

McAfee DeepSAFE Technology

Frequently Asked Questions

Q: What did McAfee announce at the Intel Developer Forum on September 13th?

A: McAfee announced McAfee DeepSAFE technology developed in partnership with Intel to provide a new vantage point on security.

Q: What is McAfee DeepSAFE technology?

A: McAfee® DeepSAFE™ technology is the McAfee-Intel jointly-developed technology which allows McAfee to develop hardware-assisted security products that take advantage of a “deeper” security footprint. McAfee DeepSAFE technology sits beyond the operating system (and close to the silicon) allowing McAfee products to have an additional vantage point in the computing stack to better protect systems. McAfee anticipates the McAfee DeepSAFE technology will be a foundation for a number of hardware-assisted security products that take advantage of a “deeper” security footprint which will work in conjunction with McAfee® Endpoint Security Platform that so many organizations trust to protect their endpoints and information.



Q: What are the key benefits of McAfee DeepSAFE technology?

- A:
1. Joint McAfee-Intel technology delivers a new generation of security
 - a. Today's AV software sits above the OS and watches for known attacks operating within the OS.
 - b. Many stealth techniques (i.e. rootkits) embed themselves outside the OS to evade current security solutions.
 2. Operating beyond the OS, McAfee DeepSAFE technology provides a different vantage point to detect, block and remove stealthy APTs and malware
 - a. More than 2 million unique rootkits; 1,200 new rootkits are detected every day; or 50 per hour every single day. (Source McAfee Labs)
 - b. By operating beyond the OS, McAfee DeepSAFE technology provides a direct view of system memory and processor activity that other solutions can access

3. Combining the power of hardware and the flexibility of software, McAfee DeepSAFE technology delivers a new foundation for security
 - a. Provides the foundation for a number of future products from McAfee.
 - b. Sits outside the operating system providing unfettered access to memory and other hardware components.
 - c. Joint technology collaboration by McAfee and Intel engineering delivers innovation and excellence.

Q: What are some examples of rootkit families McAfee DeepSAFE technology will enable McAfee to expose?

A: McAfee DeepSAFE technology exposes the kernel mode rootkit behavior that easily hides malware from OS-based security. Kernel mode rootkits are some of the most insidious and hard to detect. DeepSAFE is designed to detect and block suspicious behaviors that are characteristic of many of those rootkits in real-time before they have a chance to spread and hide malware and APTs.

Examples of stealth attacks that are detected in real-time by McAfee DeepSAFE technology include:

- Stuxnet—Introduces the first known rootkit for industrial control systems
 - » Sophisticated APT targeted at government infrastructure
- SpyEye—“Most popular crimeware kit built for Windows”
 - » Do-it-yourself package of tools to build stealth malware
- TDSS—Family of rootkits with multiple variants
 - » Controls PCs using them as zombies for large botnets
 - » Undetected by almost every security software
- NTRootkit—Secretly installs rootkit to steal credentials/data
 - » Once system is infected, it should be re-imaged to completely clean

Q: What is the difference between McAfee VirusScan Enterprise software and the functionality of what McAfee DeepSAFE technology will allow?

A: The protection difference between what McAfee DeepSAFE technology offers and what our traditional OS-based security offers, including VirusScan Enterprise software, is McAfee DeepSAFE technology will expose the stealth technique (rootkit) in real-time as it is trying to hide malware. Traditional OS-based security might detect a rootkit, if it is known, only after it has been installed and has a chance to hide or propagate malware. The time to detection is drastically reduced when McAfee DeepSAFE technology is being used to identify, block and remediate in real-time.

Q: Is this a McAfee product or an Intel product?

A: McAfee DeepSAFE technology is a McAfee technology and not a product. McAfee anticipates the DeepSAFE technology platform will be a foundation for a number of future McAfee products.

Q: Will McAfee be introducing additional products based on the McAfee DeepSAFE technology?

A: McAfee expects to continue to enhance and evolve the McAfee DeepSAFE technology to deliver solutions for a deeper level of security.

Q: What does this announcement and new technology mean to McAfee customers?

A: This announcement demonstrates to customers that the acquisition by Intel of McAfee is substantial and will deliver new technology and products that customers can take advantage of for a deeper level of security. McAfee and Intel are uniquely capable to deliver hardware-assisted security under the Security Connected Framework that provides protection never possible from software-only solutions.

Q: What does this announcement and new technology mean to partners?

A: This announcement demonstrates to partners that the acquisition by Intel of McAfee is substantial and will deliver new technology and products that channel partners can take advantage of to make additional revenue and deliver additional value.



