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Docker security gets thumbs-up despite containers' rapid rise

Although Docker container technology has rocketed in popularity, new research from Gartner suggests its rapid rise hasn't necessarily outstripped its security features.



By [Toby Wolpe](#) | January 12, 2015 -- 16:04 GMT (00:04 GMT+08:00) | Topic: [Security](#)

Docker's security gets a mainly clean bill of health in a new study - despite some reservations about the maturity of this aspect of the open-source container technology.

Depending on the use case and the controls required, Linux containers are mature enough to be used as a private and public platform-as-a-service, according to Gartner - even though in mixed environments, involving multiple trust levels, security zones, or potentially hostile tenants, additional safeguards such as SELinux will be needed.

Furthermore, containers managed by Docker are effective in isolating resources, almost on par with the controls offered by hypervisors and the Linux OS itself in secure operations management and configuration governance.

"[However] they disappoint when it comes to secure administration and management, and to support for common controls for confidentiality, integrity, and availability," report author and Gartner research director Joerg Fritsch said.



[\(http://www.zdnet.com/article/docker-ceo-why-it-just-got-easier-to-run-multi-container-apps/\)](http://www.zdnet.com/article/docker-ceo-why-it-just-got-easier-to-run-multi-container-apps/)

Docker CEO: Why it just got easier to run multi-container apps

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The launch of new orchestration tools will simplify things for anyone trying to create and manage distributed apps made of multiple containers, according to Docker CEO Ben Golub.

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Against that criticism, Fritsch points out that containers can actually provide an additional level of virtualisation and security when they are running on top of virtualised systems, such as hypervisors or cloud infrastructure.

(<http://www.zdnet.com/article/docker-ceo-why-it-just-got-easier-to-run-multi-container-apps/>)

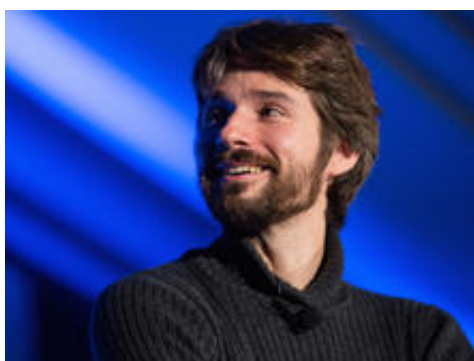
By automating the creation and deployment of apps in containers - a lighter-weight form of virtualisation - Docker is designed to free developers from software and infrastructure dependencies, cutting costs and creating efficiencies in the process.

Last month Docker CEO Ben Golub said (<http://www.zdnet.com/article/docker-ceo-why-it-just-got-easier-to-run-multi-container-apps/>) the container technology is moving from something used primarily at web companies to software used by banks, pharma, manufacturing, and governments.

"So there's a big premium on stability and security and enterprise-grade tools. That's a priority for us to deliver," Golub said.

Gartner's Fritsch recommends that firms adopting Docker technology should recognise its inherent complexity and newness.

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"Start with simple deployments until the de facto standards for container management and SDNs in containerised environments become clear," he wrote.

He also proposes standardising on the nsenter tool, in situations where firms do not need to emulate the experience of a virtual private system. It adds: "Protect nsenter by limiting the input set. For example, using a special shell emulation or web GUI. Nsender limits the ways tenants can interact with containers," Fritsch said.

Where companies are operating at scale, they should select a framework for managing resources, such as Apache Mesos.

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"SSL/TLS wrappers for the Docker/Swarm API should be implemented to ensure integrity and confidentiality of PaaS management."

Gartner also suggests compensating for the lack of traditional EPP (Extensible Provisioning Protocol) with application whitelisting or SELinux. Alternatively, it proposes making containers self-assessing entities using the DevOps tool chain.

The Docker container management framework has soared in popularity in the past 12 months. It originally used Linux containers as the underlying OS container but also introduced its own libcontainer technology.

Although Docker deployments are based on the Linux OS, the container framework has recently been ported to OpenSolaris, and Microsoft has announced plans to add OS virtualisation and support for Docker to Windows Server.

The comparisons made by Gartner in its *Security properties of containers managed by Docker* research paper are based on the security properties of containers based on libcontainer2 and the Linux OS.

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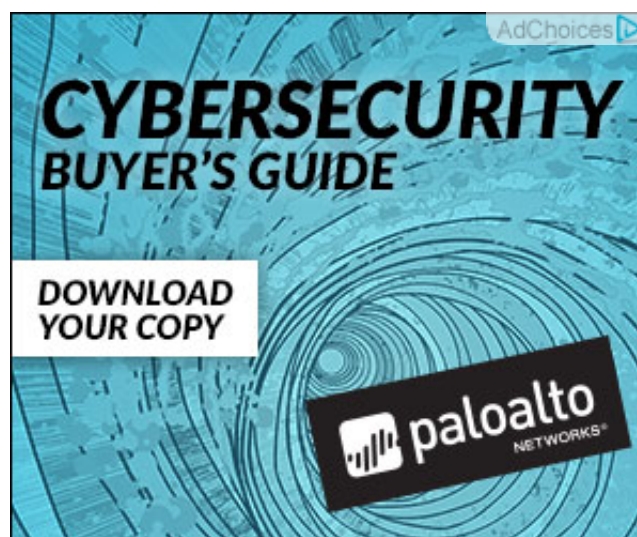
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Tim Cook: Customers don't want a combined iPad and MacBook

The chances of seeing an OS X tablet any time soon have been dashed as Apple CEO Tim Cook says that customers don't want Macs and iPads to converge.



By [Adrian Kingsley-Hughes](#) for [Hardware 2.0](#) | November 16, 2015 -- 11:40 GMT (19:40 GMT+08:00) |
Topic: [Apple](#)

The chances of seeing an OS X tablet any time soon have been dashed as Apple CEO Tim Cook says that customers don't want Macs and iPads to converge.

"We feel strongly that customers are not really looking for a converged Mac and iPad," Cook said during an interview with the [Independent.ie](http://www.independent.ie/business/technology/tim-cook-apple-wont-create-converged-macbook-and-ipad-34201986.html) (<http://www.independent.ie/business/technology/tim-cook-apple-wont-create-converged-macbook-and-ipad-34201986.html>). "Because what that would wind up doing, or what we're worried would happen, is that neither experience would be as good as the customer wants. So we want to make the best

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tablet in the world and the best Mac in the world."

"And putting those two together would not achieve either," Cook continued. "You'd begin to compromise in different ways."

This is the exact mistake that Cook believes Microsoft is doing with the Surface Book, which he earlier called a "diluted" product

(<http://www.theverge.com/2015/11/11/9712184/apple-tim-cook-microsoft-surface-book-deluded>).

But just because an Apple CEO says something doesn't mean that it's fixed in stone. Back when Steve Jobs was CEO of Apple he said that video on the iPod didn't make sense, and that the stylus was a silly idea, and then Apple eventually went and did both anyway.

This doesn't mean never, it just means not now.

Rest assured that when Apple has figured out how to perfectly blend the Mac and iPad (and can squeeze the maximum profits out of the resulting product) we'll all know about it.

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