

# XenServer, Hyper-V, and vSphere for the Agnostic Administrator

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Clarification –

Ag-nos-tic – *noun, adj*

- a person who holds the view that any ultimate reality (as God) is unknown and probably unknowable; *broadly* : one who is not committed to believing in either the existence or the nonexistence of God or a god
- a person who is unwilling to commit to an opinion about something <political *agnostics*>
- Noncommittal, undogmatic

# Talking Points

- Questions for you
- Drivers for Running Multiple Hypervisors
- Speculations & Basics
- Challenges for the vAdmin
- Centralized Management
- What's an vAdmin To Do?
- Time left for some debate?

# Conversations We Won't Have, Sorta

- 1) A debate over which hypervisor is better or worse than the other
- 2) A Deep Dive into the internals of the hypervisors
- 3) \*A debate on whether or not it's a good or bad idea to support multiple hypervisors in the DC

# Questions for You

- Do you know what a hypervisor is? *Google “Brian Ehlert”*
- Can anyone name all the Type1 Hypervisors?
- Do you have a single or multiple hypervisors in your datacenter now? Do you even know?
- How many admin’s? How many non-admin’s?
- Who administrates what?
- Do you understand the differences?
- Are you bias? Or paranoid? Or both?
- Does IT have any role in decisions by the business? Who owns the technology?



## **Multiple Hypervisors in Your DC**

Seriously how the hell do you manage that?



# Drivers For Multiple Hypervisors

- Mergers & acquisitions
- Hypervisor Vendor relationships, pressure, & deals
- Licensing
- Application vendor hypervisor support, pressure, and risk
- I.T. as a Business, I.T. as a Service
- Ambiguous “cloud” services



Have a guy like this in the business?





Who gets schmoozed by a guy like this?

Or even worse, a guy that looks like Brian in a bad suit?



