SUSE Linux Enterprise 15

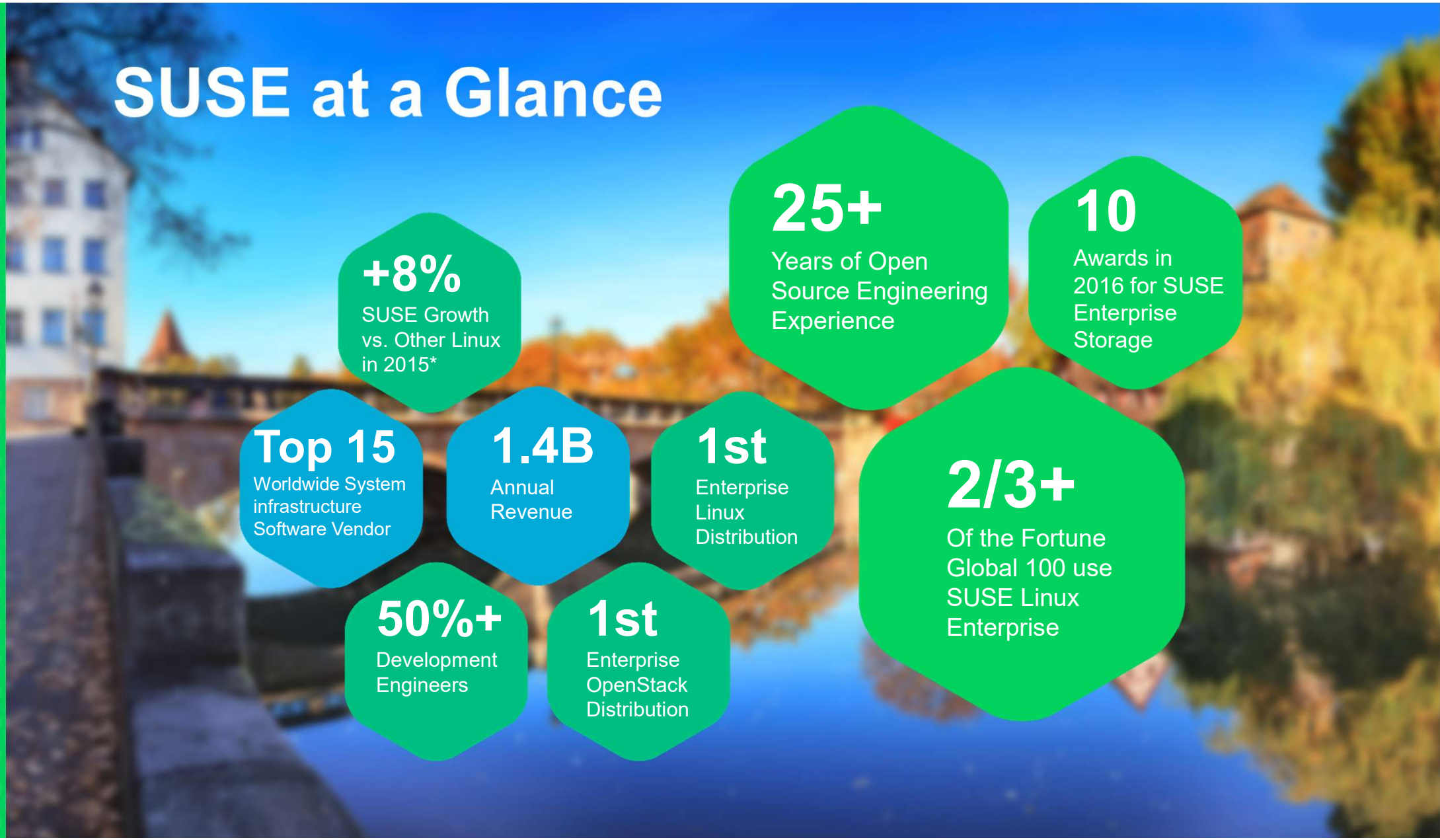
The Multi-Modal operating system designed for IT Transformation

