KAFKA PROTOCOL GUIDE

This document covers the wire protocol implemented in Kafka. It is meant to give a readable guide to the protocol that covers the available requests, their binary format, and the proper way to make use of them to implement a client. This document assumes you understand the basic design and terminology described here

Preliminaries

Network

Kafka uses a binary protocol over TCP. The protocol defines all APIs as request response message pairs. All messages are size delimited and are made up of the following primitive types.

The client initiates a socket connection and then writes a sequence of request messages and reads back the corresponding response message. No handshake is required on connection or disconnection. TCP is happier if you maintain persistent connections used for many requests to amortize the cost of the TCP handshake, but beyond this penalty connecting is pretty cheap.

The client will likely need to maintain a connection to multiple brokers, as data is partitioned and the clients will need to talk to the server that has their data. However it should not generally be necessary to maintain multiple connections to a single broker from a single client instance (i.e. connection pooling).

The server guarantees that on a single TCP connection, requests will be processed in the order they are sent and responses will return in that order as well. The broker's request processing allows only a single in-flight request per connection in order to guarantee this ordering. Note that clients can (and ideally should) use non-blocking IO to implement request pipelining and achieve higher throughput. i.e., clients can send requests even while awaiting responses for preceding requests since the outstanding requests will be buffered in the underlying OS socket buffer. All requests are initiated by the client, and result in a corresponding response message from the server except where noted.

The server has a configurable maximum limit on request size and any request that exceeds this limit will result in the socket being disconnected.

Partitioning and bootstrapping

Kafka is a partitioned system so not all servers have the complete data set. Instead recall that topics are split into a pre-defined number of partitions, P, and each partition is replicated with some replication factor, N. Topic partitions themselves are just ordered "commit logs" numbered 0, 1, ..., P-1.

All systems of this nature have the question of how a particular piece of data is assigned to a particular partition. Kafka clients directly control this assignment, the brokers themselves enforce no particular semantics of which messages should be published to a particular partition. Rather, to publish messages the client directly addresses messages to a particular partition, and when fetching messages, fetches from a particular partition. If two clients want to use the same partitioning scheme they must use the same method to compute the mapping of key to partition.

These requests to publish or fetch data must be sent to the broker that is currently acting as the leader for a given partition. This condition is enforced by the broker, so a request for a particular partition to the wrong broker will result in an the NotLeaderForPartition error code (described below).

How can the client find out which topics exist, what partitions they have, and which brokers currently host those partitions so that it can direct its requests to the right hosts? This information is dynamic, so you can't just configure each client with some static mapping file. Instead all Kafka brokers can answer a metadata request that describes the current state of the cluster: what topics there are, which partitions those topics have, which broker is the leader for those partitions, and the host and port information for these brokers.

In other words, the client needs to somehow find one broker and that broker will tell the client about all the other brokers that exist and what partitions they host. This first broker may itself go down so the best practice for a client implementation is to take a list of two or three URLs to bootstrap from. The user can then choose to use a load balancer or just statically configure two or three of their Kafka hosts in the clients.

The client does not need to keep polling to see if the cluster has changed; it can fetch metadata once when it is instantiated cache that metadata until it receives an error indicating that the metadata is out of date. This error can come in two forms: (1) a socket error indicating the client cannot communicate with a particular broker, (2) an error code in the response to a request indicating that this broker no longer hosts the partition for which data was requested.

1. Cycle through a list of "bootstrap" Kafka URLs until we find one we can connect to. Fetch cluster metadata.
2. Process fetch or produce requests, directing them to the appropriate broker based on the topic/partitions they send to or fetch from.
3. If we get an appropriate error, refresh the metadata and try again.

Partitioning Strategies

As mentioned above the assignment of messages to partitions is something the producing client controls. That said, how should this functionality be exposed to the end-user?

Partitioning really serves two purposes in Kafka:

1. It balances data and request load over brokers
2. It serves as a way to divvy up processing among consumer processes while allowing local state and preserving order within the partition. We call this semantic partitioning.

For a given use case you may care about only one of these or both.

To accomplish simple load balancing a simple approach would be for the client to just round robin requests over all brokers. Another alternative, in an environment where there are many more producers than brokers, would be to have each client chose a single partition at random and publish to that. This later strategy will result in far fewer TCP connections.

Semantic partitioning means using some key in the message to assign messages to partitions. For example if you were processing a click message stream you might want to partition the stream by the user id so that all data for a particular user would go to a single consumer. To accomplish this the client can take a key associated with the message and use some hash of this key to choose the partition to which to deliver the message.

Batching

Our APIs encourage batching small things together for efficiency. We have found this is a very significant performance win. Both our API to send messages and our API to fetch messages always work with a sequence of messages not a single message to encourage this. A clever client can make use of this and support an "asynchronous" mode in which it batches together messages sent individually and sends them in larger clumps. We go even further with this and allow the batching across multiple topics and partitions, so a produce request may contain data to append to many partitions and a fetch request may pull data from many partitions all at once.

The client implementer can choose to ignore this and send everything one at a time if they like.

Compatibility

Kafka has a "bidirectional" client compatibility policy. In other words, new clients can talk to old servers, and old clients can talk to new servers. This allows users to upgrade either clients or servers without experiencing any downtime.

Since the Kafka protocol has changed over time, clients and servers need to agree on the schema of the message that they are sending over the wire. This is done through API versioning.

Before each request is sent, the client sends the API key and the API version. These two 16-bit numbers, when taken together, uniquely identify the schema of the message to follow.

The intention is that clients will support a range of API versions. When communicating with a particular broker, a given client should use the highest API version supported by both and indicate this version in their requests.

The server will reject requests with a version it does not support, and will always respond to the client with exactly the protocol format it expects based on the version it included in its request. The intended upgrade path is that new features would first be rolled out on the server (with the older clients not making use of them) and then as newer clients are deployed these new features would gradually be taken advantage of.

Note that KIP-482 tagged fields can be added to a request without incrementing the version number. This offers an additional way of evolving the message schema without breaking compatibility. Tagged fields do not take up any space when the field is not set. Therefore, if a field is rarely used, it is more efficient to make it a tagged field than to put it in the mandatory schema. However, tagged fields are ignored by recipients that don't know about them, which could pose a challenge if this is not the behavior that the sender wants. In such cases, a version bump may be more appropriate.

Retrieving Supported API versions

In order to work against multiple broker versions, clients need to know what versions of various APIs a broker supports. The broker exposes this information since 0.10.0.0 as described in KIP-35. Clients should use the supported API versions information to choose the highest API version supported by both client and broker. If no such version exists, an error should be reported to the user.

The following sequence may be used by a client to obtain supported API versions from a broker.

