 8.2.2.1 The vendor will place the managed equipment in the building where the end-user requests it.
- 8.2.2.2 The vendor is required to extend the demarcation point and be responsible for inside wire to the location where the end-user has requested the Ethernet hand off. Tests demonstrating that the inside wire works correctly must be submitted to the state prior to circuit acceptance.
- 8.2.2.3 The vendor is required to make a site visit for all managed services
- 8.2.2.4 The state may require a site visit for unmanaged services.
- 8.2.2.5 Standardized site visit criteria must be agreed to by the prime contractor for each type of installation (e.g., video, data), and the proposed site visit document must be submitted to DOA for approval. Submit examples of current site visit forms.
- 8.2.2.6 A report detailing video site preparation or managed service site preparation information must be submitted to DOA and be available via your portal. Provide examples of the forms that will be used for this process.

### ***8.2.3 Non-Video Acceptance Testing***

- 8.2.3.1 Before a service is accepted, the state requires a series of tests to be run to validate that the service and any vendor or subcontractor supplied equipment is fully operational. The tests must be documented and submitted to the state and available via your portal for approval before billing for the service can begin.

#### **8.2.4 Video Acceptance Testing**

- 8.2.4.1 The state requires a minimum of 30 consecutive calendar days of error-free operation for managed video service before the vendor can begin invoicing the state.
- 8.2.4.2 The prime contractor is responsible for coordinating the installation of video equipment with the classroom integrator.
- 8.2.4.3 The prime contractor is responsible for successful integration with the classroom equipment.
- 8.2.4.4 The prime contractor is responsible for successful connection and operation of all the end user video classroom equipment.
- 8.2.4.5 The state requires the prime contractor be responsible for coordinating resolution of any and all issues with the classroom integrator.
- 8.2.4.6 If a service problem arises during the 30-day acceptance period the clock is re-set upon resolution of the problem beginning another 30-day acceptance period.

#### **8.3. Repair Service**

As the prime contractor, you are responsible for the timely and complete resolution of all repair problems. This includes coordination and cooperation with subcontractors or any entity involved in providing the service. Repair service information must be accurate and compatible with data entry and tracking requirements of the DET Service Desk. The state uses a resource management system to manage all information and conduct work. Cooperation between the prime contractor and the state is required to develop the processes to support these functions.

- 8.3.1 The state requires a network management center capable of monitoring the network, receiving trouble calls, performing problem determination, and dispatching for repairs.
- 8.3.2 The network management center must be available on a 7x24x365 basis.
- 8.3.3 From the time a ticket is opened, the prime contractor is required to begin diagnosis within thirty minutes.
- 8.3.4 From the time a ticket is opened, the prime contractor has one (1) hour to diagnose the trouble, determine the next step for trouble resolution and proactively report to the state. The state must be able to escalate problem resolution for any reason at any time.
- 8.3.5 If trouble diagnosis requires more than one (1) hour, the prime contractor must contact the state and negotiate a new time interval. The negotiated interval will be logged in the ticket.
- 8.3.6 The prime contractor must dispatch repair technicians for normal business day repairs between the hours of 8:00 AM and 5:00 PM Central time.
- 8.3.7 After determining a dispatch is required or at the direction of the state, the prime contractor must dispatch a technician within 20 minutes along with an on-site Estimated Time of Arrival.
- 8.3.8 The state requires a technician arrive on premise within four (4) hours after determination that a dispatch is required. The technician must arrive with the proper diagnostic and repair equipment.
- 8.3.9 For the sites identified as critical, the prime contractor must dispatch repair technicians on a 7x24 basis within 20 minutes of determining a dispatch is required or being directed to do so by the state.

- 8.3.10 For the state's critical sites, the prime contractor must arrive on premise within two (2) hours after determination that a dispatch is required or being directed to by the state. The technician must arrive with the proper diagnostic and repair equipment.
- 8.3.11 The state requires access to the vendor's trouble ticket system via web-based access available to the state 24x7x365.
- 8.3.12 The state and the prime contractor must use a common clock for generating trouble tickets.
- 8.3.13 The trouble ticket must be updated at least once an hour or more often as activities dictate. The state may require updates every 30 minutes on a critical site.
- 8.3.14 The state requires notations and comments regarding the status, activity, dispatch and resolution of a trouble ticket. This information must be saved in an unchangeable log.
- 8.3.15 Vendor entries in the trouble ticket system must be viewable via the web for state assessment.
- 8.3.16 The state may require electronic bonding of the trouble ticket system with the state's resource management system.
- 8.3.17 A trouble ticket cannot be closed until the state and the prime contractor agree that the problem is resolved.
- 8.3.18 The prime contractor's technical staff at the network management center must be certified on the hardware and software platforms in use within the BadgerNet network.
- 8.3.19 The state requires the right to escalate any trouble for any reason.
- 8.3.20 The state may require dispatch to sites outside the normal working hours of 8:00 AM to 5:00 PM Central time when it is determined necessary by the state.
- 8.3.21 Repair service escalation process and management organization chart with names, and contact numbers is required. It must be updated as often as changes to the process and procedures occur, but at least once per quarter.
- 8.3.22 The state requires appropriate triage (7x24) and remote trouble shooting by the prime contractor to avoid unnecessary end user site dispatches. Triage steps require documentation and state agreement relative to the process.
- 8.3.23 The prime contractor must interface with alternate ISPs connected to the DOA network to resolve problems.
- 8.3.24 The prime contractor is responsible for managing the trouble resolution process, even if the trouble is not within the network, until the state determines the trouble is concluded.
- 8.3.25 The prime contractor must strategically depot equipment needed to support the BadgerNet converged network, both data and video, to expedite repair of any and all services provided by the prime contractor under this contract.
- 8.3.26 Access to trouble ticket and escalation information must be available via web-based systems.
- 8.3.27 Trouble tickets can only be purged from the database by expressed written permission from the state.



8.3.28 The prime contractor must identify any component of its support or that of its subcontractors that is outsourced overseas. The prime contractor must not outsource network management center of the BadgerNet converged network overseas or outside the continental United States unless approved in writing by the State Wisconsin Department of Administration. The state prefers that as many Wisconsin employees as possible be utilized to meet the requirements of this contract.

#### **8.3.29 Video Help Desk**

8.3.29.1 The prime contractor's video help desk must be staffed by technicians trained on video technology, video equipment, and the scheduling system from 6a.m. to 10 p.m. Central time, Monday through Friday and 8 a.m. to 12:00 p.m. Central time on Saturday.

8.3.29.2 The prime contractor's video support personnel must be reachable after video help desk operational hours.

8.3.29.3 The prime contractor's technical staff at the help desk must be certified on the hardware and software platforms in use within the BadgerNet network.

8.3.29.4 The help desk must provide immediate assistance to instructors and technical staff when a failed video session is reported. Describe your procedures for addressing how this situation is handled for each help desk shift.

### **8.4. Billing**

The prime contractor is required to customize billing depending upon the end user; e.g., DOA, state agencies and authorized users for whom DOA purchases service directly, and customers that purchase services directly from this contract. For instance, billing requirements for state agencies are different than the billing requirements for DOA/TEACH.

In addition, ISP service requires a separate billing process. Generally ISP service will be billed to DOA for state agencies and directly to all other customers. For example, schools and libraries selecting ISP service will be billed directly by the ISP.

#### **8.4.1 E-rate requirements**

8.4.1.1 DOA TEACH (The State of Wisconsin) requires an individual monthly bill for e-rate eligible services ordered by DOA TEACH billed in the name of TEACH Wisconsin.

8.4.1.2 The prime contractor must be a registered carrier with the SLD and have a SPIN number.

8.4.1.3 The prime contractor must implement current Federal SLD e-rate practices.

8.4.1.4 The prime contractor must expeditiously process DOA TEACH billing to facilitate accurate billing.

8.4.1.5 DOA/TEACH must receive a single itemized monthly bill for all e-rate eligible educational user services ordered by DOA/TEACH.

8.4.1.6 TEACH Wisconsin will file an annual consortium form with the SLD applying for the TEACH statewide E-rate discount. When the SLD approves the discount the vendor will be notified. The vendor will directly bill TEACH the discounted cost. The SLD will reimburse the vendor directly for the remaining cost. Should DOA wish to choose another payment option offered by the SLD, the state reserves the right to change the process.

- 8.4.2 The State of Wisconsin's DOA/TEACH program requires the prime contractor to agree to the FCC Schools and Libraries Division (SLD) reimbursement plan.
- 8.4.3 The state desires an optional billing service. For instance, the state bills an administrative fee to approximately 1,000 TEACH end users. The state may elect to have the prime contractor bill these TEACH users *monthly*.
- 8.4.4 The state may request a single payment option on any service it purchases. The prime contractor is required to offer this option in accordance with standard telecommunications industry SPO practice.
- 8.4.5 The state currently generates approximately 300 state agency invoices for BadgerNet services. The state desires the prime contractor perform the invoicing process. As an optional billing service, provide a monthly cost per bill on the pricing sheets to perform this billing function.
- 8.4.6 The state will not pay retroactively for services. For example, if a service is installed in January but does not appear on the bill until June, the state will not pay retroactively for the six months the service was not billed.
- 8.4.7 The state requires the prime contractor to archive billing information by billing cycle or event from the beginning of the contract through the contract termination date including any extension periods.
- 8.4.8 If the prime contractor issues bills directly to state end users, the Department of Administration requires a master bill.
- 8.4.9 Billing for services during any fiscal year must be received by the state at least 30 days prior to the end of the fiscal year. Bills and invoices received by the state after that time will not be paid.
- 8.4.10 To meet the Governor's goal of providing broadband connectivity throughout Wisconsin, the state intends to allow authorized users to purchase services directly from this contract.
- 8.4.11 The state requires a semi annual report of all revenue generated by this contract, including revenue generated by authorized users who may be billed directly.

## **8.5. Technology Upgrades & Maintenance**

- 8.5.1 A scheduled, preventive maintenance and upgrade program is required to ensure that the BadgerNet converged network meets reliability requirements. Every managed BadgerNet component must be included in this program (e.g., hardware, software and management platforms).
- 8.5.2 The state requires a 10 day notification for any non-emergency work, upgrade or maintenance, prior to the work being done.
- 8.5.3 The prime contractor will provide timely H.264 codec upgrades (codec software as released that reduces bandwidth and/or improves video/audio quality) in the monthly recurring rate for video service.
- 8.5.4 All upgrades will be completed within a timeframe that is mutually agreeable to the state, affected customer(s) and the prime contractor.
- 8.5.5 The state will also provide a weekly scheduled maintenance window that the prime contractor must agree to.

- 8.5.6 The prime contractor must designate a single point of contact for all upgrades and maintenance.
- 8.5.7 Procedures are required to establish and ensure that upgrades and maintenance are completed on a timely basis.
- 8.5.8 The state requires a minimum of 18 months formal written notice regarding any product used in the BadgerNet converged network that is scheduled to be discontinued by the manufacturer.
- 8.5.9 The state requires a technology audit on an annual basis to determine if changes are required.
- 8.5.10 The state requires that the Prime use commercially reasonable efforts to support any additional features or functions that the state may request.
- 8.5.11 The Prime will use commercially reasonable efforts to support any additional equipment configurations that the state may request.