Brian Petch
Sales Engineer
SUSE UK & I

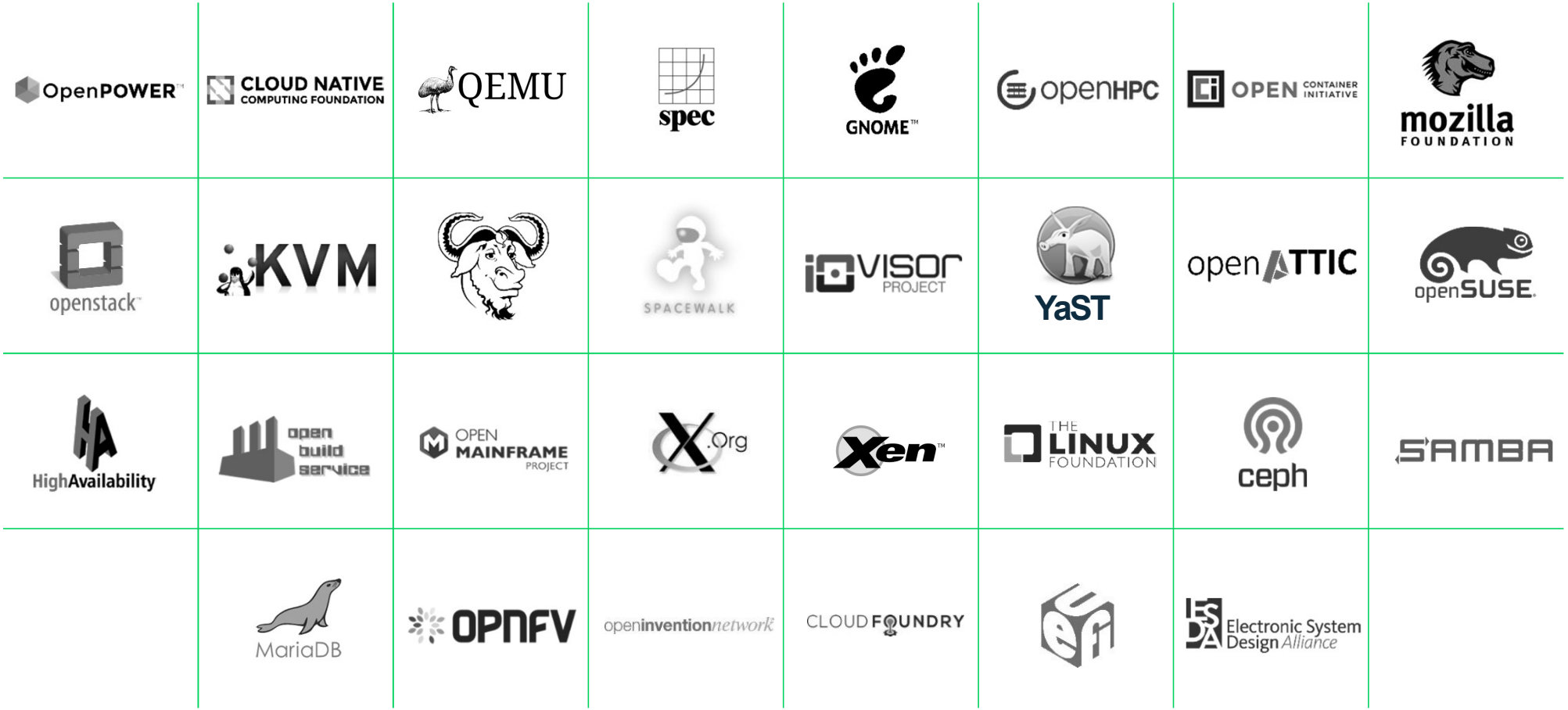
Topics

SUSE Linux as a Transformation vehicle

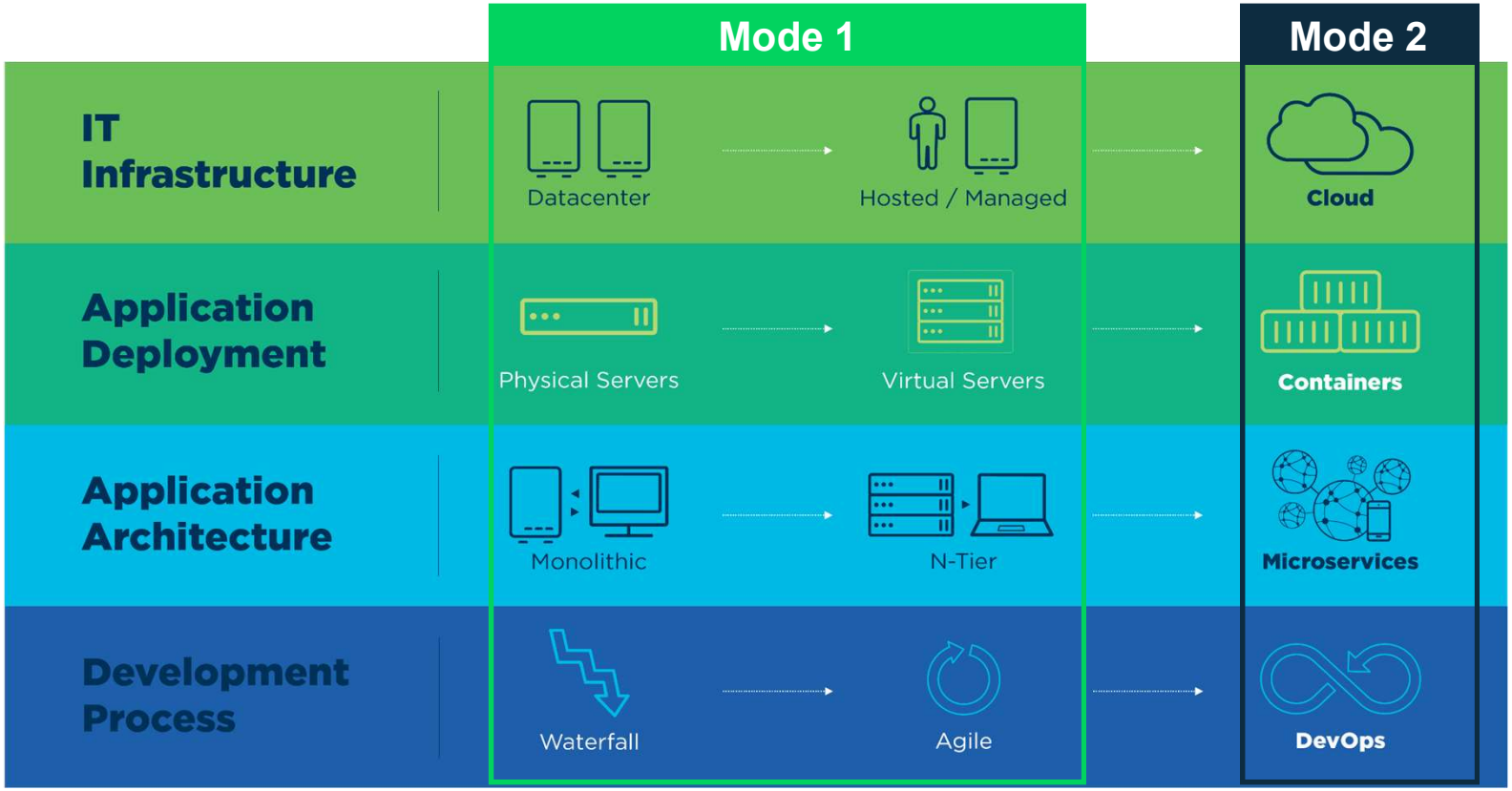
- SUSE – where are we today ?
- SUSE Linux Enterprise 15
- SLE on the Mainframe
- Enterprise modernisation


SUSE at a Glance
+8%
SUSE Growth vs. Other Linux in 2015*
25+
Years of Open Source Engineering Experience
10
Awards in 2016 for SUSE Enterprise Storage
Top 15
Worldwide System infrastructure Software Vendor
1.4B
Annual Revenue
1st
Enterprise Linux Distribution
2/3+
Of the Fortune Global 100 use SUSE Linux Enterprise
50%+
Development Engineers
1st
Enterprise OpenStack Distribution

