How do Free Software ideals relate to Cloud Services?

BarCampNYC5

Richard Darst and Pablo Duboue

Debian NYC
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http://wiki.debian.org/DebianNYC
#debian-nyc on irc.debian.org (OFTC)
a Bar in Brooklyn Near You

April 17th, 2010

FLOSSinCloud

MrBeige, DrDub

Free Software
Free as in Libre
History of Free Software
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Other points to discuss
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What does “Free” mean?

- “Open source” vs “Free software” is sort of a semantic battle.
- We use the word “Free” not to refer to price, but to *freedom to modify and tinker*.
- The goal of this talk is a roundtable discussion of what the ideals of Free Software mean in the age of cloud computing.
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GNU Project

- There were great days of sharing in the early days of UNIX
- Things were becoming more proprietary.
- RMS disliked this, and started the GNU project, and started defining “Free Software”
- Resonated with a lot of people, gained developers.
- Spirit has spread to many, many other projects.

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Modern day: Cloud services

- Free Software dominates modern work in many areas.
- Does a spirit of freeness persist?
- Many things are migrating to cloud services
- How do the ideas of Free Software apply to cloud services?

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The Free Software Definition (FSF)

0. Run for any purpose
1. Study how it works and change it to suit your purposes
2. Redistribute it
3. Improve it, and redistribute your improvements

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The Free Software definition in cloud services: 0

0. The freedom to run it for any purpose

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The Free Software definition in cloud services: 1

1. The freedom to study how it works and change it to suit your purposes.

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The Free Software definition in cloud services: 2

2. The freedom to redistribute it

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The Free Software definition in cloud services: 3

3. The freedom to improve it, and redistribute your improvements

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Here are some ideas for related issues which we can discuss:

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Levels of freeness

- Closed service
- Intercompatible services
- Free services
- Services you expect everyone to run themselves

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Barrier to entry

We can’t expect everyone to want to set up their own services

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Is an API enough?

- You still have control via a central party for communication
- You can only improve what the central group allows you to

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Cost of services

- Services have a cost to the provider
- We can't expect them to allow everyone to use it for any purpose.
- So intercompatibily is critical???

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Licenses

- Gnu General Public License: copyleft, if you get it you must pass your improvements on (if you distribute)
- SAAS loophole
- GNU Affero General Public License tries to close this “loophole”.

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Open source vs Free Software: APIs vs Free Services?

- Could the analogy between “open source” and “free software” be similar to that of “providing an API” vs “providing true intercompatibility/code”.

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Case studies

Look at various common services and discuss how they fall on the Free Software definition.

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A Free Operating System

- Debian GNU/Linux is a
  - free operating system,
  - developed by more than a thousand volunteers from all over the world
  - who collaborate via the Internet.
- Debian's unique point among GNU/Linux distributions include
  - its dedication to Free Software.
  - its non-profit nature.
  - its open development model.

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A Large Scale Distributed Project

- The Debian project's key strengths are
  - its volunteer base,
  - its dedication to the Debian Social Contract, and
  - its commitment to provide the best operating system possible.
- Debian is in a sense the "wikipedia" of GNU/Linux distributions.