## **8.6. Account Management**

- 8.6.1 The account manager is expected to serve as the primary contact for the state and act as liaison with all other departments within the primary contractor's organization and between the prime contractor and its subcontractors. This account manager must be located in or near Madison, Wisconsin.
- 8.6.2 The State requests that a network administrator be located in or near Madison, Wisconsin, and be assigned to manage the service and project management issues for this converged network. The network administrator must have the authority to make decisions about all aspects of managing the network. This person must also have the supervisory authority to draft human resources from his/her company to deal with problem resolution and service delivery issues.
- 8.6.3 The state perceives the network administrator position as being second only to the executive account manager with similar levels of authority on the service side. Indicate what level of authority the network administrator will have regarding managing the services, installation, billing and on-going support for each service you provide.
- 8.6.4 The state must be able to contact the local Wisconsin-based account manager and the network administrator or their specific designees 24 hours a day, seven days a week. The account management team must also provide the state with an escalation list of contacts for both marketing and service, up to the company Chief Executive Officer (CEO) and Chief Operations Officer (COO).
- 8.6.5 The state requires that all employees working for the prime contractor or its subcontractors undergo a background check to ensure the security of the state's network. Documentation must be provided to DOA verifying that the background check has been completed satisfactorily.
- 8.6.6 The prime contractor is required to give the state an organization chart for both sales and service management showing people involved, where they are located, and whether they are dedicated solely to this network or are shared with other clients.
- 8.6.7 The state understands that the mission and objectives of the sales department and the service department may differ. Nevertheless, the prime contractor is required to insure department objectives of your company or sub-contractors do not impede desired results for the state concerning service.

- 8.6.8 The state requires that the Prime contractor allow input from the state regarding the staff hired for the account team that will manage the BadgerNet converged network.
- 8.6.9 Describe in detail specialized support (user groups, user conferences) you currently provide for your general and/or education customers.
- 8.6.10 The State requires that the decision-makers with financial and signatory authority participate in contract negotiation. This is absolutely necessary so that negotiations can progress efficiently with minimal down time because of the need to halt discussions in order to gain permission to resolve an issue. Describe in detail how your solution will meet these requirements.
- 8.6.11 Please provide examples of other multi-functional networks similar to the one you are proposing in size, scope, design, installation and management as examples of network services that your company currently manages.

## **8.7. Prime contractor and Sub-Contractor Staff Qualification and Certification**

- 8.7.1 The prime contractor's technical staff must be certified appropriately on the hardware, software and process used in the network.
- 8.7.2 Any reference to the vendor or the prime contractor includes the sub-contractors and or partners of the prime contractor.
- 8.7.3 The prime contractor must have training plans that demonstrate scheduled, continuous technical training for staff.
- 8.7.4 Vendor technicians must be formally trained on and experienced with any and all video components.
- 8.7.5 Vendor technicians and engineers or the vendor's subcontracting technicians and engineers must be formally trained and experienced with any and all managed end point equipment as well as unmanaged endpoint demarc termination equipment.
- 8.7.6 Vendor technicians and engineers or the vendor's sub-contracting technicians and engineers must be formally trained and experienced with any and all classroom equipment including but not limited to the site controller.

## **9. REQUIREMENTS FOR THE UW RESEARCH COMPONENT**

### **9.1. Connectivity**

The vendor provided network must exchange traffic with the University of Wisconsin component at the four alternate ISP POP locations identified in **Section 6.6**. The following list outlines the requirements to meet the interconnection requirements:

- 9.1.1 The service provider will allow connections at the alternate ISP POPs in Madison, Milwaukee, Eau Claire and Green Bay for the UW to connect.
- 9.1.2 The service provider will allow any of the 13 four year campuses to connect to the alternate ISP POP locations, if requested.
- 9.1.3 The service provider will be flexible with regard to the order in which the UW campuses are connected. The implementation schedule will be determined later.
- 9.1.4 The interface provided for UW circuit connection at the alternate ISP POP is Gigabit Ethernet.

- 9.1.5 The service provider will be flexible with regard to the amount of bandwidth the UW wishes to connect to the Gigabit Ethernet interfaces.
- 9.1.6 The interconnection of networks must support standards based multicast.
- 9.1.7 The state requires the service provider to use BGP for exchanging traffic. The UW may also choose to use OSPF and/or IS-IS, which must be supported as well.
- 9.1.8 The state requires the service provider to maintain the integrity of whatever QOS technique is being used by the UW. The requirement applies to QOS markings at both layer 2 and layer 3.
- 9.1.9 The service provider is requested to participate in multilateral peering (IP unicast and multicast) with the UW network component. (desired) See the pricing instructions in **Section 12** for details.
- 9.1.10 The service provider must maintain IP address integrity when exchanging traffic with UW.

## **10. NETWORK SECURITY**

### **10.1. Separation of Traffic**

- 10.1.1 The state requires that the prime contractor separate state network traffic logically or physically from all other user traffic.

### **10.2. Web Portal Security**

- 10.2.1 The prime contractor must authenticate and validate users accessing the web portal. This includes access to the scheduling software, trouble ticketing system, performance tools and any software available to the state for supporting this network.
- 10.2.2 The web portals providing information to the state must utilize SSL or equivalent.

### **10.3. Network Security**

- 10.3.1 The prime contractor is required to authenticate and validate any access to any network device regardless of who accesses them. This includes all access, aggregation, and core layer devices.
- 10.3.2 The prime contractor must provide an audit log from any device for all moves, adds and changes. This includes all logical and physical changes.
- 10.3.3 The prime contractor is required to keep a log of any out-of-band access to any network element.
- 10.3.4 The prime contractor is required to keep a log of the phone numbers used for out-of-band access for any network element.

### **10.4. Encryption Service Requirements**

- 10.4.1 The state requires the prime contractor to offer end-to-end encryption service. (e.g., from an agency remote location to an agency head-end).
- 10.4.2 The state will determine which locations and applications require encryption on a site by site basis.
- 10.4.3 The encryption service must be able to encrypt network traffic based on source/destination address, type of traffic (i.e., voice, video, and data) and application.

10.4.4 The encryption service must support IPSec, and specifically 3DES and AES (128bit & 256bit) encryption standards and any additional encryption methods that become available during the term of the contract.

10.4.5 The prime contractor must manage the encryption keys.

## **10.5. State Agency Specific Encryption Requirements**

10.5.1 If the prime contractor chooses a public or shared medium to deliver a low cost alternative for the access circuit, a VPN tunnel with data encryption on that portion of the link must be provided. Provide details on how your solution will meet this requirement.

10.5.2 The encryption service must be opened to audits by both agencies and their audit authorities.

10.5.3 The prime contractor must make available upon agency request, the encryption keys for supporting that agency's network security.

10.5.4 State agencies using the encryption service must have their data traffic encrypted from their service-provided remote site premise equipment to the service-provided agency head-end router.

10.5.5 The prime contractor will be required to connect to other designated locations outside of state government, yet still managed by the vendor.

## **10.6. BadgerNet Network Attacks**

10.6.1 The prime contractor is required to provide standards and procedures associated with detection and prevention of attacks targeting the vendor managed network infrastructure.

10.6.2 The prime contractor is required to detect and prevent network attacks on the managed network.

10.6.3 The prime contractor is required to inform the state of all network intrusions, denial service or any other network attacks. This includes both physical and logical attacks.

10.6.4 The prime contractor is required to successfully test and then apply the appropriate security software patches within 48 hours of a security patch release if the network is being compromised. If the network is not under duress, the patch can be tested and loaded in the normal maintenance window defined by the state.

## **10.7. Forensics**

10.7.1 The prime contractor is required to archive all change and security logs for a period of one year. These logs must include all logs for access, aggregation and core layer devices.

10.7.2 The prime contractor is required to submit all change and security logs electronically to the state upon request within a 24-hour period.

10.7.3 The prime contractor is required to work with the state's network security team when investigating network attacks or intrusions.

## **10.8. Personnel**

10.8.1 The prime contractor is required to have the following background check on their employees directly supporting BadgerNet:

10.8.1.1 National Crime Information Center

10.8.1.2 Crime Information Bureau

10.8.1.3 Local public safety checks

10.8.1.4 Wants and Warrants

10.8.2 The prime contractor's support personnel must carry the appropriate identification and follow agency or school specific security procedures when accessing customer premises to install, repair, and change equipment.

## 11. SERVICE LEVEL AGREEMENTS

The state requires service level agreements be incorporated into the final contract. The following details outline the minimum SLAs necessary for initial contract negotiations. The state may add to or change these SLA during negotiations to reach a workable arrangement with the prime contractor. Remedies will be determined during contract negotiation. A response of “Read and Understood” in this section is expected. Successful contract award will require agreement on these items.

### Technical SLAs

<b>11.1. Network Layers Availability</b>	The state requires access network, aggregation network, and core network availability.
Definition	The network is not available and working when the user experiences a fault which prevents or materially disrupts the network user’s service, which is not due to the customer’s own actions. The time during which a fault exists but does not affect the service or planned use of the service is not included in the network fault time.
What is measured?	<p style="text-align: center;">Access Layer Availability          Aggregation Layer Availability          Core Layer Availability</p>
How is it measured?	The vendor must provide access to near –real-time information, either directly or to a server storing that information, to verify availability in the layers.
Availability clock	7x24x365
Service availability	<p style="text-align: center;">Access Layer – 99.5% or above          Aggregation Layer 99.99% or above          Core Layer 99.999% or above</p>



Remedy	TBD
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<b>11.2. Video Service</b>	<p>Video service availability is defined as the time during which the user has working video. The video network components are not available and working when the user experiences a fault which prevents or materially disrupts the network user's service, which is not due to either the customer's own actions or to the classroom equipment. The time during which a fault exists but does not affect the service or planned use of the service is not included in the network fault time.</p>
What is measured?	Usable video service from the end-user location to the service delivery point.
How is it measured?	Trouble tickets opened by the end user with network resolution
Availability clock	7x24x365
Acceptance after an installation	A 30-day acceptance period must run without errors 100% of the time; otherwise, the clock resets.
Service availability	After acceptance, video service runs at 99.5% or above available and usable.
Remedy	TBD

<b>11.3. WAN Service</b>	The state requires WAN service to be available and usable 99.5% or more of the time.
Definition	WAN service availability is defined as the time during which the user has access to a working data network. The network is not available and working when the user experiences a fault which prevents or materially disrupts the user's service which is not due to either the customer's own actions or to their equipment. Data will be evaluated on a per site basis once a month.
What is measured?	Usable WAN service
How is it measured?	The vendor will provide access to near real-time statistics that the state can retrieve and store. From this data, the state will use a formula that the prime contractor can agree with to measure: <ul style="list-style-type: none"> <li>▪ Errors</li> <li>▪ Availability</li> <li>▪ Utilization</li> </ul>
Availability clock	The clock to measure SLA will operate using a 720 hour clock (0000-2400 = 24 hours per day X 7 days per week x 30 days per month).
Acceptance after an installation	A 10 day acceptance period must run properly 100% of the time; otherwise the clock resets.
Service availability	After acceptance, WAN service runs at 99.5% or more available and usable.
Remedy	TBD