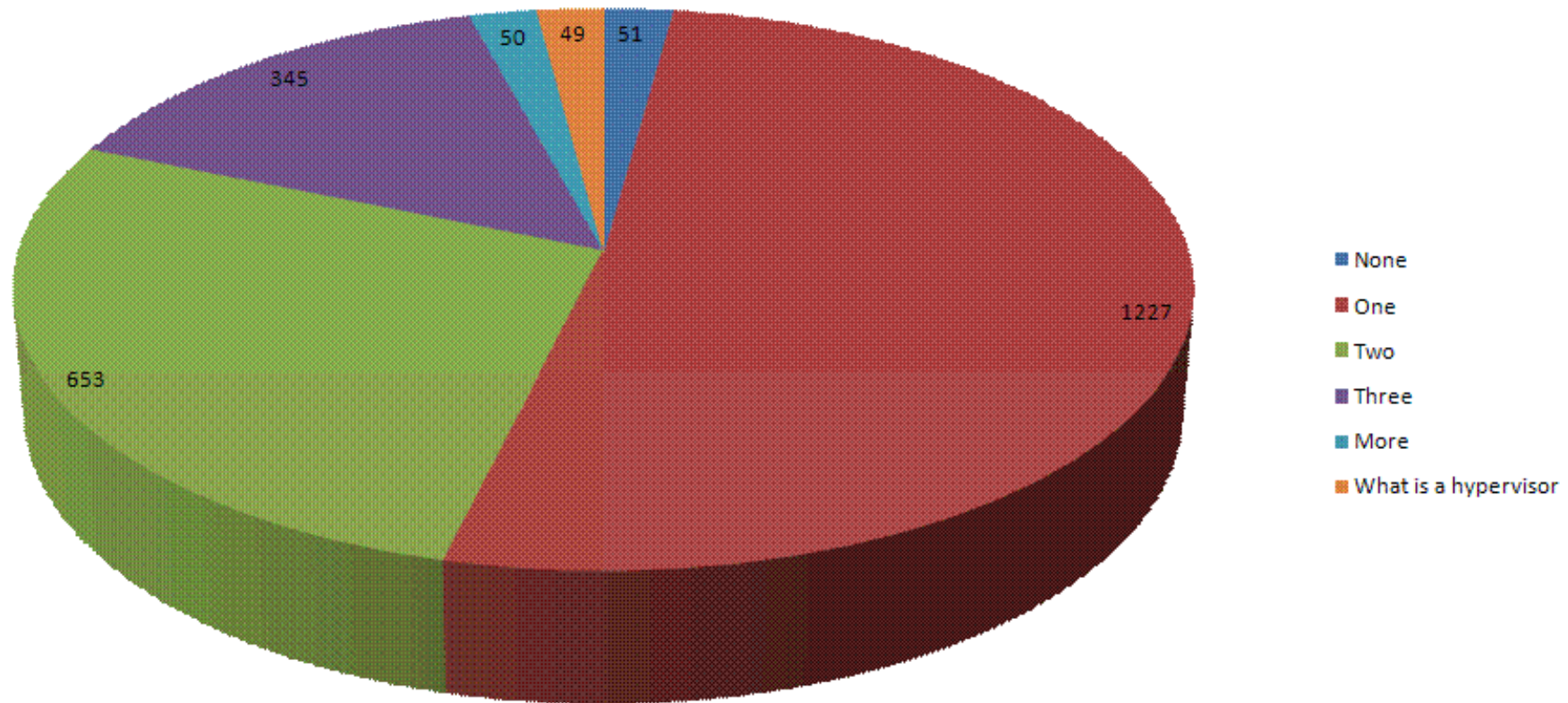
# Industry Stats & Speculations

- IDC – “27% of x86 virtualization users today intend to use multiple virtualization platforms going forward.” – April 2011
- Nemertes Research – *“Over 35% of organizations are running multiple hypervisors in the same data center, underscoring the need for multi-hypervisor workflow and transportable software stacks.”*

2010/11 Communications and

Computing Benchmark Report

How many Hypervisors do you use in your organisation? (Xen, ESX, Hyper-v, OVM, KVM)



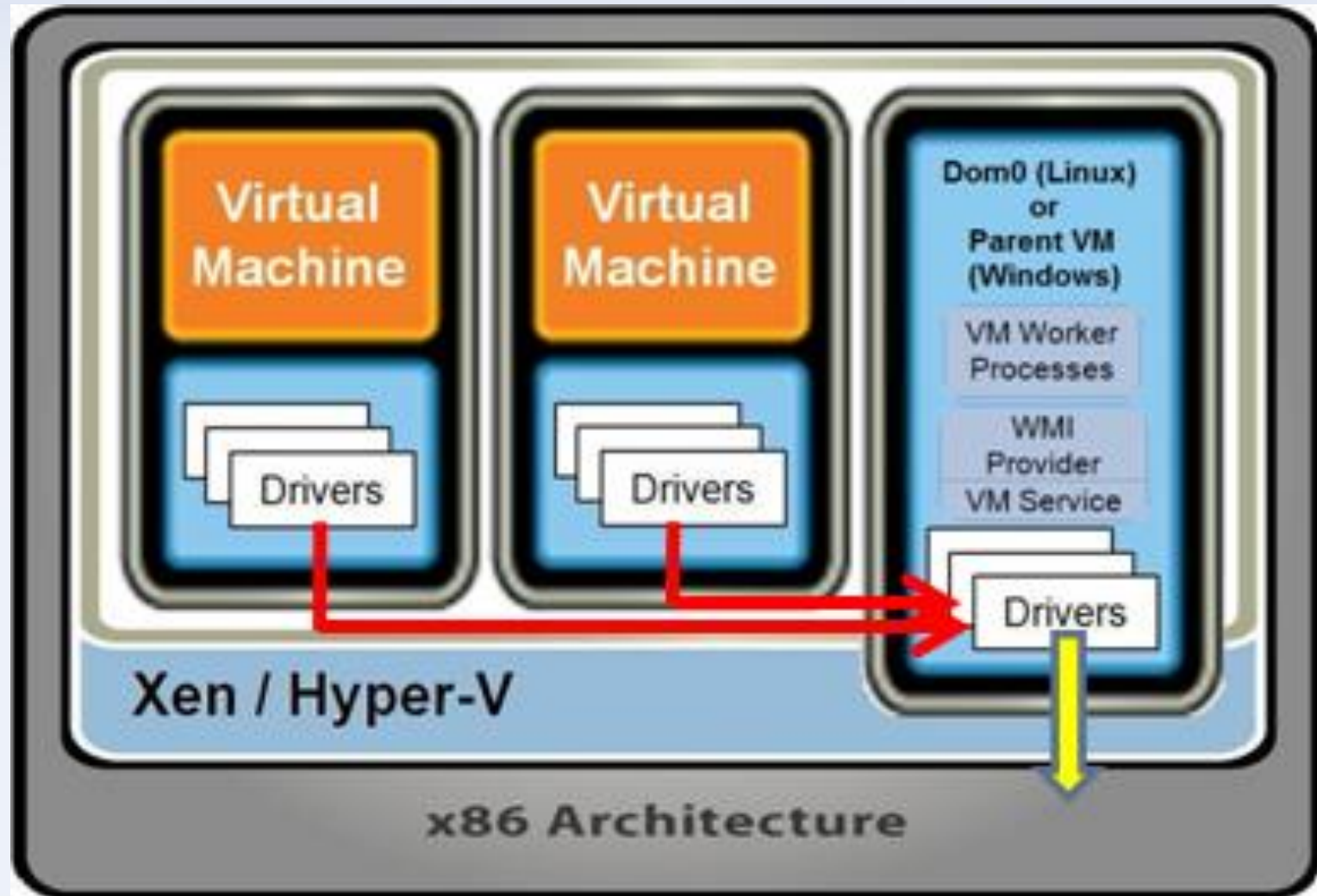
*Scott O'Donnell – The Hot Aisle Blog October 2009 Survey*



