

# Xen and OpenVirtuozzo: two different approaches to server and services virtualization

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Virtualization is a methodology of dividing the resources of a computer into multiple execution environments, by applying one or more concepts or technologies such as hardware and software partitioning, time-sharing, partial or complete machine simulation, emulation, quality of service, and many others. These techniques can be used to consolidate the workloads of several under-utilized server to fewer machines, to run legacy applications which might simply not run on newer hardware, to provide secure and isolated sandboxes for running untrusted or potentially insecure applications, to provide powerful debugging environments and test scenarios.

Xen is an hypervisor which runs multiple guest operating systems with kernels ported to a special arch very close to normal x86, with strong isolation between virtual machines and execution performance close to native processors. OpenVirtuozzo is an operating system-level virtualization solution based on Linux. Any OpenVZ virtual server behaves like a regular Linux system, isolated from each other (file system, processes, IPC), but shares a single OS image ensuring that applications do not conflict.

In this paper we describe our experience and test results with these powerful tools, used in our IT infrastructure to provide a wide set of core services, like dns, mail, network printing and client deployment.

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