# Respecting Open Source Licenses !

## Little Dramas in Open Source

When compliance meets development

Open Source CompLianCe @ Deutsche Telekom

*Karsten Reincke*

**T**

Erleben, was verbindet.

rOSL!

## Looking backward - Looking forward:
It's good to start with good memories!

# FOSS Con, Korea

2013



→

2014



Open Source Compliance Advisor
Open Source License Compendium

ExperienSeC

rOSL!

## Looking forward:
based on good memories!



Experience

Tragedy



What ever we do,
it is wrong!

Comedy



We don't stand a chance?
Ok, let's grab it!

ʀOSʟ!

Looking forward:
based on good memories!

Experience

Tragedy

Comedy
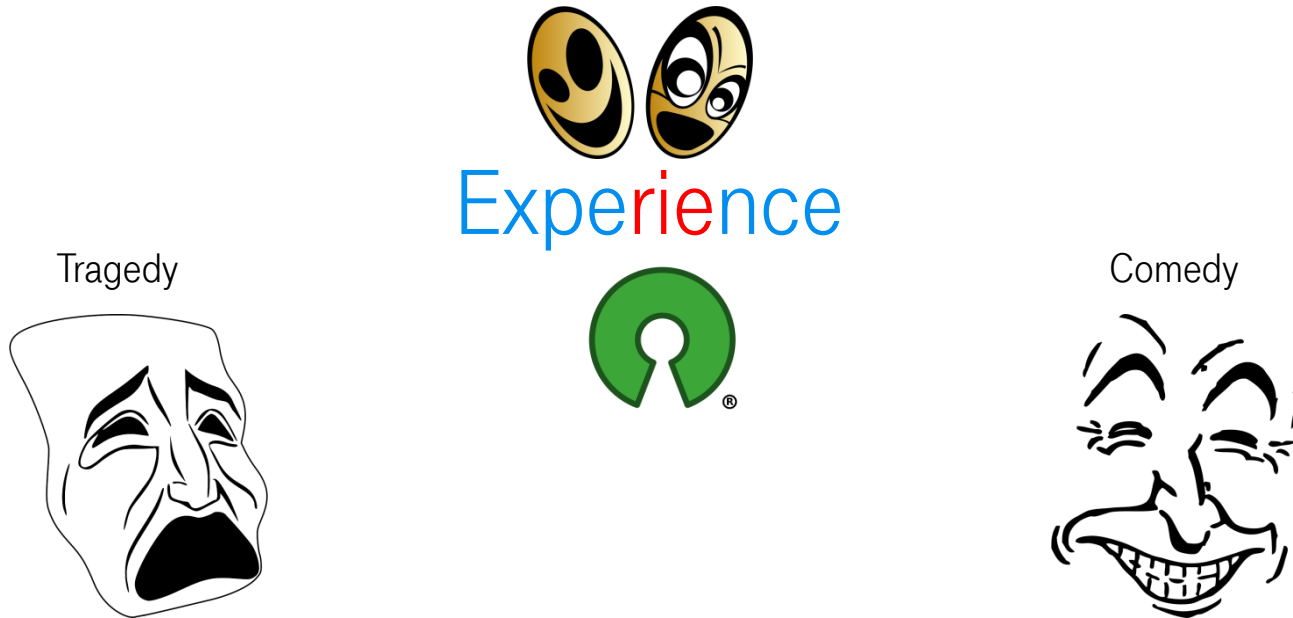
If there is no solution,
try to find the
best second best solutions

R**OS**L**!**

**Looking forward:**
based on good memories!

shortly  summarize the tools promising best solutions

for understanding
the spirit and the need of
best second best solutions
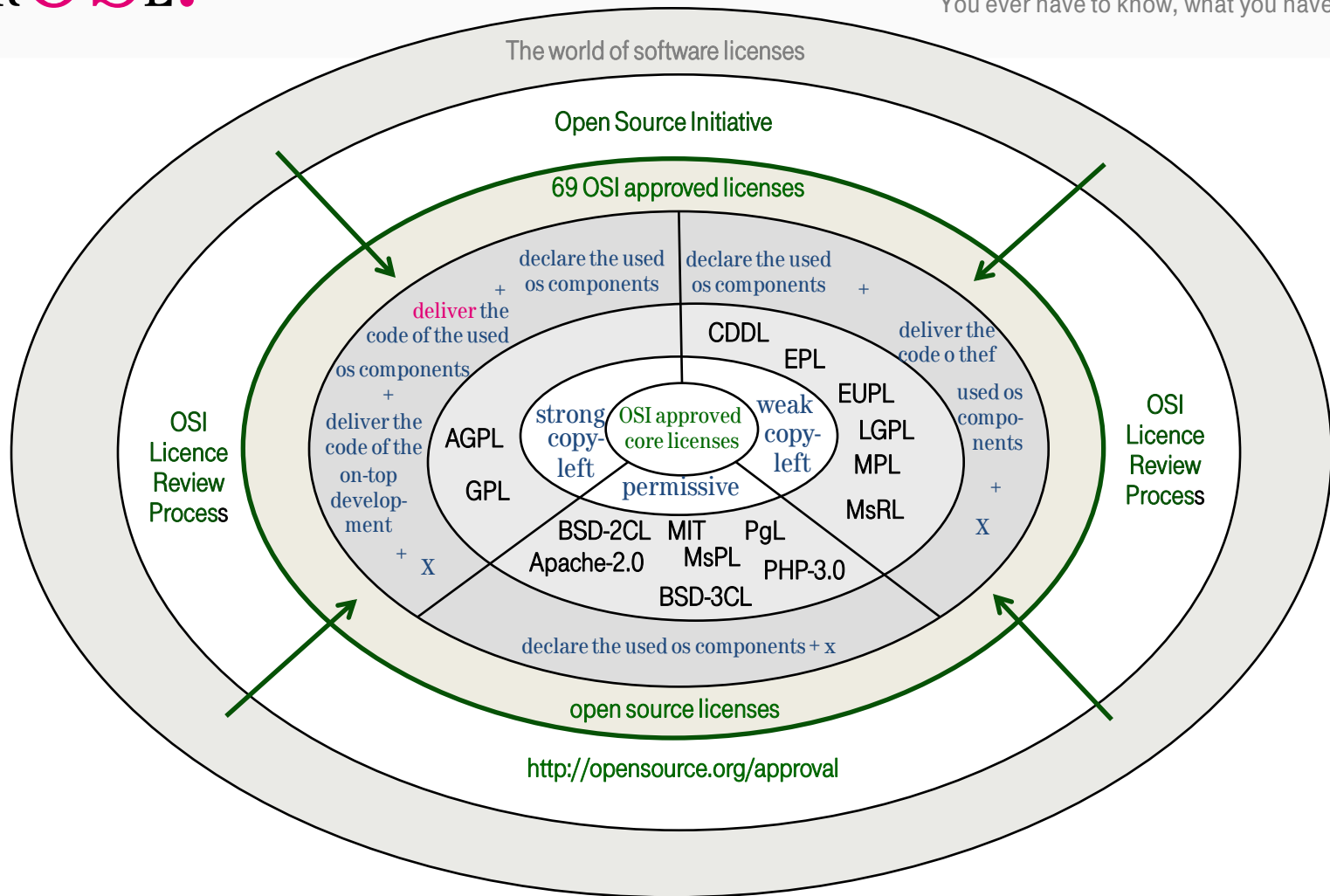
rOSL!

