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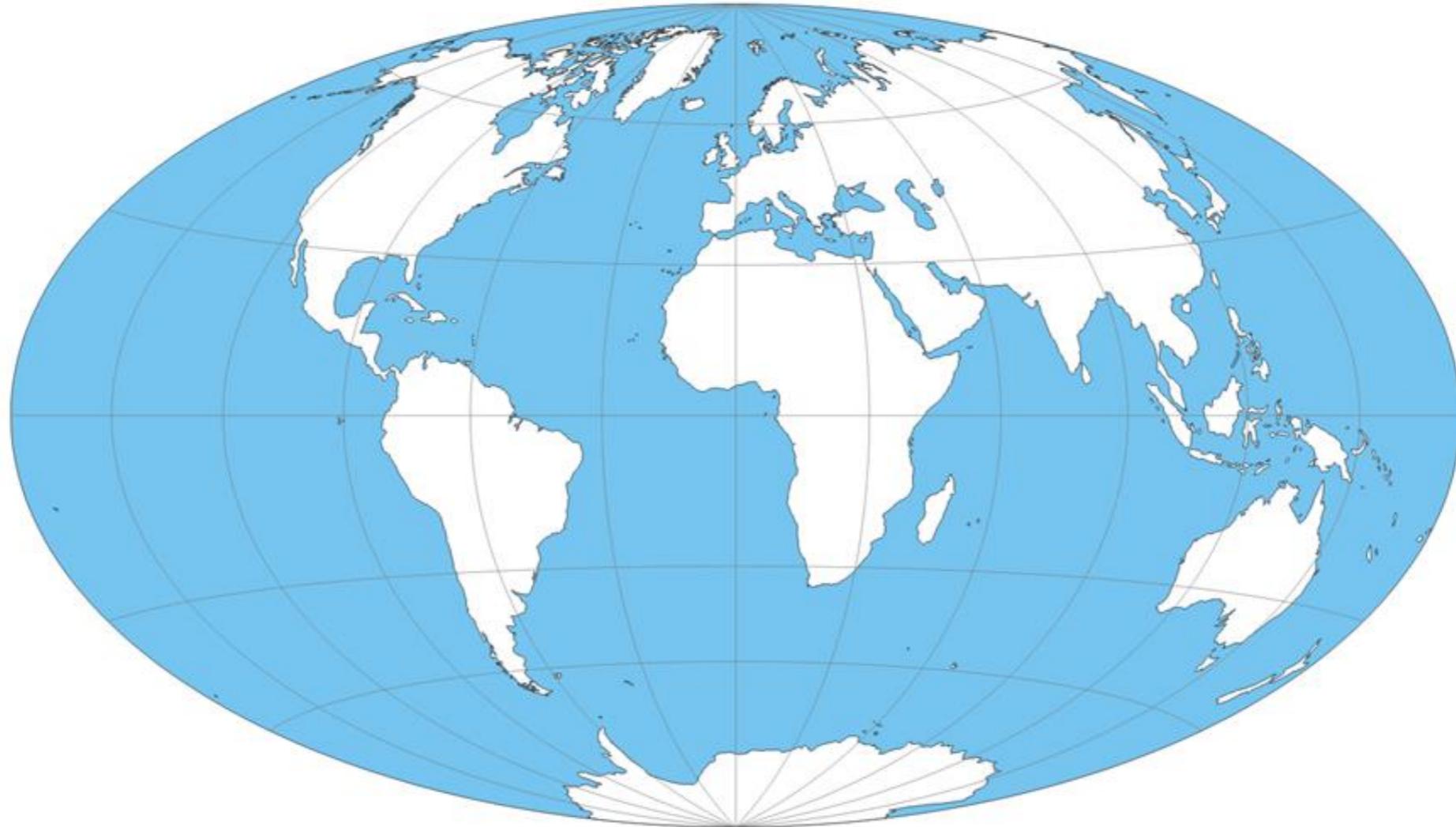


Building a Community of Patent Non-Aggression Across the Open Source Technology Sector

Software Rising



Greater Diversity of Thought, Perspective and Talent Drives Higher Levels of Innovation



Barriers Between Participants are Falling Away as OSS Projects Provide a Modality to Distill the Collective Intelligence of a Global Community of Creatives



- Project-based Innovation



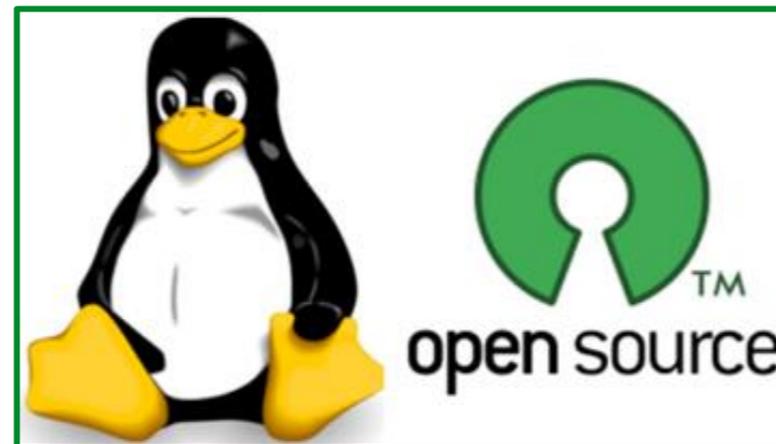
Co-opetition in Software and Hardware

Higher Levels and Faster Paced Innovation Cycles Require We Leverage the Distilled Collective Intelligence of a Global Population of Inventors



Therefore, we must **cooperate on low in the stack “core” technology** and Reserve competition for high in the stack largely application layer functionality, services and creative pricing models

New Global Dynamic - Every Electronic Touch in the G10 Countries and Beyond is Linux/OSS Enabled



OIN's Role in Safeguarding Linux/OSS-Enabled Innovation

OIN'S FULL/FUNDING MEMBERS

Established in
2005



December 2013



June 2016



OIN Funding Member Make Up is $\frac{1}{4}$ European, $\frac{3}{8}$ Asian and $\frac{3}{8}$ American Reflecting Global Nature of Linux/OSS

OIN OVERVIEW

OPEN INVENTION NETWORK IS THE WORLD'S LARGEST PATENT NON-AGGRESSION COMMUNITY. ITS MISSION IS TO SAFEGUARD THE CORE OF LINUX AND OPEN SOURCE

~2600 PARTICIPANTS
FROM **START-UPS**
TO **LARGE CORPORATIONS**



CROSS LICENSE POOL

(Sample Licensee Participants)

~5.0M PATENTS AND APPLICATIONS OWNED BY OIN LICENSEES

LINUX SYSTEM

OIN PATENT PORTFOLIO

>2500

OPEN SOURCE CORE LINUX TECHNOLOGY PACKAGES COVERED

~1300 GLOBAL PATENTS AND APPLICATIONS W/BROAD SCOPE



~\$100M SPENT ACQUIRING/INVENTING DEFENSIVE PATENTS

OIN'S MISSION

OIN's mission is to enable freedom of action/operation for vendors and users of **LINUX/OSS**-based technology. It does this through a patent non-aggression cross-license around the "**LINUX** System," which defines the scope of obligation.

FINANCIAL OBLIGATIONS OF PARTICIPATION

ZERO

**NON-FINANCIAL OBLIGATIONS OF
PARTICIPATION**

All OIN licensees agree to cross license each other under patents that directly read on functionality included in the “OIN Linux System Definition**”**

SCOPE OF CROSS-LICENSE

The “**Linux System Definition**” comprises core software packages from various OSS projects which, taken together, define the scope of the cross-license obligation to which each OIN licensee commits.

