

OpenStack Mission Update

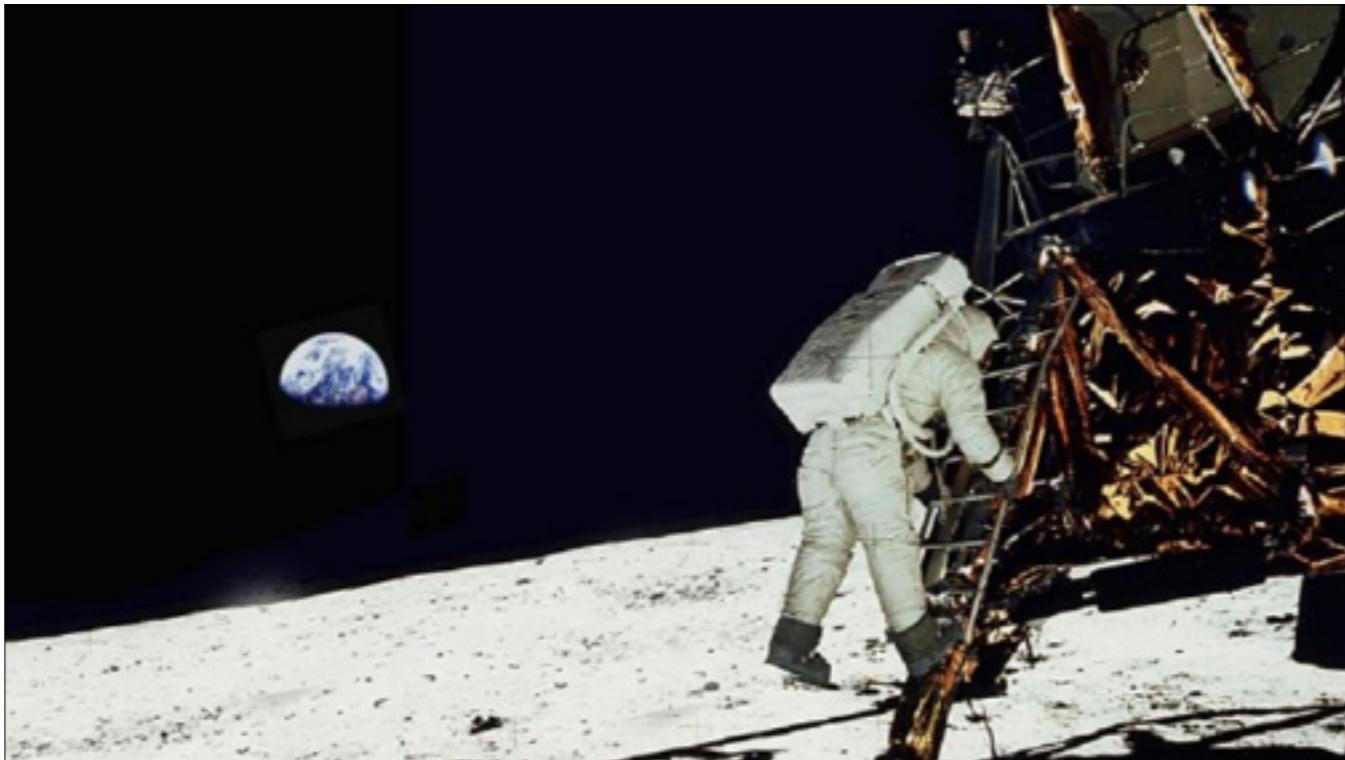
A journey to the center of planet OpenStack



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The Mission

To produce the **ubiquitous** Open Source Cloud Computing platform that will meet the needs of **public and private clouds** regardless of size, by being **simple to implement** and **massively scalable**.



This was a pretty ambitious mission. Maybe not quite as ambitious as landing a man on the moon, but consider that cloud computing is fundamentally changing the way that every company delivers values to customers today. It's the biggest shift in IT since the advent of the web. And OpenStack is aiming to be the most widely adopted platform for this wave. That's quite a mission.