<b>11.4. Internet Transport Service</b>	The state requires Internet Transport service to be available and usable 99.5% of the time or above.
Definition	Internet Transport service availability is defined as the time during which the user has access to a working data network. The network is not available and working when the user experiences a fault which prevents or materially disrupts the user's service, which is not due to either the customer's own actions or to customer's equipment.
What is measured?	Usable Internet transport
How is it measured?	The vendor will provide access to near real-time statistics that the state can retrieve and store. From this data, the state will use a formula that the prime contractor can agree with to measure: <ul style="list-style-type: none"> <li>▪ Errors</li> <li>▪ Availability</li> <li>▪ Utilization</li> </ul>
Availability clock	The clock to measure SLA will operate using a 720 hour clock (0000-2400 = 24 hours per day X 7 days per week x 30 days per month).
Acceptance after an installation	A 10 day acceptance period must run properly 100% of the time, otherwise the clock resets.
Service availability	After acceptance, Internet Transport service runs at 99.5% or more available and usable.
Remedy	TBD

<b>11.5. Disaster Recovery</b>	Restoration of service from a physical or network catastrophe will occur within four (4) days.
What is measured?	The service provider's ability to restore service after a physical or network catastrophe.
How is it measured?	The measurement will be done in calendar days.
Availability clock	Four (4) twenty four-hour days for a total of ninety-six hours constitute the clock for restoration of service.
Remedy	TBD

<b>11.6. Conversion</b>	The prime contractor will convert the legacy networks before the existing contracts or contract extensions expire.
What is measured?	The service provider's ability to convert sites from the legacy networks will be assessed on the conversion plan and actual successful completion of sites.
How is it measured?	The conversion will be successful if the contracts supporting the legacy networks are not extended and the state does not incur any additional expense.
Availability clock	Legacy BadgerNet video network clock expires at the end of business 5-December-2005. Legacy BadgerNet data network clock expires at the end of business 31-January-2006.
Remedy	The prime contractor becomes responsible for any contract extension costs.

## Administrative SLAs

<b>11.7. Service Orders &amp; Installation (post conversion)</b>		The prime contractor will install service within the timeframes listed below.	
<b>How is it measured?</b>	<b>Service</b>	<b>Metric</b>	<b>Percentage</b>
	Confirmation of receipt of order	1 business day	100%
	Confirmation of due date	5 business days	100%
	Order Completion	WAN & Internet- 30 business days	100 %
	Order Completion	Video-45 business days	100 %
<b>How is it measured?</b>	<b>Service</b>	<b>Metric</b>	<b>Confirmation</b>
	Confirmation of receipt of order	1 business day	Electronic
	Confirmation of due date	5 business days	Electronic
	Order Completion (This begins the 10 day acceptance period for WAN and Internet transport service)	<b>WAN &amp; Internet- 30</b> business days	Successful service tests posted electronically in the service order ticket
	Order Completion (This begins the 30 day acceptance period for video and Internet transport service)	<b>Video-45 business days</b>	Successful service tests posted electronically in the service order ticket
Availability clock	Business days are defined as Monday through Friday 8:00 AM through 5:00 PM Central time, excluding state holidays.		
Remedy	TBD		

<b>11.8. Network Changes Done Remotely (not requiring dispatch)</b>	The prime contractor will make remote changes to equipment or service that does not require dispatch.
<b>What is measured?</b>	The service provider’s speed in executing a change that doesn’t require a dispatch. Emergency changes – 1 hour Priority (non-emergency) – 8 hours Routine changes – 3 days
<b>How is it measured?</b>	Hours
<b>Availability clock</b>	24x7x365
<b>Remedy</b>	TBD



<b>11.9. Problem Response &amp; Repair</b>		The prime contractor will repair service within the timeframes listed below.	
<b>How is it measured?</b>	<b>Service</b>	<b>Metric</b>	<b>Percentage</b>
	WAN and Internet Transport	<p style="text-align: center;">24x7x365</p> <ol style="list-style-type: none"> <li>1. From the time a ticket is opened, the prime contractor is required to begin diagnosis within 30 minutes.</li> <li>2. From the time the ticket is opened, the prime contractor has one (1) hour to diagnose the trouble, determine the next step for trouble resolution and proactively report to the state</li> <li>3. After determining a dispatch is required or after being directed by the state, the vendor will dispatch a technician within <b>20 minutes</b> and provide an ETA.</li> <li>4. Arrival on premise within 4 hours of determination that dispatch is required.</li> <li>5. Arrival on premise within 2 hours for sites identified by the state to be 'critical' after determination that dispatch is required</li> <li>6. The state expects the MTTR for all troubles at the core or aggregation layer to be less than 4 hours. Service affecting problems at access layer (WAN, Internet Access, Internet Transport, Video) must have a MTTR less than eight hours.</li> <li>7. Trouble ticket log must be updated at least once an hour or as activity occurs.</li> </ol>	100%
	Internet Access	<p style="text-align: center;">24x7x365</p> <ol style="list-style-type: none"> <li>1. From the time a ticket is opened, the prime contractor is required to begin diagnosis within 30 minutes.</li> </ol>	99%

		<ol style="list-style-type: none"> <li>2. From the time the ticket is opened, the prime contractor has one (1) hour to diagnose the trouble, determine the next step for trouble resolution and proactively report to the state</li> <li>3. After determining a dispatch is required or after being directed by the state, the vendor will dispatch a technician within <b>20 minutes</b> and provide an ETA.</li> <li>4. Arrival on premise within 4 hours of determination that dispatch is required.</li> <li>5. Arrival on premise within 2 hours for sites identified by the state to be 'critical' after determination that dispatch is required</li> <li>6. The state expects the MTTR for all troubles at the core or aggregation layer to be less than 4 hours. Service affecting problems at access layer (WAN, Internet Access, Internet Transport, Video) must have a MTTR less than eight hours.</li> <li>7. Trouble ticket log must be updated at least once an hour or as activity occurs.</li> </ol>	
	Video Service	6:00 AM to 10:00 PM Central time Monday through Friday  8:00 AM to 12:00 PM Central time Saturday	100%
	Video Help Desk	Immediate response and diagnosis to help desk phone call during video service hours listed above	100%
<b>How is it measured?</b>	<b>Service</b>	<b>Metric</b>	<b>Confirmation</b>
	WAN	Hours	Electronic confirmation in the trouble ticket log
			Electronic confirmation in the

Availability clock	Internet Transport	Hours	trouble ticket log
	Internet Access	Hours	Electronic confirmation in the trouble ticket log
	Video Service	Hours	Electronic confirmation in the trouble ticket log
	Video Help Desk	Minutes	TBD
	Hours		
	Remedy	TBD	

<b>11.10. Billing DOA/TEACH</b>	
Definitions	<p>Single bill: Contains all DOA contracted services ordered by DOA/TEACH.</p> <p>The bill will be segmented into two user categories defined below:</p> <p>Category 1 Users: All DOA contractual services subsidized by the DOA/TEACH Wisconsin Telecommunication Access Programs (TAP).</p> <p>Category 2 Users: All other DOA contractual services ordered by DOA/TEACH Wisconsin under the BadgerNet Wisconsin Educational Discount Retail Program for e-rate eligible end users.</p>
What is Being Measured?	<ol style="list-style-type: none"> <li>1. The consistent successful, accurate, billing of <u>all</u> DOA/TEACH charges.</li> <li>2. Accurate calculation and deduction of the e-rate discount from the gross billable DOA contractual total bill resulting is the correct net Prime billable amount billed to DOA/TEACH.</li> <li>3. Accurate segmentation of category 1 and 2 end-user services on the DOA/TEACH bill.</li> </ol>
How is it Being Measured Monthly?	DOA/TEACH Wisconsin personnel will review the bill for accuracy and payment authorization.
Remedy	TBD

<p><b>11.11. Billing DOA/TEACH</b></p>	<p>The state will require a consolidated master bill for all services segmented by individual end –user billed entity. The state will require the prime contractor to archive billing information by billing cycle or event from the beginning of the contract through the termination.</p>
<p>Definitions</p>	<p>All services ordered by DOA, state agencies and authorized users will be itemized on a single bill.</p>
<p>What is Being Measured?</p>	<p>Billing accuracy</p>
<p>How is it Being Measured?</p>	<p>The prime contractor’s performance to implement consistent accurate monthly billing requiring minimal DOA bill reconciliation due to errors.</p>
<p>Remedy</p>	<p>TBD</p>

<b>11.12. Upgrade &amp; Maintenance Notification</b>	<p>The prime contractor will notify the state prior to upgrades as well as identify state customers who could be impacted by the change.</p>
<p>Definition</p>	<p>The prime contractor will notify the state at least 10 business days prior to the upgrade or maintenance of any work in the network. The prime will contact the state both electronically and through the contract administrator 100% of the time.</p>
<p>What is measured?</p>	<p>Consistency of notification</p>
<p>How is being measured</p>	<p>Days</p>
<p>Remedy</p>	<p>TBD</p>

<b>11.13. Security</b>		The prime contractor will provide network security at the physical and logical network layers as well as with personnel who support the network.	
<b>What is measured?</b>	<b>Layer</b>	<b>Metric</b>	<b>Percentage</b>
	Physical access	Equipment and transport in the Core and Aggregation layers	100%
	Logical access	Security from unauthorized access via the network	100%
	Personnel	<p>Criminal background check</p> <p>The prime contractor will insure that all employees working under this contract will be bonded.</p> <p>The state requires that Prime contractor and sub-contractor's employees will have passed a criminal background check to determine whether the circumstances of any conviction may be related to the job being filled.</p> <p>The state reserves the right to screen these background checks and may exclude prospective employees from working on this contract as appropriate under Wisconsin State Statutes 111.335. Such checks can be done through the Wisconsin Department of Justice. Additional information is available at <a href="http://www.doj.state.wi.us/dles/cib">http://www.doj.state.wi.us/dles/cib</a></p> <p>All requested paperwork (Criminal Background Check and proof of employee bonding) for each prime contractor and sub-contractor's employee working under this contract must be made available if requested by the state.</p>	100%
<b>How is it measured?</b>	<b>Service</b>	<b>Metric</b>	<b>Confirmation</b>
	Physical access	Prime contractor audit of all facilities	100%

		submitted to the state annually	
	Logical access	Prime Contractor audit of all network elements submitted to the state	100%
	Personnel	Prime Contractor audit of all personnel submitted to the state annually	100%
Remedy	TBD		



