TREND MICRO™

*The Evolution of the Cloud and Securing Your Data*

# How to survive in a world of Virtualization and Cloud Computing, where you even can't trust your own environment anymore.

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Raimund Genes, CTO

T.E.N. TECH EXEC NETWORKS


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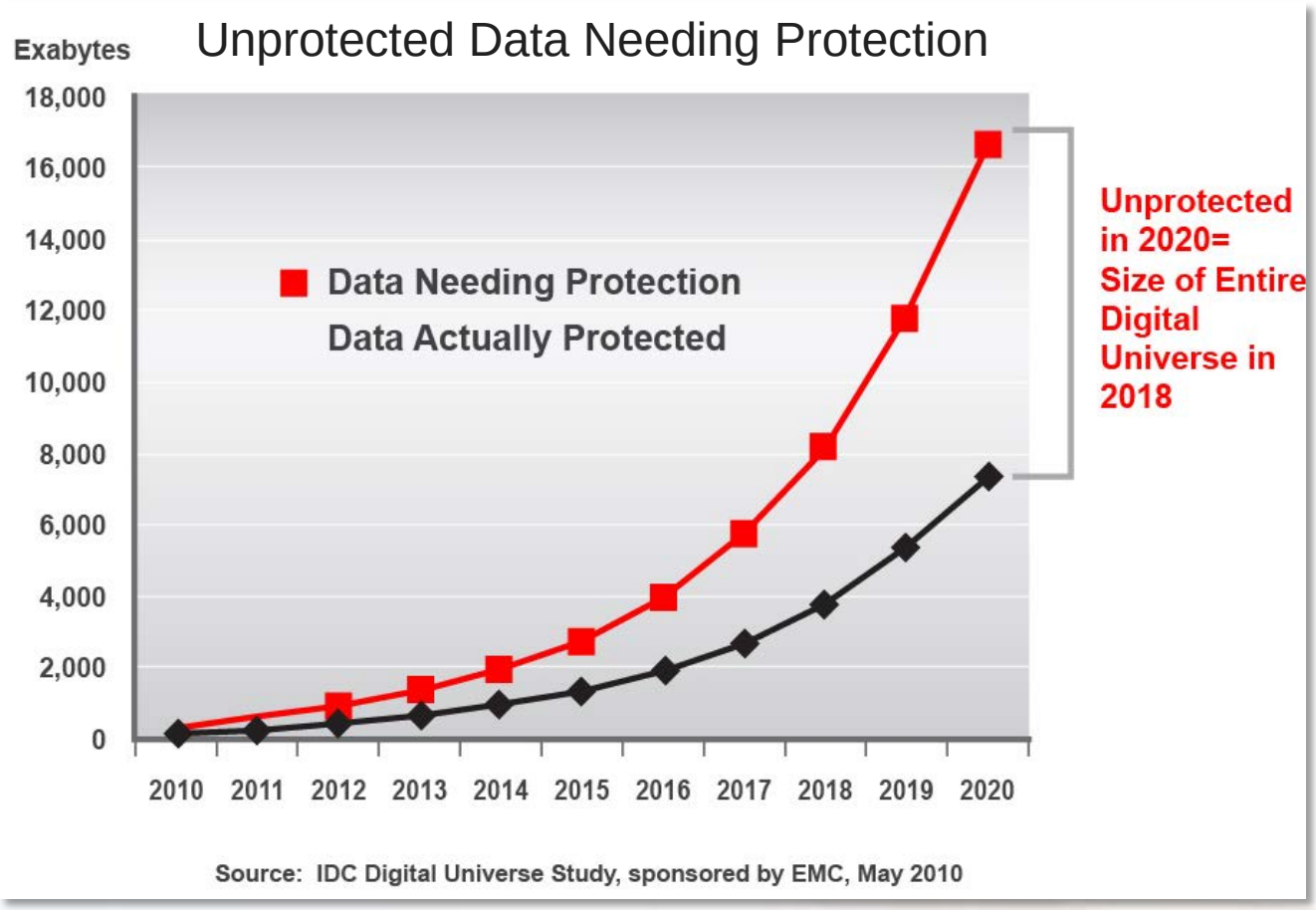
# Data everywhere – but protection?




Amount of data needing protection will grow by a factor of 90 by 2020

*-IDC*

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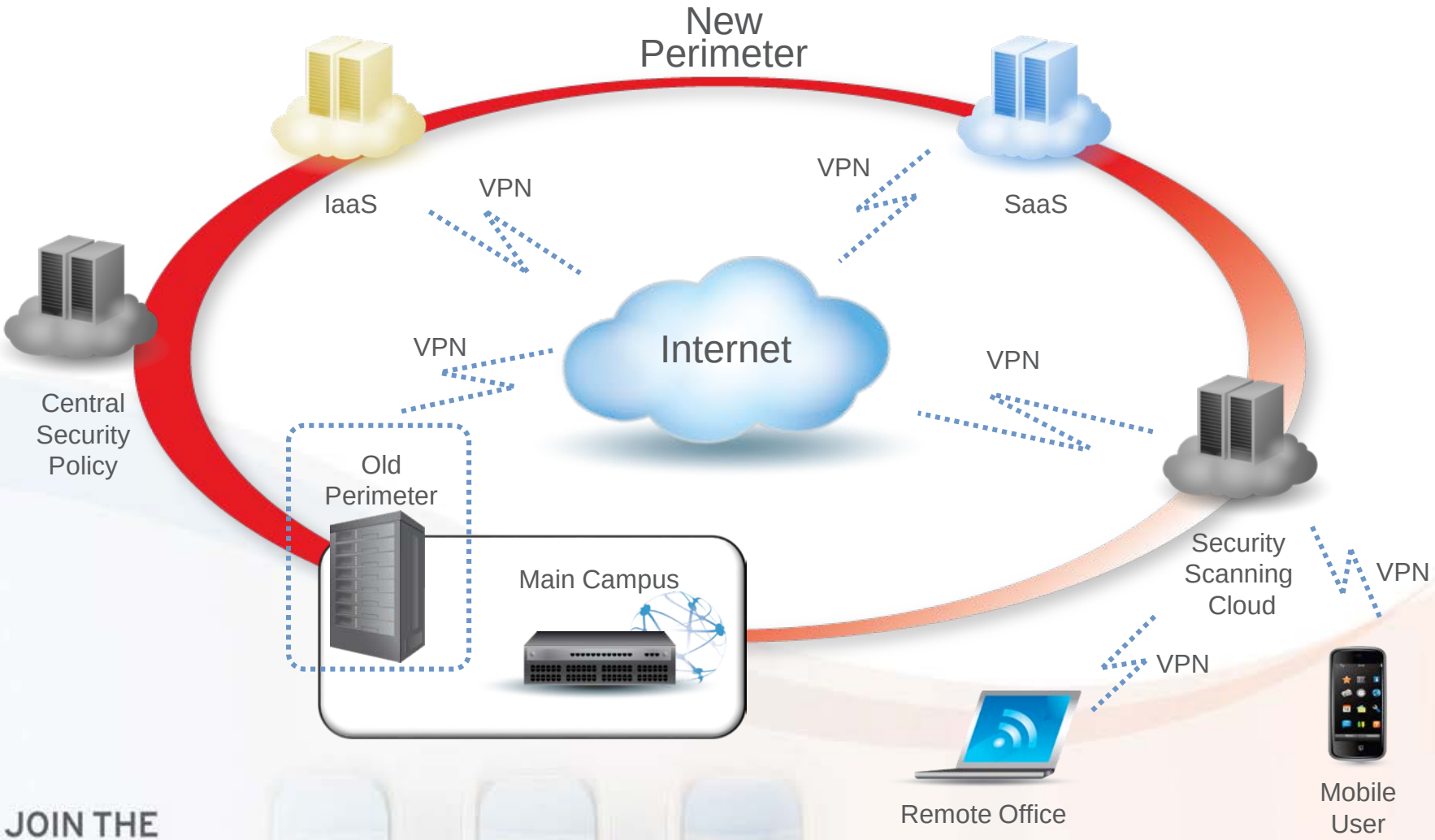
# Because the Network Perimeter is Expanding