1. Client sends `ApiVersionsRequest` to a broker after connection has been established with the broker. If SSL is enabled, this happens after SSL connection has been established.
2. On receiving `ApiVersionsRequest`, a broker returns its full list of supported ApiKeys and versions regardless of current authentication state (e.g., before SASL authentication on an SASL listener, do note that no Kafka protocol requests may take place on an SSL listener before the SSL handshake is finished). If this is considered to leak information about the broker version a workaround is to use SSL with client authentication which is performed at an earlier stage of the connection where the `ApiVersionRequest` is not available. Also, note that broker versions older than 0.10.0.0 do not support this API and will either ignore the request or close connection in response to the request.
3. If multiple versions of an API are supported by broker and client, clients are recommended to use the latest version supported by the broker and itself.
4. Deprecation of a protocol version is done by marking an API version as deprecated in the protocol documentation.
5. Supported API versions obtained from a broker are only valid for the connection on which that information is obtained. In the event of disconnection, the client should obtain the information from the broker again, as the broker might have been upgraded/downgraded in the mean time.

SASL Authentication Sequence

The following sequence is used for SASL authentication:

1. Kafka `ApiVersionsRequest` may be sent by the client to obtain the version ranges of requests supported by the broker. This is optional.
2. Kafka `SaslHandshakeRequest` containing the SASL mechanism for authentication is sent by the client. If the requested mechanism is not enabled in the server, the server responds with the list of supported mechanisms and closes the client connection. If the mechanism is enabled in the server, the server sends a successful response and continues with SASL authentication.
3. The actual SASL authentication is now performed. If `SaslHandshakeRequest` version is v0, a series of SASL client and server tokens corresponding to the mechanism are sent as opaque packets without wrapping the messages with Kafka protocol headers. If `SaslHandshakeRequest` version is v1, the `SaslAuthenticate` request/response are used, where the actual SASL tokens are wrapped in the Kafka protocol. The error code in the final message from the broker will indicate if authentication succeeded or failed.
4. If authentication succeeds, subsequent packets are handled as Kafka API requests. Otherwise, the client connection is closed.

For interoperability with 0.9.0.x clients, the first packet received by the server is handled as a SASL/GSSAPI client token if it is not a valid Kafka request. SASL/GSSAPI authentication is performed starting with this packet, skipping the first two steps above.

The Protocol

Protocol Primitive Types

The protocol is built out of the following primitive types.

TYPE	DESCRIPTION
BOOLEAN	Represents a boolean value in a byte. Values 0 and 1 are used to represent false and true respectively. When reading a boolean value, any non-zero value is considered true.
INT8	Represents an integer between -2^7 and 2^7-1 inclusive.
INT16	Represents an integer between -2^{15} and $2^{15}-1$ inclusive. The values are encoded using two bytes in network byte order (big-endian).
INT32	Represents an integer between -2^{31} and $2^{31}-1$ inclusive. The values are encoded using four bytes in network byte order (big-endian).
INT64	Represents an integer between -2^{63} and $2^{63}-1$ inclusive. The values are encoded using eight bytes in network byte order (big-endian).
UINT32	Represents an integer between 0 and $2^{32}-1$ inclusive. The values are encoded using four bytes in network byte order (big-endian).
VARINT	Represents an integer between -2^{31} and $2^{31}-1$ inclusive. Encoding follows the variable-length zig-zag encoding from Google Protocol Buffers.
VARLONG	Represents an integer between -2^{63} and $2^{63}-1$ inclusive. Encoding follows the variable-length zig-zag encoding from Google Protocol Buffers.
UUID	Represents a type 4 immutable universally unique identifier (Uuid). The values are encoded using sixteen bytes in network byte order (big-endian).
FLOAT64	Represents a double-precision 64-bit format IEEE 754 value. The values are encoded using eight bytes in network byte order (big-endian).
STRING	Represents a sequence of characters. First the length N is given as an INT16. Then N bytes follow which are the UTF-8 encoding of the character sequence. Length must not be negative.
COMPACT_STRING	Represents a sequence of characters. First the length N + 1 is given as an UNSIGNED_VARINT . Then N bytes follow which are the UTF-8 encoding of the character sequence.
NULLABLE_STRING	Represents a sequence of characters or null. For non-null strings, first the length N is given as an INT16. Then N bytes follow which are the UTF-8 encoding of the character sequence. A null value is encoded with length of -1 and there are no following bytes.
COMPACT_NULLABLE_STRING	Represents a sequence of characters. First the length N + 1 is given as an UNSIGNED_VARINT . Then N bytes follow which are the UTF-8 encoding of the character sequence. A null string is represented with a length of 0.
BYTES	Represents a raw sequence of bytes. First the length N is given as an INT32. Then N bytes follow.
COMPACT_BYTES	Represents a raw sequence of bytes. First the length N+1 is given as an UNSIGNED_VARINT.Then N bytes follow.
NULLABLE_BYTES	Represents a raw sequence of bytes or null. For non-null values, first the length N is given as an INT32. Then N bytes follow. A null value is encoded with length of -1 and there are no following bytes.
COMPACT_NULLABLE_BYTES	Represents a raw sequence of bytes. First the length N+1 is given as an UNSIGNED_VARINT.Then N bytes follow. A null object is represented with a length of 0.
RECORDS	Represents a sequence of Kafka records as NULLABLE_BYTES. For a detailed description of records see Message Sets.
ARRAY	Represents a sequence of objects of a given type T. Type T can be either a primitive type (e.g. STRING) or a structure. First, the length N is given as an INT32. Then N instances of type T follow. A null array is represented with a length of -1. In protocol documentation an array of T instances is referred to as [T].
COMPACT_ARRAY	Represents a sequence of objects of a given type T. Type T can be either a primitive type (e.g. STRING) or a structure. First, the length N + 1 is given as an UNSIGNED_VARINT. Then N instances of type T follow. A null array is represented with a length of 0. In protocol documentation an array of T instances is referred to as [T].

Notes on reading the request format grammars

The BNFs below give an exact context free grammar for the request and response binary format. The BNF is intentionally not compact in order to give human-readable name. As always in a BNF a sequence of productions indicates concatenation. When there are multiple possible productions these are separated with '|' and may be enclosed in parenthesis for grouping. The top-level definition is always given first and subsequent sub-parts are indented.

Common Request and Response Structure

All requests and responses originate from the following grammar which will be incrementally describe through the rest of this document:

```
RequestOrResponse => Size (RequestMessage | ResponseMessage)
  Size => int32
```

FIELD	DESCRIPTION
message_size	The message_size field gives the size of the subsequent request or response message in bytes. The client can read requests by first reading this 4 byte size as an integer N, and then reading and parsing the subsequent N bytes of the request.

Record Batch

A description of the record batch format can be found here.

