

2023 ADS Local Clusters Rebalance

Background

There are uneven partitions distributed through three AZs, for example, in the picture, for topic fw_ads_binary_log, three replicas are located in only two AZs, 0 and 1 which do not satisfy our in-sync replica rule.

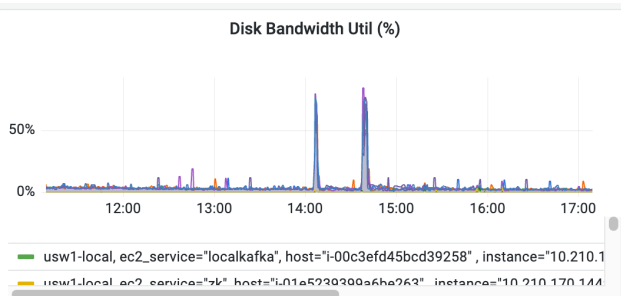
Our currently in-sync replica rule is at least 2 replicas in two different AZs and 3 replicas in three different AZs.

```
topic-fw_ads_binary_log partition-65 az-0 az-1 az-1
topic-fw_ads_binary_log partition-66 az-0 az-2 az-2
topic-fw_ads_binary_log partition-68 az-1 az-0 az-0
topic-fw_ads_binary_log partition-70 az-2 az-1 az-1
topic-fw_ads_binary_log partition-72 az-0 az-2 az-0
topic-fw_ads_binary_log partition-73 az-1 az-0 az-0
```

Solution

We can reassign the partitions to make them more distributed.

Clusters and topics that need to be reassigned.

Clusters	Topic	Status	Observation
usw1	fw_ads_binary_log	Done; ./kafka-reassign-partitions.sh --zookeeper zookeeper5.us-west-1.prd.ads.aws.fwmrm.net:2181/kafka --reassignment-json-file /tmp/reassign-20231023084306-53326758395 --throttle 157286400 --execute ./kafka-reassign-partitions.sh --zookeeper zookeeper5.us-west-1.prd.ads.aws.fwmrm.net:2181/kafka --reassignment-json-file /tmp/reassign-20231023084306-53326758395 --verify grep -c suc Note: use 100-200MB/s for reassign	Use 100MB for reassign partitions  usw1 PQM
	fw_ads_creative_approval_log	Done	
	fw_ads_demand_troubles_hooting_log	Done	
	fw_ads_just_in_time_transcoding	Done	
	fw_ads_cch_creative_mapping	Done	
	fw_measurement_nss_log	Done	
	fw_ads_marketing_ad_ingestion	Done	

usw2	fw_ads_binary_log	Done; ./kafka-reassign-partitions.sh --zookeeper zookeeper5.us-west-2.prd.ads.aws.fwmrm.net:2181/kafka --reassignment-json-file /tmp/reassign-20231025054316-46766731304 --throttle 167772160 --execute ./kafka-reassign-partitions.sh --zookeeper zookeeper5.us-west-2.prd.ads.aws.fwmrm.net:2181/kafka --reassignment-json-file /tmp/reassign-20231025054316-46766731304 --verify grep -c succ	
	fw_ads_cch_creative_mapping	Need reassign	
	fw_ads_demand_troubleshooting_log	Need Reassign	
	fw_ads_creative_approval_log	Need Reassign	
	fw_ads_just_in_time_transcoding	Need Reassign	
	fw_ads_market_ad_ingestion	Need Reassign	
	fw_measurement_nss_log	Need Reassign	
euc1	fw_ads_binary_log	Need Reassign	
Disk thruput 125MB/s	fw_ads_cch_creative_mapping	Need reassign	
Use up to 90MB/s =75% for reassignment	fw_ads_creative_approval_log	Need reassign	
	fw_ads_market_ad_ingestion	Need reassign	
	fw_measurement_nss_log	Need reassign	
	fw_ads_just_in_time_transcoding	Need reassign	
	fw_ads_demand_troubleshooting_log	Need reassign	
use2	fw_ads_cch_creative_mapping	Need Reassign	
	fw_ads_demand_troubleshooting_log	Need Reassign	
	fw_ads_just_in_time_transcoding	Need Reassign	
	fw_ads_market_ad_ingestion	Need Reassign	
	fw_measurement_nss_log	Need Reassign	
use1	fw_ads_cch_creative_mapping	Need Reassign	

	fw_ads_demand_troubleshooting_log	Need Reassign	
	fw_ads_just_in_time_transcoding	Need Reassign	
	fw_ads_market_ad_ingestion	Need Reassign	
	fw_measurement_nss_log	Need Reassign	
euw2	fw_ads_binary_log	Need Reassign	
Disk thruput 300MB/s	fw_ads_cch_creative_mapping	Need Reassign	
Use up to 200MB/s for reassignment	fw_ads_creative_approval_log	Need Reassign	
	fw_ads_demand_troubleshooting_log	Need Reassign	
	fw_ads_just_in_time_transcoding	Need Reassign	
	fw_ads_market_ad_ingestion	Need Reassign	
	fw_measurement_nss_log	Need Reassign	