

# ESXi installed to USB only works when ...

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[litkaj](#) 105 posts since

Mar 16, 2007 So, I think I may have jumped the gun on rolling out ESXi to some servers here in the office. I was planning on using USB thumb drives to boot ESXi (using the method described, extracting the dd image, using WinImage to write it to a thumb drive, etc.) and then just replacing them every 6 months or so during a regular hardware maintenance cycle. The power savings from not having SAS drives in the system will more than cover the cost of the thumb drives and if the power goes out it should buy me a few extra minutes of run time.

It seems to me though that ESXi won't boot correctly from any thumb drive or memory card that is detected by Windows as "Removable". The boot process starts OK but then hangs with a few "Waiting for USB Boot Partition to show up" messages, followed by a final "PANIC: Failed to find USB Boot Partition". The original thumb drives I was testing with showed up in Windows as a "fixed" disk, not "removable" as every other drive I've tested since.

Does anyone have ESXi working on a USB drive that is presented to Windows as "Removable"? If not, does anyone know of any small thumb drives that work?

Jason Litka

<http://www.jasonlitka.com>



[matthewk](#) 51 posts since


Jul 23, 2006 **1. Re: ESXi installed to USB only works when drive is presented as "fixed"?** Aug 12, 2008 1:02 PM

I had to set my USB thumbdrive to "Fixed" in the BIOS. I'm using a Kingston DataTraveler.



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Mar 16, 2007 **2. Re: ESXi installed to USB only works when drive is presented as "fixed"?** Aug 12, 2008 1:07 PM

 in response to: [matthewk](#)

Yeah, but my systems don't have that option. What I was saying is that the original USB drives I was testing with showed up as fixed drives under Windows without my doing anything. Unfortunately, they're a few years old and I don't even think they're made any more.

Jason Litka

<http://www.jasonlitka.com>



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Mar 16, 2007 **3. Re: ESXi installed to USB only works when drive is presented as "fixed"?** Aug 17, 2008 9:53 AM

This really hasn't been "answered", but I don't think I'm going to get anything more than I've already posted in my original question.

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It looks like in order to boot ESXi from a USB drive it either has to present itself as a fixed drive on its own (which seems rare on newer drives) or you need to select "Fixed" as the USB device mode in your BIOS. If you don't have the BIOS option then you're pretty much out of luck.



[leofonic](#) 32 posts since

Aug 12, 2008 4. **Re: ESXi installed to USB only works when drive is presented as "fixed"?** Aug 17, 2008 10:35 AM

in response to: [litkaj](#) I have ESXi installed on 2 Sticks, one is a PNY Mini Attaché, one is a CNMemory, both show up in Windows as "removable". The only thing i changed in BIOS is the boot order.



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Jul 23, 2006 5. **Re: ESXi installed to USB only works when drive is presented as "fixed"?** Aug 18, 2008 2:00 PM

I ran across the following utility that may be able to "flip" the removable bit on a USB flash drive. Whether this will make a difference in ESXi booting, I am not certain.

<http://www.pendriveapps.com/2008/05/01/bootit-lexar-usb-flip-the-removable-media-bit-tool/>



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Mar 16, 2007 6. **Re: ESXi installed to USB only works when drive is presented as "fixed"?** Aug 18, 2008 3:27 PM

in response to: [matthewk](#) 10 points for you! That worked perfectly, thanks.

In case anyone is wondering what I'm using now, the link is below. These, combined with the bit switcher linked to above, boot without any BIOS changes on my PE2900 servers and my Optiplex 755 test system. In fact, not counting the time spent POSTing, these boot ESXi twice as fast (seriously, twice as fast) as the Lexar JumpDrive I was using in testing.

<http://www.newegg.com/Product/Product.aspx?Item=N82E16820609294>

Jason Litka

<http://www.jasonlitka.com>