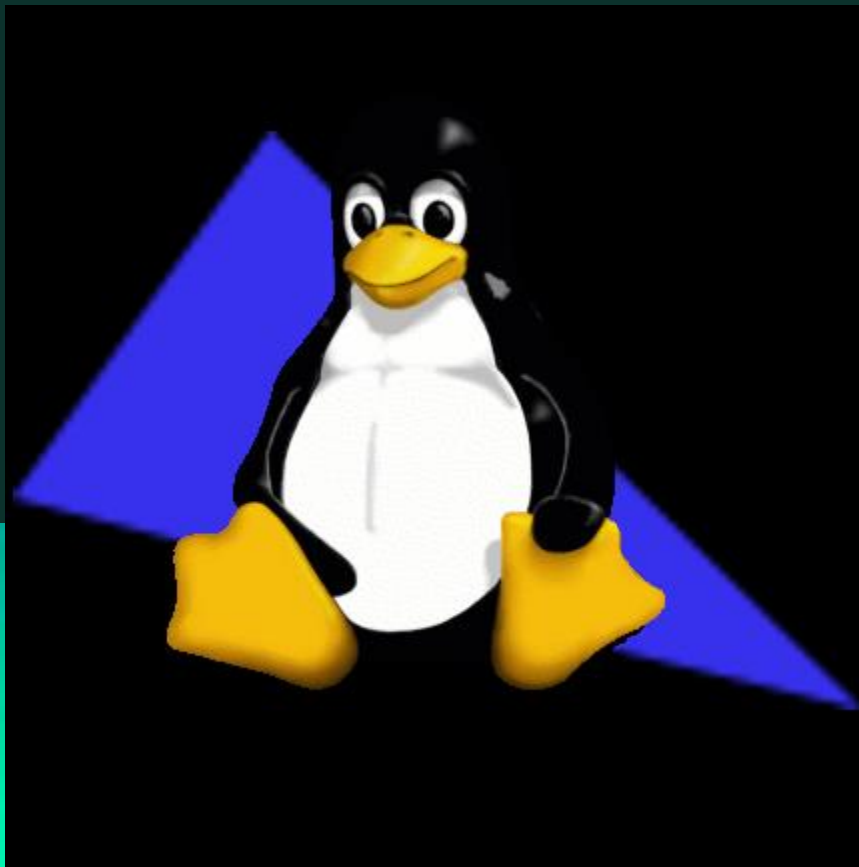




March 11, 2021

# What's up with SUSE?



# Welcome to TriLug!

1. History of SUSE
2. SUSE Linux Distros
3. Other Products
4. Tease about Rancher

# Who is this guy?



Dwain Sims

Sales Engineer  
dsims@suse.com  
dsims@bayleafnc.org  
+1 919-480-1774

- Joined SUSE in March 2018
- Formerly with Western Digital, SanDisk, Fusion-io, SteelEye Tech., Sun Microsystems, Lockheed
- MS Computer Science, West Virginia
- Attending TriLug since 2007
- Takes care of his wife's chickens....



# What means SUSE?

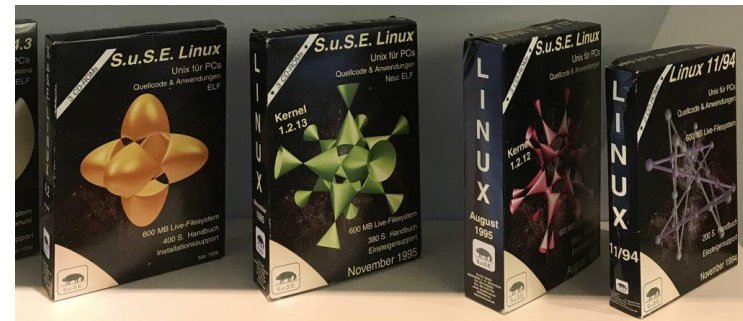
# S.u.S.E.

Roland Dyroff, Thomas Fehr, Burchard Steinbild and Hubert Mantel found S.u.S.E., 1992.

SUSE is a German acronym for "Software und System-Entwicklung" (software and systems development).

Softlanding Linux System (SLS) was one of the earliest Linux distros. (Slackware was initially based on SLS)

First true S.u.S.E. Linux distro was 4.2, in 1996.