*You Need an Elastic Network Security Architecture*

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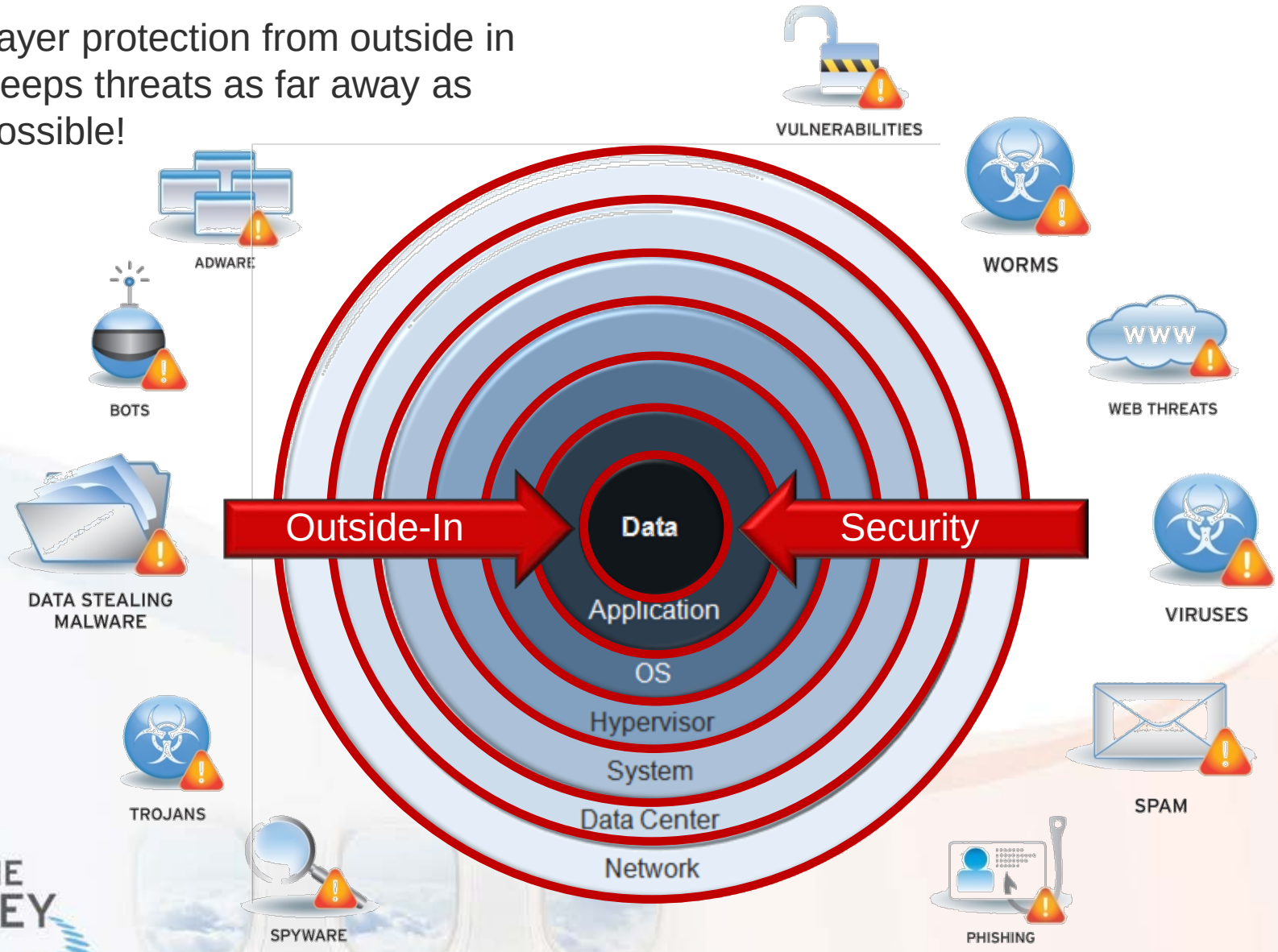
## Integrated Security Across Platforms

# Outside-in Model of Perimeter Defense

Layer protection from outside in
Keeps threats as far away as possible!

