

Building GNOME on the

openSUSE Build Service and SUSE Studio

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Novell[®]

openSUSE Build Service

The slide features a solid blue background. In the center, the text 'openSUSE Build Service' is written in a white, sans-serif font. At the bottom of the slide, there are several horizontal white lines of varying lengths and thicknesses, creating a decorative effect.

Challenges of Distributing Software

- Package needed for proper integration with OS tools
- Need to:
 - build for different architectures
 - build for different distributions
 - build for different versions of distributions
 - distribute the packages to users
- And all this should be done in a secure way

Build Service Key Features

- Can create simple packages, but also full distributions including installation media
- Build for multiple distributions
- Build packages from tarballs, but also straight from svn or git
- Automatic rebuilding when a dependency changes
- Security model
 - build packages in clean virtual machines
 - access rights
- Collaboration model
 - people branch packages and submit their changes back
- Completely open
 - free software
 - API available for integration in other tools
- Free software (GPLv2)

openSUSE Build Service Demo

Build Service Instances

- Public openSUSE Build Service
 - build.opensuse.org
 - usable by all
 - can build against openSUSE, SUSE Linux Enterprise, Debian, Fedora, RHEL, CentOS, Mandriva, Ubuntu
 - only for free software
- Install your own instance
 - available as source (easy to install) but also ready-to-run appliance
 - faster builds
 - can connect to other instances (including build.opensuse.org) and reference packages from those instances

Some Figures about the Build Service

- More than 27,000 users
- More than 115,000 packages
- More than 18,000 projects
- Up to 250 builders
- 1,325 packages built per hour
- Approximately 1,000 submit requests per month to openSUSE:Factory

Users of the Build Service

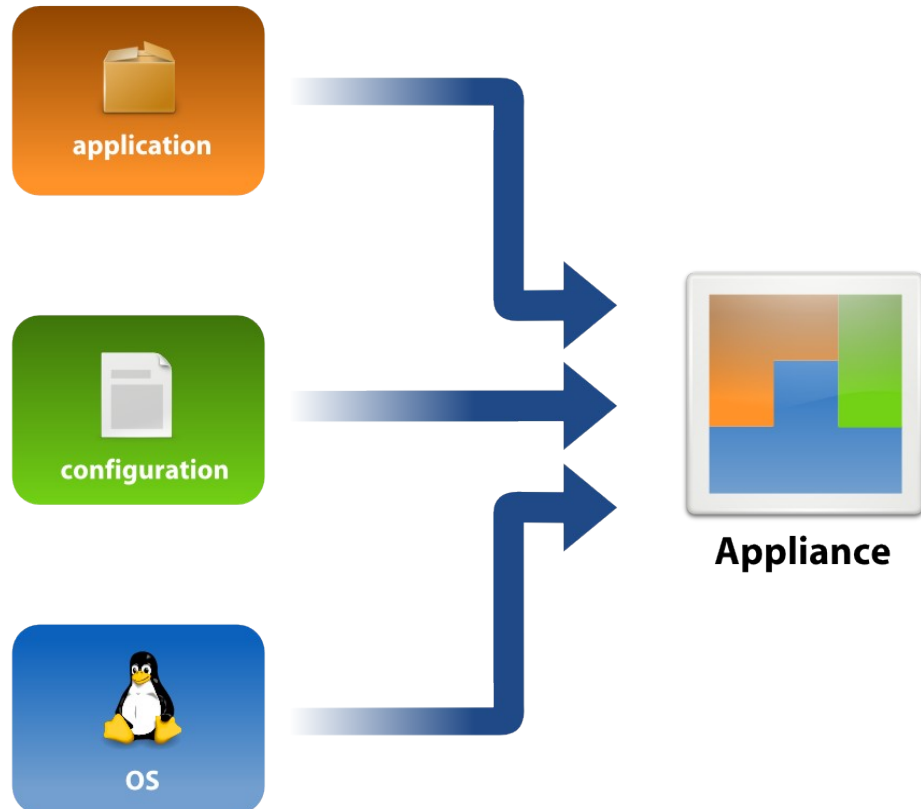
- openSUSE and Novell
- Meego (and Maemo)
 - Intel, Nokia, Linux Foundation and more
- Dell
- Cray
- Universities
- Labs (INRIA)
- ...

