30 FREE AND POPULAR TOOLS TO MANAGE YOUR DATA CENTER

To manage huge chunks of data, most organizations have adopted cloud services and are building compute-intensive data centers to achieve cost savings, flexibility, and scalability. Presented in this article are some of the most useful tools to manage large pools of computing, storage, and networking resources throughout a datacenter, through the convenience of a centralised dashboard.

- Raj Kumar Mounya

DATA CENTER INFRASTRUCTURE MANAGEMENT TOOLS

Mesosphere

Mesosphere DC/OS is an entirely open source software project based on Apache Mesos, Marathon and more. DC/OS eliminates much of this work, allowing users to easily deploy a single platform for running everything that modern applications require—from Docker containers to big data systems—all on the same set of shared resources.

openDCIM

This is a free, web-based Data Center infrastructure Management application. openDCIM means different things to different people, and there is a multitude of commercial applications available. openDCIM does not pretend to be a function by function replacement for commercial applications. Instead, openDCIM covers the majority of features needed by the developers— as is often the case of open source software.

RackTables

RackTables is a nifty and robust solution for datacenter and server room asset management. It helps document hardware assets, network addresses, space in racks, networks configuration and much more.

ManageEngine Applications Manager

ManageEngine Applications Manager is an enterprise-ready, easy-to-use, affordable application management solution that helps enterprises monitor their mission-critical applications and data centers effectively. It enables you to monitor web applications, web servers, application servers, databases, and systems which are the lifeline of businesses. Its heterogeneous monitoring capability and business-centric view helps the IT Team to troubleshoot application performance issues quickly.

Kaseya VSA

The Kaseya VSA Platform provides data center and server management capabilities. In addition, a host of other features are also provided to empower your IT management team. From hardware and software inventory to bandwidth usage and server uptime, Kaseya provides IT professionals with the information they need to effectively manage the network infrastructure and respond quickly to audits and other compliance and regulatory requests.

BladeLogic Server Automation

Manage your servers with an automated, policy-based solution that keeps your critical business services running smoothly all the time. Your servers are the engines that run your business services, either virtual,
physical or in the cloud. You need them setup quickly, repeatedly and risk-free.
Manage them with automated, policy-based solutions that keep your critical
business services running smoothly all the time. BladeLogic Server
Automation manages even the biggest change and configuration tasks simply
and easily.

ManageEngine OpManager

OpManager from ManageEngine is a
management dashboard that captures
SNMP messages and keeps track of
your various systems, either within a
data center or through a distributed
server layout. OpManager keeps
track of various devices' uptime and
notifies administrators of outages and
problems. Among the services it is able
to track are Exchange, Active Directory
Domain Controllers, VMware, and
Hyper-V hosts, and web servers along
with switch and router infrastructure.

Schneider Electric StruxureWare
Operations: Visor

StruxureWare Operations: Visor

for iPhone and iPad displays your
Power, Cooling, Network, and Rack
Space usage as reported by the
StruxureWare management software.
The main dashboard screen displays
a radio graph of the current usage
compared to current capacity and
then dashboards for each of the four
measurements show a line graph
over time of the usage compared to
capacity with the ability to look at a
week, month, six-month, or annual
graph.

IT Manager from Smarter Apps

IT Manager is the best all-in-one
enterprise server administration service
that allows Network Administrators
to securely monitor and manage
VMware, Citrix XenApp and XenDesk-
top, XenServer, Windows, Microsoft
Exchange, Hyper-V, Active Directory,
SSH, Telnet, Amazon Web Services
(AWS), RDP, VNC, Apple Remote Des-
top (ARD) and much more.

NGINX

NGINX is a free, open-source, high-
performance HTTP server and reverse
proxy, as well as an IMAP/POP3 proxy
server. NGINX is known for its high
performance, stability, rich feature
set, simple configuration, and low
resource consumption. NGINX Plus,
which adds enterprise features such
as load balancing, streaming media
services, and high-end cache controls
to the mix.

Ansible

Ansible is a free, software platform for
configuring and managing computers.
Combines multi-node software
deployment, ad-hoc task execution,
and configuration management.
Ansible is a streamlined data center
orchestration tool that does not rely
on agents, but rather communicates
with remotely managed devices via
SSH for Linux and Unix systems, and via
PowerShell for Windows systems.

Inkscape

Inkscape is a powerful vector
image editor that is capable of
creating high-quality graphics
andalfing is a graphics editor
for creating scalable vector
graphics. It is open source
and available for
many platforms.

