

SuSE Linux

A Few Slides, a Lot of Demo

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Novell.[®]

Agenda

- Open Source Involvement
- SuSE Enterprise 10
 - Whats new in 10
 - XEN
 - AppArmor
- SuSE Enterprise 10 Desktop

Open Source Involvement

Novell's Open Source Participation

Apache

AppArmor

BetterDesktop

Eclipse

Evolution

GNOME

Hula

iFolder

KDE

Linux Kernel

Mono

Mozilla

MySQL

**Open Invention
Network**

OpenLDAP

OpenOffice.org

OpenSSL

openSuSE

Openswan

PHP

Perl

PostgreSQL

Reiser

rsync

Tomcat

XEN

YaST

...





openSUSE

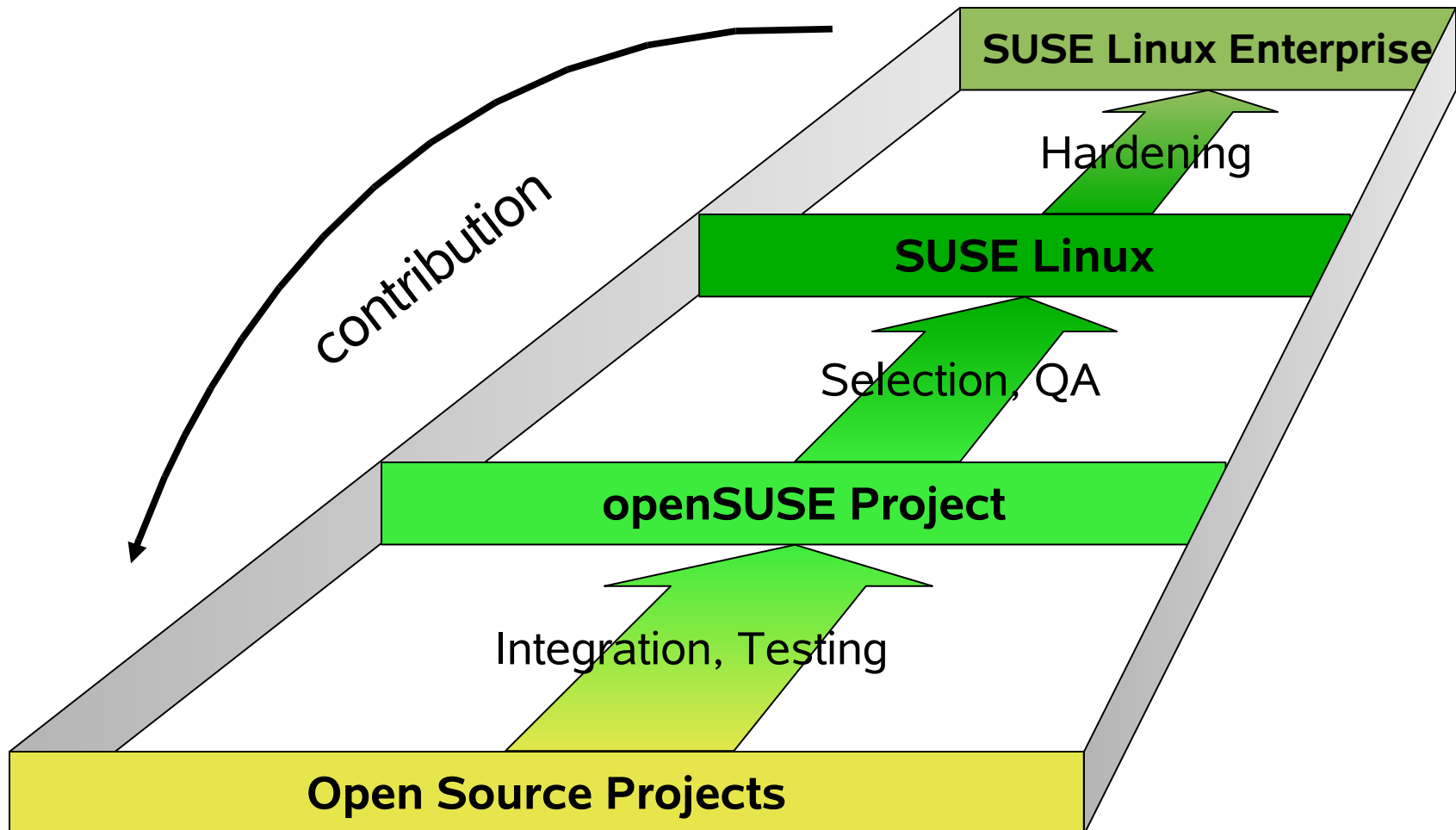


- 1 | 7,000 verified installations every day (every 12 seconds); 40K registered members at openSUSE.org
- 2 | Betterdesktop usability work; AppArmor now in open source; numerous Distro awards for excellence in quality and usability
- 3 | Over 1000 community reported bugs; openSUSE wiki has grown more than 15x since launch Build Service launched this year

