## Texas A&M University
### IT Data Services
#### College of Geosciences
##### FY 2011 Rates

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Unit</th>
<th>Rate in $</th>
<th>Invoice Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infrastructure – Data Center</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rack Space Maintenance Fee</td>
<td>Year</td>
<td>2,585</td>
<td>Infrastructure cooling and power; environmental monitoring; and security</td>
</tr>
<tr>
<td>Power Connection for Rack</td>
<td>Power Feed</td>
<td>600</td>
<td>Electrician and materials to Install one or three phase power feed for rack PDU</td>
</tr>
<tr>
<td>10/100/1000 Twisted Pair Connection</td>
<td>Each</td>
<td>285</td>
<td>10/100/1000 TX connection</td>
</tr>
</tbody>
</table>
College of Geosciences

Methodology For Determining Annual Data Center Expenses and Charges - FY11

Customers wishing to use space and services in the College of Geosciences' data center located in Eller O&M B04 will incur two charges: (1) Setup fee to cover the cost of power hook-ups and network connections; and (2) Annual maintenance fee. The College's methodology for calculating these charges is described below.

I. **Setup Fee.** Each server rack placed in B04 requires power, network connections, and cooling. Cooling expenses are addressed in Section II, Annual Maintenance Fee.

Typical server racks (42" deep x 24" wide x 42U high) house power distribution units (PDU - essentially a very large power strip), which energize the servers. Power for these server racks is usually provided using two or four power feeds connected from the data center's power panel to each rack's PDU. TAMU Physical Plant currently charges $600 per power cable to wire power to a server rack. Therefore, power setup for each rack typically costs $1,200 or $2,400. The College passes this cost on to the person/organization responsible for managing the server rack.

The College currently offers gigabit network connections at a cost of $285 per network drop/port (this fee may change based on future equipment costs). This cost per drop includes the overall cost of the network hardware divided by the maximum number of available ports on the data center's network switch (384 ports).

II. **Annual Maintenance Fee.** Maintenance costs associated with offering basic data center services includes the following expenses: Equipment annual maintenance agreement fees; annual depreciated cost of the APC In-Row cooling units; UPS battery replacement; telephone fee; and security swipe card reader fee. Data center management is a real cost as well, but is not factored into the annual maintenance fee. Specific expenses are delineated below:

A. **APC In-Row Cooling Units.** The annual cost per rack is calculated by taking the total equipment cost per unit ($15,852) times the number of units (4). This cost ($63,408) is depreciated over the anticipated 10 year lifespan of the equipment, which equals $6,340 per year. Divide this cost by the number of supported racks (11), which equals $576.44. Add this depreciated cost per rack to the annual cost of the APC maintenance agreement for four In-Row coolers divided by the number of supported racks (($7,200 ÷ 11) + $576.44 = $1,230.98).
B. Symmetra PX UPS/Battery Cabinet/PDU. The annual cost per rack is calculated by taking the total annual maintenance agreement cost ($5,040) and dividing it by the number of supported racks (11), which equals $458.18.

C. Chiller. The annual cost per rack is calculated by taking the total annual maintenance agreement cost ($4,248) for the chiller and dividing it by the number of supported racks (11), which equals $386.

D. UPS Battery Replacement. The annual cost per rack is calculated by taking the total cost of the batteries ($25,200) and dividing it by the anticipated lifespan of the batteries (4 years), and then dividing this number ($6,300) by the number of supported racks (11), which equals $572.73.

E. Telephone. The annual cost per rack is calculated by taking the total telephone use charge per year ($240) divided by the number of supported racks (11), which equals $21.82.

F. Security Swipe Card Reader. The annual cost per rack is calculated by taking the total use charge per year ($158.04) divided by the number of supported racks (11), which equals $14.36.

Total Annual Maintenance Fee Per Rack For FY10 = $2,585.16