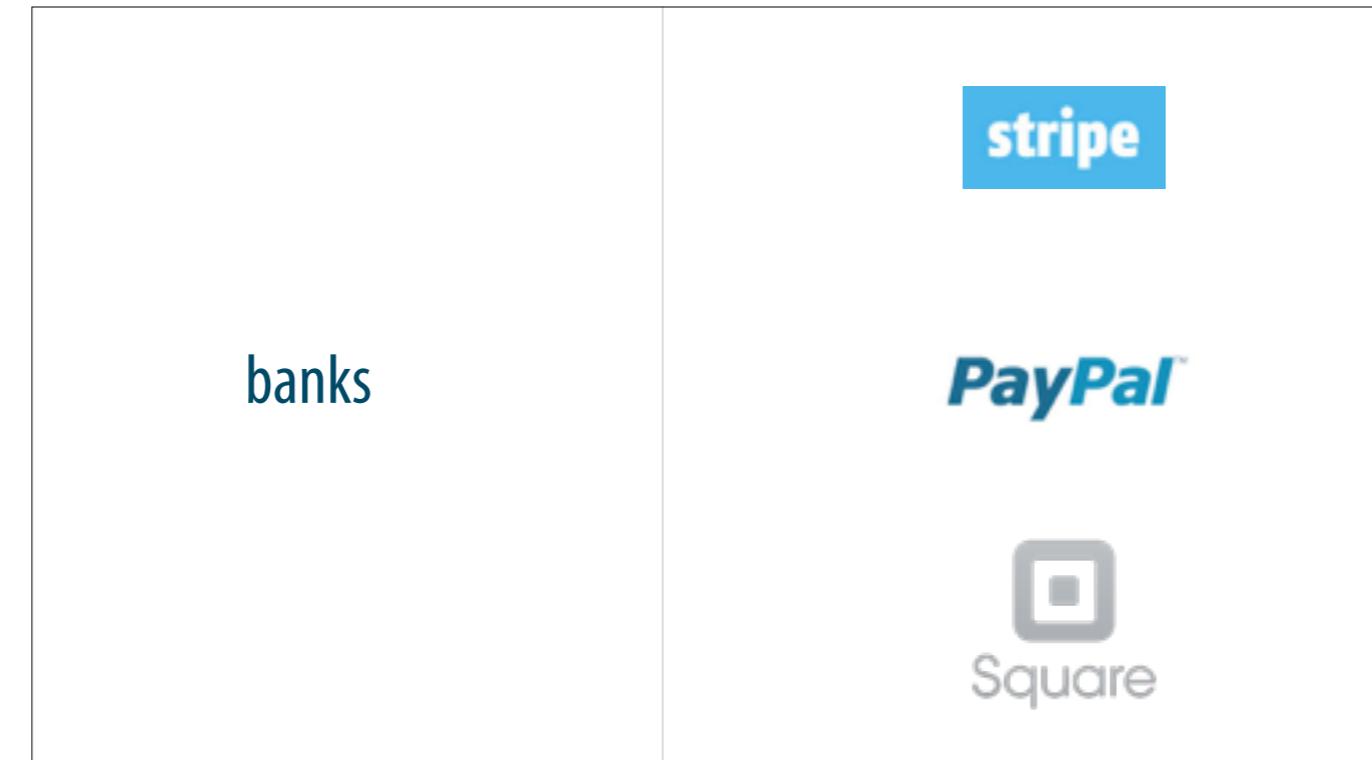


everyone competes with a startup

banks



finance -- banks, paypal, stripe, square



big media



media -- disney, zynga, candy crush, youtube, netflix

automotive

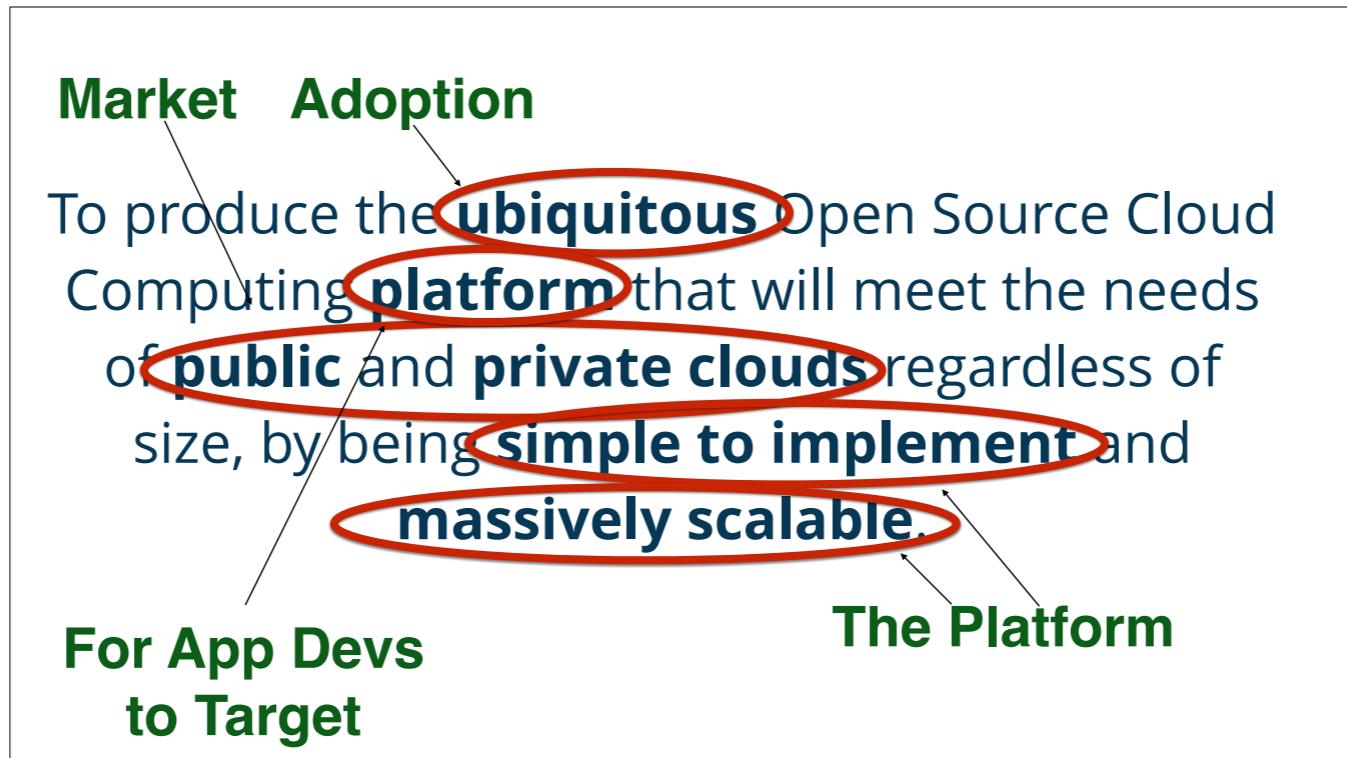


automotive -- tesla

software defined decentralizing

software defined
economy

For OpenStack to be the engine of this software defined economy is a big goal, a bold mission

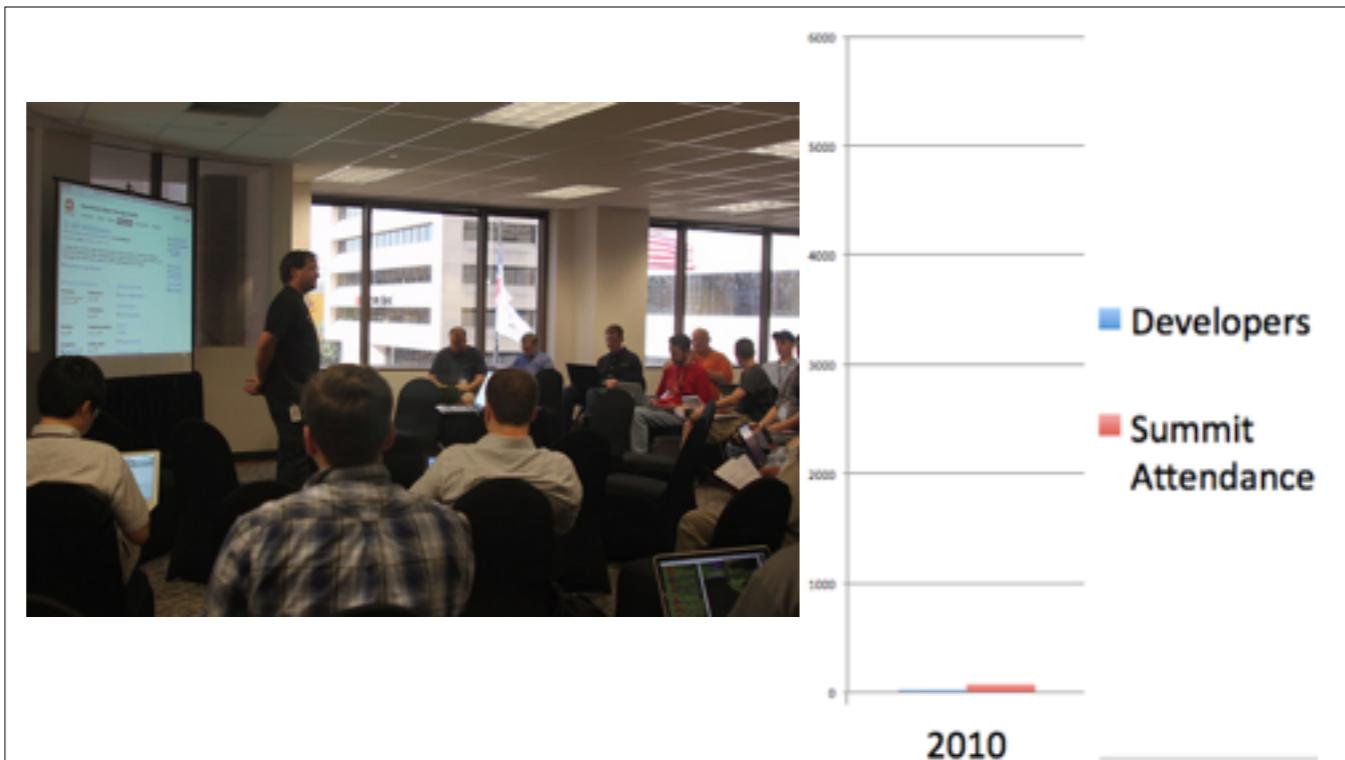


If we deconstruct this, here's really what we were really saying:

The wanted to be the ubiquitous platform — meaning we wanted to be everywhere. To have community members in every country, and clouds in every city.
We wanted to address the public and private cloud markets
Platforms are inherently judged by the apps that sit on top
The Platform Technology goal was simple yet scalable