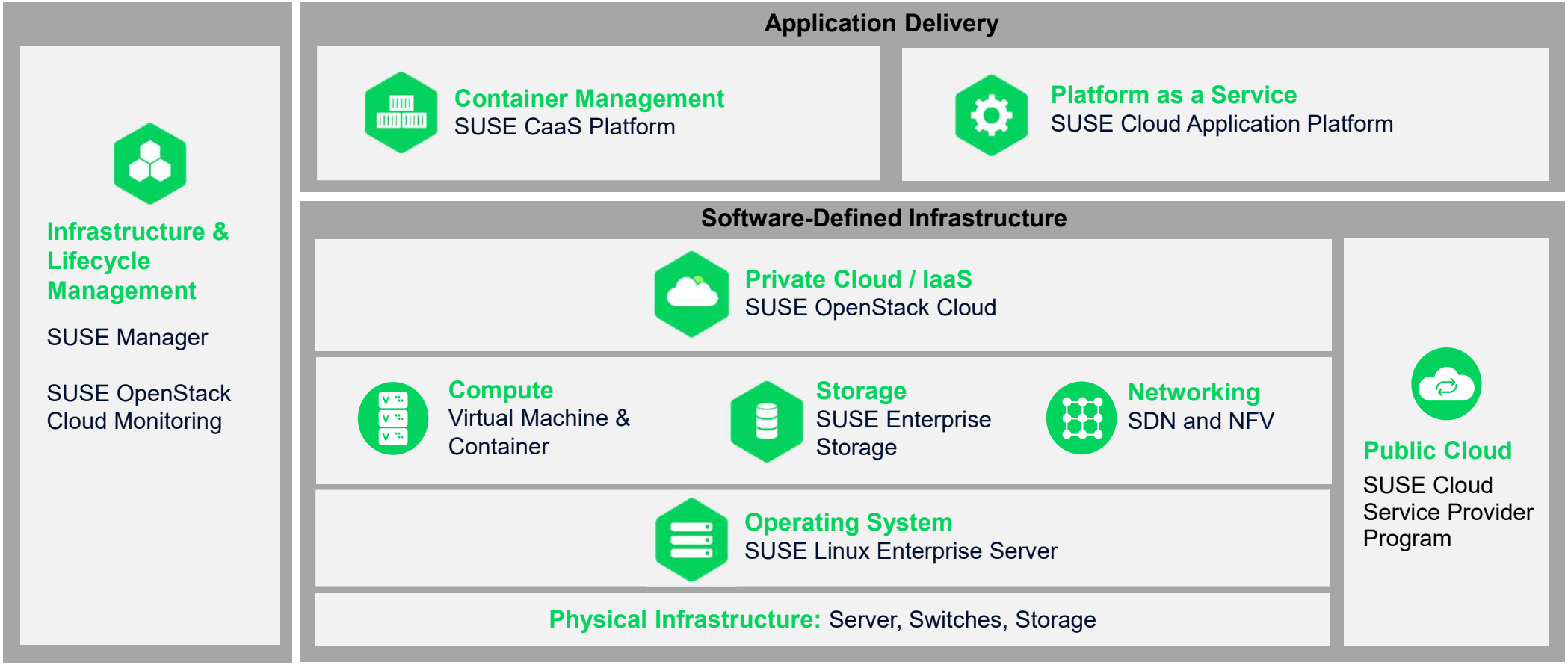
Collaboration and Contribution



SUSE Linux Enterprise Server supports varied requirements



SUSE Software-defined Infrastructure and Application Delivery Approach



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Operating System Requirements

Traditional Infrastructure	Software-defined Infrastructure
Multiple use cases	Single use case, multiple systems
Manual and automatic installation	Automatic and centralized installation
Variety of updates, upgrades, legacy	Always up-to-date
Variable packaging and installation	Fit one purpose
Might become huge in size and management	Small as possible for size and management

SUSE Linux Enterprise 15 – Themes

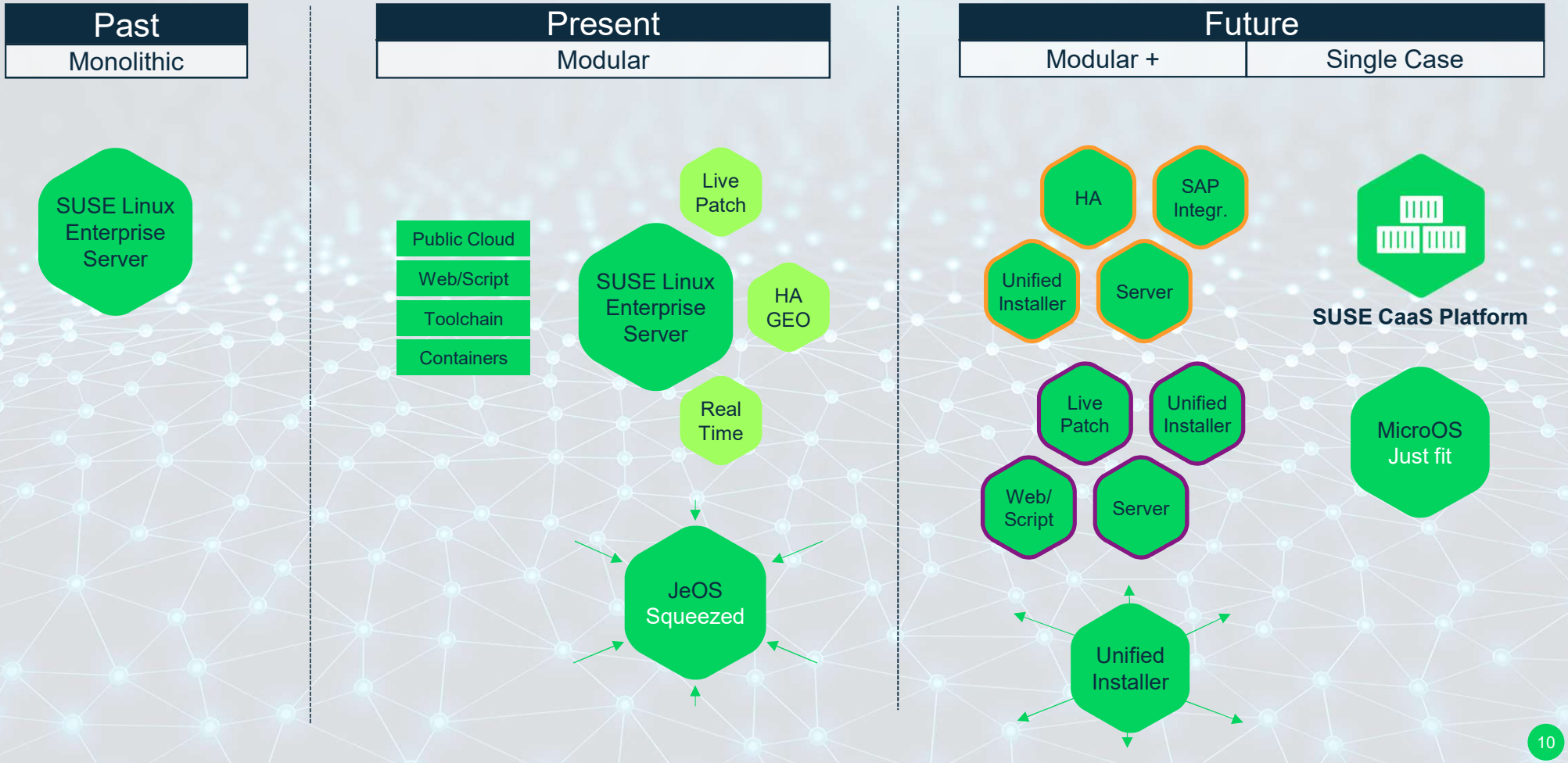
Multimodal – address traditional & containerized infrastructure
Provide a common code base for traditional and software defined data center.

Unified Installer
Install all SUSE Linux Enterprise 15 products starting from a single medium.

Modular+
Everything is a module: A stable base, progressive options, flexible delivery.