# How is SUSE pronounced?

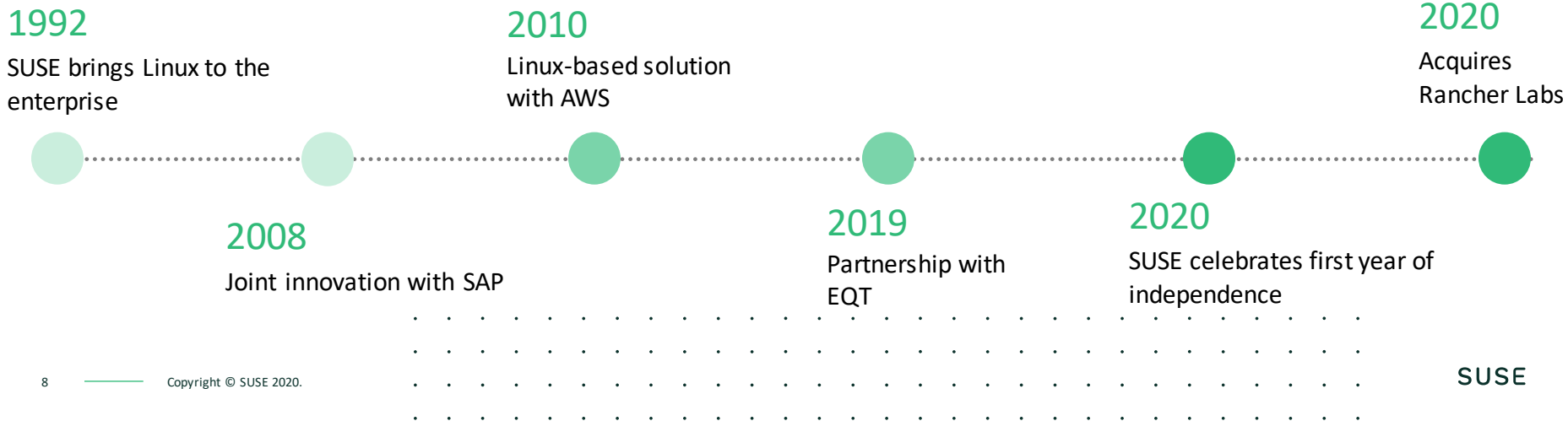


# Brief History of SUSE

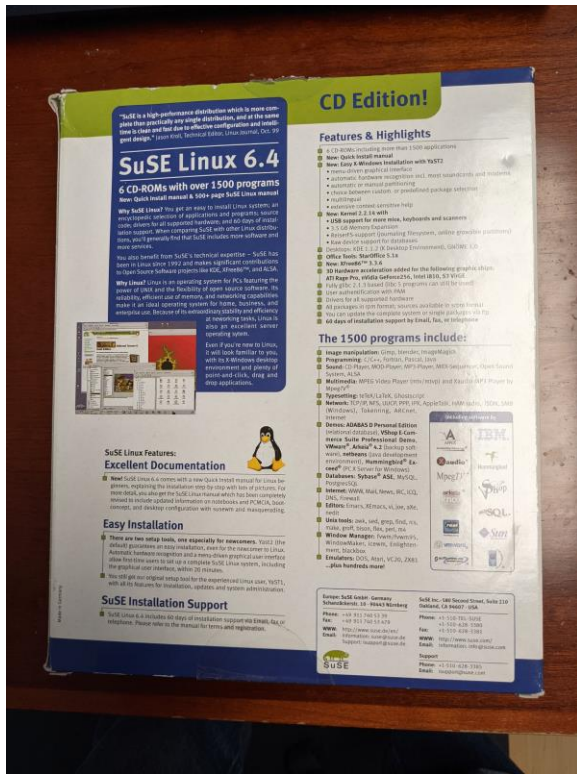
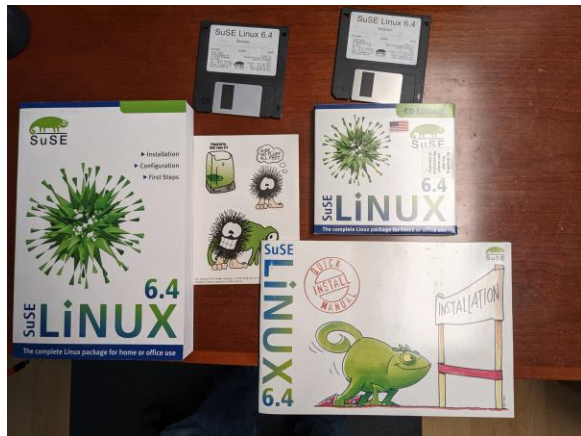
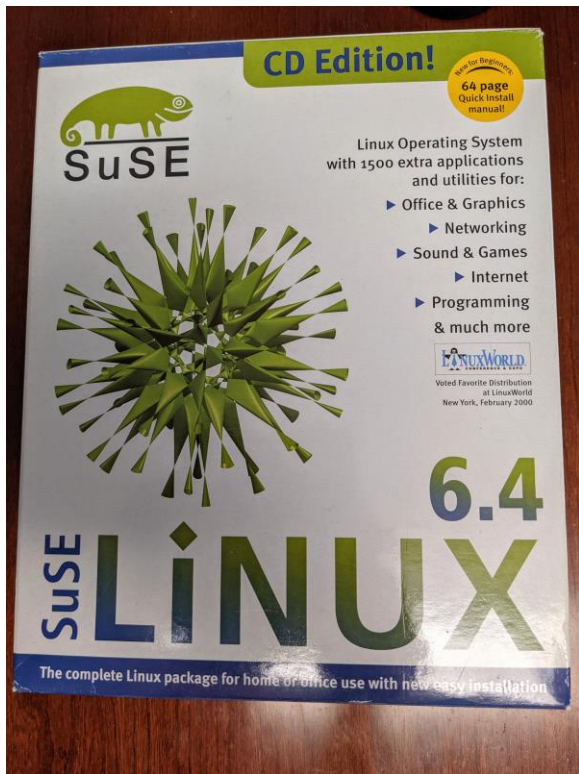
# 28 Years of Leadership in True Open Source

1992 to 2000	2001 to 2010	2011 to Present	2017 to Present
The Pioneering Years	Becoming strategic partner of SAP and building a strong ecosystem	Enabling an Always Open Data Center	From Linux Pioneer to Software-Defined Infrastructure and Edge

## Important Milestones







# SuSE Linux 6.4 (circa 2000)

## Hardware Requirements

- 486DX
- Min 16MB RAM, for GUI 32 MB Minimum
- 140 MB Disk, 600 MB Recommended



# SUSE Linux Distros

# 3 Types of Linux Distributions

Really defined by their Release Cycles



## Rolling Release

Release as soon as possible

## Regular

Release twice a year...