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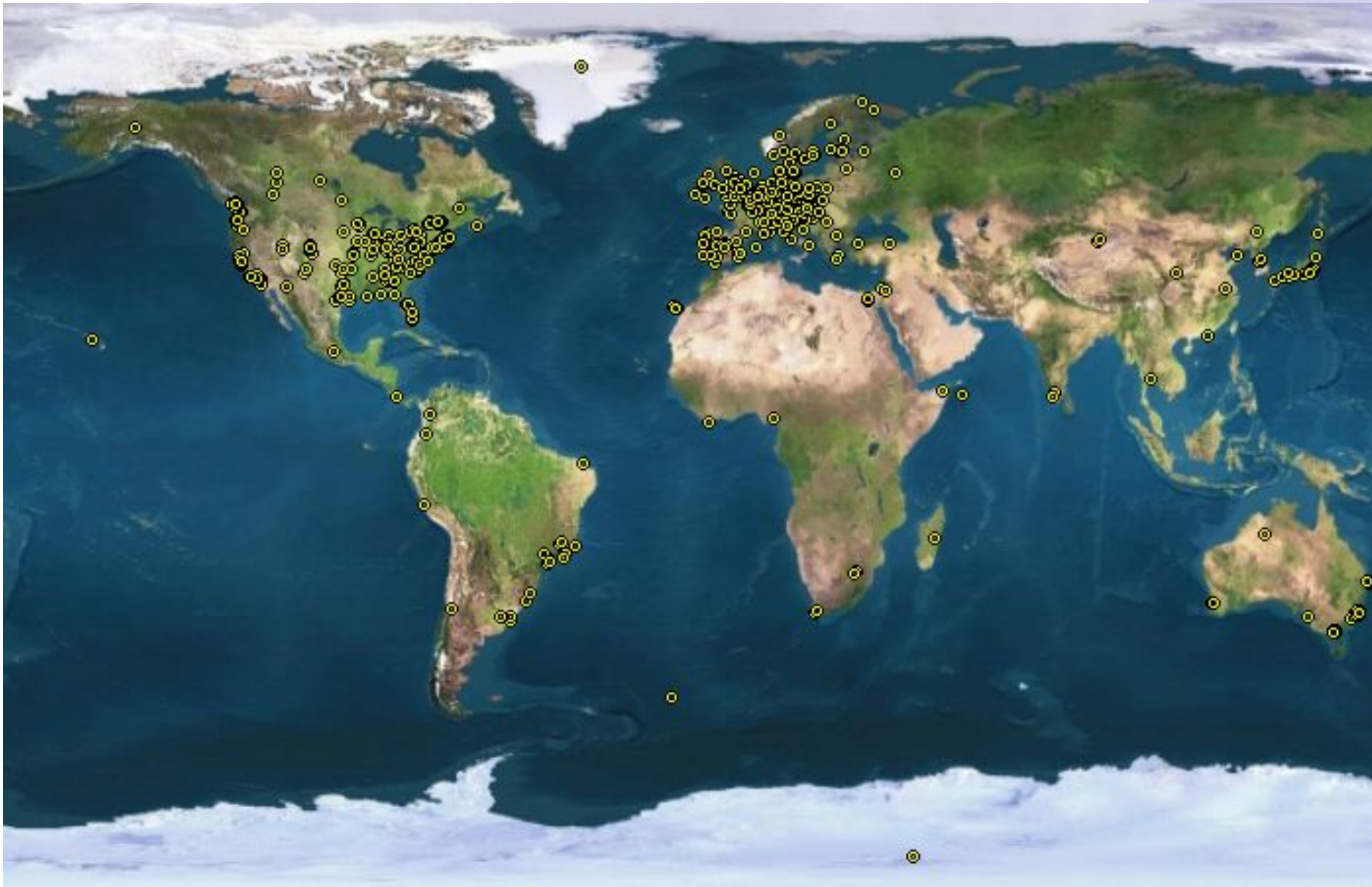
Debian Developers Around the World



Debian Timeline

Giant diagram that doesn't fit in the screen goes here.

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Debian is Choice

- Debian is known for its adherence to the Unix and Free Software philosophies, and for its coverage **–the current release includes over 20,000 software packages for 11 computer architectures:**
  - ARM (cellphones) and
  - IBM s390 (mainframes)
  - more common x86 and PowerPC architectures(personal computers).
- **Debian GNU/Linux is the basis for several other distributions, including Knoppix and Ubuntu**

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An Experiment in e-Democracy

- The project is completely decentralized,
  - people work concurrently on different subprojects.
  - Project-wide decisions are decided through electronic voting.
- People who might have never met in person trust each other through a link of cryptographic signatures known as the Web of Trust.