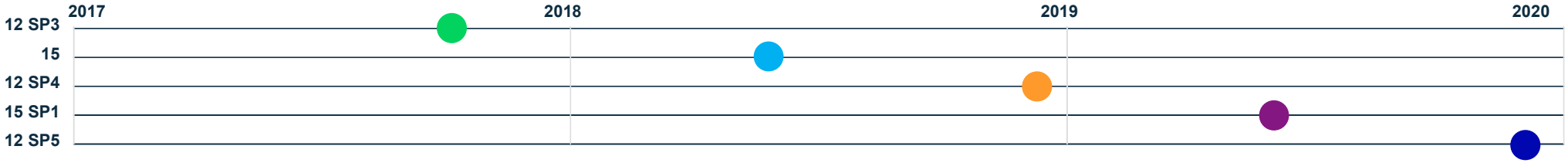
Ease of use – hassle-free use of modules & extensions
Easily search, install, and use packages across the SUSE universe.

Evolution of the Operating System



SUSE Linux Enterprise—Base OS / Modules

Available on the Public Cloud



12 SP3

Base OS
- SUSE & partner selected HW enablement, including driver updates
- Improved performance
- Common code base with SUSE Container as a Service Platform
- Foundation for SDN/NFV

Modules
- Toolchain update
- Salt software stack in the Advanced Systems Management module
- HPC module for x86-64 and arm

15

Multi mode OS delivery SUSE Linux Enterprise Server and Desktop, SUSE Linux Enterprise Server for SAP Applications + Modules + Extensions
- General purpose OS versions
- Multiple use cases (physical, virtual, containers
- Full set of deployment, management options; Full control of the installed packages, updates, upgrades
- Continue major version upgrade support including auto-upgrade

Common Code Base
Architecture/platform support
- Arch64, x86-64, ppc64le, s390x
- Designed for physical, virtual, clouds & containers - Ready for IoT

Security
- Cryptography (TLS 1.3), trusted computing, prepared for certifications

12 SP4

Base OS
- HW enablement via Kernel version update, following upstream
- Update of the graphics stack, not including Gnome

Modules
- Toolchain update
- Refresh of module packages according to separate lifecycle of modules

15 SP1

Base OS
- SUSE & partner selected HW enablement, including driver updates. NVDIMM!
- Improve “system roles”
- Finalize common criteria certifications and FIPS 140-2 validation
- Migration from SUSE Linux Enterprise 11 SP4 to SUSE Linux Enterprise 15 SP1
- Improve SAML2 single sign-on framework

Modules
- Enhancements to Developers Module according to customer and partner demand