Open Source thinks the other way round:
You ever have to know, what you have to do!

# "PAYING" BY DOING
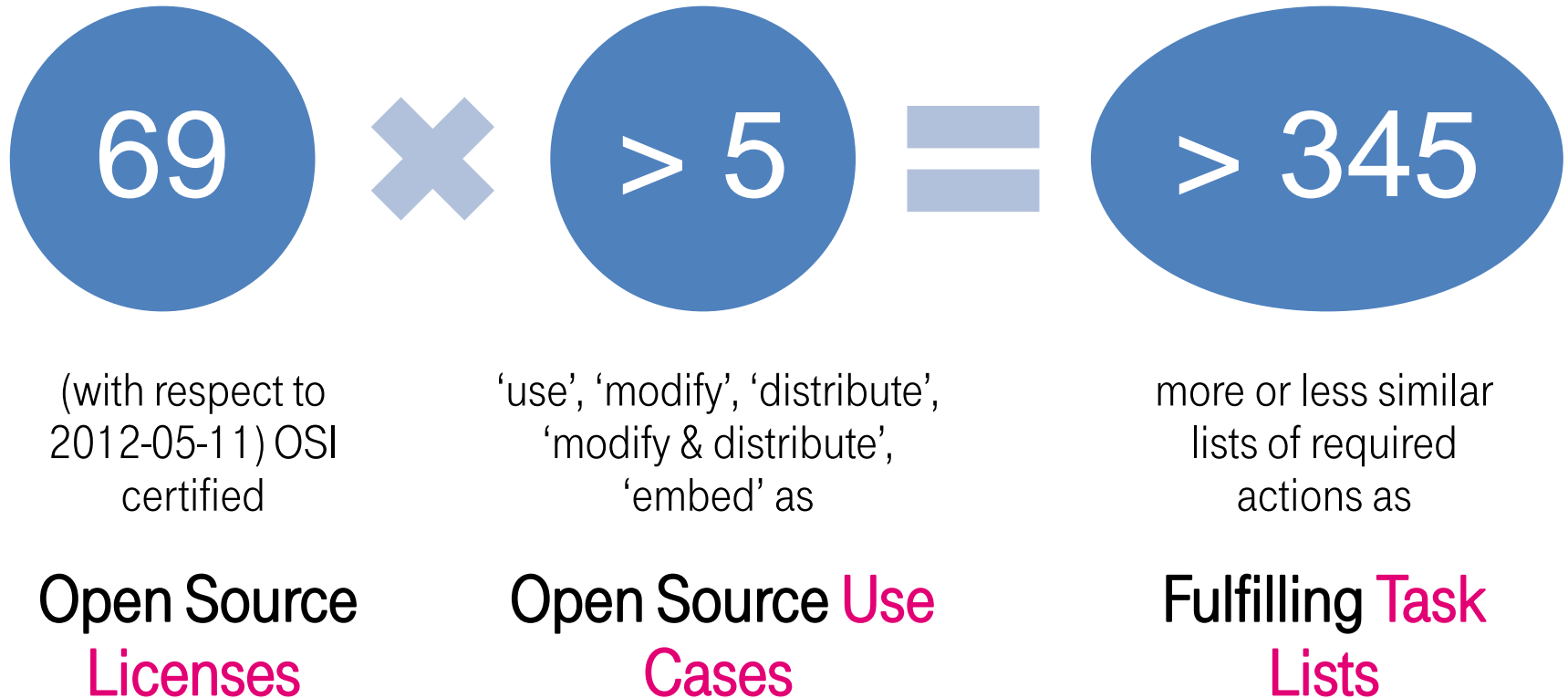
rOSL!

# Open Source Initiative maintains the rules:
### You ever have to know, what you have to respect!

The world of software licenses

Open Source Initiative

69 OSI approved licenses

OSI
Licence
Review
Process

OSI
Licence
Review
Process

declare the used
os components

declare the used
os components

+

+

deliver the
code of the used
os components

deliver the
code o thef

CDDL

EPL

EUPL

deliver the
code of the
on-top
develop-
ment

AGPL

GPL

strong
copy-
left

OSI approved
core licenses

weak
copy-
left

LGPL

MPL

MsRL

used os
compo-
nents

+

X

permissive

+ X

BSD-2CL

Apache-2.0

MIT

MsPL

BSD-3CL

PgL

PHP-3.0

X

declare the used os components + x

open source licenses

http://opensource.org/approval

rOSL!

## Open Source Initiative maintains the rules:
You ever have to know, what you have to respect!

**69** ✕ **> 5** = **> 345**

(with respect to 2012-05-11) OSI certified

'use', 'modify', 'distribute', 'modify & distribute', 'embed' as

more or less similar lists of required actions as

## Open Source Licenses

## Open Source Use Cases

## Fulfilling Task Lists

* http://www.opensource.org/licenses/alphabetical

# ʀOSʟ!

## Open Source thinks the other way round:
### Respect the rules and you are already allowed to use, to modify, and to distribute the results!

**WHO** SHALL DO / ENSURE THAT?

**WHY** is it a challenge for large Companies?

ᵣOSʟ!

