

CentOS Dojo / June 2022

New CentOS CI infra

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['hybrid clown', 'floor sweeper'] @ centos.org

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Agenda

New CentOS CI infra

- Intro and why we have to migrate
- Duffy v3 (Nils)
- How we'll migrate it
- Benefits for CentOS and Fedora

A little bit of history ! (~2014)

HISTORY



Why we have to migrate

#1 Duffy v2 written in python 2

Why we have to migrate

#2 Seamicro hardware out-of-warranty

(x86_64 hardware from circa 2014)

```
MariaDB [duffy]> select sum(used_count) from stock;
+-----+
| sum(used_count) |
+-----+
|          1572703 |
+-----+
1 row in set (0.00 sec)
```

Why we have to migrate





```
graph TD; A((Cloud)) --- B((Server Rack)); A --- C((Database)); A --- D((Server Rack));
```

echo 'Hybrid Cloud [TM] strategy !'

What we'll migrate

- Duffy ephemeral infra (x86 and aarch64 test machines)

What we'll migrate

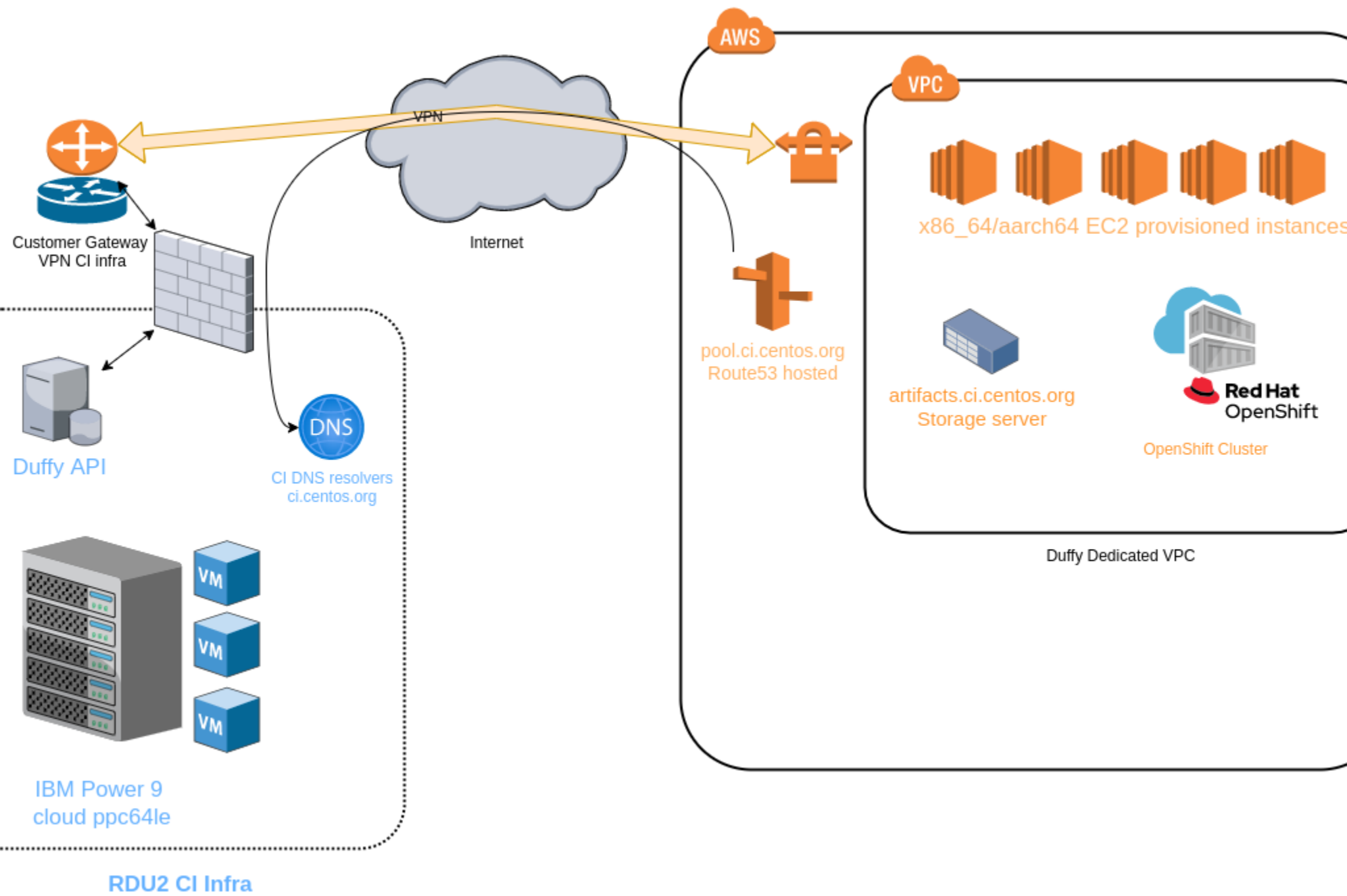
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What we'll migrate