Ease of use
- Quarterly updates of installation media

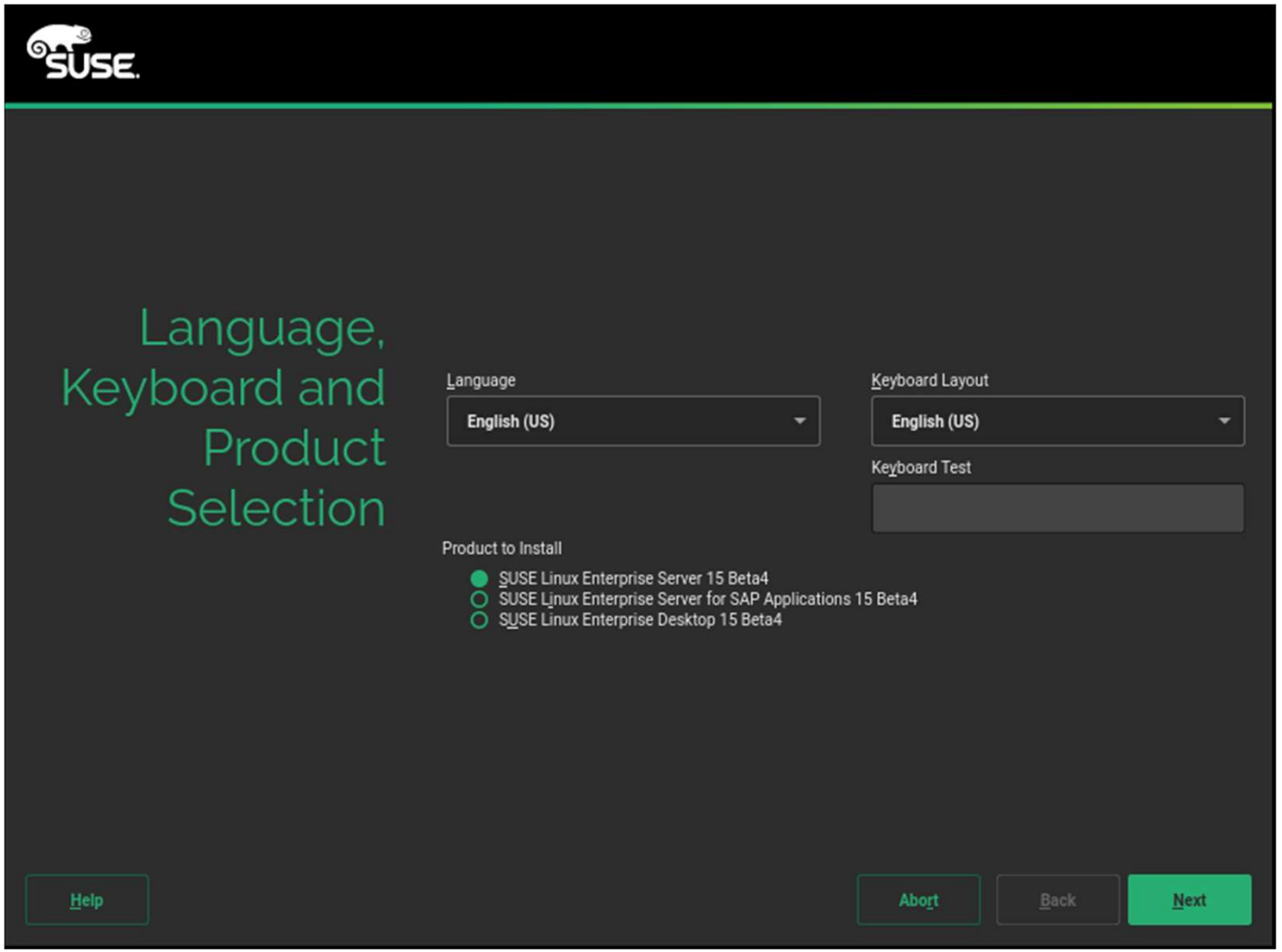
12 SP5

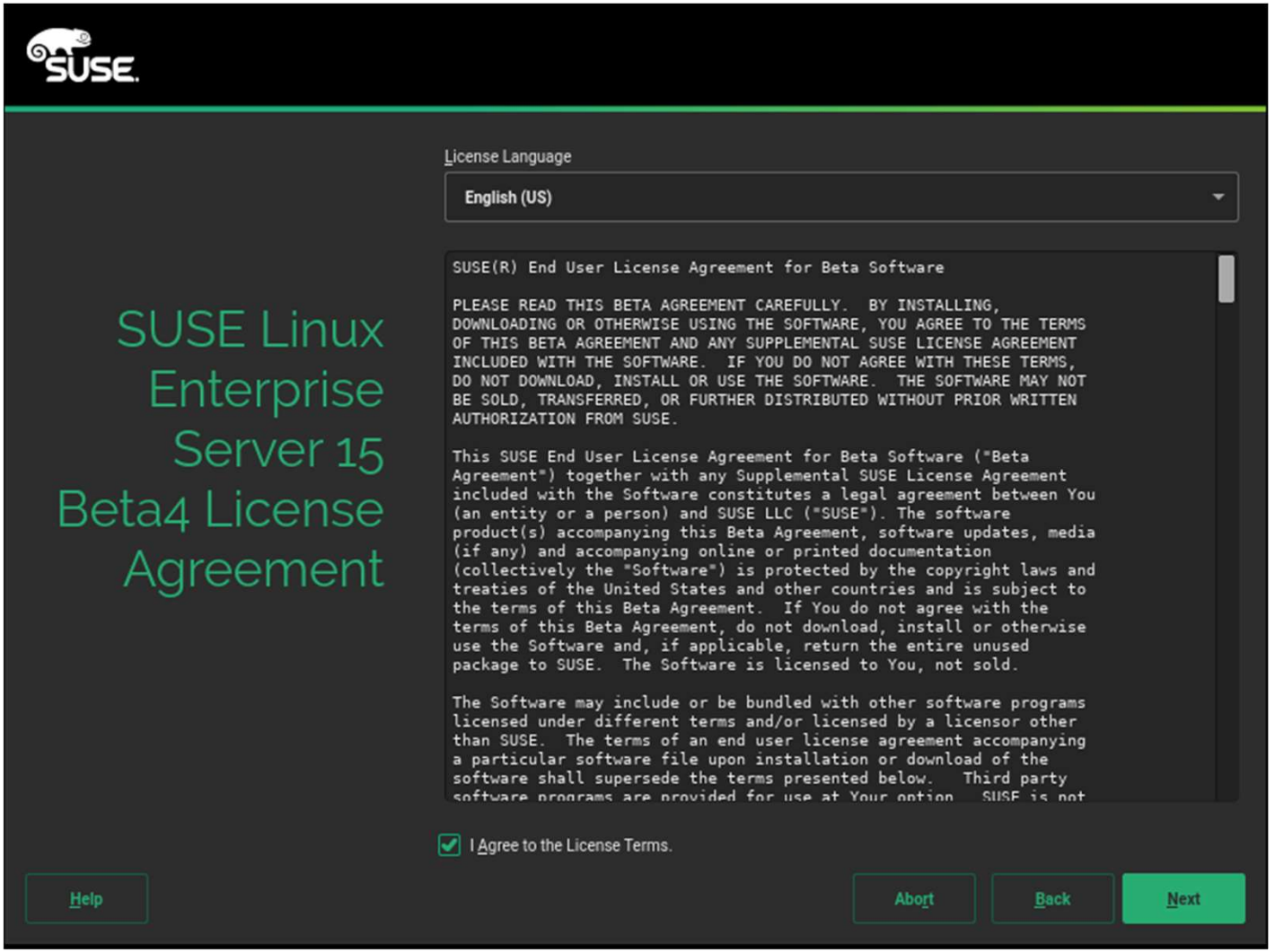
Base OS
- Last service pack for SUSE Linux Enterprise 12 (tentative)
- Consolidation release
- Constant user land (minor version upgrades by need or business case)
- Reuse kernel from SP4 + very selected hardware innovations (including graphic stack)

Modules
- Latest GCC version in the Toolchain module

Hardware Architectures: Intel 64 / AMD64 – IBM z and LinuxONE – IBM Power – arm
SUSE Linux Enterprise Server for SAP Applications inherits features from BaseOS and modules. Available on Intel/Arm and IBM Power

* Information is forward looking and subject to change at any time.


SUSE
Language, Keyboard and Product Selection
Language
English (US)
Keyboard Layout
English (US)
Keyboard Test
Product to Install
SUSE Linux Enterprise Server 15 Beta4
SUSE Linux Enterprise Server for SAP Applications 15 Beta4
SUSE Linux Enterprise Desktop 15 Beta4
Help
Abort
Back
Next