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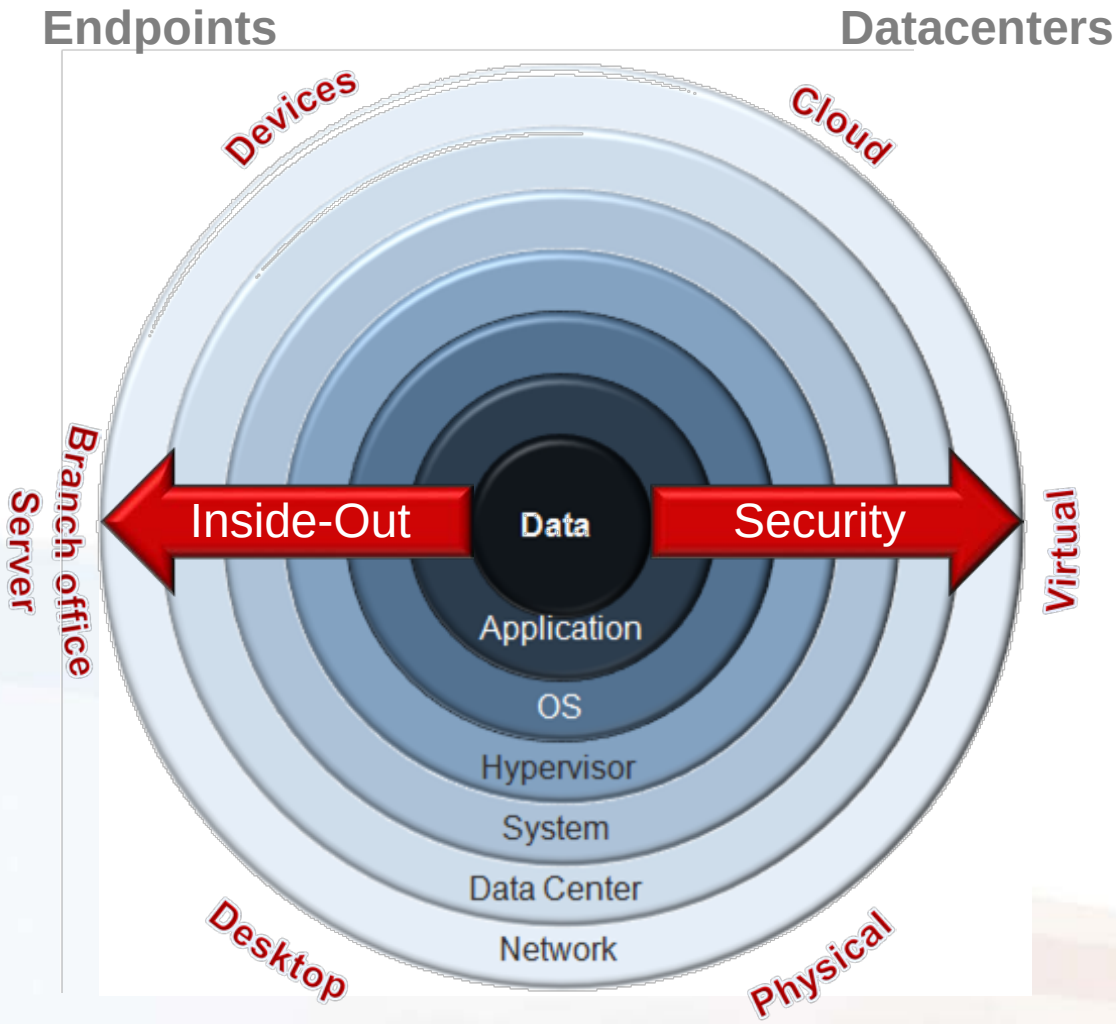
# Integrated Security Across Platforms
# Inside-out Security




- Self-Secured Workload
- Local Threat Intelligence
  - When-Timeline Aware
  - Who-Identity Aware
  - Where-Location Aware
  - What-Content Aware
- User-defined Access Policies
- Encryption

All network-connected data must be able to defend itself from attacks

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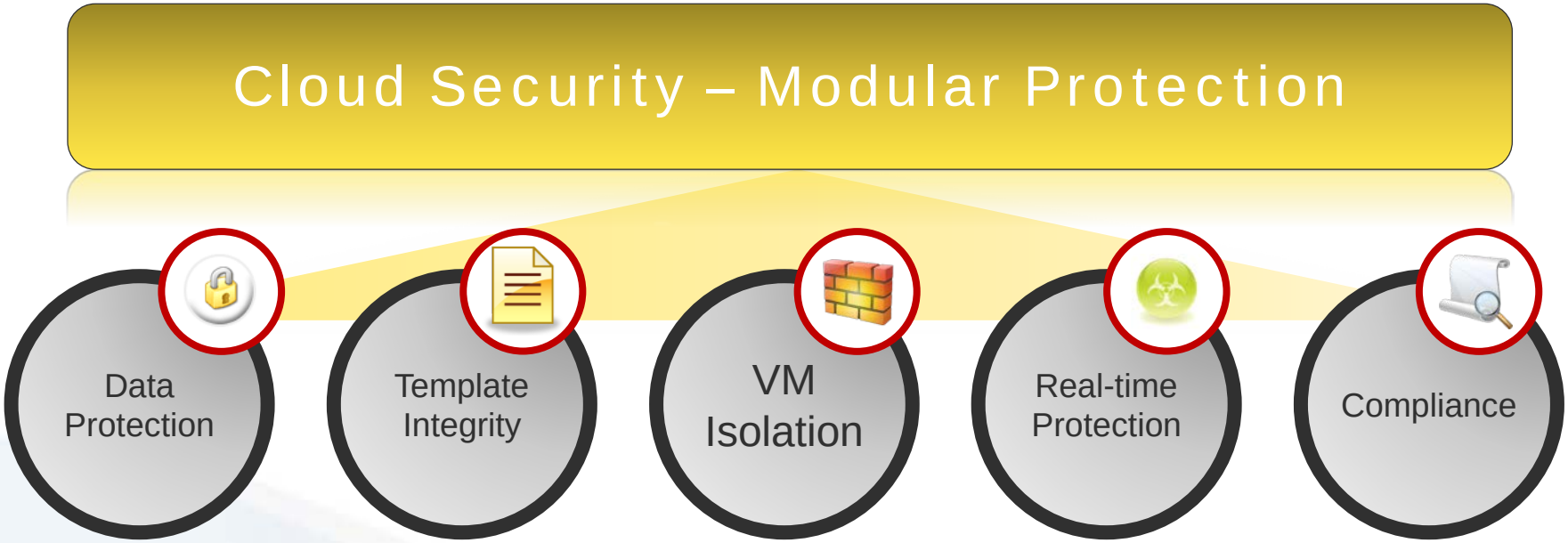
What is the Solution?

