We need to implement a Tier III data center. A Tier III data center reduces
downtime, from .33 to .02 percent, by decreasing the chance of power outages.
Making the switch to a Tier III data center will increase performance and save our
company over 48 million dollars.

Our current Tier I data center has a single uplink that allows us to back up
data to one physical location. A Tier III data center is comprised of multiple uplinks,
which back up data to a number of different physical locations. If a server was to fail,
backup servers would still have the ability to feed data to clients without any
downtime. In addition, Tier III data centers have power lines running from multiple
locations compared to a Tier I, which is connected to one power line. Backup battery
systems are also implemented in case of a complete power failure, which allow our
business to continuously operate without a significant amount of downtime.

Installing a tier III data center will cost 35 million dollars and take a year to
introduce. This data center will yield a 38 percent return on investment after three
years. Downtime costs associated with our Tier I data center are more than 25
million dollars a year. Tier III downtime costs 1.5 million dollars per year, reducing
costs by 24 million dollars. Installing a Tier III data center will add value to the
business and increase optimal efficiency.
Figure 1:

<table>
<thead>
<tr>
<th>Tier I</th>
<th>Tier III</th>
</tr>
</thead>
<tbody>
<tr>
<td>.33% downtime</td>
<td>.02% downtime</td>
</tr>
<tr>
<td>$25,670,304 downtime cost per year</td>
<td>$1,555,776 downtime cost per year</td>
</tr>
</tbody>
</table>

Tier III Savings: $24,114,528

Figure 2

Tier III Upgrade:

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$35,000,000</td>
<td>$0</td>
</tr>
<tr>
<td>2</td>
<td>$0</td>
<td>$24,114,528</td>
</tr>
<tr>
<td>3</td>
<td>$0</td>
<td>$24,114,528</td>
</tr>
<tr>
<td>Total</td>
<td>$35,000,000</td>
<td>$48,229,056</td>
</tr>
</tbody>
</table>

ROI: 38%
Works Cited