SUSE
SUSE Linux Enterprise Server 15 Beta4 License Agreement
License Language
English (US)
SUSE(R) End User License Agreement for Beta Software
PLEASE READ THIS BETA AGREEMENT CAREFULLY. BY INSTALLING, DOWNLOADING OR OTHERWISE USING THE SOFTWARE, YOU AGREE TO THE TERMS OF THIS BETA AGREEMENT AND ANY SUPPLEMENTAL SUSE LICENSE AGREEMENT INCLUDED WITH THE SOFTWARE. IF YOU DO NOT AGREE WITH THESE TERMS, DO NOT DOWNLOAD, INSTALL OR USE THE SOFTWARE. THE SOFTWARE MAY NOT BE SOLD, TRANSFERRED, OR FURTHER DISTRIBUTED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM SUSE.
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The Software may include or be bundled with other software programs licensed under different terms and/or licensed by a licensor other than SUSE. The terms of an end user license agreement accompanying a particular software file upon installation or download of the software shall supersede the terms presented below. Third party
I Agree to the License Terms.
Help
Abort
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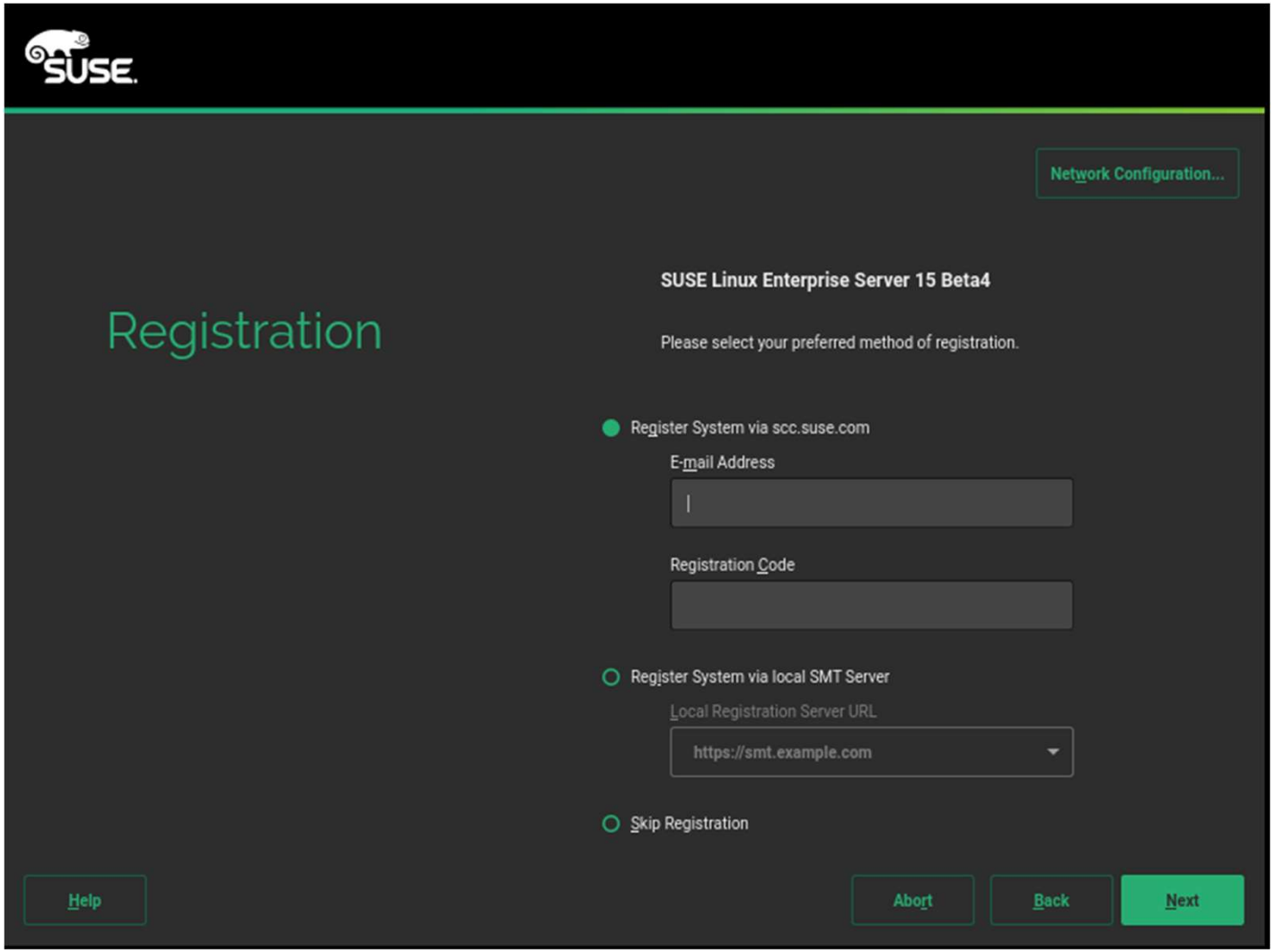
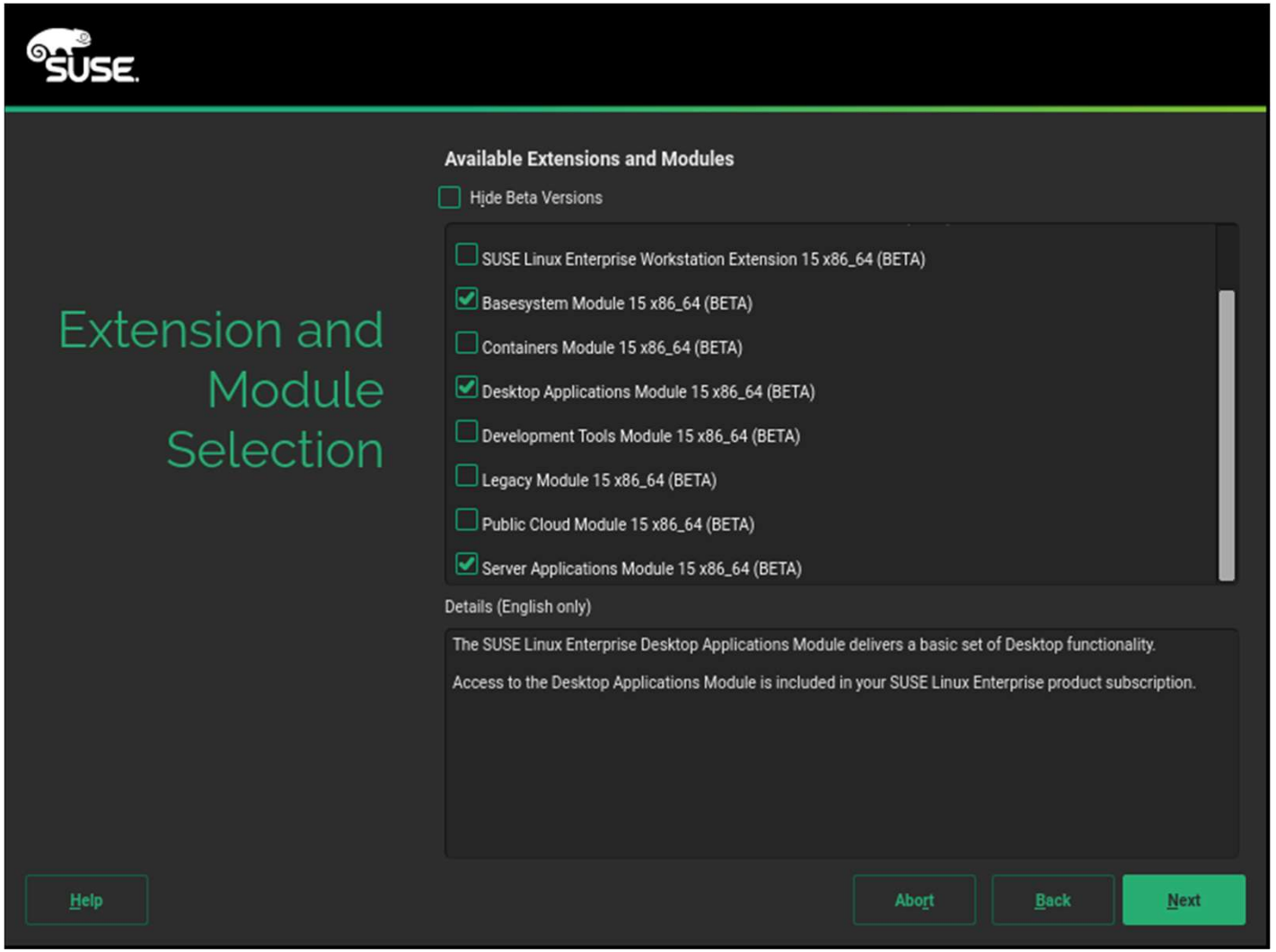

Network Configuration...
Registration
SUSE Linux Enterprise Server 15 Beta4
Please select your preferred method of registration.
Register System via scc.suse.com
E-mail Address
Registration Code
Register System via local SMT Server
Local Registration Server URL
https://smt.example.com
Skip Registration
Help
Abort
Back
Next


