

SUSE® Linux Enterprise 12 Highlights

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SUSE® – Technology Leadership

Today	Tomorrow
<p data-bbox="214 468 768 539">Solaris Compete</p> <p data-bbox="214 582 768 733">Leader in SAP & System z</p>	<p data-bbox="1070 468 1638 611">Exceed Unix and other OS</p> <p data-bbox="1070 662 1804 805">Leader in Mission Critical Infrastructures</p>





Best Managed

**Continuously
Running
Systems**



SUSE® Linux Enterprise 12



**Most
Interoperable
OS**



Made for Cloud



Continuously Running Systems

SUSE Linux Enterprise 12

Continuously Running Systems

Vision

**Minimize downtime,
both planned and unplanned**



Continuously Running Systems

Minimize both planned and unplanned downtime

- Step 1 (GA) - Reduce planned downtime

Snapshot & rollback for full system

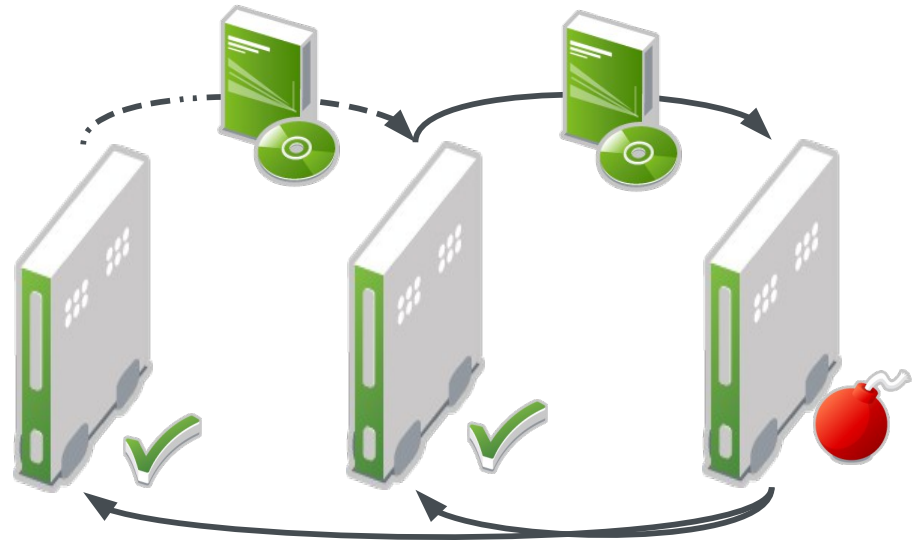
- Step 2 – Reduce unplanned downtime

Migrate processes to more reliable memory/CPU

- And more to come ...

Snapshot & Rollback For Full System

- Restore the whole system to a **known state** that is working
- Reduce upgrade risk
- Components
 - Zyper
 - Btrfs
 - Snapper
 - Grub2 Bootloader integration



TT1376 Filesystems

TT1370 Btrfs and Snapper

For more information ...