Constants

Error Codes

We use numeric codes to indicate what problem occurred on the server. These can be translated by the client into exceptions or whatever the appropriate error handling mechanism in the client language. Here is a table of the error codes currently in use:

ERROR	CODE	RETRIABLE	DESCRIPTION
UNKNOWN_SERVER_ERROR	-1	False	The server experienced an unexpected error when processing the request.
NONE	0	False	
OFFSET_OUT_OF_RANGE	1	False	The requested offset is not within the range of offsets maintained by the server.
CORRUPT_MESSAGE	2	True	This message has failed its CRC checksum, exceeds the valid size, has a null key for a compacted topic, or is otherwise corrupt.
UNKNOWN_TOPIC_OR_PARTITION	3	True	This server does not host this topic-partition.
INVALID_FETCH_SIZE	4	False	The requested fetch size is invalid.
LEADER_NOT_AVAILABLE	5	True	There is no leader for this topic-partition as we are in the middle of a leadership election.
NOT_LEADER_OR_FOLLOWER	6	True	For requests intended only for the leader, this error indicates that the broker is not the current leader. For requests intended for any replica, this error indicates that the broker is not a replica of the topic partition.
REQUEST_TIMED_OUT	7	True	The request timed out.
BROKER_NOT_AVAILABLE	8	False	The broker is not available.
REPLICA_NOT_AVAILABLE	9	True	The replica is not available for the requested topic-partition. Produce/Fetch requests and other requests intended only for the leader or follower return NOT_LEADER_OR_FOLLOWER if the broker is not a replica of the topic-partition.
MESSAGE_TOO_LARGE	10	False	The request included a message larger than the max message size the server will accept.
STALE_CONTROLLER_EPOCH	11	False	The controller moved to another broker.
OFFSET_METADATA_TOO_LARGE	12	False	The metadata field of the offset request was too large.
NETWORK_EXCEPTION	13	True	The server disconnected before a response was received.
COORDINATOR_LOAD_IN_PROGRESS	14	True	The coordinator is loading and hence can't process requests.
COORDINATOR_NOT_AVAILABLE	15	True	The coordinator is not available.
NOT_COORDINATOR	16	True	This is not the correct coordinator.
INVALID_TOPIC_EXCEPTION	17	False	The request attempted to perform an operation on an invalid topic.
RECORD_LIST_TOO_LARGE	18	False	The request included message batch larger than the configured segment size on the server.
NOT_ENOUGH_REPLICAS	19	True	Messages are rejected since there are fewer in-sync replicas than required.
NOT_ENOUGH_REPLICAS_AFTER_APPEND	20	True	Messages are written to the log, but to fewer in-sync replicas than required.
INVALID_REQUIRED_ACKS	21	False	Produce request specified an invalid value for required acks.
ILLEGAL_GENERATION	22	False	Specified group generation id is not valid.
INCONSISTENT_GROUP_PROTOCOL	23	False	The group member's supported protocols are incompatible with those of existing members or first group member tried to join with empty protocol type or empty protocol list.
INVALID_GROUP_ID	24	False	The configured groupId is invalid.
UNKNOWN_MEMBER_ID	25	False	The coordinator is not aware of this member.
INVALID_SESSION_TIMEOUT	26	False	The session timeout is not within the range allowed by the broker (as configured by group.min.session.timeout.ms and group.max.session.timeout.ms).
REBALANCE_IN_PROGRESS	27	False	The group is rebalancing, so a rejoin is needed.
INVALID_COMMIT_OFFSET_SIZE	28	False	The committing offset data size is not valid.
TOPIC_AUTHORIZATION_FAILED	29	False	Topic authorization failed.
GROUP_AUTHORIZATION_FAILED	30	False	Group authorization failed.
CLUSTER_AUTHORIZATION_FAILED	31	False	Cluster authorization failed.
INVALID_TIMESTAMP	32	False	The timestamp of the message is out of acceptable range.
UNSUPPORTED_SASL_MECHANISM	33	False	The broker does not support the requested SASL mechanism.
ILLEGAL_SASL_STATE	34	False	Request is not valid given the current SASL state.
UNSUPPORTED_VERSION	35	False	The version of API is not supported.
TOPIC_ALREADY_EXISTS	36	False	Topic with this name already exists.
INVALID_PARTITIONS	37	False	Number of partitions is below 1.
INVALID_REPLICATION_FACTOR	38	False	Replication factor is below 1 or larger than the number of available brokers.
INVALID_REPLICA_ASSIGNMENT	39	False	Replica assignment is invalid.
INVALID_CONFIG	40	False	Configuration is invalid.
NOT_CONTROLLER	41	True	This is not the correct controller for this cluster.
INVALID_REQUEST	42	False	This most likely occurs because of a request being malformed by the client library or the message was sent to an incompatible broker. See the broker logs for more details.
UNSUPPORTED_FOR_MESSAGE_FORMAT	43	False	The message format version on the broker does not support the request.
POLICY_VIOLATION	44	False	Request parameters do not satisfy the configured policy.
OUT_OF_ORDER_SEQUENCE_NUMBER	45	False	The broker received an out of order sequence number.
DUPLICATE_SEQUENCE_NUMBER	46	False	The broker received a duplicate sequence number.
INVALID_PRODUCER_EPOCH	47	False	Producer attempted to produce with an old epoch.
INVALID_TXN_STATE	48	False	The producer attempted a transactional operation in an invalid state.
INVALID_PRODUCER_ID_MAPPING	49	False	The producer attempted to use a producer id which is not currently assigned to its transactional id.
INVALID_TRANSACTION_TIMEOUT	50	False	The transaction timeout is larger than the maximum value allowed by the broker (as configured by transaction.max.timeout.ms).
CONCURRENT_TRANSACTIONS	51	True	The producer attempted to update a transaction while another concurrent operation on the same transaction was ongoing.
TRANSACTION_COORDINATOR_FENCED	52	False	Indicates that the transaction coordinator sending a WriteTxnMarker is no longer the current coordinator for a given producer.
TRANSACTIONAL_ID_AUTHORIZATION_FAILED	53	False	Transactional Id authorization failed.
SECURITY_DISABLED	54	False	Security features are disabled.
OPERATION_NOT_ATTEMPTED	55	False	The broker did not attempt to execute this operation. This may happen for batched RPCs where some operations in the batch failed, causing the broker to respond without trying the rest.
KAFKA_STORAGE_ERROR	56	True	Disk error when trying to access log file on the disk.
LOG_DIR_NOT_FOUND	57	False	The user-specified log directory is not found in the broker config.
SASL_AUTHENTICATION_FAILED	58	False	SASL Authentication failed.
UNKNOWN_PRODUCER_ID	59	False	This exception is raised by the broker if it could not locate the producer metadata associated with the producerId in question. This could happen if, for instance, the producer's records were deleted because their retention time had elapsed. Once the last records of the producerId are removed, the producer's metadata is removed from the broker, and future appends by the producer will return this exception.
REASSIGNMENT_IN_PROGRESS	60	False	A partition reassignment is in progress.
DELEGATION_TOKEN_AUTH_DISABLED	61	False	Delegation Token feature is not enabled.
DELEGATION_TOKEN_NOT_FOUND	62	False	Delegation Token is not found on server.
DELEGATION_TOKEN_OWNER_MISMATCH	63	False	Specified Principal is not valid Owner/Renewer.
DELEGATION_TOKEN_REQUEST_NOT_ALLOWED	64	False	Delegation Token requests are not allowed on PLAINTEXT/1-way SSL channels and on delegation token authenticated channels.
DELEGATION_TOKEN_AUTHORIZATION_FAILED	65	False	Delegation Token authorization failed.
DELEGATION_TOKEN_EXPIRED	66	False	Delegation Token is expired.
INVALID_PRINCIPAL_TYPE	67	False	Supplied principalType is not supported.
NON_EMPTY_GROUP	68	False	The group is not empty.
GROUP_ID_NOT_FOUND	69	False	The group id does not exist.
FETCH_SESSION_ID_NOT_FOUND	70	True	The fetch session ID was not found.
INVALID_FETCH_SESSION_EPOCH	71	True	The fetch session epoch is invalid.
LISTENER_NOT_FOUND	72	True	There is no listener on the leader broker that matches the listener on which metadata request was processed.
TOPIC_DELETION_DISABLED	73	False	Topic deletion is disabled.
FENCED_LEADER_EPOCH	74	True	The leader epoch in the request is older than the epoch on the broker.
UNKNOWN_LEADER_EPOCH	75	True	The leader epoch in the request is newer than the epoch on the broker.
UNSUPPORTED_COMPRESSION_TYPE	76	False	The requesting client does not support the compression type of given partition.
STALE_BROKER_EPOCH	77	False	Broker epoch has changed.
OFFSET_NOT_AVAILABLE	78	True	The leader high watermark has not caught up from a recent leader election so the offsets cannot be guaranteed to be monotonically increasing.
MEMBER_ID_REQUIRED	79	False	The group member needs to have a valid member id before actually entering a consumer group.
PREFERRED_LEADER_NOT_AVAILABLE	80	True	The preferred leader was not available.
GROUP_MAX_SIZE_REACHED	81	False	The consumer group has reached its max size.
FENCED_INSTANCE_ID	82	False	The broker rejected this static consumer since another consumer with the same group.instance.id has registered with a different member.id.
ELIGIBLE_LEADERS_NOT_AVAILABLE	83	True	Eligible topic partition leaders are not available.
ELECTION_NOT_NEEDED	84	True	Leader election not needed for topic partition.
NO_REASSIGNMENT_IN_PROGRESS	85	False	No partition reassignment is in progress.
GROUP_SUBSCRIBED_TO_TOPIC	86	False	Deleting offsets of a topic is forbidden while the consumer group is actively subscribed to it.
INVALID_RECORD	87	False	This record has failed the validation on broker and hence will be rejected.
UNSTABLE_OFFSET_COMMIT	88	True	There are unstable offsets that need to be cleared.
THROTTLING_QUOTA_EXCEEDED	89	True	The throttling quota has been exceeded.
PRODUCER_FENCED	90	False	There is a newer producer with the same transactionalId which fences the current one.
RESOURCE_NOT_FOUND	91	False	A request illegally referred to a resource that does not exist.
DUPLICATE_RESOURCE	92	False	A request illegally referred to the same resource twice.
UNACCEPTABLE_CREDENTIAL	93	False	Requested credential would not meet criteria for acceptability.
INCONSISTENT_VOTER_SET	94	False	Indicates that the either the sender or recipient of a voter-only request is not one of the expected voters