## Open Source thinks the other way round:
Respect the rules and you are already allowed to use, to modify, and to distribute the results!

the larger the company,

the more products,

the more open source software,

the more compliance aspects

**the more cost**

**the complexer** the supply chain

# ʀOSʟ!

## Open Source Use Cases and the open source supply chain
You ever have to know, what you have to do!



end user

open source area
of the internet

reseller

supplier

# ʀOSʟ!
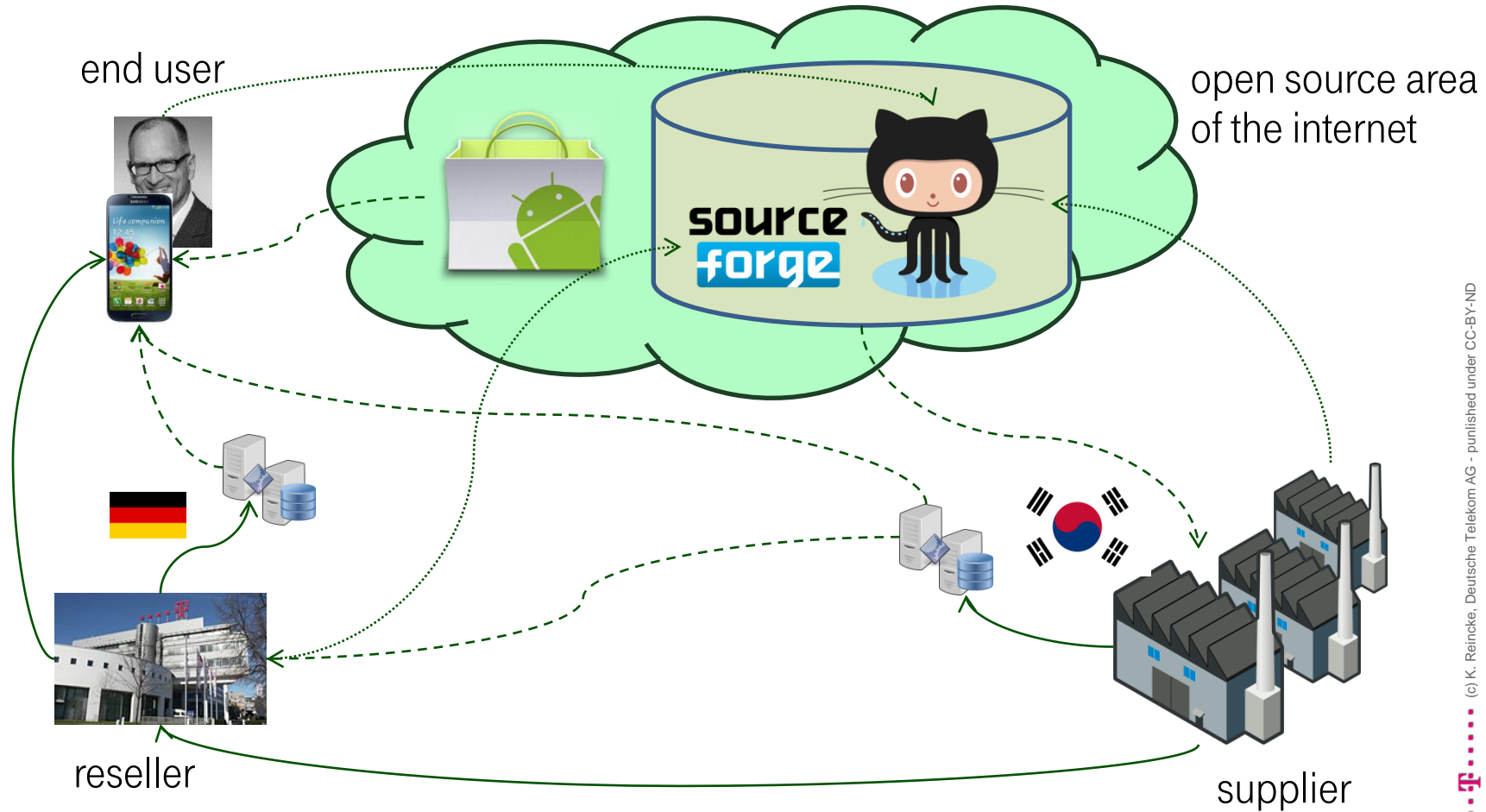
## Compliantly Using Open Source!
The need to have an OSLiC and an OSCAd

The free
**O**pen
**S**ource
**Li**cense
**C**ompendium
=
LaTeX Sources
for a pdf file
hosted on github

*take it easy*

The
Open **O**
Source **S**
Compliance **C**
Advisor **Ad**
=
interactive
python app
hosted on github

http://opensource.telekom.net/**oslic**

http://opensource.telekom.net/**oscad**

2014-12-03

ʀOSʟ!

## Mitigation by an interactive version
... to facilitate the use of the complex rules

Answer 5 questions ...



& select a license

... to get a compliance task list

ʀOSʟ!

Be invited, be welcome!
We want to collaborate.



http://opensource.telekom.net/



expects that you

know the software architecture and the use case

# ʀOSʟ!

## Be patient, be realistic!

Sometimes, there is no best way – even in the world of open source software.

But having to know the software architecture and the use case sometimes invokes ...

## Little Dramas in Open Source

# ʀOSʟ!

## Be patient, be realistic!

Sometimes, you have to manage  unsolvable challenges



courage for using the best second best solution

RОSL!

The little compliance drama of java script!
An unsolvable challenge and the second best solution.



"jQuery is a fast, small, and feature-rich JavaScript library.

It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers."

```
http://jquery.com/
```

# ʀOSʟ!

## The little compliance drama of java script!

An unsolvable challenge and the second best solution.

# ROSL!

## The little compliance drama of java script!
An unsolvable challenge and the second best solution.



http://jquery.com/download/

compressed (production)                uncompressed (development)

ʀOSʟ!

# The little compliance drama of java script!

An unsolvable challenge and the second best solution.

`https://jquery.org/license/`

„ […]  The above copyright notice and this permission notice
shall be included in all copies or substantial portions of the
Software. […]"

`http://opensource.org/licenses/MIT`

# ʀOSʟ!

## The little compliance drama of java script!
An unsolvable challenge and the second best solution.

no
permission
note !

