Integrating Voluspa

A Proposal
jvd@apache.org

Voluspa

- Generate ATS configs from much simpler YAML

  - Currently ~ 40 "adapters"

  - Adding adapter is easy

- Generates only remap related files

- Includes test config

- json-schema forces correct syntax

- Much cleaner output than TO gens (.includes, conf_remap)

```
remap.config and plugins
parent.config
hosting.config
ssl_multicert.config
```

Available Adapters

failover
conf_remap
header_rewrite
priority access_approval parent_child
log_type set_header_origin default_ttl
propstats origin_host_header force_ttl
authproxy transaction_timeout parent
allow_ip video_background_fetch
regex_remap proxy_cache_control s3
negative_ttl content_type_forge
add_header_origin child
strip_query edge_compression
add_header allow_ip_parent cachekey
log_cookie cache_promote receipts
log_header disable_cache redirect
set_header remove_header
deny_methods

json or YAML ?

http://yaml.org   **https://json-schema.org**

The Problem

- Remap rules are hard

- Too often just raw text that is not verified for syntax

- Adding new "safe" features is hard

- Location parameter stuff is _really_ broken

- Deliveryservice types make no sense

- Things are changing (ATS YAML-ification)

- Traffic Control is the only one "doing it our way"

My Proposal

- Create 2 new DS type: DNS_VOLUSPA and HTTP_VOLUSPA

  - No separate types for *_NATNL_*, *_LIVE and *_NO_CACHE

- Traffic Router config (input and output) stays the same

- Use Ace YAML editor in DS view to edit / verify cache remap config

- Store YAML as text in DB

  - Gets verified against json-schema on save

Show and Tell

https://otje.knutsel.com:8443/

(disclaimer: IANA UI Dev)

Summary

- Use Voluspa (License: Apache) to generate ATS config files

- Change all remap related cache config in TC to be YAML

- Use Ace Editor (License: BSD) to edit YAML in DS view

- Use Voluspa to verify YAML syntax and schema compliance

- Keep Voluspa as-is, include as library with no changes

  - Increases target audience for Voluspa

  - Reduces threshold to start with TC

What about ?

- Tenancy

  - Will "just work" as is

  - Possible to expand to have some of the enums / features by tenant, and to make them manageable by the root tenant in the future

- regex table

- Traffic Router / Traffic Monitor / CRConfig.json

  - No Changes

Transition

- Migration

  - Could be hard to create a tool that implements all raw regex remaps…

- Coexistence

  - Include tc-remap.config in remap.config which is Voluspa

  - Concat hosting.config, ssl_multicert.config

- Generated file cache

  - Do we want to keep genning server scope files?

    - I propose `{{ hostname }}` replace on dest host

Parents

- Parent selection / Parent config

  - Map to origin at edge or core?

  - Bring Your Own Topology becomes much easier when Voluspa gens the parent.config

  - Change MID to not be an open forward proxy (remap is required)

  - Target mapping and certain adapters to EDGE/MID/…? (Voluspa expects saltstack roles)

// TODO

- Missing adapters

  - no-cache

    - Add hosting.config to genned files?

    - Or use disable_cache (sets proxy.config.http.cache.http=0)

  - url_sig

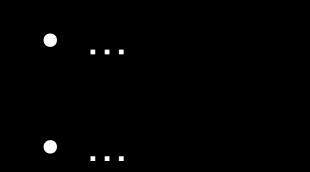 - uri_sign

  - fq_pacing

  - range_request

// Voluspa TODO

- Documentation

  - Getting Started

  - User Guide

  - Adapter Dev Guide

- Cleanup

  - Some proprietary adapters

  - Saltstack - ??

- Expand tests

Where's the Code?

Teasers

- CDNCheck

  - …

  - …

- Pulsavo

  - …

  - …

Thoughts?