

KIP-549: Surface Consumer's Metadata in `KafkaAdminClient#describeConsumerGroups`

- [Status](#)
- [Motivation](#)
- [Public Interfaces](#)
 - [org.apache.kafka.clients.admin.MemberDescription](#)
 - [org.apache.kafka.clients.admin.MemberMetadata](#)
- [Proposed Changes](#)
- [Compatibility, Deprecation, and Migration Plan](#)
- [Rejected Alternatives](#)

Status

Current state: *"Under Discussion"*

Discussion thread: TBD

JIRA: TBD

Please keep the discussion on the mailing list rather than commenting on the wiki (wiki discussions get unwieldy fast).

Motivation

When groups are described, the `DescribeGroupsResponse` contains the metadata (also known as subscriptions) of the members but the metadata is not surfaced in the `KafkaAdminClient#describeConsumerGroups` method of the Admin Client. Surfacing the metadata is quite useful when it come to troubleshooting a consumer group (e.g. in the context of [KIP-496](#)). As the information is already in the protocol, it makes sense to expose it via the Admin Client.

Public Interfaces

`org.apache.kafka.clients.admin.MemberDescription`

The `metadata` method is added to the `MemberDescription` class and returns the metadata of the group member. The metadata is only computed when the group is a consumer group similarly to the existing `assignment` method.

MemberDescription.java

```
/**
 * A detailed description of a single group instance in the cluster.
 */
public class MemberDescription {

    /**
     * Existing methods omitted for readability.
     */

    /**
     * The metadata of the group member.
     */
    public MemberMetadata metadata() {
        return metadata;
    }
}
```

`org.apache.kafka.clients.admin.MemberMetadata`

The `MemberMetadata` is added and represents the metadata of the group member.

MemberMetadata

```
public class MemberMetadata {  
    /**  
     * The topics that the group member is subscribed to.  
     */  
    public Set<String> topics() {  
        return topics;  
    }  
  
    /**  
     * The user data of the group member.  
     */  
    public ByteBuffer userData() {  
        return userData;  
    }  
  
    /**  
     * The topic partitions owned by the group member.  
     */  
    public Set<TopicPartition> ownedPartitions() {  
        return ownedPartitions;  
    }  
}
```

Proposed Changes

The *ConsumerGroupDescription* returned by *KafkaAdminClient#describeConsumerGroups* includes the metadata of each member of the group. The *MemberDescription* class is extended to carry on the *MemberMetadata* as described above. The metadata is populated only when the group is a consumer group similarly to the assignments.

Compatibility, Deprecation, and Migration Plan

None

Rejected Alternatives

None