`http://code.jquery.com/jquery-2.1.1.min.js`

`http://code.jquery.com/jquery-2.1.1.js`
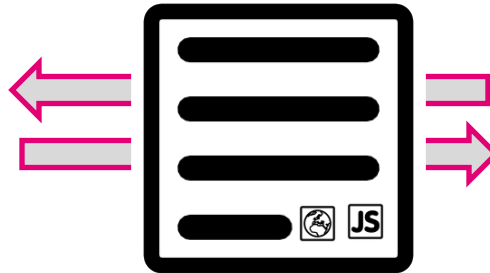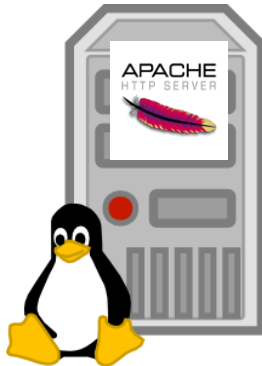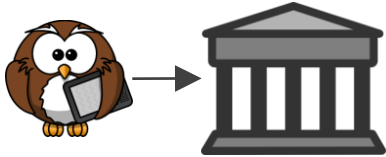
compressed (production)

uncompressed (development)

# R OS L !

## The little compliance drama of java script!
An unsolvable challenge and the second best solution.

What can you do?

- Use the libs as they are delivered by the authors

  - Advantage: No unnecessary modification

  - Disadvantage: incompliant use

- Expand the code by the parts required by the MIT license

  - Advantage: compliant use

  - Disadvantage: unnecessary modification  & traffic load

rOSL!

# The little compliance drama of java script!
An unsolvable challenge and the second best solution.



Not only jquery

dōjō toolkit

ember

qooxdoo

# rOSl!

## The little compliance drama of java script!
An unsolvable challenge and the second best solution.

**What did we do?**

**We asked the OSI mailing list** for guidance (`http://projects.opensource.org/pipermail/license-discuss/2014-January/001418.html`).

**We got an answer** by Mr. Sullivan, director of the FSF (`http://projects.opensource.org/pipermail/license-discuss/2014-January/001423.html`), stating

- that even RMS discussed this issue (java script trap) &

- that even the FSF votes  for a link based solution : the license text is not directly included into the package but delivered  by an extra request.

# ROSL!

## The little compliance drama of java script!
An unsolvable challenge and the second best solution.

We asked the OSI mailing list for guidance [....]

Therefore  all pages of

http://opensource.telekom.net/ [ oslic | oscad ]

should contain a link to a page describing the used FLOSS components and the required information

best second best solution

OSLiC-0.99.1 © 2012-2014 Deutsche Telekom AG | FLOSS components used by this site/page

# rOSL!

## The little compliance drama of maven!
### An unsolvable challenge and the second best solution.

**maven**

"Apache Maven is a software project management and comprehension tool [for Java development tasks].

Based on the concept of a project object model (POM), Maven can manage a project's build, reporting and documentation from a central piece of information."

```
http://maven.apache.org/
```

ROSL!
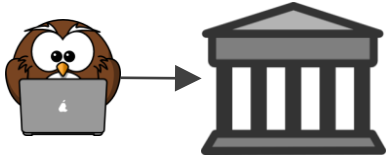
## The little compliance drama of maven!
An unsolvable challenge and the second best solution.



maven pom file



"POM stands for "Project Object Model". It is an XML representation of a Maven project held in a file named pom.xml. [... It] contains configuration files, as well as [...] the project's dependencies [...]"

`http://maven.apache.org/pom.html`

ROSL!

## The little compliance drama of maven!
An unsolvable challenge and the second best solution.



Internet

maven pom file

maven

clean
...
install
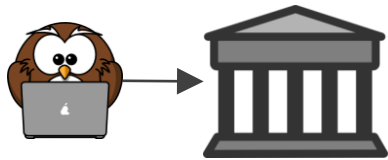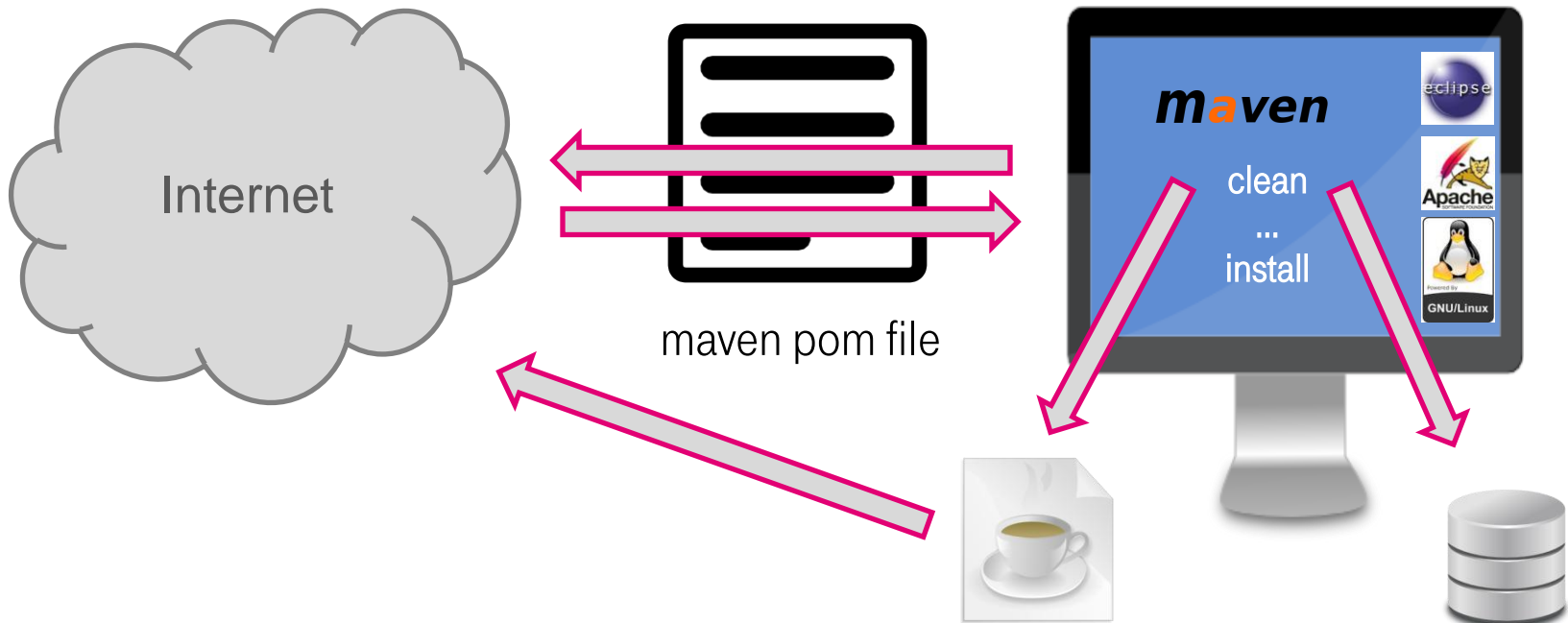
# ROSL!