The Build Service and GNOME 3

- Packages provided by Frédéric Crozat
- Available first for openSUSE 11.3, and then switched to openSUSE 11.4
- A user of the stable openSUSE 11.4 will have the option to use GNOME 3!
- Packages immediately re-usable for Factory!

SUSE Studio

Appliances



- Software appliance
- Virtual appliance
- Cloud appliance

Benefits of Appliances

- Ease of use/deploy
- Smaller size
- Having a well defined software selection and configuration
- Customized to fit perfectly within a specific environment
- Ease of maintenance and updates

Use Cases for Appliances

- System for one specific application
 - ISVs now ship appliance too
- Installation images for specific hardware (drivers)
- Customized distribution (deployments)
- Live or demo CDs / DVDs / USB sticks (events, customers)
- ...

Building an Appliance the Old Way

The image displays a grid of 12 screenshots from a technical manual titled 'Distribution Constructor Usage TOC'. The screenshots are arranged in two rows of six. The top row shows the Table of Contents (TOC) and the beginning of the 'Common Usage Examples' section. The bottom row shows the 'Simplest Usage Case' and the 'Build Area' section. The screenshots contain text, code snippets, and diagrams, illustrating the process of building an appliance using the Distribution Constructor tool.

Table of Contents (TOC) Sections:

- Getting up to use the Distribution Constructor
- Setting up to use the Distribution Constructor
- File Locations
- Common Usage Examples
- Simplest Usage Case
- Build Area

Common Usage Examples:

- Example 1: Building a simple appliance...
- Example 2: Building a more complex appliance...

Simplest Usage Case:

- Building a simple appliance...

Build Area:

- Building a more complex appliance...

Building an Appliance with SUSE Studio



SUSE Studio Key Features

- Intuitive and simple interface
- Create from templates / Clone existing appliances
- Integrated testing
- Operating system based on the SUSE family
 - SUSE Linux Enterprise
 - > Fully supported system
 - > More than 6,000 certified applications from ISVs
 - openSUSE
- Build for multiple platforms
 - Live CD/DVD, HDD and USB image, Xen, VMware, OVF, Amazon* EC2

SUSE Studio Demo

Using SUSE Studio with Amazon EC2



Your Amazon EC2 appliances

To create new Amazon EC2 appliances, choose openSUSE 11.3, SUSE Linux Enterprise Server (SLES) 11 SP1 or SLES 10 SP3 on the [new appliance page](#). Select "Disk image" as your default format (for testing), and build "Amazon EC2" as a secondary type.

You can create and control EC2 instances on Amazon servers from this page once you have entered your [Amazon credentials](#).

Please note that this service provided by Amazon is not for free. Uploading and launching your appliance will incur costs. Please consult Amazon for [pricing](#) details.

[+ Add instance...](#)

Dominik's SLES 11 SP1, JeOS

(64-bit)

[edit appliance](#)

0.0.1 eu-west-1	ami-31ebdf45 EBS i-0d72827b	Show connection information ↓	ec2-79-125-71-200.eu-west-1.compute.amazonaws.com	Running	Terminate	×
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Dominik's JeOS

(64-bit)

[edit appliance](#)

0.0.6 eu-west-1	ami-4febd3b S3 i-ed0efe9b	Show connection information ↓	ec2-46-51-128-182.eu-west-1.compute.amazonaws.com	Running	Terminate	×
0.0.7 eu-west-1	ami-4debd39 S3	Show connection information ↓		Uploaded	Launch	×

SUSE Studio Online and Onsite

- Online version
 - Available at susestudio.com
 - Freely usable by anyone
 - Share appliances on susegallery.com
- Onsite version
 - Available for purchase
 - Use inside an internal network

Some Figures about SUSE Studio

- More than 100,000 users
- Nearly 700,000 appliances built
 - 5,248 appliances built in the last week
- More than 3,000 openSUSE 11.4 appliances built
 - 5 days after the release of openSUSE 11.4