The “Linux System Definition” currently consists of more than 2,500 **core** OSS packages.

(Complete and current listing of packages is found on OIN’s website)

Linux System Definition - Patent Non-Aggression/Cooperation

Common Base Packages (Linux kernel, system and command line programs, common libraries, setup tools) - **72.6%**

Software Engineering (Perl, Python, PHP, Lua, etc.) - **15.3%**

Enterprise Computing (JBOSS, Jakarta, OpenShift (high functionality packages)) - **3.5%**

Networking and Security (OpenSSL, OpenSSH, OpenVPN) - **2.9%**

Mobile (Android, WebOS) - **2.6%**

Cloud Computing (OpenStack, Qemu, libvirt) - **1.5%**

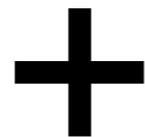
Web (Apache webserver, NGINX) - **1.0%**

Configuration Management (Puppet, Ansible) - **0.6%**

Auto (AGL), IoT, ONAP/OPNFV, Hyperledger - future roadmap of Linux and LF Projects will translate into near term incorporation BUT given reuse of code all of these projects are to some degree already represented in Linux System

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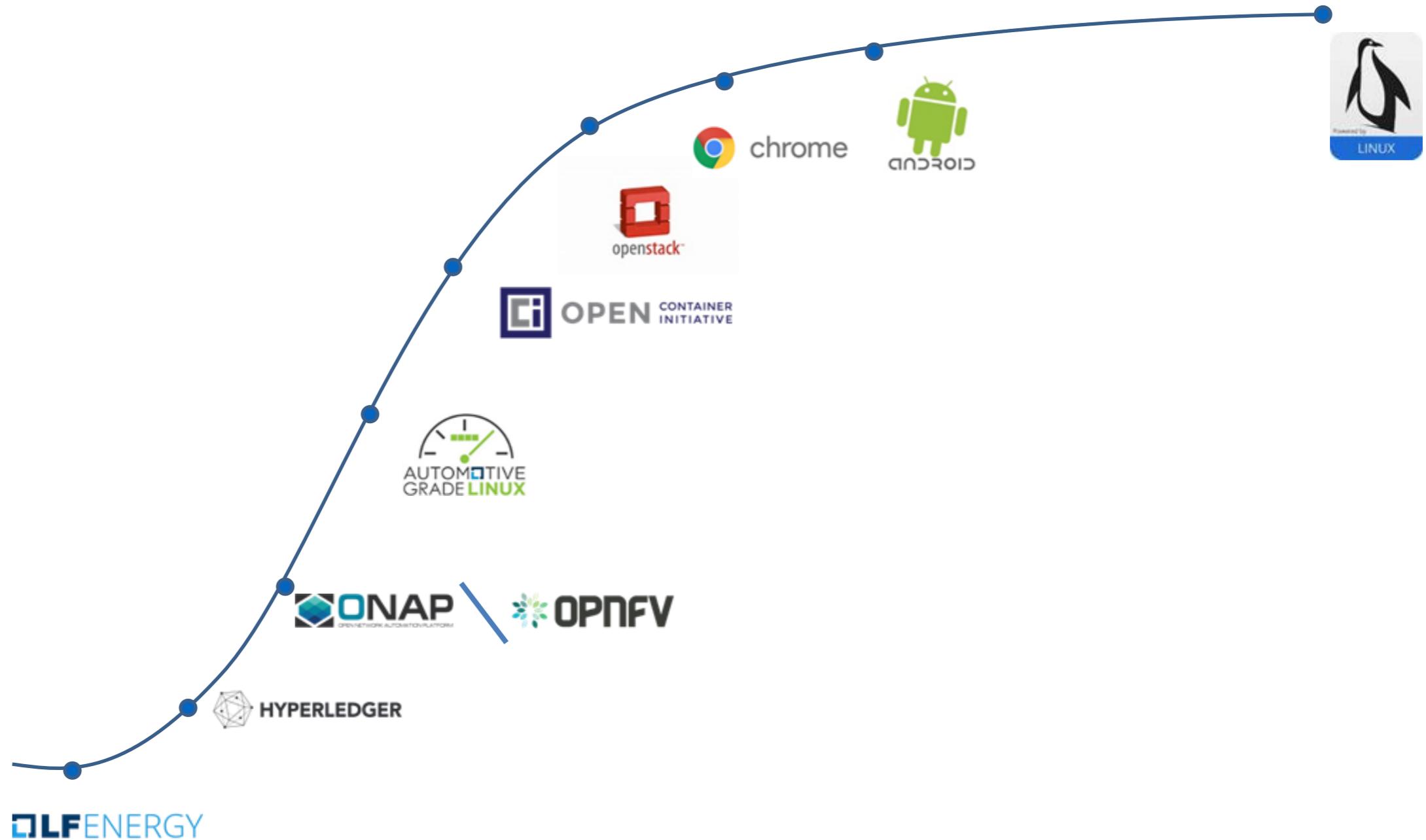
OIN, by design, exists to preserve patent freedom for participants in Linux Foundation and other Key OSS projects.



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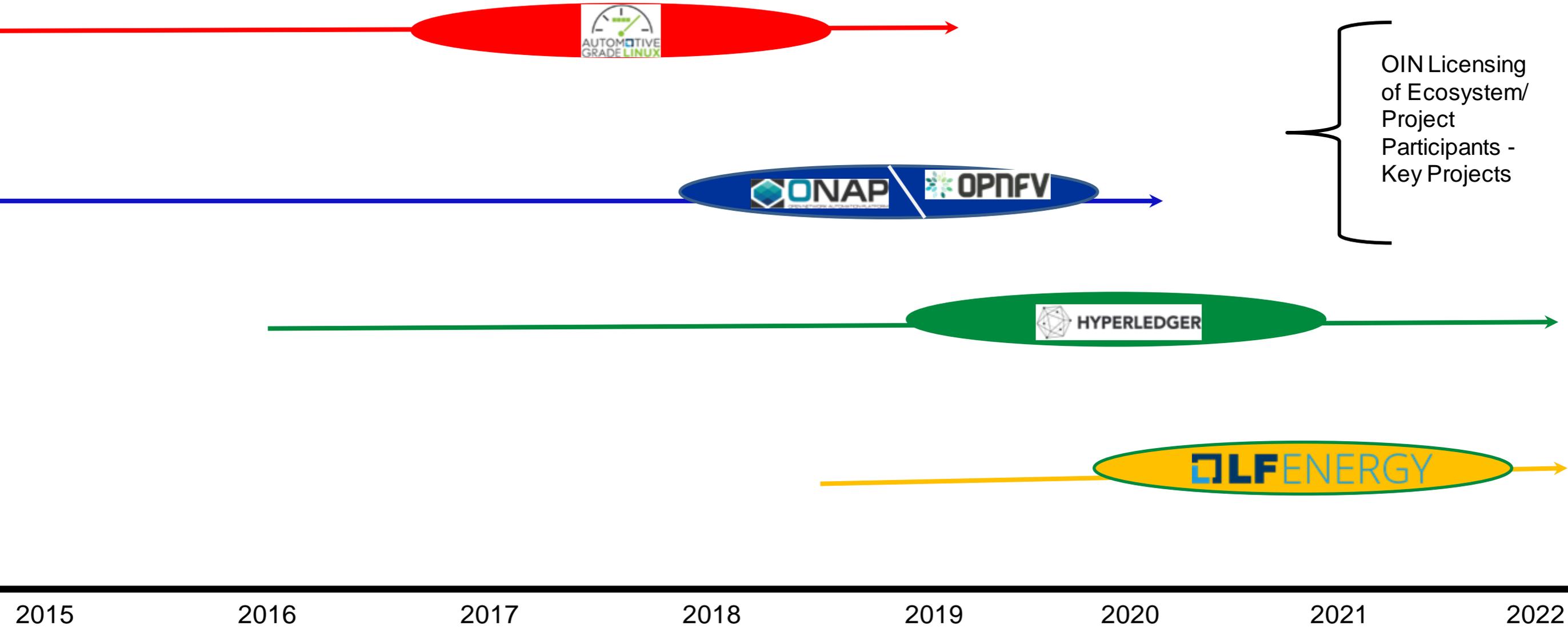
Technical Development/Collaboration Occurs in Parallel with Legal Collaboration