## The little compliance drama of maven!
An unsolvable challenge and the second best solution.

**maven**

## But then you do not know / consider

- **from where** the packages you use come
- **their level of quality** concerning the OS compliance
- **their licenses** (may be embedded strong copyleft?)

It is not a bug, it is a feature

R OS L !

## The little compliance drama of maven!
An unsolvable challenge and the second best solution.

**maven**

- **Distribute only your source code** and the maven pom files
  - Advantage: The user has to fulfill the licenses
  - Disadvantage: not very customer friendly
- Use maven as it is intended to be used
  - Advantage: Maven does what otherwise you have to do
  - Disadvantage: probably incompliant distribution
- **Close the repository**, synch the pom file to the gathered versions, in all gathered packages add / improve all parts with respect to the needs of the license
  - Advantage: compliant use
  - Disadvantage: you are using maven in the spirit of ant

What can you do?

# rOSL!

## The little compliance drama of maven!
An unsolvable challenge and the second best solution.

**maven**

best second best solution

- Distribute only our source code and the maven pom files
  - **Advantage**: The user has to fulfill the licenses
  - **Disadvantage:** not very customer friendly
  - **Acceptable:** because you are offering open source
- Close our repository, synch our pom file to the gathered versions, repair all gathered packages that do not fulfill their own license requirements
  - **Advantage**: compliant use
  - **Disadvantage:** you are using maven in the spirit of ant
  - **Acceptable:** in case of very rarely published binary versions

ΨKeds

r**OS**ʟ**!**

The little compliance drama of  **cloud technologies!**

An unsolvable challenge and the second best solution.

Sometimes one might hear

"Using open source software in the cloud compliantly is easy – because you've nothing to do."

But

that is only 1/3 of the truth!

The other 2/3s are tricky and affected by the maven drama

# The little compliance drama of cloud technologies!

An unsolvable challenge and the second best solution.

ʀOSʟ!



guest os

virtual machines

[...]                    [...]

hypervisor

host os

physical machines & storage

[...]

data server

# ʀOSʟ!

## The little compliance drama of **cloud technologies!**
An unsolvable challenge and the second best solution.

software
distribution?
YES!

makes download of software possible

ssh/scp: access

http: order

software
distribution?
NO!

KVM

openstack™
CLOUD SOFTWARE

[...]