Q: Did Intel need to buy McAfee to create this joint technology? Couldn't this have been achieved through partnering?

A: Bringing software closer to the silicon will help McAfee strengthen security to more effectively counter the increasingly sophisticated threats of today and tomorrow. Our joint software and hardware expertise will better protect consumers and businesses and drive innovation across Intel's product offerings. And, with our world-class labs, adding R&D, we anticipate quickly bringing entirely new innovations to market.

Q: What was Intel's contribution to the McAfee DeepSAFE technology platform?

A: The specific details of each company's contribution to the McAfee DeepSAFE technology are not being disclosed. A combination of McAfee's deep knowledge of malware methodology and Intel's deep understanding of system architecture were vital elements in creating this new capability.

Q: How does the EU agreement affect these joint developments?

A: Intel and McAfee have complied with their obligations to the EU.

Q: What Intel technologies are being used in the McAfee DeepSAFE technology platform? Is that technology available to all software vendors?

A: The McAfee DeepSAFE technology platform uses Intel VTx technology available on all Intel Core i3, i5, i7 processors and vPro platforms. Intel VTx technology is available for use by anyone.

Q: Does the McAfee DeepSAFE technology platform run with Microsoft Windows 7, Windows 8, and Android?

A: McAfee DeepSAFE technology runs with Microsoft Windows 7. We anticipate that McAfee DeepSAFE technology will run with Windows 8 when it is released. We are also evaluating the potential for McAfee DeepSAFE technology running with Android.

Q: What is Patmos? I recently read an article about Patmos and plans for an IDF announcement. Does Patmos equal DeepSAFE?

A: Patmos is an internal code name for a multifaceted joint project between McAfee and Intel. A portion of that project is the McAfee DeepSAFE technology "beyond the OS" technology co-developed by McAfee and Intel.

Q: What is the joint McAfee and Intel vision for security?

A: Without a doubt, cybersecurity is one of the key challenges facing the computing industry in the coming decade. The explosive growth in the number (1 billion moving to 50 billion by 2020) of always-on, connected computing devices, coupled with the nascent nature of security in these newest entrants, creates a prime opportunity for cyber threats and cybercrime.

Current security techniques are incapable of completely protecting against emerging sophisticated, persistent and coordinated attacks. While computer security as an industry is healthy and spending has grown, computing today is less secure than five years ago. With the current approaches based on 20+ year old techniques, and technologies becoming increasingly less effective, novel approaches are needed to effectively manage the increase in malware and other attacks.

The combination of McAfee and Intel brings fresh innovation to secure the future of computing and the Internet. With a long research heritage, substantial reach and resources, and in-depth experience in all layers of the computing stack, bringing software closer to the silicon will help Intel and McAfee strengthen security to more effectively counter the increasingly sophisticated threats of today and tomorrow. McAfee and Intel are uniquely capable to deliver hardware-assisted security under the McAfee Security Connected Framework.

Q: When will the technology that Paul Otellini previewed in his keynote be available?

A: The McAfee DeepSAFE technology that Paul Otellini discussed in his demo is currently in beta. Additional details and technology specifics will be forthcoming.

Q: What is McAfee doing in the area of embedded technology with Intel and Wind River?

A: McAfee is working with Intel and Wind River to provide a whole security platform for embedded devices and systems in all states of operation. In September, McAfee and Wind River released a report about the insecurity of embedded devices in automobiles. Additional areas of collaboration along these lines are planned particularly in the areas of medical devices, SCADA systems and personal IP connected devices.

Q: What are McAfee and Intel announcing around Ultrabooks and Anti-Theft?

A: McAfee and Intel are collaborating to jointly develop an Anti-Theft solution for Ultrabooks. The Ultrabook platform includes unique chip-level technology that can be used to protect the device and data should it become lost or stolen. This includes locking the device, encrypting the data, providing location of the lost device, and preventing thieves from circumventing the protection provided by the AT solution. Ultrabooks will be required to include Anti-Theft protection and McAfee is extending this capability for use by consumers. McAfee will be Intel's preferred ISV for delivering this software to OEMs, retailers, telecommunications providers, and others.

Q: Is this the same as the current McAfee Anti-Theft product?

A: No, this is a new product that leverages Intel's Anti-Theft chip level technology as well as McAfee security technology

Q: Where do I find more information on McAfee DeepSAFE?

A: For further details on McAfee DeepSAFE, please visit www.mcafee.com/deepsafe.

