# Commercial Open Source

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COSS C02

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#### Agenda

- 1. Definition (commercial open source)
- 2. Economic significance
- 3. The three core strategies
- 4. Single vendor open source firms
- 5. Open source distributor firms
- 6. Service and support firms
- 7. Benefits by business function

### 1. What is Commercial Open Source?

#### **Definition of Commercial Open Source**

- Commercial open source software is open source software that
  - Is being managed and developed by one or more software vendors
    - For the purposes of generating revenues through derived products
- A commercial open source software vendor is a software vendor that
  - Manages and develops commercial open source software
- The product itself, sold by a vendor, is never open source software

#### **Examples of Commercial Open Source Firms**

























#### **Origin of the Term Commercial Open Source**

#### REGISTRY WHOIS FOR COMMERCIALOPENSOURCE.COM

Domain Name: commercialopensource.com

Registrar: NETWORK SOLUTIONS, LLC. Whois Server: whois.networksolutions.com Referral URL: http://www.networksolutions.com

Status: clientTransferProhibited

Expiration Date: 2011-04-26 Creation Date: 2005-04-26 Last Update Date: 2008-01-27

Name Servers:

dns1.sugarcrm.com dns2.sugarcrm.com

See commercialopensource.com DNS Records

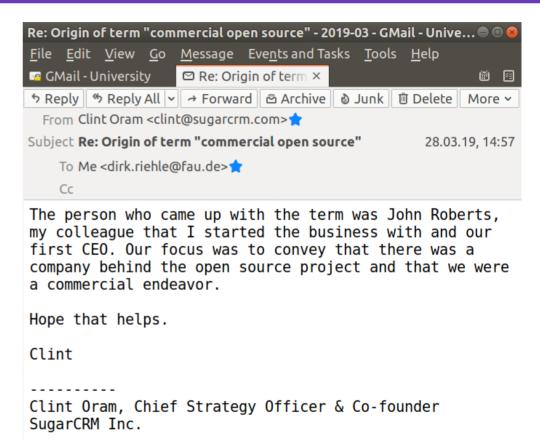
Information Updated: Fri, 19 Jun 2009 05:32:53 UTC

#### COMMERCIAL OPENSOURCE. COM SITE INFORMATION

IP: 70.42.242.70

IP Location: Cupertino, United States

Website Status: active Server Type: Apache



#### **Software and the Commercial Product**

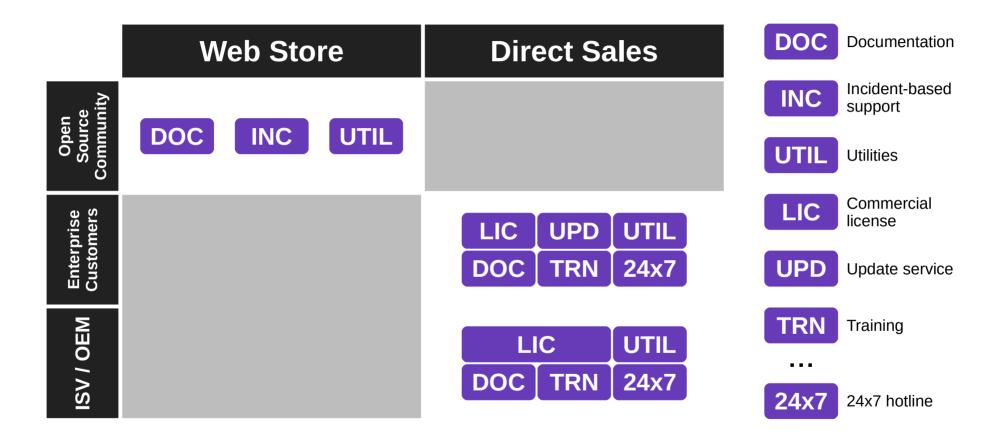
- Core product =
  - Core software
  - Additional functionality
  - Complementary artifacts
  - Self-help services

**Sometimes commercial** 

- Basic product = core product +
  - Fitness for use / certification
  - Indemnification
  - Support services
- Whole product = basic product +
  - Training
  - Consulting
  - Operations

