Building GNOME on the openSUSE Build Service and SUSE Studio

Vincent Untz
openSUSE Booster
vuntz@opensuse.org

Novell®

openSUSE Build Service

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

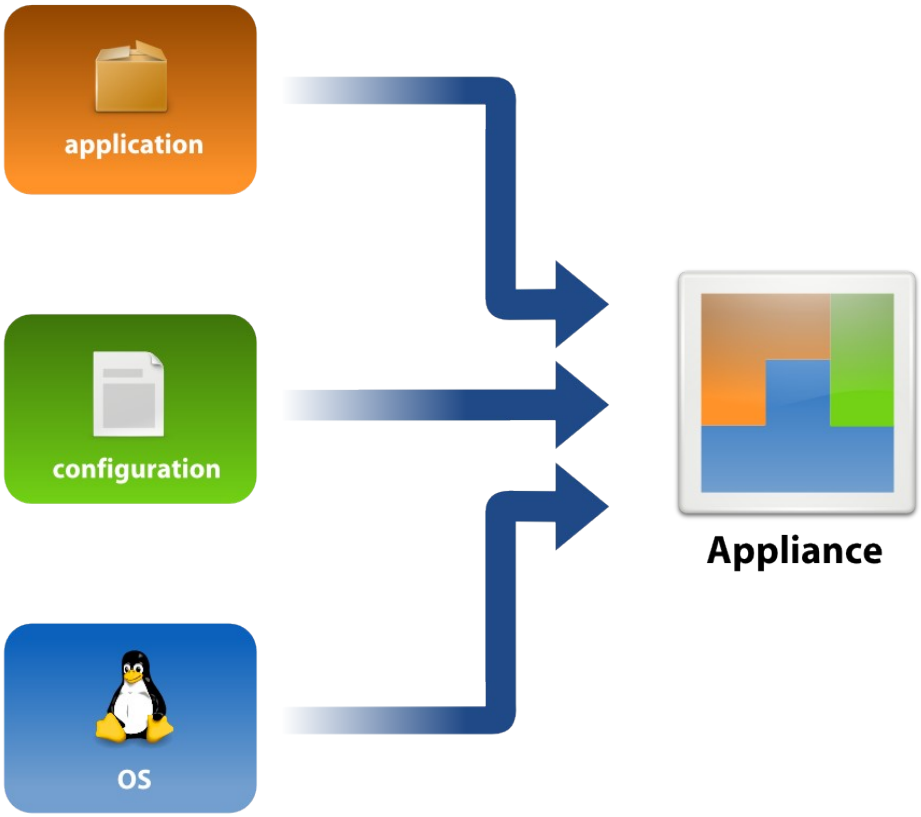
- openSUSE and Novell
- Meego (and Maemo)
  - Intel, Nokia, Linux Foundation and more
- Dell
- Cray
- Universities
- Labs (INRIA)
- ...