Launch date: July 2010

The Crew



Only 25 developers, primarily from 2 organizations: NASA and Rackspace

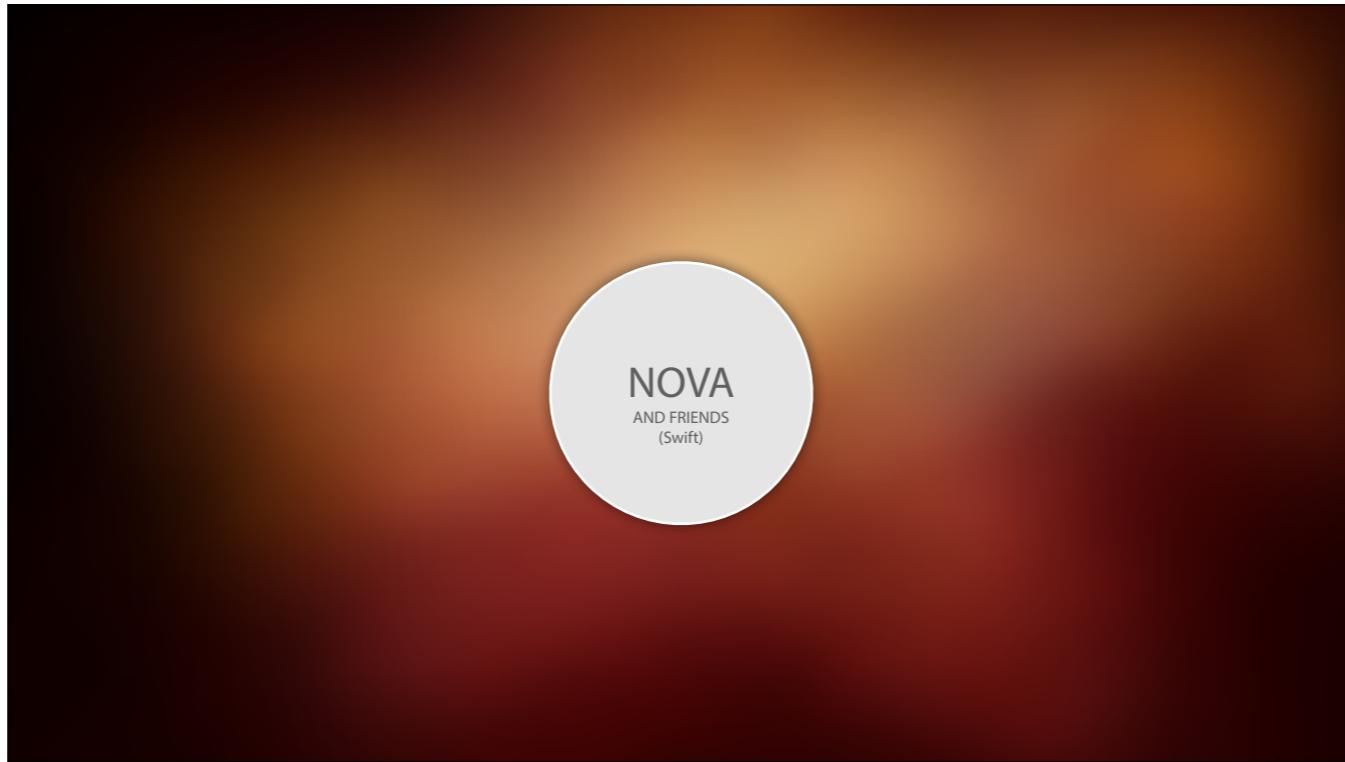
We also had only 75 people at the first summit

The Market

Operators: 0
Apps Developers: 0

Now you could argue we had 1/2 a public cloud — because rackspace was running Swift, the object store, but regardless we were very much at ground zero
no one was targeting the platform with apps, because no one was running it

The Platform



Focused on automating Compute, Storage, and Networking but with only 2 projects to start with — and only 18k lines of code.

A prototype at best

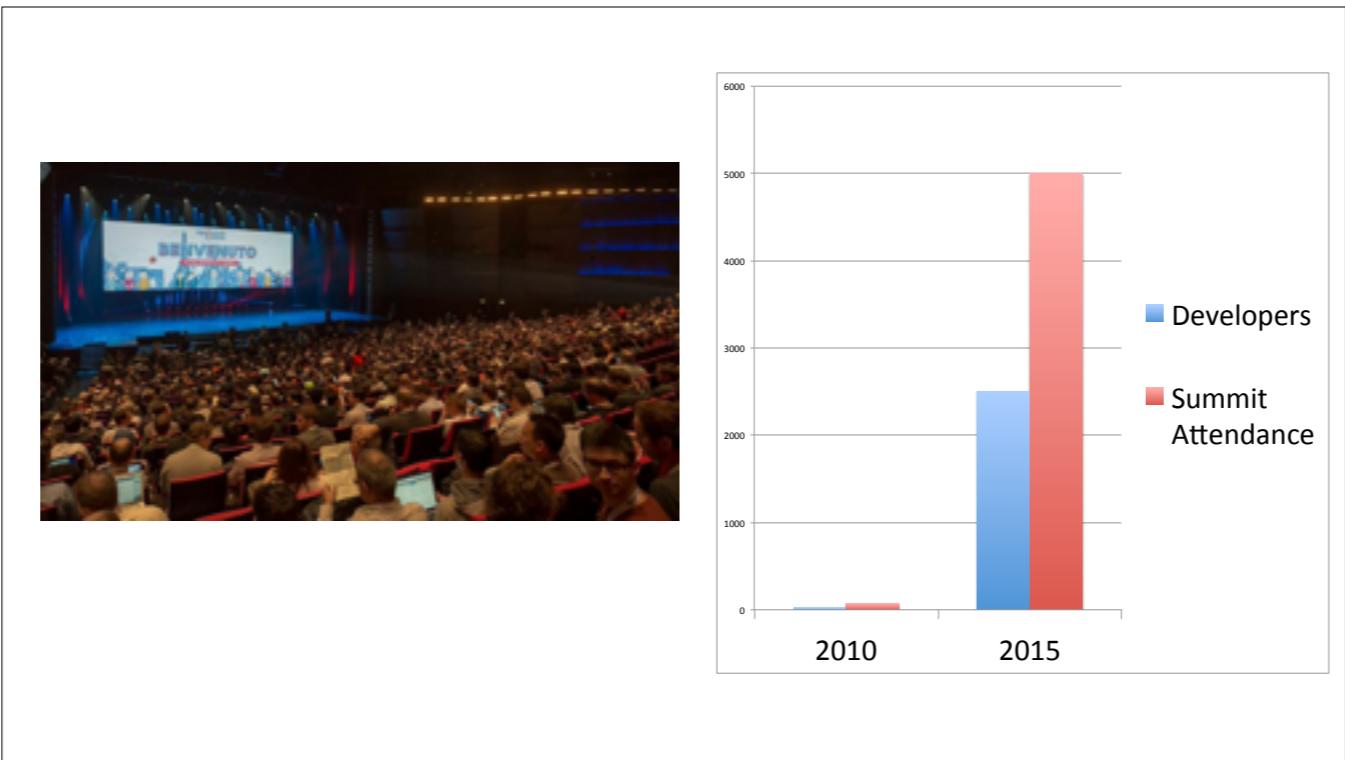
But when we said “ubiquitous” it was easy to see what we had in mind — NOVA EVERYWHERE

5 years later...