Strategic Guardian Role Evolution



Recognizing & Managing the Challenge/Obligation of Licensing into Linux/OSS Projects & Tracking Growth

Strategic Guardian Role Evolution



Recognizing & Managing the Challenge/Obligation of Licensing into Linux/OSS Projects & Tracking Growth

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REPRESENTATIVE LICENSEES

NETWORK OPERATORS



Software Companies



Automobile Makers



Networking Companies



Internet Companies



Hardware Companies



Linux Foundation Brings Power of Open Source to Energy Sector

By: [Sean Michael Kerner](#) | July 13, 2018

Open-source technologies have been used to transform and innovate across multiple industries, and now the Linux Foundation is bringing that power to the energy industry in an effort that could have wide-ranging benefits.

The Linux Foundation launched on July 12 its latest effort—LF Energy, an open-source coalition for the energy and power management sector. The LF Energy coalition is being backed by French transmission system operation RTE, Vanderbilt University and the European Network of Transmission System Operators (ENTSO-E). With LF Energy, the Linux Foundation is aiming to replicate the success it has seen in other sectors, including networking, automotive, financial services and cloud computing.

LF ENERGY

Introducing **LF Energy**, an organization designed to support and promote open source in the energy and electricity sectors.

why bring open source to the energy transition?

 Customers <i>(Utilities, Aggregators, System Operators)</i> Can deploy solutions quickly and easily with the flexibility to dynamically adapt to changing business needs	 Hardware OEMs Scale faster with an interoperable partner ecosystem and more robust security and system management	 ISVs Interoperate with 3rd party applications and hardware without reinventing connectivity
 End Users Able to contribute to and influence the features and design of advanced power systems for the future	 Sensor Device Manufacturers Write a device driver with your selected protocol once using the SDK and get pull from all Solution Providers	 System Integrators Get to market faster with plug-and-play ingredients combined with your own innovations

THE LINUX FOUNDATION Learn more at lfenergy.org/transform

OIN'S Licensee Community

OIN's licensee community, by design, comprises global representation of circa **2,600 companies** from over **35 countries** to reflect the global reach of Linux and OSS. **EMEA licensees currently represent 39 percent of the OIN community** with Asia accounting for 24 percent and **37 percent coming from the Americas.**

OIN is a Global Solution to Reflect the Global Reach of Linux and OSS!

OIN's Role Beyond the License...

Examples of How OIN Assists Its Community Members with Linux-related Patent Aggressors

- OIN leverages its vast network of relationships in the Open Source Community to **collect and share prior art** to permit OIN licensees at risk or in litigation to better defend against Linux-centric patent aggression
- OIN **sells OIN Community Members patents** from its own portfolio of 1,300 plus patents and applications that help bolster the licensee's defensive position and permit it to file effective counterclaims
- OIN **acquires patents from patent antagonists asserting Linux-centric patents** in situations where the acquisition provides broad based clearing of patent threats to OIN's Community of Licensees
- OIN routinely **utilizes the AIA's pre-issuance submission program** to submit prior art to limit claim scope or secure outright rejection of overly broad patent claims in patent applications focused on key technology areas relevant to Linux

Select Examples of How OIN Benefits its Community Members

- **Portfolio Acquisition:** OIN was able to orchestrate the acquisition of 22 patents that were being marketed by a operating company patent aggressor to NPE's as being directed to "Open Source Software". Accomplished through leveraging of strong network of relationships OIN maintains with complementary patent non-aggression communities such as RPX, AST, etc.
- **Patent Sales:** A OIN Member that had a number of Linux related patents asserted against it by a major Fortune 50 company acquired patents from OIN that read on the asserting company and was able to successfully leverage those patents to lower its exposure and ultimately negotiate a deal far below initial levels demanded.
- **Membership alone as a Deterrent:** Facing a major lawsuit from that same Fortune 50 company, another entity decided to join OIN, and after its membership became known to that aggressor, a settlement was reached within 72 hours on terms that were extremely favorable to OIN's new Member - less than 10 percent of the original asking fee of the patent aggressor..
- **Prior Art Assistance:** In over 45 cases where a OIN licensee was the subject of a active assertion or litigation, OIN has identified and shared prior art for use against the NPE or corporate patent aggressors
- **Patent Acquisitions:** OIN has expended in excess of \$15MM to solely purchase Linux-centric patents owned by PAE's that were being used in active assertions and/or litigation - 15% of OIN's circa **\$100MM total patent acquisition investment to date**
- **Claim Scope Reduction/Patent Application Rejections** - OIN is among the leading users of the AIA's pre-issuance submission program having successfully gotten over 25 overly broad patent applications rejected and a reduction in claim scope in another 40 plus applications



[Legion](#)

Court Rules in Favor of SemaConnect in EV Charging Patent Case

March 26, 2018

**OIN Quietly Works to Use Its Community to Identify Prior Art
and Support Freedom and Open Standards in EV Charging**

FORTUNE

Amid the patent wars, an oasis of calm collaboration

By [ROGER PARLOFF](#)

October 6, 2015

OIN's story is an outlier in the recent annals of patent law. It's largely a story about patent peace, not patent war. It's about patent litigations that haven't been filed—dogs that haven't barked, basically. It's about otherwise ruthlessly competitive companies laying down their swords in order to cooperate within a narrowly defined space, where they recognize that it's in everyone's best interests to do so.

opensource.com



Patrick McHardy and copyright profiteering

Many developers in the Linux community have concerns about the activities of Patrick McHardy. Here are answers to common questions.

24 Aug 2017 [Heather Meeker](#)

**Copyright and the Reduction of IP Friction in OSS -
OIN and the OSS Community's Next Frontier?**

Relevance of IP in an Evolving World



AND



- The Advent of Co-opetition and Collaborative Development DOES NOT Signal a Demise of IP!
- Rather, participation in the New Economy of Technology Development requires that we manage a form of practiced duality in terms of IP Strategy & Look to Community Solutions

**Inventing Migrates to Features/Function Where
Differentiation Can Reasonably Be Found**

THE BOTTOM LINE

Ultimately (i.e. over time), the only companies that do not sign the OIN license and agree to participate in the OIN Community are those that wish to reserve the right to sue on patents that read on “core” Linux and OSS functionality!

Thank You!