**Always commercial** 

#### **An Example Commercial Open Source Product [WR13]**



## 2. Economic Significance

#### **Open Source Investment Pace (2015)**

### Increasing Open Source Investment Pace

	<5 YEARS	5-10 YRS	>10 YEARS	AGGREGATE
OSS COMPANIES FOUNDED (IST INST. INV.)	31	19	8	58
VC INVESTMENT BY FOUNDING VINTAGE (\$M)	\$1.802	\$2,847	\$255	\$4,904
VC INVESTMENT BY YEAR BUCKET (\$M)	\$4,237	\$506	\$161	\$4,904
VALUATION BY FOUNDING VINTAGE (\$M)	\$8,174	\$12,719	\$16,992	\$37,886
EXCL. RED HAT			\$1,938	\$22,832

#### Wealth Creation Through Commercial Open Source [1]

5	Company	Core Project(s)	OSS License	Company Creation	Project Creation	OSS Origin	VC Raised (M)	Employees	Est. Revenue (M)	Est. Valuation (B)	Exit Value (B)	Public/Private	Status	Outcome	Exit Date	Technology Area	Business Model
6	Acquia	Drupal	GPL v2	2007	2000	Personal project	\$200	930	\$200	\$1.5	\$1.50	Private	PE	PE	9/24/19	Web Content Mgmt System	Open Core
7	Aras	Aras PLM	MS-PL	2000	2007	Company project	\$56	500	\$100	\$1.0		Private	Independent	t		PLM	Open Core
8	Alfresco	Alfresco	LGPL v3	2005	2005	Company project	\$70	460	\$100	\$0.3	\$0.30	Private	PE	PE	2/8/18	ECM <> BPM	Open Core
9	Automattic	Wordpress	GPL v2	2005	2003	Personal project	\$317	1,200	\$300	\$3.0		Private	Independent	t		Content Management System	Open Core
10	Canonical	Ubuntu	GPL	2004	2004	Company project	-	630	\$150	\$1.5		Private	Independent	t		Operating System (Linux)	Open Core
11	Chef	Chef	Apache 2.0	2008	2009	Personal project	\$105	350	\$100	\$1.0		Private	Independent	t		Configuration Management	Support Subscriptions
12	Cloudera	Hadoop	Apache 2.0	2008	2006	Internet-Scale (Google)	\$1,350	3,100	\$850	\$4.0	\$1.90	Public	IPO	IPO	4/28/17	Big Data / Hadoop Ecosystem	Open Core
13	Confluent	Kafka	Apache 2.0	2014	2011	Internet-Scale (LinkedIn)	\$455	1,100	\$300	\$4.5		Private	Independent	t		Big Data / Middleware / Streaming	Open Core
14	Couchbase	Couchbase	Apache 2.0	2005	2003	Spin-out (LiveJournal)	\$246	500	\$100	\$1.5		Private	Independent	t		NoSQL Database	Open Core
15	Docker	Docker	Apache 2.0	2008	2013	Spin-out (dotCloud)	\$308	500	\$100	\$1.0		Private	Independent	t		Developer Tools	Open Core
16	Databricks	Spark	Apache 2.0	2013	2010	Academia/Research (AMPL	a \$900	1,300	\$400	\$6.5		Private	Independent	1		Big Data / Hadoop Ecosystem	Open Core
17	Datastax	Cassandra	Apache 2.0	2010	2008	Internet-Scale (Facebook)	\$190	580	\$150	\$2.5		Private	Independent	t		NoSQL Database	Open Core
18	Elastic	ElasticSearch	Apache 2.0	2012	2010	Personal project	\$272	1,600	\$400	\$8.0	\$2.5B	Public	Independent	IPO	10/5/18	Distributed Search Index + Tools	Open Core
19	Fastly	Varnish	BSD	2011	2006	Internet-Scale (Verdens Gar	\$220	550	\$200	\$8.0	\$2B+	Public	Independent	IPO	5/18/19	CDN	Open Core
	ForgeRock	OpenAM/IDM/DJ/IG	CDDL	2010	2005	Spin-out (Sun)	\$235	670	\$200	\$2.0		Private	Independent			Identity and Access Management	Open Core
21	GitHub	Git	GPL v2	2009	2005	Personal project	\$350	1,550	\$400	\$7.5	\$7.50	Public (via MSFT)	Acquired	M&A	6/4/18	Distributed Source Code Version Control	Open Core
22	GitLab	Git	GPL v2	2014	2011	Personal project	\$436	1.300	\$100	\$5.0		Private	Independent	t		Distributed Source Code Version Control	Open Core
23	HashiCorp	Many	MPLv2	2012	2010	Personal project	\$350	950	\$150	\$5.1		Private	Independent			Developer / Ops / Infra Tools	Open Core
	Instructure	Canvas	AGPL v3	2008	2011	Company project	\$90	1.420	\$220	\$1.4	\$0.65	Public	Independent		11/13/2015	Learning Management	Open Core
25	JetBrains	IntelliJ	Apache 2.0	2000	2009	Company project		800	\$350	\$4.0		Private	Independent			Developer Tools	Open Core