SuSE Enterprise 10

SuSE Linux

“Four distributions – one common codebase”



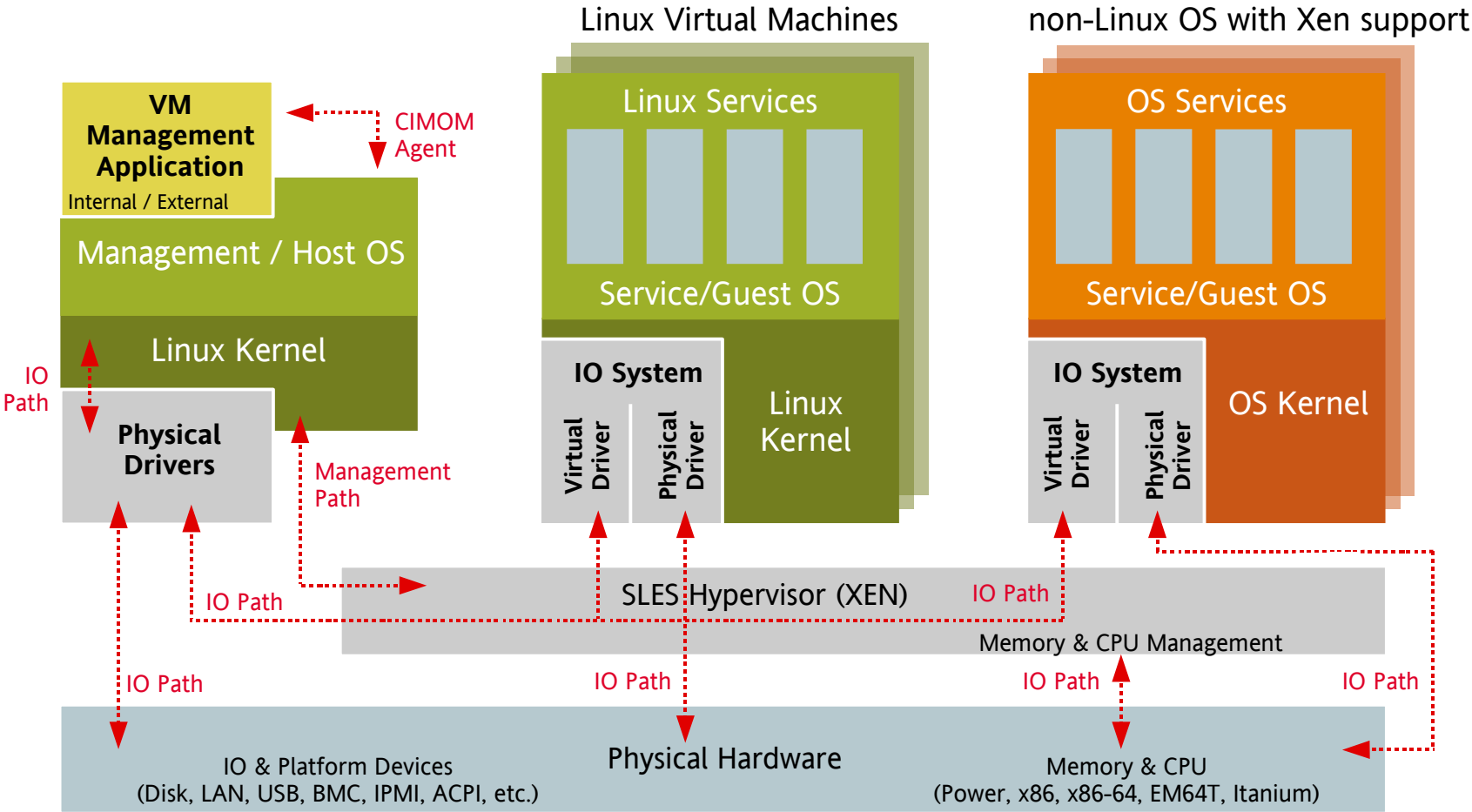
SuSE Linux Enterprise Server 10 Features