## 12. PRICING

### 12.1. Overview & General Assumptions

- 12.1.1 The cost of a service must be postalized for all services from the end-user location through to the service delivery point. The postalized price for the service must include the physical layer components including the access circuit, the aggregation equipment, and the core network capacity needed to deliver the application to the service delivery end-point.
- 12.1.2 All services provided to the state must be flat rate (for a given level of service) instead of metered based upon actual (e.g., monthly) usage. This includes video, Internet and wide area networking.
- 12.1.3 All services requested in the cost model are for managed endpoints. The state reserves the right to alter the mix between managed and unmanaged services during contract negotiations.
- 12.1.4 Managing the core bandwidth capacity is the prime contractor's responsibility and must be included as part of the monthly recurring rate for services. The state will not accept an itemized cost for core bandwidth.
- 12.1.5 For managed end-point pricing, the premise equipment must also include the customer's interface point.
- 12.1.6 The state requires pricing for two contract terms: a five (5) year contract with five (5) one-year extensions and a seven (7) year contract with three (3) one year extensions. Unlike the technical RFI, where prices could vary from year to year, the state requires a single price for the term of the contract. The state believes price predictability can be achieved this way.
- 12.1.7 The state will not incur any charges for termination liability for circuits or services that are disconnected as long as the circuit or services have been installed for at least twelve (12) months.
- 12.1.8 The state requires itemized installation charges for each service as shown on the pricing spreadsheets. The state may decide during contract negotiations to have these charges absorbed into the postalized monthly recurring rate.
- 12.1.9 Any "special" construction charges must be included in the postalized monthly service costs agreed to at the beginning of the contract so the state does not ever pay an additional charge to install or change service.
- 12.1.10 To reduce overall costs, the prime contractor will provide pricing for an IP-only network. The network must be capable of encapsulating the legacy protocols identified in **Section 6.5.4** and transporting them through the network. Any cost associated with supporting legacy protocols must be incorporated in the monthly recurring cost for WAN service.
- 12.1.11 In an effort to control costs associated with the converged network, the state requires price protection from the prime contractor throughout the life of the contract. To ensure these cost controls, the prime contractor will be required to sign a "most-favored-nation" clause in the contract stipulating that if the prime contractor offers a lower service rate to any other customer, the State of Wisconsin will be offered the same price. Please provide a copy of your proposed "most-favored-nation" contract clause.
- 12.1.12 The state expects the service provider's proposal to maximize Federal E-rate and State Universal Fund opportunities.

## 12.2. Pricing Sheet Revisions from the Technical RFI

The general format of the pricing sheets is the same as previously released in the Technical RFI. There are a few modifications that require attention. They are:

- The columns for bandwidth have changed. There are fewer requested bandwidth increments at the low end, but additional increments of bandwidth have been added at the high end. The prime contractor is required to respond with a dollar amount in each cell to be responsive and responsible. *A response of ICB is not acceptable.*
- A new bandwidth column titled +5 between 15 Mbps and 45 Mbps is included. Input the dollar amount to add 5 Mbps to any increment between 15 Mbps and 45 Mbps. That is, if a location already has 20 Mbps, the amount listed in this column is the rate to increase to 25 Mbps. It will also indicate what price will be charged to increase from 25 Mbps to 30 Mbps.
- The discount requirements are different than the technical RFI. Express the discount for multiple services as a percentage. This will allow the state to add the price for individual services, apply the discounts, and determine the final cost for multiple services.
- The price sheets now include a section for non-recurring charges for each of the services. The state may decide to include these charges in the monthly recurring costs during contract negotiations but needs them to be itemized in the cost sheets.
- Finally, there are no longer multiple workbooks; e.g., five workbooks for five-year contract as in the RFI. One price is requested for service regardless of the year it is requested. This will help the state achieve price predictability.

## 12.3. Bandwidth Elements

As in the technical RFI, there are two components that must be combined to arrive at the price for a service. The first component is bandwidth, which includes the end-user interface, access circuit, aggregation equipment and core network capacity. The second component is the hardware and software needed to operate the service. Examples of the second component could be the video MCU or the video scheduling server and software. The schematic below identifies and labels the four elements that must be included in the bandwidth component of the price. The four elements are:

12.3.1 An interface at the customer's premise:

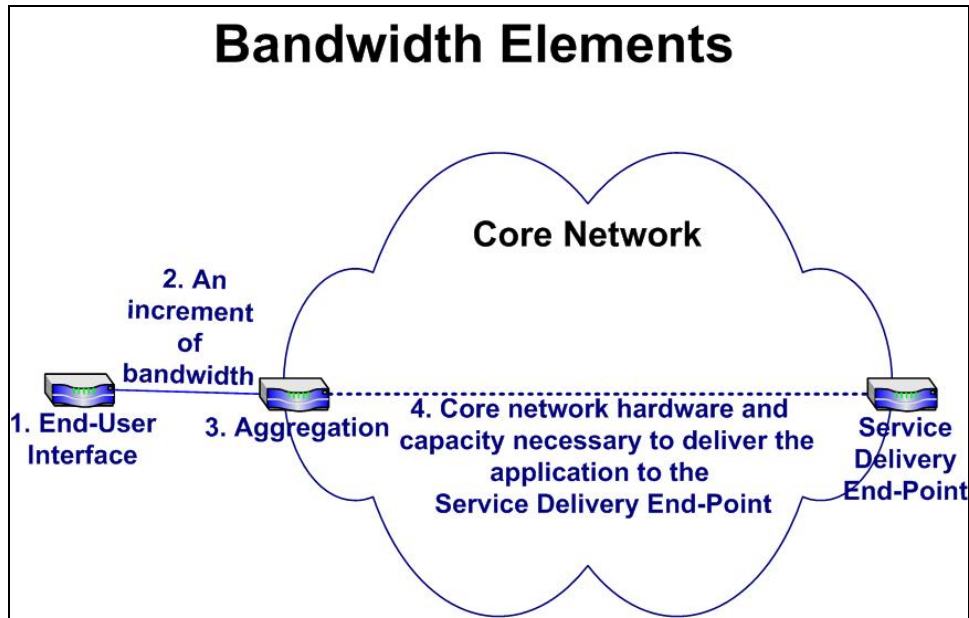
12.3.1.1 For a managed service, the interface is a 10/100 Ethernet port.

12.3.1.2 For an unmanaged service, the interface is the service provider point of presence.

12.3.2 An access circuit increment of bandwidth to carry traffic from the end-user site to the aggregation equipment.

12.3.3 The aggregation equipment and any equipment necessary to transfer data to the service delivery point.

12.3.4 The core network hardware and bandwidth necessary to carry the application to the service delivery point.



#### 12.4. Service Pricing Elements

The **service** portion of the price (WAN, Internet Transport, and Internet Access and Video) must meet, but not be limited to, the requirements specified in the technical description portion of this document. The price that is reflected in each cell is the monthly recurring charge (MRC) to provide that service at that increment of bandwidth. All costs to provide that service must be included in the MRC.

##### 12.4.1 Video Service

12.4.1.1 The state has determined that the video network will utilize the H.264 protocol. Pricing for the video service must incorporate the following requirements:

16. An end-user interface must include a codec and any premise equipment necessary to provide quality of service parameters.
17. The cost to upgrade existing site or node controllers must be included in the conversion costs for existing video classrooms.
18. The state requires the video solution be engineered as a non-blocking architecture. The state has divided the total number of sites by LATA (see the attached table below) to assist the prime contractor in achieving this goal. That is, assume every end-user site in each LATA could be involved in a 1x3 session simultaneously with end-user sites in other LATAs. Other resources, such as the MCUs and gateways, are to be engineered according to the specifications already highlighted in the video section of the solicitation.

LATA	Number of Sites
352-Northwest	110
350-Northeast	109
356-Southeast	106
354-Southwest	92
Total Sites	417

12.4.1.2 The video service must also include an MCU. The specifications for MCU and gateway functionality are enumerated in **Section 6.8**.

**12.5. Pre-Paid Video Sites**

The state must be able to convert sites to the BadgerNet converged network but not pay for them until after December, 2005. The pricing and conversion proposal must incorporate this requirement.

**12.6. Encryption**

12.6.1 Scenario #1 – Encrypt all Network Traffic

Provide costs for encrypting all state agency traffic. This includes 735 end-user sites of which 104 are shared. For the purposes of pricing, assume these sites are equally distributed among seven (7) host sites.

Provide costs for each of the following categories. You may subdivide the categories if that is helpful in responding and/or provides a better picture of overall costs. Provide additional costs for encryption only. For example: If a \$2000 hardware device would need to be upgraded to a \$3000 device to handle encryption, include only the \$1000 additional cost.)

12.6.2 Scenario #2 – Meet Legal/Regulatory Requirements

While legal interpretations vary, we can assume that the State has 5 agencies where sanctions will be imposed if they do not encrypt network traffic. Provide costs for encrypting State agency traffic between the following nodes.

<u>Agency</u>	<u>Locations</u>	<u>Sharing Locations</u>
<u>DWD</u>	<u>200</u>	<u>100</u>
<u>DOJ</u>	<u>165</u>	<u>75</u>
<u>DOR</u>	<u>30</u>	<u>12</u>
<u>DOC</u>	<u>120</u>	<u>13</u>
<u>DHFS</u>	<u>30</u>	<u>3</u>

12.6.3 Scenario #3 – Encrypt Selected Network Traffic

An ideal solution would allow state agencies to encrypt only selected network traffic. Using the agencies and the numbers from scenario #2, describe how you would designate traffic to be encrypted based on: 1) source/destination, 2) type of traffic (i.e., voice, data, video), 3) application. For each, indicate any additional costs that would be incurred.

Encrypt based on:	How accomplished
Source/destination	
Type of traffic	
Application	

## 12.7. Network Change Volume

To assist the prime contractor community in providing support to the state, the prime contractor community needs to understand how much churn exists in the network. The following information is historical and should help the prime contractor community determine how much change to expect:

Year	Avg change per month
2001	15
2002	20
2003	12
2004 (Jan-Jun)	14

## 12.8. Agency End User Billing Option

Step 1: Today, DOA receives a master bill (invoice) for services from the prime contractor. DOA then directly pays the prime contractor for the cost of service based upon this invoice. This step will not change under the BadgerNet converged Network contract.

Step 2: State employees take the billing information from the prime contractor invoice and convert it to individual state agency invoices based upon BadgerNet service costs.

Step 3: State employees print and mail approximately 300-state agency monthly invoices.

Step 4: State agencies receive the state agency invoice and pay DOA.

DOA is requesting a price quotation where the Prime contractor will provide this billing service. The billing service will require the Prime contractor to bill state agency end users directly for services installed through this contract at rates established by DOA. The basic procedural requirements are as follows:

- 1) The prime contractor will bill custom BadgerNet state rates, collect the payments, and then reimburse the State of Wisconsin. This is a custom billing service.
- 2) In addition to billing recurring monthly service, the prime contractor will bill end users for all moves add and change charges established by the state.
- 3) The state will require the prime contractor to archive billing information by billing cycle or event from the beginning of the contract through the termination.
- 4) The state would prefer a cost per invoice, which integrates the turnkey billing process performed by the prime contractor for the state.