26	JFrog	Artifactory	AGPL v3	2008	2007	Company project	\$230	460	\$150	\$1.5		Private	Independent			Software Artifact Repository	Open Core
	Kaltura	Kaltura	AGPL v3	2006	2009	Company project	\$166.00	530	\$200	\$1.5		Private	Independent			Video Editing Platform	Open Core
28	Liferay	Liferay Portal	LGPL v2.1+	2004	2000	Company project		870	\$250	\$2.5		Private	Independent			Enterprise Portal	Open Core
	Magento Commerce	Magento	OSL v3, AFL v3	2007	2008	Company project (Varien)	\$272	700	\$200	\$1.7	\$1.68	Public (via Adobe)	Acquired	M&A	5/20/18	Web Content Mgmt System	Open Core
30	Mapbox	Mapbox GL JS	BSD-3	2010	2010	Company project (Developm	\$275	450	\$100	\$1.5		Private	Independent			Mapping Software	Open Core
31	Mirantis	OpenStack	Apache 2.0	1999	2010	Academia/Research (NASA		500	\$100	\$1.0		Private	Independent	_		Infrastructure Software	Open Core
32	MongoDB (fka 10gen)	MongoDB	SSPL (not OSI)	2007	2009	Spin-out (10gen)	\$311	1.500	\$400	\$11.0	\$1.60	Public	Independent	IPO	10/19/17	NoSQL Database	Open Core
33	Mozilla Corporation	Eirefox	MPLv2	2003	2002	Spin-out (Netscape)	\$22	1,100	\$550	\$5.0		Private	Independent	1		Web Browser	Ads/Royalties
34	MuleSoft	Mule ESB	CPAL	2006	2003	Personal project	\$311	1,750	\$700	\$8.0	\$6.50	Public (via SFDC)	Acquired	IPO + M&A	3/20/18	Middleware	Open Core
35	MySQL AB	MySQL	GPL v2	1995	1995	Company project	\$41	800	\$1,000	\$1.1	\$1.10	Public (via Oracle)	Acquired	M&A	2/26/08	Relational Database	Open Core
36	Neo4j	Neo4j	GPLv3	2007	2007	Company Project	\$160	300	\$100	\$1.0		Private	Independent	1		Graph Database	Open Core
37	Nicira	Open vSwitch	Apache 2.0	2007	2009	Academia/Research (Stanfo	r \$42	100	\$2,000	\$1.3	\$1.26	Public (via VMware)	Acquired	M&A	7/23/12	SDN / Network Virtualization	Open Core
38	Odoo	Odoo	LGPL v3	2005	2005	Company project	\$105	950	\$250	\$1.5		Private	Independent	1		Business Applications	Open Core
39	Pentaho	Pentaho	Apache 2.0	2004	2004	Company project	\$75	670	\$100	\$1.0	\$0.50	Public (via Hitachi)	Acquired	M&A	6/4/15	BI/ETL	Open Core
40	Pivotal (Now VMware Tanzı	CloudFoundry	Apache 2.0	2013	2009	Company project (VMware)	\$1,700	2,400	\$800	\$3.5	\$4.00	Public	Acquired	IPO	4/20/18	PaaS / Hadoop / Spring	Open Core
41	Puppet Labs	Puppet	Apache 2.0	2005	2005	Company project	\$142	560	\$250	\$2.5		Private	Independent	1		Configuration Management	Open Core
42	Rapid7	Metasploit	BSD-3	2000	2003	Personal project	\$89	1,800	\$350	\$2.5	\$0.90	IPO	IPO	IPO	7/22/15	Security	Open Core
43	Red Hat	Linux	GPL v2	1993	1991	Personal project	\$5	13,100	\$3,500	\$34.5	\$34.00	Public	Acquired	IPO + M&A	8/11/99	OS, Middleware, Infrastructure Software	Support Subscriptions
44	Linden Lab	Second Life	LGPL	1999	2003	Company project	\$19	250	\$100	\$0.5		Private	Independent			Virtual Worlds	Open Core
45	Sourcefire	Snort	GPL v2	2001	1998	Personal project	\$40	600	\$500	\$3.0	\$2.70	Public (via Cisco)	Acquired	M&A	10/7/13	Network Intrusion Detection	Open Core
46	SugarCRM	SugarCRM	Previously A2.0	2004	2004	Company project	\$146	440	\$175	\$1.0		Private	PE	PE	8/20/18	CRM	Previously Open Core
	SUSE	Linux Kernel	GPL v2	1992	1991	Personal project	-	1,500	\$400	\$2.5	\$2.50	Public (via Novell) + F	Private (Microf	M&A	11/4/03	Operating System (Linux)	Support Subscription
48	Talend	Talend Data Integration	Apache 2.0	2005	2006	Company project	\$102	1,300	\$200	\$1.1	\$0.55	Public	Independent	IPO	7/28/16	SOA/ETL/Al/Middleware	Open Core
49	VA Linux (Geeknet)	Linux	GPL v2	1993	1991	Personal project	\$30	300	\$120	\$0.2	\$0.15	Private	Acquired	IPO	12/9/99	Computer Systems	Hardware Sales
	WP Engine	Wordpress	GPL v2	2010	2003	Personal project	\$291	900	\$200	\$1.0		Private	Independent	_		Content Management System	Open Core
	-						\$10.951		\$17,565	\$161.2	\$69.29			_			