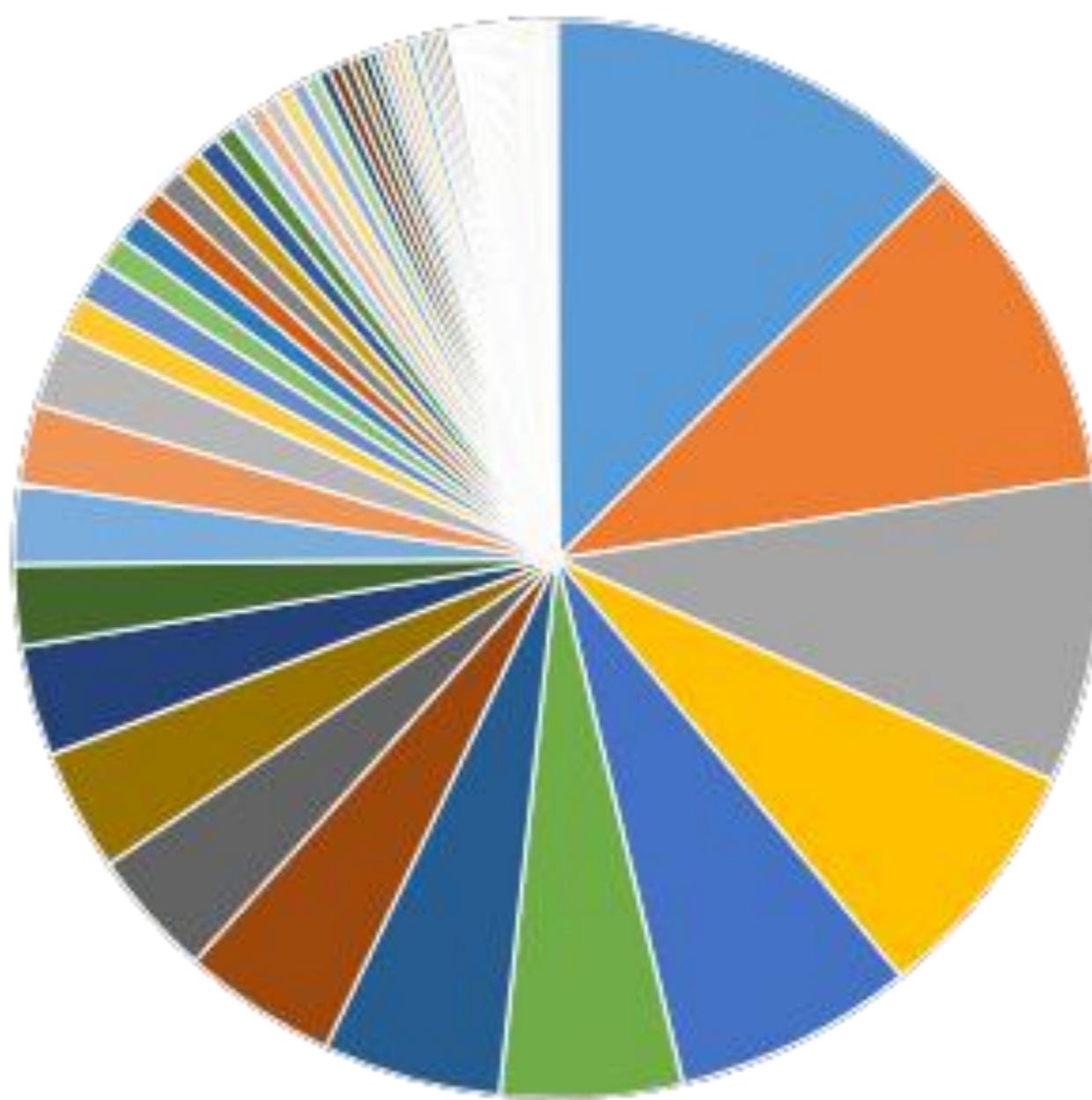
kbergelt@openinventionnetwork.com

The Linux System Definition

Understanding the Scope of the Cross-License

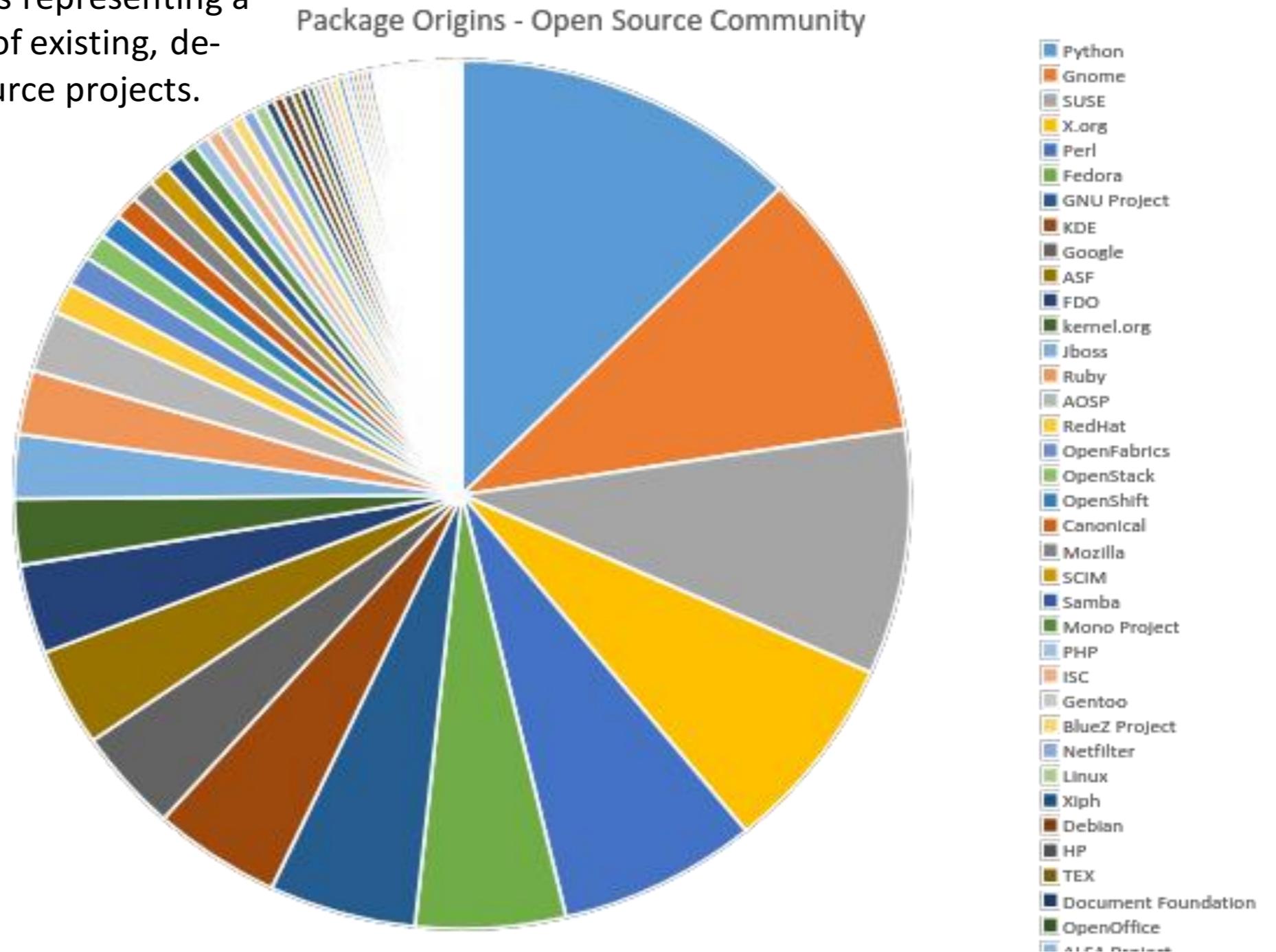
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Package Origins - Open Source Community