## Long Term / Enterprise

Slow (yearly?), small changes in sub releases

# SUSE has two of the three types...

- **Rolling**

- OpenSUSE Tumbleweed, Arch, Manjaro, Gentoo

- **Regular**

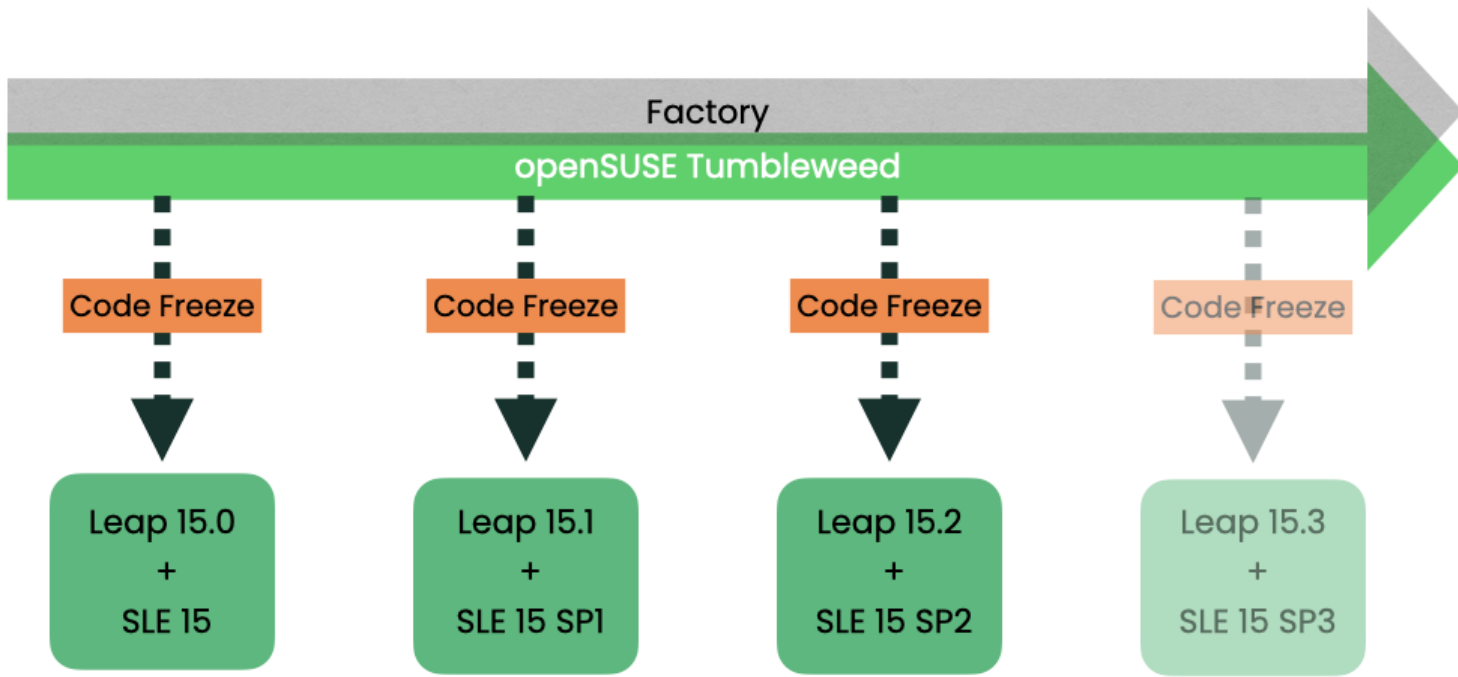
- Ubuntu, Fedora, Debian

- **Long Term**

- OpenSUSE Leap, Ubuntu LTS, SUSE Linux Enterprise, RHEL, CentOS

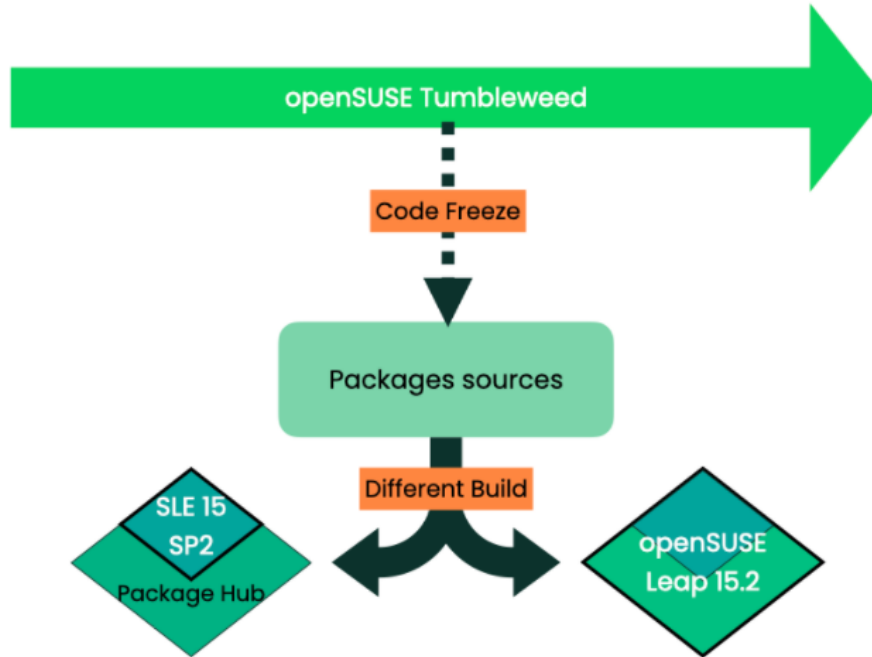
# SUSE has a tight bond between the three distros