Ceph

Ceph provides seamless access to
objects using native language bindings
or rdasepy, a REST interface that
CLOUD MANAGEMENT AND MONITORING TOOLS

OpenShift

OpenShift is a cloud Platform-as-a-Service (PaaS) developed by Red Hat. OpenShift is Red Hat’s Platform-as-a-Service (PaaS) that allows developers to quickly develop, host, and scale applications in a cloud environment. With OpenShift, you have a choice of offerings, including online, on-premise, and open source project options.

CloudMatrix

CloudMatrix is a cloud brokering and management software that helps IT organizations with various tasks in the entire cloud-based IT chain, that includes assessment, comparison, design, procurement, provisioning, operations, and control. It helps businesses centralize management of cloud resources and budgets and supports various public, private, hybrid, and community cloud platforms including Amazon Web Services, Microsoft Azure IaaS, Verizon Terremark, VMware vCHS, VMware vCD 1.5 and 5.1, and OpenStack.

Cloudability

Cloudability is a cost management tool for monitoring and optimizing cloud expenses. It helps organizations monitor resource consumption details and provides various reports to efficiently analyze and manage finances. Cloudability supports multiple public, private, and hybrid cloud service providers.

OpenStack

The OpenStack Summit is the most important gathering of IT leaders, telco operators, cloud administrators, app developers and OpenStack contributors building the future of cloud computing. OpenStack software controls large pools of computing, storage, and networking resources throughout a datacenter managed through a dashboard or via the OpenStack API.

AppScale

AppScale is an open-source cloud computing platform that automatically deploys and scales unmodified Google App Engine applications over public and private cloud systems, as well as on-premise clusters. With AppScale, you can run your App Engine on any physical or cloud infrastructure, wherever you want.

Eucalyptus

Eucalyptus is free and open-source computer software for building Amazon Web Services (AWS)-compatible private and hybrid cloud computing environments marketed by the company Eucalyptus Systems. Eucalyptus enables pooling to provide compute, storage, and network resources that can be dynamically scaled up or down as application workloads change.

Cloud Foundry

Cloud Foundry is an open source cloud computing platform as a service (PaaS) originally created by VMware to streamline deployment for application developers, application operators, and cloud operators. Cloud Foundry was open sourced in 2011 under the Apache 2.0 license, with the pitch to developers that they could code in languages and Web frameworks of their choice without worrying about the IT environment.

Docker

An open platform for distributed applications for developers and sys admins. Docker runs any app, anywhere. Those apps can be managed on-premises or in the cloud with Docker Universal Control Plane and Docker Cloud.
6 OPEN SOURCE STORAGE SOLUTIONS

Ceph

Ceph is a distributed object store and file system designed to provide excellent performance, reliability, and scalability. Ceph provides seamless access to objects using native language bindings or radamd, a REST interface that's compatible with applications written for S3 and Swift. Ceph provides a POSIX-compliant network file system that aims for high performance, large-data storage, and maximum compatibility with legacy applications.

FreeNAS

FreeNAS is an operating system that can be installed on virtually any hardware platform to share data over a network. FreeNAS is the simplest way to create a centralized and easily accessible place for your data. Use FreeNAS with ZFS to protect, store, backup, all of your data. FreeNAS is used everywhere for the home, small business, and the enterprise.

Openfiler

Openfiler provides a simple way to deploy and manage networked storage. Installing Openfiler results in a powerful networked storage solution that exports your data via a full suite of industry standard storage networking protocols. Openfiler lowers deployment and maintenance costs for networked storage without compromising functionality or performance.

ZFS

ZFS file system offers excellent scalability and data integrity. One can use ZFS with Linux storage solution such as FreeNAS to provide better storage and protection to their data.

OpenMediaVault

It is a network attached storage (NAS) solution based on Debian Linux. It contains services like SSH, SFTP, SMB/CIFS, DAAP media server, RSync, BitTorrent client and many more. Due to the modular design of the framework, it can be enhanced via plugins. It is a simple and easy to use out-of-the-box solution that will allow everyone to install and administrate a Network Attached Storage without deeper knowledge.

Lustre

The file system of Lustre is an open-source, parallel file system that supports many requirements of leadership class HPC simulation environments. Whether you’re a member of the diverse development community or considering the Lustre file system as a parallel file system solution, these pages offer a wealth of resources and support to meet your needs.