One of the things that's really cool is how the innovation process has changed. These new technologies are often open source, like OpenStack. Someone who's been leading open source movements for years (Zemlin).

The Crew

One of the things that's really cool is how the innovation process has changed. These new technologies are often open source, like OpenStack. someone who's been leading open source movements for years (zemlin).



100 X growth in developers. The crew is multiplying!
And we have millions of lines of code, and a dozen projects.

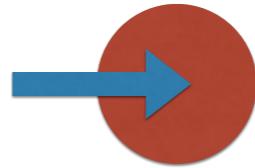
OpenStack developers: I want to solve interesting problems with other smart people, recognition for my projects & resources like infra & summit space



The Operators: Focus on a stable core, but give me optional modules for my use case, and help me navigate the complexity



Cloud App devs: Give me a consistent target



In addition to just the developers and their employers (the ecosystem) we now have operators of openstack clouds, and developers targeting those clouds... Our crew — the community — has not only become larger, it's become more diverse. We have more stakeholders to answer to, more needs to balance. How do we meet some of these seemingly conflicting goals?

The Market

One of the things that's really cool is how the innovation process has changed. These new technologies are often open source, like OpenStack. Someone who's been leading open source movements for years (Zemlin).



On the one hand, we have dozens of public clouds and have doubled the number in the past year, with more regions than Amazon
on the other hand, we can't ignore the fact that Amazon, Google, and Microsoft are all investing billions in public clouds and aren't running OpenStack

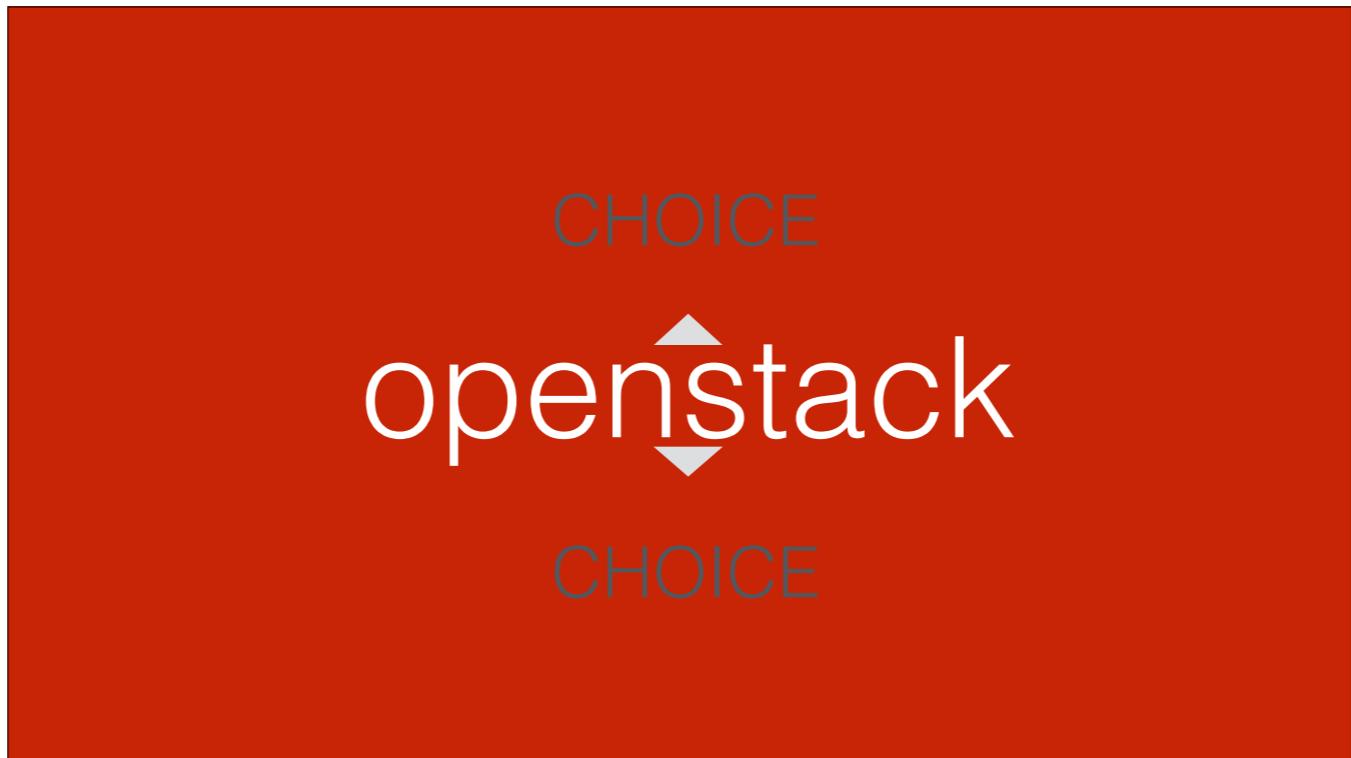


and hundreds if not thousands of private clouds
openstack is the defacto standard if you're building a private cloud today



Glenn Ferguson // Wells Fargo

Thin red separates the users' needs (standard API they can rely on) from his business requirements (compliance, security, price, performance)



Above OpenStack, you can write your apps to a common API that's not tied to one vendor's hardware...

And below OpenStack, we have the broadest support for common compute, storage, and networking technologies through plug in drivers - backed by every major IT vendor

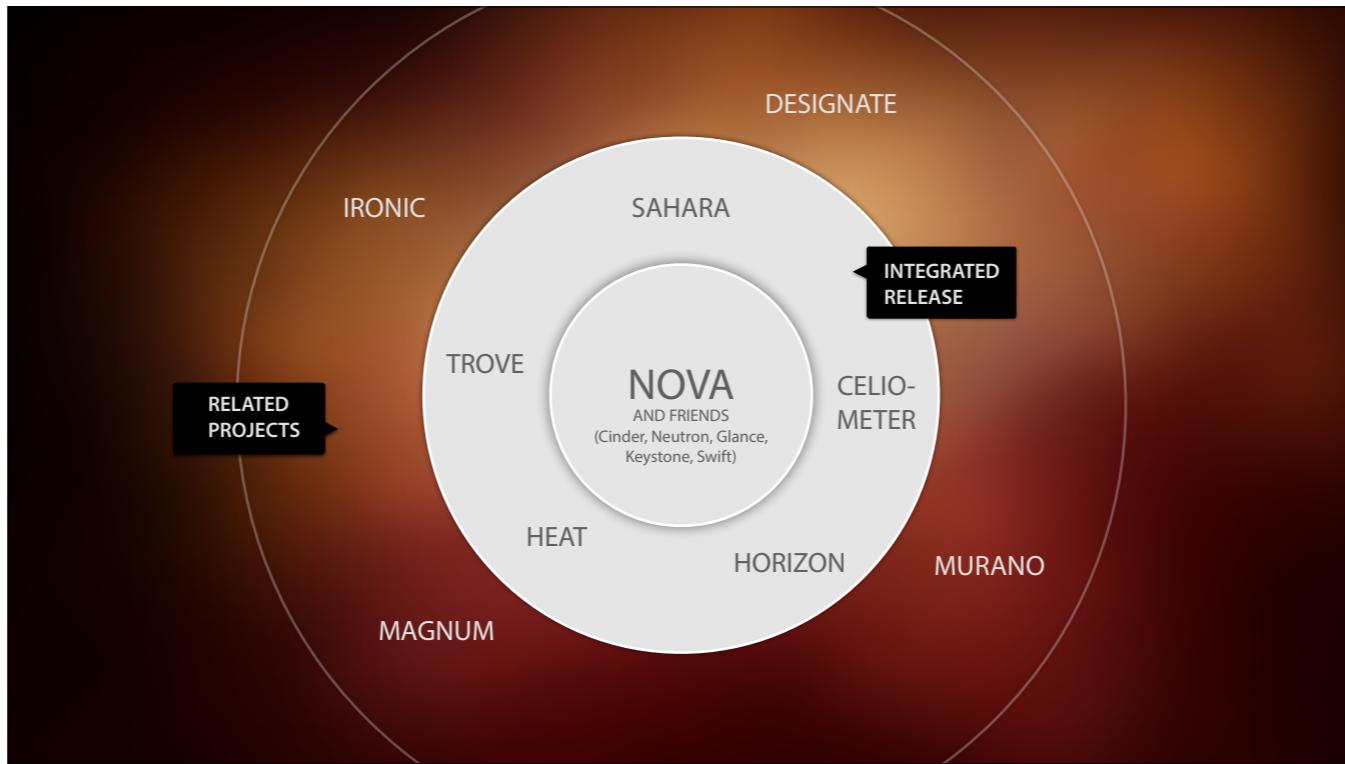
And when we dive into the platform next, you'll see that even within the platform, deployers and operators have choices



