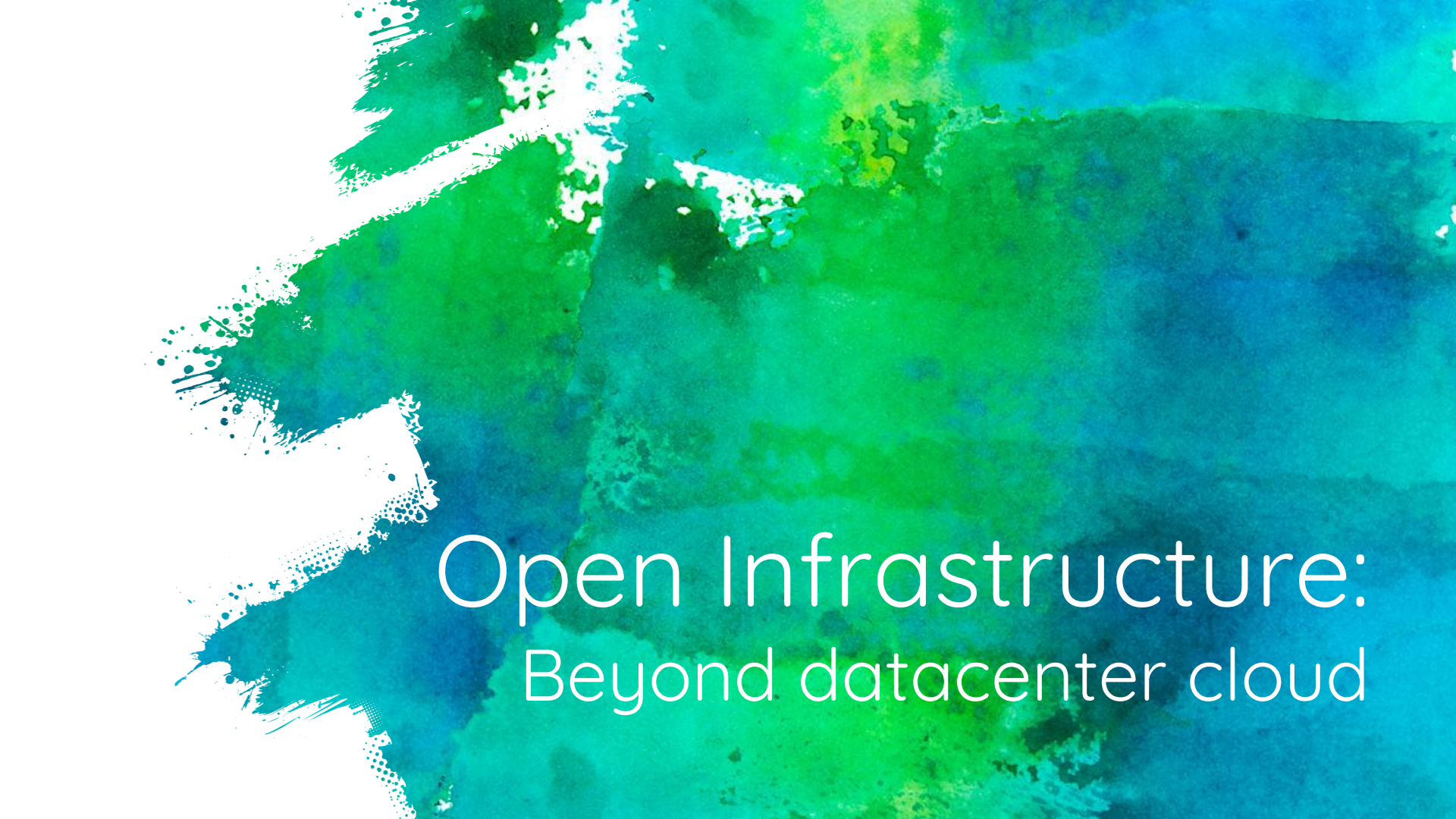