## 3. The Three Core Strategies

#### Sustainable Open Source (Recap)

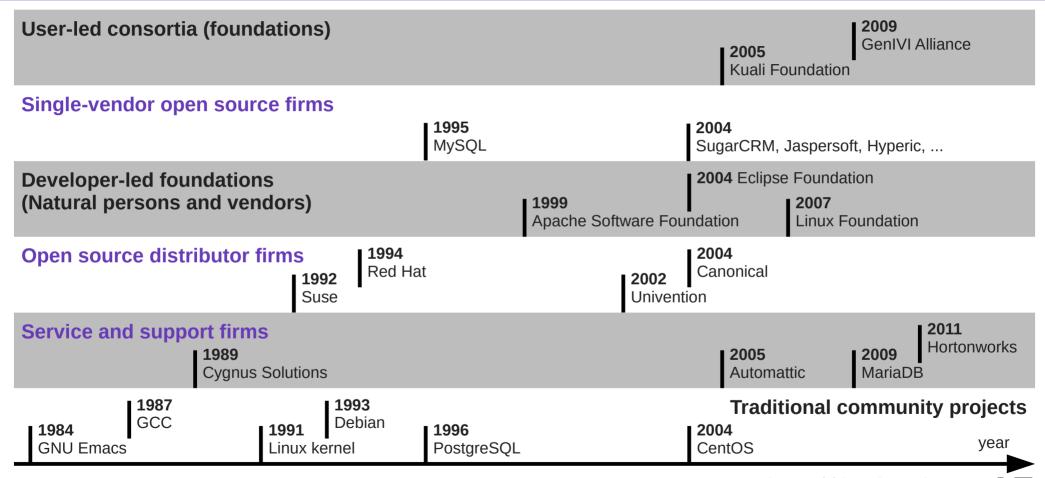
- Non-profit open source organizations
  - Confederated community projects
  - Open source vendor-led foundations
  - Open source user-led foundations
- For-profit open source firms
  - Single-vendor open source firms
  - Open source distributor firms
  - Service and support firms