## 12.9. Spreadsheet Instructions

The attached spreadsheets have been highlighted in yellow and numbered to assist in the explanation of pricing. A brief explanation is given below for the rows that require input. You are encouraged contact us if you have questions regarding any aspect of the pricing sheets. The spreadsheets must be filled out as follows:

1. In the row highlighted in yellow and marked with “1” - Wide area network service requires input in each column listed for monthly recurring WAN service. The state requires a dollar value for each bandwidth and views a response of ICB as non-responsive.
2. In the row highlighted in yellow and marked with “2” - Internet requires input in each column listed for monthly recurring transport costs for Internet. The state differentiates this service from WAN because it does not stay on the network, and the user must understand that an ISP charge from a prime contractor other than the state will be charged. Internet transport does not include any components of Internet service. The cost to interface with alternate ISPs should be included here.
3. In the row highlighted in yellow and marked with “3” - Internet access is the port charge associated with providing the service of Internet access.
4. In the row highlighted in yellow and marked with “4” - Video with 1 encoder and 1 decoder is an offering any user community (WADEN, tech college, state agency) could purchase. This configuration is NOT the standard 1x3 BadgerNet classroom and does not require the option to direct incoming streams to individual monitors. Price the 1x1 service accordingly. In a 1x1 configuration, the state has determined the increments of bandwidth that this service can reasonably operate. Fill in only the open cells marked with a light blue color.
5. In the row highlighted in yellow and marked with “5” - The PK-12 and technical college communities have strongly requested a managed, mobile service offering. The demarcation for managed video service is the codec. As with 1x1 video service, populate the open cells only.
6. In the row highlighted in yellow and marked with “6” - This is the standard 1x3 BadgerNet video classroom that must be capable of supporting multiple monitors. Bandwidth increments dictate multiple unicast streams to properly support the application. Assume that ALL sites on the pricing spreadsheet requesting video service require this service.
7. In the row highlighted in yellow and marked with “7” - A few locations have five monitors to avoid scan sessions when adding an extra site. Populate the open fields to provide an extra unicast stream to that standard 1x3 video classroom.
8. In the row highlighted in yellow and marked with “8” - Based on the specifications detailed in **Section 6.8 Video MCU & Gateways**, include the costs in column C. The state requires this amount to be reflected as a **monthly recurring cost**.
9. In the row highlighted in yellow and marked with “9” - Connectivity to ICS is detailed in **Section 6.8 Video MCU & Gateways**. As with the internal gateways, provide this price in column C as a **monthly recurring cost**.
10. In the rows highlighted in yellow and marked 10-13 - Reflect the discount in a percent format when providing multiple services to the state.

11. In the row highlighted in yellow and marked “14” This is an optional additional discount for the technical college sites listed in the tab labeled “Tech college sites.” This discount will be added to any discount for services reflected in rows 10-13.
12. In the rows highlighted in yellow and marked 15-22 - List the non-recurring charges for installation of WAN, Internet Transport and Video service, as a stand-alone service or in combination with other services.
13. In the rows highlighted in yellow and marked “23” - Include the charge to extend a demarcation to the location identified by the end-user. Assume every location on the spreadsheet will require an inside wire extension for service, that the average length of each extension is 250’, and that all materials must be included in your price.
14. In the rows highlighted in yellow and marked “24” The state requires the prime contractor to show the expense associated with converting the legacy networks, data and video, so that options, such as pre-payment or single payment options, can be explored during contract negotiations. The costs associated with the conversion MUST be included in the monthly recurring rate but also itemized here.
15. Fill in highlighted rows 25-40 for unmanaged services in the same way as managed services. The state defines managed and unmanaged service the same except for the managed interface. Unmanaged video does NOT have access to network resources such as the scheduling system or the MCUs/gateways.

12.9.1 Fill out the extension year tabs using the same format as just described.

12.9.2 The pricing sheets now include additional workbooks that were not in the Functional and Technical RFIs. The tab labeled “sites” include the total number of locations, bandwidth and services the prime contractor must base their price on. The price analysis will be based on these locations. The tab labeled “Tech colleges sites” contains locations that are not included in the base pricing. The state will ask for an additional discount for the technical college sites in this tab.

12.9.3 The “Mandatory Additional services” tab includes options the prime contractor must provide but are optional for the state to purchase. To be compliant in your response, you must fill out this tab fully. The scenarios that govern pricing are listed earlier in this section **Section 12 Pricing Instructions**. The format for these services may not be the most effective to accurately demonstrate costs. You are free to change the format as necessary to accurately reflect the prices charged for these services.

12.9.4 The “Optional services tab” requests additional services that may or may not be included in the final contract. You are free to change the pricing format as necessary to properly reflect the service offered.

12.9.5 The final workbook is the cost model. It has been locked allowing you to view the cost model the state will use to review your proposal, but not to change it. The state is looking for the smallest dollar amount in the row 4 “Total Cost of Service.”

### **13. SPECIAL CONTRACT TERMS AND CONDITIONS**

The successful prime contractor must agree to comply with Wisconsin Statutes requiring affirmative action, non-discrimination, state public official disclosure, and non-appropriation of funds (see below). The successful prime contractor must agree to our request for applicable law and agree to contract survivorship upon assignment, acquisition, or merger. Additionally, the state’s Standard Terms and Conditions (DOA-3054), included with this document, shall govern any Agreement between the State and applicable prime contractor.

### **13.1. Amendments to the Base Agreement**

The prime contractor awarded contract opportunities for this product or service will be required to incorporate and adhere to any and all requests for amended terms of a contract agreeable to the State. In the event an awarded prime contractor will not agree to amended terms and conditions as requested, the State reserves the right to cancel its award with that prime contractor. The contract opportunity may be offered to the next lowest responsible, responsive prime contractor who is willing to agree to such terms.

### **13.2. Consortium Purchasing Impact**

The 1996 Wisconsin Act 244, allows State agencies to purchase from contracts issued by other governmental entities, or participate in consortia purchases. The State reserves the right during the contract opportunity term and all the allowable extensions to review consortia arrangements and engage in those arrangements if they determine that they are in the best interest of the State.

### **13.3. Nondiscrimination in Employment**

Chapter 16.765 of the Wisconsin Statutes requires the following provision to be included in every contract executed by agencies of the State. The Contractor agrees to the provisions as stated below:

In connection with the performance of work under this Agreement, the Contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s. 51.01(5), Stats. sexual orientation or national origin. This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Except with respect to sexual orientation, the contractor further agrees to take affirmative action to ensure equal employment opportunities. The contractor agrees to post in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause.

### **13.4. Affirmative Action Plan**

All contracts of Twenty-five Thousand Dollars (\$25,000) or more require the submission of a written affirmative action plan. Contractors with an annual workforce of less than twenty-five employees are excluded from this requirement.

Within fifteen (15) days after the award of the contract, the written affirmative action plan shall be submitted to the Department of Administration, Attn.: Contract Compliance Liaison, 101 East Wilson Street, 9th Floor, P.O. Box 7869, Madison, Wisconsin 53707-7869. Contractors are encouraged to contact this office for technical assistance on equal opportunity.

The Department will treat failure to submit an Affirmative Action Plan when required as a per se breach of contract.

### **13.5. Disclosure**

If a state public official (s. 19.42, Stats.) or an organization in which a state public official holds at least a 10% interest is a party to this Agreement, this contract is voidable by the state unless appropriate disclosure is made to the State of Wisconsin Ethics Board, 125 South Webster Street, Madison, Wisconsin 53702, [Telephone: (608) 266-8123].



### **13.6. Non-Appropriation of Funds**

This contract shall be terminated without penalty upon failure of the Legislature to appropriate funds necessary to carry out its terms.

### **13.7. Non-Availability of E-rate and/or Universal Service Funds**

This contract may be terminated without penalty upon cancellation or reduction of funds from the federal E-rate program or Wisconsin Universal Fund programs used for TEACH.

### **13.8. Applicable Law**

The Laws of the State of Wisconsin shall govern this Agreement. Venue for all actions resulting from this contract will be Dane County, Wisconsin.

### **13.9. Acquisition by Third Party**

The terms and conditions of this contract shall survive any and all assignments, mergers, or acquisitions by a third party until cancelled in writing by both parties.

### **13.10. Use of Off Shore Third Party Products and/or Services**

Vendors must disclose any third party products and/or services used as part of the proposed solution, including disclosure of the use of any offshore coding to develop and maintain the software included in the solution.

### **13.11. Additional Agreement(s)**

The State may from time to time explore the possibility of signing other product or service agreements during the contract term identified herein.

### **13.12. Liquidated Damages**

Both parties acknowledge that it can be difficult to ascertain actual damages when a Contractor fails to carry out the responsibilities of the contract. Because of that, the Contractor acknowledges that for the contract resulting from this bid, it will negotiate liquidated damages, as required by the State, for the contract. The contractor agrees that the agency shall have the right to liquidate such damages, through deduction from the contractor's invoices, in the amount equal to the damages incurred, or by direct billing to the contractor.

### **13.13. Performance Bond and/or Escrow Account**

The Service Provider will be required to meet the State's insurance requirements (see Standard Terms & Conditions). A performance bond and/or escrow account may also be required.

Should a bond be required, it will cover all aspects of the proposal and shall be delivered to the state prior to the issuance of a purchase order. The Performance Bond will be returned upon delivery and acceptance of the proposed system(s).

If an Escrow Account is required the prime contractor shall place the sum to be determined in a segregated escrow account to be held by an Escrow Agent for the purpose of meeting any capital expenditure requirements prime contractor must make in connection with the Contract.

### **13.14. Prime Contractor**

The state requires one prime contractor to act as the sole responsible party for all services. The prime contractor will be responsible for entering into all contracts. The state requires a single point of contact for ordering, provisioning, managing, billing and all other aspects of the BadgerNet converged network operation. This includes, but is not limited to maintaining all Service Level Agreements and associated performance bonds, or penalties for all services. The state requires that all BadgerNet services be delivered by a single prime contractor who will be responsible for integrating all telecommunications and associated services and providing a single interface to the state.

The selected prime contractor will be completely responsible for their work as well as the work of any sub-contractor that the prime contractor engages to complete any project that is governed by the terms and conditions of the contract resulting from this procurement.

### **13.15. Executed Contract to Constitute Entire Agreement**

In the event of contract award, the contents of this Solicitation (including all attachments), Solicitation addenda and revisions, and the proposal of the successful proposer, and additional terms agreed to, in writing, by the agency and the contractor shall become part of the contract. Failure of the successful proposer to accept these as a contractual agreement may result in a cancellation of award.

The following priority for contract documents will be used if there are conflicts or disputes.

- Contract & all addenda
- Standard Terms and Conditions
- Prime contractor's Proposal Dated August 3, 2004
- State Solicitation Dated June 30, 2004
- Official Purchase Orders

### **13.16. Termination of Contract**

The agency may terminate the contract at any time at its sole discretion by delivering thirty (30) days written notice to the contractor. Upon termination, the agency's liability will be limited to the pro rata cost of the services performed as of the date of termination plus expenses incurred with the prior written approval of the agency. In the event that the contractor terminates the contract, for any reason whatsoever, it will refund to the agency within ten (10) business days of said termination, all payments made hereunder by the agency to the contractor for work not completed or not accepted by the agency. Such termination will require written notice to that effect to be delivered by the contractor to the agency not less than two hundred and forty (240) days prior to said termination.

### **13.17. Transition of Services**

Upon expiration or any earlier termination of the Services or any portion of the Services under this Agreement, prime contractor shall continue to provide the State of Wisconsin the services in accordance with the direction of the state during the applicable transition period. In addition, Prime contractor shall take all steps requested by the state, including, without limitation, providing service design documents to assure the efficient transfer of Services to the state and another service provider. Prime contractor will cooperate with the state's efforts to transition to another service provider.