openSUSE & SLE - Developed together



# Current Build Method...

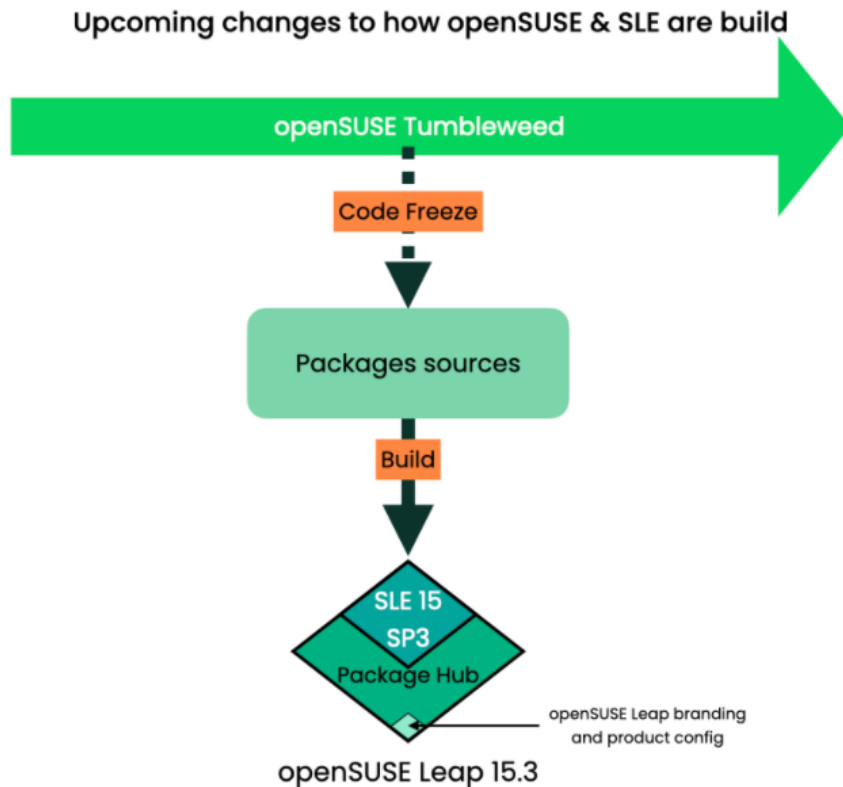
How we built openSUSE & SLE so far



SLE 15 SP2 and Leap 15.2 share the same sources but may have different binaries rpm.

◆ SLE 15 SP2 packages list is used as openSUSE Leap 15.2 core packages

# Where we are heading...





# Release Cycle

## Tick – Tock

- SUSE is following a Tick-Tock approach for releases.

## Tick – odd versions

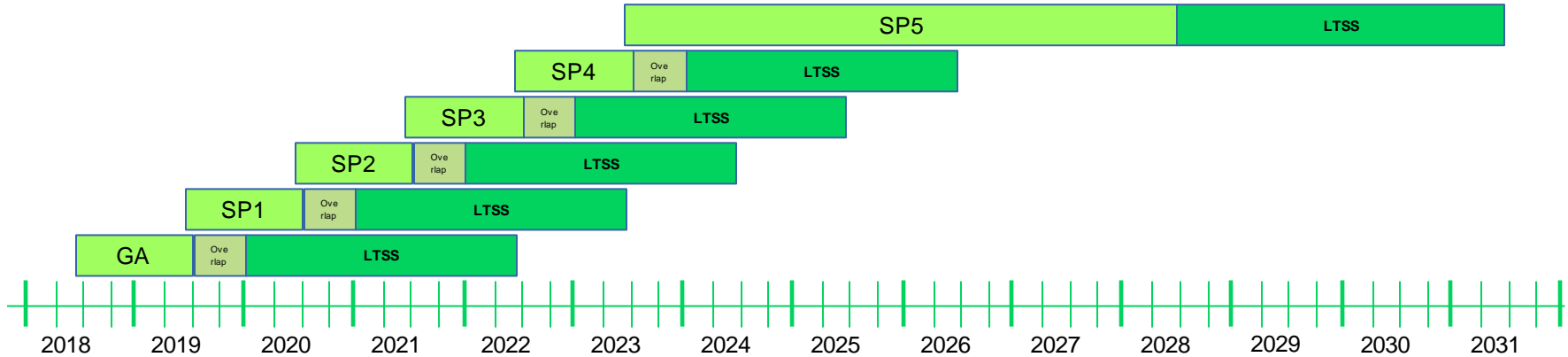
- Bugfixes and maintenance updates
- Improvements for existing features
- Feature parity with recent SUSE Linux Enterprise Release
- Selected features