INVALID_UPDATE_VERSION	95	False	The given update version was invalid.
FEATURE_UPDATE_FAILED	96	False	Unable to update finalized features due to an unexpected server error.
PRINCIPAL_DESERIALIZATION_FAILURE	97	False	Request principal deserialization failed during forwarding. This indicates an internal error on the broker cluster security setup.
SNAPSHOT_NOT_FOUND	98	False	Requested snapshot was not found
POSITION_OUT_OF_RANGE	99	False	Requested position is not greater than or equal to zero, and less than the size of the snapshot.
UNKNOWN_TOPIC_ID	100	True	This server does not host this topic ID.
DUPLICATE_BROKER_REGISTRATION	101	False	This broker ID is already in use.
BROKER_ID_NOT_REGISTERED	102	False	The given broker ID was not registered.
INCONSISTENT_TOPIC_ID	103	True	The log's topic ID did not match the topic ID in the request
INCONSISTENT_CLUSTER_ID	104	False	The clusterId in the request does not match that found on the server
TRANSACTIONAL_ID_NOT_FOUND	105	False	The transactionalId could not be found
FETCH_SESSION_TOPIC_ID_ERROR	106	True	The fetch session encountered inconsistent topic ID usage
INELIGIBLE_REPLICA	107	False	The new ISR contains at least one ineligible replica.
NEW_LEADER_ELECTED	108	False	The AlterPartition request successfully updated the partition state but the leader has changed.
OFFSET_MOVED_TO_TIERED_STORAGE	109	False	The requested offset is moved to tiered storage.
FENCED_MEMBER_EPOCH	110	False	The member epoch is fenced by the group coordinator. The member must abandon all its partitions and rejoin.
UNRELEASED_INSTANCE_ID	111	False	The instance ID is still used by another member in the consumer group. That member must leave first.
UNSUPPORTED_ASSIGNOR	112	False	The assignor or its version range is not supported by the consumer group.
STALE_MEMBER_EPOCH	113	False	The member epoch is stale. The member must retry after receiving its updated member epoch via the ConsumerGroupHeartbeat API.

Api Keys

The following are the numeric codes that the ApiKey in the request can take for each of the below request types.

NAME	KEY
Produce	0
Fetch	1
ListOffsets	2
Metadata	3
LeaderAndIsr	4
StopReplica	5
UpdateMetadata	6
ControlledShutdown	7
OffsetCommit	8
OffsetFetch	9
FindCoordinator	10
JoinGroup	11
Heartbeat	12
LeaveGroup	13
SyncGroup	14
DescribeGroups	15
ListGroups	16
SaslHandshake	17
ApiVersions	18
CreateTopics	19
DeleteTopics	20
DeleteRecords	21
InitProducerId	22
OffsetForLeaderEpoch	23
AddPartitionsToTxn	24
AddOffsetsToTxn	25
EndTxn	26
WriteTxnMarkers	27
TxnOffsetCommit	28
DescribeAcls	29
CreateAcls	30
DeleteAcls	31
DescribeConfigs	32
AlterConfigs	33
AlterReplicaLogDirs	34
DescribeLogDirs	35
SaslAuthenticate	36
CreatePartitions	37
CreateDelegationToken	38
RenewDelegationToken	39
ExpireDelegationToken	40
DescribeDelegationToken	41
DeleteGroups	42
ElectLeaders	43
IncrementalAlterConfigs	44
AlterPartitionReassignments	45
ListPartitionReassignments	46
OffsetDelete	47
DescribeClientQuotas	48
AlterClientQuotas	49
DescribeUserScramCredentials	50
AlterUserScramCredentials	51
DescribeQuorum	55
AlterPartition	56
UpdateFeatures	57
Envelope	58
DescribeCluster	60
DescribeProducers	61
UnregisterBroker	64
DescribeTransactions	65
ListTransactions	66
AllocateProducerIds	67
ConsumerGroupHeartbeat	68

The Messages

This section gives details on each of the individual API Messages, their usage, their binary format, and the meaning of their fields.

