About To Buy - Thin Clients

The world of Thin Clients has evolved considerably over the last decade, so much so that there are now a multitude of buyers' selections available when making the decision to purchase a solution. Everything from wall-plate clients to a small form factor box, and on to the conversion of an existing PC or laptop are all viable choices to look at when considering the Thin Client path you want to go down. Some virtualization vendors have over 400 different selections on their compatibility lists. For the purpose of this About-To-Buy article, we will focus on some of the top choices from the leaders in the Thin Client hardware space and hopefully give you a bit of information to help you in your research.

A couple of things to note before we get started is that we will be focusing on hardware thin clients and not software clients. For a really good explanation of the different types of Thin Clients,, you can take a look at Alyssa Wood's article here , or Alastair Cooke's article on choosing the right thin client for you which is here. I have randomly picked the vendors that I'll write about, from both an IDC report for 2013 and my own professional experiences. That being said, I make no claim as to how these devices may or may not work for you in your situation, or there availability after this article was written.

The manufactures I will be focusing on are HP, WYSE (now DellWyse), 10Zig, and IGEL. Others to consider are VXL, Asus, Samsung, Raytheon, Centerm (not available in U.S.), ChipPC, and DevonIT (Acer) just to name a few, We will talk about their OS, processors, RAM, display options, ports, warranty, if an evaluation unit is offered, and finally an estimated street price. It is a pre-requisite that they must be certified to work with Citrix, VMware, and Microsoft technologies, It should also be noted that I am not covering every option or specification available on these devices, including licensing or management software, but rather just a brief physical rundown of them.

HP t620 Flexible Thin Client

This is one of the models on HP's Flexible Thin Client line that has some impressive features such as the ability to have Quad displays and a PCIe x16 riser slot. The t620 model that we'll talk about is the one running Embedded Windows 7 since that is the only OS model in this line that is fully certified on all platforms as of this writing. It features an AMD GX-217GA Dual-core processor and a AMD Radeon HD 8280E graphics chip as standard, with options to move to a Quad-core processor and a 8400E graphics card with the PLUS model. It comes with 4GB of RAM standard and can be expanded up to 16GB, also supporting SSD up to 64GB. It's ports include a 10/100/1000 Ethernet, 6 USB (2 x USB 3.0), DisplayPort, Headphone, and Mic. Optionally, you can get Wifi and even a 100Mbs mini PCIe Fiber NIC. The warranty is a standard 3 limited and pricing starts at around $500. I could not find any information stating if evaluation units were available, so you would have to contact HP directly to find out.
I really like the direction that HP has gone with their thin client hardware. They are making a quality product better by adding the "flexibility" (thus the name) that allow for the most complex and bleeding edge environments, using the Fiber NIC as an example, to utilize it more for their demanding applications. I also personally prefer the interoperability of the HP hardware with their implementation of RGS (Remote Graphics Software) that allows for teams to work together on graphic intensive applications.

WYSE Z90D7 (Dell)

The WYSE Z Class thin client is a very popular one that has six different models to choose from. I've picked the D7 since the newer D8 (based on the Windows 8 OS) models have not yet as of this writing been fully certified by all the virtualization vendors. This model uses the AMD-G756N Dual-core processor at 1.65Ghz. One of the strong features of the Z Class is the ability upgrade the RAM, with this model allowing up to 32GB from the standard 2GB. Also on the plus side, it supports SSD storage and has an AMD Radeon graphics chip for a full 1900x1200 resolution via DVI, or 2560x1600

via the DisplayPort. Besides the graphics ports, it has 6 USB ports (2 x USB 3.0) to connect all your devices and an Ethernet 10/100/1000 port. Two serial ports, 1 parallel port, and 1 PS/2 port are optional for legacy connections. The warranty is a standard 3 year limited with on-site options available. Evaluation units are available for the D7 model only and pricing is very broad depending on options and models, but its right around $500 to start.
This thin client is a workhorse and a solid one at that. One of the best things about this unit is its scalability when it comes to RAM. It won't make much of an impact increasing its RAM for the average task worker, but when heavy graphics and pure memory power is needed, this unit shines. The WYSE name is really synonymous with Thin Clients and even with it moving to Dell, it still maintains that level of quality.

IGEL UD3-430 LX

This IGEL device is a compact mid-range platform using the VIA Eden X1 processor at 1Ghz. It comes in two flavors, one with Linux (1GB RAM) and the other with Embedded Windows 7 (2GB RAM). It has a nice DualView feature allowing multiple monitors with 2 DVI ports (DVI to VGA adapter available on request) with a 1920x1200 resolution. It also has 3 USB ports with 2 being USB 3.0. To round out the ports, it has a PS/2, Ethernet (10/100/1000), Line out, Mic In, and an optional smartcard reader. Its warranty starts as a 2 year, but if you register it online, it extends to 5 years. Pricing is around $450 depending on options and model. Evaluation units are available through IGEL.
You can also add an optional "Connectivity Foot" which gives you WiFi and 2 more USB 2.0 ports or an anti-theft USB port.
I have to admit that I have not yet implemented an IGEL thin client solution. But, from what I have been told by some trusted sources is that they are simple to manage, easy to configure, and just plain work. They also have the longest running warranty that I could find in the thin client area. The one thing that should be noted is that their support is entirely based overseas (their headquarters are in Germany) and their only USA office is in Cincinnati Ohio. By the looks of the picture of that office that they supply on their website, it appears to be a small storefront compared to their other offices.

10Zig 6818v

This 10zig device uses an AMD Dual-core 165Ghz processor (whereas its sister 5818v uses an Intel Atom 1.86Ghz Dual-core) with 2GB of RAM standard, but only allows for maximum of 4GB, which is quite low compared to other new models form other manufactures. It has quad video capability of up to 2560x1600 resolution, 6 USB ports (2 x USB 3.0) Audio in and out, PCI expansion slot, and a USB or internal Smartcard option. It also has optional Wifi, a serial port, or parallel port for those really old legacy environments. This unit runs Windows 8 Embedded and is fully certified on all the platforms. The warranty is a standard 3 year limited with an advanced exchange option which is unique and very helpful

in those critical replacement situations. Pricing starts at around $400 and 10zig has told me that they will pretty much offer up any model they make for evaluation to a qualified customer.

I've used 10Zig hardware on a couple of occasions in the past, mainly in industrial manufacturing, both on the shop floor as well as the offices. The hardware worked almost flawlessly for me (out of 20 plus units deployed, 1 unit had bad video and 1 had no power), but my one gripe about them was their earlier releases of their management software. I was using the management software versioned a few years back and I found it was difficult to manage several devices with configurations and updates. I am confident that has all been worked out by now and they would be a good choice. The Advanced Exchange option was a critical one when we had to replace a unit fast since we had no extras.