## Tock – even versions


- All from Tick-Release
- Kernel version bump
- Stack upgrade



# Lifecycle



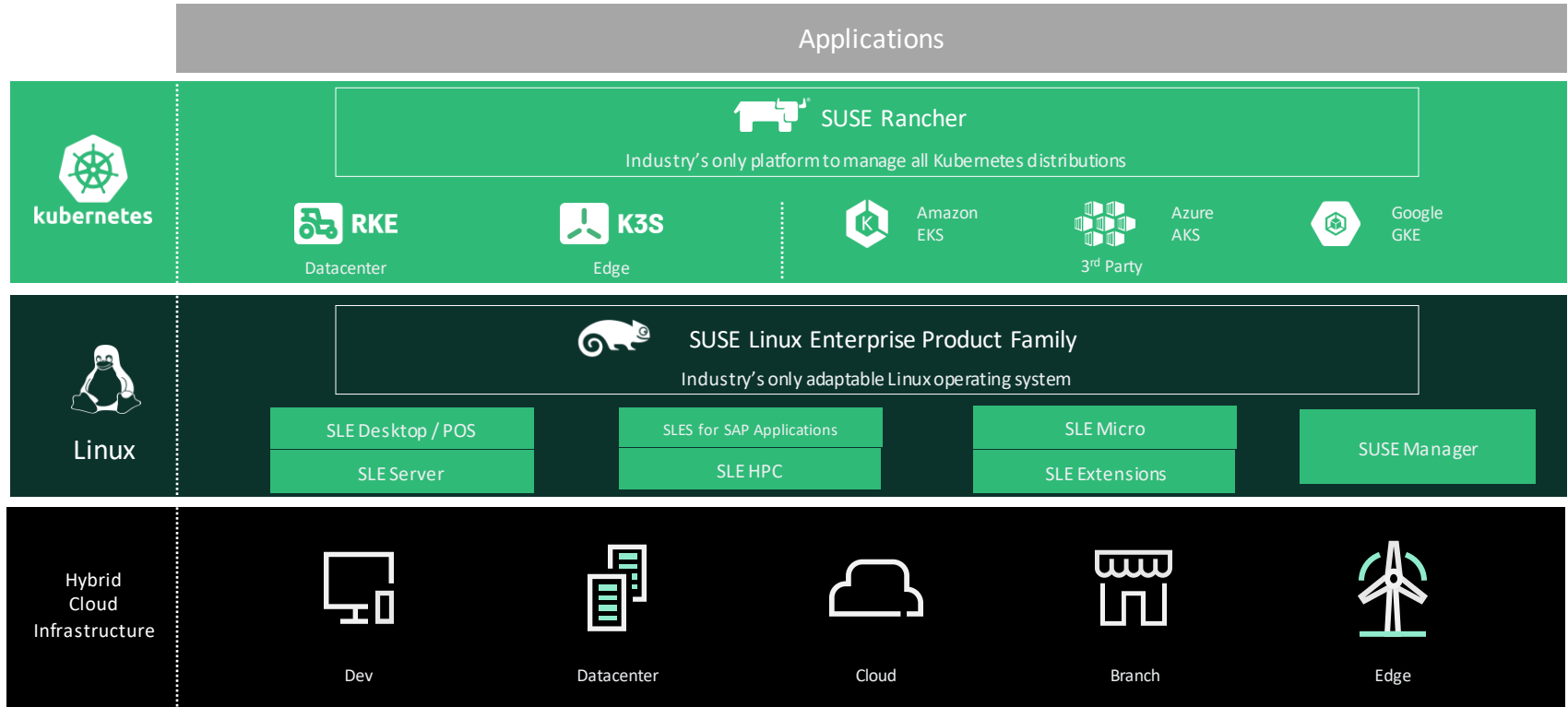
- 13 years total lifecycle
- Updates to next service pack (n+1)
- Service Pack Overlap Support: 6 months
- Long Term Service Pack Support: up to 3 years after generic end of support
- SP6 under evaluation at time of SP5 decision



