Scaling dotCMS through Multiple Environments

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Overview

- History and Background
- What it solved
- Popularity amongst dotCMS users
- Push-pub
- dotCMS Cloud is Push-ready

How Push Works

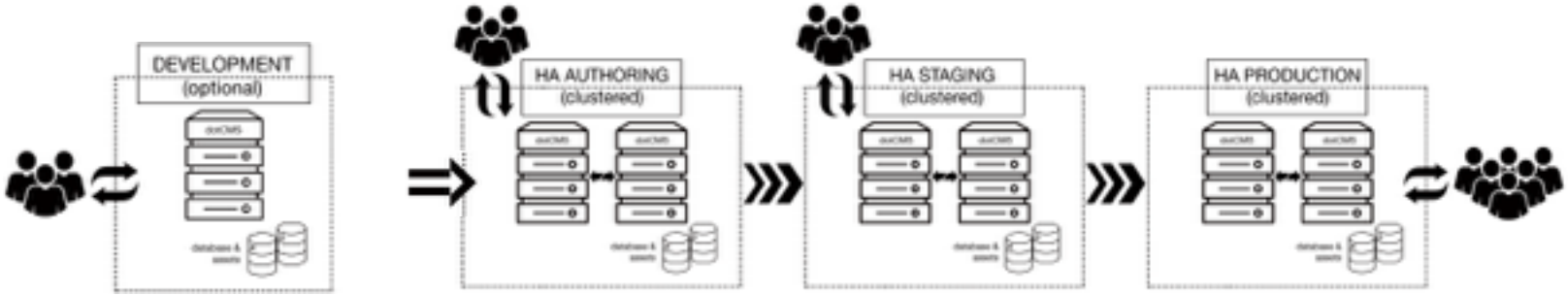
- HTTP API
- Latency-tolerant
- Built for the Cloud
- Non-realtime
- Push is not clustering (shared-nothing)

Popular Use Cases

- Authoring
- Production (headless)
- Development
- Disaster Recovery
- Geo-load-balancing
- Request sharding
- Performance
- Blue/green deployment

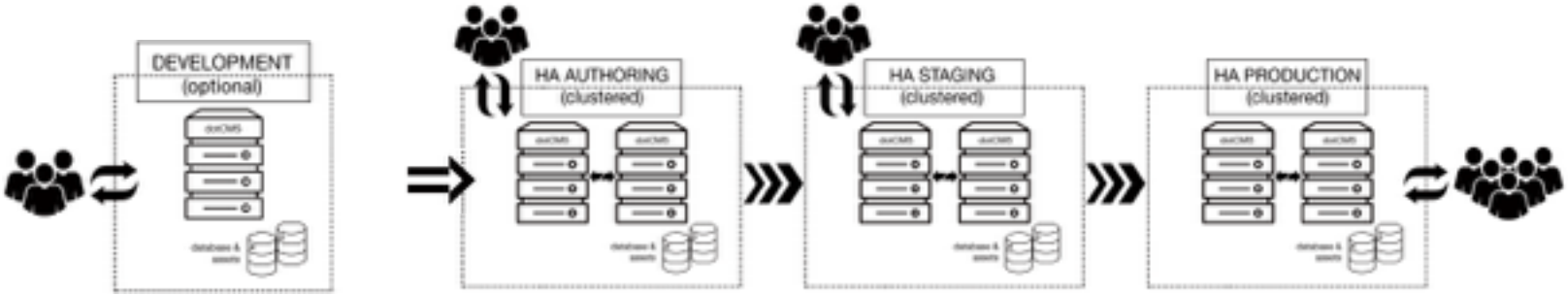
Best Practices

- **Content escalation flow & conflict resolution**
  - Define point of origin each unique type of data
  - Resolution: AVOID before it happens with a narrow scope of content escalation



Best Practices (Upgrading)

- Push freeze, upgrade all before resuming push *(steps 1-4)*
- Start at content entry point (then you can lift content freeze)
- Beware of auto-push
- Remove push config in back-end as a safety



Best Practices (Cont.)

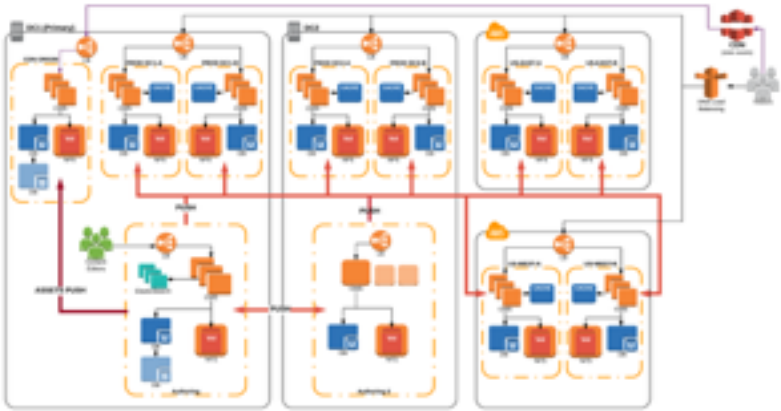
- **Front-end content submit**
  - Think about where data needs to be
  - Submit back to Auth via content API
  - More disposable type of form data -> prod is ok

- **Content integration in Dev**
  - Dev Cycle: Wipe out environment, empty starter, push everything to it
  - Very controlled back-channel push back to dev (option)