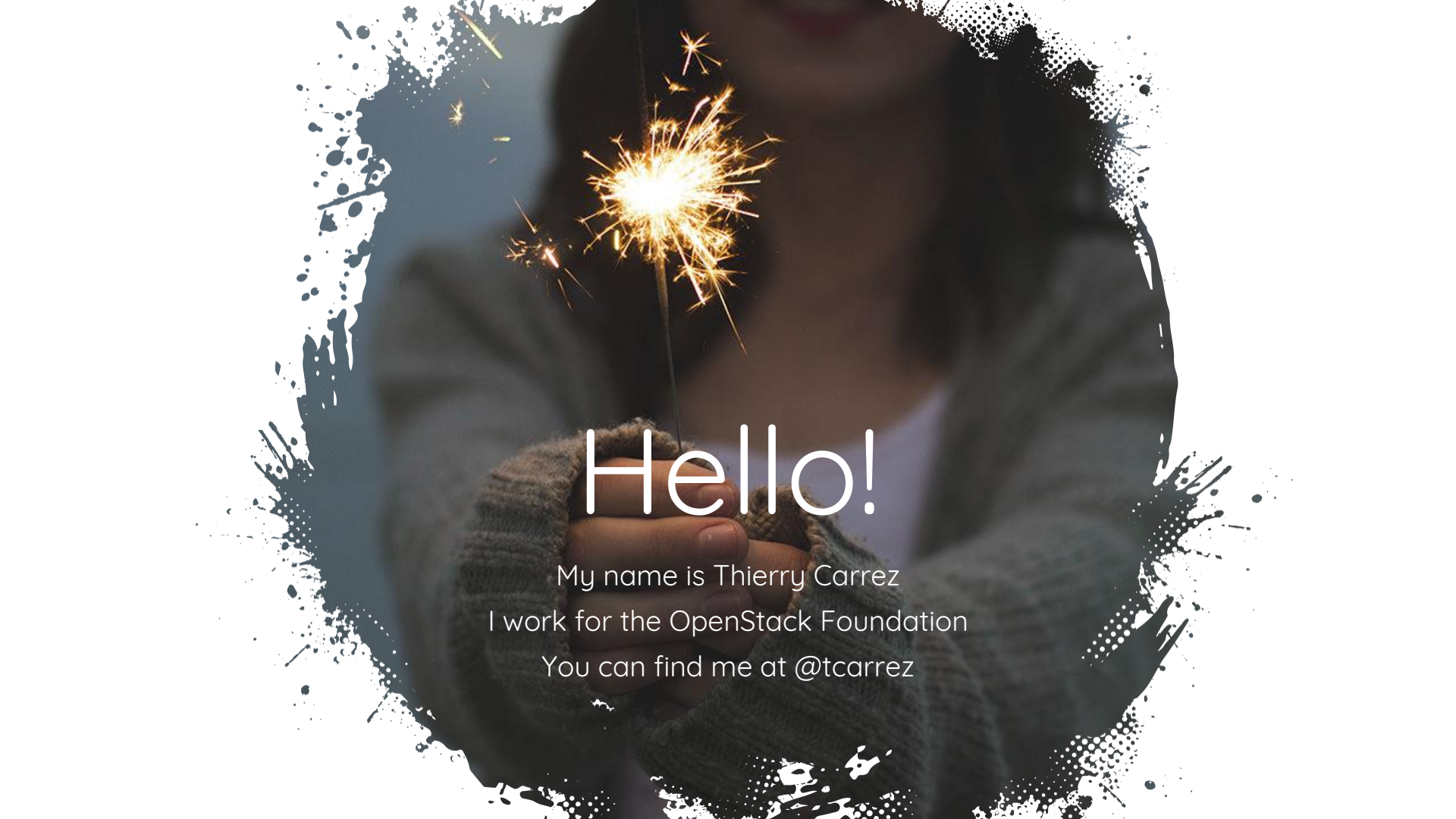