#### **14. STANDARD TERMS AND CONDITIONS**

The State of Wisconsin reserves the right to incorporate standard State contract provisions into any contract negotiated with any proposal submitted responding to this Solicitation (Standard Terms and Conditions (DOA-3054) and Supplemental Standard Terms and Conditions for Procurements for Services (DOA-3681)). Failure of the successful proposer to accept these obligations in a contractual agreement may result in cancellation of the award.

#### **15. REQUIRED FORMS**

The following forms must be completed and submitted with the proposal in accordance with the instructions given in Section 4.8. Blank forms are attached.

- Affidavit
- Designation of Confidential and Proprietary Information (DOA-3027)
- Prime contractor Information (DOA-3477)
- Prime contractor Reference (DOA-3478)
- Prime contractor Agreement (DOA-3333)

**AFFIDAVIT**

THIS COMPLETED AFFIDAVIT MUST BE SUBMITTED WITH THE RESPONSE TO THE SOLICITATION.

PREFERENCE Please indicate below if claiming a minority business preference.

- Minority Business Preference (s. 16.75(3m), Wis. Stats.) - Must be certified by the Wisconsin Department of Commerce. If you have questions concerning the certification process, contact the Wisconsin Department of Commerce, 8th Floor, 123 W. Washington Ave., P.O. Box 7970, Madison, Wisconsin 53707-7970, (608) 267-9550.

AMERICAN-MADE MATERIALS

The materials covered in our response were manufactured in whole or in substantial part within the United States, or the majority of the component parts thereof were manufactured in whole or in substantial part in the United States.

- Yes
- No
- Unknown

In signing this affidavit we also certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free trade; that no attempt has been made to induce any other person or firm to submit or not to submit a response; that this response has been independently arrived at without collusion with any other competitor or potential competitor; that this response has not been knowingly disclosed prior to opening of responses to any competitor; that the above statement is accurate under penalty of perjury.

We will comply with all terms, conditions, and specifications required by the state in this solicitation and in our response.

Authorized Representative \_\_\_\_\_ Title \_\_\_\_\_  
Print

Authorized Representative \_\_\_\_\_ Date \_\_\_\_\_  
Signature

Company Name \_\_\_\_\_ Telephone \_\_\_\_\_

This document can be made available in accessible formats to qualified individuals with disabilities.

**DESIGNATION OF CONFIDENTIAL AND PROPRIETARY INFORMATION**

The attached material submitted in response to DOA’s BadgerNet Solicitation includes proprietary and confidential information which qualifies as a trade secret, as provided in s. 19.36(5), Wis. Stats., or is otherwise material that can be kept confidential under the Wisconsin Open Records Law. As such, we ask that certain pages, as indicated below, of this bid/proposal response be treated as confidential material and not be released without our written approval.

**Prices always become public information when bids/proposals are opened, and therefore cannot be kept confidential.**

Other information cannot be kept confidential unless it is a trade secret. Trade secret is defined in s. 134.90(1)(c), Wis. Stats. as follows: "Trade secret" means information, including a formula, pattern, compilation, program, device, method, technique or process to which all of the following apply:

1. The information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.
2. The information is the subject of efforts to maintain its secrecy that are reasonable under the circumstances.

We request that the following pages not be released

Section	Page #	Topic

IN THE EVENT THE DESIGNATION OF CONFIDENTIALITY OF THIS INFORMATION IS CHALLENGED, THE UNDERSIGNED HEREBY AGREES TO PROVIDE LEGAL COUNSEL OR OTHER NECESSARY ASSISTANCE TO DEFEND THE DESIGNATION OF CONFIDENTIALITY AND AGREES TO HOLD THE STATE HARMLESS FOR ANY COSTS OR DAMAGES ARISING OUT OF THE STATE’S AGREEING TO WITHHOLD THE MATERIALS.

Failure to include this form in the bid/proposal response may mean that all information provided as part of the bid/proposal response will be open to examination and copying. The state considers other markings of confidential in the bid/proposal document to be insufficient. The undersigned agrees to hold the state harmless for any damages arising out of the release of any materials unless they are specifically identified above.

Company Name: \_\_\_\_\_

Authorized Representative: \_\_\_\_\_

*Signature*

\_\_\_\_\_  
*Type or Print Name of Authorized Representative*

Date: \_\_\_\_\_

This document can be made available in accessible formats to qualified individuals with disabilities.

**VENDOR DATA SHEET**

1. BIDDING / PROPOSING COMPANY NAME \_\_\_\_\_

FEIN \_\_\_\_\_

Phone ( ) \_\_\_\_\_

Toll Free Phone ( ) \_\_\_\_\_

FAX ( ) \_\_\_\_\_

E-Mail Address \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip + 4 \_\_\_\_\_

2. Name the person to contact for questions concerning this bid / proposal.

Name \_\_\_\_\_

Title \_\_\_\_\_

Phone ( ) \_\_\_\_\_

Toll Free Phone ( ) \_\_\_\_\_

FAX ( ) \_\_\_\_\_

E-Mail Address \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip + 4 \_\_\_\_\_

3. Any vendor awarded over \$25,000 on this contract must submit affirmative action information to the department. Please name the Personnel / Human Resource and Development or other person responsible for affirmative action in the company to contact about this plan.

Name \_\_\_\_\_

Title \_\_\_\_\_

Phone ( ) \_\_\_\_\_

Toll Free Phone ( ) \_\_\_\_\_

FAX ( ) \_\_\_\_\_

E-Mail Address \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip + 4 \_\_\_\_\_

4. Mailing address to which state purchase orders are mailed and person the department may contact concerning orders and billings.

Name \_\_\_\_\_

Title \_\_\_\_\_

Phone ( ) \_\_\_\_\_

Toll Free Phone ( ) \_\_\_\_\_

FAX ( ) \_\_\_\_\_

E-Mail Address \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip + 4 \_\_\_\_\_

5. CEO / President Name \_\_\_\_\_

This document can be made available in accessible formats to qualified individuals with disabilities.

**VENDOR REFERENCES**

FOR VENDOR:

Provide company name, address, contact person, telephone number, and appropriate information on the product(s) and/or service(s) used for four (4) or more installations with requirements similar to those included in this solicitation document. If vendor is proposing any arrangement involving a third party, the named references should also be involved in a similar arrangement.

Company Name \_\_\_\_\_

Address (include Zip + 4) \_\_\_\_\_

Contact Person \_\_\_\_\_ Phone No. \_\_\_\_\_

Product(s) and/or Service(s) Used \_\_\_\_\_

\_\_\_\_\_

Company Name \_\_\_\_\_

Address (include Zip + 4) \_\_\_\_\_

Contact Person \_\_\_\_\_ Phone No. \_\_\_\_\_

Product(s) and/or Service(s) Used \_\_\_\_\_

\_\_\_\_\_

Company Name \_\_\_\_\_

Address (include Zip + 4) \_\_\_\_\_

Contact Person \_\_\_\_\_ Phone No. \_\_\_\_\_

Product(s) and/or Service(s) Used \_\_\_\_\_

\_\_\_\_\_

Company Name \_\_\_\_\_

Address (include Zip + 4) \_\_\_\_\_

Contact Person \_\_\_\_\_ Phone No. \_\_\_\_\_

Product(s) and/or Service(s) Used \_\_\_\_\_

\_\_\_\_\_

This document can be made available in accessible formats to qualified individuals with disabilities.



**VENDOR AGREEMENT**  
*Wisconsin's Cooperative Purchasing Service*

Wisconsin statutes (s. 16.73, Wis. Stats.) establish authority to allow Wisconsin municipalities to purchase from state contracts when the contractors agree to extend their terms to them. Participating in the service gives Vendors opportunities for additional sales without additional bidding. Municipalities use the service to expedite purchases. A "municipality" is defined as any county, city, village, town, school district, board of school directors, sewer district, drainage district, vocational, technical and adult education district, or any other public body having the authority to award public contracts (s. 16.70(8), Wis. Stats.). Federally recognized Indian tribes and bands in this state may participate in cooperative purchasing with the state or any municipality under ss. 66.0301(1) and (2), Wis.Stats.

If you agree to make the products or services of this contract available to Wisconsin municipalities, the Department of Administration will provide the information through a subscription to the VendorNet system. Interested municipalities:

- will contact the contractor directly to place orders referencing the state agency contract number; and
- are responsible for receipt, acceptance, inspection of goods directly from the contractor, and making payment directly to the contractor.

A contractor in the service may specify minimum order sizes by volume or dollar amount, additional charges beyond normal delivery areas, or other minimal changes for municipalities.

The State of Wisconsin is not a party to these purchases or any dispute arising from these purchases and is not liable for delivery or payment of any of these purchases.

*A vendor's Decision On Participating In This Service Has No Effect On Awarding The Contract*

I Do Not Agree to make the products or services of this bid/proposal available to Wisconsin municipalities.

Signature		Date (mm/dd/ccyy)	
Name (Type or Print)		Title	
Company		Telephone	
Address (Street)	City	State	ZIP + 4
Commodity/Service		Request for Bid/Proposal Number	

This form can be made available in accessible formats upon request to qualified individuals with disabilities.



## Standard Terms And Conditions (Request For Bids / Proposals)

- 1.0 SPECIFICATIONS:** The specifications in this request are the minimum acceptable. When specific manufacturer and model numbers are used, they are to establish a design, type of construction, quality, functional capability and/or performance level desired. When alternates are bid/proposed, they must be identified by manufacturer, stock number, and such other information necessary to establish equivalency. The State of Wisconsin shall be the sole judge of equivalency. Bidders/proposers are cautioned to avoid bidding alternates to the specifications which may result in rejection of their bid/proposal.
- 2.0 DEVIATIONS AND EXCEPTIONS:** Deviations and exceptions from original text, terms, conditions, or specifications shall be described fully, on the bidder's/proposer's letterhead, signed, and attached to the request. In the absence of such statement, the bid/proposal shall be accepted as in strict compliance with all terms, conditions, and specifications and the bidders/proposers shall be held liable.
- 3.0 QUALITY:** Unless otherwise indicated in the request, all material shall be first quality. Items which are used, demonstrators, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by the State of Wisconsin.
- 4.0 QUANTITIES:** The quantities shown on this request are based on estimated needs. The state reserves the right to increase or decrease quantities to meet actual needs.
- 5.0 DELIVERY:** Deliveries shall be F.O.B. destination freight prepaid and included unless otherwise specified.
- 6.0 PRICING AND DISCOUNT:** The State of Wisconsin qualifies for governmental discounts and its educational institutions also qualify for educational discounts. Unit prices shall reflect these discounts.
- 6.1** Unit prices shown on the bid/proposal or contract shall be the price per unit of sale (e.g., gal., cs., doz., ea.) as stated on the request or contract. For any given item, the quantity multiplied by the unit price shall establish the extended price, the unit price shall govern in the bid/proposal evaluation and contract administration.
- 6.2** Prices established in continuing agreements and term contracts may be lowered due to general market conditions, but prices shall not be subject to increase for ninety (90) calendar days from the date of award. Any increase proposed shall be submitted to the contracting agency thirty (30) calendar days before the proposed effective date of the price increase, and shall be limited to fully documented cost increases to the contractor which are demonstrated to be industrywide. The conditions under which price increases may be granted shall be expressed in bid/proposal documents and contracts or agreements.
- 6.3** In determination of award, discounts for early payment will only be considered when all other conditions are equal and when payment terms allow at least fifteen (15) days, providing the discount terms are deemed favorable. All payment terms must allow the option of net thirty (30).
- 7.0 UNFAIR SALES ACT:** Prices quoted to the State of Wisconsin are not governed by the Unfair Sales Act.
- 8.0 ACCEPTANCE-REJECTION:** The State of Wisconsin reserves the right to accept or reject any or all bids/proposals, to waive any technicality in any bid/proposal submitted, and to accept any part of a bid/proposal as deemed to be in the best interests of the State of Wisconsin.
- Bids/proposals MUST be date and time stamped by the soliciting purchasing office on or before the date and time that the bid/proposal is due. Bids/proposals date and time stamped in another office will be rejected. Receipt of a bid/proposal by the mail system does not constitute receipt of a bid/proposal by the purchasing office.
- 9.0 METHOD OF AWARD:** Award shall be made to the lowest responsible, responsive bidder unless otherwise specified.
- 10.0 ORDERING:** Purchase orders or releases via purchasing cards shall be placed directly to the contractor by an authorized agency. No other purchase orders are authorized.