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- Duffy ephemeral ppc64le nodes still "on premises"
- Artifacts storage box (aka <https://artifacts.ci.centos.org>)
- OpenShift (ocp.ci.centos.org)



Duffy v3 – What's new?

Technically, Everything.

Duffy v3 New Features

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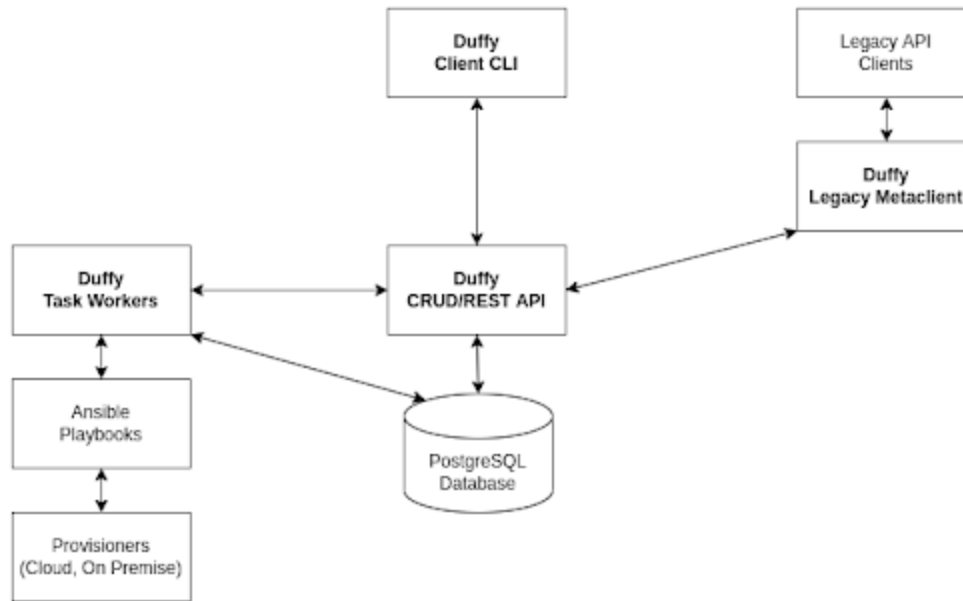
Duffy v3 New Features

- Different kinds of nodes in one request
- Supporting different provisioning systems side by side
- CRUD/REST API with automatic interactive documentation
- A *metaclient* service translating between legacy API clients and the new API

Conceptual Differences in Duffy v3

Duffy v3 is agnostic about actual node properties. Instead, nodes with like properties are grouped into *pools*.

Duffy v3 Components



Duffy v3 Session Walkthrough

```
$ duffy client --format=flat request-session pool=f36-x86_64,quantity=1  
session_id=40 active=TRUE created_at='2022-06-14 12:52:52.694251+00:00' retired_a  
...  
$ duffy client --format=flat retire-session 40  
session_id=40 active=FALSE created_at='2022-06-14 12:52:52.694251+00:00' retired_
```

Duffy v3 Behind the Scenes

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- Installable from PyPi: <https://pypi.org/project/duffy/>

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- Installable from PyPi: <https://pypi.org/project/duffy/>
- Code repository: <https://github.com/CentOS/duffy/>

How we'll migrate

Phase 1 - Deploy Duffy V3 (August 2022)

- legacy/compatibility mode
- New Duffy API endpoint is available

How we'll migrate

Phase 2 - Hybrid Cloud (October 2022)

- Legacy/compatibility API => EC2 by default
- Bare metal options will be available through new API only
- Legacy seamicro and aarch64/ThunderX hardware is decommissioned
- Only remaining "on premises" option is ppc64le (local cloud)

How we'll migrate

Phase 3 - Decommission (December 2022)

- Legacy/compatibility API deprecated
- "Hybrid Cloud !" : EC2 for aarch64/x86_64 and on premises cloud for ppc64le

How we'll migrate

TBD => OpenShift (spike)



Q&A



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