Open Infrastructure:
Beyond datacenter cloud



Hello!

My name is Thierry Carrez

I work for the OpenStack Foundation

You can find me at @tcarrez

1.
A need for a change

Why we changed

Project focus

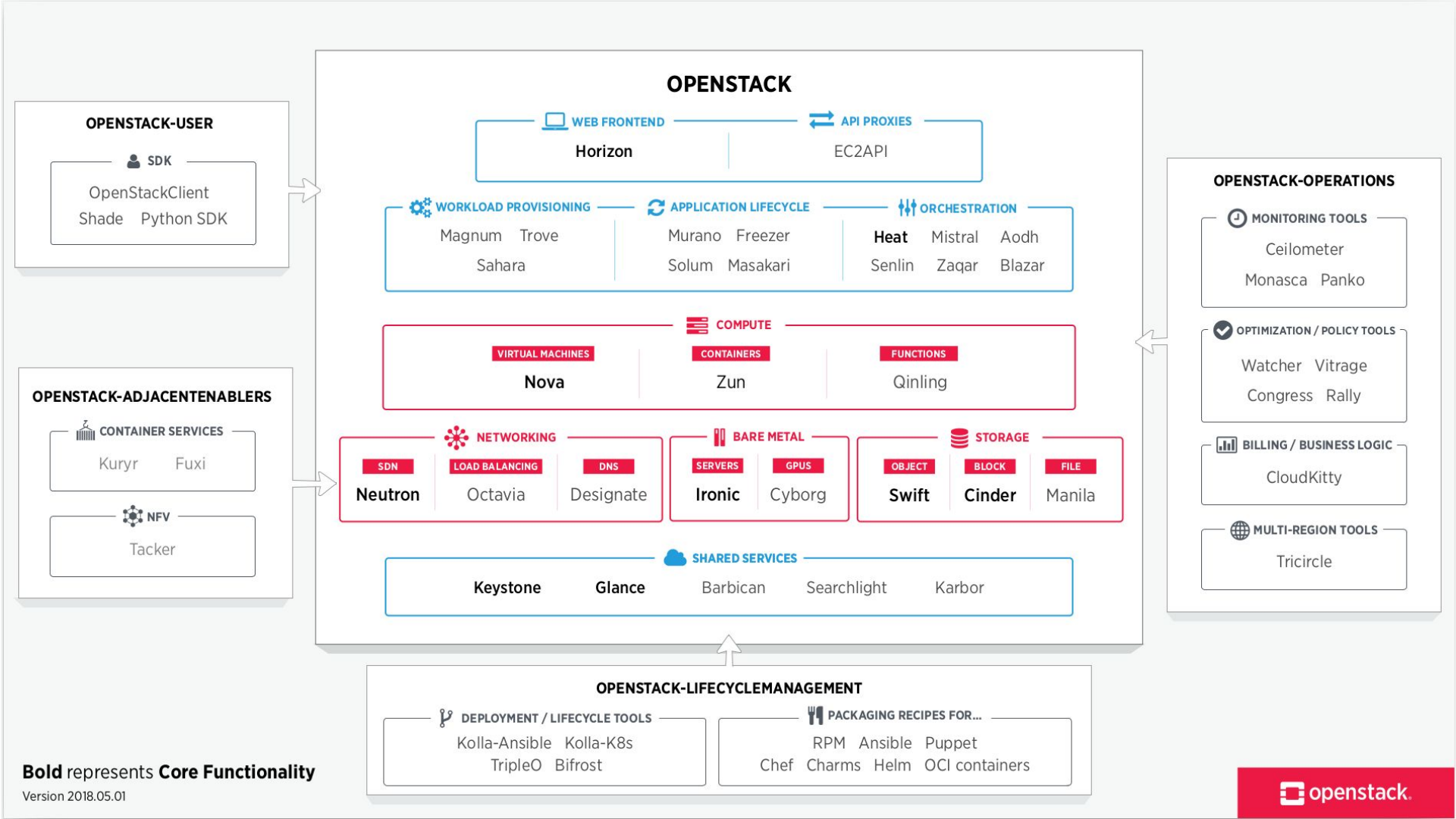
- Build a community
- Capture excitement
- Grow

Limits

The project-centric model served us well, but it started hurting more than it helped.

