

Campus Computing Infrastructure (CCI) Initiative

Goals

- Continue campus involvement building upon relationships and work completed through the Administrative Excellence teams (2011-2014)
- Reduce risk through shared, scalable, secure service adoption
- Provide cost-effective IT services through economies of scale
- Collaborate and partner with Campus IT to help meet their missions
- Gain energy and space efficiencies through facility aggregation

Investments to Date

- \$2.4 M data center electrical, cooling and facility upgrades at Dayton, WARF, Medical Foundation Centennial Building
- \$4 M for scalable storage to support research, instructional and administrative needs
- \$1.6 M for shared, scalable virtual server infrastructure



CCI Services

Applications

Consulting

Storage

Backup

Data Centers

Servers

Note: Services can be consumed a la carte or as bundled, managed services. Flexible services allow us to meet people where they are.

75+ Engagements since January 1st, 2015

50+ Groups already using 100 TB of storage

15+ Groups involved in virtualization pilot

CCI Engagements

CCI Brokering

- Brokering relationships with the Public Cloud Providers and Off-Site Archiving Solutions
- Identifying secure data sets on campus (like PCI, FISMA/SA) and brokering hosting solutions in existing, secured environments
- Partnering with other campus service providers to thoughtfully get people to the right solutions

UW-Madison Campus Computing Infrastructure (CCI) Initiative

CIC Universities Virtual Server Rates Comparison

CIC Universities*	CPU	RAM	Storage	Rate Per Year
University of Iowa	2	4	40	\$1,161.60
University of Chicago	2	4	15	\$1,059.96
University of Michigan	2	4	50	\$776.16
Michigan State University	2	4	40	\$775.00
University of Nebraska-Lincoln	2	4	40	\$750.00
University of Maryland	2	4	45	\$720.00
Pennsylvania State University	2	4	40	\$696.00
University of Wisconsin-Madison	2	4	40	\$600.00
Ohio State University	2	4	40	\$552.00
Indiana University	2	4	40	\$550.00
University of Illinois	2	4	50	\$546.00
Purdue University		4	40	\$140.00
Average Price Per Year**:				\$693.89

* Each university lists their information a little differently. Focus was on unmanaged virtual server costs.

** Information not found for: University of Minnesota, Northwestern, and Rutgers University.

Amazon Virtual Server

Amazon Virtual Server*	CPU	RAM	Storage	Rate Per Year**
On-Demand (rates are market variable)	2	4	40	\$678.72
Reserved	2	4	40	\$591.12

* Reserved is for a 1-year term and On-Demand is a per hour rate. Calculations were done using the public rates as of July 2015.

** Data Transfer Fees not applicable due to use with Internet2





CCI Offers Shared, Scalable, Bundled IT Services to Campus. What's included in the costs?

Below are some of the key features included in the costs for CCI Virtualization and Storage

Security	<ul style="list-style-type: none">▪ Partnering with Cybersecurity to protect the environment through managed security controls▪ Cybersecurity will provide assessments and audits
Consulting	<ul style="list-style-type: none">▪ Service consulting to ensure best fit and smooth transition▪ Sharing best practices from previous engagements
Billing & Reporting	<ul style="list-style-type: none">▪ Monthly billing statements▪ Reporting capabilities to assist with right-sizing
Design, Planning & Management	<ul style="list-style-type: none">▪ Virtualization architecture that meets UW's guidelines▪ Planning future upgrades to meet future needs
Communications	<ul style="list-style-type: none">▪ How-to documentation that is accurate & up to date▪ Portal provides service information & a way to get support
Identity & Access Management	<ul style="list-style-type: none">▪ Integration with Campus Active Directory and Manifest
Service Management & Operations	<ul style="list-style-type: none">▪ 24x7 Network Operations Center and services tracked using IT Service Management▪ Integration into the Disaster Recovery Plan
Data Management	<ul style="list-style-type: none">▪ Data mirroring for service disaster recovery▪ Ability to take snapshots and there is performance & security monitoring
Platform	<ul style="list-style-type: none">▪ Automated self-provisioning▪ Hypervisor/Firmware updates taken care of and licensing managed (Note: OS Licenses are billed back)
Infrastructure	<ul style="list-style-type: none">▪ Life cycle management of all hardware and hardware repairs and issues are all managed▪ High speed networking
Facilities	<ul style="list-style-type: none">▪ Data center management to provide redundant power & cooling▪ Physical security through video monitoring and card access