It used to be Good, Fast, or Cheap - now it's all about FAST. With more fast, you can make your own cheap and your own good.

The Platform

Simple to implement
Massively Scalable
Standard API for Cloud App Devs to target —whole point of being ubiquitous



The integrated release is what is often thought of as the ‘complete openstack’ - that which we, as a community, release every 6 months. It’s tested together and developer in unison.

But when we look closer, I think we’ll see that the designation has outlived its usefulness — it doesn’t really mean that anymore

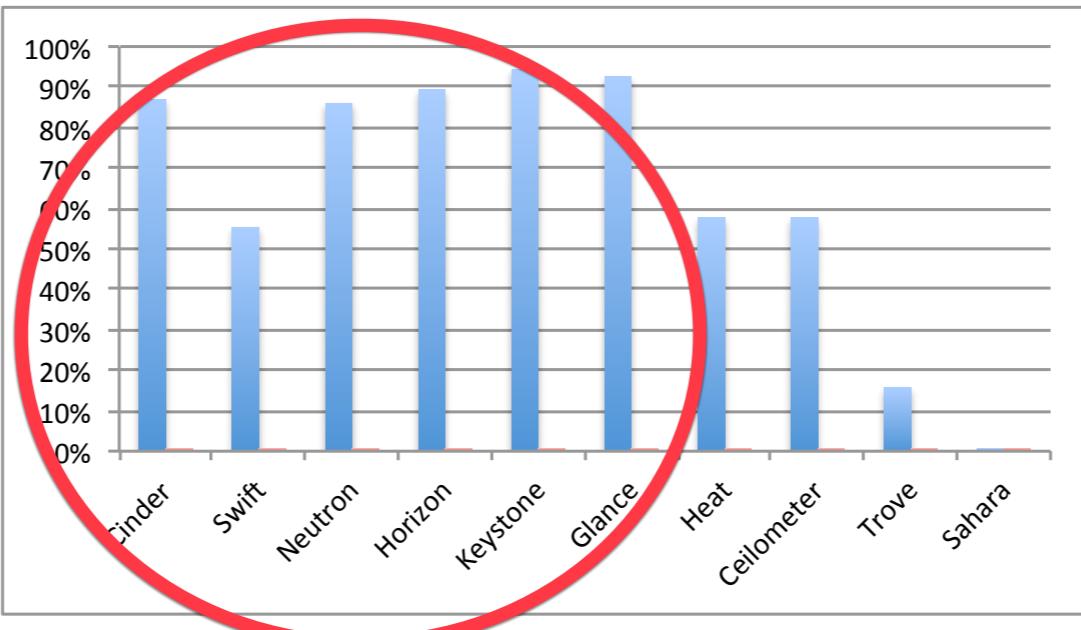
Outside of the integrated release many other projects are developed according to the “openstack way” and help our the original mission.

The Market:

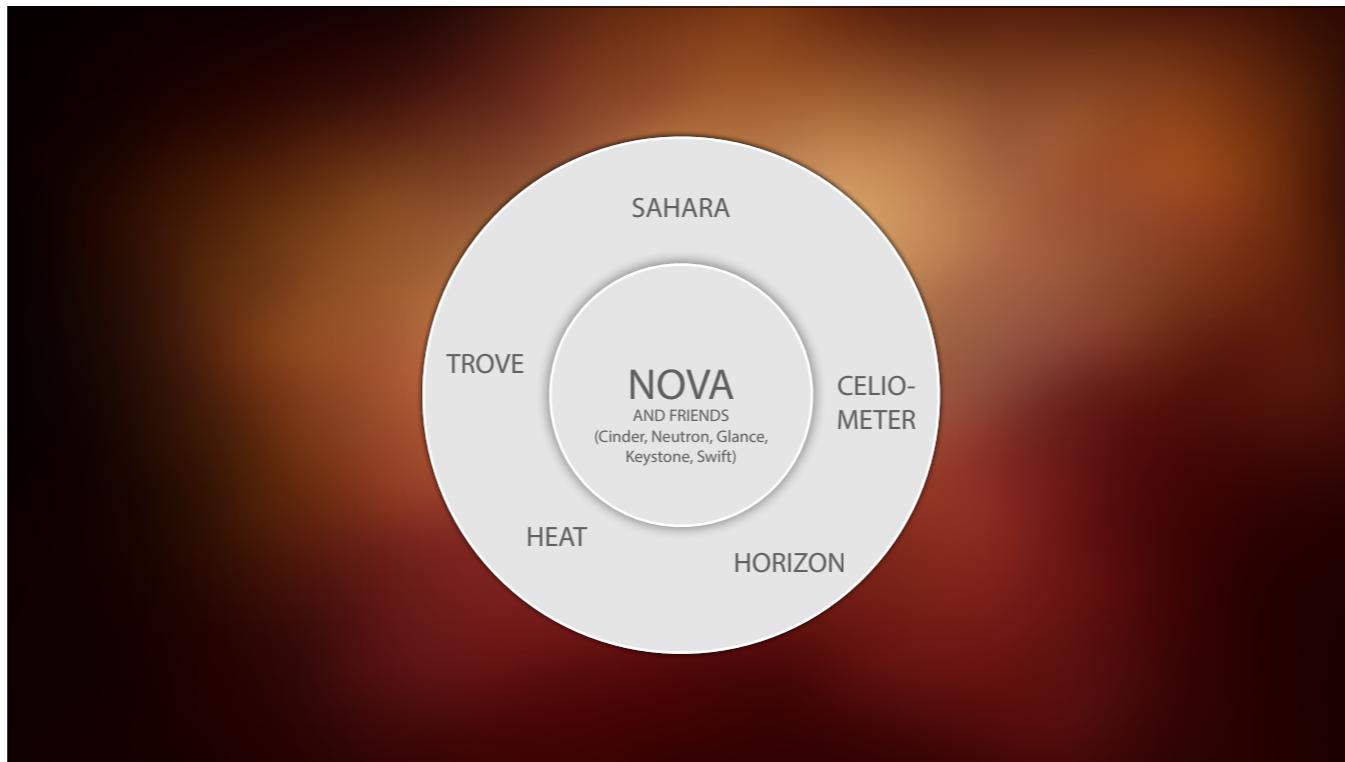
Deeper Dive

When we think about adoption - ubiquity, dots on a map don't tell the whole story. Because OpenStack is a lot more than just Nova today. And not all of it is right for every use case.