ʀOSʟ!
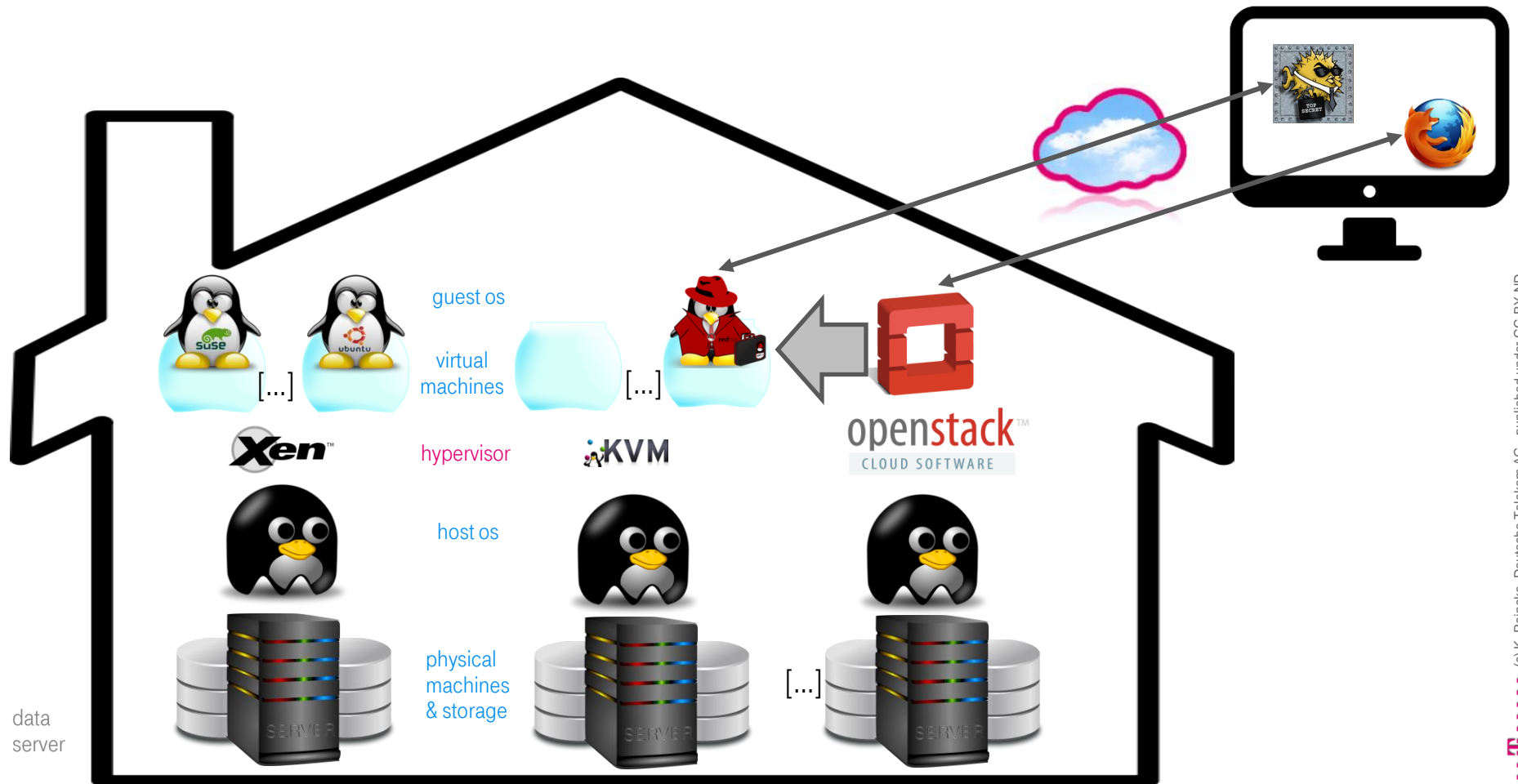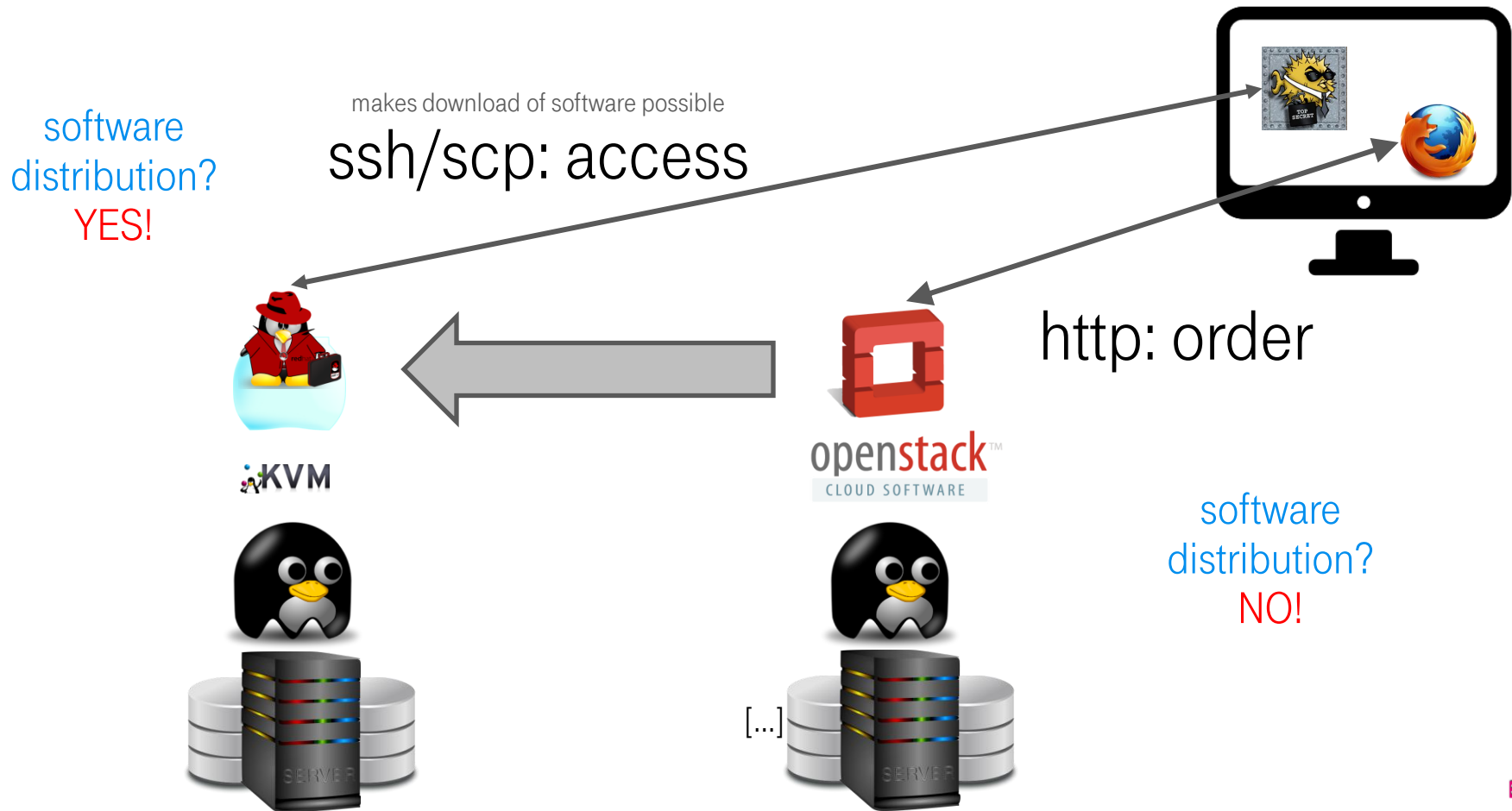
The little compliance drama of cloud technologies!
An unsolvable challenge and the second best solution.

the 1/3 of the complete truth:

Using open source cloud management software in the cloud compliantly is easy.

the 2/3 of the complete truth:

Cloud Server has to respect all conditions of the (via ssh) delivered guest operating system.

R O S L !

## The little compliance drama of maven!

An unsolvable challenge and the second best solution.

What can you do?

- IAAS:
  - Deliver only the minimal guest operating system
    - Advantage: You know its components
    - Disadvantage: you have to fulfill the conditions
- PAAS/SAAS
  - Let the user download the components
    - Advantage: The user has to fulfill the licenses
    - Disadvantage: not very customer friendly
  - Offer readily prepared platforms / software stacks
    - Advantage: You offer real products
    - Disadvantage:

# rOSL!

## The little compliance drama of cloud technologies!

An unsolvable challenge and the second best solution.

software
distribution?
YES!



Internet

puppet labs

openstack
CLOUD SOFTWARE

:KVM

[...]