Local Systems Management

SUSE Linux Enterprise 12

Local Systems Management

Vision

Best managed Linux operating system



Local Systems Management – Benefits

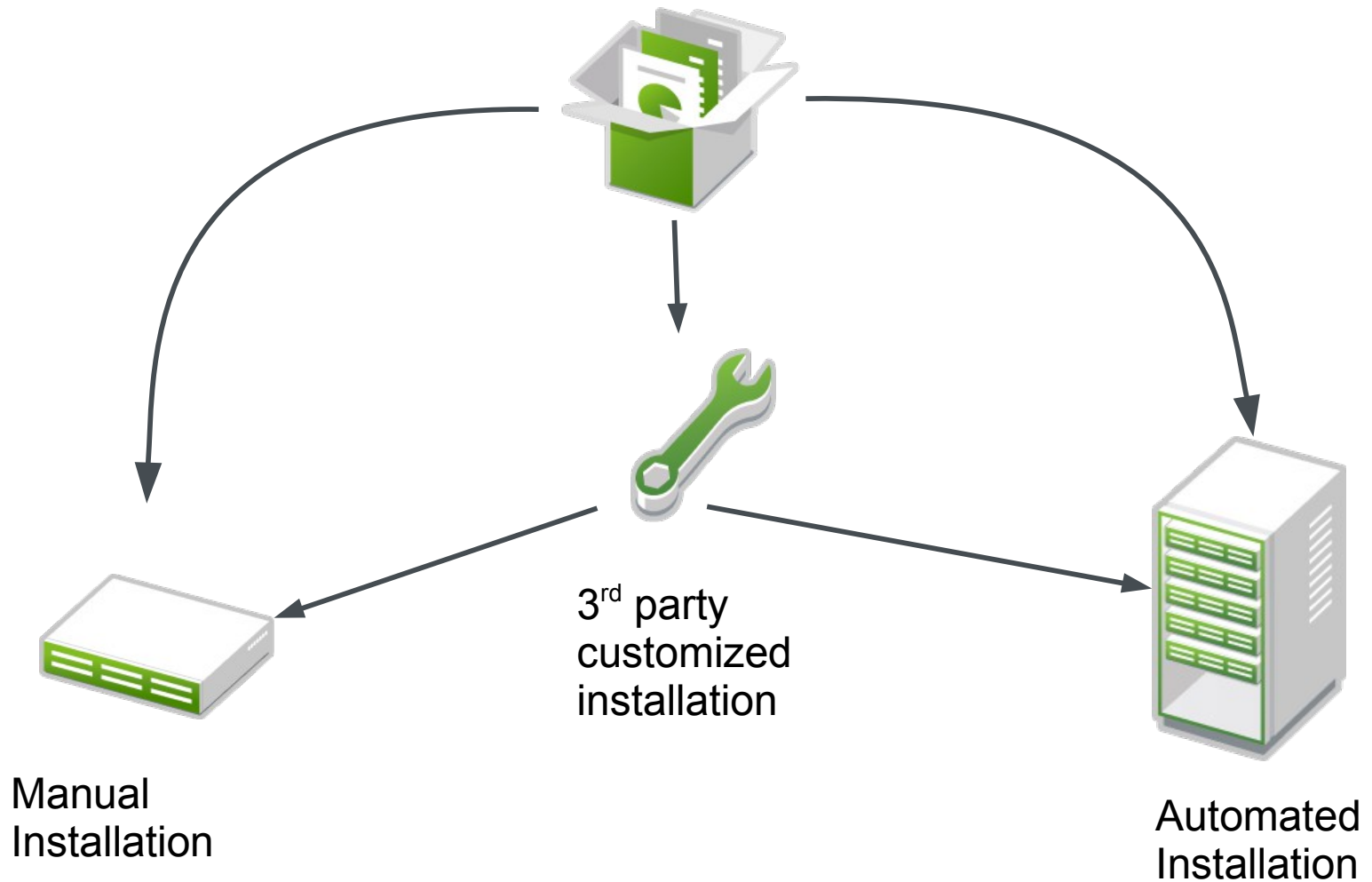
Best managed Linux operating system

- High grade of **Automation**
- Familiar and consistent **User Interface**
 - during installation
 - for administrative tasks in the installed system
- **Reduced training costs**
 - Fast learning curve for people new to SUSE Linux Enterprise
from other Operating Systems

Local Systems Management – Approach

- Leading **System Installation** technology
- **YaST** = the only integrated Single System Management solution in the Linux world
- Overhaul of **network management** framework
- Open and standardized interfaces