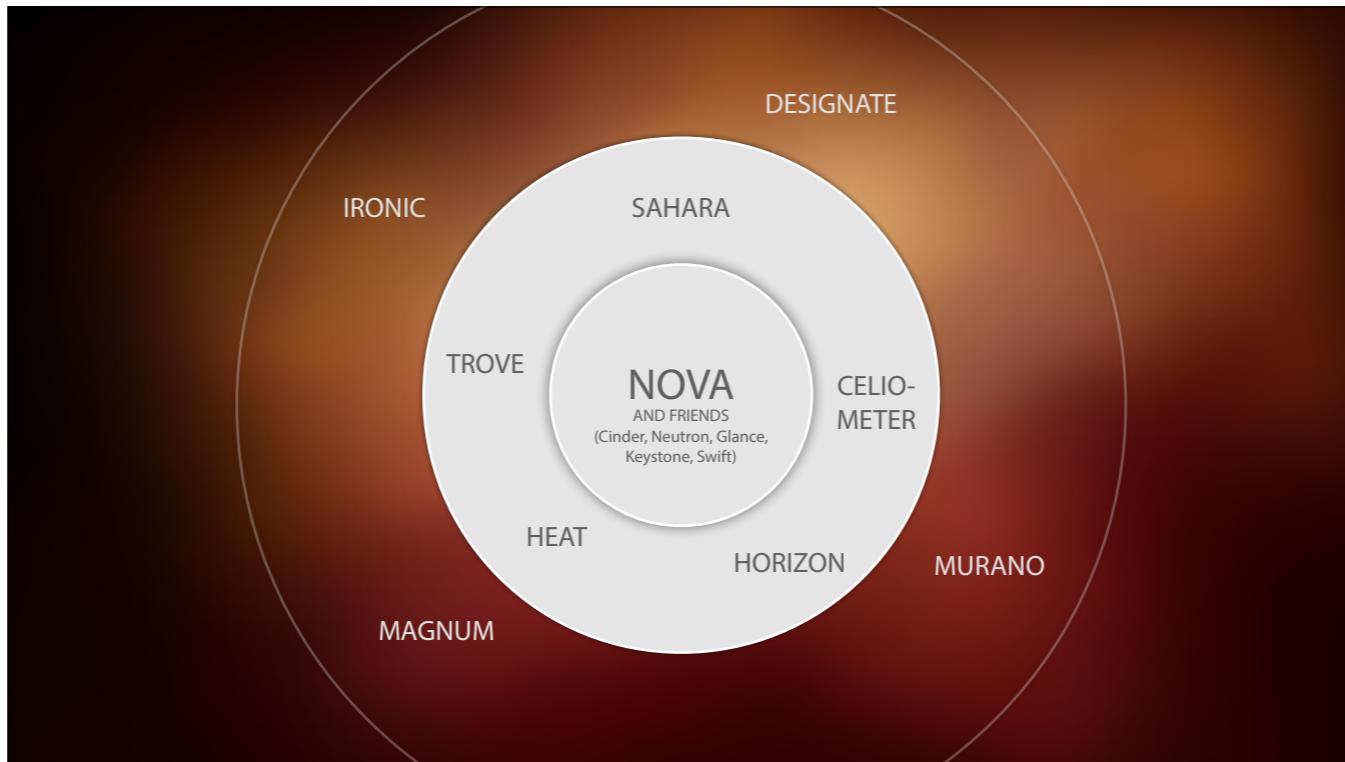
Nova's new BFFs



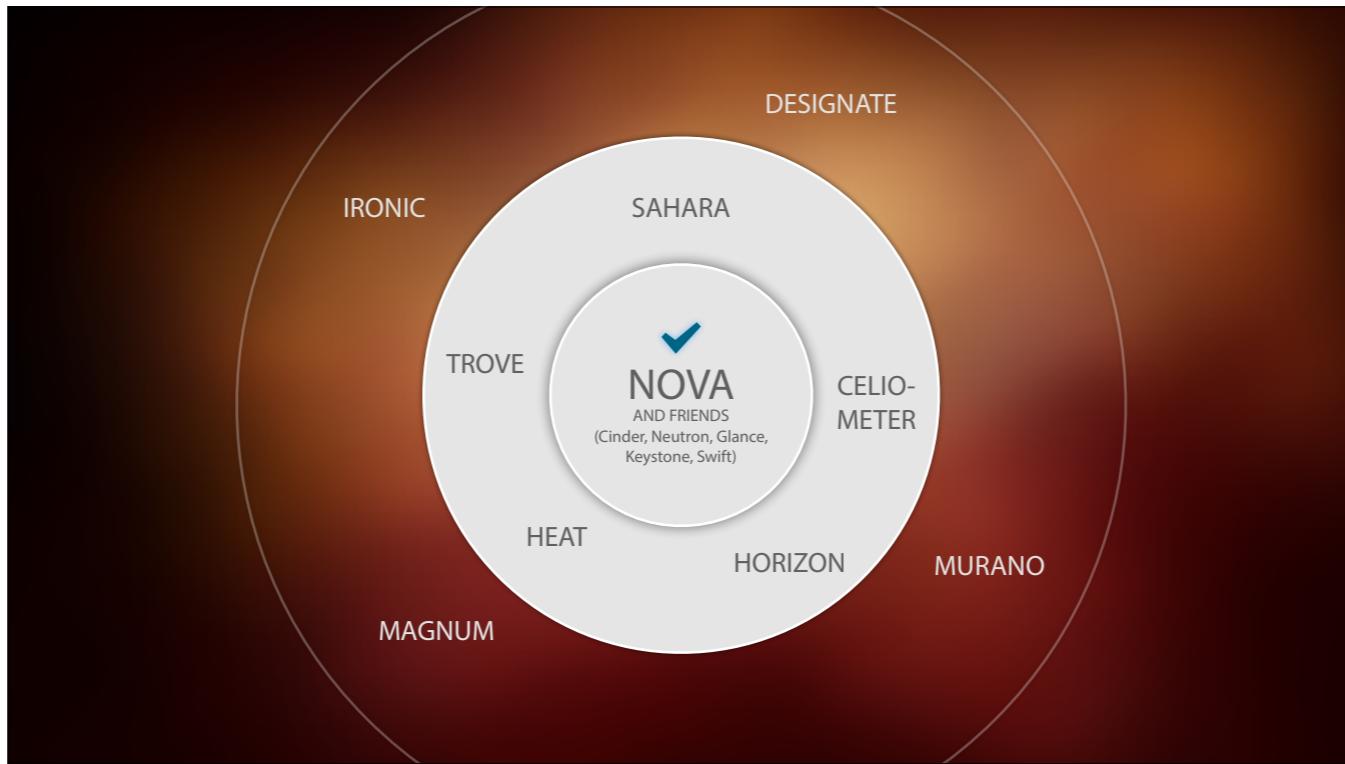
The reality is that most people don't just take all of the integrated release, they adopt Nova & Friends for the most part, and -- as needed for their use case -- ADD ON things like Heat and Trove