# Security that Travels with the VM



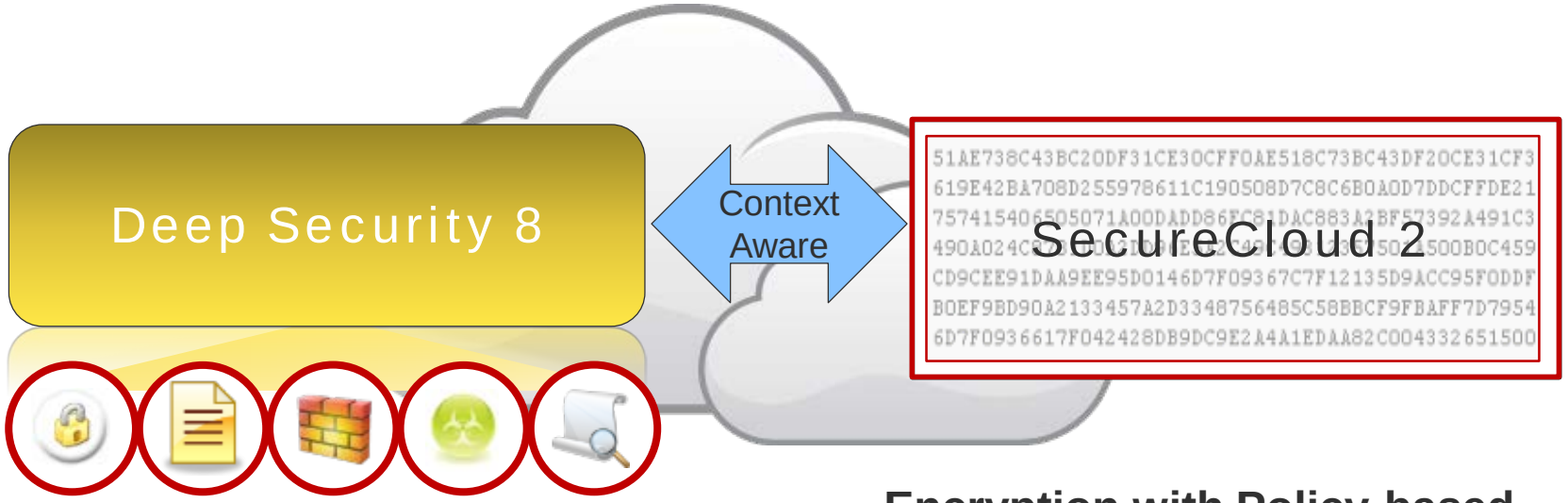

**Self-Defending VM Security in the Cloud**

- Agent on VM - can travel between cloud solutions
- One management portal for all modules
- SaaS security deployment option

amazon web services™ vmware®

# Total Cloud Protection

System, application and data security in the cloud




## Modular protection for servers and applications

- Self-Defending VM Security in the Cloud
- Agent on VM allows travel between cloud solutions
- One management portal for all modules

## Encryption with Policy-based Key Management

- Data is unreadable to unauthorized users
- Policy-based key management controls and automates key delivery
- Server validation authenticates servers requesting keys

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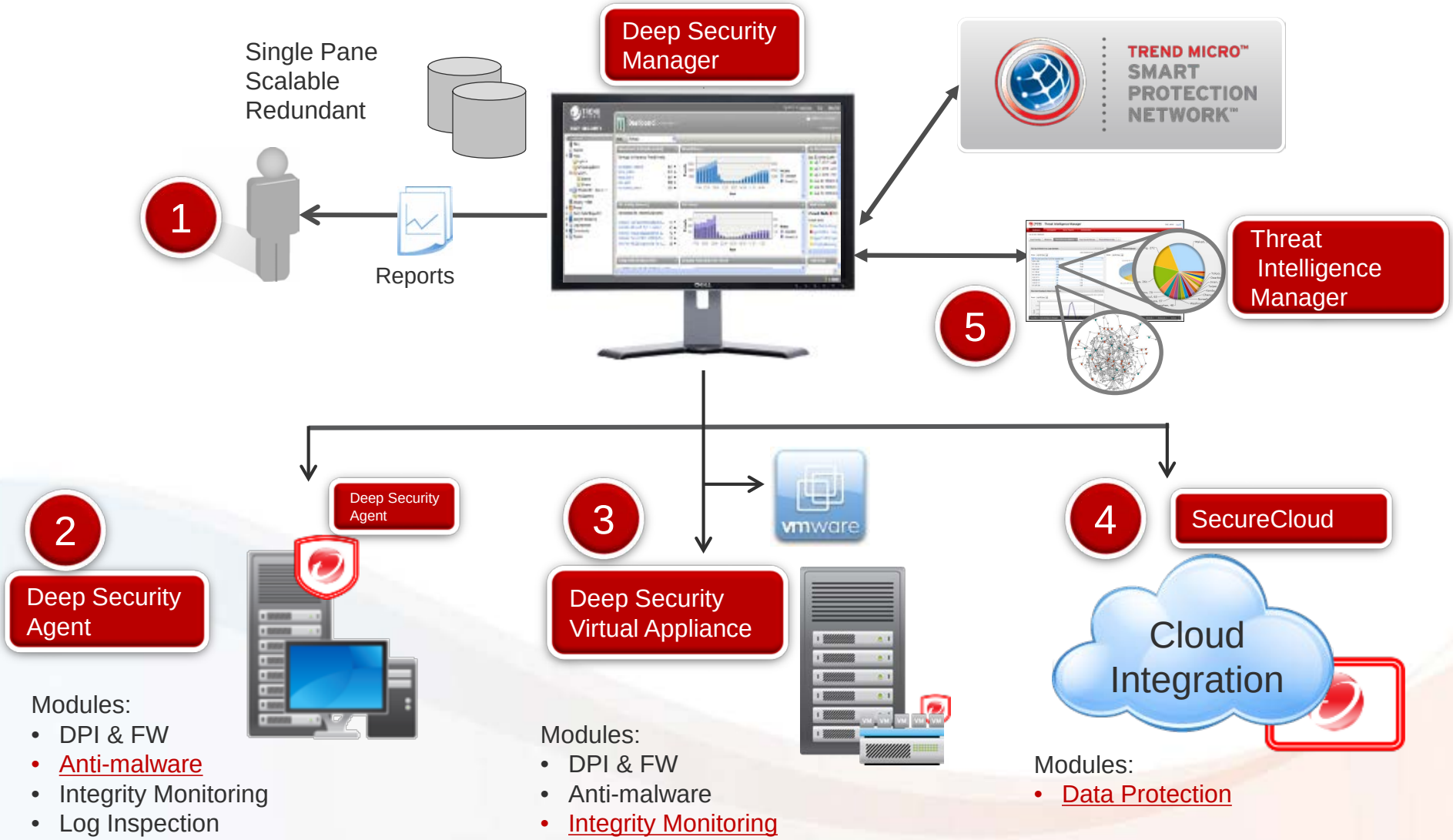
# Deep Security Architecture