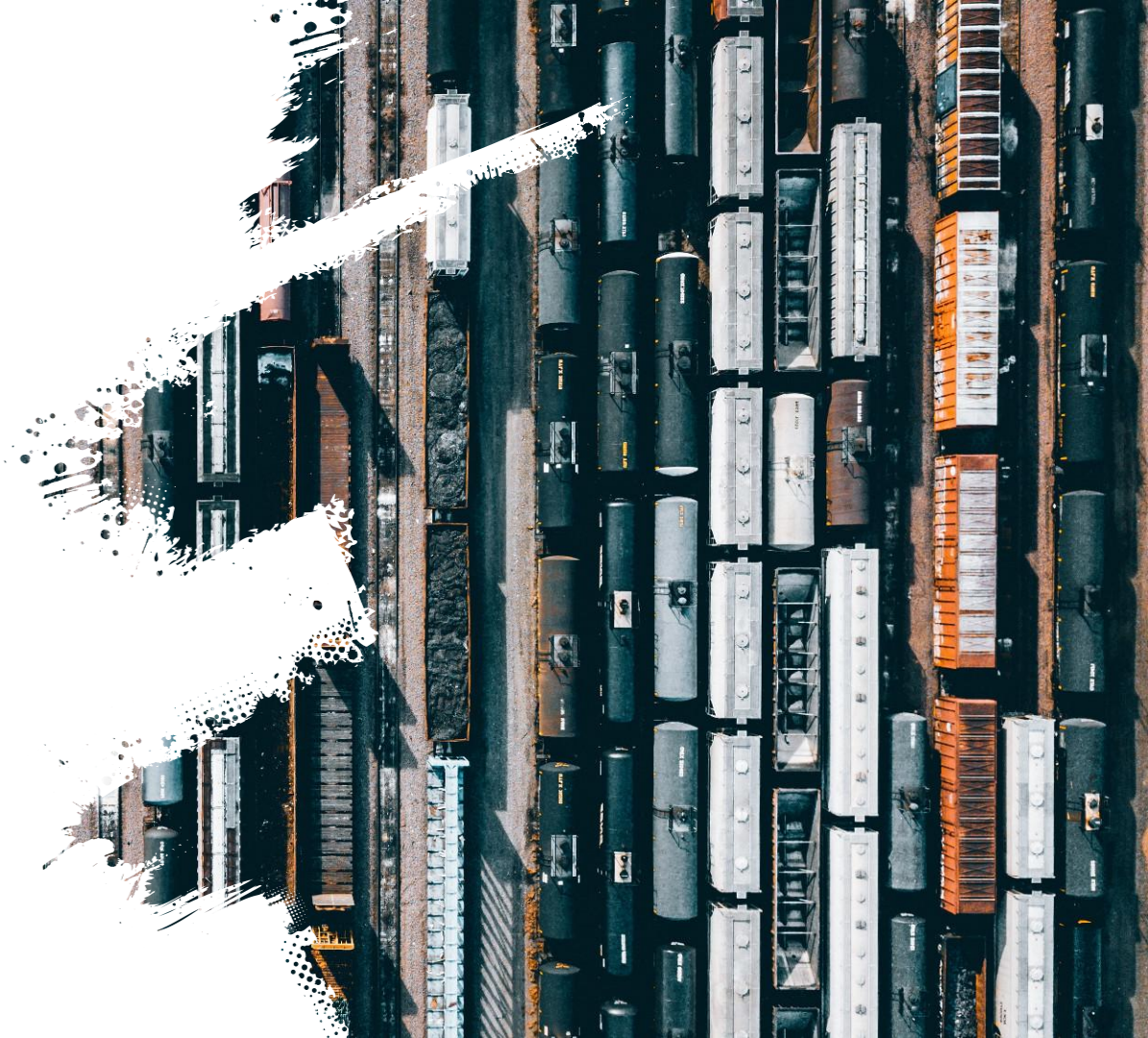
A better defined OpenStack

Creating a map of OpenStack helped in defining what it is, and what it is not.