- Python
- Gnome
- SUSE
- K.org
- Perl
- Fedora
- GNU Project
- KDE
- Google
- ASF
- FDO
- kernel.org
- Iboss
- Ruby
- ADSP
- RedHat
- Open Fabrica
- OpenStack
- OpenShift
- Canonical
- Mozilla
- SCIM
- Samba
- Mono Project
- PHP
- ISC
- Darroo
- BlueZ Project
- Netfilter
- Linux
- Kipb
- Debian
- HP
- TEX
- Document Foundation
- OpenOffice
- ALSA Project
- BSD
- RVM
- Mesa
- Dell
- evex

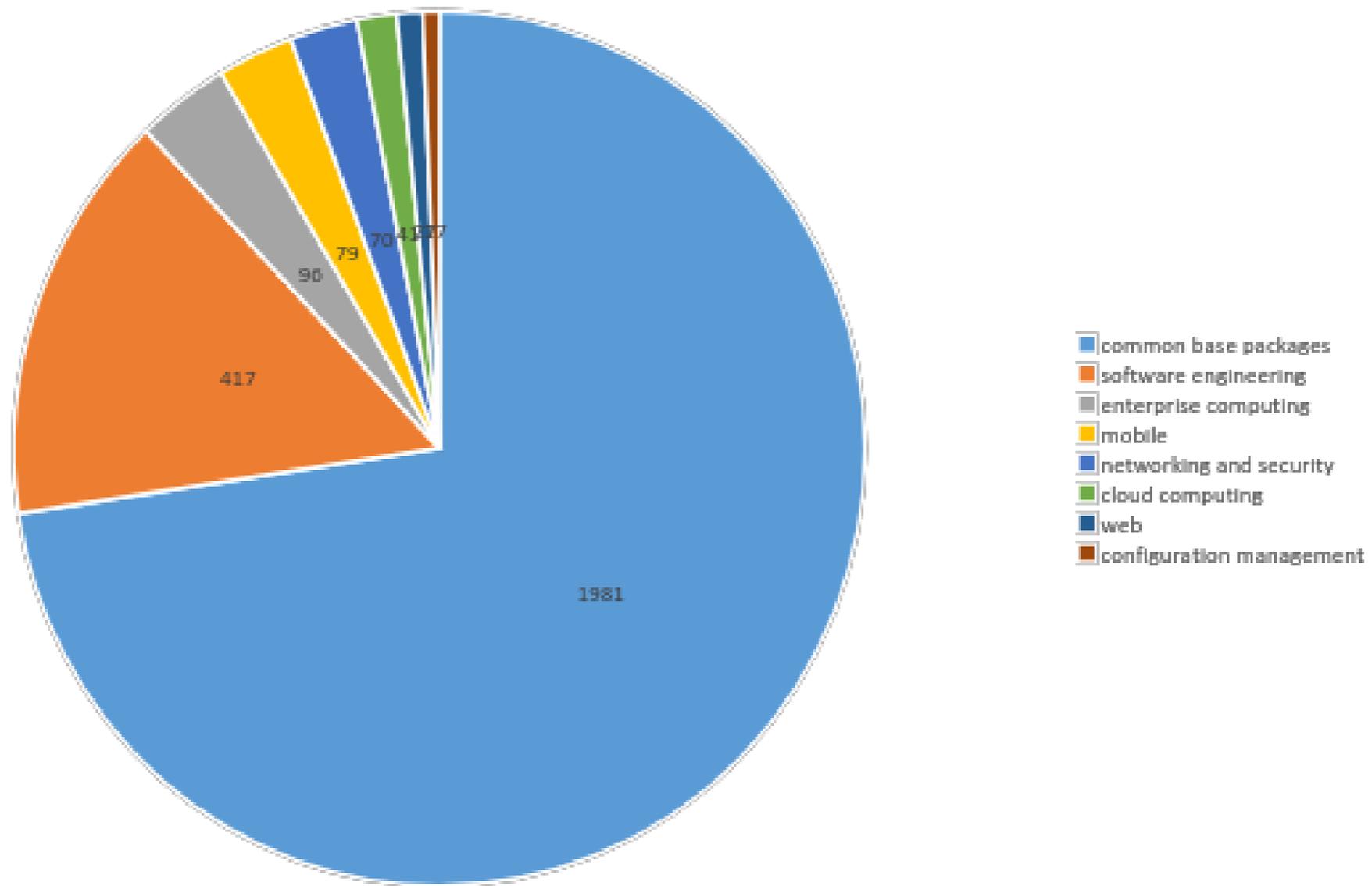
The OIN Linux System Definition contains packages from a broad variety of organizations and groups representing a large share of the body of existing, de-facto standard Open Source projects.



