

Graphic intense workloads in your private cloud

High performance display protocol powered by OpenStack



OpenStack Virtual Desktop Infrastructure at a glance

- With performance, stability, security and scalability in mind, Virtual Desktop Infrastructure is built for OpenStack.
- High performance display protocol support for graphic-intensive workloads.
- Secure remote access to OpenStack resources locked in a virtual private network through the most advanced security gateway.
- High quality end user desktop experience and easier support delivery.
- Model any users workflow including persistent and pooled desktops.
- With the use of commodity hardware there is no need for expensive storage and infrastructure solutions.
- Leverage open source VDI to avoid licensing fees associated with other commercial virtualization stacks and lower the cost of implementing VDI.

Tap into the potential of your private cloud

OpenStack is an open source cloud infrastructure that allows IT departments to manage compute, storage, and networking in the datacenter, fully managed for a fixed price per node per day. But even after a successful deployment and stable operations, a private cloud can remain underused. The swift deployment and flawless usage even causes attention to gravitate back to the rocky operations of classic infrastructure technologies, migrating only specific workloads to the private cloud. Leaving large parts of its potential untapped.

One way to benefit more from your private cloud is by leveraging compute, networking and storage pools for a virtual desktop infrastructure (VDI). With an OpenStack virtual desktop solution you are able to:

- Offer end users secure access to their desktop from anywhere.
- Manage and deploy desktops directly from the OpenStack infrastructure.
- Standardize user desktop deployment.
- Improve workload performance and efficiency.
- Decrease time spent at desktop deployment and management.
- Improve the performance of end user desktops without the costs of high performance workstations.
- Monitor the control state of the user's sessions.
- Use your existing commodity server hardware for setting up the infrastructure.

Features and benefits

A Virtual Desktop Infrastructure can be deployed as a separated and dedicated solution (converged) or on top any existing OpenStack private cloud. It integrates with the open infrastructure all of which helps companies to manage, secure and speed up the desktop end user experience.



Private cloud high performance display protocol for graphic intense workloads

“By moving desktops to the data center, we improved manageability and reduced power consumption. On top of that, adoption of thin clients reduced costs, maintenance, and the “footprint” of the desktop devices used”.

“The new VDI solution provides significantly more security and flexibility with fewer resources and made a big impact on the bottom-line. A ROI calculation determined that after implementation upwards of \$471,000 and 1,600 hours of downtime were saved per year”.

“Because of the high performance display protocol support, we are now also able to Support graphics-intense applications with support for nearly any high-performance display protocol, we could not offer prior to implementing VDI for OpenStack”.

“Fairbanks delivers managed services on our OpenStack cloud, so that we do not have to worry about the uptime and can focus on developing business value to our customers”.

As an enterprise OpenStack VDI solution is more than a tool for providing remote as well as mobile access to applications and desktops. It also provides a complete connection management solution with a comprehensive set of plans, policies, and pooling options that give IT complete control over their hosted resources. Do you need to monitor user idle time and automatically log a user out of a shared desktop after one hour of idleness? We can do that. Do you need to support collaboration between multiple users? We can manage the invitations. Do you need to scale globally? We’re good at that also! Even connecting with your public cloud burst out clouds, such as Amazon and Google.

Suited for graphical intensive desktops

An OpenStack VDI environment is suitable for any organization, but especially for those that are looking for an alternative for a Citrix or VMware stack or for those that are looking for graphical intensive use. Also companies look into the technology because of the mixed desktop infrastructure or the mixed usage of resources at different departments.

One unique point of the solution is that it works with most protocols, hypervisors and operating systems. So it works even for customers with a mixture of hypervisors, or a mixture of virtual and physical hosted desktops. Some customers have a mixture of Windows and Linux, and a mixture of display protocols. In all cases, you are able to use the display protocol that’s best suited to your situation. Thus fitting any business case and company.