Headers:

```
Request Header v0 => request_api_key request_api_version correlation_id
  request_api_key => INT16
  request_api_version => INT16
  correlation_id => INT32
```

FIELD	DESCRIPTION
request_api_key	The API key of this request.
request_api_version	The API version of this request.
correlation_id	The correlation ID of this request.

```
Request Header v1 => request_api_key request_api_version correlation_id client_id
  request_api_key => INT16
  request_api_version => INT16
  correlation_id => INT32
  client_id => NULLABLE_STRING
```

FIELD	DESCRIPTION
request_api_key	The API key of this request.
request_api_version	The API version of this request.
correlation_id	The correlation ID of this request.
client_id	The client ID string.

```
Request Header v2 => request_api_key request_api_version correlation_id client_id TAG_BUFFER
  request_api_key => INT16
  request_api_version => INT16
  correlation_id => INT32
  client_id => NULLABLE_STRING
```

FIELD	DESCRIPTION
request_api_key	The API key of this request.

request_api_version	The API version of this request.
correlation_id	The correlation ID of this request.
client_id	The client ID string.
_tagged_fields	The tagged fields

```
Response Header v0 => correlation_id
  correlation_id => INT32
```

FIELD	DESCRIPTION
correlation_id	The correlation ID of this response.

```
Response Header v1 => correlation_id TAG_BUFFER
  correlation_id => INT32
```

FIELD	DESCRIPTION
correlation_id	The correlation ID of this response.
_tagged_fields	The tagged fields

Produce API (Key: 0):

Requests:

```
Produce Request (Version: 0) => acks timeout_ms [topic_data]
  acks => INT16
  timeout_ms => INT32
  topic_data => name [partition_data]
    name => STRING
    partition_data => index records
      index => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.

```
Produce Request (Version: 1) => acks timeout_ms [topic_data]
  acks => INT16
  timeout_ms => INT32
  topic_data => name [partition_data]
    name => STRING
    partition_data => index records
      index => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.

```
Produce Request (Version: 2) => acks timeout_ms [topic_data]
  acks => INT16
  timeout_ms => INT32
  topic_data => name [partition_data]
    name => STRING
    partition_data => index records
      index => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.

```
Produce Request (Version: 3) => transactional_id acks timeout_ms [topic_data]
  transactional_id => NULLABLE_STRING
  acks => INT16
  timeout_ms => INT32
  topic_data => name [partition_data]
    name => STRING
    partition_data => index records
      index => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
transactional_id	The transactional ID, or null if the producer is not transactional.
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.

```
Produce Request (Version: 4) => transactional_id acks timeout_ms [topic_data]
  transactional_id => NULLABLE_STRING
  acks => INT16
  timeout_ms => INT32
  topic_data => name [partition_data]
    name => STRING
    partition_data => index records
      index => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
transactional_id	The transactional ID, or null if the producer is not transactional.
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.

```
Produce Request (Version: 5) => transactional_id acks timeout_ms [topic_data]
  transactional_id => NULLABLE_STRING
  acks => INT16
  timeout_ms => INT32
  topic_data => name [partition_data]
    name => STRING
    partition_data => index records
      index => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
transactional_id	The transactional ID, or null if the producer is not transactional.
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.

```
Produce Request (Version: 6) => transactional_id acks timeout_ms [topic_data]
  transactional_id => NULLABLE_STRING
```

```
  timeout_ms => INT32
  topic_data => name [partition_data]
    name => STRING
    partition_data => index records
      index => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
transactional_id	The transactional ID, or null if the producer is not transactional.
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.

```
Produce Request (Version: 7) => transactional_id acks timeout_ms [topic_data]
  transactional_id => NULLABLE_STRING
  acks => INT16
  timeout_ms => INT32
  topic_data => name [partition_data]
    name => STRING
    partition_data => index records
      index => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
transactional_id	The transactional ID, or null if the producer is not transactional.
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.

```
Produce Request (Version: 8) => transactional_id acks timeout_ms [topic_data]
  transactional_id => NULLABLE_STRING
  acks => INT16
  timeout_ms => INT32
  topic_data => name [partition_data]
    name => STRING
    partition_data => index records
      index => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
transactional_id	The transactional ID, or null if the producer is not transactional.
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.

```
Produce Request (Version: 9) => transactional_id acks timeout_ms [topic_data] TAG_BUFFER
  transactional_id => COMPACT_NULLABLE_STRING
  acks => INT16
  timeout_ms => INT32
  topic_data => name [partition_data] TAG_BUFFER
    name => COMPACT_STRING
    partition_data => index records TAG_BUFFER
      index => INT32
      records => COMPACT_RECORDS
```

FIELD	DESCRIPTION
transactional_id	The transactional ID, or null if the producer is not transactional.
acks	The number of acknowledgments the producer requires the leader to have received before considering a request complete. Allowed values: 0 for no acknowledgments, 1 for only the leader and -1 for the full ISR.
timeout_ms	The timeout to await a response in milliseconds.
topic_data	Each topic to produce to.
name	The topic name.
partition_data	Each partition to produce to.
index	The partition index.
records	The record data to be produced.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
Produce Response (Version: 0) => [responses]
  responses => name [partition_responses]
    name => STRING
    partition_responses => index error_code base_offset
      index => INT32
      error_code => INT16
      base_offset => INT64
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.

```
Produce Response (Version: 1) => [responses] throttle_time_ms
  responses => name [partition_responses]
    name => STRING
    partition_responses => index error_code base_offset
      index => INT32
      error_code => INT16
      base_offset => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
Produce Response (Version: 2) => [responses] throttle_time_ms
  responses => name [partition_responses]
    name => STRING
    partition_responses => index error_code base_offset log_append_time_ms
      index => INT32
      error_code => INT16
      base_offset => INT64
      log_append_time_ms => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.
log_append_time_ms	The timestamp returned by broker after appending the messages. If CreateTime is used for the topic, the timestamp will be -1. If LogAppendTime is used for the topic, the timestamp will be the broker local time when the messages are appended.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
Produce Response (Version: 3) => [responses] throttle_time_ms
  responses => name [partition_responses]
    name => STRING
    partition_responses => index error_code base_offset log_append_time_ms
      index => INT32
      error_code => INT16
      base_offset => INT64
      log_append_time_ms => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.
log_append_time_ms	The timestamp returned by broker after appending the messages. If CreateTime is used for the topic, the timestamp will be -1. If LogAppendTime is used for the topic, the timestamp will be the broker local time when the messages are appended.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
Produce Response (Version: 4) => [responses] throttle_time_ms
  responses => name [partition_responses]
    name => STRING
    partition_responses => index error_code base_offset log_append_time_ms
      index => INT32
      error_code => INT16
      base_offset => INT64
      log_append_time_ms => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.
log_append_time_ms	The timestamp returned by broker after appending the messages. If CreateTime is used for the topic, the timestamp will be -1. If LogAppendTime is used for the topic, the timestamp will be the broker local time when the messages are appended.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
Produce Response (Version: 5) => [responses] throttle_time_ms
  responses => name [partition_responses]
    name => STRING
    partition_responses => index error_code base_offset log_append_time_ms log_start_offset
      index => INT32
      error_code => INT16
      base_offset => INT64
      log_append_time_ms => INT64
      log_start_offset => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.
log_append_time_ms	The timestamp returned by broker after appending the messages. If CreateTime is used for the topic, the timestamp will be -1. If LogAppendTime is used for the topic, the timestamp will be the broker local time when the messages are appended.
log_start_offset	The log start offset.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
Produce Response (Version: 6) => [responses] throttle_time_ms
  responses => name [partition_responses]
    name => STRING
    partition_responses => index error_code base_offset log_append_time_ms log_start_offset
      index => INT32
      error_code => INT16
      base_offset => INT64
      log_append_time_ms => INT64
      log_start_offset => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.
log_append_time_ms	The timestamp returned by broker after appending the messages. If CreateTime is used for the topic, the timestamp will be -1. If LogAppendTime is used for the topic, the timestamp will be the broker local time when the messages are appended.
log_start_offset	The log start offset.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
Produce Response (Version: 7) => [responses] throttle_time_ms
  responses => name [partition_responses]
    name => STRING
    partition_responses => index error_code base_offset log_append_time_ms log_start_offset
      index => INT32
      error_code => INT16
      base_offset => INT64
      log_append_time_ms => INT64
      log_start_offset => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.
log_append_time_ms	The timestamp returned by broker after appending the messages. If CreateTime is used for the topic, the timestamp will be -1. If LogAppendTime is used for the topic, the timestamp will be the broker local time when the messages are appended.
log_start_offset	The log start offset.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
Produce Response (Version: 8) => [responses] throttle_time_ms
  responses => name [partition_responses]
    name => STRING
    partition_responses => index error_code base_offset log_append_time_ms log_start_offset [record_errors] error_message
      index => INT32
      error_code => INT16
      base_offset => INT64
      log_append_time_ms => INT64
      log_start_offset => INT64
      record_errors => batch_index batch_index_error_message
        batch_index => INT32
        batch_index_error_message => NULLABLE_STRING
      error_message => NULLABLE_STRING
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.
log_append_time_ms	The timestamp returned by broker after appending the messages. If CreateTime is used for the topic, the timestamp will be -1. If LogAppendTime is used for the topic, the timestamp will be the broker local time when the messages are appended.
log_start_offset	The log start offset.
record_errors	The batch indices of records that caused the batch to be dropped
batch_index	The batch index of the record that cause the batch to be dropped
batch_index_error_message	The error message of the record that caused the batch to be dropped

