

# Public Cloud

Running Enterprise Linux Is Easy

**Robert Schweikert**

Public Cloud Architect

rjschwei@suse.com



# Public Cloud

Enterprise Linux on Demand and Easy

- Introduction
  - About me
  - Disclaimer
- Postulate
- The Landscape
- By Contrast
  - The data center work flow
  - Community distributions
  - Solving the problems for you
- By The Numbers
- Something Extra

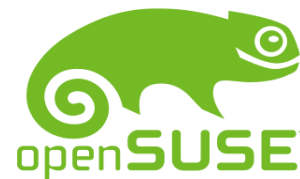
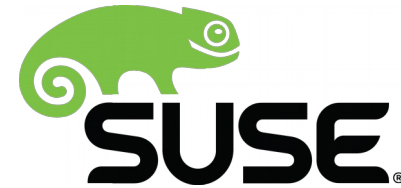


# Introduction

# Introduction

About me

- Work at SUSE® – ISV Engineering
  - Public Cloud Architect
  - ISV and integrated systems
- Contribute to KIWI
  - Code, tests, documentation, architecture
- Contribute to openSUSE®
  - Maintain packages
  - Build public cloud images
  - Board member



# Introduction

## Disclaimer

I am a software developer and by definition I have strong Opinions. I work equally well with all of our Public Cloud Partners. Each framework has it's advantages and disadvantages. My aim in this talk is to remain cloud provider neutral. If one provider or another gets more screen time this does not indicate a personal preference.



Postulate

# Postulate

The primary expectation of users/customers in a public cloud environment is that a created instance is ready to use.

This implies the “only” thing that needs to be done is to install and configure the workload.

# The Public Cloud Landscape



# The Big Boys



Google Compute Engine



Windows Azure

# Public Cloud Frameworks

- All cloud frameworks are the same except for
  - Underlying hypervisor
    - Effects the image format
  - Services offered
  - Management interface
    - Web UI and CLI
- But really, in principal they are the same

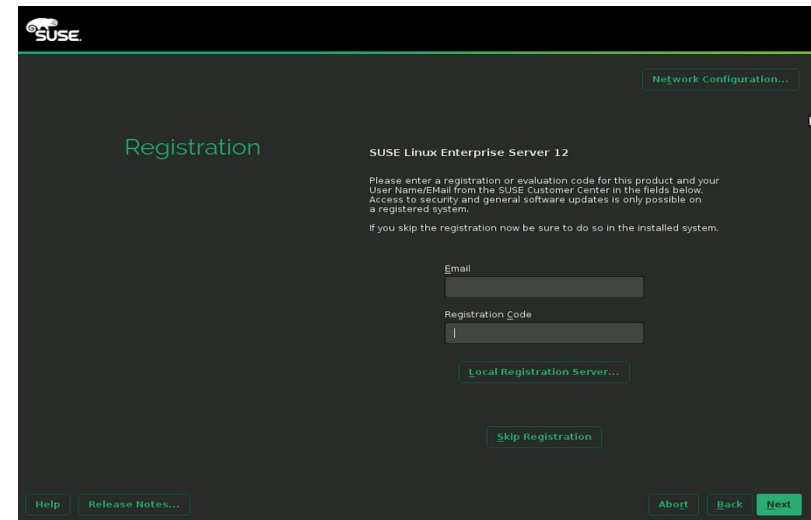
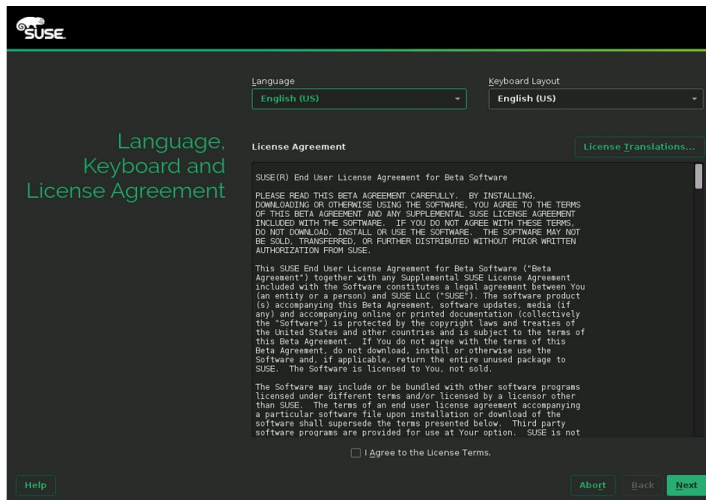
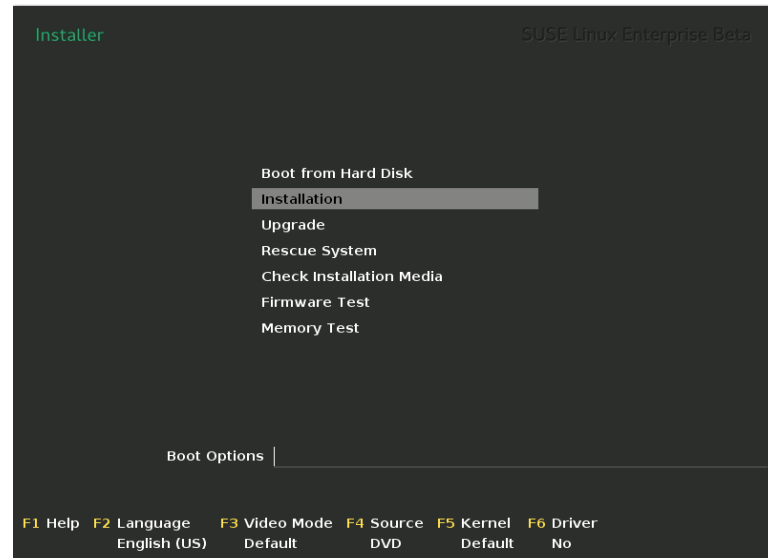
# Public Cloud Frameworks

