SDSC VMWARE and CLOUD COMPUTE

VWARE

The SDSC IT Services team offers virtual machine (VM) services. By taking advantage of the professionally curated VMware environment, users avoid the hassle of acquiring and maintaining physical servers while enjoying all the benefits of owning them.

Other advantages include:

RESILIENCY

Virtual servers are built to withstand normal backend hardware exhaustion by shifting resources on the fly.

INCLUDED SYSTEM ADMINISTRATION

Acquiring a regular VM from SDSC effectively gives you both the server and the IT team that updates, troubleshoots, and protects it.

HOSTNAMES

SDSC handles .ucsd.edu and .sdsc.edu hostname registrations at no extra cost.

Service Component	Recharge Rate
Base VM (1 vCPU/ 2 GB RAM/ 100 GB Storage)	\$69.75/Month
Additional 1 vCPU or 1 GB RAM	\$12.94/Unit/Month
Additional Storage	\$45.75/TB/Month
More frequent VM Snapshots (three times a week instead of once per month for disaster recovery purposes)	\$24/Month

CLOUD COMPUTE

In addition to storage, SDSC Cloud now includes compute options. Users can spin up instances on demand.



Cloud compute is billed by hours of use of each instance. The base rate is \$0.08/SU, where an SU is the cost of running the most basic instance of one vCPU and

4 GB of memory at the rates of \$0.05/vCPU/hour and \$0.0075/GB of memory/hour. In addition, 20 GB of ephemeral disk storage is provided with each instance at no additional cost. More powerful instances or an increase in storage will cost more to run.

Instance Name	vCPU Count	Memory Count (GB)	System Disk (GB)	UC Recharge Rate (\$/hour)
m1.medium	1	4	20	\$0.08
m1.large	2	8	20	\$0.16
m1.xlarge	4	16	20	\$0.32
m1.2xlarge	8	32	20	\$0.64
c1.large	2	4	20	\$0.13
c1.large	4	8	20	\$0.26
r1.large	8	16	20	\$0.52
r1.large	2	16	20	\$0.22
r1.xlarge	4	32	20	\$0.44
r1.2xlarge	8	64	20	\$0.88

Type	UC Recharge Rate
Volume and Volume Snapshot	\$0.00063/GB/Hour
Image	\$0.00063/GB/Hour



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As an Organized Research Unit of UC San Diego, the San Diego Supercomputer Center (SDSC) is considered a leader in data-intensive computing and cyberinfrastructure, providing resources, services, and expertise to the national research community including industry and academia.

SDSC's 19,000-square foot climate-controlled and secure datacenter is fully equipped with 13 Megawatts of power, multi- 10-gigabit network connectivity, and a 24/7 operations staff.

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SDSC STORAGE SOLUTIONS

PROJECT STORAGE



The SDSC IT Services team offers Network File System storage to campus users, members of the UC community, and UC affiliates. Project Storage is

often combined with the compute services at SDSC because of its ease of mounting and high connection speed, making it the preferred storage choice of many researchers who work with Big Data.

There are two types of Project Storage:

HOTEL

Reserve space on one of several open storage nodes. Monthly fees are assessed by the amount of allocated storage.

CONDO

Invest in the Project Storage hardware and place it in the SDSC datacenter. The SDSC storage team provides hardware recommendations, setup, and continual maintenance. Condo results in significantly lower total cost over its five year lifetime compared to equivalent hotel storage.

Service Component	Recharge Rate
Hotel (1 TB Minimum, 500 GB Increments)	\$45.75/TB/Month
Condo (provides between ~120 TB and ~260 TB of usable space)	\$782.08/Month

CLOUD STORAGE

The SDSC IT Services team administers one of the first large-scale academic deployments of cloud storage in the world. Cloud Storage is organized into object-based cloud storage by OpenStack's Swift platform.



SDSC Cloud Storage is the perfect storage choice for researchers with fixed budgets because unlike other cloud providers, SDSC features a simplified

recharge plan that eliminates secondary fees such as bandwidth costs, charges assessed per request, and regional migration fees.

Advantages of SDSC Cloud include:

COLLABORATION

Effortlessly share cloud data with colleagues or the public.

REDUNDANCY

Three copies of each file distributed across multiple internal racks.

TECHNICAL SUPPORT

Communicate directly with SDSC Cloud Storage engineers, who enjoy using their extensive experience to assist you.

Project Storage Type	UC Recharge Rate
	\$32.16/TB/Month
(Minimum allocation 1 TB; billed monthly storage	
use is averaged by monitoring space used hourly)	



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