

January 20, 2011

Dear Technology Contact:

You are receiving this email because you are listed as the primary technology contact for your school district. Your superintendent should have received an email from DIS Director, Claire Bailey, explaining a new service, B.E.E. Initiative, which DIS is offering. Attached is a copy of the email for your reference as well as before and after utilization charts for schools that have piloted the B.E.E. implementation. I wanted to take the opportunity to ensure you are aware of the service, and discuss more of the technical details and requirements. Most of you are aware of the service via the ARKSTE Fall Conference or discussions on the sys_admin listserv.

In order to assist DIS with planning for adequate implementation resources and the e-Rate application, we need each school that is considering the possibility of implementing additional bandwidth via the new service (B.E.E.) within the next 2 years, to complete an online questionnaire, which will also serve as a pre-planning guide. Even if you have already called DIS and have a B.E.E. request incident/ticket, please take a moment to complete the questionnaire. The length of the questionnaire will depend on the number of sites services will be implemented. Since the information gathered in the questionnaire will guide the e-Rate application, we need this completed by February 14th. Completing the survey is not a commitment, it is simply a planning tool, and also will provide DIS with the needed supporting documentation for e-Rate applications. To complete the questionnaire go to:
http://surveys.dis.arkansas.gov/bee_questionnaire.htm

Since the B.E.E. Service is based on "consumer class", internet only connectivity, there are 3 elements necessary to implement the services.

1. **Web Content Filter.** Depending upon your local area network configuration, districts will be required to utilize local Internet Content Filter appliances. DIS has negotiated a state contract that leverages the state's current investment in Internet Content Filtering. Schools may purchase an appliance directly from the state vendor (M86) and receive state contract pricing. Also, DIS will have a service offering for the Internet Content Filter. You will have the option to purchase or use the DIS service as needed for your network configuration. A DIS APSCN LAN support team can assist school technology staff with determining the model of appliance needed as well as the installation and configuration. Monthly rates for M86 content filters can be viewed at:
<http://www.dis.arkansas.gov/productsServices/network/Pages/BandwidthforEducationalEnhancement.aspx>
2. **Bandwidth Aggregation Appliance.** A device is needed that will make it possible to bring in multiple connections and different types of connections and send/route network traffic through the appropriate connection. There are 2 options for this device.
 - a. The first, and preferred option, is the purchase (or lease) of a Bandwidth Aggregation Appliance. DIS has worked with multiple vendors, piloting various options for these appliances. As a result of the pilots, DIS developed a "requirements matrix" and submitted an Invitation for Bid with the Office of State Procurement, to award a state contract for a selected device. Becky Rains also filed an e-Rate 470 application, for the bid. This will allow schools that wish to utilize e-Rate funds to purchase the aggregator

appliance. The aggregator appliances are priority 2 (internal connections) eligible, therefore, applying for e-Rate funding for the aggregator appliance would use one of the 2 out of 5 years rule for internal applications. The bid has been opened, the vendor selected, based on the ability to meet the minimum specifications and lowest bid. The Office of State Procurement posted an "Anticipation to Award" January 12, 2011. The Anticipation to Award will remain posted 2 weeks before final award can be made. The projected date for announcing the Aggregator contract and pricing is February 2nd. It should be noted that if a vendor protests, the actual award could be delayed. As with the M86 Content Filter, if a school does not wish to purchase an appliance, it can be leased from DIS for a monthly rate. The monthly rate for the aggregator appliance will be posted after the contract is awarded.

- b. The second option for the aggregation is to use the existing DIS router. There would be no additional cost to the school for the equipment, however, there are limitations to utilizing the router. The primary limitation is that only 1 additional external connection can be added to the router. Local technical support staff would be required to call DIS for all changes and monitoring would be more limited.
3. **Procuring consumer class, or internet only connection/s.** The final step is to procure consumer class internet connections. DIS has issued IFB's for all internet service provider exchanges for the service. The contracts for the service have been awarded, and DIS has developed a price list for these connections. If a school purchases the connection through DIS, we will file the e-Rate application for you. To access the DIS price list go to:

<http://www.dis.arkansas.gov/productsServices/network/Pages/BandwidthforEducationalEnhancement.aspx>

Please be sure to note the prices for static IP addresses on page 19 of the Price list. It is not essential to have a static IP address for the consumer class connection, however, it is preferred. Only 1 static IP address is needed to configure the connection in the aggregator. With a static IP address, we can add the consumer class connection to "What's Up Gold" for monitoring. The aggregator will send an email if a connection drops, however, it will only send a single email. What's Up Gold can be configured to send emails at intervals as long as a connection is down, as well as a notice when connectivity is restored.