SUSE Linux Enterprise 12 Installer



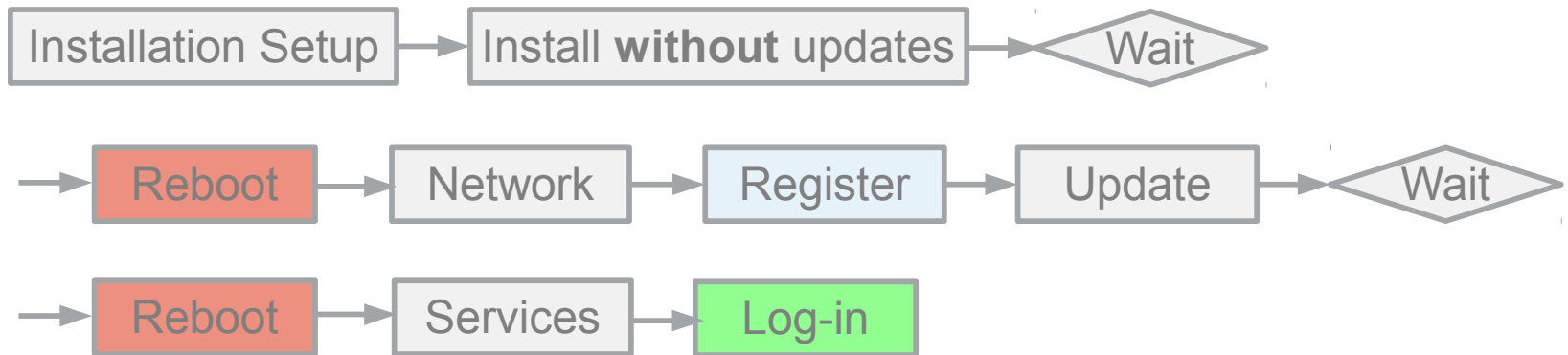
SUSE Linux Enterprise 12 Installer

- **Reduced installation time** and effort
 - Possibility to install directly with updates thanks to early registration
- Manual Installation
 - **Improved Workflow**, no second stage
 - Network configuration at the beginning of the installation process
→ network connection “everywhere” during installation
 - Multiple UI options
- Automated
 - AutoYaST
- Customized
 - Write your own modules in Ruby

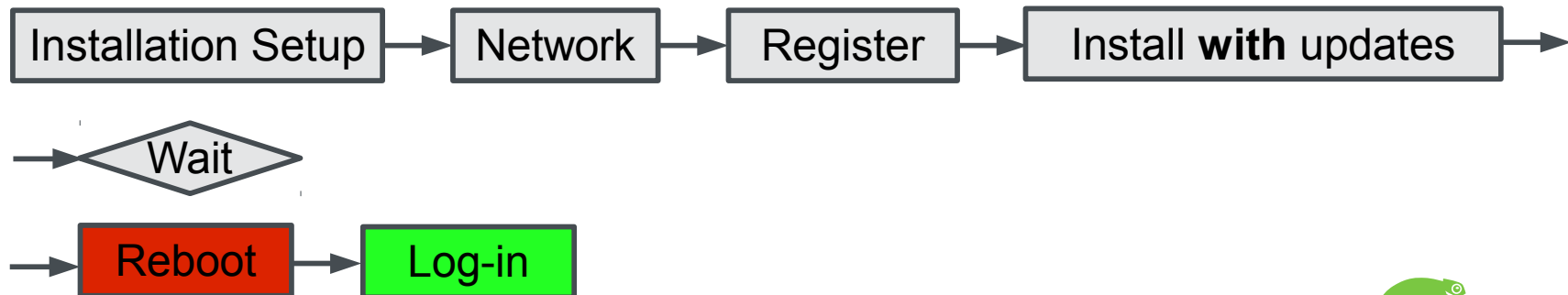


SUSE Linux Enterprise 12 Installer – Workflow

SUSE Linux Enterprise 11



SUSE Linux Enterprise 12



Network Management – Wicked

Goal

- Cope with increasingly complex configurations
- Data Center and End Users
- Benefit
 - Network configuration as a service
 - Smooth adoption & migration

Technical Attributes

- Architecture-independent
- Extensible
- Small footprint
- Event based

TT1375 Wicked

TT1432 Future of Management

For more information ...