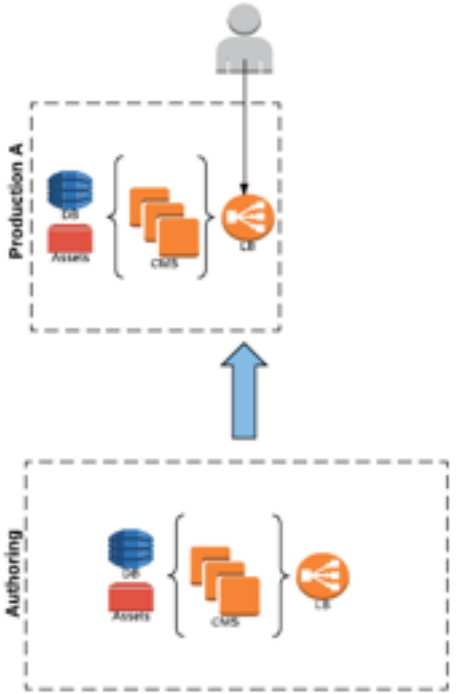
- **User permissions**
  - Define point of origin each unique type of data
  - Permission accordingly and train!

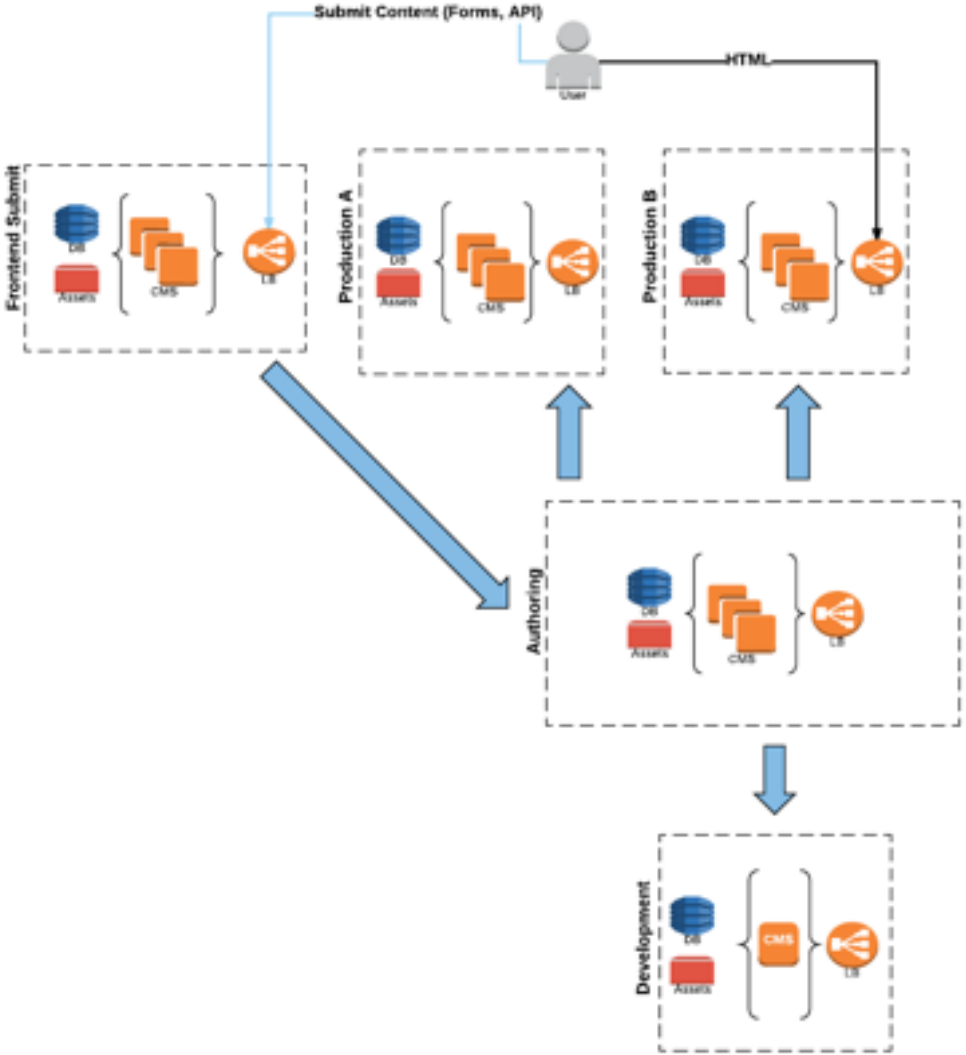
Examples

- **Content escalation flow & conflict resolution**
  - 2-env Auth/Prod
  - +DR
  - +QA
  - +Multi-Region Prod (geo lb)
  - +Dev
  - +Front-end submit
  - +Sharded Prod (+multi-region)
  - +CDN Origin



Example 1




Submit Content (Forms, API)
User
HTML
Frontend Submit
Production A
Production B
Authoring
Development
DB
Assets
CMS
LB

Example: 2


Submit Content (Forms, API)
CDN
Static assets
User
HTML
Frontend Submit
Production A
CDN Origin
Production B
Authoring
DR
Staging
Development
DB
Assets
CMS
LB

Example: 3

Roadmap

- Scheduled push https://github.com/dotCMS/core/issues/9036
- Static Push https://github.com/dotCMS/core/issues/9045
- Server-specific push status
- Conflict Resolution

Questions?