1. Terms of the Agreement.

This Agreement, for participation in a City wide academic research telecommunications consortium in Baltimore, is made and entered into by and between the Baltimore MetaPoP Network Consortium (hereinafter referred to as BMC) and names of participants (hereinafter referred to as Members) as a representative of BMC. The term of this agreement shall commence on July 1, 2003 and continue through June 30, 2004; provided that the agreement shall be automatically renewed for additional one-year terms commencing on July 1, 2004 subject to the right of either party to terminate at any time, without liability or cause, by providing four months written notice of termination.

2. Conditions for Participation

The purpose of the BMC is to advance the collaborative use of technology and networking in education and research, and work together to share resources for the benefit of all consortium Members. To that end, the Consortium Members and BMC agree to the following conditions:

A. The Consortium Members and BMC agree to comply with all conditions and requirements as set forth in the Consortium Bylaws. The consortium Members acknowledges receipt of a copy of the Bylaws.

B. BMC shall provide services, shared with the responsibility and agreement of the Members, as defined in the BMC Plan.

C. Select a Service Level Agreement (SLA) from the options available for services covered by Sal’s.

D. The Consortium Members agrees to pay Members dues as specified in the BMC SLAs, said expenses to be determined and formally approved in accordance with the Consortium Bylaws at a level consistent with maintaining the financial viability of the collaboration. Dues will be paid to the University of Maryland Academic Telecommunications System (UMATS), acting on behalf of the consortium for the purpose of collecting fees, disbursing funds, coordinating connections as the fiscal agent of BNC.

E. In no event shall BMC, UMATS, or the Members, become liable for any indirect, consequential, special, exemplary, or incidental damage of whatever kind and however caused, including, but not limited to time, money or goodwill, arising out of the services provided by this agreement.

F. The Consortium Representative agrees to indemnify and hold UMATS, BMC, and the Members, both harmless from and against any claim or liability resulting from, due to, or arising out of the Consortium Members connection to or use of the BMC Network.

3. Signatures

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Baltimore MetaPoP Network Consortium Participation Agreement

1. Terms of the Agreement.

This Agreement, for participation in a Baltimore academic research telecommunications consortium, is made and entered into by and between the Baltimore MetaPoP Consortium (hereinafter referred to as BMC) and Member Names (hereinafter referred to as Consortium Representative) as a representative of a BMC Members, defined in the Consortium Governance Bylaws. The term of this agreement shall commence on July 1, 2003 and continue through June 30, 2004. The agreement shall be automatically renewed for additional one-year terms commencing on July 1, 2004 subject to the right of either party to terminate at any time, without liability or cause, by providing four months written notice of termination.

2. Conditions for Participation

The purpose of the BMC is to advance the collaborative use of technology and networking in education and research in Baltimore, and work together to share resources for the benefit of all consortium Members. To that end, the Consortium Members and BMC agree to the following conditions:

1. The Consortium Members and BMC agree to comply with all conditions and requirements as set forth in the Consortium.
2. BMC shall provide services as defined in the BMC Service Level Agreement.
3. Consortium must unanimously agree on the Service Level Agreement.
4. Consortium Founding Members will share the to cost for implementation, including:
   • Fiber installation between 6 St Paul Street and 660 West Redwood Street
   • Equal and shared costs for Juniper M20 router, inclusive of capital cost and 2 hour response time maintenance.
   • Equal and shared costs for CISCO gigE Switches
   • Equal and shared costs for Ciena OC48 blades and Control Units
   • Annual maintenance fees for Phase I, inclusive of City fiber
   • Equal and shared costs for racks, PDU – Battery Backup, fiber distribution panels and cross connects, and ancillary cost associated with the Phase I implementation (estimated total cost $245,000.00)
5. The Consortium Members agree to pay Member dues as specified in the BMC SLA, said expenses to be determined and formally approved in accordance with the Consortium at a level consistent with maintaining the financial viability of the collaboration. Dues will be paid to the University
of Maryland Academic Telecommunications System (UMATS), the fiscal agent of BMC.

6. In no event shall UMATS, or BMC, or the Members, become liable for any indirect, consequential, special, exemplary, or incidental damage of whatever kind and however caused, including, but not limited to time, money or goodwill, arising out of the services provided by this agreement.

7. The Consortium Representative agrees to indemnify and hold UMATS, BMC, and the Members, both harmless from and against any claim or liability resulting from, due to, or arising out of the Consortium Members connection to or use of the BMC Network.

3. Signatures

Consortium Member Representatives BMC/UMATS Representative
Signer's Name Signer's Name
__________________________ ____________________________
Signature/Date                     Signature/Date
Title                              Title

Service Types

Service Types are the individual components of services offered by BMC. Primarily, the BMC will offer access to Internet 2 through two gigE interfaces. Services are provided to Segment Educational Group Participants (SEGP) through one gigE switch that will interface with the SEGP representative UMATS router at 660 West Redwood Street and reconnect over a gigE interface into the 6 St. Paul Street Juniper Router. I2 Members will interface directly to a gigE switch at 6 St. Paul and directly into the Juniper router maintained by the Mid Atlantic Crossroads (MAX). Eventually, services may expand to commodity internet services for qualified Members. Examples are described below. Invoices for services are sent out dependent of the type of service and are due within 30 days. The fiscal year for BMC begins on July 1 of each year.

1. Internet 2 Members/Research Service

The I2 Members/Research service type provides Members with direct access to the MAX router. Fees for direct access to the router are determined by Internet 2 and MAX policy and negotiated directly with the MAX.
2. **SEGP Members/Research Service**
   The SEGP Members/Research service provides basic Members research and education community within the City and surrounding areas. SEGP members are restricted to access through UMATS. UMATS pays fees for those participants based on Internet 2 policy based on congressional districts. Connecting as a SEGP provides the same access to all collaboration and video services provided by BMC through UMATS. (Current Fees: $1??/? year. Invoices: Sent at the beginning of the fiscal year).

