



Virtual Appliances:

*A more efficient means of creating, delivering,
and maintaining software solutions*

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What is a virtual appliance?



••• Virtual Infrastructure •••

Hardware

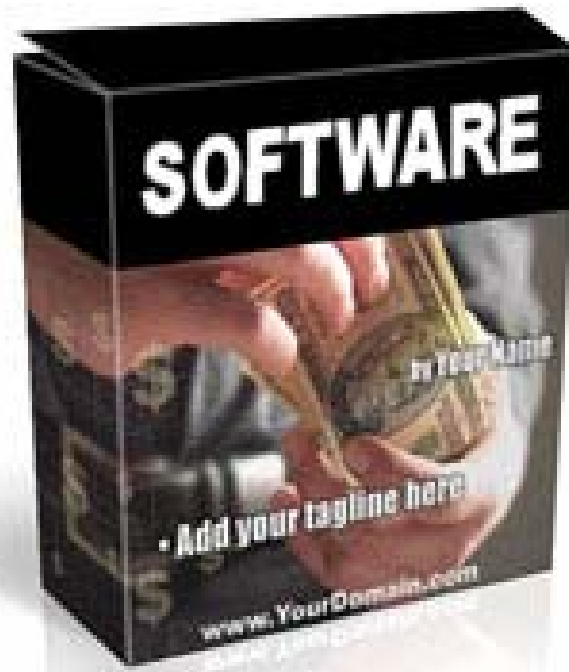
- A virtual appliance is a preinstalled and preconfigured application packaged along with an OS in a virtual machine
- Virtual appliances represent an evolutionary step in the distribution of software solutions
- Virtual appliances take the positive attributes of both the traditional software distribution model and the hardware appliance distribution model and combines them without most of the drawbacks of these older models

Traditional Software-Based Solutions

- Works with standard corporate x86 hardware
- Works with most standard corporate operating systems (usually)
- Contains just the bits required to solve a specific problem
- Can be delivered in a downloadable form



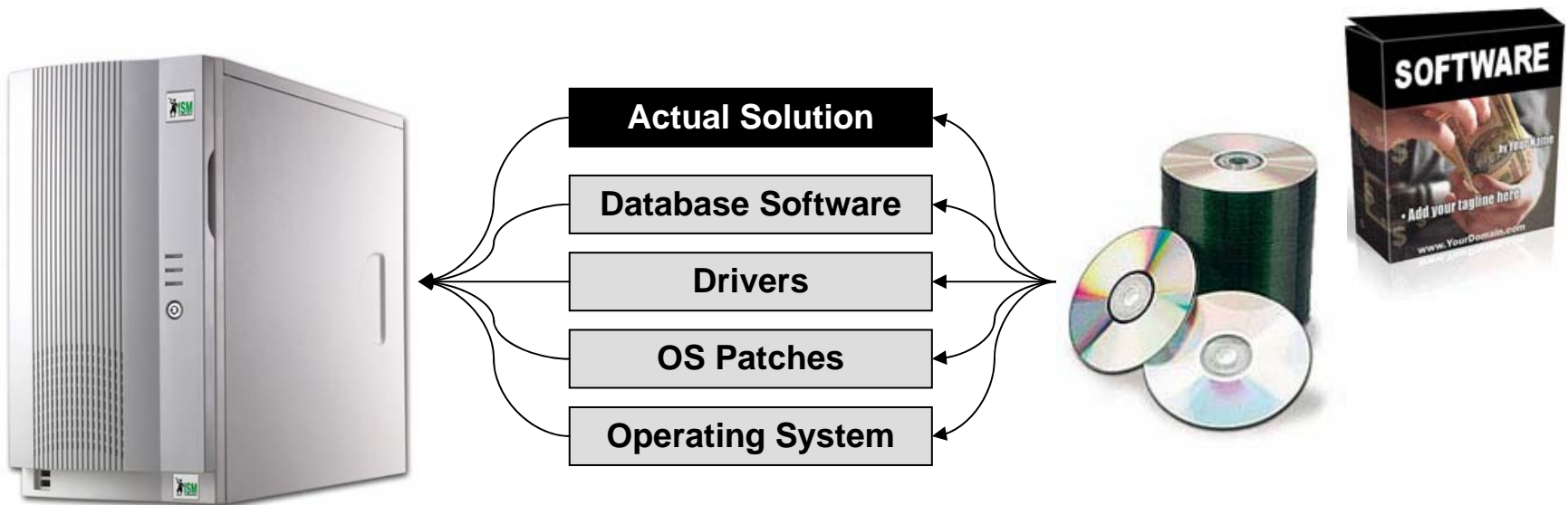
Traditional Software-Based Solutions



What's hiding behind this box?