error_message	The global error message summarizing the common root cause of the records that caused the batch to be dropped
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
Produce Response (Version: 9) => [responses] throttle_time_ms TAG_BUFFER
  responses => name [partition_responses] TAG_BUFFER
    name => COMPACT_STRING
    partition_responses => index error_code base_offset log_append_time_ms log_start_offset [record_errors] error_message TAG_BUFFER
      index => INT32
      error_code => INT16
      base_offset => INT64
      log_append_time_ms => INT64
      log_start_offset => INT64
      record_errors => batch_index batch_index_error_message TAG_BUFFER
        batch_index => INT32
        batch_index_error_message => COMPACT_NULLABLE_STRING
      error_message => COMPACT_NULLABLE_STRING
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
responses	Each produce response
name	The topic name
partition_responses	Each partition that we produced to within the topic.
index	The partition index.
error_code	The error code, or 0 if there was no error.
base_offset	The base offset.
log_append_time_ms	The timestamp returned by broker after appending the messages. If CreateTime is used for the topic, the timestamp will be -1. If LogAppendTime is used for the topic, the timestamp will be the broker local time when the messages are appended.
log_start_offset	The log start offset.
record_errors	The batch indices of records that caused the batch to be dropped
batch_index	The batch index of the record that cause the batch to be dropped
batch_index_error_message	The error message of the record that caused the batch to be dropped
_tagged_fields	The tagged fields
error_message	The global error message summarizing the common root cause of the records that caused the batch to be dropped
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
_tagged_fields	The tagged fields

Fetch API (Key: 1):

Requests:

```
Fetch Request (Version: 0) => replica_id max_wait_ms min_bytes [topics]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition fetch_offset partition_max_bytes
      partition => INT32
      fetch_offset => INT64
      partition_max_bytes => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
fetch_offset	The message offset.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.

```
Fetch Request (Version: 1) => replica_id max_wait_ms min_bytes [topics]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition fetch_offset partition_max_bytes
      partition => INT32
      fetch_offset => INT64
      partition_max_bytes => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
fetch_offset	The message offset.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.

```
Fetch Request (Version: 2) => replica_id max_wait_ms min_bytes [topics]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition fetch_offset partition_max_bytes
      partition => INT32
      fetch_offset => INT64
      partition_max_bytes => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
fetch_offset	The message offset.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.

```
Fetch Request (Version: 3) => replica_id max_wait_ms min_bytes max_bytes [topics]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition fetch_offset partition_max_bytes
      partition => INT32
      fetch_offset => INT64
      partition_max_bytes => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
fetch_offset	The message offset.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.

```
Fetch Request (Version: 4) => replica_id max_wait_ms min_bytes max_bytes isolation_level [topics]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  topics => topic [partitions]
```

```
    partitions => partition fetch_offset partition_max_bytes
      partition => INT32
      fetch_offset => INT64
      partition_max_bytes => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
fetch_offset	The message offset.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.

```
Fetch Request (Version: 5) => replica_id max_wait_ms min_bytes max_bytes isolation_level [topics]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  topics => topic [partitions]
    topic => STRING
    partitions => partition fetch_offset log_start_offset partition_max_bytes
      partition => INT32
      fetch_offset => INT64
      log_start_offset => INT64
      partition_max_bytes => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
fetch_offset	The message offset.
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.

```
Fetch Request (Version: 6) => replica_id max_wait_ms min_bytes max_bytes isolation_level [topics]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  topics => topic [partitions]
    topic => STRING
    partitions => partition fetch_offset log_start_offset partition_max_bytes
      partition => INT32
      fetch_offset => INT64
      log_start_offset => INT64
      partition_max_bytes => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
fetch_offset	The message offset.
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.

```
Fetch Request (Version: 7) => replica_id max_wait_ms min_bytes max_bytes isolation_level session_id session_epoch [topics] [forgotten_topics_data]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  session_id => INT32
  session_epoch => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition fetch_offset log_start_offset partition_max_bytes
      partition => INT32
      fetch_offset => INT64
      log_start_offset => INT64
      partition_max_bytes => INT32
  forgotten_topics_data => topic [partitions]
    topic => STRING
    partitions => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
session_id	The fetch session ID.
session_epoch	The fetch session epoch, which is used for ordering requests in a session.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
fetch_offset	The message offset.
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.
forgotten_topics_data	In an incremental fetch request, the partitions to remove.
topic	The topic name.
partitions	The partitions indexes to forget.

```
Fetch Request (Version: 8) => replica_id max_wait_ms min_bytes max_bytes isolation_level session_id session_epoch [topics] [forgotten_topics_data]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  session_id => INT32
  session_epoch => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition fetch_offset log_start_offset partition_max_bytes
      partition => INT32
      fetch_offset => INT64
      log_start_offset => INT64
      partition_max_bytes => INT32
  forgotten_topics_data => topic [partitions]
    topic => STRING
    partitions => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.

min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
session_id	The fetch session ID.
session_epoch	The fetch session epoch, which is used for ordering requests in a session.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
fetch_offset	The message offset.
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.
forgotten_topics_data	In an incremental fetch request, the partitions to remove.
topic	The topic name.
partitions	The partitions indexes to forget.