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# APT in comparison

| | APT | The old stuff |
|---|---|---|
| Infiltration | • Combination of multiple attack methologies<br>• Long Preparation time.<br>• Social engineering on a few selected victims | • One or 2 attack methods<br>• Not selective<br>• Tries to infect many users |
| Infection/Attack | • Silent and hidden<br>• Low and slow approach<br>• Targeted | • Noisy and aggressive<br>• Infects multiple users<br>• Higher visibility |
| Data Leakage/Exfiltration | • Happens slow and over several weeks<br>• Only accesses certain data<br>• Coordinated human involvement – they know what they are looking for | • Generic information stealer – credit card info or login credentials<br>• Mindless and automated piece of code, not aware of the environment |

# Microsoft: Remote Desktop Protocol Vulnerability Should be Patched Immediately

By Brian Prince on March 13, 2012



**Microsoft** is urging organizations to apply the sole critical update in this month's Patch Tuesday release as soon as possible.

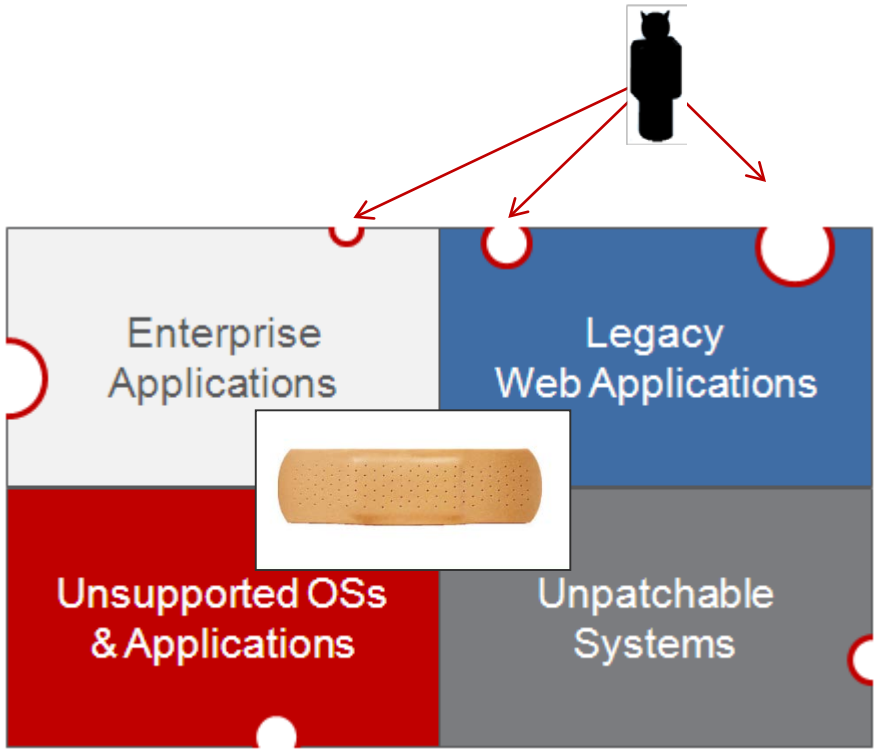
The critical bulletin – one of six security **bulletins** issued as part of today's release – addresses two vulnerabilities in the Remote Desktop Protocol (RDP).

"A little about MS12-020…this bulletin addresses one Critical-class issue and one Moderate-class issue in Remote Desktop Protocol (RDP)," **Angela Gunn**, security response communications manager for Microsoft's Trustworthy Computing Group, explained in a blog post. "Both issues were cooperatively disclosed to Microsoft and we know of no active exploitation in the wild. The Critical-class issue applies to a fairly specific subset of systems – those running RDP – and is less problematic for those systems with Network Level Authentication (NLA) enabled."

"That said, we strongly recommend that customers examine and prepare to apply this bulletin as soon as possible," she added. "The Critical-class issue could allow a would-be attacker to achieve remote code execution on a machine running RDP (a non-default configuration); if the machine does not have NLA enabled, the attacker would not require authentication for RCE access."

# Vulnerability Shielding solves the Patching Nightmare

Takes days to months until patches are available and can be tested & deployed




**Developers not available to fix vulnerabilities**

**Patches are no longer being developed**

**Can't be patched because of cost, regulations, SLA reasons**

- Enterprises spend a third of their time on patching
- But ¾ of enterprises say their patching is not effective

