VDI Products: Cost Comparison

Real costs of VDI are hard to find out, hard to compare and hard to quantify tangibly. In this document, we have compiled a cost comparison of VDI solutions by leading vendors.

This analysis focuses on the tangible costs – quantifiable dollars spent. Of course, intangible costs (such as transition to VDI, IT assets maintenance, staff training) play a no less significant part as well – but they are even more difficult to quantify in a rigorous way, and tend to lead to misleading cost analysis. The tangible VDI cost consists of the following:

- **End-user licenses** – cost per end-user / per end-device, charged by the VDI vendor.
- **Server-side licenses** – cost for server-side licensing, charged by the VDI vendor.
- **Virtual Desktop Access license (VDA) licenses for using virtualized Windows OSs on the VDI servers (or Microsoft Software Assurance)** – in VDI solutions based on running virtual machines on a server, each instance must have either a Virtual Desktop Access license ($100) [1] or a Microsoft Software Assurance license ($55 per year) [2]. We assume the latter, smaller cost.
- **Server hardware initial cost, amortized and average** – in VDI solutions based on running virtual machines on a server, a server for running the VMs must be acquired per each 30-50 users. These servers require a large amount of RAM and processing power. Costs may differ between brands and configurations, so we assume a very optimistic amortized cost of $100 per user.

Cost analysis – Vendor Comparison

Below is the bottom-line cost comparison for VDI deployments using products by Zirtu, VMWare, Kaviza and Citrix[1].

Number of users	Zirtu VDI	VMWare View/vSphere	Citrix Kaviza	Citrix XenDesktop
50	12,350	17,990	15,750	25,250
100	16,852	32,485	31,500	50,500
500	74,780	148,445	157,500	252,500
1,000	137,000	293,395	315,000	505,000
5,000	619,000	1,466,975	1,575,000	2,525,000

The costs are total tangible payment for deploying a complete solution for each number of users. Microsoft SA licensing and Server Hardware amortized cost has been included in the cost. Note that Zirtu solution does not require server to run the virtual environments, and does not require additional Microsoft SA licensing, thus removing both costs from the total.

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[1] See the breakdown for each vendor on page 2

Per-vendor cost breakdown

Zirtu

Zirtu VDI licensing is comprised of two components:

- Zirtu VDI End-User License for each user in the system
- Zirtu Management Core License for managing and controlling the users, end-points, virtual containers and configurations. One Management Core License permits up to 100 users.

Both components are discounted as quantities go up:

Item/ N# of users	Zirtu VDI User License, USD		Zirtu Management Core License, each permits up to 100 users	
	Price	Discount	Price	Discount
1-99	119		6400	
100-499	109	8%	5952	7%
500-999	99	16%	5056	21%
1000-4999	89	25%	4800	25%
5000+	79	33%	4480	30%

As stated above, Zirtu does not require servers for running virtual machines, or additional Microsoft license for running Windows in those machines. It instead runs virtual environments on the client-side. Thus, both of the above costs are irrelevant for Zirtu deployments. Here is the Zirtu cost table:

Number of users	E-U licenses	MC licenses	Total Price
50	5,950	6,400	12,350
100	10,900	5,952	16,852
500	49,500	25,280	74,780
1,000	89,000	48,000	137,000
5,000	395,000	224,000	619,000

VMWare

VMWare VDI (View + vSphere) licensing is comprised of two components [3]:

- Server-side component – VMWare vSphere Enterprise / Enterprise Plus. License by amount of RAM the virtual machines consume. In our estimate, we assume 2GB RAM per machine, in order for the end-result to be competitive with other products on performance. One instance vSphere Enterprise Plus costs 3945 USD, and permits 96 GB RAM, that is – 48 users
- End-user licenses – Flat costs of 6500 USD for each 100 desktops. [4]

As a server-side VM-based solution, Microsoft Software Assurance (SA) and Server Hardware (SH) costs must be added as well.

Here is the VMWare cost table:

Number of users	Server-side licenses	End-user licenses	Licenses + SA	Licenses + SA + SH
50	6,990	3250	12,990	**17,990**
100	10,485	6500	22,485	**32,485**
500	38,445	32500	98,445	**148,445**
1,000	73,395	65000	193,395	**293,395**
5,000	366,975	325000	966,975	**1,466,975**

Citrix XenDesktop

Citrix XenDesktop deployments are licensed by end-user or end-device [5]. The server-side component (XenServer) is included in the price. For our comparison, we are using the most popular and competitive XenDesktop Platinum option [6]. The cost per user varies slightly depending on purchase option, and we are using the average of 350 USD.

Number of users	End-user licenses	Licenses + SA	Licenses + SA + SH
50	17,500	20,250	**25,250**
100	35,000	40,500	**50,500**
500	175,000	202,500	**252,500**
1,000	350,000	405,000	**505,000**
5,000	1,750,000	2,025,000	**2,525,000**

Citrix Kaviza

Kaviza (now part of Citrix) licensing is similar to Citrix XenDesktop, with the benefit of licenses being approximately twice as cheap – 160 USD per license [7].

Number of users	End-user licenses	Licenses + SA	Licenses + SA + SH
50	8,000	10,750	**15,750**
100	16,000	21,500	**31,500**
500	80,000	107,500	**157,500**
1,000	160,000	215,000	**315,000**
5,000	800,000	1,075,000	**1,575,000**

Sources

1. Microsoft VDA licensing: [PDF]
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2. Microsoft Software Assurance:
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3. VMWare licensing structure and costs:
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5. Citrix licensing structure:
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