Discovering the Untold User Stories of Kubernetes With Applied Anthropology

Indigo Phillips & Hippie Hacker

ii.coop
Howdy!
Introduction Protocols
Introduction Protocols

- All cultures have introduction *protocols*.
- Some *protocols* involve a short “hello, my name is X” and a handshake.
- Others involve a slight bow of respect, an honouring gesture, etc.
- Many cultures place importance on a formal introduction
Introspection in Introductions

- New Zealand Maori Introduce themselves with introspective detail.
- It’s a formal protocol that increases awareness of connections.
Hongi - Greeting symbolizing unity
Kia Ora, Tena koe
Marae - Ohinemutu
Waka - Te Arawa
Iwi - Te Arawa me Tainui
Hapu - Tuwharetoa me Ngati Whakaue

Ngāti Whakaue Tribal Lands
Pepeha

Ingoa - Indigo Phillips
Kainga - Aotearoa
Moana - Rotorua
Maunga - Tarawera

Marae - Ohinemutu
Waka - Te Arawa
Iwi - Te Arawa me Tainui
Hapu - Tuwharetoa
Ngati Whakaue
Welcome, greetings to you all
Ingoa - Name: My is name Indigo Phillips
Kainga - Home:
My home is **New Zealand**
Moana - Lake:
My Lake is **Rotorua**
Maunga - Mountain:
My mountain is Tarawera
Marae - Meeting Grounds:
My meeting grounds are called Ohinemutu
Waka - Canoe: My ancestors arrived on the Te Arawa
Iwi - Main Tribes:
Te Arawa and Tainui
Hapu - Subtribes: Tuwharetoa and Ngati Whakaue
This Pepaha defines who I am

Name - Indigo Phillips
Home - Aotearoa
Lake - Rotorua
Mountain - Tarawera

Meeting Grounds - Ohinemutu
Original Canoe - Te Arawa
Main Tribe - Te Arawa me Tainui
Sub Tribes - Tuwharetoa
Ngati Whakaue
Whakapapa - Genealogy, ancestry
Shared Insights
(a map of how she is connected)

- introspection
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- identity
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  - Indigo Phillips/v42.0 (nz/maori)
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- current_journey
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  - Speaking at Kubecon
  - Travelled to Shanghai
  - Sharing my culture with tech world
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- sources_locations
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- sources_locations
  - Tauranga, Bay of Plenty, Aotearoa
  - Waikato Tainui/Iwi
  - Rotorua, Owhata, Aotearoa
    - Te Arawa/Iwi
Our Kubernetes Applications need a similar map

- **introspection**
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  - Rotorua, Owhata, Aotearoa
  - Te Arawa/Iwi

- **introspection**
  - **identity**
    - kubectl/v1.12.0 (linux/amd64) b143093
- **current_journey**
  - Talking to API Server
  - Request list of nodes (Client-GO)
  - Use or Populate local cache (Client-GO)
  - cli request for list of nodes (kubectl)
- **sources_locations**
  - k8s.io/client-go
    - rest/request.go:807
    - rest/cache.go:337
  - k8s.io/kubectl
    - cli/nodes.go:33
Applications also introduce themselves

- Simple Mail Transport Protocol / SMTP (HELO/EHLO)
- Hypertext Transfer Protocol / HTTP (User-Agent/Server)
- BitTorrent / (User-Agent)
Communicating the app name isn't enough
Communicating the app name isn't enough

- Kubernetes audit logs only recently supported recording app names!
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- Applications can now tell us a little about themselves
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- Kubernetes audit logs only recently supported recording app names!
- Applications can now tell us a little about themselves
- The e2e test suite now includes the current test as part of the introduction
● Our stable/core coverage at v1.9 was 32.5%
● and we currently float at around 50%
1.12 introduced Test Names

conformance_1.12.1_2018-10-24

'Hover over Chart for Path'
Click to Lock

35.3%
325/921 total tested
e2e & conformance testing is just the beginning...
Our Kubernetes Applications need a similar maps

- **introspection**
  - identity
    - helm/v1.13.0 (linux/amd64) b293866
  - current_journey
    - Talking to API Server
    - Request list of pods (Client-GO)
    - Use or Populate local cache (Client-GO)
    - cli request for list of pods (helm)
- sources_locations
  - k8s.io/client-go
    - rest/request.go:807
    - rest/cache.go:337
  - k8s.io/helm
    - cli/pods.go:55

- **introspection**
  - identity
    - kubectl/v1.12.0 (linux/amd64) b143093
  - current_journey
    - Talking to API Server
    - Request list of pods (Client-GO)
    - Use or Populate local cache (Client-GO)
    - cli request for list of pods (kubectl)
- sources_locations
  - k8s.io/client-go
    - rest/request.go:807
    - rest/cache.go:337
  - k8s.io/kubectl
    - cli/pods.go:33
It’s about the people...
We have a proposal

KEP: Who are we and why are we here?

- https://tinyurl.com/whoweare-kep
Explore the data with us
Credit to the people

- Zach Mandeville <zz@ii.coop>
- Indigo Phillips <iindi@ii.coop>
- Devan Carpenter <devan@ii.coop>
- Stephen Heywood <stephen@ii.coop>
- Ben Runciman <ben@ii.coop>
- Hippie Hacker <hh@ii.coop>
Famous Maori proverb

He aha te mea nui o te ao,
he tangata, he tangata, he tangata.

What is the most important thing in the world,
it’s the people, it’s the people, it’s the people.