SUSE Appliance Program



Some Figures about SUSE Studio

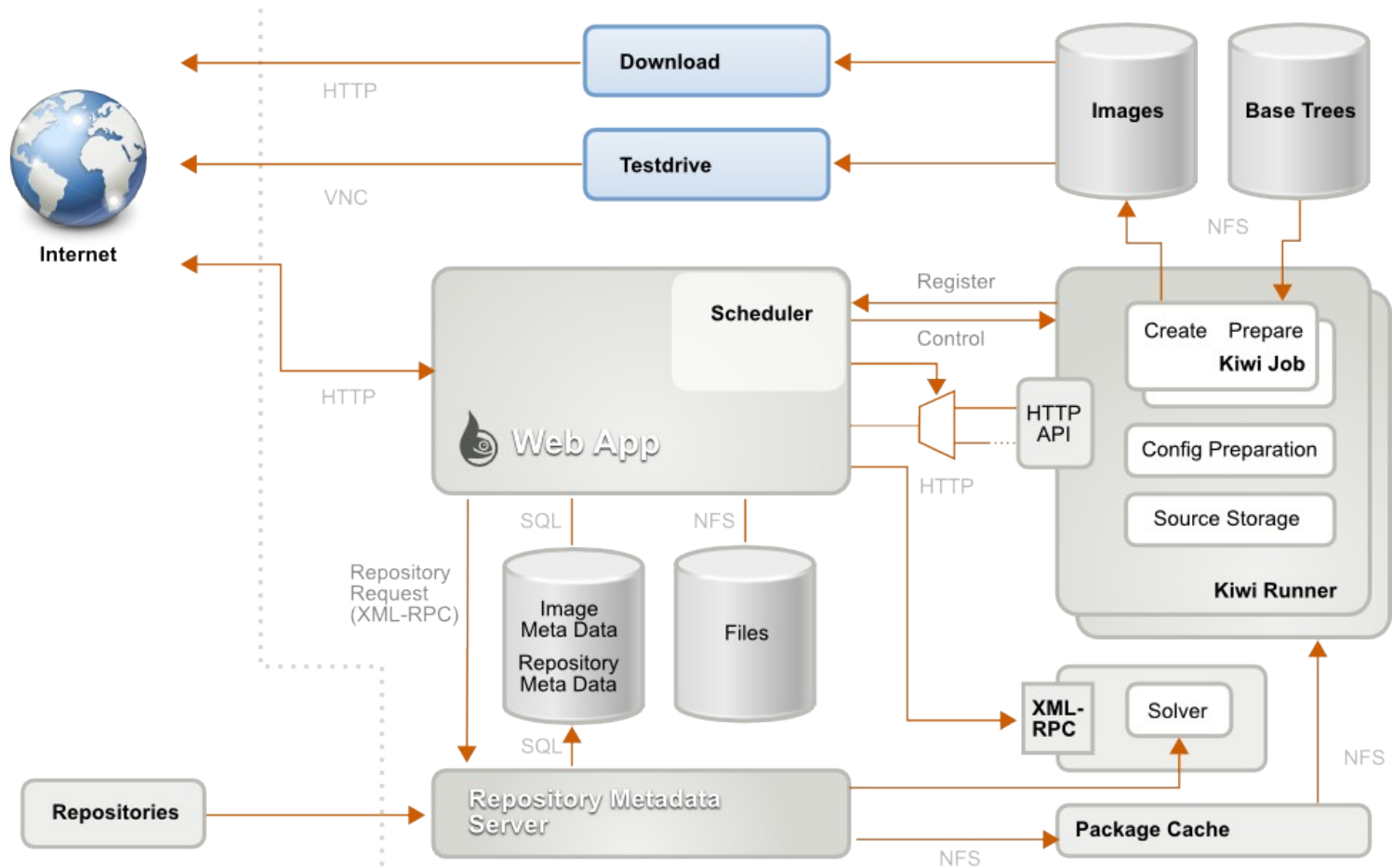
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SUSE Studio and GNOME 3

- Used to create a live image
- Packages from the Build Service
- Hard work was... to know how to distribute it!

Thank you!

SUSE Studio Architecture



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