# r OS L !

## The little compliance drama of cloud technologies!
An unsolvable challenge and the second best solution.

Internet

It is not a bug, it is a feature

puppet labs®
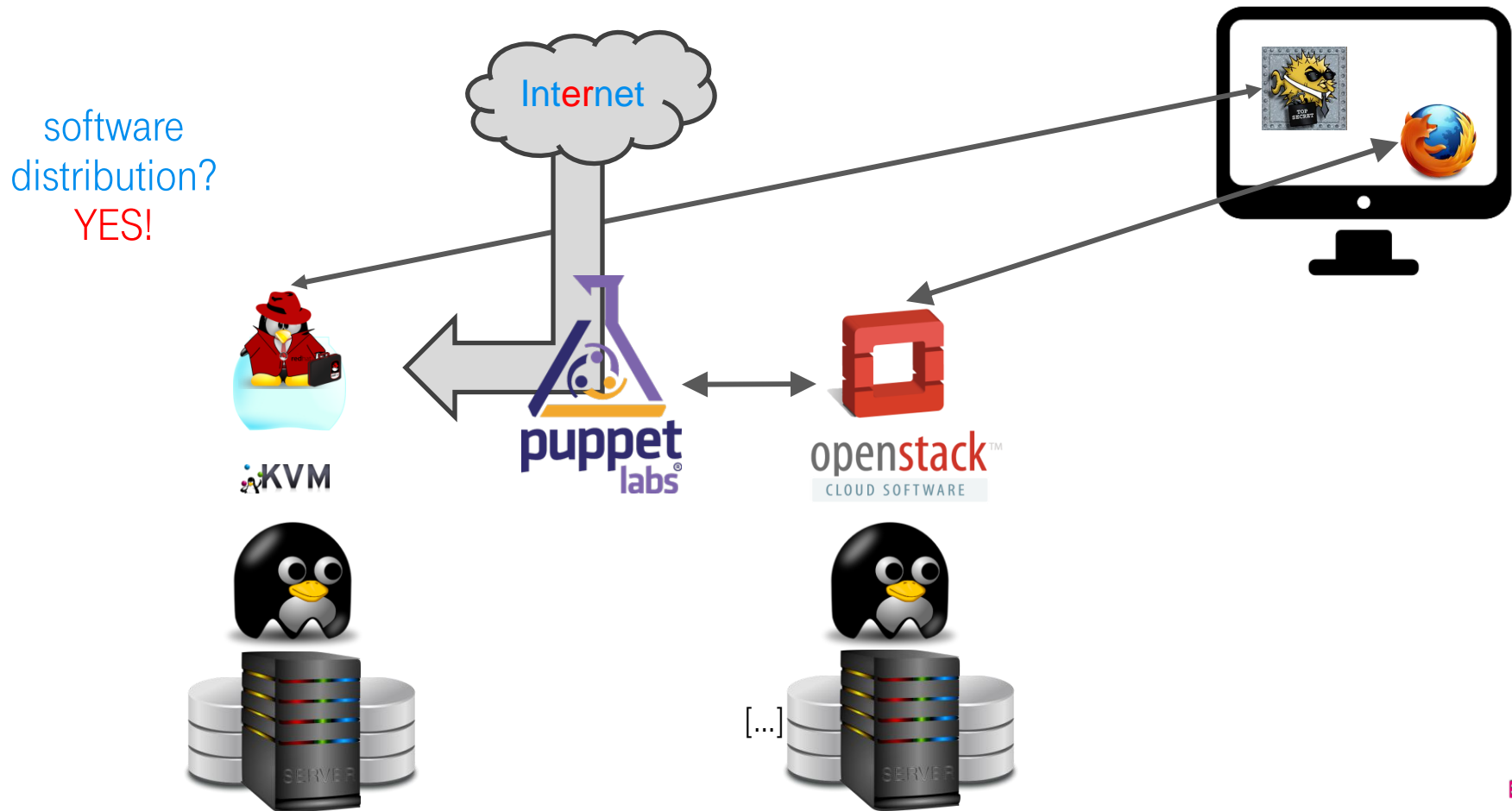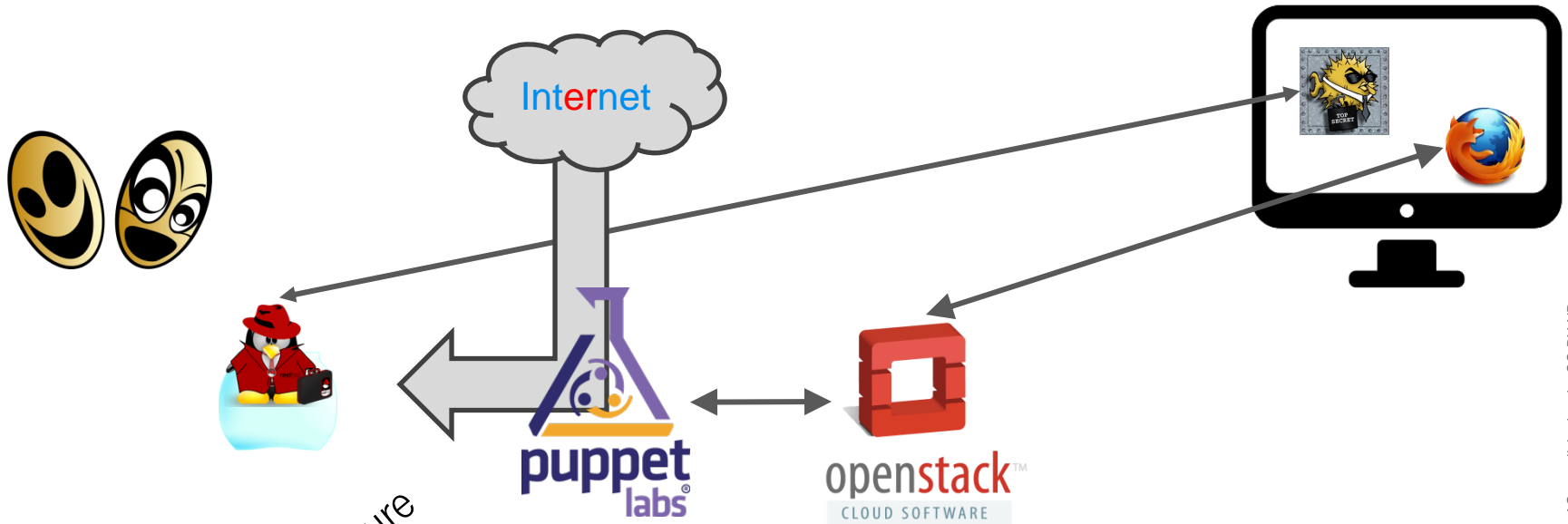
openstack™
CLOUD SOFTWARE

# But then you do not know / consider

- **from where** the packages you use come
- **their level of quality** concerning the OS compliance
- **their licenses** (may be embedded strong copyleft?)