This allows us to design and implement a cloud framework independent update infrastructure that works the same in every framework to support on demand images.

# The Needs By Contrast



# The Data Center



# See the Problems?

- Unthinkable in a public cloud environment
  - Works against the premise of “Fire up and Use”



# Community Distributions

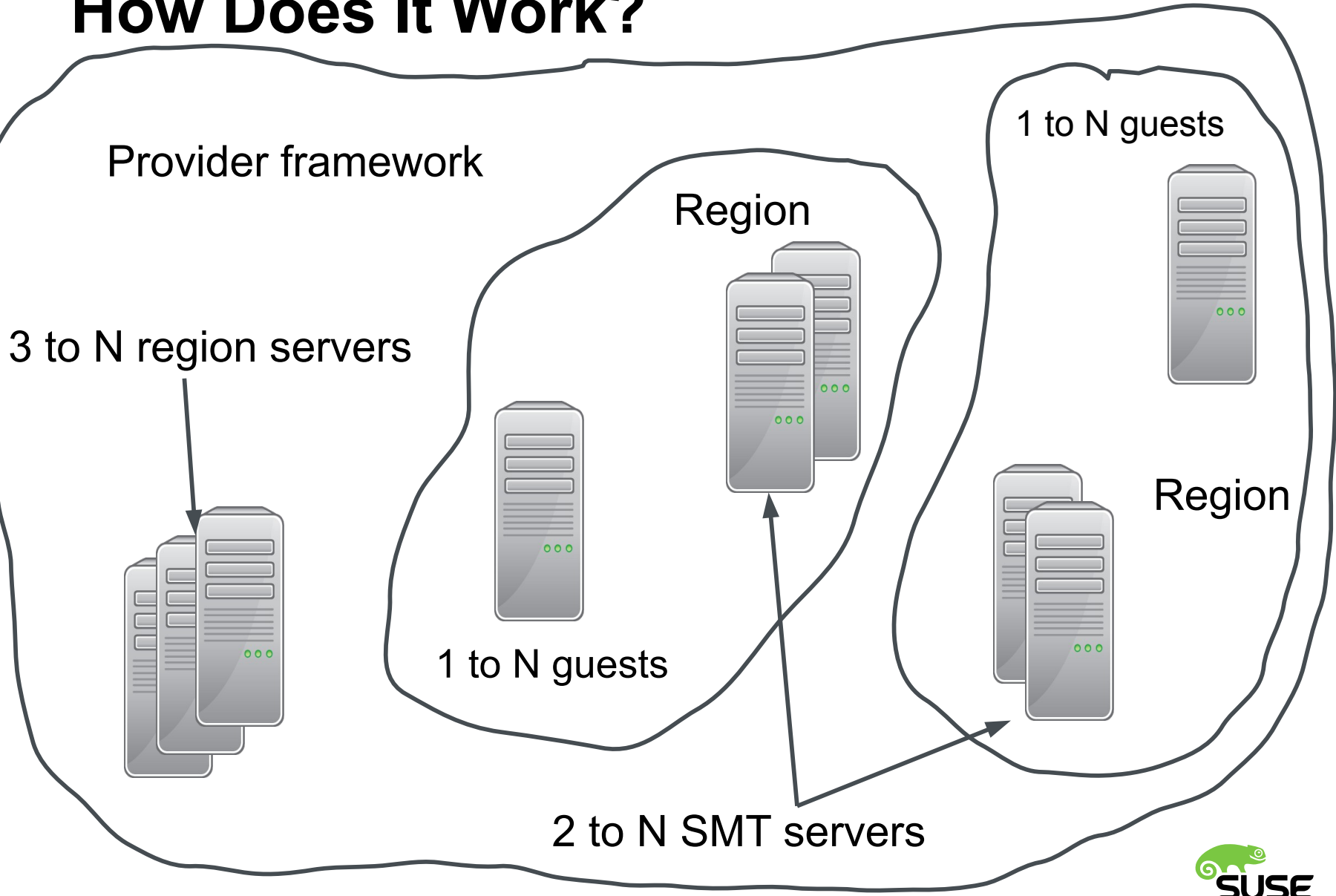
- Community provided images
  - Repositories are open and built into image
  - Help available via ML
- Meets “fire up and use”, but
  - Often fast moving
  - Relatively short life cycles