Why software can be painful

- Assembly required!
- User has to acquire all of the required components of one of the “supported” stacks
- User has to install, configure and maintain everything
- Manually intensive process
- Error prone
- Difficult for solution provider to replicate and support
- Fault tolerance (HA/DR) not always there, implemented in inconsistent fashion (requiring run books for each process), and/or an expensive add-on



Hardware Appliance-Based Solutions

- Comes “pre-assembled” with all of the required components for the solution (hardware, OS, application bits)
- Simple plug-and-play installation
- Consistent stack makes support easier for vendor
- Underlying operating system can be “hidden” from user



Hardware Appliance-Based Solutions



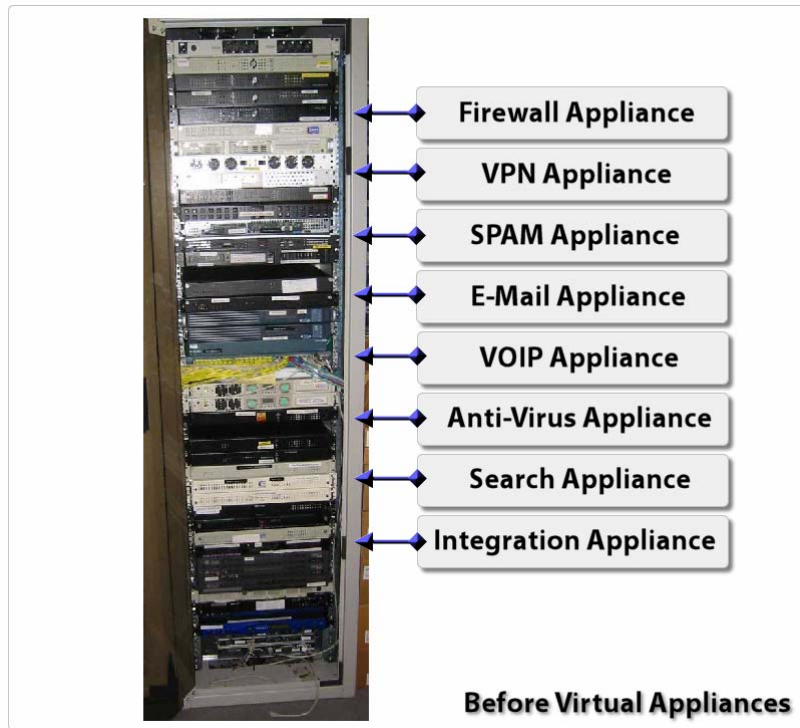
What's hiding behind this box?

Why hardware appliances can be painful

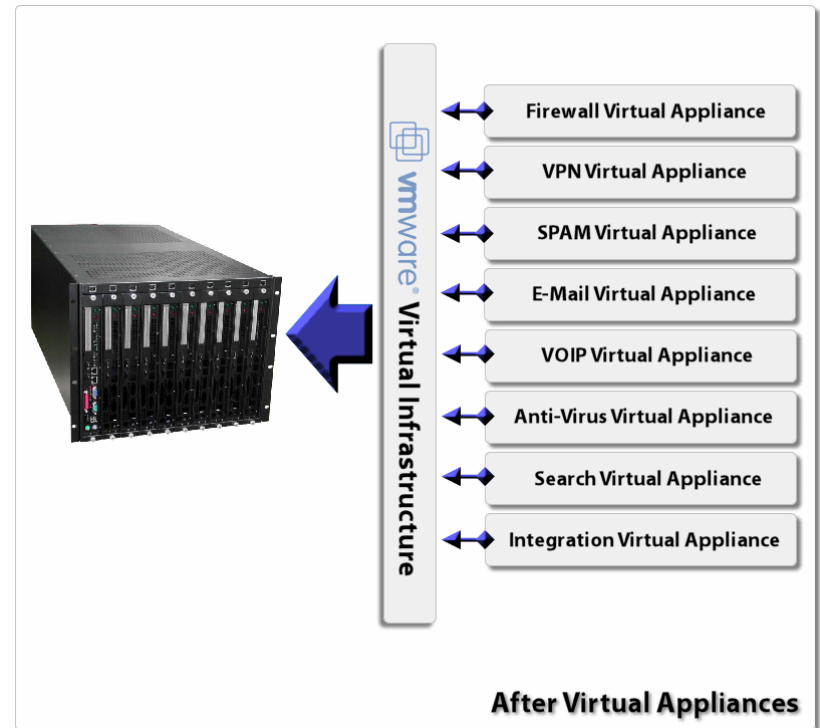


- Proliferation of non-standard hardware
- Hardware support provided by non-standard vendor (possibly multiple vendors: one for hardware, one for overall solution)
- Operations team has to learn how to support both the hardware and the solution
- Hardware used for a single purpose may be under utilized
- Hardware takes up rack-space, consumes additional power, and requires additional HVAC