Important notes:

- a. ***The price list is by telephone exchange, and does not guarantee availability to specific sites. If you do not see your city listed, it may be part of another city's phone exchange. For example: White Hall and Dollarway are not listed, however, they are covered under the Pine Bluff phone exchange.***
- b. ***IF Telephone/DSL is the only option for your location. Before ordering appliances, it is recommended you verify DSL service can be delivered to your location. The best way to verify availability is to obtain an analog phone number (usually one a fax is plugged into) close to your router. Call your local telephone provider, and ask them to conduct a "Loop Qual" test on the phone number for DSL service. We are finding that even though providers bid on service, they can't always deliver the amount bid to some of the specific locations. If you need assistance or clarification, please call the DIS Call Center (800-435-7989) and request a BEE incident be opened for your location, an APSCN LAN Technician will call you to assist.***
- c. ***There were 30 cities that had no contract awarded from the DIS Invitation for Bid for consumer class connectivity. "No awards" occurred either because a vendor did not***

bid OR the prices were \$500 or more per month. I have attempted to contact each school impacted by the "no awards" and in several cases have spoken with vendors. DIS is planning to re-bid these areas the week of February 1st. If you are one of the schools impacted by the DIS contract no award, and know a local provider, please give me a call so we can attempt to work with them to ensure they will bid competitively during the next bid posting.

Sincerely,

Dana Thompson

Remote Field/APSCN LAN Support Team Lead
Arkansas Department of Information Services
Phone: 501-683-3637 Fax: 501-682-4310
Email: dana.thompson@arkansas.gov

Contact information for ordering the M86 Content Filter:

Vendor = Secure Content Solutions

Contact: Daniel Collins

Email: dcollins@scs-ca.com (preferred means of communication)

Phone: 714-744-2032 x110

Please use the following address for orders to SCS.

Secure Content Solutions
PO Box 6113
Orange, CA 92863-6113

Or, you can fax Purchase Orders to: 714-744-2034

If you need a copy of the contract for your files please let me know, I will send a copy.

******Note: All contract prices for M86 appliances include 60 Month warranty and shipping.***

M86 Appliance Matrix

| Model | Description | Maximum Computers | MSRP | AR State Contract Price |
|----------------|--|-------------------|-------------|-------------------------|
| WFR 350 | Web Filter and Reporting appliance. 1/2 width 1U Chassis with Rack Mount Kit, Dual Core Processor - 8GB DDR2 RAM, 2x500GB Hot Swappable Hard Drives with Raid. | 1500 | \$7,995.00 | \$3,421.04 |
| WFR 550 | Web Filter and Reporting appliance. 1U Chassis. Quad Core Processor, 12GB DDR3 RAM, 4x500GB Hot Swappable Hard Drives with Raid. | 6000 | \$13,995.00 | \$3,891.12 |
| WF 500 | Web Filtering Appliance. 1U Chassis. Quad Core Processor, 6GB DDR3 RAM, 2x500GB Hot Swappable Hard Drives with Raid. (Requires either an SR-500 or SR-700 for Reporting) | 15000 | \$9,995.00 | \$3,421.04 |
| WF-700 | Web Filtering Appliance. 1U chassis. Dual Xeon Quad Core Processors, Dual Power Suplies, 6GB DDR3 RAM, 2x500GB Hot Swappable Hard Drives with Raid. (Requires an SR-700 for Reporting) | 30000 | \$15,995.00 | \$5,786.00 |
| SR-500 | Security Reporter Appliance. 1U Chassis. Quad Core Processor, 12GB DDR3 RAM, 4x500GB. Hot Swappable Hard Drives with Raid. (750 gig available for data storage) | 10000 | \$8,995.00 | \$3,891.12 |
| SR-700 | Security Reporter Appliance. 1U chassis. Dual Xeon Quad Core Processors, Dual Power Suplies, 12GB DDR3 RAM, 4x1TB Hot Swappable Hard Drives with Raid. (1.5 TB available for data storage) | 30000 | \$22,995.00 | \$5,786.00 |

Aggregation Configuration Worksheet

To be completed by DIS APSCN LAN Support Technician

Customer Information

| | |
|-------------------------|--|
| School District: | |
| Site Address: | |
| Technology Coordinator: | |
| Phone Number: | |
| E-Mail Address: | |
| LEAs Served: | |

DIS Router LAN Addressing Information

| | | | |
|---|------------------------------|-----------------------------|-----------------------|
| Router Name: | | | |
| Public IP Address: | | Subnet Mask: | |
| Private IP Address: | | Subnet Mask: | |
| NAT Configured on DIS Router? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | |
| Routed Private Ranges | Yes <input type="checkbox"/> | No <input type="checkbox"/> | |
| VLANs Implemented? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | |
| Statically routing private IP ranges to Layer 3 Switch? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | |
| Private IP's routed to local Layer 3 Switch? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | L3 Switch IP Address: |

- Please sheet regarding IP addresses needing to be reserved for routing between DIS router and aggregator.