- Enhanced Data Center Deployment and Management
 - **Xen 3 virtualization**
 - Support for for multi-core processors (Intel Vanderpool AMD Pacifica)
 - **Mono (.NET on Linux) support for .NET applications and ASP.NET pages**
 - Advanced management, instrumentation, and monitoring tools
- Expanded Hardware Support
 - Support for latest hardware: storage, networking, platform management, graphics, audio, Bluetooth and USB devices
 - Enhanced storage capabilities: Storage foundation for HA-clusters integrating Oracle Cluster File System (OCFS), EVMS and Heartbeat; NFS v4; iSCSI
- Unmatched Security
 - Only Linux server with built-in application security (**AppArmor**)

Xen = DataCenter Linux

- Hypervisor Virtualization
 - very little overhead
- Paravirtualized guests
 - Guest OS modified for greater performance
 - Linux on Linux Virtualization
- Unmodified guest
 - Requires Intel VT or AMD Opteron Virtual processor
 - Performant system
- Failover ability
 - XEN is ideal for transactional workloads
 - Failover of a node is fast, clustered file systems allow for dual path
- Auto provisioning
 - Nodes can be provisioned for test or production quickly
 - > nodes can easily be moved in and out of production

Xen Architecture



Comprehensive Security Capabilities

- Built-in application security
- Integrated VPN, firewall and anti-virus protection
- Certificate management
- Proactive security features
- Easiest security configuration and management

Fact:

SuSE Linux Enterprise offers the most comprehensive security capabilities for Linux

Result:

Ensure data integrity while reducing emergency patching across Linux systems



Novell AppArmor



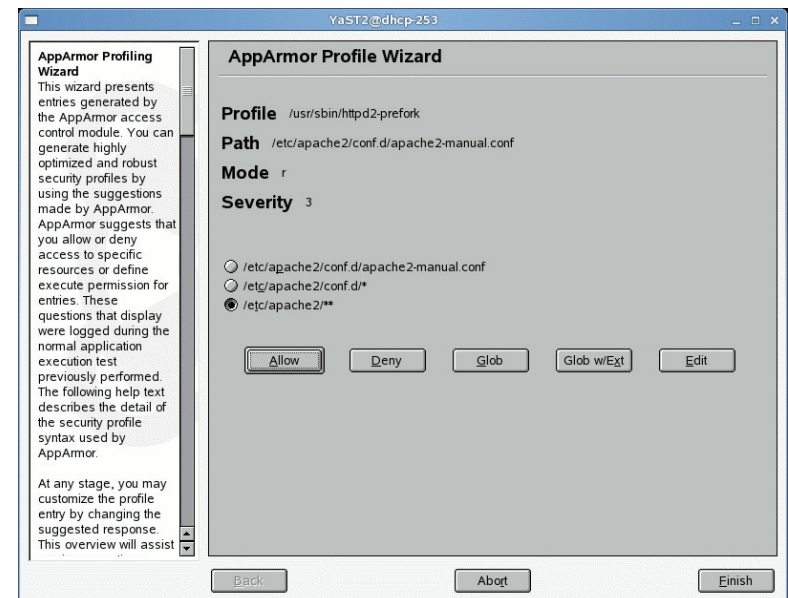
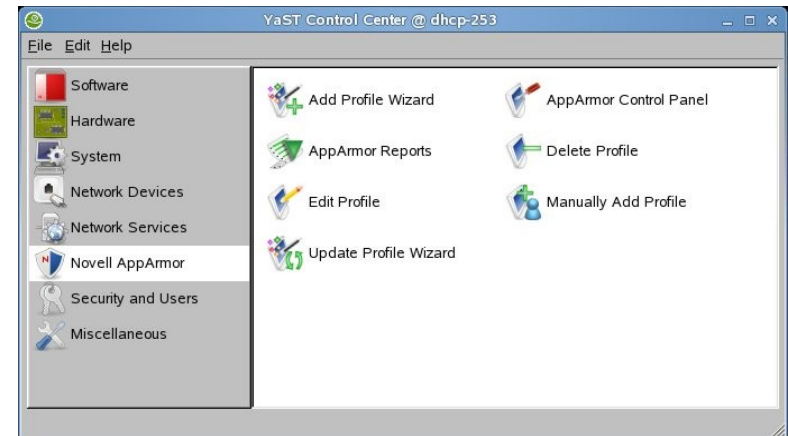
Novell AppArmor is an application security tool that helps protect Linux systems from unknown security flaws