3. **BMC Connection Service**
   The BMC Connection service provides connectivity to the infrastructure of the BMC and Internet 2 networks through a bartering arrangement with the City’s fiber resource. Services are available to all educational and non-profit organizations in the City and in some cases the State. BMC agrees to maintain network supporting advanced services such as multicast, IPv6 as it becomes the protocol of choice, and differentiated services yet to be determined but focused on the next generation network. BMC will also maintain an infrastructure capable of supporting connections at DS-3 and OC-3 levels, but WAN tariff services will be terminated at 660 West Redwood Street; however, those that have access to City fiber will interface at 6 St Paul Street. The consortium Members must agree to pay for all costs to connect to the City fiber infrastructure and all connections must support a minimum bandwidth determined by the BMC. (Current Fees: $???/year). Invoices will be sent at the beginning of the fiscal year).

4. **Transit to Abilene Network for Internet2 Members/Sponsored Participants Service**
   The Transit to Abilene Network for Internet2 Members/Sponsored Participants service type provides transit to the Abilene network. BMC agrees to support a connection with a bandwidth of at least OC-48. BMC also agrees to support multicast, IPv6 as it becomes available and differentiated services in connecting to the Abilene network. (Current Fees: $???/year. Invoices will be sent at the beginning of the fiscal year).

5. **Transit to Abilene Network for Internet2 for Sponsored Educational Group Participants Service**
   The Transit to Abilene Network Internet2 Sponsored Educational Group Participants service type provides transit to the Abilene network. BMC agrees to support a connection in accordance with the Members connectivity. (Current Fees: The Abilene Fee, $30,000 plus $2,000 times the number of legislators in a
state. Invoices are sent at the beginning of the fiscal year. The current fee paid by UMATS is $67,000 for Abilene through the MAX, and $15,000 management fee.

6. **Research/Education/Government Lab Connectivity Service**
The Research/Education/Government Lab Connectivity service type includes connectivity to the BMC network as defined above and transit to the Abilene network, also defined above. The participant must agree to pay for all costs in connecting to the City infrastructure. Moreover, participant must be in compliance with the Abilene, and must obtain agreement with Abilene for connectivity before connecting to BMC. (Current Fees: $50,000/year for DS-3 connectivity. Invoices are sent directly from the MAX to the participating agency beginning of the fiscal year.)

7. **Commodity Internet Service**
The transit to the commodity Internet service provides connectivity to the commodity Internet through the MAX. At the discretion of the MAX, commodity Internet services will be available and based on policy and contractual agreements set by the MAX Management Team. The BMC agrees to support a connection whose minimum bandwidth is the sum of the bandwidths currently subscription; however, each institution will be evaluated by the respective connector, i.e., UMATS/MAX. (Current anticipated MAX fees: $140 - $150 /mbps/month. Invoices are sent on an annual basis directly from the MAX or UMATS. Cost will vary and be dependent upon volume, availability, and contracts established through the Quilt.)

8. **Circuit Contract Service**
The Circuit Contract Service is a service whereby BMC contracts for physical circuits to a location at the Members site over the City fiber resource. BMC contracts for services that directly interface with 6 St Paul and 660 West Redwood, but Members must coordinate and pay for services connecting directly to the City fiber resource. Interface costs to the City fiber are the direct responsibility of the Members representative. Invoices will be sent to the Member as a one time cost and ongoing maintenance by the City to the Member institution at the beginning of the fiscal year.

**Service Level Agreements**

Service level agreements are combinations of the service level types described above. Here are some sample agreements together with some examples of an entity agreeing to a service level agreement.
1. **Members/Research**

   Includes the following service types
   - Members/Research

   Examples are the Members JHU, UMATS, and NASA

2. **SEGP Members/Research**

   Includes the following service types
   - SEGP Members/Research

   Examples: Morgan, City of Baltimore, Sailor

3. **State Network Connection OC48 to MAX**

   Includes the following service types:
   - Members/Research Service
   - BMC Connectivity Service
   - Transit to Abilene Network for Internet2 Members/Sponsored Participants
   - Transit to the Commodity Internet Service (if available and to qualified institutions)

   Examples are the Members UMATS, JHU, Morgan, City of Baltimore, UMBC, Sailor, USM, Board of Education, and qualified museums and non-profits, etc…

4. **State Network Connection with Commodity Services and Internet 2**

   The BMC will make every effort to support the State and reduce costs for commodity Internet services. Access to the Internet 2 for State agencies is currently limited to research and SEGP membership. All other State educational agencies will have access based on the current SLA, internal and external policy, and availability.

5. **Network Connection with Contract Circuit Services**

   Includes the following service to 660 West Redwood Street
   - Regular Members/Research Service
   - BMC Connectivity Service
   - Transit to Abilene Network for Internet2 Members/Sponsored Participants
   - Circuit Contract Service (using tariff or contracted services)
6. **Network Connection with Transit to Abilene for State Network**

   Includes the following service types (Current Fees: $30,000/year plus $2,000 times the number of US state representatives):
   - Regular Members/Research Service
   - BMC Connectivity Service
   - Transit to Abilene Network for Internet2 Members/Sponsored Participants
   - Transit to Abilene Network for Internet2 for Sponsored Educational Group Participants Service through the MAX

   Examples are the Members from **UMATS, JHU, UMBC, UMB, etc**

7. **Research/Education/Government Lab Connection as Sponsored or Primary Internet 2 Member**

   Includes the following service types
   - Members/Research Service
   - Government Lab Connectivity Service