OPENSTACK
WEB FRONTEND
Horizon
API PROXIES
EC2API
WORKLOAD PROVISIONING
Magnum Trove
Sahara
APPLICATION LIFECYCLE
Murano Freezer
Solum Masakari
ORCHESTRATION
Heat Mistral Aodh
Senlin Zaqar Blazar
COMPUTE
VIRTUAL MACHINES
Nova
CONTAINERS
Zun
FUNCTIONS
Qinling
NETWORKING
SDN
Neutron
LOAD BALANCING
Octavia
DNS
Designate
BARE METAL
SERVERS
Ironic
GPUS
Cyborg
STORAGE
OBJECT
Swift
BLOCK
Cinder
FILE
Manila
SHARED SERVICES
Keystone Glance Barbican Searchlight Karbor
OPENSTACK-USER
SDK
OpenStackClient
Shade Python SDK
OPENSTACK-ADJACENTENABLERS
CONTAINER SERVICES
Kuryr Fuxi
NFV
Tacker
OPENSTACK-OPERATIONS
MONITORING TOOLS
Ceilometer
Monasca Panko
OPTIMIZATION / POLICY TOOLS
Watcher Vitrage
Congress Rally
BILLING / BUSINESS LOGIC
CloudKitty
MULTI-REGION TOOLS
Tricircle
OPENSTACK-LIFECYCLEMANAGEMENT
DEPLOYMENT / LIFECYCLE TOOLS
Kolla-Ansible Kolla-K8s
TripleO Bifrost
PACKAGING RECIPES FOR...
RPM Ansible Puppet
Chef Charms Helm OCI containers
Bold represents Core Functionality
Version 2018.05.01
openstack.

A great CI system

But nobody else was using it as it was seen as OpenStack-specific.



Demand for more

Nascent open source communities love our principles and the way we run projects, but their product is not “OpenStack”.

Embracing the edge

There is a need for open source infrastructure solutions at the edge, and it's different from traditional datacenter cloud needs.

Integration is the last mile

Open source technologies
rule the world,
but integrating them is still hard.

2.

Our original motivation

What we are here for

Open collaboration

“To go fast, go alone.
To go far, go together.”

Open infrastructure

All the world’s infrastructure needs should not be provided by the “big 3” proprietary public clouds.

Upstream & Downstream

Two areas of expertise,
one Foundation

Having fun

Great food, wine, good friends, long-lasting relationships, karaoke #mustbeopenstack

3.

What we built

Take stock of our assets

A coalition of organizations

Aligned on the need for open infrastructure

A network of events

Global OpenStack Summits
Local OpenStack Days
Meetups
Project Teams Gatherings

A user community

Engaged and willing to share their experiences

A project infrastructure

An openly-operated set of services doing CI at unprecedented scale

4.