Supported platforms

With your VDI on OpenStack you are able to support multiple platforms. All operating system (such as Windows and Linux), on all end points (physical workstations, thin clients, desktops or laptops) and via the API you can manage your resources with many management tooling, such as vSphere and HP Moonshot Systems. Then there’s the display protocols, like HP RGS, Teradici PCoIP, Exceed onDemand, NoMachine, RemoteFX, HDX, VNC, and many others.



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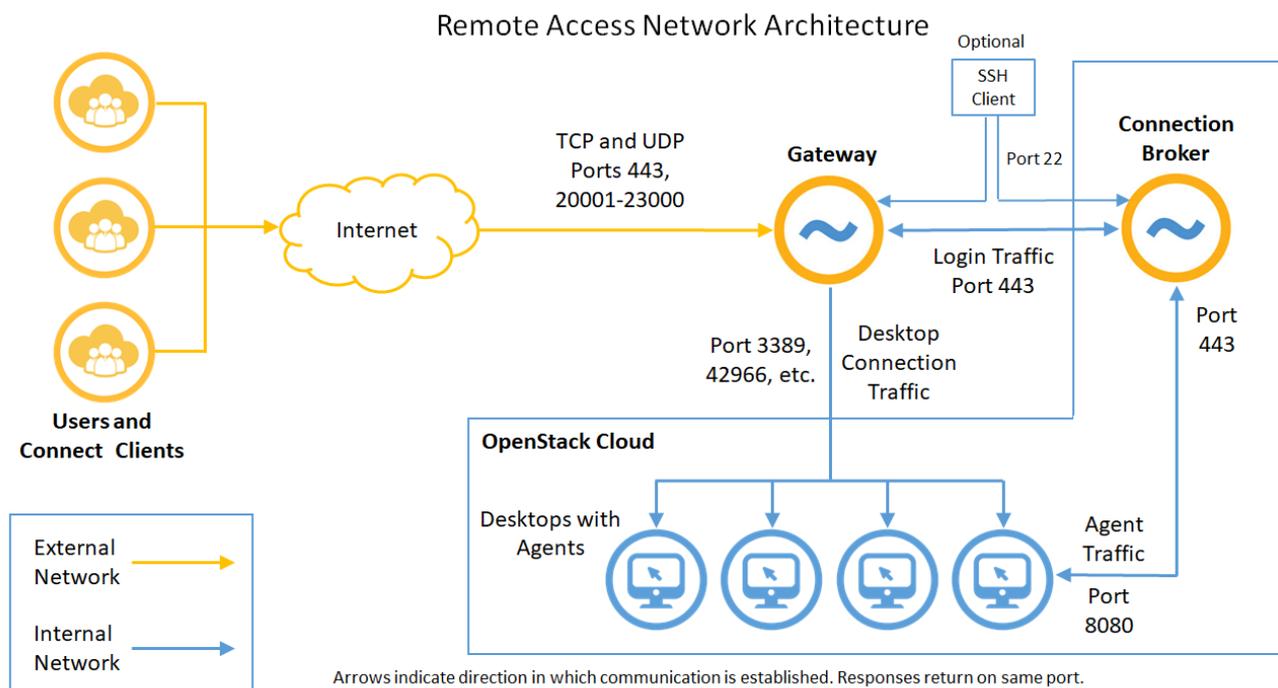
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OpenStack VDI architecture

The OpenStack VDI architecture includes the following components:

- Infrastructure, including the hypervisor and storage.
- OpenStack cloud operating system software.
- VDI platform and the display protocol.
- Authentication servers, such as Microsoft Active Directory.

The following picture shows a high-level network architecture of the environment:



Conclusion

So the solution is great for companies who feel their virtual desktop infrastructure just does not fit into the VMware and Citrix solutions offered at the moment. With the wide support of display protocols, the usage of the mixed desktops and operating systems and the management options it is not only suited for companies looking at the price tag of their current desktop stack.