**11.0 PAYMENT TERMS AND INVOICING:** The State of Wisconsin normally will pay properly submitted vendor invoices within thirty (30) days of receipt providing goods and/or services have been delivered, installed (if required), and accepted as specified.

Invoices presented for payment must be submitted in accordance with instructions contained on the purchase order including reference to purchase order number and submittal to the correct address for processing.

A good faith dispute creates an exception to prompt payment.

**12.0 TAXES:** The State of Wisconsin and its agencies are exempt from payment of all federal tax and Wisconsin state and local taxes on its purchases except Wisconsin excise taxes as described below.

The State of Wisconsin, including all its agencies, is required to pay the Wisconsin excise or occupation tax on its purchase of beer, liquor, wine, cigarettes, tobacco products, motor vehicle fuel and general aviation fuel. However, it is exempt from payment of Wisconsin sales or use tax on its purchases. The State of Wisconsin may be subject to other states' taxes on its purchases in that state depending on the laws of that state. Contractors performing construction activities are required to pay state use tax on the cost of materials.

**13.0 GUARANTEED DELIVERY:** Failure of the contractor to adhere to delivery schedules as specified or to promptly replace rejected materials shall render the contractor liable for all costs in excess of the contract price when alternate procurement is necessary. Excess costs shall include the administrative costs.

**14.0 ENTIRE AGREEMENT:** These Standard Terms and Conditions shall apply to any contract or order awarded as a result of this request except where special requirements are stated elsewhere in the request; in such cases, the special requirements shall apply. Further, the written contract and/or order with referenced parts and attachments shall constitute the entire agreement and no other terms and conditions in any document, acceptance, or acknowledgment shall be effective or binding unless expressly agreed to in writing by the contracting authority.

**15.0 APPLICABLE LAW:** This contract shall be governed under the laws of the State of Wisconsin. The contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of this contract and which in any manner affect the work or its conduct. The

State of Wisconsin reserves the right to cancel any contract with a federally debarred contractor or a contractor which is presently identified on the list of parties excluded from federal procurement and non-procurement contracts.

**16.0 ANTITRUST ASSIGNMENT:** The contractor and the State of Wisconsin recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the State of Wisconsin (purchaser). Therefore, the contractor hereby assigns to the State of Wisconsin any and all claims for such overcharges as to goods, materials or services purchased in connection with this contract.

**17.0 ASSIGNMENT:** No right or duty in whole or in part of the contractor under this contract may be assigned or delegated without the prior written consent of the State of Wisconsin.

**18.0 WORK CENTER CRITERIA:** A work center must be certified under s. 16.752, Wis. Stats., and must ensure that when engaged in the production of materials, supplies or equipment or the performance of contractual services, not less than seventy-five percent (75%) of the total hours of direct labor are performed by severely handicapped individuals.

**19.0 NONDISCRIMINATION / AFFIRMATIVE ACTION:** In connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s. 51.01(5), Wis. Stats., sexual orientation as defined in s. 111.32(13m), Wis. Stats., or national origin. This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Except with respect to sexual orientation, the contractor further agrees to take affirmative action to ensure equal employment opportunities.

**19.1** Contracts estimated to be over twenty-five thousand dollars (\$25,000) require the submission of a written affirmative action plan by the contractor. An exemption occurs from this requirement if the contractor has a workforce of less than twenty-five (25) employees. Within fifteen (15) working days after the contract is awarded, the contractor must submit the plan to the contracting state agency for approval. Instructions on

preparing the plan and technical assistance regarding this clause are available from the contracting state agency.

- 19.2** The contractor agrees to post in conspicuous places, available for employees and applicants for employment, a notice to be provided by the contracting state agency that sets forth the provisions of the State of Wisconsin's nondiscrimination law.
- 19.3** Failure to comply with the conditions of this clause may result in the contractor's becoming declared an "ineligible" contractor, termination of the contract, or withholding of payment.
- 20.0 PATENT INFRINGEMENT:** The contractor selling to the State of Wisconsin the articles described herein guarantees the articles were manufactured or produced in accordance with applicable federal labor laws. Further, that the sale or use of the articles described herein will not infringe any United States patent. The contractor covenants that it will at its own expense defend every suit which shall be brought against the State of Wisconsin (provided that such contractor is promptly notified of such suit, and all papers therein are delivered to it) for any alleged infringement of any patent by reason of the sale or use of such articles, and agrees that it will pay all costs, damages, and profits recoverable in any such suit.
- 21.0 SAFETY REQUIREMENTS:** All materials, equipment, and supplies provided to the State of Wisconsin must comply fully with all safety requirements as set forth by the Wisconsin Administrative Code, the Rules of the Industrial Commission on Safety, and all applicable OSHA Standards.
- 22.0 WARRANTY:** Unless otherwise specifically stated by the bidder/proposer, equipment purchased as a result of this request shall be warranted against defects by the bidder/proposer for one (1) year from date of receipt. The equipment manufacturer's standard warranty shall apply as a minimum and must be honored by the contractor.
- 23.0 INSURANCE RESPONSIBILITY:** The contractor performing services for the State of Wisconsin shall:
- 23.1** Maintain worker's compensation insurance as required by Wisconsin Statutes, for all employees engaged in the work.
- 23.2** Maintain commercial liability, bodily injury and property damage insurance against any claim(s) which might

occur in carrying out this agreement/contract. Minimum coverage shall be one million dollars (\$1,000,000) liability for bodily injury and property damage including products liability and completed operations. Provide motor vehicle insurance for all owned, non-owned and hired vehicles that are used in carrying out this contract. Minimum coverage shall be one million dollars (\$1,000,000) per occurrence combined single limit for automobile liability and property damage.

- 23.3** The state reserves the right to require higher or lower limits where warranted.

**24.0 CANCELLATION:** The State of Wisconsin reserves the right to cancel any contract in whole or in part without penalty due to nonappropriation of funds or for failure of the contractor to comply with terms, conditions, and specifications of this contract.

**25.0 PRIME CONTRACTOR CONTRACTOR TAX DELINQUENCY:** Vendors who have a delinquent Wisconsin tax liability may have their payments offset by the State of Wisconsin.

**26.0 PUBLIC RECORDS ACCESS:** It is the intention of the state to maintain an open and public process in the solicitation, submission, review, and approval of procurement activities.

Bid/proposal openings are public unless otherwise specified. Records may not be available for public inspection prior to issuance of the notice of intent to award or the award of the contract.

**27.0 PROPRIETARY INFORMATION:** Any restrictions on the use of data contained within a request, must be clearly stated in the bid/proposal itself. Proprietary information submitted in response to a request will be handled in accordance with applicable State of Wisconsin procurement regulations and the Wisconsin public records law. Proprietary restrictions normally are not accepted. However, when accepted, it is the vendor's responsibility to defend the determination in the event of an appeal or litigation.

**27.1** Data contained in a bid/proposal, all documentation provided therein, and innovations developed as a result of the contracted commodities or services cannot be copyrighted or patented. All data, documentation, and innovations become the property of the State of Wisconsin.

**27.2** Any material submitted by the vendor in response to this request that the

vendor considers confidential and proprietary information and which qualifies as a trade secret, as provided in s. 19.36(5), Wis. Stats., or material which can be kept confidential under the Wisconsin public records law, must be identified on a Designation of Confidential and Proprietary Information form (DOA-3027). Bidders/proposers may request the form if it is not part of the Request for Bid/Request for Proposal package. Bid/proposal prices cannot be held confidential.

**28.0 DISCLOSURE:** If a state public official (s. 19.42, Wis. Stats.), a member of a state public official's immediate family, or any organization in which a state public official or a member of the official's immediate family owns or controls a ten percent (10%) interest, is a party to this agreement, and if this agreement involves payment of more than three thousand dollars (\$3,000) within a twelve (12) month period, this contract is voidable by the state unless appropriate disclosure is made according to s. 19.45(6), Wis. Stats., before signing the contract. Disclosure must be made to the State of Wisconsin Ethics Board, 44 East Mifflin Street, Suite 601, Madison, Wisconsin 53703 (Telephone 608-266-8123).

State classified and former employees and certain University of Wisconsin faculty/staff are subject to separate disclosure requirements, s. 16.417, Wis. Stats.

**29.0 RECYCLED MATERIALS:** The State of Wisconsin is required to purchase products incorporating recycled materials whenever technically and economically feasible. Bidders are encouraged to bid products with recycled content which meet specifications.

**30.0 MATERIAL SAFETY DATA SHEET:** If any item(s) on an order(s) resulting from this award(s) is a hazardous chemical, as defined under 29CFR 1910.1200, provide one (1) copy of a Material Safety Data Sheet for each item with the shipped container(s) and one (1) copy with the invoice(s).

**31.0 PROMOTIONAL ADVERTISING / NEWS RELEASES:** Reference to or use of the State of Wisconsin, any of its departments, agencies or other subunits, or any state official or employee for commercial promotion is prohibited. News releases pertaining to this procurement shall not be made without prior approval of the State of Wisconsin. Release of broadcast e-mails pertaining to this procurement shall not be made without prior written authorization of the contracting agency.

**32.0 HOLD HARMLESS:** The contractor will indemnify and save harmless the State of Wisconsin and all of its officers, agents and employees from all suits, actions, or claims of any character brought for or on account of any injuries or damages received by any persons or property resulting from the operations of the contractor, or of any of its contractors, in prosecuting work under this agreement.

**33.0 FOREIGN CORPORATION:** A foreign corporation (any corporation other than a Wisconsin corporation) which becomes a party to this Agreement is required to conform to all the requirements of Chapter 180, Wis. Stats., relating to a foreign corporation and must possess a certificate of authority from the Wisconsin Department of Financial Institutions, unless the corporation is transacting business in interstate commerce or is otherwise exempt from the requirement of obtaining a certificate of authority. Any foreign corporation which desires to apply for a certificate of authority should contact the Department of Financial Institutions, Division of Corporation, P. O. Box 7846, Madison, WI 53707-7846; telephone (608) 266-3590.