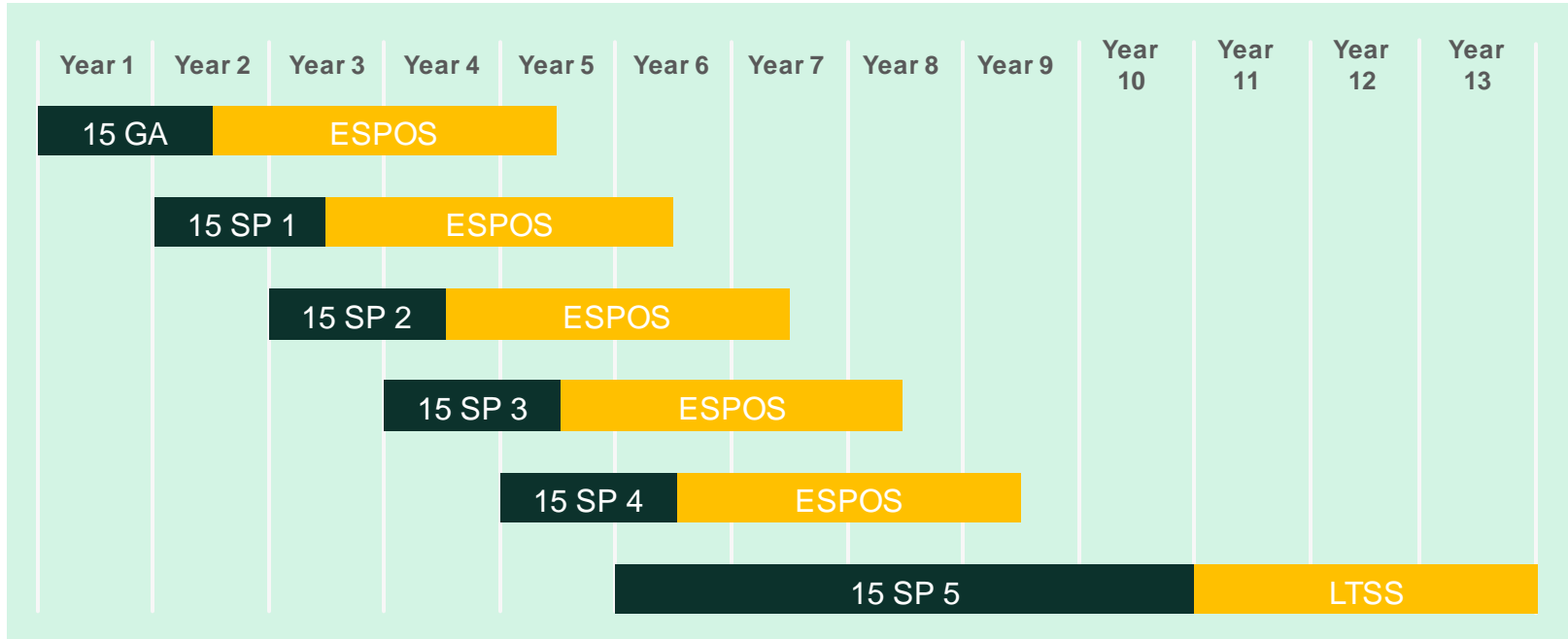
# Other SUSE Products

- Copyright © SUSE 2021

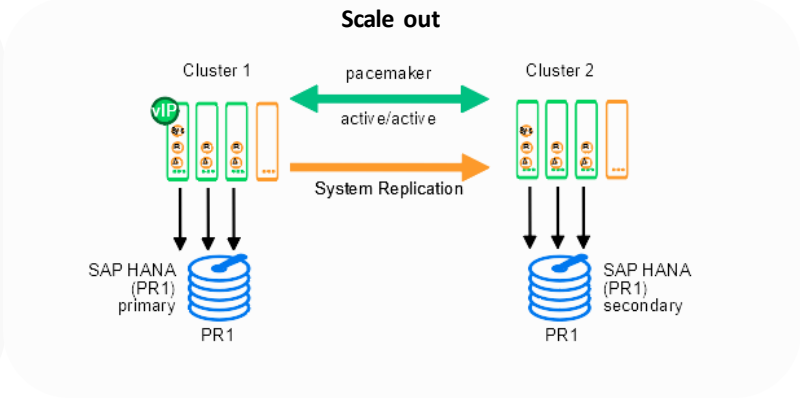
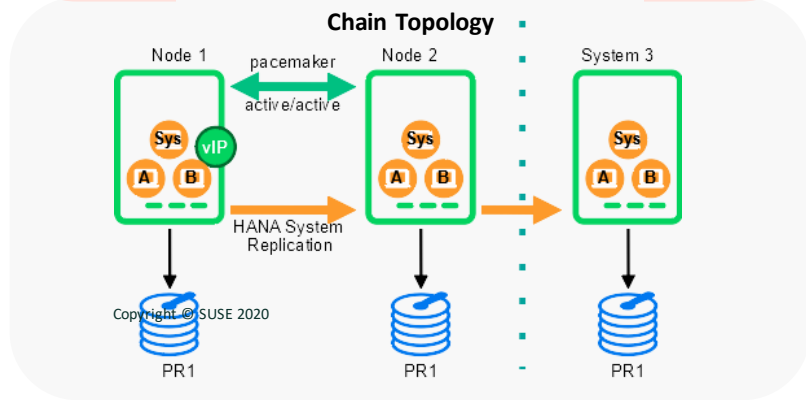
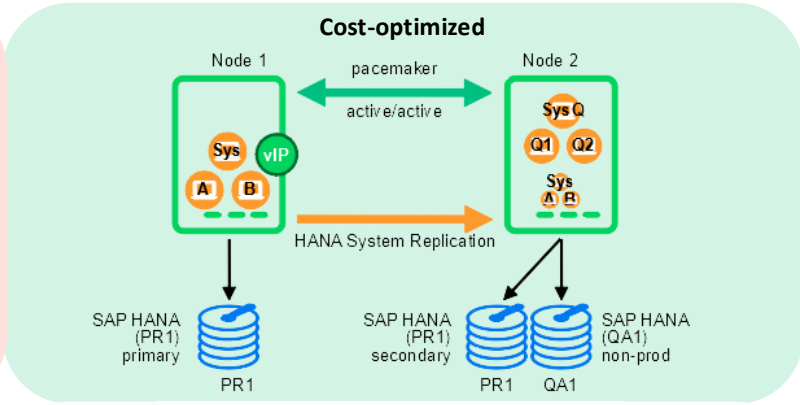
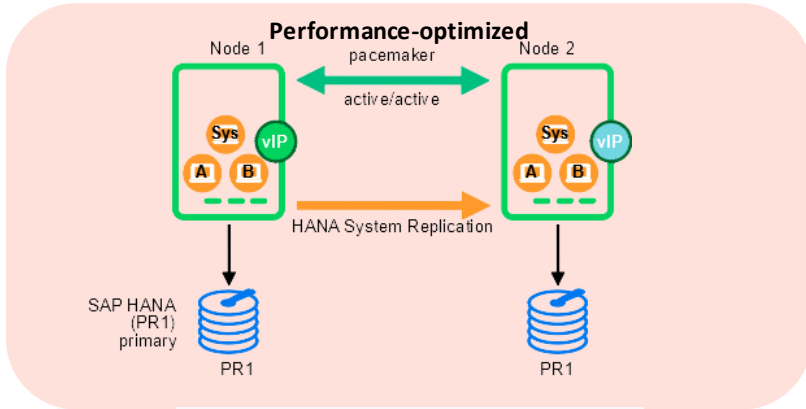
# Open, Interoperable Approach to Hybrid Cloud Infrastructure