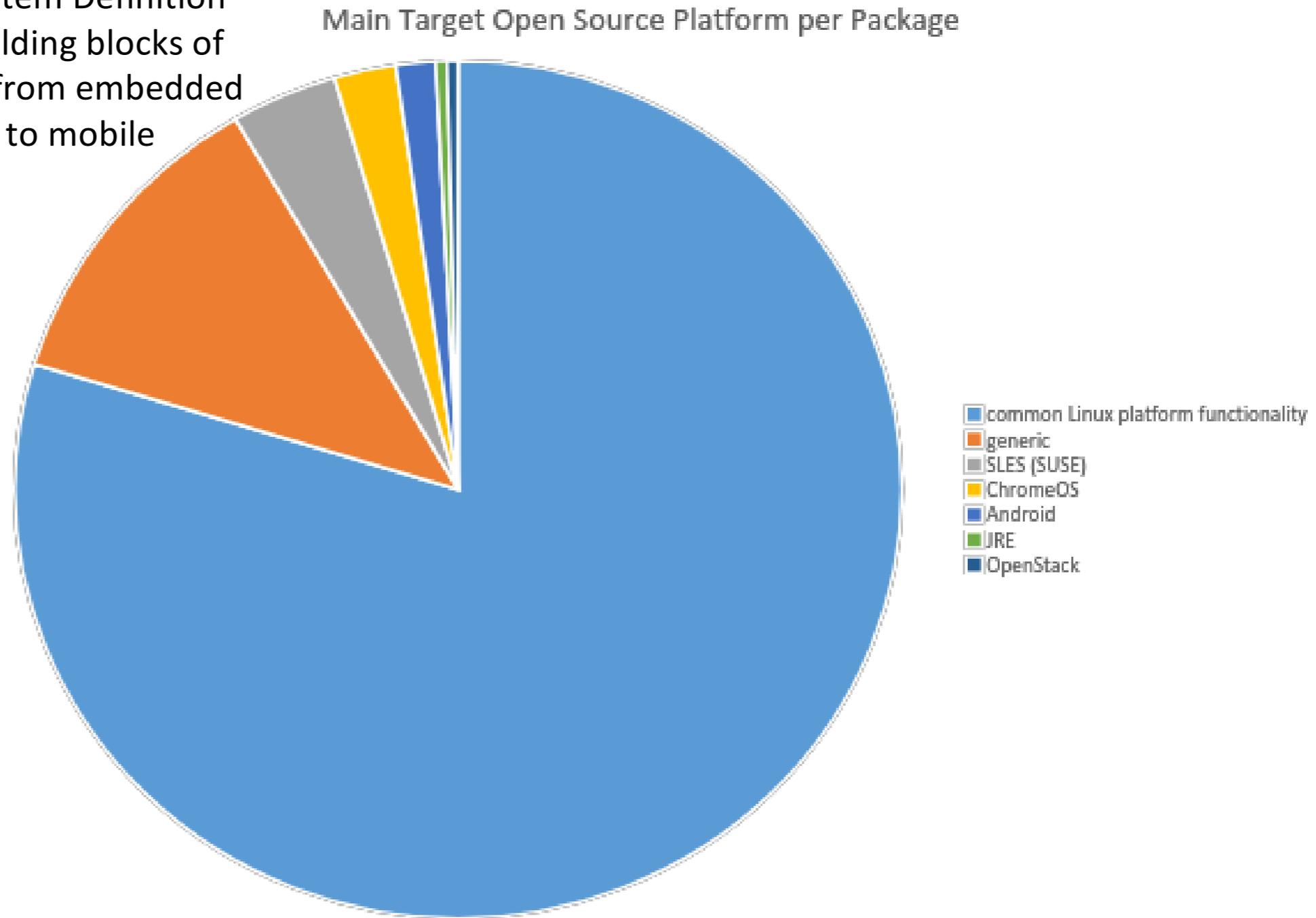
Main Technology Area per Package

Main Technology Area	Percentage
common base packages	72.6%
software engineering	15.3%
enterprise computing	3.5%
mobile	2.9%
networking and security	2.6%
cloud computing	1.5%
web	1.0%
configuration management	0.6%

Main Technology Area per Package

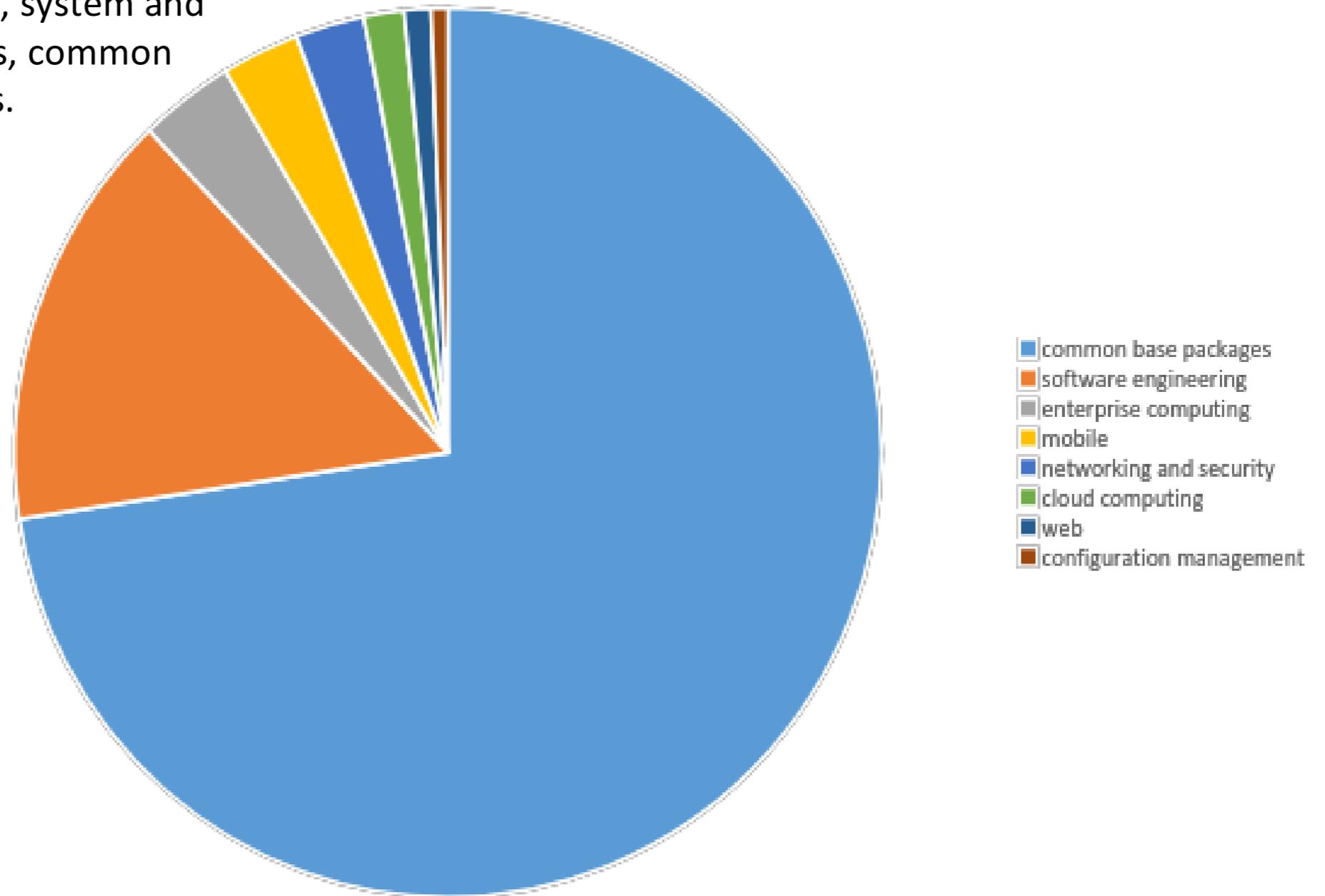


Almost the entire software covered by OIN's Linux System Definition implements basic platform-independent functions of modern computer systems, and is used in a wide variety of devices and appliances. The System Definition covers the essential building blocks of today's Linux systems, from embedded computers in machines to mobile phones to cars.