**34.0 WORK CENTER PROGRAM:** The successful bidder/proposer shall agree to implement processes that allow the State agencies, including the University of Wisconsin System, to satisfy the State's obligation to purchase goods and services produced by work centers certified under the State Use Law, s.16.752, Wis. Stat. This shall result in requiring the successful bidder/proposer to include products provided by work centers in its catalog for State agencies and campuses or to block the sale of comparable items to State agencies and campuses.



## Supplemental Standard Terms and Conditions for Procurements for Services

- 1.0 ACCEPTANCE OF BID/PROPOSAL CONTENT:** The contents of the bid/proposal of the successful contractor will become contractual obligations if procurement action ensues.
- 2.0 CERTIFICATION OF INDEPENDENT PRICE DETERMINATION:** By signing this bid/proposal, the bidder/proposer certifies, and in the case of a joint bid/proposal, each party thereto certifies as to its own organization, that in connection with this procurement:
- 2.1** The prices in this bid/proposal have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder/proposer or with any competitor;
- 2.2** Unless otherwise required by law, the prices which have been quoted in this bid/proposal have not been knowingly disclosed by the bidder/proposer and will not knowingly be disclosed by the bidder/proposer prior to opening in the case of an advertised procurement or prior to award in the case of a negotiated procurement, directly or indirectly to any other bidder/proposer or to any competitor; and
- 2.3** No attempt has been made or will be made by the bidder/proposer to induce any other person or firm to submit or not to submit a bid/proposal for the purpose of restricting competition.
- 2.4** Each person signing this bid/proposal certifies that: He/she is the person in the bidder's/proposer's organization responsible within that organization for the decision as to the prices being offered herein and that he/she has not participated, and will not participate, in any action contrary to 2.1 through 2.3 above; (or)  
He/she is not the person in the bidder's/proposer's organization responsible within that organization for the decision as to the prices being offered herein, but that he/she has been authorized in writing to act as agent for the persons responsible for such decisions in certifying that such persons have not participated, and will not participate in any action contrary to 2.1 through 2.3 above, and as their agent does hereby so certify; and he/she has not participated, and will not participate, in any action contrary to 2.1 through 2.3 above.
- 3.0 DISCLOSURE OF INDEPENDENCE AND RELATIONSHIP:**
- 3.1** Prior to award of any contract, a potential contractor shall certify in writing to the procuring agency that no relationship exists between the potential contractor and the procuring or contracting agency that interferes with fair competition or is a conflict of interest, and no relationship exists between the contractor and another person or organization that constitutes a conflict of interest with respect to a state contract. The Department of Administration may waive this provision, in writing, if those activities of the potential contractor will not be adverse to the interests of the state.
- 3.2** Contractors shall agree as part of the contract for services that during performance of the contract, the contractor will neither provide contractual services nor enter into any agreement to provide services to a person or organization that is regulated or funded by the contracting agency or has interests that are adverse to the contracting agency. The Department of Administration may waive this provision, in writing, if those activities of the contractor will not be adverse to the interests of the state.
- 4.0 DUAL EMPLOYMENT:** Section 16.417, Wis. Stats., prohibits an individual who is a State of Wisconsin employee or who is retained as a contractor full-time by a State of Wisconsin agency from being retained as a contractor by the same or another State of

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Wisconsin agency where the individual receives more than \$12,000 as compensation for the individual's services during the same year. This prohibition does not apply to individuals who have full-time appointments for less than twelve (12) months during any period of time that is not included in the appointment. It does not include corporations or partnerships.

**5.0 EMPLOYMENT:** The contractor will not engage the services of any person or persons now employed by the State of Wisconsin, including any department, commission or board thereof, to provide services relating to this agreement without the written consent of the employing agency of such person or persons and of the contracting agency.

**6.0 CONFLICT OF INTEREST:** Private and non-profit corporations are bound by ss. 180.0831, 180.1911(1), and 181.0831 Wis. Stats., regarding conflicts of interests by directors in the conduct of state contracts.

**7.0 RECORDKEEPING AND RECORD RETENTION:** The contractor shall establish and maintain adequate records of all expenditures incurred under the contract. All

records must be kept in accordance with generally accepted accounting procedures. All procedures must be in accordance with federal, state and local ordinances.

The contracting agency shall have the right to audit, review, examine, copy, and transcribe any pertinent records or documents relating to any contract resulting from this bid/proposal held by the contractor. The contractor will retain all documents applicable to the contract for a period of not less than three (3) years after final payment is made.

**8.0 INDEPENDENT CAPACITY OF CONTRACTOR:** The parties hereto agree that the contractor, its officers, agents, and employees, in the performance of this agreement shall act in the capacity of an independent contractor and not as an officer, employee, or agent of the state. The contractor agrees to take such steps as may be necessary to ensure that each subcontractor of the contractor will be deemed to be an independent contractor and will not be considered or permitted to be an agent, servant, joint venturer, or partner of the state.

## 16. APPENDIX A

BadgerNet EQUIPMENT LIST				
ITEM	QTY	MODEL	MFG.	DESCRIPTION
<b><u>VIDEO EQUIPMENT</u></b>				
1.00	2	EVI-D30	Sony	Integrated Camera System
1.01	1	VCL0637H	Sony	Wide Angle Adapter
1.02	1	VID-P50	Sony	Document Camera System
1.03	8	KV32S42	Sony	32" Color Monitor/Receiver
1.04	2	MCPS-32-PWR	Eastview Industries.	Quad Monitor Stand for 32" Monitors
1.05	2	EI-CQ	Eastview Industries	Camera Mount for Quad-Monitor Stand
1.06	1	RS8X8HBVO	Knox	8-Input / 8-Output Video Router
1.07	1	SLV-N71	Sony	VHS Player/Recorder
1.08	4	VB/VDA	VAC	4-Output "Brick" Distribution Amplifier
1.09	1	PS-8	VAC	Power Supply for VDAs
<b><u>AUDIO EQUIPMENT</u></b>				
2.00	1	910-150-001	Gentner	AP800 Mixer/Echo Canceller
2.01	7	915	Astatic	Gooseneck Microphone
2.02	6	40-112-1581	Astatic	Shockmount Base for Gooseneck Mic
2.03	1	40-112	Astatic	Shockmount Base for Gooseneck Microphone
2.04	1	ST-MX3	Radio Design Labs	Line Level Mixer
2.05	1	PS-24V	RDL	Power Supply
2.06	1	BG-115	TOA	Integrated Amplifier
2.07	1	MB-25B-BK	TOA	Rackmount
2.08	2	F-160G	TOA	Monitor Speaker
2.09	2	WCB-12	TOA	Mounting Bracket for F-160G
2.10	1	WS-SL-1	TOA	Wireless Lavalier Microphone System
<b><u>CONTROL EQUIPMENT</u></b>				
3.00	1	Site Controller	Eastview Industries	PC Based Control System with 14" Touch-Screen Monitor and Software
3.01	1	SC-VIDEO	Eastview Industries	Video Overlay Board
3.02	1	PC1	Panja	Power Controller
3.03	2	RPC-5-CD	Lowell	Multiple Outlet Power Controller
3.04	2	L186-15	Lowell	15' Power Cord
3.05	1	C28526	Eastview Industries	UPS
3.06	1	SB-1-TEK	Eastview Industries	Student Button to Camera Interface
<b><u>INSTALLATION AND ENGINEERING</u></b>				
4.00	1	IP-Large	Dascom Systems	Instructors Console
4.01	1	Training	Dascom Systems	4 Hours Training per 4 Sites
4.02	1	Site Visit	Dascom Systems	On-Site Visit and Documentation
4.03	1	Freight	Dascom Systems	Freight Charges
4.04	1	Labor	Dascom Systems	Installation and Misc. Materials
4.05	1	Warranty	Dascom Systems	First Year/Service/Maintenance & Help Desk (to include Critical Spares) Help Desk Hours 7am to 7pm M-F 24 Hour On-Site Response

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## 17. GLOSSARY

**Access Circuit** – connectivity from the end-user location to the aggregation point.

**Aggregation Point** – the service provider location where access circuits are aggregated and routed either to the Core or to another access circuit at the same aggregation node.

**Backbone** – is made up of core switches and is the part of the network that joins LANs together and is the basis for design of the overall network service.

**BGP** – Border Gateway Protocol

**Catastrophic outage** – induced within the network itself

**Churn** – the level of disconnects from service relative to the total subscriber base

**Co-Location** – either the placement of physical equipment or virtual physical co-location

**Core Node**–point of connection on the Core network

**Database partitioning** – provides the ability to restrict views of the database so operators can update and manage different sets of data within a single database and cannot view or edit data managed by others.

**DecNET** – group of communications products (including a protocol suite) developed and supported by Digital Equipment Corporation.

**Degradation** –condition that occurs when communication performance parameters fall outside predetermined limits, resulting in a lower quality of services.

**DET** – Division of Enterprise Technology

**Disaster-related outage** – externally caused failure

**DLSw** – relates to the DataLink Switching Workgroup's interoperability standards for integrating SNA and NetBIOS over the TCP/IP protocol.

**DOA** – Department of Administration

**EIGRP** – Enhanced Interior Gateway Routing Protocol. Cisco's proprietary routing algorithm that provides link-to-link protocol-level security to avoid unauthorized access to routing tables.

**Extranet** – an Internet-like network run by an entity to conduct business with its employees, customers and/or suppliers.

**Intranet** – a private network that uses Internet software and standards that is reserved for use by people who have been given the authority necessary to use the network.

**IP** – Internet Protocol.

**IPX** – Internet Packet eXchange. Novell Netware's native LAN communication protocol.

**MadMAN** - Madison Metropolitan Area Network, Madison based head-end network

**MRC** – monthly recurring charge

**Multi-cast** – Communication between a single device and multiple members of a device group.

**Network Class of Service** – network policies that align network resources with business objectives and are enforced by means of QoS.



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**NRC** – non-recurring charge

**OSPF** – Open Shortest-Path First. A link-state routing algorithm that is used to calculate routes based on the number of routers, transmission speed, delays and route cost.

**Point to Point** – A connection with only two endpoints

**Proof of Concept** – a demonstration that proves an idea/technology works as indicated

**QoS** – Quality of Service

**RIP** – Routing Information Protocol

**RMS** - Resource Management System, a DET-managed Help Desk Operation that utilizes Peregrine's Service Center software.

**Service Delivery Point** – the end point where the user receives the service.

**SLA** - Service Level Agreement

**TEACH** - Technology for Educational Achievement. A government operation formed to provide support for investments in educational technology. Now part of DOA

**Trusted Network** –a network that has in place signed security agreements between the provider and the customer.

**Unicast** – communication from one device to another device over a network

**WBAA** – Wisconsin BadgerNet Access Alliance. A consortium of local telephone companies that currently provide the service for the BadgerNet video network. SBC is the Prime Contractor.

**WCNI**-Wisconsin Collaborative Network Initiative

**WENCC** – Wisconsin Educational Network Collaboration Committee