```
Fetch Request (Version: 9) => replica_id max_wait_ms min_bytes max_bytes isolation_level session_id session_epoch [topics] [forgotten_topics_data]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  session_id => INT32
  session_epoch => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition current_leader_epoch fetch_offset log_start_offset partition_max_bytes
      partition => INT32
      current_leader_epoch => INT32
      fetch_offset => INT64
      log_start_offset => INT64
      partition_max_bytes => INT32
  forgotten_topics_data => topic [partitions]
    topic => STRING
    partitions => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
session_id	The fetch session ID.
session_epoch	The fetch session epoch, which is used for ordering requests in a session.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
current_leader_epoch	The current leader epoch of the partition.
fetch_offset	The message offset.
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.
forgotten_topics_data	In an incremental fetch request, the partitions to remove.
topic	The topic name.
partitions	The partitions indexes to forget.

```
Fetch Request (Version: 10) => replica_id max_wait_ms min_bytes max_bytes isolation_level session_id session_epoch [topics] [forgotten_topics_data]
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  session_id => INT32
  session_epoch => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition current_leader_epoch fetch_offset log_start_offset partition_max_bytes
      partition => INT32
      current_leader_epoch => INT32
      fetch_offset => INT64
      log_start_offset => INT64
      partition_max_bytes => INT32
  forgotten_topics_data => topic [partitions]
    topic => STRING
    partitions => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
session_id	The fetch session ID.
session_epoch	The fetch session epoch, which is used for ordering requests in a session.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
current_leader_epoch	The current leader epoch of the partition.
fetch_offset	The message offset.
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.
forgotten_topics_data	In an incremental fetch request, the partitions to remove.
topic	The topic name.
partitions	The partitions indexes to forget.

```
Fetch Request (Version: 11) => replica_id max_wait_ms min_bytes max_bytes isolation_level session_id session_epoch [topics] [forgotten_topics_data] rack_id
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  session_id => INT32
  session_epoch => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition current_leader_epoch fetch_offset log_start_offset partition_max_bytes
      partition => INT32
      current_leader_epoch => INT32
      fetch_offset => INT64
      log_start_offset => INT64
      partition_max_bytes => INT32
  forgotten_topics_data => topic [partitions]
    topic => STRING
    partitions => INT32
  rack_id => STRING
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
session_id	The fetch session ID.
session_epoch	The fetch session epoch, which is used for ordering requests in a session.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
current_leader_epoch	The current leader epoch of the partition.
fetch_offset	The message offset.

log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.
forgotten_topics_data	In an incremental fetch request, the partitions to remove.
topic	The topic name.
partitions	The partitions indexes to forget.
rack_id	Rack ID of the consumer making this request

```
Fetch Request (Version: 12) => replica_id max_wait_ms min_bytes max_bytes isolation_level session_id session_epoch [topics] [forgotten_topics_data] rack_id TAG_BUFFER
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  session_id => INT32
  session_epoch => INT32
  topics => topic [partitions] TAG_BUFFER
    topic => COMPACT_STRING
    partitions => partition current_leader_epoch fetch_offset last_fetched_epoch log_start_offset partition_max_bytes TAG_BUFFER
      partition => INT32
      current_leader_epoch => INT32
      fetch_offset => INT64
      last_fetched_epoch => INT32
      log_start_offset => INT64
      partition_max_bytes => INT32
  forgotten_topics_data => topic [partitions] TAG_BUFFER
    topic => COMPACT_STRING
    partitions => INT32
  rack_id => COMPACT_STRING
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
session_id	The fetch session ID.
session_epoch	The fetch session epoch, which is used for ordering requests in a session.
topics	The topics to fetch.
topic	The name of the topic to fetch.
partitions	The partitions to fetch.
partition	The partition index.
current_leader_epoch	The current leader epoch of the partition.
fetch_offset	The message offset.
last_fetched_epoch	The epoch of the last fetched record or -1 if there is none
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
forgotten_topics_data	In an incremental fetch request, the partitions to remove.
topic	The topic name.
partitions	The partitions indexes to forget.
_tagged_fields	The tagged fields
rack_id	Rack ID of the consumer making this request
_tagged_fields	The tagged fields

```
Fetch Request (Version: 13) => replica_id max_wait_ms min_bytes max_bytes isolation_level session_id session_epoch [topics] [forgotten_topics_data] rack_id TAG_BUFFER
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  session_id => INT32
  session_epoch => INT32
  topics => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition current_leader_epoch fetch_offset last_fetched_epoch log_start_offset partition_max_bytes TAG_BUFFER
      partition => INT32
      current_leader_epoch => INT32
      fetch_offset => INT64
      last_fetched_epoch => INT32
      log_start_offset => INT64
      partition_max_bytes => INT32
  forgotten_topics_data => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => INT32
  rack_id => COMPACT_STRING
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
session_id	The fetch session ID.
session_epoch	The fetch session epoch, which is used for ordering requests in a session.
topics	The topics to fetch.
topic_id	The unique topic ID
partitions	The partitions to fetch.
partition	The partition index.
current_leader_epoch	The current leader epoch of the partition.
fetch_offset	The message offset.
last_fetched_epoch	The epoch of the last fetched record or -1 if there is none
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
forgotten_topics_data	In an incremental fetch request, the partitions to remove.
topic_id	The unique topic ID
partitions	The partitions indexes to forget.
_tagged_fields	The tagged fields
rack_id	Rack ID of the consumer making this request
_tagged_fields	The tagged fields

```
Fetch Request (Version: 14) => replica_id max_wait_ms min_bytes max_bytes isolation_level session_id session_epoch [topics] [forgotten_topics_data] rack_id TAG_BUFFER
  replica_id => INT32
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  session_id => INT32
  session_epoch => INT32
  topics => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition current_leader_epoch fetch_offset last_fetched_epoch log_start_offset partition_max_bytes TAG_BUFFER
      partition => INT32
      current_leader_epoch => INT32
      fetch_offset => INT64
      last_fetched_epoch => INT32
      log_start_offset => INT64
      partition_max_bytes => INT32
  forgotten_topics_data => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => INT32
  rack_id => COMPACT_STRING
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
session_id	The fetch session ID.
session_epoch	The fetch session epoch, which is used for ordering requests in a session.
topics	The topics to fetch.

partitions	The partitions to fetch.
partition	The partition index.
current_leader_epoch	The current leader epoch of the partition.
fetch_offset	The message offset.
last_fetched_epoch	The epoch of the last fetched record or -1 if there is none
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
forgotten_topics_data	In an incremental fetch request, the partitions to remove.
topic_id	The unique topic ID
partitions	The partitions indexes to forget.
_tagged_fields	The tagged fields
rack_id	Rack ID of the consumer making this request
_tagged_fields	The tagged fields