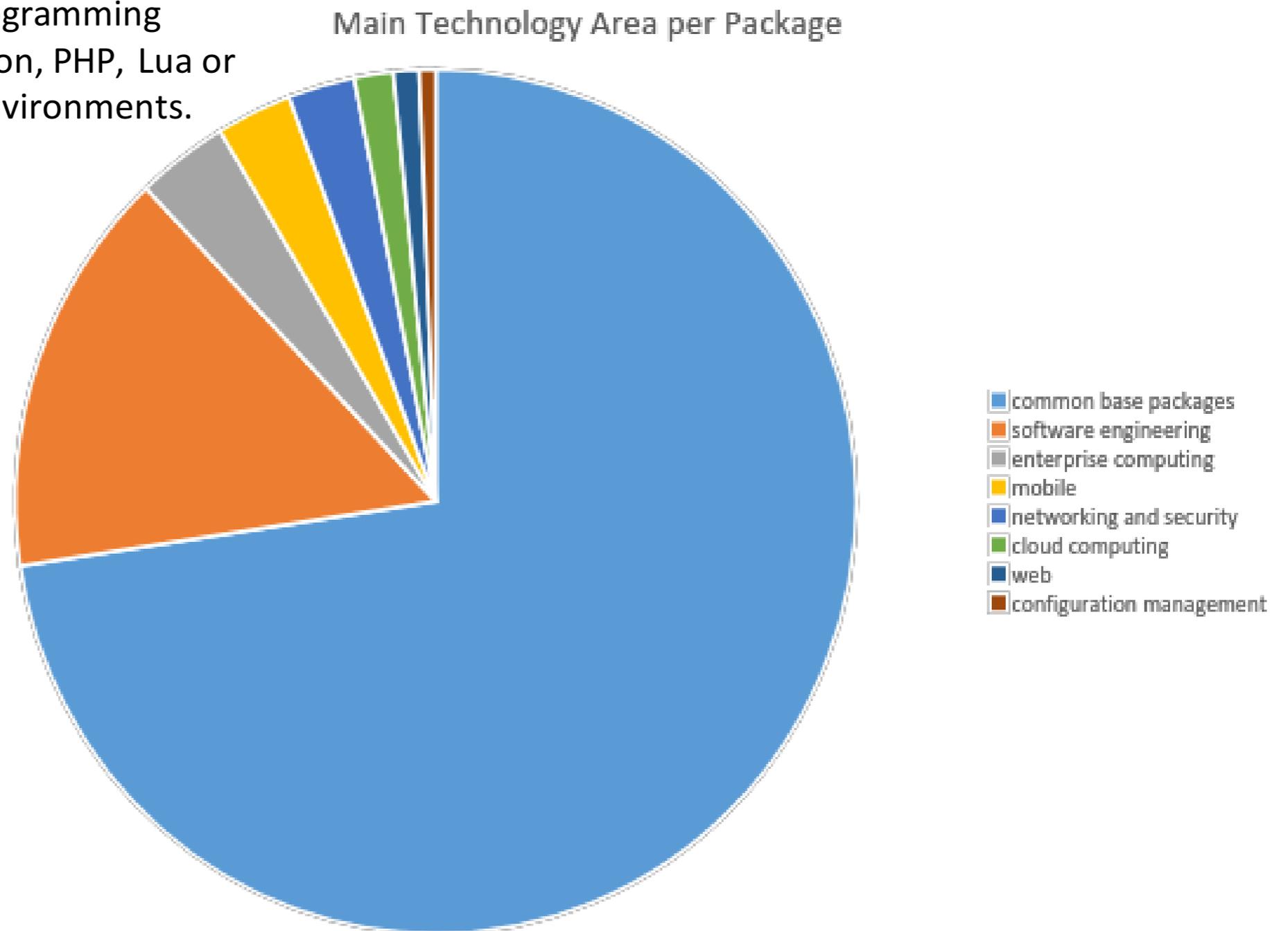


The vast majority of packages in the OIN Linux System Definition are common base packages. These packages are used in most Linux configurations across all target technology areas. Such packages include the Linux kernel, system and command line programs, common libraries and setup tools.

Main Technology Area per Package

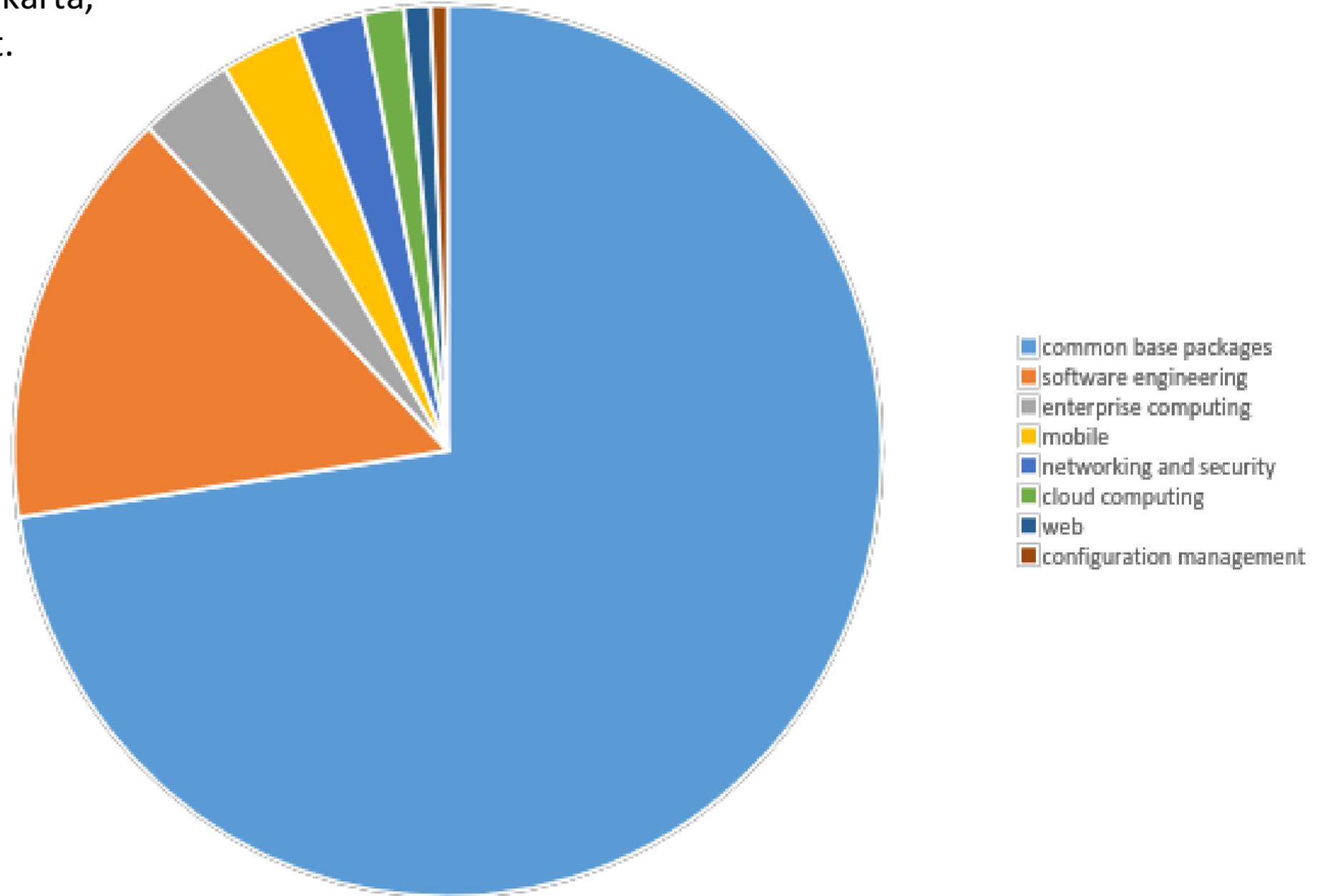


Circa 15% of the packages in the OIN Linux System Definition are mainly used to develop software. They are the foundations for the further development of Open Source software. Packages in this category include programming languages like Perl, Python, PHP, Lua or Go, and their runtime environments.