SUSE
Extension and Module Selection
Available Extensions and Modules
Hide Beta Versions
SUSE Linux Enterprise Workstation Extension 15 x86_64 (BETA)
Basesystem Module 15 x86_64 (BETA)
Containers Module 15 x86_64 (BETA)
Desktop Applications Module 15 x86_64 (BETA)
Development Tools Module 15 x86_64 (BETA)
Legacy Module 15 x86_64 (BETA)
Public Cloud Module 15 x86_64 (BETA)
Server Applications Module 15 x86_64 (BETA)
Details (English only)
The SUSE Linux Enterprise Desktop Applications Module delivers a basic set of Desktop functionality.
Access to the Desktop Applications Module is included in your SUSE Linux Enterprise product subscription.
Help
Abort
Back
Next

Additional Changes

- **GCC7 as system compiler**

  Will stay the same during SLE 15 lifetime, Yearly updates will be provided in a channel

- **OpenSSL**

  1.1.x as default, 1.0.x available in Legacy for a grace period

- **Scripting languages**

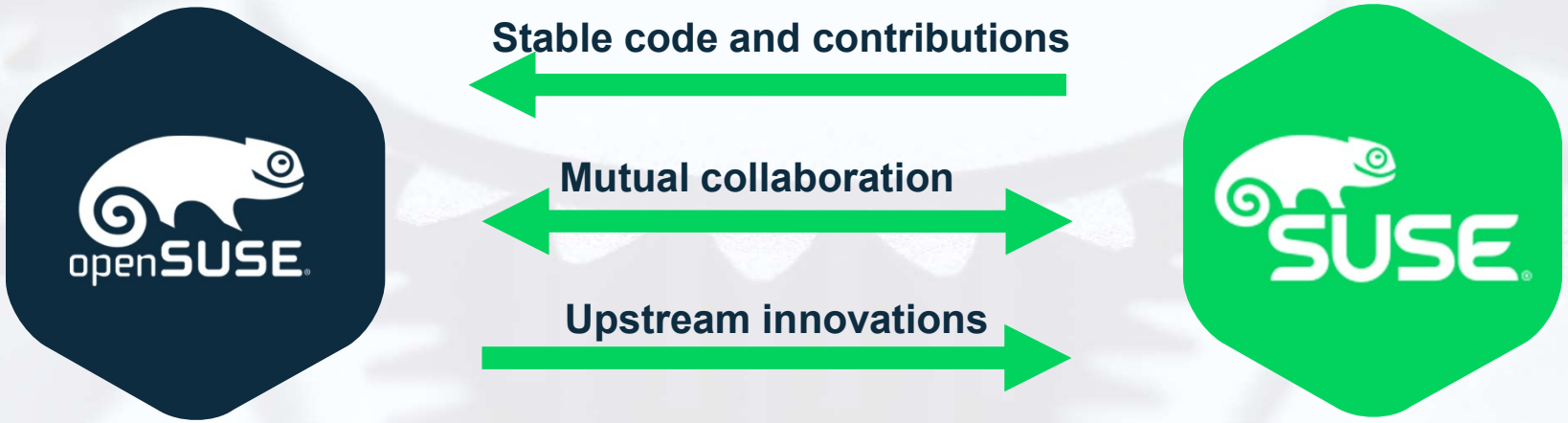
  Ruby 2.5, PHP7, Perl 5.26, Python 3.6 (Python 2 will be in Legacy Module for a grace period)

- **Gnome 3.26**
- **High Availability**
  - Hawk2 UI improvements
  - DRBD multi-node three-way replication
  - Cluster-raid 10 (as Technical Preview)

Additional Changes

- Chrony (ntpd will be in Legacy for a grace period)
- Firewalld (replaces SUSEFirewall2)
- SALT in Base system
- TLS 1.3
- Improved: Package search
  - Across modules
- FIPS 140-2 (post GA)
- Nvdimm improvements
- OpenJDK 9
- and much more...

SUSE & openSUSE – Working Together



The New openSUSE Distributions

Tumbleweed

Leap

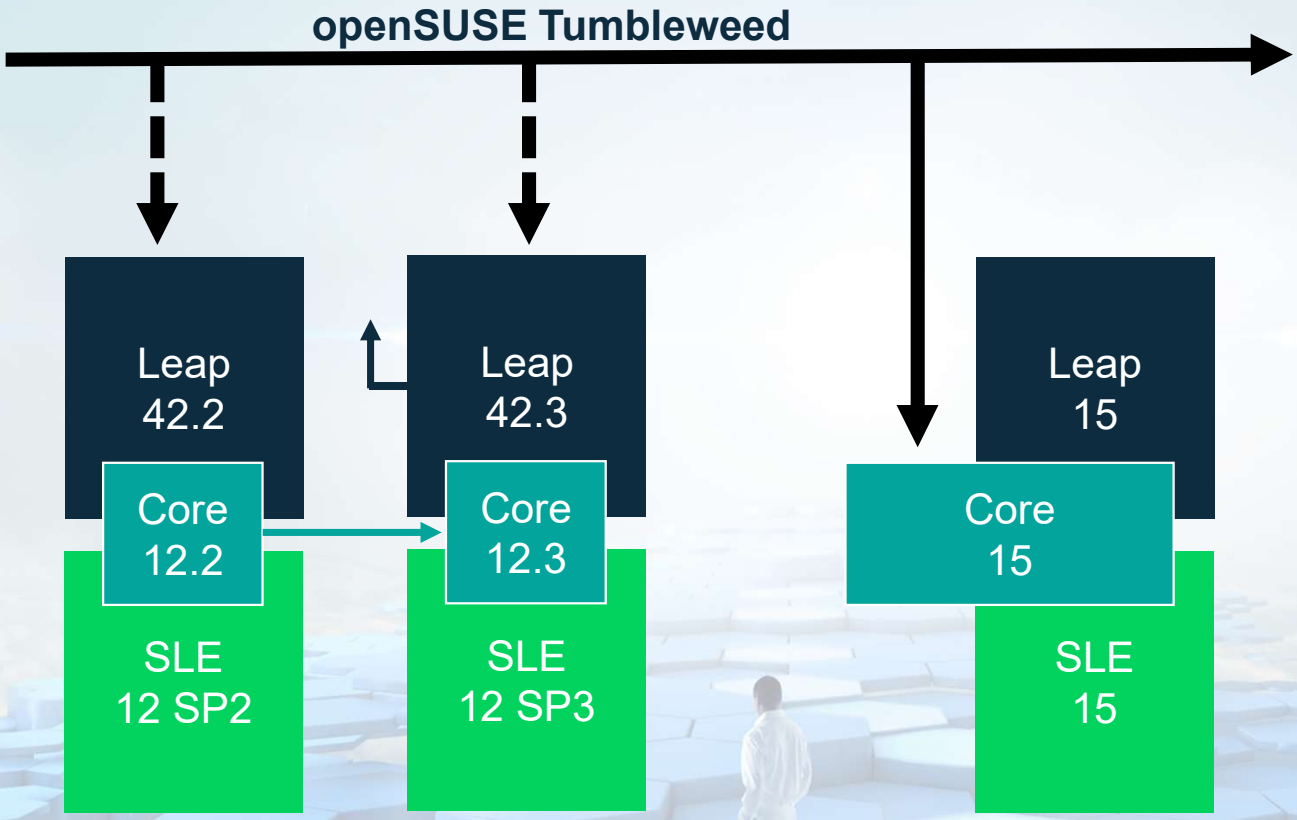
openSUSE Tumbleweed

- Rolling Release
- Continuously Updated & Tested
- Perfect for Upstream Developers & Power Users

openSUSE Leap

- Regular release
- Shared core with SUSE Linux Enterprise
- Perfect for SysAdmins, Enterprise Developers and Users

Long Future Ahead



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SUSE Linux on Mainframe Customers

Business Connexion (BCX)

South African Outsourcing company

65 customers, incl. top 10 blue chip in SA

Oracle Suite licensing driving architecture (very expensive on x86)

Standardised on SLES for SystemZ following PoC.