# Enterprise Distribution

- Stable
  - Relatively slow moving
  - Updates tested by more than the packager/developer
- Updates are subscription based
- We want to provide the expected Enterprise distribution quality in a “fire up and use” package, i.e. a public cloud image.



# How Does It Work?



# How Does It Work?

- Region Server
  - Maps IP addresses to regions
  - Hands out SMT server information for given region in random order
- SMT Servers
  - Provide the updates region local
  - No network charges
  - Low latencies

# How Does It Work?

- Guest image
  - Very little special sauce
    - Some extra certificates
    - A short Python script
    - Possibly a instance data collector script

# By The Numbers



# By The Numbers

- Amazon
  - 9 integrated regions
  - 2 disconnected regions
- Azure
  - 13 regions
- Google
  - 3 regions
- HP
  - 2 regions

# By The Numbers

- 14 different image builds for SLES® 12
- 15 different image builds for SLES® 11 SP3
- 78 servers across 4 cloud frameworks
  - Monitored
  - Maintained with latest security patches
- A team of 5
  - Project manager, Systems Administrator, 3 Developers

Something Extra

# This Is Great But....

- What if I want to call and yell at someone?
  - There is BYOS (Bring Your Own Subscription)
  - Announced this week
  - Complete an online application
  - Get SUSE support according to your existing subscription
- You still get to use SUSE built images
  - But you do not get to hook into the wonderful infrastructure we maintain





# BYOS Image Release

# BYOS

- Register your instance with NCC/SCC
- Access information on [SUSE Forums](#)

# Summary

# Summary

- SUSE builds, maintains, and operates infrastructure to make it easy for you to use SUSE Linux Enterprise in the public cloud
- Watch the forums and other channels for future announcements.





Questions?





## **Unpublished Work of SUSE LLC. All Rights Reserved.**

This work is an unpublished work and contains confidential, proprietary and trade secret information of SUSE LLC. Access to this work is restricted to SUSE employees who have a need to know to perform tasks within the scope of their assignments. No part of this work may be practiced, performed, copied, distributed, revised, modified, translated, abridged, condensed, expanded, collected, or adapted without the prior written consent of SUSE. Any use or exploitation of this work without authorization could subject the perpetrator to criminal and civil liability.

## **General Disclaimer**

This document is not to be construed as a promise by any participating company to develop, deliver, or market a product. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. SUSE makes no representations or warranties with respect to the contents of this document, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. The development, release, and timing of features or functionality described for SUSE products remains at the sole discretion of SUSE. Further, SUSE reserves the right to revise this document and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes. All SUSE marks referenced in this presentation are trademarks or registered trademarks of Novell, Inc. in the United States and other countries. All third-party trademarks are the property of their respective owners.