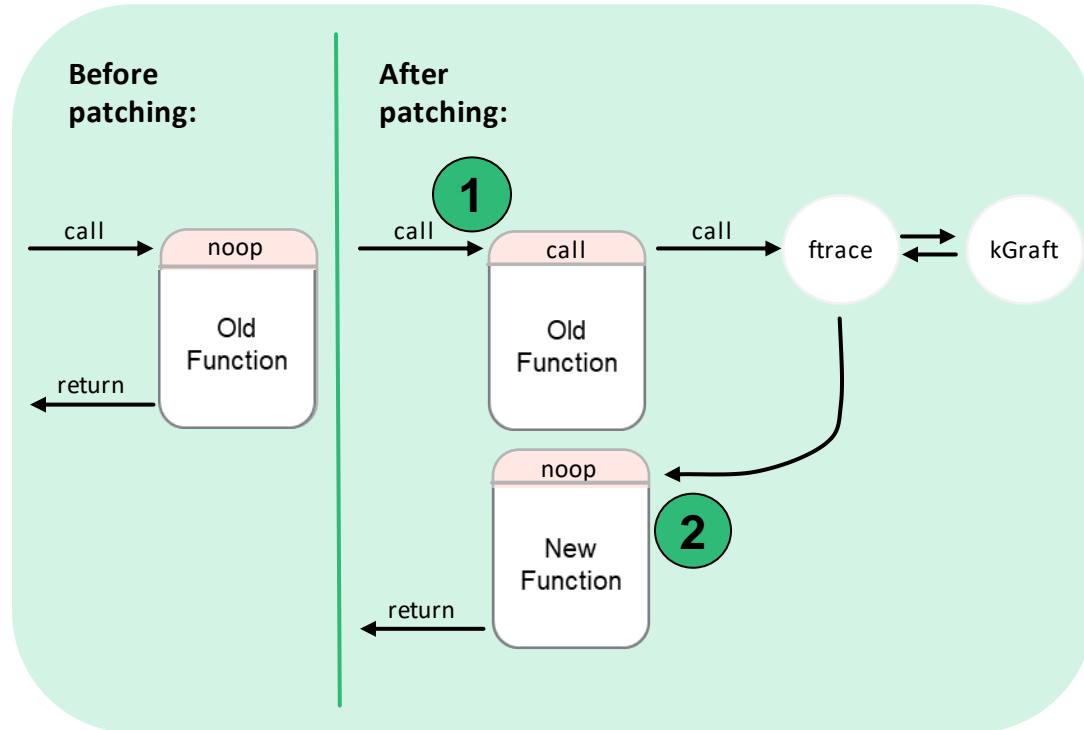
# A long lifecycle balances innovation and stability<sup>1</sup>



# Automate SAP HANA System Replication to recover faster



# How does live kernel patching work?



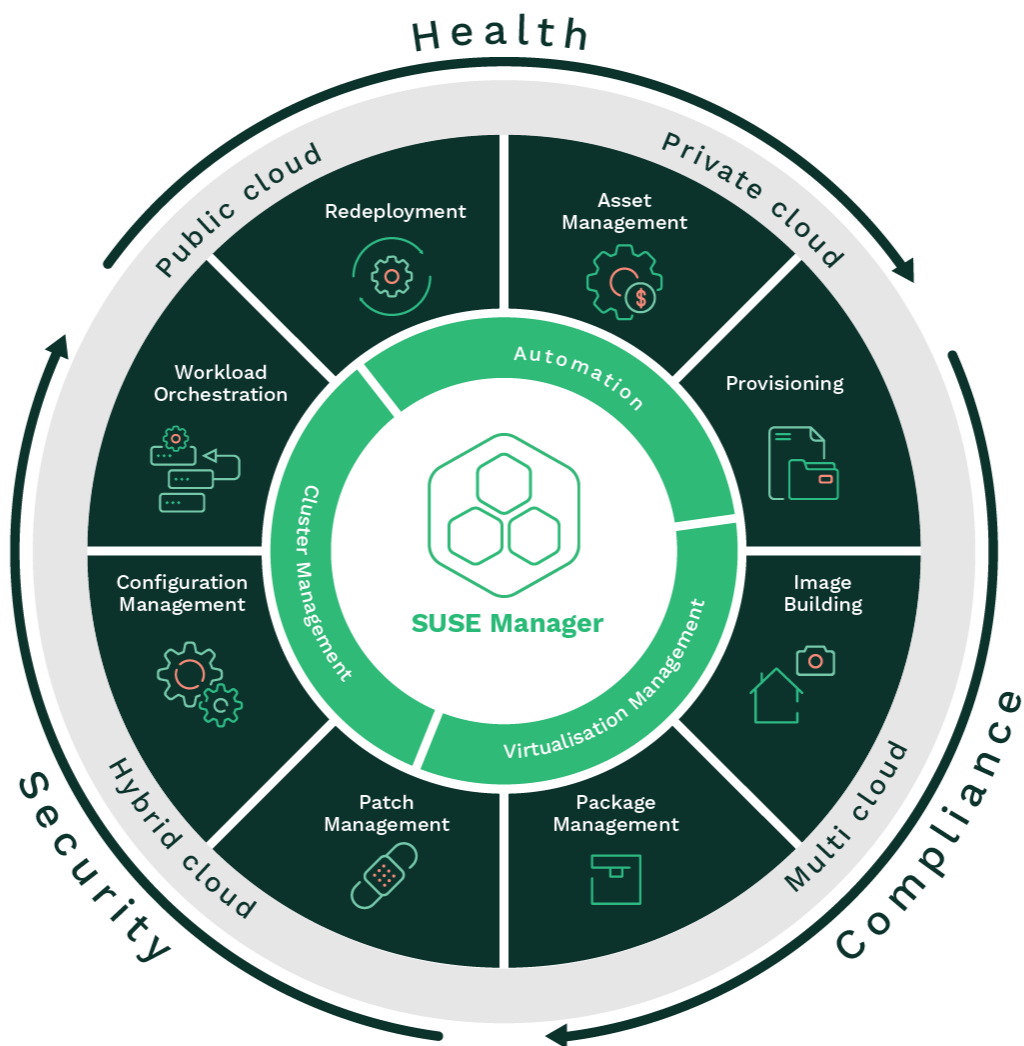
1

Replace the placeholder  
"noop" with a call to  
ftrace

2

ftrace returns execution  
to a new "patched"  
Function

Old Function is  
bypassed, and  
New Function is now in  
use





Search page

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Copyright Notice  
SUSE Manager release 4.1.5