30 – 40 % license savings

ICU IT

Netherlands based IT services company

z/OS and Linux services for top 100 companies in the Netherlands

Looked at LinuxONE for internal training

Supports hundreds of KVM guests

Using OpenStack for application demos

Significant saving in footprint/power/cooling over x86 servers

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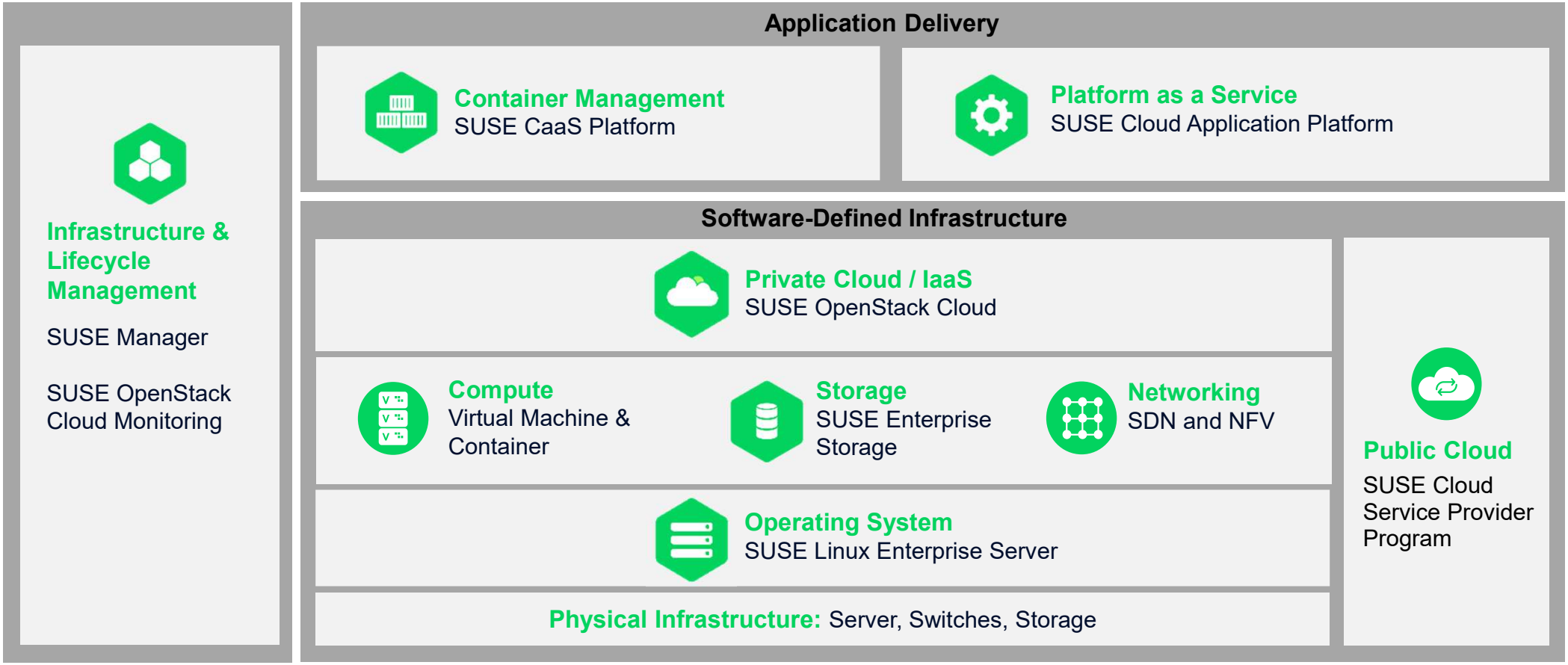
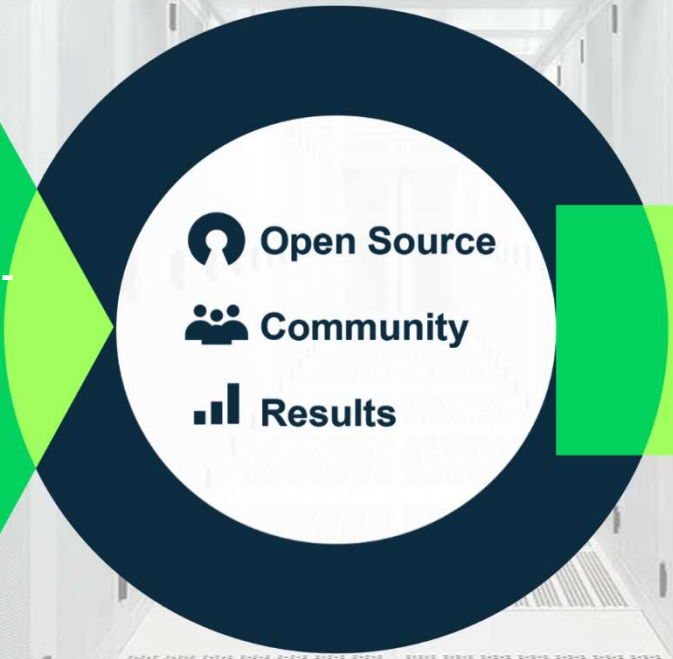
Building Bridges – SUSE Linux Enterprise 15

SUSE Software-defined Infrastructure and Application Delivery Approach



How SUSE Adds Value

- Enterprise-quality innovation and service
- Affordable mission-critical performance
- Open, flexible, optimized for mixed IT



Customer Benefits

- Increased Agility
- Reclaimed Budget
- Reduced Risk
- Protect Investment

The Open, Open Source Company

Further information:

SUSE :
http://www.suse.com

SUSE Linux Enterprise on Mainframe:
http://www.suse.com/products/systemz

Me:
Email: brianp@suse.com
Twitter: @vi_Bri_
LinkedIn: www.linkedin.com/in/brianp-uk

SUSE
We adapt. You succeed.