# What The “Experts” Say

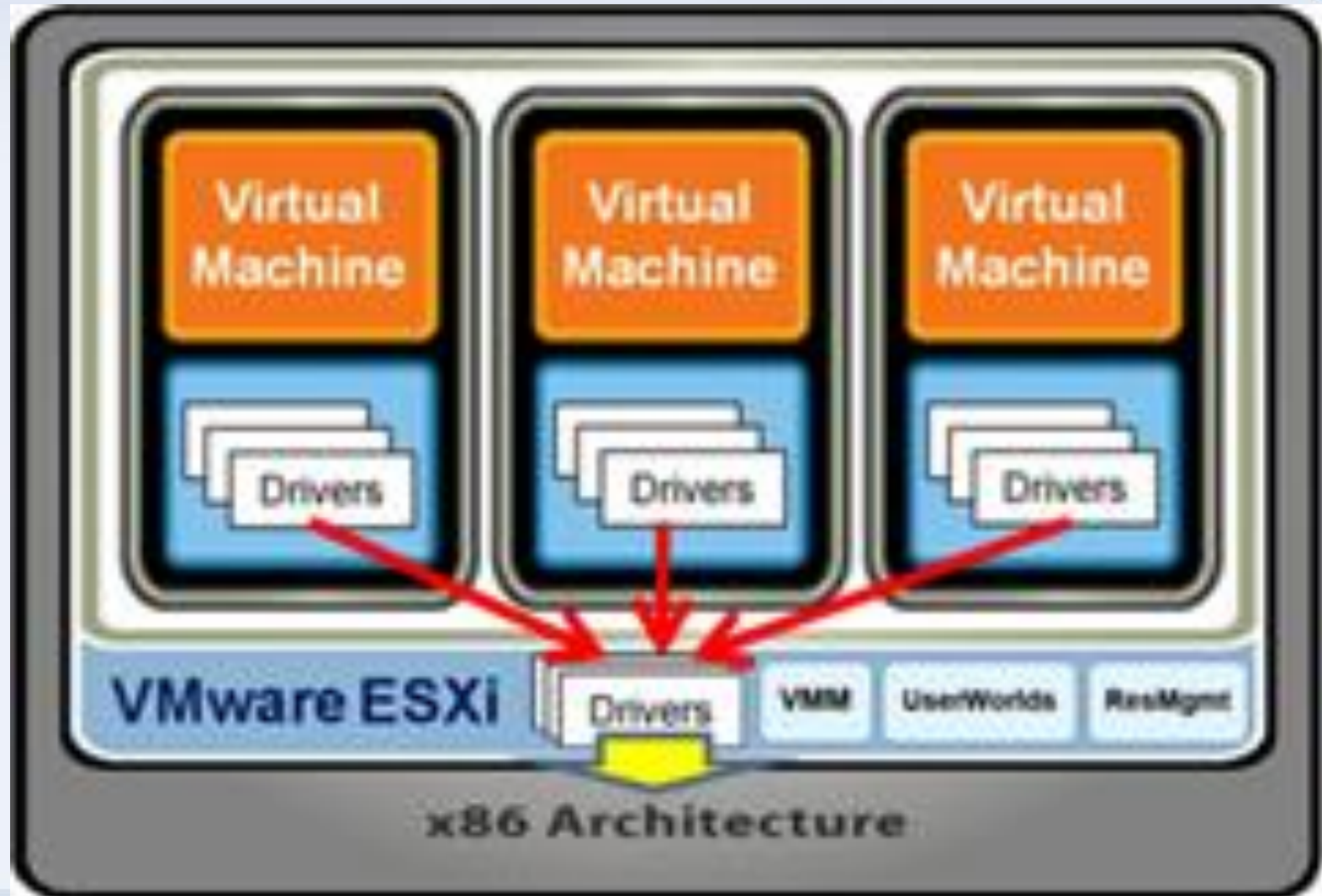
- “Expert” Tweet – *“I completely disagree with running multiple hypervisors in the DC. It makes no sense.”* (name withheld, 2011)
- Steve Kaplan’s Blog – *“IT is at a data center crossroads. Virtualization is going to happen; organizations can choose to either deploy it strategically or tactically. Strategically virtualizing the data center transforms it into a private cloud with automated self-provisioning including metering, monitoring and chargeback. Tactically virtualizing servers incurs unnecessary inefficiencies and lost opportunities. Embracing multiple hypervisors is emblematic of the tactical approach.”* (2010)
- Christopher Hoff – *“No one Ring-0 to rule them all”.* (2007)

# XenServer & Hyper-V





# ESXi





What about the vAdmin?