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

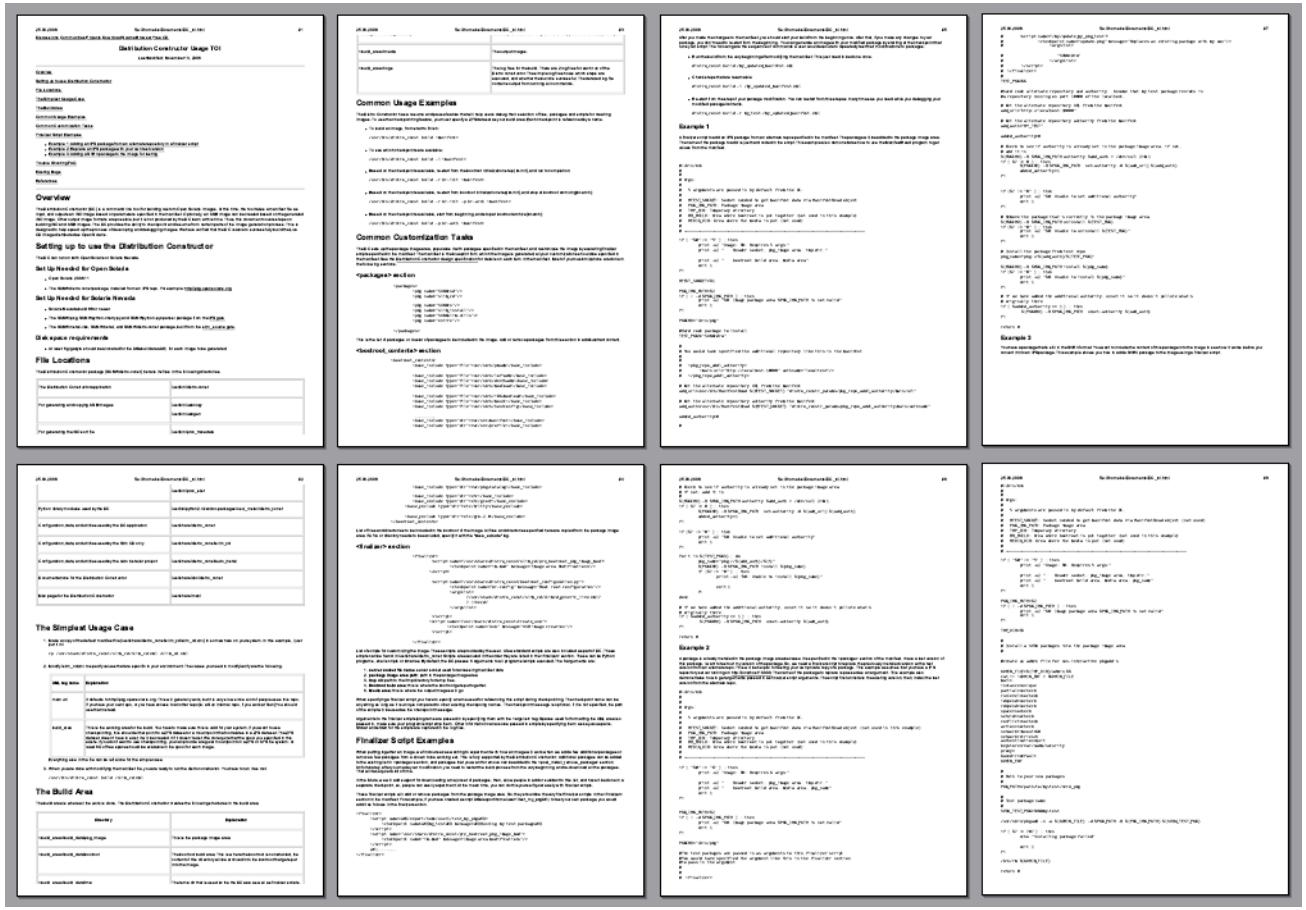
Benefits of Appliances

- 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



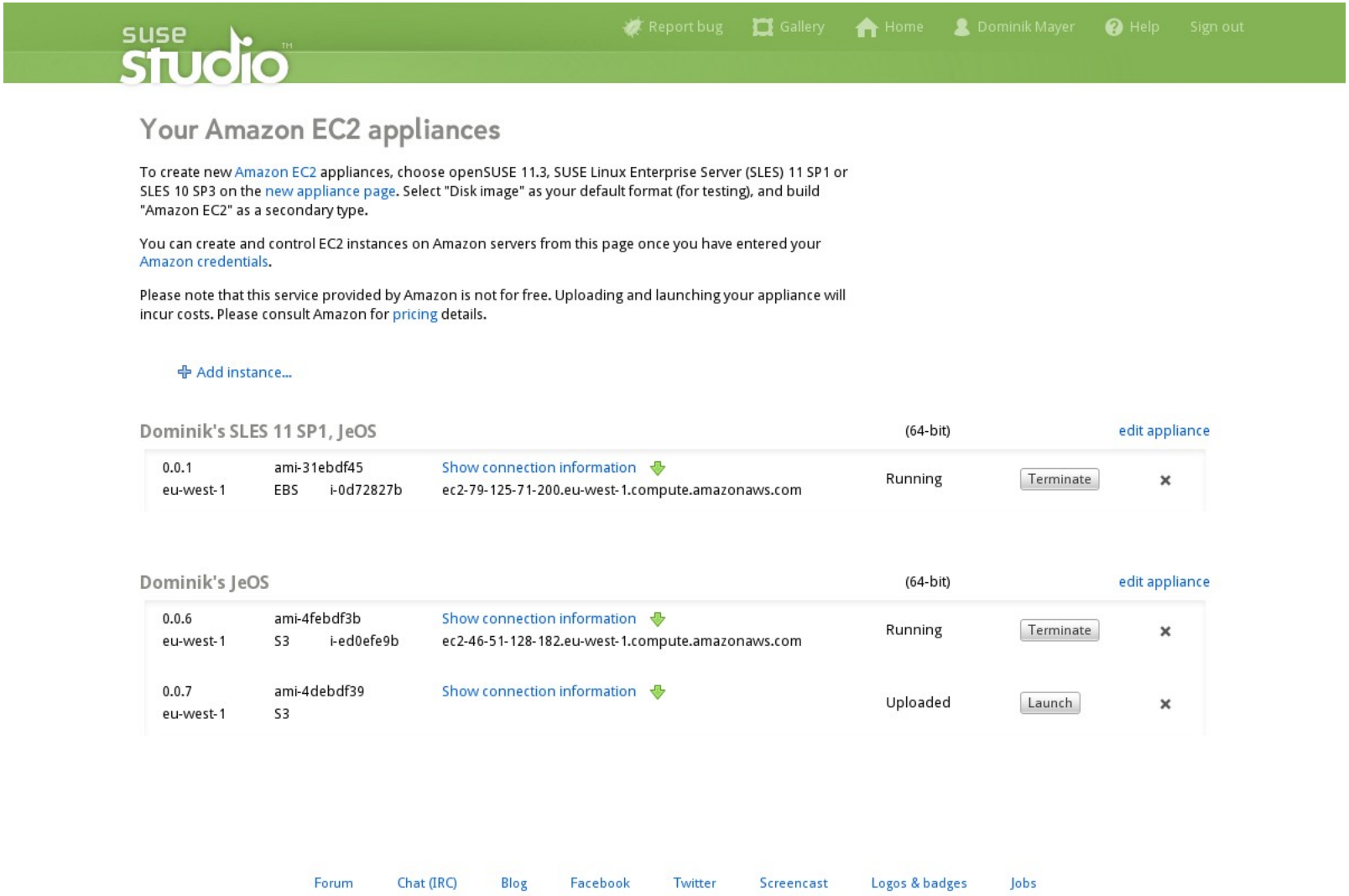
Building an Appliance with SUSE Studio

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



SUSE Studio Online and Onsite

- Online version
  - Available at susestudio.com
  - Freely usably by anyone