Source: InformationWeek, Analytics Report: 2010 Strategy Security Survey

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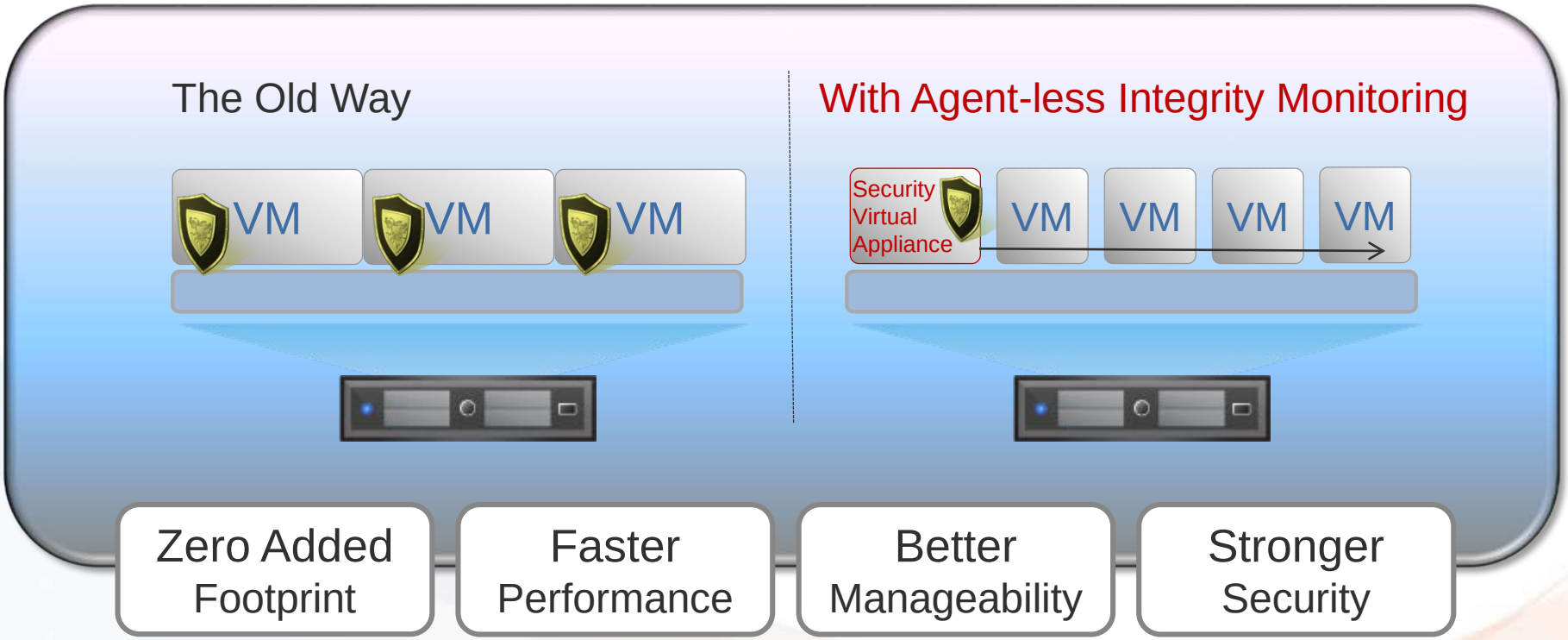
# Deep Security 8 Integrity Monitoring
# Agentless Integrity Monitoring




Zero Added Footprint

Faster Performance

Better Manageability

Stronger Security

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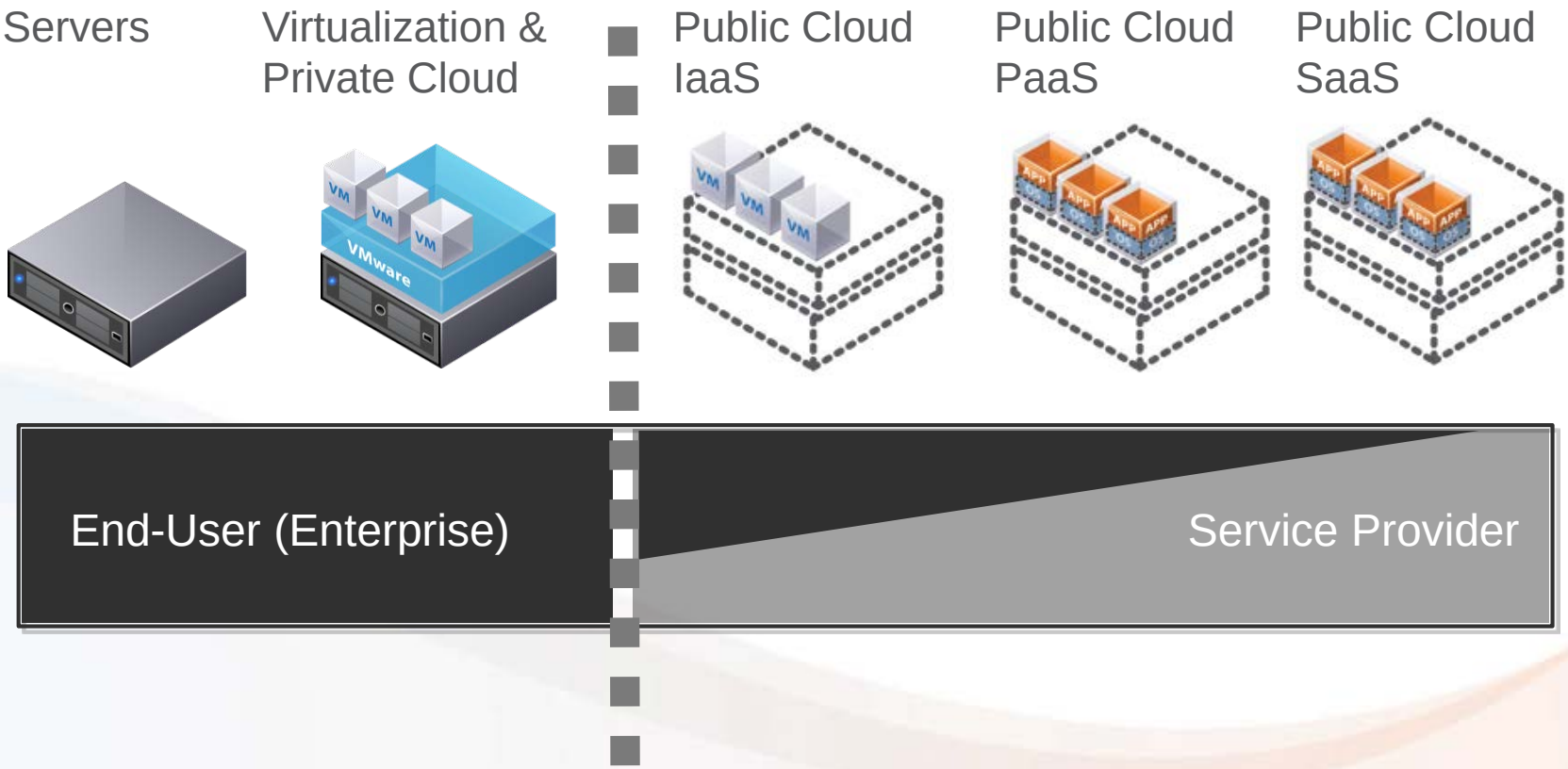
So now we could trust our own systems – but what about systems outside our control?
HackeD

# Who Has Control?

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# Amazon Web Services™ Customer Agreement

4.2 Other Security and Backup. You are responsible for properly configuring and using the Service Offerings and taking your own steps to maintain appropriate security, protection and backup of Your Content, which may include the use of encryption technology to protect Your Content from unauthorized access and routine archiving Your Content.
http://aws.amazon.com/agreement/#4 (30 March 2011)

The cloud customer has responsibility for security and needs to plan for protection.