# Challenges for the vAdmin

- Terminology
- Centralized Management (more next)
- Storage
- Networking
- Dynamic allocation – RAM, vCPU
- Technical limitations & capacities
- Conversions & Migrations – “?Motion”
- High availability & DR
- 3<sup>rd</sup> party solutions capatability
- Vendor & Internal Support
- Platforms – Servers and VDI, oh my!



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# Centralized Management

- Different GUI's for different folks
- CLI
- PowerShell – Everybody's doing it - now!
- Heterogeneous management solutions, well at least they are a start :-/
  - Anyone remember BlueBear?
  - vCenter XVP fling, but Paul says no?
  - Hmmm, what happened to Essentials?
  - PowerShell GUI's
  - SCVMM 2012
  - Other “hybrid” & deploy solutions





Microsoft®

System Center

Virtual Machine Manager 2012



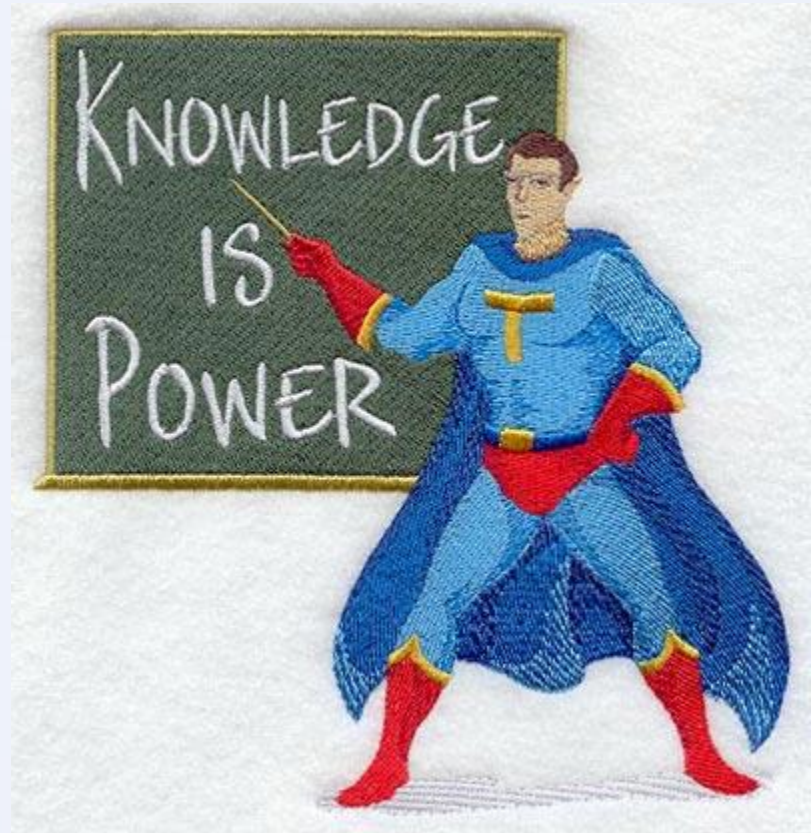
# SCVMM 2012

- Will support ESX, ESXi, XenServer, & Hyper-V
- Basic admin tasks for ESX(i), more for Xen
- Does not replace vCenter (it uses it), but could it replace XenCenter? (Bypasses it altogether)
- PowerShell and API's in use
- Cannot replace VUM & no plans to do so
- Cannot create FT VM's or vApps like ESX(i)
- Cannot create ESX(i) or Xen hosts
- Cannot do WLB for Xen
- Very basic reporting, alerting – use 3<sup>rd</sup> party instead

# What's a vAdmin To Do?

- Overcome, adapt, improvise (Oorah!)
- Pick your fights
- Learn PowerShell!
- Learn about the hypervisors, what they can & cannot do, how to configure & troubleshoot
- Read the best practices & capacity info
- Make your case & mark your territory, if you can.
- Learn the tools, try before you buy
- Deploy and play around, cop a feel
- Talk to some “smart” people, buy them beer
- Attend Briforum 2012!

# And What Could This Accomplish?



Thanks!  
Questions?