Free / Open Source Software

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FOSS & Fear of the Unknown...

- What is free / open source (FOSS) software anyway?
- What, me trust some snotty, zit faced misfits who spend their time hacking code because they can't get girl friends?
- Is it reliable and safe if anyone can read the source code?
- Is prayer the best option when my server dies at 2am?
- How do I know that it's going to be around tomorrow?
- Aren't VistA and MUMPS yesterday's technology?
- If it's so great, how come I haven't heard about it on Oprah?
- How do I decide whether it's the right solution for me?

The Incredible Birthing Machine...

How should we practice medicine?

	Black box	White box
Internal processes	Opaque / vendor owned	Transparent / public
Ability to publish results	With permission	Unrestricted
Process improvement	Vendor	Community
Accountability	Limited / confrontational	Open / objective

Software analogy	Proprietary	FOSS

Free as in libre, not free as in gratis

- Free is about freedom
    - The freedom to use the software in any way that you want to
    - The freedom to learn from it and adapt it to your needs
    - The freedom to enhance / improve it
    - The freedom to provide your changes to others
- Free is not without cost – always a cost of ownership
    - FOSS usually has a lower cost of ownership but it's not easy to make an apples to apples comparison
- FOSS empowers the user
    - The price of freedom is responsibility

A different economic model

- Licensing
  - Traditional – restricted right to use software (for a price)
  - FOSS – unrestricted right to use software (priceless!)
- Revenue
  - Although much excellent FOSS developed by hobbyists and charitable organizations, money is the lifeblood of commercial FOSS
  - Revenue for service – non-software models include:
    - Subscriber funded radio/TV programs (NPR, PBS)
    - Volunteer fire departments

Caveat emptor – whether FOSS or proprietary

- How does the license agreement permit you to use the software – or prohibit you from using it?
- What level(s) of service does the support agreement provide?
- Is the vendor going to be around when you need them?
- What is the lock-in, what escape capability exists and what are the alternatives?
- What is the total cost of ownership?

Examples of commercial FOSS

- Revenue from support & educational services
  - Linux distributions – Red Hat, SuSE, Ubuntu
  - GT.M – Fidelity National Information Services
- FOSS as platform for commercial products
  - Apache funding from IBM
  - Mozilla funding from Google
  - OpenOffice.org funding from Sun

- <u>Yes, you can buy commercial support for FOSS and have someone to call when your server dies at 2am!</u>

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WorldVistA EHR

- WorldVistA – a 501(c)(3) non-profit charitable organization
  - Advocates the use of VistA for health care IT
  - Recipient of *Wired* magazine 2007 Rave Award for Medicine
- WorldVistA EHR™ /VOE 1.0 is the only free / open source software that is a CCHIT Certified^{SM} product for CCHIT Ambulatory EHR 2006
  - Application code is a combination of public domain and GNU General Public License
  - Server can be deployed on all FOSS stack or on stack with non-FOSS components (GUI client requires Windows)

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MUMPS – legacy or heritage?

- MUMPS – <u>M</u>assachusetts General Hospital <u>U</u>tility <u>M</u>ulti Programming <u>S</u>ystem; ISO standard name is M
- Same maturity as SQL
  - Origin circa 1970
  - Continuously evolving since
- A work horse (industrial grade, not consumer grade)
  - Core of most major health care information systems (Epic, GE/IDX, McKesson/HBOC, MiSys/Sunquest...)
  - Largest real time banking system in daily production use anywhere in the world (Fidelity National Information Services)

FOSS licensing and CCHIT certification

- FOSS license permits unlimited changes to the source code – including removing functionality
- CCHIT certification mandates required functionality
- Solution:
  - FOSS license of WorldVistA EHR permits use of software, but not to claim certification
  - Separate license authorizes a specific environment where software is used to claim certification
    - But there are restrictions on what you can do with the software *in that environment*

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Is a FOSS solution right for you?

- Only you can decide
- Decide on the merits
  - Fear of the unknown need not be a factor!

- Remember that FOSS does not have big marketing budgets funded by your license dollars

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More information

- Why FOSS – http://www.dwheeler.com/oss_fs_why.html
- WorldVistA – http://worldvista.org
- GT.M – http://fis-gtm.com
- Linux
  - http://linux-foundation.org
  - Distributions
    - Ubuntu – http://ubuntu.com
    - Red Hat – http://redhat.com
    - Many others
- Bhaskar – bhaskar at worldvista dot org