



# Citrix XenServer® and Bitdefender Hypervisor Introspection



## It Takes 3 Months To Detect A Breach

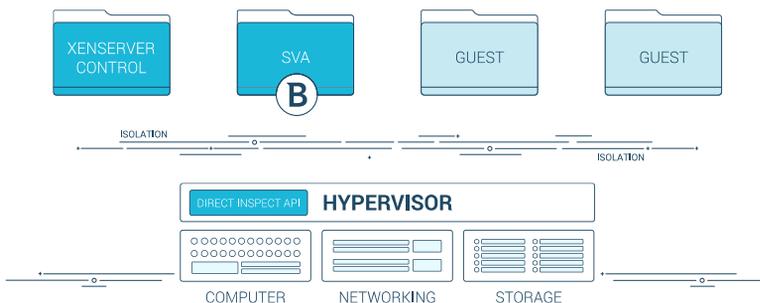
Today, enterprises face an unprecedented wave of attacks, from ransomware such as WannaCry, to more resilient attacks that bypass existing security and lie hidden for months to steal data.

## Targeted Attacks Require Targeted Security

While your everyday endpoint security is incredibly effective in dealing with the more common threats and help your company meet compliance standards, it will be more and more challenging for it to protect against more complex, custom built attacks.

## Hypervisor Introspection - An Unprecedented Security Layer Against Advanced Attacks

To keep businesses one step ahead these amounting security risks, Citrix and Bitdefender joined forces in an unprecedented collaboration. Bitdefender Hypervisor Introspection (HVI) is a revolutionary security layer against advanced attacks that harvests the hypervisor's untapped security potential. Awarded 'Best New Technology' at Citrix Synergy 2017, the solution gives you unparalleled visibility into attacks and the ability to halt the before they impact your infrastructure.



## Impossible To Compromise

To carry on the attack unhinged, attackers often take down the security solution first. Hypervisor Introspection has no in guest agents or drivers, and is therefore fully isolated from the machines it protects, to withstand even advanced, sophisticated threats.

## Truly Agentless

Instead of using agents to protect a VM, Hypervisor Introspection taps into a unique API found only within XenServer, which shares memory activity of each VM with the Security Virtual Appliance that hosts Hypervisor Introspection. Once a violation is detected, the attack execution is stopped in real-time from the hypervisor level.

*“Citrix XenServer with Bitdefender HVI gives us this uniquely clever security edge”*

Harri Ruoho | Business Manager | Sofor, Finland

*“What Bitdefender has done with HVI to protect our endpoints is simply unparalleled. It is revolutionary”*

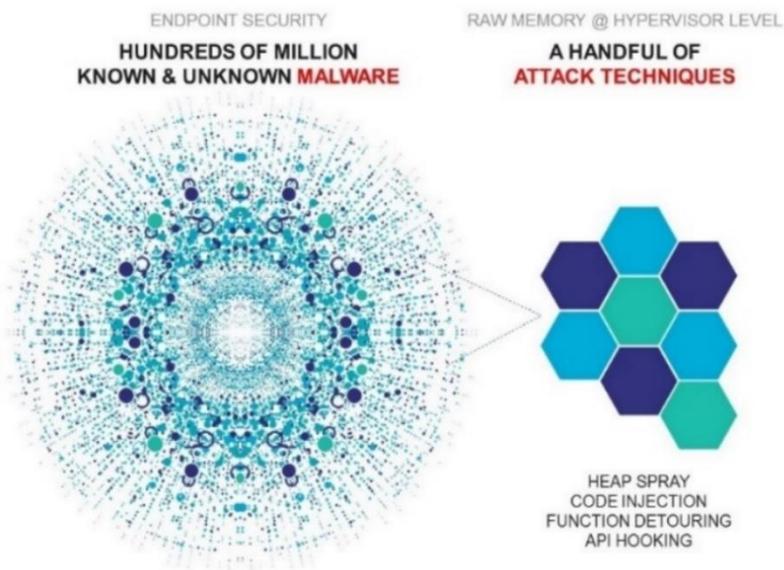
Jeff Kater | IT Director | Kansas Development Finance Authority, US

## Operational Excellence

As an agentless solution, Hypervisor Introspection deployment is fast and easy, especially since it also works side by side with existing security layers. The solution is also optimized for minimum performance overhead.



## An Exclusive View Into The Raw Memory 'Neutral Zone' – Where Attacks Are As Clear As Daylight



### Protect Memory and You Protect Your Business' Soft Spot

- Defend your business against customer data, financial losses, brand reputation damage and other risks associated with targeted attacks
- Immunize your infrastructure against new ransomware waves that use sophisticated techniques to gain entrance and spread
- Minimize the risk of business disruption or architectural damage caused by attackers
- Don't risk being out-privileged by advanced threats, and maintain complete visibility into your infrastructure
- Fortify your security levels with minimal impact to existing architecture or performance

### Why Bitdefender & Citrix?

XenServer together with Bitdefender HVI provides a revolutionary new security solution only available from Citrix and Bitdefender. Together they provide the most secure server virtualization platform for application and desktop virtualization delivery. Today XenApp and XenDesktop is already recognized by the security community for its inherent secure-by-design architecture that centralizes and protects critical applications and data in the cloud or on-premises. With today's increase in advanced attack techniques, adding a hypervisor-level security solution as an additional security layer is crucial to prevent against targeted attacks. Combining XenServer and Bitdefender HVI with XenApp and XenDesktop, IT administrators can strengthen their defense strategy by leveraging the industry's most secure virtual app and desktop delivery platform.

From common threats to zero-days, each of the millions of memory-level malware today uses similar attack techniques to gain a foothold on your infrastructure. Bitdefender Hypervisor Introspection simply looks for signs of these handful of techniques, giving you a unique advantage into targeted attacks:

- **Real-time, effective detection** by keeping tap on a handful of attack techniques instead of individually analyzing each sample
- **Full visibility** - no matter how skilled an attacker is, he will not be able to hide its tracks at the raw memory stack
- **Bullet-proof defense against zero-day**, which are uncovered just as easily as your everyday malware, by their attack technique
- **Zero updates required**, since introspection is scanning for shared attack techniques instead of individual signatures
- **Protection of your other security layers** from being taken down or blindfolded by advanced malware
- **Already proven** for several known attacks, including WannaCry, GoldenEye, or APTs
- **Detailed reports** to help with forensics, including unique insights of the attack chain

### As Stakes Get Higher, So Does The Complexity Of Attacks

**1 in 3** focused breaches attempts get through 1

A targeted business takes **3 months** to uncover the breach. 2

**1 in 4** needed an external team to uncover them. 3

**73% breaches** are financially motivated 3

in 2016, businesses faced a cost of **\$3.62 mil** per data breach 4

Companies lose an average of **\$2.6 million** just from losing up to 1% customers because of a breach 4

1 Accenture 2016 High Performance Security Report

2 Mandiant M-Trend 2017 Report

3 Verizon 2017 Data Breach Investigation Report

4 Ponemon Institute's 2017 Cost of Data Breach Study: Global Overview