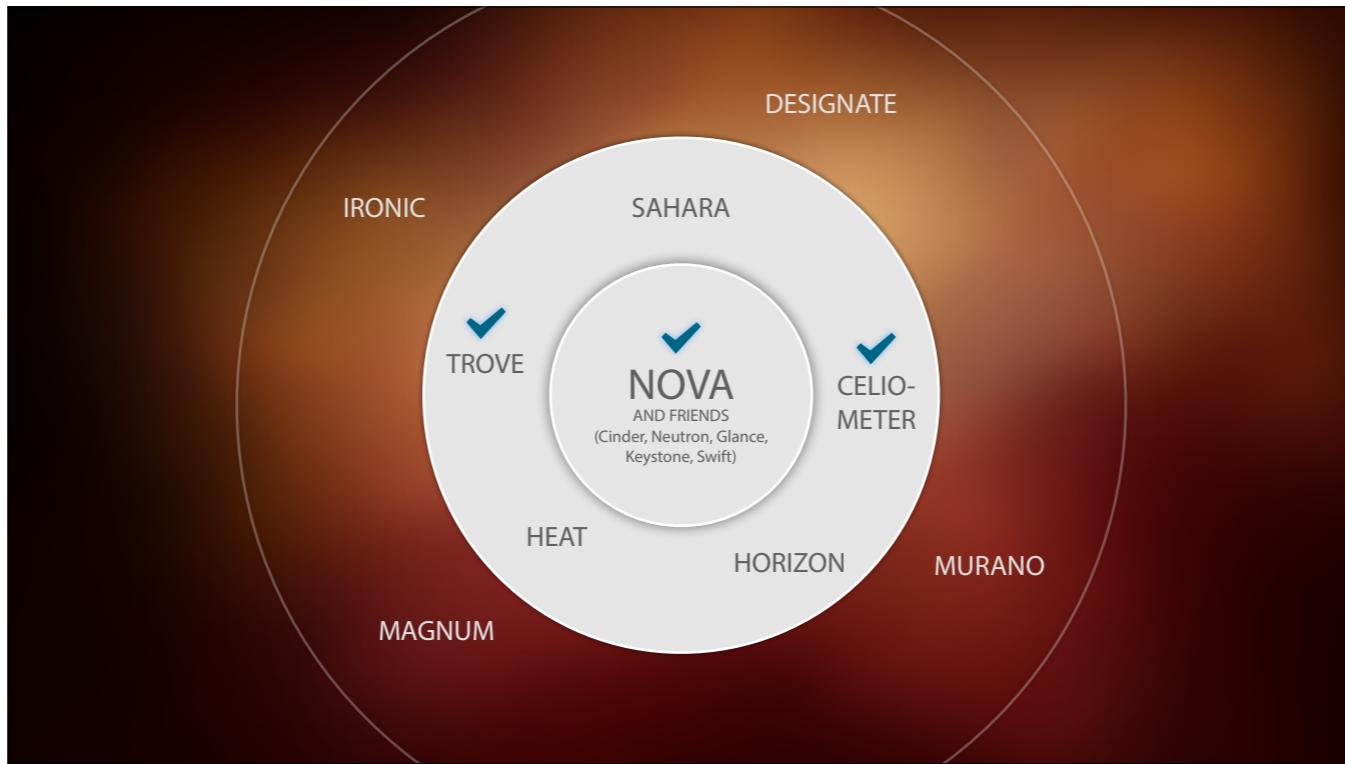
Breaking it down, you can see that OpenStack is now made up of 11 projects, and many of them orbit the core planet, which I like to call “nova and friends”. Don’t worry, It’s a friendly planet.



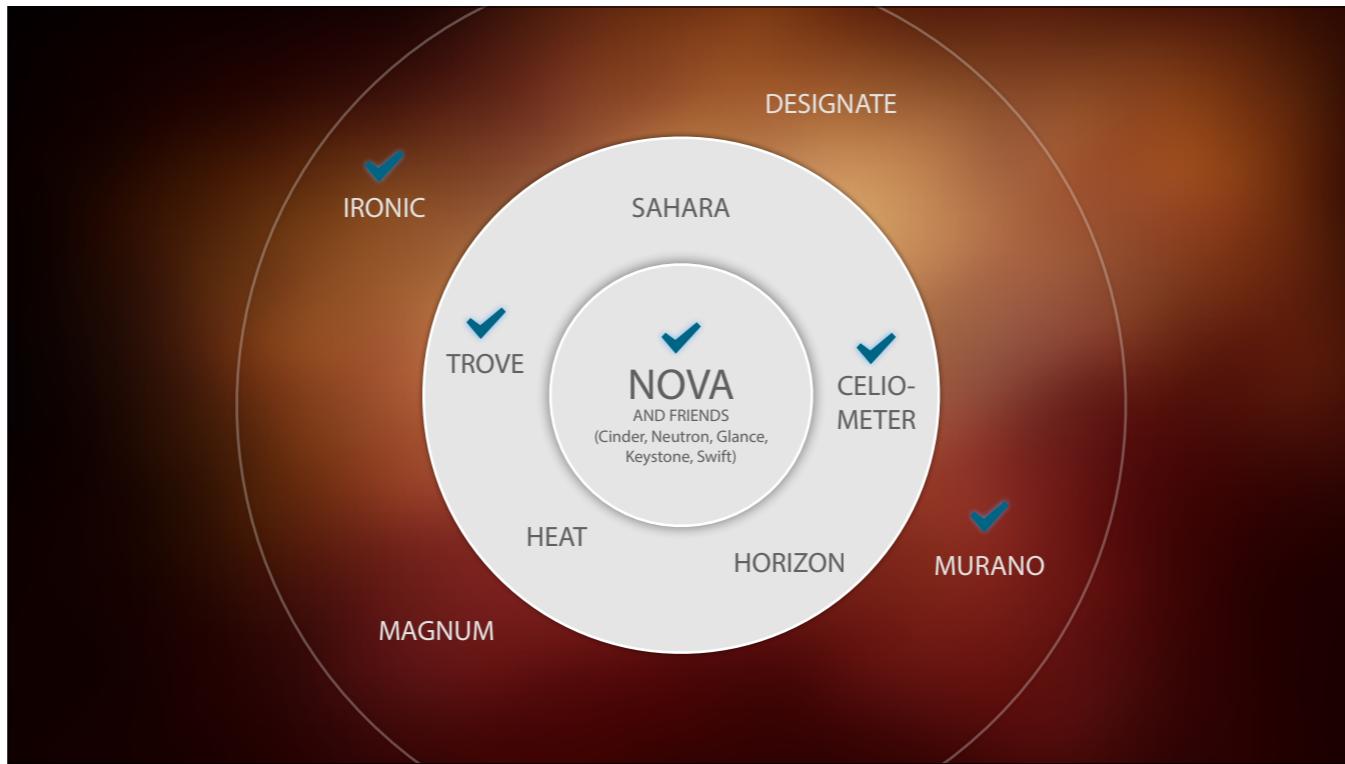
And further out, we see even more innovation, from related projects, all of which are built the openstack way and which ultimately further our mission. This is just a small set of examples.