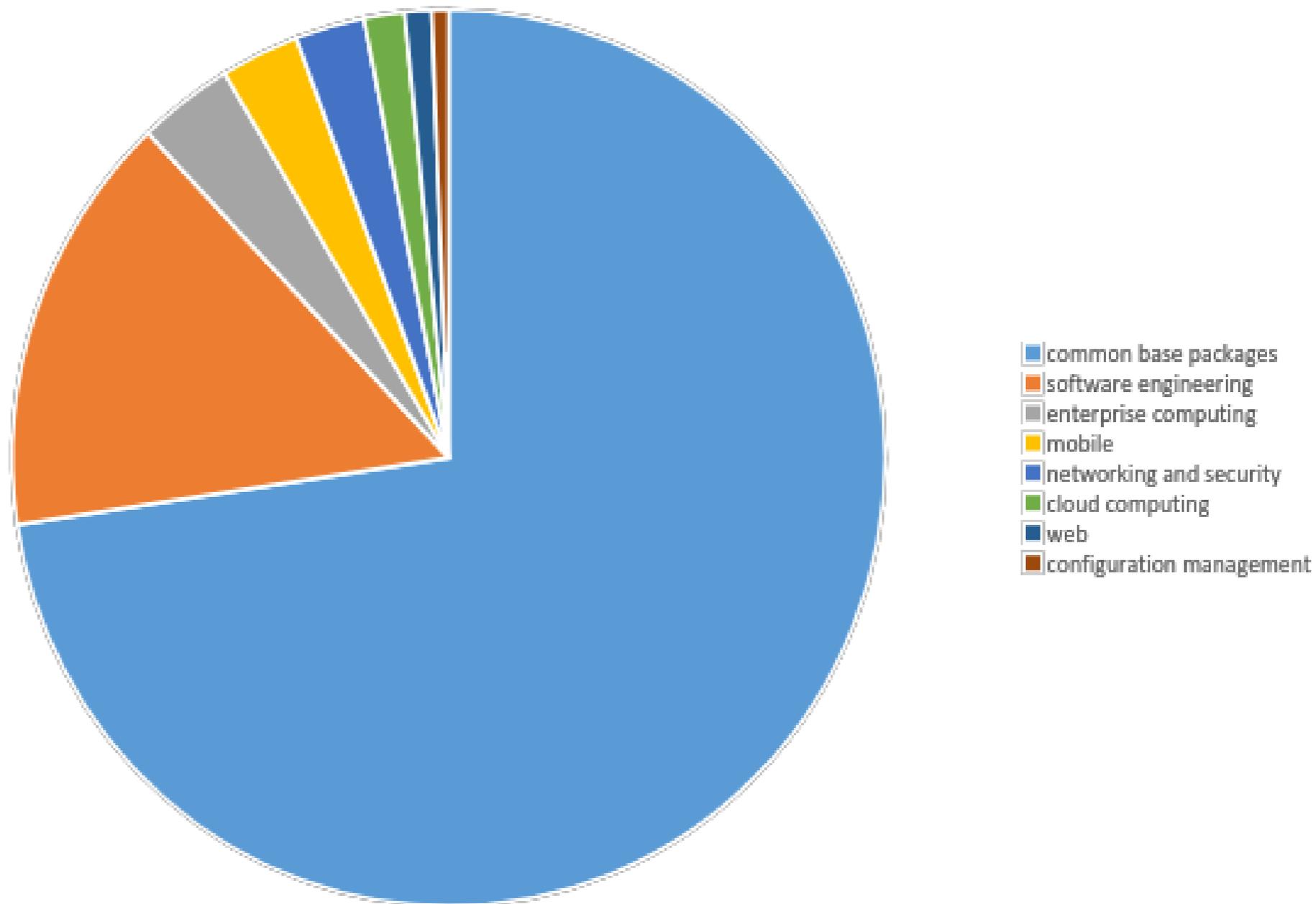
Circa 4% of the packages in the OIN Linux System Definition are primarily used in enterprise computing. The small percentage is misleading, as many of the packages are very large and include substantial functionality. Packages in this category include JBOSS, Jakarta, Kubernetes and OpenShift.

Main Technology Area per Package



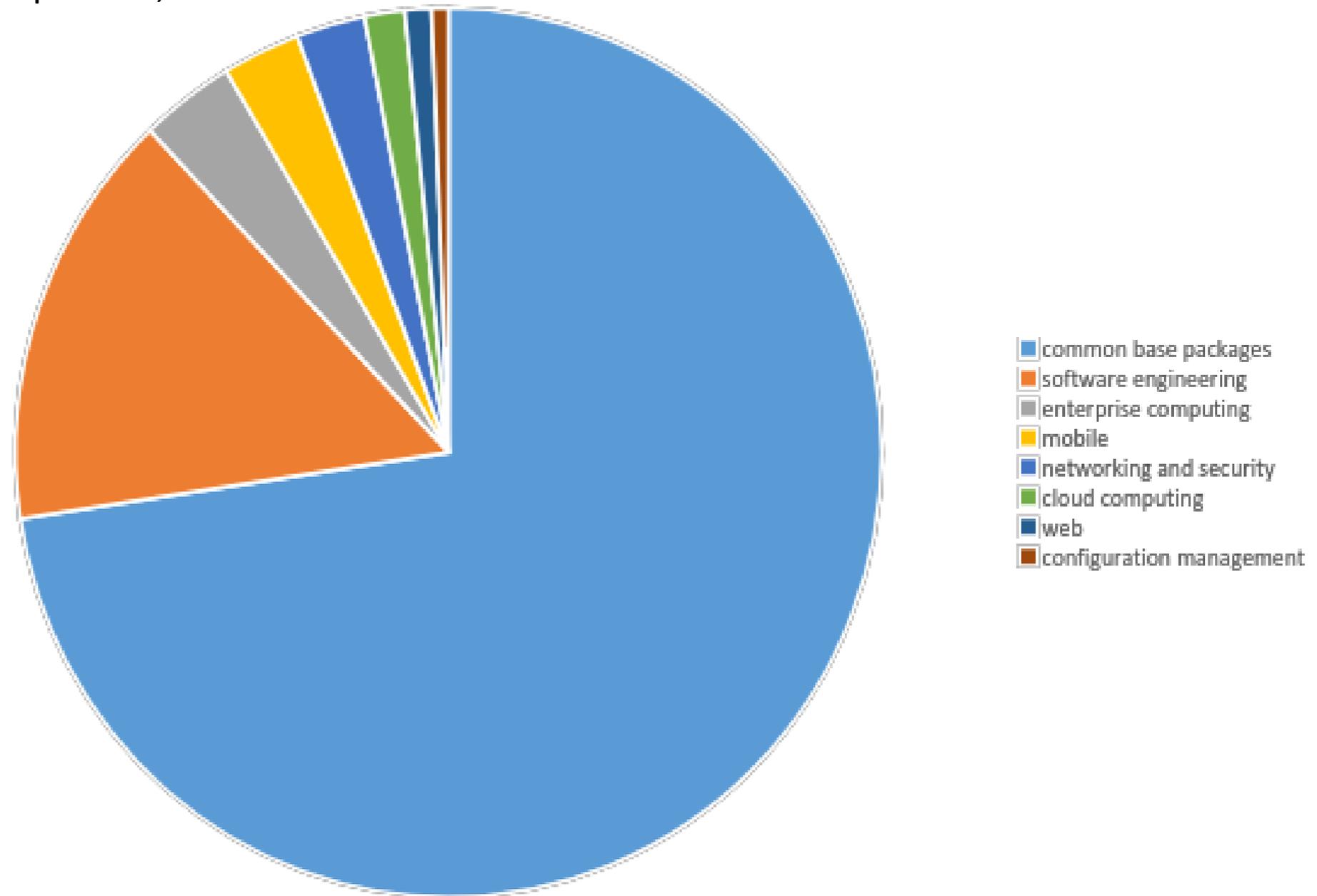
Mobile and embedded software makes up circa 3% of the packages in the OIN Linux System. This includes software like ChromeOS and Android.

Main Technology Area per Package



Networking and security software makes up circa 2% of the packages in the OIN Linux System. This includes core infrastructure packages like OpenSSH, OpenSSL and OpenVPN.

Main Technology Area per Package



A small but important circa 1% of the packages in the OIN Linux System covers cloud computing. This group includes vast functionality from all core OpenStack products, as well as virtualization software like Qemu and libvirt.