**Commercial open source** 

#### **Commercial Open Source by Intellectual Property**

- Single-vendor open source firms
  - Provide a traditional software product to enterprises
  - Exclusively own (key parts of) the software their business is based on
  - Can attract venture capital; can have outsize returns
- Open source distributor firms
  - Provide a well working assembly of open source components
  - Exclusively own non-core-software IP (configuration data, regression test suites, ...)
  - Can attract venture capital; can have outsize returns
- Service and support firms
  - Service existing community open source software
  - Share in the IP, don't dominate it
  - Don't attract venture capital

#### **Open Source History (Recap)**



### 4. Single-Vendor Open Source Firms

#### **Definition of Single-Vendor Open Source**

- Single-vendor open source software is commercial open source software that
  - Is being managed and developed by a single vendor
    - For the purposes of generating revenues through derived products
- A single-vendor open source software firm is a software vendor that
  - Manages and develops single-vendor open source software
- The product itself is never open source software

#### **Characteristics of Single-Vendor Open Source**

- Single-vendor open source firms
  - Control most or all of the key control mechanisms for open source
    - In particular, they are (by definition) the sole copyright owner
  - Can attract venture capital funding and can have outsize returns
- Perhaps better be called neo-proprietary software vendors

#### Three Generations of Single-Vendor Open Source Firms

**The pioneers (199x-2002)** 









The second wave (2002-2008)







The current breed (since 2008)







### First and Second Generation Single-Vendor Open Source Firms

































### Third Generation Single-Vendor Open Source Firms [1]

































#### Community vs. Commercial Edition (Single-Vendor Firms)

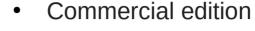
- Community edition
  - Core product
    - Core software
      - · Provided under an open source license
    - Some complementary artifacts
    - Self-help services

#### Commercial edition

- Core product
  - Core software
    - Provided under a commercial license
  - Additional functionality
  - Complementary artifacts
  - Self-help services
- Basic product = core product +
  - Fitness for use / certification
  - Indemnification
  - Support services
- Whole product = basic product +
  - Training
  - Consulting
  - Operations

#### **User to Customer Conversion**

- Community edition
  - Home user
    - Will never pay money
    - But pays with time, feedback
  - Line-of-business user
    - Likes \$0 line-items
    - May be ignorant of risks



- Enterprise customer
  - Is willing to pay
  - Requires enterprise features
- Internal IT department
  - Has appropriate budget
  - Wants professional support



#### The Commercial Open Source Challenge

### Structure product and services so that you

- 1. Maximize conversion to paying customer
- 2. While benefiting from user community
- 3. And keeping the competition at bay

#### **Intellectual Property Management (Single-Vendor Firms)**

- Intellectual property rights imperative (of single-vendor open source)
  - "Always act in such a way that you, and only you, possess the right to provide the open source project under a license of your choice." [1]
- Use contributor agreement to maintain ownership
  - Almost all single-vendor open source firms require copyright transfer for any contributions to maintain full IP ownership [2]

### Multi-Vendor Commercial Open Source Firms

- Multi-vendor = no single dominant owner, rather shared control
  - If so, best under a foundation to ensure reasonable governance
  - Creates the problem of starving the project for new features

**Apache Hadoop** 

**Apache Kafka** 

Apache Lucene/Solr



















### 5. Open Source Distributor Firms

#### **Definition of Open Source Distribution**

- An open source distribution
  - Is a well integrated collection of open source components and applications
- An open source distributor firm
  - Is firm that provides an open source distribution as a product or service

#### Characteristics of an Open Source Distribution

- An open source distribution is a complex software where complexity stems from
  - The number of components
  - The individual complexity of a component
  - Keeping the components working with each other
  - Keeping the components up-to-date
- A commercial open source distributor hides this complexity from the user (for pay)

### **Examples of Open Source Distributor Firms**

Linux









OpenStack









Miscellaneous







#### **Intellectual Property Management (Distributor Firms)**

- Distributor firms do not exclusively own the copyright to the code
- Distributor firms can (and do) exclusively own
  - Build processes for building the product from its components
  - Compatibility matrices and configuration data
  - Knowledge databases for support
  - Tests and test suites
- Distributors own "what's in between" the open source code
  - Sometimes manifests itself exclusively in people

#### Community vs. Commercial Edition (Distributor Firms)

- Community edition
  - Example Linux-based distributions
    - Canonical
      - Ubuntu
    - Univention
      - Univention Corporate Server
    - Red Hat
      - Fedora, CentOS
    - Suse
      - OpenSuse
  - Product
    - Core product
      - Core software
        - Provided under its open source license
      - · Complementary artifacts
      - Self-help services