Made for Cloud

SUSE Linux Enterprise 12

Made for Cloud – Vision

In Your Data Center

In the Clouds

Guest



Perfect Guest



Available in
Public Clouds

Host

KVM & XEN



Dual Hypervisor
Support



Cloud Hosts



SUSE® Linux Enterprise 12

Made for Cloud

- SUSE Linux Enterprise is the base OS SUSE Cloud
 - Tier 1 HW certifications make it easy to deploy SUSE Cloud in your data center
 - Support for two Open Source Hypervisors (Xen, KVM) allow datacenter design along your needs
 - As a Guest OS running the cloud infrastructure VMs and the workload VMs
- Integration with public cloud infrastructures
 - Microsoft Azure
 - Amazon EC2
 - ... and another 42...
- Next level of “Perfect Guest”
 - Integration with private and hybrid cloud environments



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Made for Cloud – Hypervisors

Built-in Virtualization Host

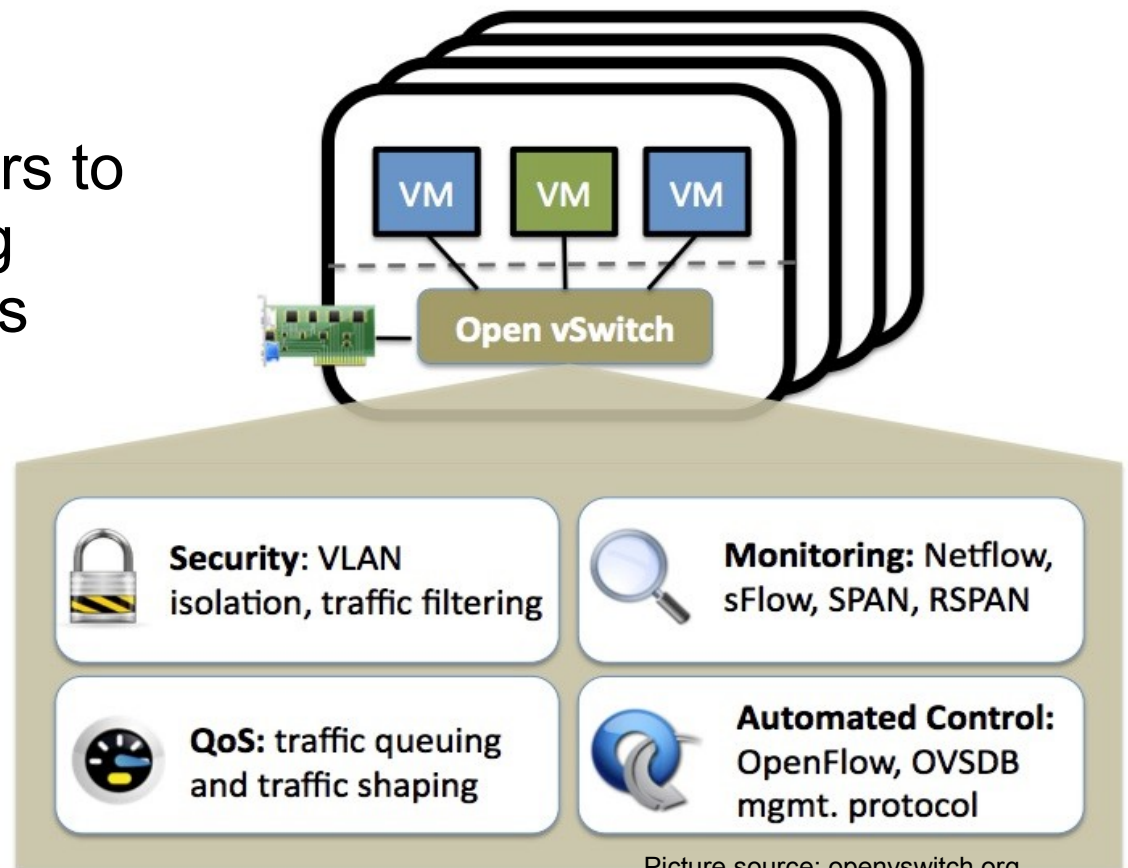
- **KVM**
 - I/O improvements, storage and network device hotplugging
 - **Microsoft Windows support**
- **Xen**
 - Latency improvements, flexible partitioning
 - Better fault handling, improved scalability and performance



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Open vSwitch

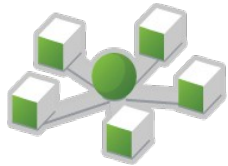
- Open Source Software Defined Networking
- Enables hypervisors to provide networking connectivity to VMs