Aggregator Information

| | |
|----------------------|--|
| Make: | |
| Model: | |
| Serial #: | |
| Root/Admin Password: | |

Aggregator Addressing Information

| Interface Type | Port | Int. Name | IP Address | Mask/Bits |
|----------------|------|-------------|------------|-----------|
| LAN | 1 | LAN-Public | | |
| LAN | 1 | LAN-Private | | |
| | | | | |
| WAN | 2 | DIS-Public | | |
| WAN | 2 | DIS-Private | | |
| WAN | 3 | DSL-1 | | |
| WAN | 4 | DSL-2 | | |

Consumer Class Internet Connections

| | | | |
|--|---------------------------------|----------------------------------|---------------------|
| Internet Provider #1: | | | |
| Account/Phone Number: | | | |
| Connection Type: | | | |
| Upload /Download kbps | | | |
| User ID: | | | |
| Password: | | | |
| Static or Dynamic WAN IP Address? | Static <input type="checkbox"/> | Dynamic <input type="checkbox"/> | |
| Modem WAN Static IP Information: | IP Address: | Subnet Mask: | Gateway: |
| Modem LAN Static IP Information: | IP Address: | | Subnet Mask: |
| Aggregator WAN Port Number: | | | |

| | | | |
|--|---------------------------------|----------------------------------|---------------------|
| Internet Provider #2: | | | |
| Account/Phone Number: | | | |
| Connection Type: | | | |
| Upload /Download kbps | | | |
| User ID: | | | |
| Password: | | | |
| Static or Dynamic WAN IP Address? | Static <input type="checkbox"/> | Dynamic <input type="checkbox"/> | |
| Modem WAN Static IP Information: | IP Address: | Subnet Mask: | Gateway: |
| Modem LAN Static IP Information: | IP Address: | | Subnet Mask: |
| Aggregator WAN Port Number: | | | |

| | | | |
|--|---------------------------------|----------------------------------|---------------------|
| Internet Provider #3: | | | |
| Account/Phone Number: | | | |
| Connection Type: | | | |
| Upload /Download kbps | | | |
| User ID: | | | |
| Password: | | | |
| Static or Dynamic WAN IP Address? | Static <input type="checkbox"/> | Dynamic <input type="checkbox"/> | |
| Modem WAN Static IP Information: | IP Address: | Subnet Mask: | Gateway: |
| Modem LAN Static IP Information: | IP Address: | | Subnet Mask: |
| Aggregator WAN Port Number: | | | |

Due to how the traffic is routed between the DIS Router and the aggregator device, specific IP addresses will need to be used for this routing. Please see the example table below to determine which IP addresses on your network will need to be reserved for this purpose. Any device or server that is on one of the needed IP addresses will have to be reassigned a new IP address within your network. Any DNS entries or APSCN Print Servers/Queues needing to be changed will require an Incident to be called into the DIS Call Center.

These IP's will need to be reserved for each IP range directly assigned to your DIS router LAN Interface.

| Router LAN IP Address (Gateway) | IP Addresses Needed for Routing |
|--|--|
| X.X.X. 5 | X.X.X.4 to X.X.X.8 |
| X.X.X. 33 | X.X.X.34 to X.X.X.36 |
| X.X.X. 65 | X.X.X.66 to X.X.X.68 |
| X.X.X. 97 | X.X.X.98 to X.X.X.100 |
| X.X.X. 129 | X.X.X.130 to X.X.X.132 |
| X.X.X. 161 | X.X.X.162 to X.X.X.164 |
| X.X.X. 193 | X.X.X.194 to X.X.X.196 |
| X.X.X. 225 | X.X.X.226 to X.X.X.228 |

Please list all remote campus 10.X.X.X IP ranges that are routed by DIS:

| Remote Router 10.X.X.X IP Address | Subnet Mask/Bits |
|--|-------------------------|
| | |

Business Critical Web Applications

Please select Web Sites or Services that your district deems business critical to the education process:

| Service Name | URL | IP Subnets / Addresses | Description of Site/Service | Mission Critical |
|--------------------|--|---------------------------|----------------------------------|--------------------------|
| Aesop | www.aesop.com | 216.83.185.32/27 | | <input type="checkbox"/> |
| CentreSuite | www.centresuite.com | 12.45.103.0/24 | School Credit Card Management | <input type="checkbox"/> |
| D2SC | www.d2sc.com | 72.233.100.229/32 | | <input type="checkbox"/> |
| EdLine | www.edline.com | 216.64.199.96/27 | Gradebook Program | <input type="checkbox"/> |
| Jedi/MySkillsTutor | www.myskillstutor.com | IP Info Needed | | <input type="checkbox"/> |