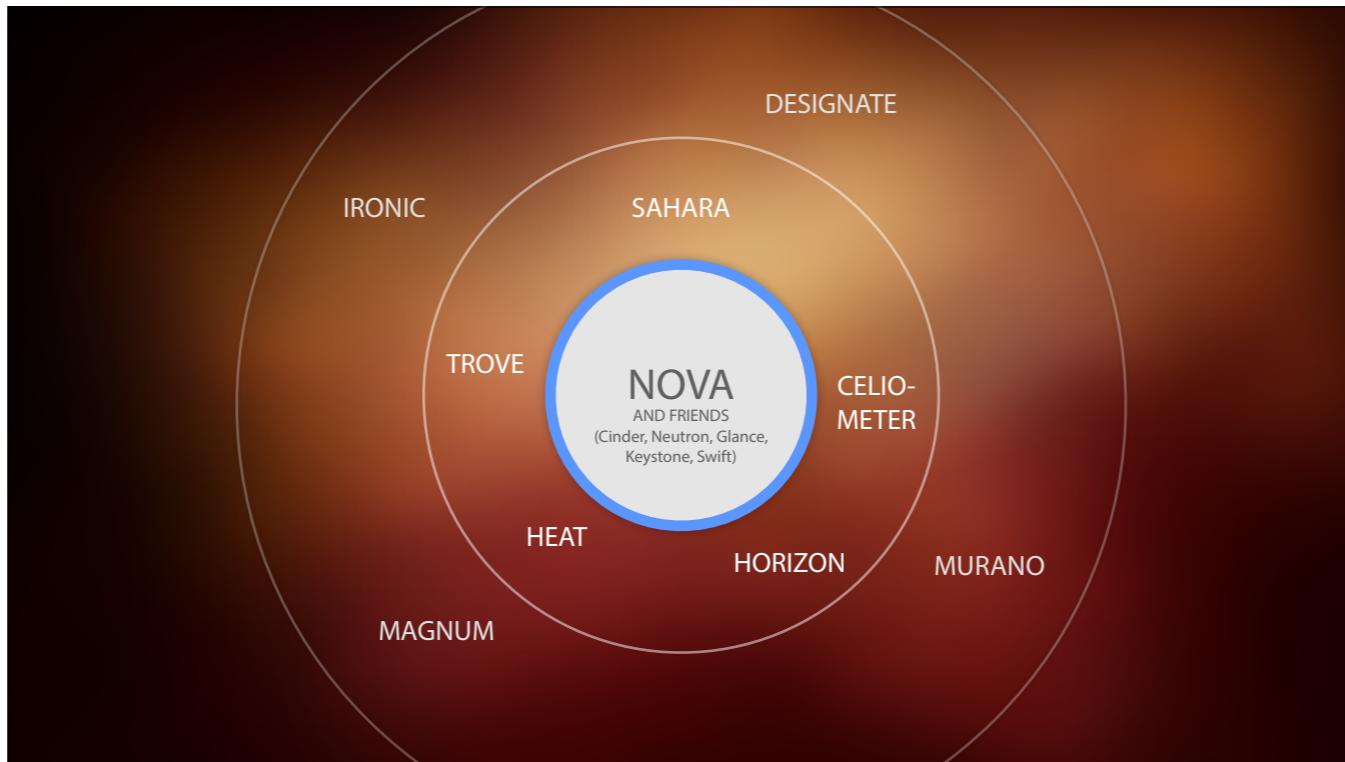
But when we look at the data on openstack users, clearly they don't deploy every single capability. But Nova & friends are the common core.



And depending on the use case, most end up deploying some of these other modules inside the integrated release - but rarely all of them.



And it's great to see adoption growing for these related projects, too.



So when you take this all in... I think it's clear that it's time to re-examine the existential question "what is openstack", recognizing that "the integrated release" is not a complete answer. But neither is ignoring the innovation happening in the broader community.

By welcoming more projects into the tent, while also defining a tighter core:

Developers get greater support for the innovation engine surrounding the core from the foundation

Operators get a stronger, more stable core to rely on

App developers get a consistent target

A way of building software

The OpenStack Way:

4 Opens: Design, Development, Community, Source

6 month planning & release cycles, organized via twice annual Summit

A stable platform core

focused set of capabilities in every OpenStack Cloud

a.k.a. "Nova and Friends":

An engine for innovation built on that core:

optional modules, built "The OpenStack Way"

designed to automate common tasks for different use cases

What is OpenStack?

I'm going to argue that it's 3 things. It hard for one word to hold so much, but that's the nature of open source.

To produce the **ubiquitous** OpenSource Cloud Computing **platform** that will meet the needs of **public** and **private clouds** regardless of size, by being **simple to implement** and **massively scalable.**

The Platform

The wanted to be the ubiquitous platform — meaning we wanted to be everywhere

We wanted to address the public and private cloud markets

The Standard for API for Apps

The Platform Technology goal was simple yet scalable

Simple to Implement

If you just download the source or get some packages for your favorite linux distro and follow the Documentation — you may have a bumpy ride. Installation is still not a completely solved problem without commercial tools

The OpenStack Marketplace will help you make an informed decision, whether you're building a cloud, looking to use one by the hour, or pursuing a hybrid model.

Building a cloud

- You'll want to understand which Software Distributions and Converged Appliance options there are.
- Many users start by hiring experts, which you can find in our Consultants and System Integrators section.
- Want to train your staff? Check out our Training section.
- Wondering if your compute, storage, and networking gear has compatible drivers? Check out the Drivers section to learn the status of ongoing testing.

Using a cloud

There are OpenStack powered public clouds all over the world. Explore the possibilities.

Pacific Ocean

Atlantic Ocean

Indian Ocean

AUSTRALIA

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Where every major IT company on the planet + many well funded start ups are building products that are powered by OpenStack. Many are optimized to make implementation simple. Remember that when we started this mission, we explicitly picked the Apache open source license, which is very business friendly, to encourage this type of ecosystem. And that's a great thing for OpenStack.

Massively Scalable

Features like Cells to help scale out

Multiple clouds running tens of thousands and even hundreds of thousands of servers — so there are positive signs it's been proven at scale, but the knowledge is not as widespread as it could be, and some of the large clouds are getting together to share best practices so we can make sure this is a solid A in the future.

Next Steps



2015 Foundation Initiatives

Redefining core to better align with market feedback, and doubling down on upstream testing of that core to improve stability

Testing downstream products powered by that core to improve interoperability, provide a consistent target for cloud app devs, with results displayed in the marketplace for transparency

More in depth information about the state of each project, such as operational maturity or market adoption (e.g. through tagging) plus a redesign of docs.openstack.org

Working groups to better define user requirements, use cases, and to share best practices to achieve massive scale

What are we doing to achieve straight As next year?



The OpenStack Way is really about the people. And events like this are critical to achieving our mission. As our the summits. At our last summit in Paris in November, we had attendees from 60 countries including many from Korea. And that's why we continue to bring the Summit to new countries every 6 months.



Vancouver, May 2015

We are very excited that NEC has signed on as a Premiere Sponsor for Vancouver, and would love to invite many other Japanese countries to come to Vancouver as well.



And of course, I hope to see ALL of you again in Tokyo in October 2015!

Lastly, while our work is never done as a community, I want to thank all of you for being here today. The future of openstack is in your hands, and with the your support...