The Most Interoperable OS

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Interoperability - Vision



- Network
 - IPv6 (USGv6)



- Virtualization and Cloud



- Operating Systems Interop
 - Windows
 - UNIX
 - Linux



- Standards Compliance
 - Security (NIST, BSI)
 - Accessibility

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Interoperability - IPv6

- **Leading OS – IPv6** compatibility and certification (USGv6)
 - <https://www.iol.unh.edu/services/testing/ipv6/usgv6tested.php>
- **Tested scenarios**
 - DHCP6 server and client
 - IPv6 support in NFS
 - Ensure IPv6 capabilities with UEFI network boot
- **Network services**
- **System Installation & Patching over IPv6**

Benefit

- Deploy and use in pure IPv6 environment
- Scale networks beyond IPv4 limitations
- Answer compliance needs



Interoperability – Samba 4

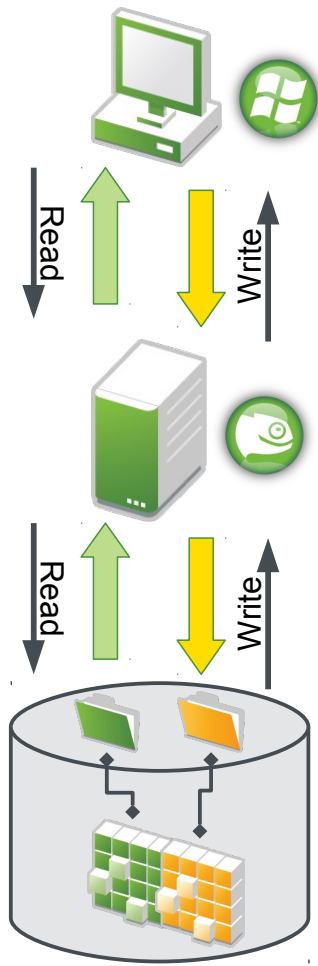
- Better **Distributed Filesystem** (DFS) capabilities
- File Server Remote VSS Protocol (FSRVP)
 - Server: integration with btrfs and Snapper
 - Client
- Server-side copy enhancements (btrfs backend)
- Protocol enhancements
 - Encryption
 - SMB 3.0 negotiation

Benefit

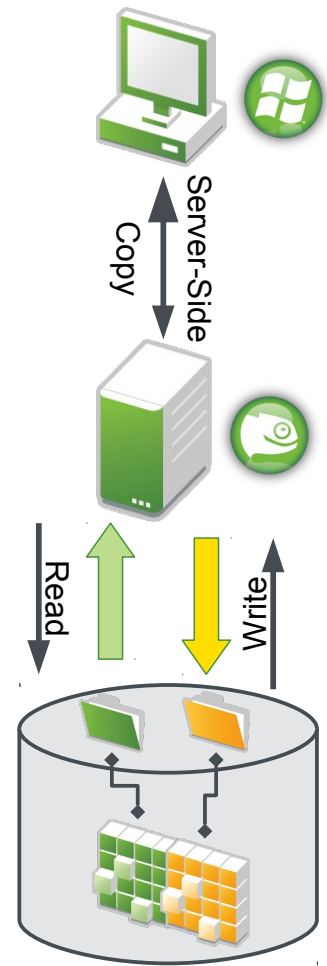
- Authentication with recent Windows / AD Servers
- Linux Server behaves as expected (FSRVP)

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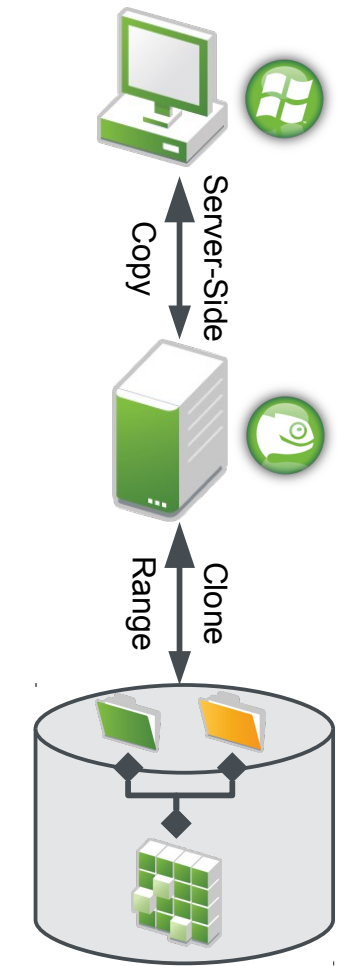
Interoperability – Samba 4