# System Overview +

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Select All 1 - 18 of 18

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<input type="checkbox"/> SSM	System <a href="#">↕</a>	Updates	Patches	Packages	Config Diffs	Base Channel	System Type
<input type="checkbox"/>	<a href="#">41sle15sp1</a>	<span>✔</span>	0	0	0	<a href="#">na15sp1-demo-test-SLE-Product-SLES_SAP15-SP1-Pool for x86_64</a>	Salt, Monitoring
<input type="checkbox"/>	<a href="#">dpv-legacy-upgrader1.us-east-2.compute.amazonaws.com</a>	<span>⚠</span>	1	1	0	<a href="#">pfs-sle15sp2-stage1-SLE-Product-SLES15-SP2-Pool for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">dpv-sles12-ap-sp4-ppc.geeko.land</a>	<span>❗</span>	30	79	0	<a href="#">SLE-Product-SLES_SAP15-SP2-Pool for ppc64le</a>	Salt, Monitoring
<input type="checkbox"/>	<a href="#">ip-172-31-21-139.us-east-2.compute.internal</a>	<span>?</span>	4	6	0	<a href="#">nmb-sles-15-sp2-sap-test-SLE-Product-SLES_SAP15-SP2-Pool for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">ip-172-31-22-54.us-east-2.compute.internal</a>	<span>?</span>	0	0	0	<a href="#">nmb-sles-15-sp2-sap-test-SLE-Product-SLES_SAP15-SP2-Pool for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">ip-172-31-38-70.us-east-2.compute.internal</a>	<span>?</span>	0	0	0	<a href="#">nmb-sles-15-sp2-sap-test-SLE-Product-SLES_SAP15-SP2-Pool for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">NC-node2</a>	<span>?</span>	79	104	0	<a href="#">SLE-Product-SLES15-SP2-Pool for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">NC-node3</a>	<span>?</span>	14	28	0	<a href="#">SLES12-SP5-Pool for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">NC-sapnode1</a>	<span>?</span>	198	244	0	<a href="#">nmb-sles-15-sp1-sap-test-SLE-Product-SLES_SAP15-SP1-Pool for x86_64</a>	Salt, Monitoring
<input type="checkbox"/>	<a href="#">NC-sapnode4</a>	<span>?</span>	67	99	0	<a href="#">SLES12-SP4-Pool for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">pfs-oe17a</a>	<span>❗</span>	26	43	0	<a href="#">pfs-oe17-stage1-oraclelinux7 for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">pfs-oe17b</a>	<span>⚠</span>	3	2	0	<a href="#">pfs-oe17-stage1-oraclelinux7 for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">pfs-SELab-m1</a>	<span>✔</span>	0	0	0	<a href="#">pfs-sle15sp2-stage1-SLE-Product-SLES15-SP2-Pool for x86_64</a>	Salt
<input type="checkbox"/>	<a href="#">pfs-SELab-r1</a>	<span>✔</span>	0	0	0	<a href="#">pfs-sle15sp2-stage1-SLE-Product-SLES15-SP2-Pool for x86_64</a>	Salt

# Brief Intro into Rancher



# Rancher enables production quality Kubernetes everywhere

Containerized App 1

Containerized App 2

Containerized App 3



## Platform Services (Build & Run)

Rancher Catalog



Monitoring & Alerts



Dashboards & Observability



Service Mesh



Istio

Terraform Operator



Longhorn Storage



## Security & Authentication



Active Directory

GitHub

SAML

Ping Identity

Okta

## Policy Enforcement & Governance

Centralized Audit

Monitoring & Logging

CIS Benchmarking

RBAC, OPA, Pod & Network Policies

## Simplified Cluster Operations & Infrastructure Management (Run & Manage)

Kubernetes version management

Dashboard, Monitoring & Diagnostics

Advanced Infrastructure Monitoring & Alerting

Cluster Templates & Config Enforcement

Node Pool Management

Cluster Provisioning & Lifecycle Management



RKE



Datacenter



Amazon EKS



Azure AKS



Google GKE



Cloud



K3S



Dev



Branch



Edge

SUSECON Digital: Bringing the best  
of enterprise Linux, Kubernetes  
management and edge solutions  
to wherever you are

May 18-20, 2021

Save the date! Registration opens March 15, 2021.

SUSECON digital <sup>21</sup>  
#SUSECON21

# Resources

<https://www.suse.com/c/how-suse-builds-its-enterprise-linux-distribution-part-5/>

<https://www.datacenterknowledge.com/open-source/opensuse-leap-ready-be-new-centos>

<https://www.suse.com/c/how-suse-builds-its-enterprise-linux-distribution-part-1/>

<https://www.opensuse.org/>

<https://rancher.com/>

<https://suse.com/lifecycle/>



# Thank you

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