  - Share appliances on susegallary.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

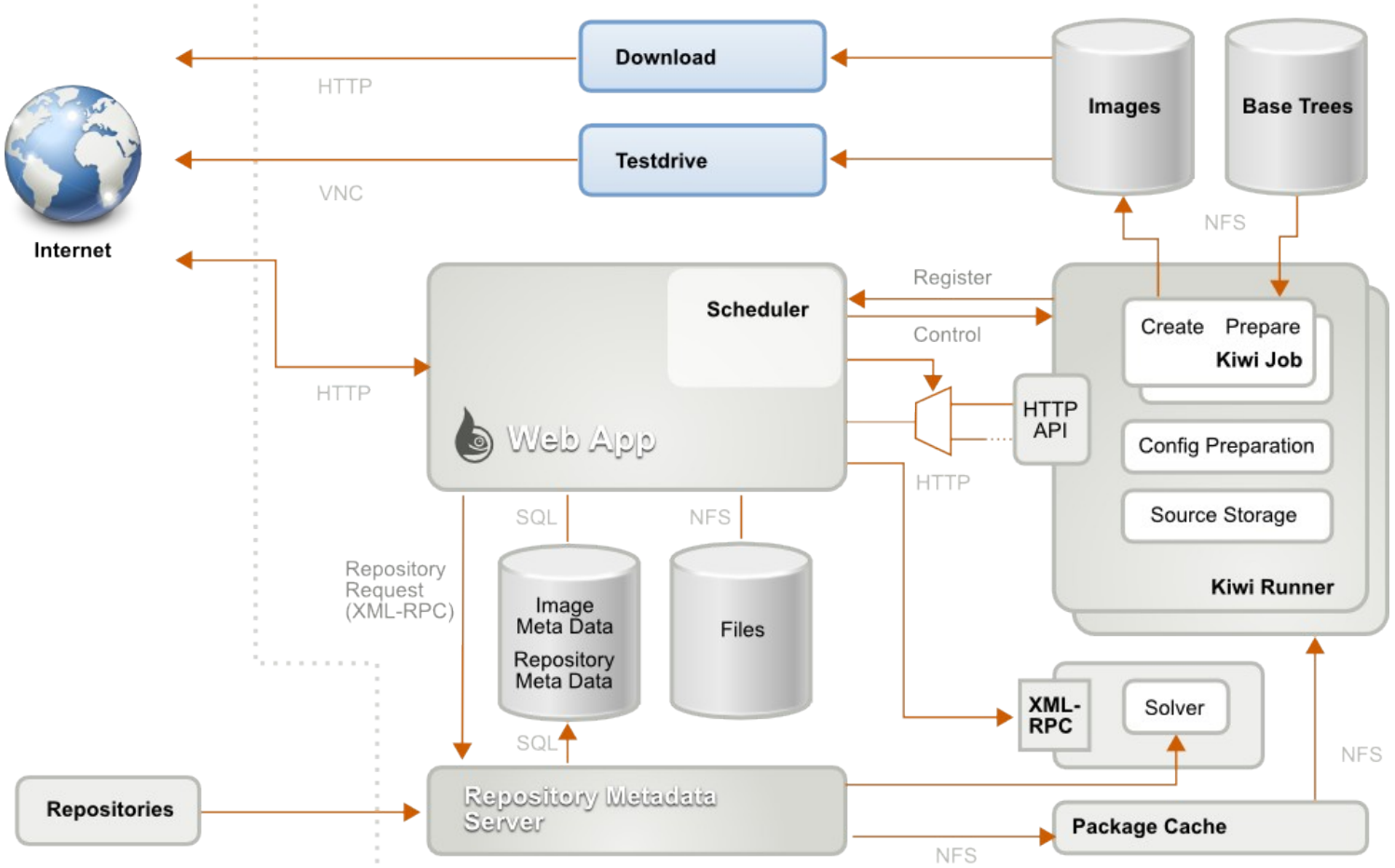
- More than 100,000 users
- Nearly 700,000 appliances built
  - 5,248 appliances built in the last week
- More than 3,000 openSUSE 11.4 appliances built
  - 5 days after the release of openSUSE 11.4

SUSE 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




Novell®