Before / After Virtual Appliances



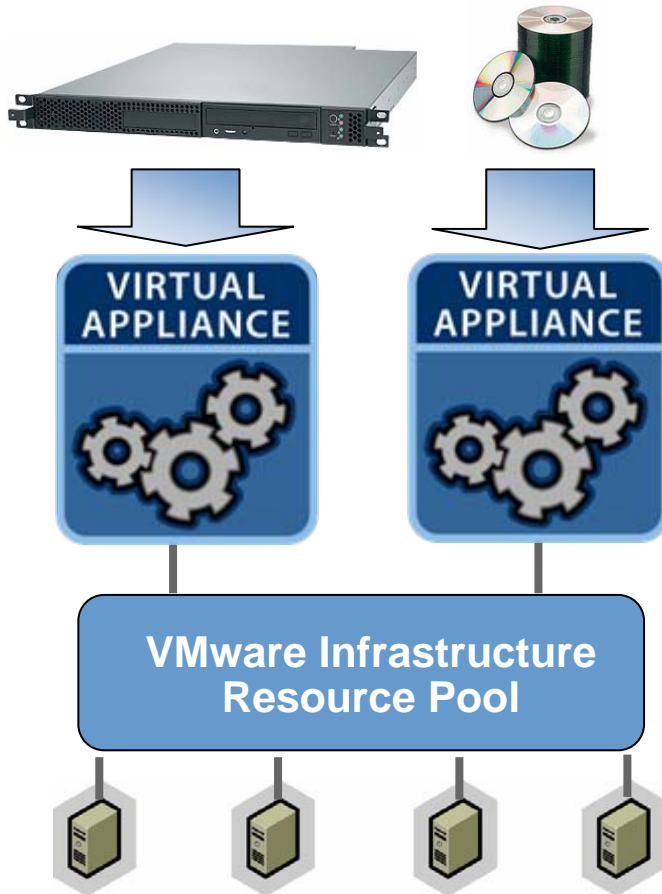
- One-to-one ratio of function to device
- Support from multiple sources
- Inefficient utilization of hardware



- Pools of computing resources
- Standardize on preferred hardware
- Simplify operational support
- Decrease footprint of each solution
- Hardware support from preferred vendor
- Efficient utilization of hardware

Virtual Appliance Benefits

Virtual Appliances deployed on VMware Infrastructure simplify application management



By deploying virtual appliances on VMware Infrastructure, customers instantaneously gain:

- High availability with VMware HA
- Automated load balancing with VMware DRS
- Agent-less backup with VMware Consolidated Backup
- Zero-downtime maintenance with VMotion
- A complete solution with an optimized OS specific to the solution and maintained by the solution provider

Improving Evaluations

- Virtual appliances provide a simple means to evaluate complete, pre-configured solutions.
 - Zero install... Download and go!
 - No hardware or shipment costs required with physical appliances
 - Easy to support like hardware appliances but downloadable like software
 - Already configured with optimal OS and setup according to best practices (no user error during install)
 - Runs on royalty-free VMware products like VMware Player and VMware Server
- Evaluation virtual appliances can be cloned and easily used for development, test, and production cases.
 - Simplify the sales and distribution cycle.
 - Download once, use many times (purchase keys to enable use on additional hardware or for additional users)

Improving Production Rollouts

- VMware Certified Virtual Appliances are built according to best practices to ensure consistent customer experience and easy production rollout.
 - Certified to work on VMware Infrastructure for production use
- Virtual appliances can take advantage of VMware Infrastructure
 - Simplify deployment, maintenance and management for customers.
 - Provide consistent services for high availability, load balancing, and backup

Software Distribution via Virtual Appliances

Changing roles and processes

Appliances makers (ISV's, or, VAV's)

- Own the entire virtual machine stack
- Tailor Operating System to the needs of their solution
- Lock down services and access to minimums
- Maintain Operating System

End-users/IT

- Download and go
- No control over OS
- May have to put policies/procedures in place for accepting patches from vendor (varies from development to production)
- The big question: How transparent should an appliance be?

The VMware Virtual Appliance Marketplace







- Downloadable, production-quality appliances now available through the new VMware Virtual Appliance Marketplace
 - Certified
 - Production Ready and Supported
 - No Install
 - Instant On
- VMware Certified Virtual Appliance logo program used to “brand” production ready virtual appliances
 - Certified virtual appliances tested against documented best practices
 - Provide safe computing environments
 - Completely documented
 - Optimized for VMware Infrastructure
 - Supported in production environments

Introducing the Virtual Appliance Marketplace



<http://vam.vmware.com>

Virtual Appliance Ecosystem

<p>Operating Systems</p>	
<p>Security Applications</p>	
<p>Relational Databases</p>	
<p>Infrastructure and Development</p>	
<p>Collaboration Applications</p>	
<p>Miscellaneous</p>	

- 430+ available appliances
- Numerous virtual appliances being used in production

VMware Virtual Appliance Contact Information

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