# What is there to worry about?

## Use of encryption is rare:
- Who can see your information?

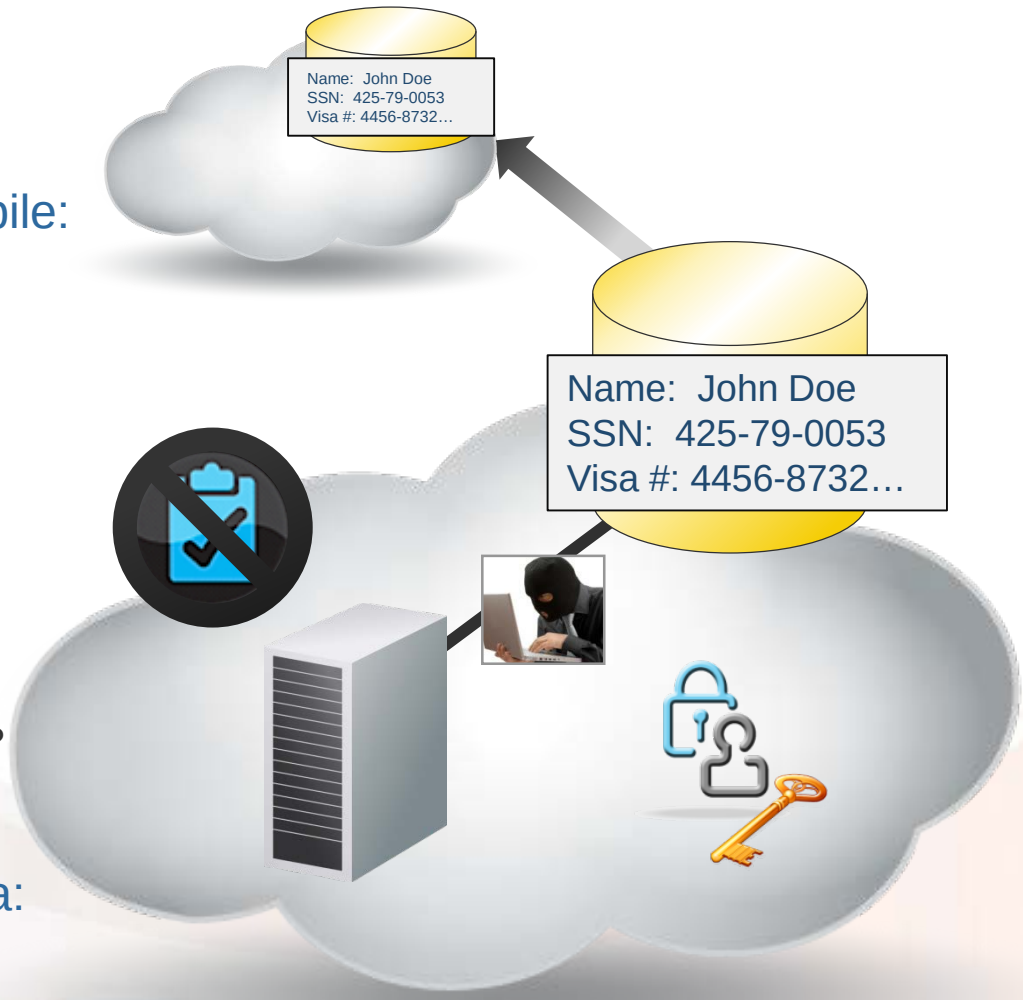
## Virtual volumes and servers are mobile:
- Your data is mobile — has it moved?

## Rogue servers might access data:
- Who is attaching to your volumes?

## Rich audit and alerting modules lacking:
- What happened when you weren't looking?

## Encryption keys remain with vendor:
- Are you locked into a single security solution? Who has access to your keys?

## Virtual volumes contain residual data:
- Are your storage devices recycled securely?

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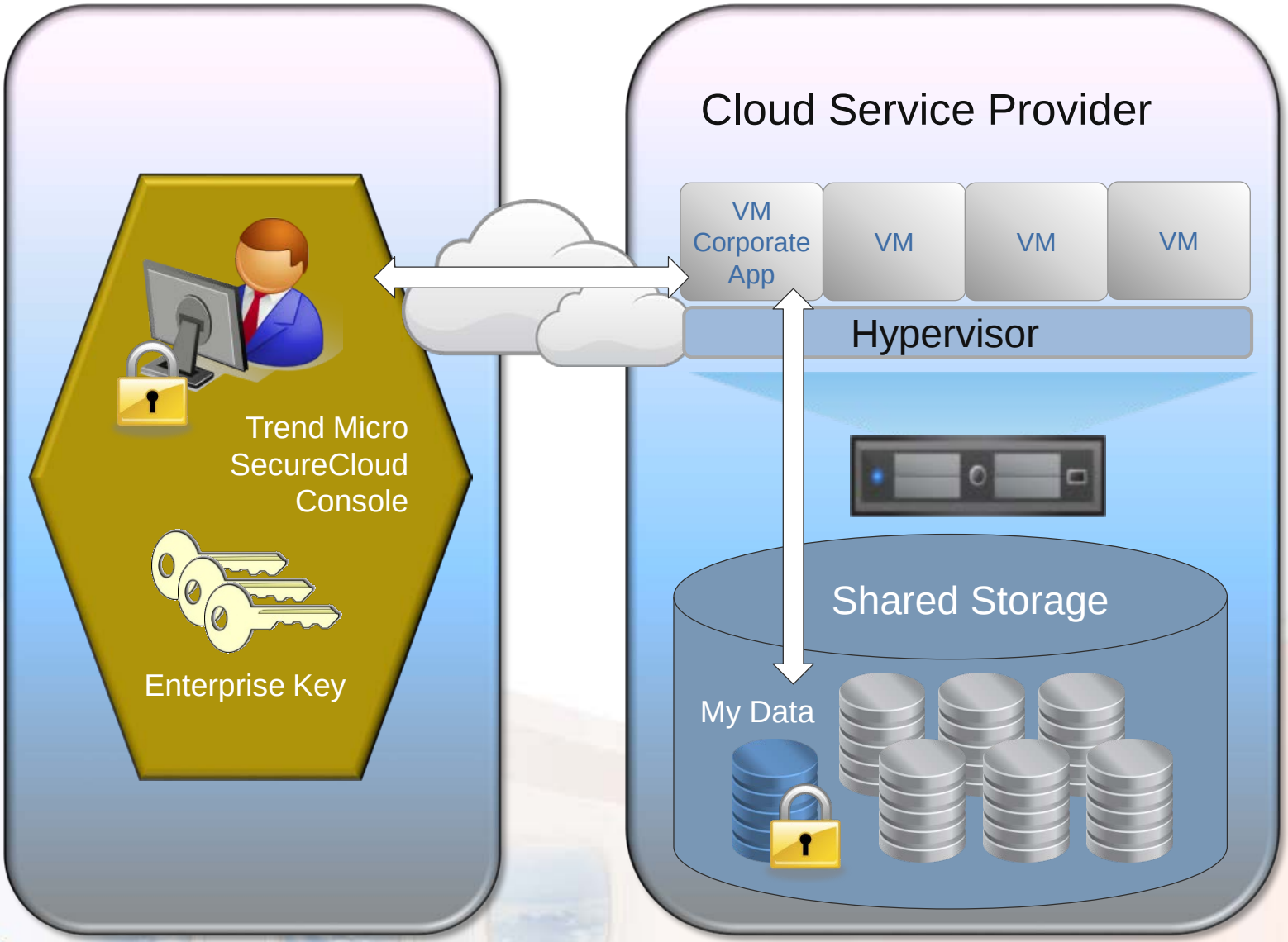
# What we offer: SecureCloud

