

SUSE® Linux Enterprise 12

Modules, Cores, and Build Services

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Agenda

- Customer Demands and Requirements
- Constraints
- The SUSE Linux Enterprise 11 ecosystem
- The “New Universe”
 - Modules
 - The Build Service(s)



http://commons.wikimedia.org/wiki/File:Radionette_TV_set.jpg



Customer Demands and Requirements

- Stability of Interfaces
 - “Forever”
 - With full support
- Hardware enablement
 - Kernel, Toolchain, Userland
- Regular Updates
 - Scripting Languages, Desktop Functionality, Databases
- Innovation
 - New Tools and Functionality
- Fast download and Installation times

Constraints for SUSE

- Provide Stability of APIs/ABIs
 - Despite new functionality requirements
- Change APIs/ABIs
 - To enable new functionality
- Provide support
 - For 13 years
 - Even after upstream does no longer support it
- Keep the complexity and costs under control
- Allow Innovation in addition/despite Stability

The SUSE Linux Enterprise 11 Universe

Available Resources for Packages

- Supported:
 - “The ISOs”
 - Pool- and Update-Repositories per product
 - Solid Driver Program

- Not supported:
 - Open Build Service

The New Universe

Divide and Conquer

- Keep existing Infrastructure
- Treat the packages on the base product ISOs as “core” of the codebase.
- Enhance the repository structure by splitting:
Provide additional repositories that can
 - Easily be added
 - Have functionality that is not “core”
 - Ensures backward compatibility
- Extend the Build Service
 - Create a new “Community Packages” part

Modules

Modules – Base definition

- A module is
 - a collection of software packages,
 - but with a common Use Case, Support Status and Lifecycle,
 - for one (specific) topic, and
 - independent of other modules.
- Installable on top of a “base product” (like SUSE Linux Enterprise Server)
- It can have a different lifecycle than the core product

Modules - Constraints

- Can be added after registration either
 - during installation or
 - in the installed system.
- Online available, one Pool-and and Update-Channel per module
- It's not
 - a pattern, but can provide one, and also not
 - a separately orderable product.

Modules - Overview

| Module Name | Content (examples) | Lifecycle |
|------------------------------------|--|------------------------------|
| Web and Scripting Module | “PHP”, “Python”, “Ruby on Rails” | 3 years 18 months overlap |
| Legacy Module | Sendmail, old IMAP stack, old Java etc. | 3 years |
| Public Cloud Module | Public cloud initialization code and tools | Continuous Integration |
| Advanced Systems Management Module | The configuration management tools cfengine, puppet and the new "machinery" tool | Continuous Integration |
| <i>Toolchain Module (upcoming)</i> | <i>GCC</i> | <i>Yearly delivery</i> |

The Build Service(s)

openSUSE® Build Service

- Open for everybody
- Packages build against several products, depending on project
- Not everything builds for every product
- Concentrates on openSUSE
- Submission rules and quality are project dependent
- No support

Enterprise Build Service

- “SUSE hosted build service to facilitate partners & customers in building software for SUSE Linux Enterprise. Customers login and use the service for building their packages for SUSE Linux Enterprise.”
- Concentrates on SUSE Linux Enterprise
- Already in place, the result are the packages deployed in the SolidDriver Program
- Packages build against the SUSE Linux Enterprise products

