

What is the difference between an OS and a Framework?

Asked 16 years ago Modified 9 years, 11 months ago

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I recently posted a question about Azure... [is it really an OS?](#) I understand the technical details, and I got a lot of fuzzy answers... I really want to know... what do you think is the difference between an OS and a Framework?

Just for reference, Azure will be built on top of Hyper-V servers and the virtual machines will be running vanilla Windows Server 2008. It will run services that creates a cloud on top of the many virtual machines which is called Azure. Windows is calling Azure an OS.

I am trying to understand how to define the difference between an OS and a framework.



frameworks

operating-system

azure

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edited May 23, 2017 at 10:30



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asked Nov 24, 2008 at 23:53



Brian Genisio

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5



[Operating System](#): The infrastructure software component of a computer system

[Framework](#): A re-usable design for a software system (or subsystem).

By these definitions it seems to me, that an operating system can be built using a framework, and a framework can be built to interact with an operating system.

[Singularity](#) is an example of an experimental OS that is built using managed code.

Framework is a very broad term, it can be used to describe many types of subsystems. It could even describe an operating system.

Operating System is more specific, it implies facilitation of interaction with a computers or group of computers hardware layer, through the use of human user interfaces. I think Azure fits this description.

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edited Nov 25, 2008 at 0:34

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answered Nov 25, 2008 at 0:12



[Jim Burger](#)

4,537 ● 1 ● 26 ● 27



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It's up to marketing - I don't think the terms have a definite meaning any more.

Is a **JVM** a framework? What if it's running on a raw **uC** or even an **FPGA** - is it an **OS**?



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[Mike DuPont](#)

49 ● 6



answered Nov 25, 2008 at 0:24



[Martin Beckett](#)

96k ● 28 ● 195 ● 268

cool explanation! besides, I also feel like the `main(int argc, char *argv[])` of C/C++, is a mechanism for users to register a *callback* into the *framework* called OS.

– [pambda](#) Jan 21, 2019 at 8:23 ✎



1

An OS is the thing that directly interfaces with the machine, be it virtual or real. It has to expose syscalls that handle input devices, output devices, sound, networking, and all the other things that we take for



granted these days. It also often provides some kind of UI which uses these services to make it easy to use/useful for an end-user. It needs to have device drivers to work with video cards, sound cards, etc. (Once again, these can be virtualized).

A framework is... something built on top of the OS. It, too, exposes an API, but they are often not so low-level as the one the OS exposes.

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answered Nov 24, 2008 at 23:56

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Cloudfire

229k ● 173 ● 503 ● 697

This is how I feel too... so, why do you think Microsoft is calling Azure an OS? – [Brian Genisio](#) Nov 24, 2008 at 23:58

i'm not sure... i'll have to look into it later – [Cloudfire](#) Nov 25, 2008 at 0:07

A framework is simply a reusable software design. The operating system is itself, software. Who said the two are mutually exclusive? – [Jim Burger](#) Nov 25, 2008 at 0:35



0



frameworks provide api contracts that oses usually don't - meaning they sit *atop* the os, hide and manage the differences, and consequently give you that platform independence goodness that can broaden our target audience



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answered Nov 25, 2008 at 0:24



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Scott Evernden

39.9k ● 15 ● 80 ● 84



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A framework thought to be as a development environment, a helping platform for further developments and you can work additively to create some other application using components of framework, while OS is system software is an environment to operate a system.



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answered May 16, 2013 at 21:53



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mrattar

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