Traditional Copy



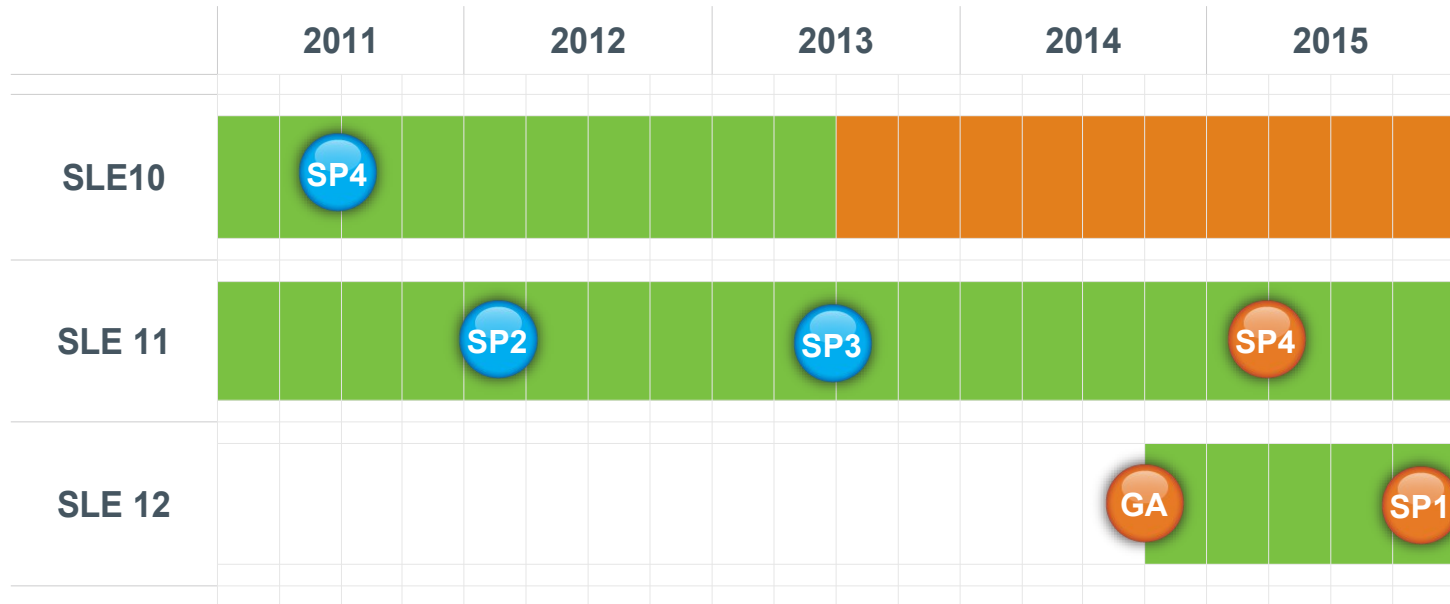
Server-Side Copy



Btrfs Enhanced Server-Side Copy

Lifecycle

SUSE® Linux Enterprise Lifecycle & Code Streams



13-year lifecycle

For SLES 11 and SLES 12,
10 years general support,
+3 years Long Term Support

SUSE Linux Enterprise 12

Long Term Service Pack
Support for every Service
Pack

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SUSE® in the Enterprise

1st **Leading OS: Scalability and IPv6**

20+ **Years Linux**

70% **SAP on Linux**

80% **Linux on IBM System z**

The **ONLY** Linux recommended by VMware,
Microsoft and SAP.



Questions?

Don't Forget:

TT1376 Filesystems

TT1370 Btrfs and Snapper

TT1375 Wicked

TT1432 Future of Management

Thank you.





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