How Companies Are Working with Open Source

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My Open Source Journey
Open Source is Everywhere
Open Source Development is Accelerating

- 23M+ Open Source Developers
- 64M+ Repositories on GitHub
- 41B+ Lines of Code
- 1,100 New Projects a Day
- 10,000+ New Versions per Day
Open Source Is No Longer Optional

78% of companies run on open source

Less than 3% don’t use OSS in any way

2015 Future Of Open Source Study results; @blackduck
Platform For Innovation are OSS Based

IN MANY AREAS OF TECHNOLOGY

- Hyperledger
- Big Data
- IoT
- Cloud
- Mobile
- AI
Linux-Based Android Moves to First on Internet

82% Market Share in Smartphones

2nd To Windows in Enterprise Server

9 of 10 Top Public Clouds Run on Linux

1st in Internet Use as of March 2017
The Real Question is Which Projects Matter?

Value of Individual Project

Number of Open Source Projects
The Answer: Projects With Sustainable Ecosystems

Successful projects depend on members, developers, standards and infrastructure to develop products that the market will adopt.
Sustainability Of Open Source Crucial For Our Digital Infrastructure

- Code
- License
- Infrastructure
- Community
Company Open Source Engagement
OSS Selected for Innovation Not Cost

LOW COST
Changing Business and Funding Models

Most successful projects backed by companies & foundations
Security is Top of Mind
Collaborative Culture and Inner Source

Duplication, Priority Inversion
Poor Alignment of Talent to Work

Pull Culture, Open, Transparent,
Common Code, Tools, Staging
Competition for Developer Talent

50% said their company’s participation in OSS helps them find and recruit top talent.

Why Open Source Is Becoming A Big Developer-Recruiting Tool

Embrace open source to attract top talent—like Facebook.

Matt Asay - Oct 24, 2014

Future of OSS Survey, 2015
Opening Doors in Open Source

• Houston, We Have a Problem

• The Business and Innovation Value of Diversity and Inclusion

• Tech-wide Issue, Companies and Communities Collaborate

• Clear plan and investment needed for pipeline development, recruiting, retention and development
Comcast Journey to Open Source
Our Transformation Into Being a Software Organization

- **2000**: PRODUCT CONSUMER
  - Some Open Source

- **2006**: CONSUMING COMMERCIAL
  - More OPEN SOURCE

- **2017**: CONSUMING CREATING CONTRIBUTING LEADING
  - Open Source

@nilhyaruff
Comcast has transformed the way people watch TV

- **2012**: X1 entertainment operating system launched
- **2013**: 1st live streaming app launched
- **2015**: Delivering fastest broadband speeds to the most American homes with Gigabit Pro

Multi-platform, multi-tenant, cloud based application platform, and managed IP broadcast grade video delivery platform
Our Customers Require us to be Innovative

Cloud, IoT, Big Data, Machine Learning, Networking, Internet, CDN, Video, Security
External Open Source Portal

We are committed to open source software. We use it to build great products, attract elite talent and evolve the technology we use to deliver an amazing customer experience. Beyond using open-source technologies to build our products, we contribute actively to a wide range of open-source and open-standards groups including the Linux Foundation, OpenStack Foundation, Apache Foundation, Cloud Foundry Foundation and Internet Engineering Task Force, to name just a few. We also encourage and support our software engineers in open-sourcing the projects they develop at Comcast.

We know the collective development ethos behind robust open source projects makes our products better and more powerful and we’re committed to being part of the global open source community now and into the future.
Open Source Grants

The Comcast Innovation Fund provides grants for both open source and educational research. The Open Source Development Grants fund development of open source software in areas benefiting cable, internet and broadband industries.

For more information, please visit the Comcast Innovation Fund.

Open Source Software at Comcast

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Comcast University Initiative

- Innovation Fund
- Joint R&D Projects
- Comcast Speakers
- Input to Curriculum
- Senior Projects
- Interns / Co-ops
- After Graduation
Sources

- https://comcast.github.io/
- http://innovationfund.comcast.com/
- https://www.youtube.com/watch?v=4x1r3Osu1Kg&list=PLbzoR-pLrl6oNLrBc03ziuX0JWzQFjnth

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Questions