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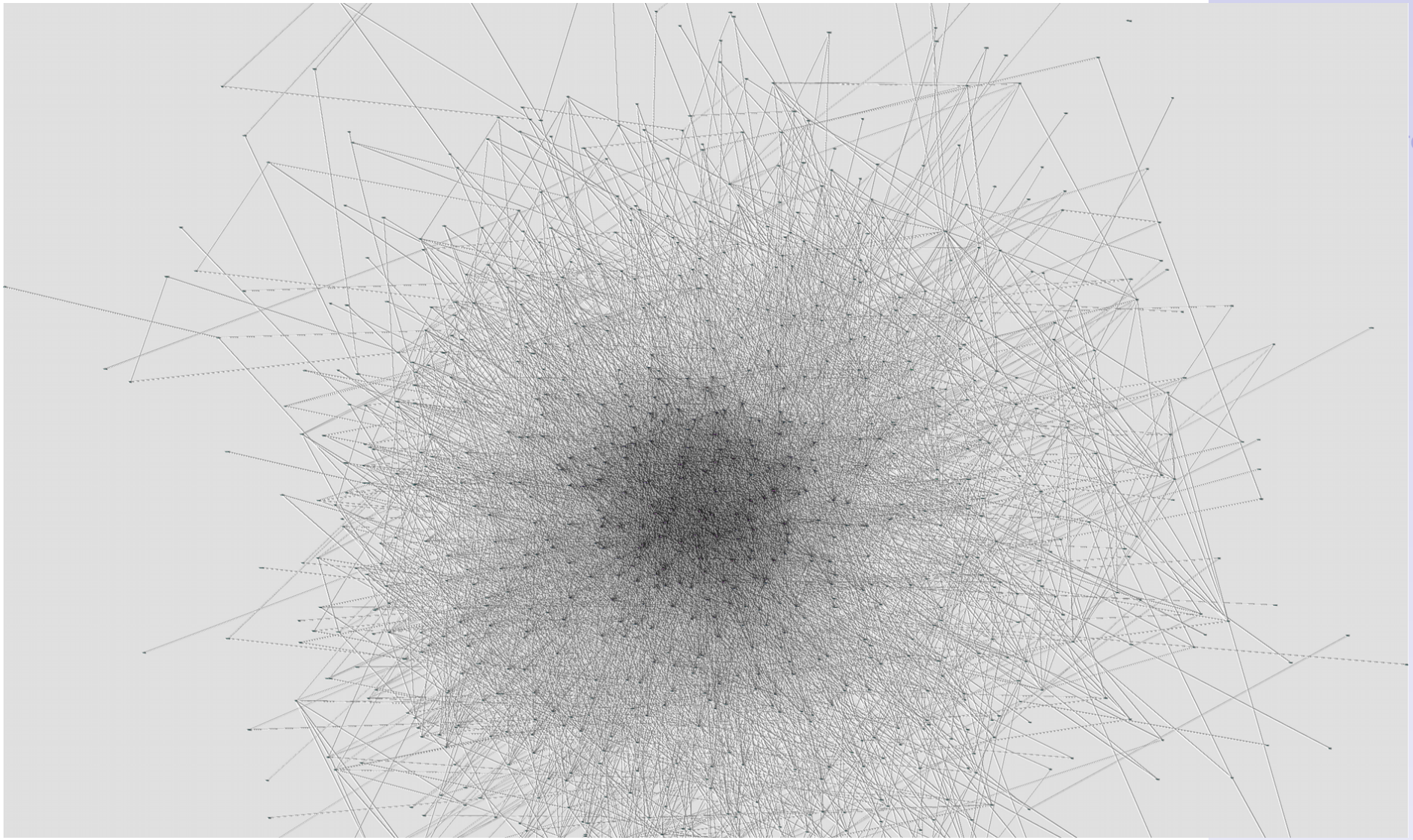
Debian Developer's Web of Trust



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As Described by our Project Leader

"We bring people together from all over the world for a week or two, helping them to work and play better, sharing ideas, code and beer."

Steve McIntyre, Debian Project Leader '09

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Debian Annual Conference

- DebConf is the annual conference for Debian contributors and interested users.
- Previous Debian Conferences have featured speakers and attendees from around the world
  - DebConf9 had attendees from 39 different countries.
- Thanks to our sponsors, participation, accommodation and meals are free of charge to Debian developers and contributors that register before April 15th.

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Three Events

DebConf Hands-on coding, workshops and talks –all highly technical in nature.

DebCamp Pre-meeting for development teams focusing on undisturbed collaborative work.

Debian Day An open day for users and decision makers to discover the benefits of Free Software.

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Developers of network service software are encouraged to:

- Use the GNU Affero GPL, a license designed specifically for network service software, to ensure that users of services have the ability to examine the source or implement their own service.
- Develop freely-licensed alternatives to existing popular but non-Free network services.
- Develop software that can replace centralized services and data storage with distributed software and data deployment, giving control back to users.

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Service providers are encouraged to:

- Choose Free Software for their service.
- Release customizations to their software under a Free Software license.
- Make data and works of authorship available to their service's users under legal terms and in formats that enable the users to move and use their data outside of the service. This means:
  - Users should control their private data.
  - Data available to all users of the service should be available under terms approved for Free Cultural Works or Open Knowledge.

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Users are encouraged to:

- Consider carefully whether to use software on someone else's computer at all. Where it is possible, they should use Free Software equivalents that run on their own computer. Services may have substantial benefits, but they represent a loss of control for users and introduce several problems of freedom.
- When deciding whether to use a network service, look for services that follow the guidelines listed above, so that, when necessary, they still have the freedom to modify or replicate the service without losing their own data.