- Designed for ease of use
- Deploy security policy in hours, not days
- Confine applications to do *only* what they are supposed to do – and nothing else

AppArmor Linux Application Security

Novell AppArmor

- Creates firewall around any Linux program (custom, open source, third party)
- Prevents the exploitation of unknown or undiscovered application vulnerabilities
- Easy to use GUI tools with static analysis and learning-based profile development
- Default policies included
- Create custom policy in hours, not days



Use Cases Beyond Application Security

- Fixed function
 - Limit the use cases for which the system can be used
 - Example: Public Web Terminals (e.g. prevent downloads)
- Role-based access control
 - Implement different administrator roles through restricted shells
 - Examples:
 - > Auditor with access confined to logfile reading
 - > Account administrator who can only add and delete users
 - Implementation:
 - > Create a special restricted shell logbash as hard link of bash
 - > Make this the login shell for the restricted administrator account “logadmin”
 - > Change the UID of “logadmin” to 0 so he gets root privileges
 - > Generate AppArmor profile for logbash
 - Better than sudo:
 - > AppArmor can control what files can be affected. If you grant root access to rm via sudo, any file can be removed

eWeek Blogs – May 14, 2006

Wield the Shield: How Trustworthy Is Your OS?

“AppArmor hangs its hat on ease of use ... when dealing with an application for which there's no existing policy or profile, it's no contest—AppArmor makes policy creation much simpler than SELinux.”

— Jason Brooks, 14 May 2006,
Network Computing

<http://www.eweek.com/article2/0,1895,1961949,00.asp>









SuSE Enterprise Desktop

SUSE Linux Enterprise Desktop 10 Features

- New Levels of End User Productivity
 - Powerful desktop productivity tools: E-mail, desktop search, Firefox Web browser, Instant messaging
 - **OpenOffice.org 2.0 office suite and Visual Basic macro conversion**
 - Easy-to-learn desktop environment with advanced animations and rendering
- Seamless Integration with Enterprise Systems
 - Enhanced hardware support for USB and Bluetooth devices (**like iPods!!!**) and network printers
 - Seamless connectivity to mixed networks, including Novell eDirectory and Active Directory
- Flexible Deployment Options
 - Thin and thick-client deployment
 - Easy deployment and desktop lock-down

SUSE Linux Enterprise Desktop

Powerful Desktop Applications

Office Suite:	OpenOffice.org 2.0	
Collaboration Tools:	Evolution™	
Personal Information Management:	Beagle™	
Desktop Lock-down with Application Security	AppArmor	
Multi-media Player:	Banshee	
Photo Management:	f-spot	
Note Taking Application:	Tomboy	
Web Browser	Mozilla Firefox	

SUSE Linux Enterprise Desktop Major Areas of Investment

- Exciting New Desktop and Tools
 - Usability with improved Menus
 - Beagle, f-spot, Banshee, Tomboy
- OpenOffice.org 2.0+ Novell Edition
 - Improved Format Interoperability
 - VB Macros Support
 - Performance Improvements
- Deployment and Management
 - Thin Client Including Diskless
 - Central Management & Deployment
 - Desktop Lockdown
- New Hardware Support
 - iPod, Cameras, USB Storage
 - IPMI and Power Management
 - Video Acceleration
 - Plug-n-Play
- Interoperability
 - Microsoft Active Directory
 - Novell eDirectory™
- Multi-Media Support
 - Support Audio / Video Formats
 - Clean Intellectual Property

SUSE Linux Enterprise Desktop 10 enables organization to gain flexibility in their IT infrastructure, have greater control of their environment, improve end-user security and dramatically reduce operational costs.

SUSE Linux Enterprise Desktop Interoperability

- Multimedia (audio/video)

- Adobe Acrobat
- RealNetworks
- Macromedia Flash



- OpenOffice.org 2.0 Novell edition

- MS file compatibility
- Open document support



- MS active directory and Novell eDirectory

- Wireless Networking

- Bluetooth and USB

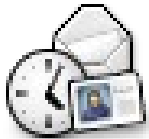


Plugs into a Windows environment

- SUSE Linux Enterprise Desktop is a good citizen on a Windows network



Becomes a member of Active Directory allowing users to authenticate seamlessly



Connects to enterprise messaging systems, such as Microsoft Exchange



Readily handles Microsoft Office document formats

Demo

Q&A

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