Community Packages for SUSE Linux Enterprise

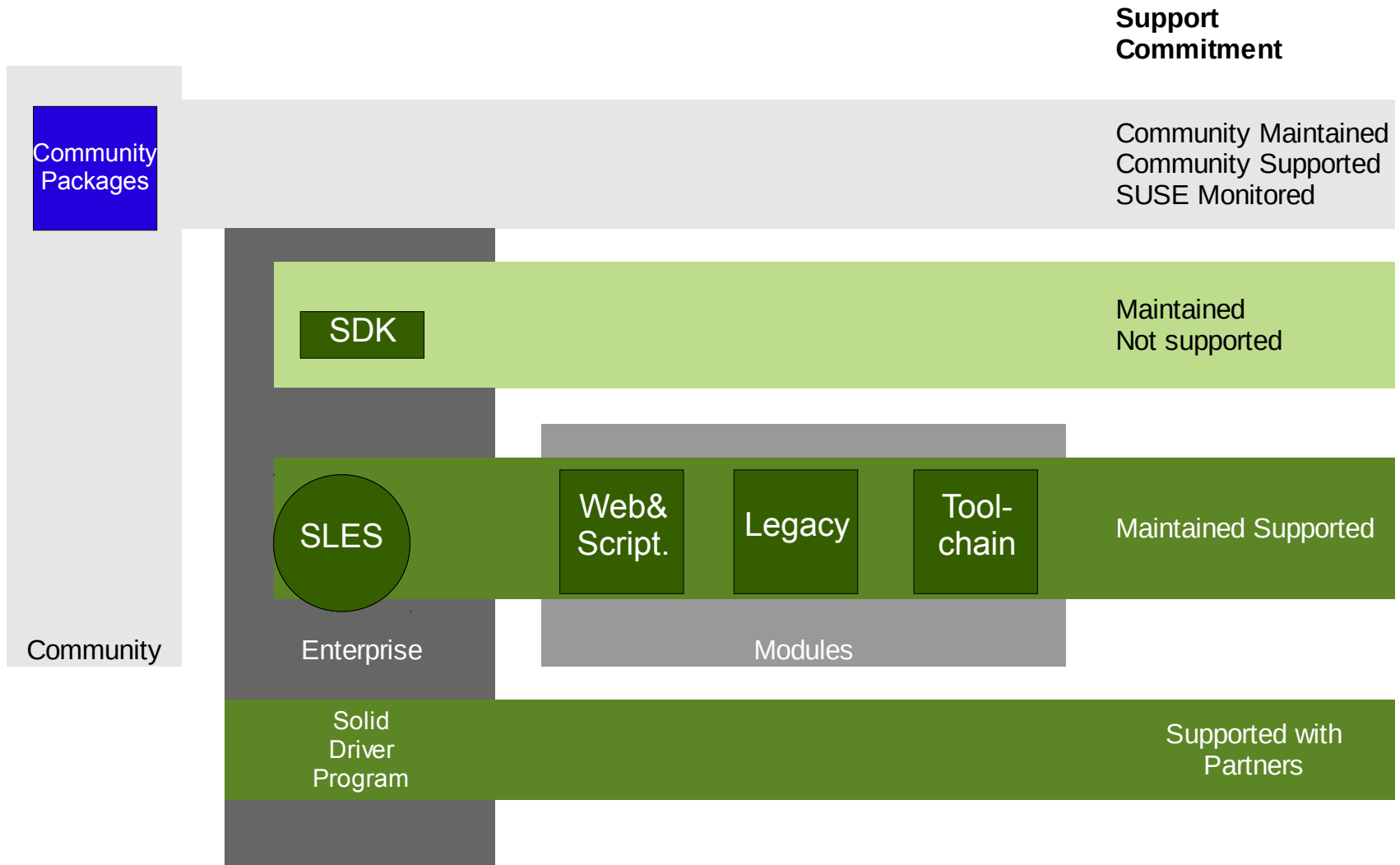
- Repository inside of the openSUSE Build Service
- Controlled submissions
 - Acceptance process similar to “core” Enterprise products
 - May not break supportability of base OS
 - Check-in approvals by SUSE
- Enlarged in several steps
- First phase has started
- Provides *additional* applications

Community Packages for SUSE Linux Enterprise

- Currently only for SUSE Linux Enterprise 12, not for SUSE Linux Enterprise 11
- Submissions should go to openSUSE:Factory first
- Not targeted: Updates for packages in the core OS

The Whole Picture

Modules



Summary

- Splitting the Module content off from the isos reduces download times, while the content is still available
- Modules provide an easy way to get updates for fast-changing components
- Distinction between support lifecycles can be made better visible
- With the Enterprise Build Service applications only interesting for some groups can be accessed.

Thanks for your attention!
Questions?

Thank you.







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