# rOSL!

## The little compliance drama of the AGPL!
An unsolvable challenge and the second best solution.



## The GNU Affero General Public License is the open source license for cloud software

It contains nearly the same text like the GPL-3 - except §13, the "Remote Network Interaction":

"[...] if you modify the Program, your modified version must prominently offer all users interacting with it remotely through a computer network [...] an opportunity to receive the Corresponding Source of your version by providing access to the Corresponding Source from a network server at no charge [...]

http://www.gnu.org/licenses/agpl.html §13

# ʀOSʟ!

## The little compliance drama of the AGPL!
An unsolvable challenge and the second best solution.
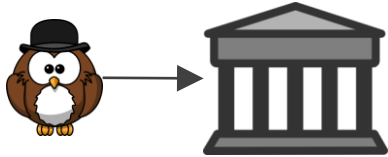
(Un)Fortunately, the AGPL3 and the GPL3 are very clear when they talk about the "Corresponding Source" :

"The 'Corresponding Source' for a work [...] means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities.

However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work".

http://www.gnu.org/licenses/agpl.html §1

rOSL!

## The little compliance drama of the AGPL!

An unsolvable challenge and the second best solution.

PYTHON - LIB

APACHE HTTP SERVER

Corresponding Source
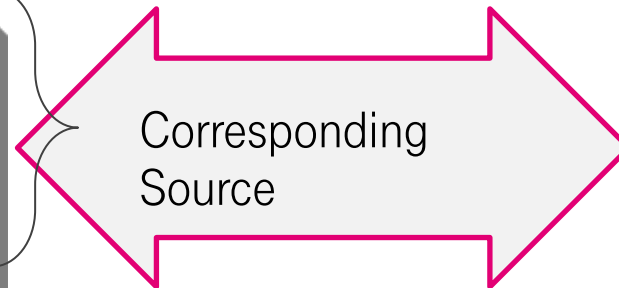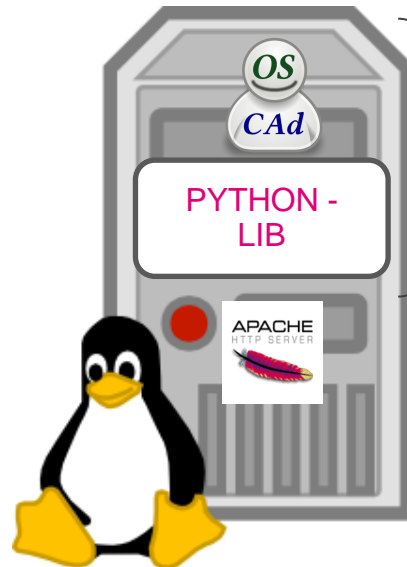
generally available free programs which are used unmodified in performing those activities but which are not part of the work

System Libraries & general-purpose tools

# ʀOSʟ!

## The little compliance drama of the AGPL!
An unsolvable challenge and the second best solution.



- Deliver  OSCAd and a complete python distribution

  - Advantage: compliant use

  - Disadvantage: impracticable scope

- Deliver only OSCAd

  - Advantage: a practicable scope

  - Disadvantage: incompliant use

What can you do?

R**OS**L!

The little compliance drama of the **AGPL!**
An unsolvable challenge and the second best solution.

- We declared that in OSCAd 2.0 the AGPL does not cover the (basic) python script libraries

- We could do that because we are

  - the initial authors

  - the copyright owners

best second best solution

a solution only for projects started by yourself

# rOSL!

## Little Dramas of Open Source ...
### ... can nevertheless be managed.



encourage yourself to use the best second best solution

ʀ**OS**ʟ**!**

Be **invited**, be **welcome!**
We want to collaborate.

# Many thanks for your time and attention!

## k.reincke@telekom.de
## http://opensource.telekom.net/

# ROSL!

## references!
for using elements compliantly.

- pictures of owls (public domain):
    - https://openclipart.org/detail/168873/owl-with-ebook-reader-by-bocian
    - https://openclipart.org/detail/168877/owl-with-notebook-by-bocian
    - https://openclipart.org/detail/168872/owl-with-derby-by-bocian
- parthenon icon (public domain): http://www.clker.com/clipart-250347.html
- tragedy mask (public domain):
    - https://openclipart.org/detail/181406/tragic-mask-by-liftarn-181406
    - https://openclipart.org/detail/184850/comedy-and-tragedy-by-arvin61r58-184850
- smile&cry masks (public domain): https://openclipart.org/detail/202431/raseone-smile-now-cry-later-by-raseone-202431
- computer icons (public domain):
    - https://openclipart.org/detail/171422/server—linux-by-cyberscooty-171422
    - https://openclipart.org/detail/166823/modern-desktop-by-gsagri
    - https://openclipart.org/detail/198693/mono_text_block-by-dannya
    - https://openclipart.org/detail/197312/mono_javascript-by-dannya
    - https://openclipart.org/detail/191398/computer-monitor-by-agomjo-191398
- MIT license logo :- http://opensourcetoday.org/wp-content/uploads/2014/02/256px-License_icon-mit.svg_.png
- File icons(public domain): https://openclipart.org/detail/25559/JAVA-by-Andy
- freeze icon: https://openclipart.org/detail/92305/warning-by-yves_guillou-92305
- data server icon: https://openclipart.org/detail/23263/data-center-by-gaerfield
- database icon: https://openclipart.org/detail/94723/database-symbol-by-rg1024
- linux padepokon: https://openclipart.org/detail/63649/padepokan:-tux-by-dias
- open stack tool box: http://www.openstack.org/brand/openstack-logo/logo-download/
- kvm logo: http://en.wikipedia.org/wiki/Kernel-based_Virtual_Machine
- xen logo: http://de.wikipedia.org/wiki/Xen
- glod fish glas: https://openclipart.org/detail/3958/gold-fish-glas-by-tomk32
- tux-redhat: http://tux.crystalxp.net/en.id.15184-alexandrafranco-tux-redhat.html
- tux-suse: http://tux.crystalxp.net/de.id.2007-tux-suse.html
- tux-ubuntu: http://tux.crystalxp.net/en.id.2013-tux-ubuntu.html
- house: https://openclipart.org/detail/19100/house-silhouette-by-josuemb
- openssh logo: http://en.wikipedia.org/wiki/File:OpenSSH_logo.png
- puppret logo: http://puppetlabs.com/company/news/media-kit