



Sandpiper (/spaces/127/sandpiper) ▸ Discussions (...)

Private Space · Technology Standards (/spaces/9/technology-standards/technologyhome)

(/spaces/127/sandpiper)

Activity Stream (/spaces/127/sandpiper/?act=1)

People (/spaces/127/sandpiper/people)

Content ▼

Posted in: Development (/spaces/127/sandpiper/forums/5366/development)

Slice Content Updates

✉ Unsubscribe from this discussion

📡 Subscribe to RSS (../..../..../spaces-cf/forums/rss-space-posts.ashx?

spaceID=127&topicID=5928&forumID=5366&key=rre%2B1xDo%2BlxpC7jBRbM5w%3D%3D)



Doug Winsby (<https://autocare.communifire.com/people/dougwinsby>)



4/19/2020

While implementing the `sandpiper add` CLI command, we noticed an oversight in the API design. There was **no way to update the "content_hash" value**. (This hash is designed as a way for the sync process to determine if an update has been made since the last time the sync was performed.)

So a new API was added to "refresh" the slice content_hash (`/slices/refresh/{slice_id}`). This is a fairly simple routine which selects a list of grain_ids attached to the slice, and hashes these UUIDs to SHA1.

This addition, however, brings up a **few important questions**:

1. When should the slice hash be recalculated?
2. How do we keep the **sync process** from operating on an inconsistent set of grains?

One thought is to update the hash whenever a grain is added or dropped. This would ensure that the hash always represents the current slice content.

But does a consistent hash under these circumstances always represent a valid state? Do we want to allow a sync in the middle of an update operation (after dropping a part number grain, for example)?

I think the answer to that question is **"no"**. We really want the update process to be "complete" as **defined by the PIM** before "releasing" those changes for publication (via a sync).

Toward that end, I think we need an "`allow_sync`" column added to the slice table. This would be a simple flag set to "false" during a PIM update process and reset to "true" when the slice update is completed.

Adding this flag has two important consequences: (1) It allows the PIM to perform an update without needing to refresh the hash (a potentially expensive operation) on every add and delete, and (2) It makes sure the sync is always performed on a complete set of data.

So the **PIM update process** would be:

1. Set the slice "allow_sync" flag to false
2. Update the slice by adding/deleting grains
3. Refresh the slice_hash (using the /slice/refresh end-point)
4. Update the slice "allow_sync" flag to true

This change does add a bit of complexity to the sync process, though. We probably need to add a "sync retry count" and a "sync retry delay" setting to the configuration file. This allows the sync process some control on how long to wait on a locked resource.

Please let me know if you agree with this approach so we can make the required changes.

`allow_sync (/spaces/127/sandpiper/searchresults?keyword=%22allow_sync%22&searchtags=1)`

`slice_hash (/spaces/127/sandpiper/searchresults?keyword=%22slice_hash%22&searchtags=1)`

`slice-update-process (/spaces/127/sandpiper/searchresults?keyword=%22slice-update-process%22&searchtags=1)`

`sync (/spaces/127/sandpiper/searchresults?keyword=%22sync%22&searchtags=1)`

👍 Like

Reply (/forums/post?tid=5928&ReplyPostID=5929&SpaceID=127)



Doug Winsby (<https://autocare.communifire.com/people/dougwinsby>)

4/19/2020



:

To update this new "`allow_sync`" flag, I propose we add two new API end-points:

```
PUT /slices/lock/{slice_id}
PUT /slices/unlock/{slice_id}
```

These would perform an update on that one field in the slice table. We use a "PUT" (instead of a "POST" or "PATCH") because we're updating the resource's state. It's an idempotent operation that says "this is the state you should be in now".

allow_sync (/spaces/127/sandpiper/searchresults?keyword=%22allow_sync%22&searchtags=1)

slice-lock (/spaces/127/sandpiper/searchresults?keyword=%22slice-lock%22&searchtags=1)

slice-unlock (/spaces/127/sandpiper/searchresults?keyword=%22slice-unlock%22&searchtags=1)

sync (/spaces/127/sandpiper/searchresults?keyword=%22sync%22&searchtags=1)

👍 Like

Reply (/forums/post?tid=5928&ReplyPostID=5930&SpaceID=127)

Answer

Page 1 of 1 (2 items)

Copyright © 2021 Axero Solutions LLC.
Auto Care Association powered by Communifire™ Version 8.0.7789.8960

© 2021 - AUTO CARE ASSOCIATION (<http://autocare.org>) | LEGAL & PRIVACY STATEMENT
(<https://www.autocare.org/privacy-statement/>)