- **Encrypts** data in public or private cloud environments
  - Military grade, FIPS 140-2 compliant encryption to 256-bits
- **Manages** encryption keys
  - Typically a very tedious, detailed and expensive process
  - Application upkeep offloaded to trusted partner
- **Authenticates** servers requesting access to data
  - Policy-based system gives wide range of factors on which key deployment decisions are made
  - Delivers keys securely over encrypted SSL channels
- **Audits**, alerts, and reports on key delivery activities
  - Multiple reports and alerting mechanisms available

# Trend Micro SecureCloud
# How It Works

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# Policy-based Key Management in the Cloud

| ***Identity*** "Is it mine?" | ***Integrity*** "Is it okay?" |
| --- | --- |
| • Embedded keys<br>• Location<br>• Start-up time<br>• etc | • Firewall<br>• Antimalware<br>• Self integrity check<br>• etc |

Auto or Manual rules based key approval

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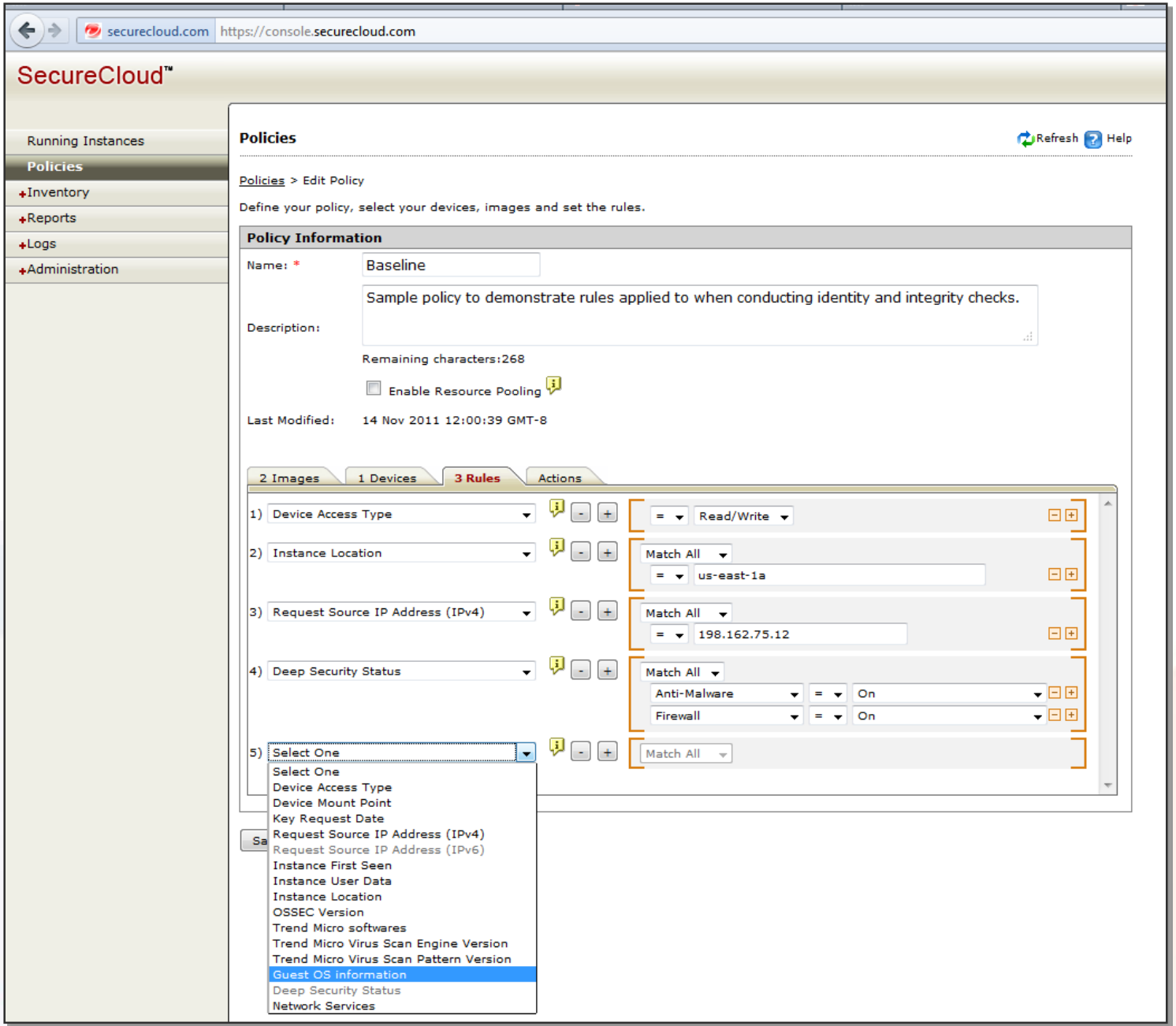
# What Does a Policy Look Like?

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