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 Maurya

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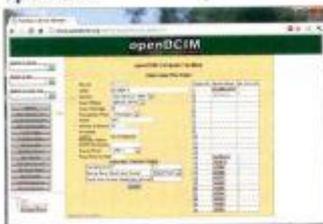
This is a free, web-based Data Center Infrastructure Management application. DCIM means different things to different people, and there is a multitude of commercial applications available. openDCIM does not contend to be a function by function replacement for commercial applications. Instead, openDCIM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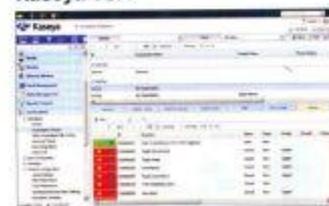
by the developers - as is often the case of open source software.

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.

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.

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.

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 set up 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 StruxureWaremanagement 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

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

Inkscope

Inkscope is a Ceph admin and supervision interface. It relies on API provided by Ceph. We also use mongoDB to store real-time metrics and history metrics.

Ceph

Ceph provides seamless access to objects using native language bindings or radosgw, 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.

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, 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.

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
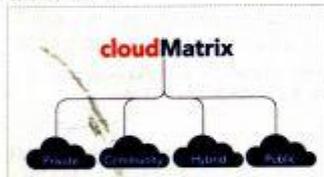
CloudMatrix is a cloud brokering and management software that helps IT organizations with various tasks in the entire cloud-based IT chain, that includes assessment, comparison, design, procurement, provisioning, operations, and control. It helps businesses centralize management of cloud resources and 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
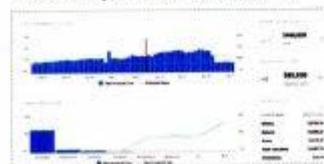
tool for monitoring and optimizing cloud expenses. It helps organizations monitor resource consumption details and provides various reports to efficiently analyze and manage finances. Cloudability supports multiple public, private, and hybrid cloud service providers.

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
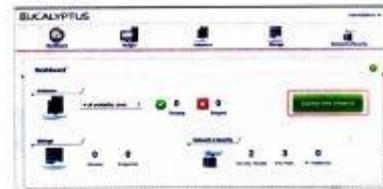
computing environments marketed by the company Eucalyptus Systems. Eucalyptus enables pooling to provide compute, storage, and network resources that can be dynamically scaled up or down as application workloads change.

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.
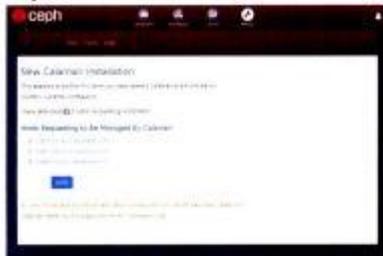
Docker

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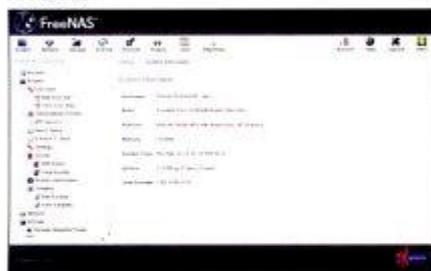
FreeNAS is an operating system that can be installed on virtually any hardware platform to share data over a network. FreeNAS is the simplest way to create a centralized and easily accessible place for your data. Use FreeNAS with ZFS to protect, store, backup, all of your data. FreeNAS is used everywhere,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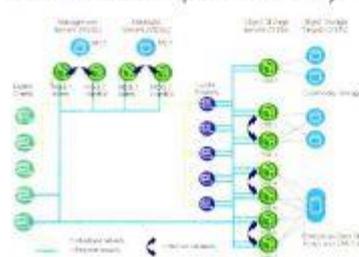
OpenMediaVault

It is a network attached storage (NAS) solution based on Debian Linux. It contains services like SSH, (S)FTP, 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.