The new approach

What happened over the last 6 months

Discussion shift

Discussion shift

From project-oriented

Create a solution
Build software
OpenStack

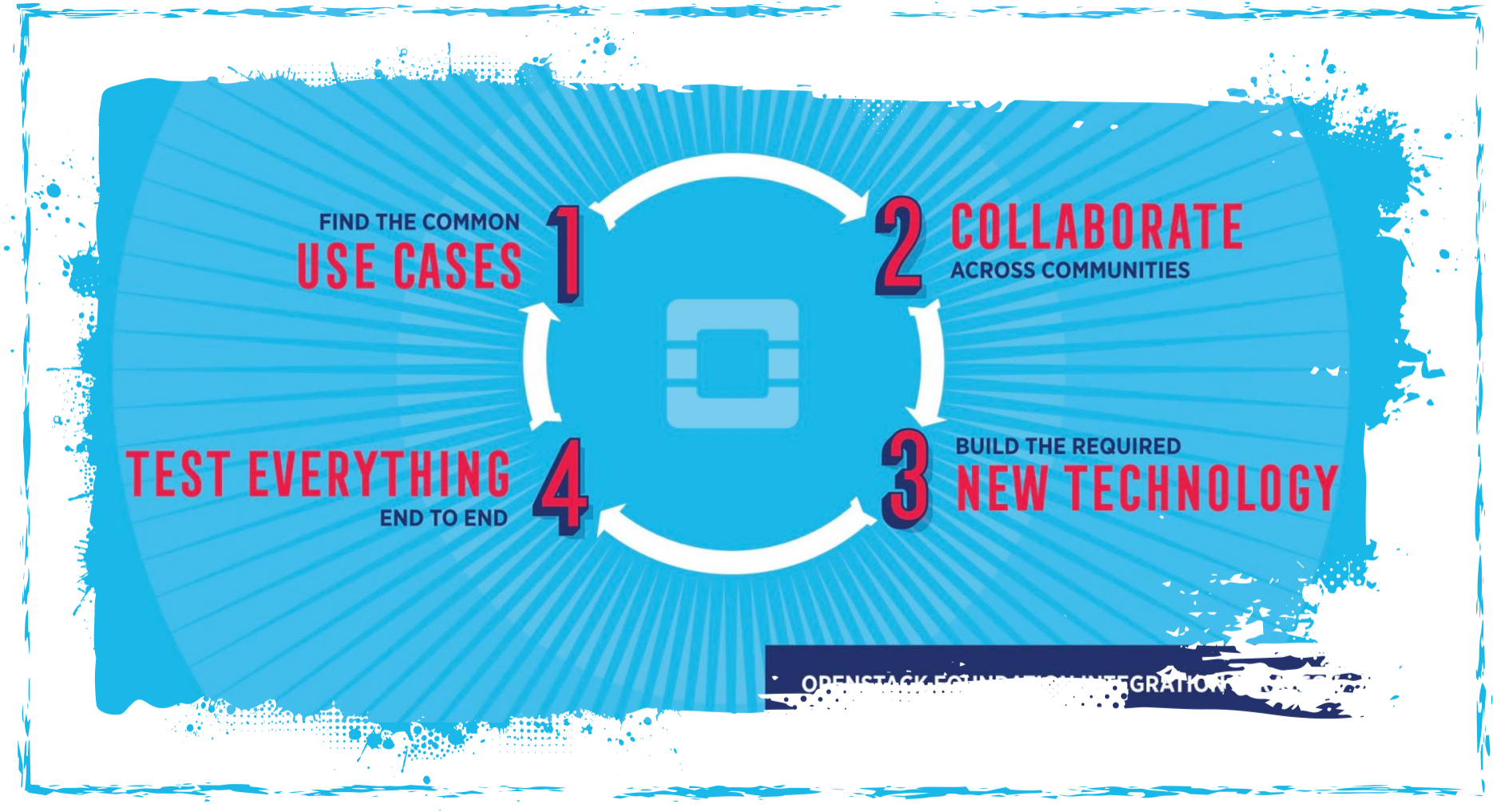
Discussion shift

From project-oriented

Create a solution
Build software
OpenStack

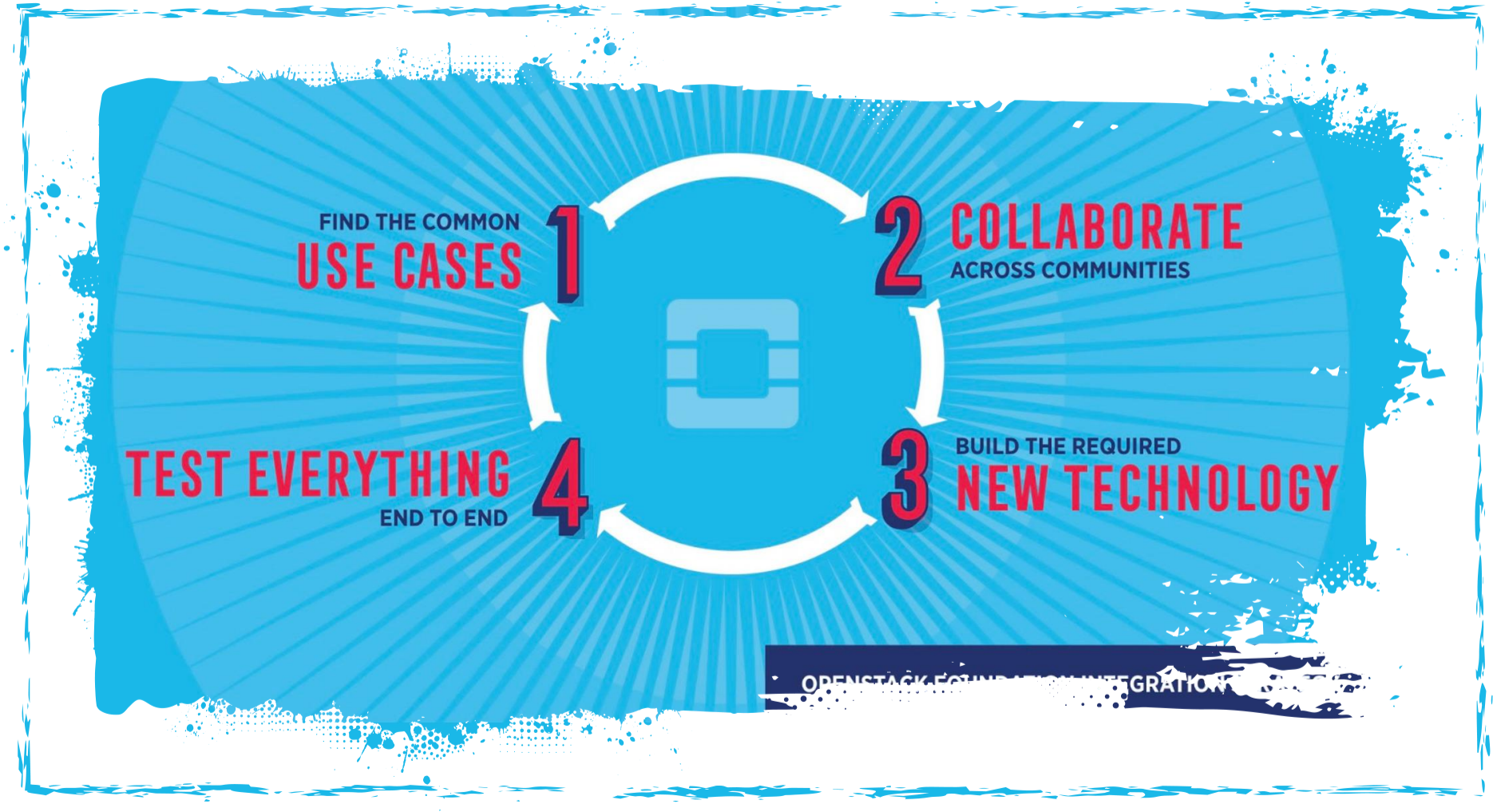
To goal-oriented

Solve problems
Integrate solutions
Open infrastructure


FIND THE COMMON
USE CASES
1
2
COLLABORATE
ACROSS COMMUNITIES
BUILD THE REQUIRED
NEW TECHNOLOGY
3
4
TEST EVERYTHING
END TO END

Focus areas

- Datacenter cloud
- Edge
- Container infrastructure
- CI/CD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OpenStack

- Cloud infrastructure
- 7000 contributors since 2012
- 80,000 changes merged in 2017
- 17th release (Queens) in February

Kata containers

- Secure container runtime
- Code from Intel and Hyper.sh
- 35 contributors, 1250 commits
- v1.0

Zuul

- Scalable CI engine
- “Stop merging broken code”
- 80 contributors, 4200 commits
- v3.0 last March, now at 3.0.3

5.
Consequences

Where does that leave us ?

For the Foundation

- Not just “OpenStack”
- Branding
- Bylaws
- Internal organization

For OpenStack

- Opportunity to focus / refine
- Reusable components

For our infra

- Serve more than just “OpenStack”
- Governance to be defined
- Potential new resources

6.
Limits

Reaffirming our base principles

The 4 Opens

- Open source
- Open development
- Open design
- Open community

Basic governance

- Contributor-driven bodies
- Only where decisions are needed
- Aligned with constituency

Complementarity

- An overarching story
- Synergy between projects
- Forum session, Thursday 3:30pm

Thanks!

You can find me at:

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thierry@openstack.org

Credits

Presentation template by SlidesCarnival.com

Watercolor textures by GraphicBurger.com

Photographs by Unsplash.com