- Commercial edition
  - Example Linux-based distributions
    - Canonical
      - Ubuntu
    - Univention
      - Univention Corporate Server
    - Red Hat
      - Red Hat Enterprise Linux
    - Suse
      - Suse Linux Enterprise Server
  - Product and services
    - Core product
      - Core software
        - Provided under its open source license
      - · Additional functionality
        - Provided under a commercial license
      - Complementary artifacts
      - Self-help services
    - Basic product
    - Whole product

## 6. Service and Support Firms

#### **Definition of Service and Support Firm**

- An open source service and support firm is a consulting firm that
  - Services and supports community open source software

#### **Characteristics of Service and Support Firms**

- A service and support firm is a consulting firm
  - Revenues mostly scale with labor
- These firms contribute to the open source project they support
  - Such positioning is important for marketing and sales

### 7. Benefits by Business Function

## Why the Open Source Strategy?

- To drive adoption (of product in market)
  - To build a large (not necessarily paying) user base from which benefits accrue
- What is not new
  - Revenue sources
- What is new
  - Everything else (changes)

# **Benefits By Business Function**

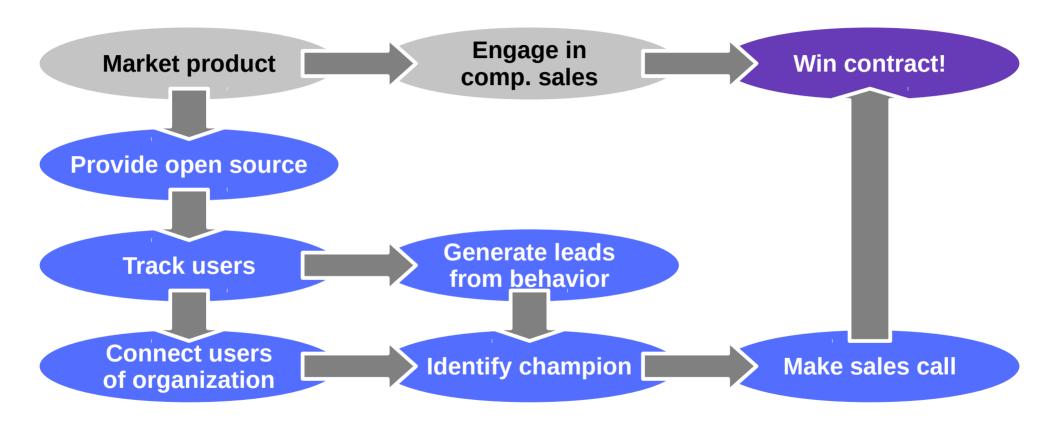
- Marketing
  - Generate leads more broadly, faster, cheaper
- Sales
  - Sell more effectively
- Business development
  - Identify partner opportunities better
- Product management
  - Identify market requirements faster better
- Software development
  - Build a superior product faster at lower cost
- Product support
  - Support better cheaper

## **Benefits to Marketing**

- Community word-of-mouth helps evangelize product
- Community creates wider outreach than possible without
- Frictionless distribution (no barriers) helps drive adoption



#### **Benefits** to Sales



# **Benefits to Business Development**

User innovation helps identify strategic partners

# **Benefits to Product Management**

- Identify customer requirements more readily
- Explore new market segments more cheaply
- Let users explore feature space for you
- Let users explore alternatives at no costs

# **Benefits to Software Development**

- Find bugs fast
- Get bug reports for free
- Get code contributions for free
- Explore design and implementation
- Recruit and hire more effectively

# "Source code [is just] 10% of the effort." [L07]

# **Benefits to Support**

- Get help with self-help services
- Reduce overall support load through self-help
- Feed self-help services into commercial documentation

#### **But at What Costs?**

- Some retraining of traditional business functions
- Establishment of new community management function

## **Summary**

- 1. Definition (commercial open source)
- 2. Economic significance
- 3. The three core strategies
- 4. Single vendor open source firms
- 5. Open source distributor firms
- 6. Service and support firms
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# Thank you! Questions?

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- Contributions
  - None yet