```
Fetch Request (Version: 15) => max_wait_ms min_bytes max_bytes isolation_level session_id session_epoch [topics] [forgotten_topics_data] rack_id TAG_BUFFER
  max_wait_ms => INT32
  min_bytes => INT32
  max_bytes => INT32
  isolation_level => INT8
  session_id => INT32
  session_epoch => INT32
  topics => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition current_leader_epoch fetch_offset last_fetched_epoch log_start_offset partition_max_bytes TAG_BUFFER
      partition => INT32
      current_leader_epoch => INT32
      fetch_offset => INT64
      last_fetched_epoch => INT32
      log_start_offset => INT64
      partition_max_bytes => INT32
  forgotten_topics_data => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => INT32
  rack_id => COMPACT_STRING
```

FIELD	DESCRIPTION
max_wait_ms	The maximum time in milliseconds to wait for the response.
min_bytes	The minimum bytes to accumulate in the response.
max_bytes	The maximum bytes to fetch. See KIP-74 for cases where this limit may not be honored.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
session_id	The fetch session ID.
session_epoch	The fetch session epoch, which is used for ordering requests in a session.
topics	The topics to fetch.
topic_id	The unique topic ID
partitions	The partitions to fetch.
partition	The partition index.
current_leader_epoch	The current leader epoch of the partition.
fetch_offset	The message offset.
last_fetched_epoch	The epoch of the last fetched record or -1 if there is none
log_start_offset	The earliest available offset of the follower replica. The field is only used when the request is sent by the follower.
partition_max_bytes	The maximum bytes to fetch from this partition. See KIP-74 for cases where this limit may not be honored.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
forgotten_topics_data	In an incremental fetch request, the partitions to remove.
topic_id	The unique topic ID
partitions	The partitions indexes to forget.
_tagged_fields	The tagged fields
rack_id	Rack ID of the consumer making this request
_tagged_fields	The tagged fields

Responses:

```
Fetch Response (Version: 0) => [responses]
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
records	The record data.

```
Fetch Response (Version: 1) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
records	The record data.

```
Fetch Response (Version: 2) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
records	The record data.

```
Fetch Response (Version: 3) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The response topics.

topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
records	The record data.

```
Fetch Response (Version: 4) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark last_stable_offset [aborted_transactions] records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      aborted_transactions => producer_id first_offset
        producer_id => INT64
        first_offset => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
records	The record data.

```
Fetch Response (Version: 5) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
      aborted_transactions => producer_id first_offset
        producer_id => INT64
        first_offset => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
records	The record data.

```
Fetch Response (Version: 6) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
      aborted_transactions => producer_id first_offset
        producer_id => INT64
        first_offset => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
records	The record data.

```
Fetch Response (Version: 7) => throttle_time_ms error_code session_id [responses]
  throttle_time_ms => INT32
  error_code => INT16
  session_id => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
      aborted_transactions => producer_id first_offset
        producer_id => INT64
        first_offset => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
session_id	The fetch session ID, or 0 if this is not part of a fetch session.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
records	The record data.

```
Fetch Response (Version: 8) => throttle_time_ms error_code session_id [responses]
  throttle_time_ms => INT32
  error_code => INT16
  session_id => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
```

```
      aborted_transactions => producer_id first_offset
        producer_id => INT64
        first_offset => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
session_id	The fetch session ID, or 0 if this is not part of a fetch session.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
records	The record data.

```
Fetch Response (Version: 9) => throttle_time_ms error_code session_id [responses]
  throttle_time_ms => INT32
  error_code => INT16
  session_id => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
      aborted_transactions => producer_id first_offset
        producer_id => INT64
        first_offset => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
session_id	The fetch session ID, or 0 if this is not part of a fetch session.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
records	The record data.

```
Fetch Response (Version: 10) => throttle_time_ms error_code session_id [responses]
  throttle_time_ms => INT32
  error_code => INT16
  session_id => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
      aborted_transactions => producer_id first_offset
        producer_id => INT64
        first_offset => INT64
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
session_id	The fetch session ID, or 0 if this is not part of a fetch session.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
records	The record data.

```
Fetch Response (Version: 11) => throttle_time_ms error_code session_id [responses]
  throttle_time_ms => INT32
  error_code => INT16
  session_id => INT32
  responses => topic [partitions]
    topic => STRING
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] preferred_read_replica records
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
      aborted_transactions => producer_id first_offset
        producer_id => INT64
        first_offset => INT64
      preferred_read_replica => INT32
      records => RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
session_id	The fetch session ID, or 0 if this is not part of a fetch session.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
preferred_read_replica	The preferred read replica for the consumer to use on its next fetch request
records	The record data.

```
Fetch Response (Version: 12) => throttle_time_ms error_code session_id [responses] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  session_id => INT32
  responses => topic [partitions] TAG_BUFFER
    topic => COMPACT_STRING
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] preferred_read_replica records TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
```

```
        producer_id => INT64
        first_offset => INT64
      preferred_read_replica => INT32
      records => COMPACT_RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
session_id	The fetch session ID, or 0 if this is not part of a fetch session.
responses	The response topics.
topic	The topic name.
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
_tagged_fields	The tagged fields
preferred_read_replica	The preferred read replica for the consumer to use on its next fetch request
records	The record data.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
Fetch Response (Version: 13) => throttle_time_ms error_code session_id [responses] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  session_id => INT32
  responses => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] preferred_read_replica records TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
      aborted_transactions => producer_id first_offset TAG_BUFFER
        producer_id => INT64
        first_offset => INT64
      preferred_read_replica => INT32
      records => COMPACT_RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
session_id	The fetch session ID, or 0 if this is not part of a fetch session.
responses	The response topics.
topic_id	The unique topic ID
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
_tagged_fields	The tagged fields
preferred_read_replica	The preferred read replica for the consumer to use on its next fetch request
records	The record data.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
Fetch Response (Version: 14) => throttle_time_ms error_code session_id [responses] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  session_id => INT32
  responses => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] preferred_read_replica records TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
      aborted_transactions => producer_id first_offset TAG_BUFFER
        producer_id => INT64
        first_offset => INT64
      preferred_read_replica => INT32
      records => COMPACT_RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
session_id	The fetch session ID, or 0 if this is not part of a fetch session.
responses	The response topics.
topic_id	The unique topic ID
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)
log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
_tagged_fields	The tagged fields
preferred_read_replica	The preferred read replica for the consumer to use on its next fetch request
records	The record data.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
Fetch Response (Version: 15) => throttle_time_ms error_code session_id [responses] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  session_id => INT32
  responses => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition_index error_code high_watermark last_stable_offset log_start_offset [aborted_transactions] preferred_read_replica records TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      high_watermark => INT64
      last_stable_offset => INT64
      log_start_offset => INT64
      aborted_transactions => producer_id first_offset TAG_BUFFER
        producer_id => INT64
        first_offset => INT64
      preferred_read_replica => INT32
      records => COMPACT_RECORDS
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
session_id	The fetch session ID, or 0 if this is not part of a fetch session.
responses	The response topics.
topic_id	The unique topic ID
partitions	The topic partitions.
partition_index	The partition index.
error_code	The error code, or 0 if there was no fetch error.
high_watermark	The current high water mark.
last_stable_offset	The last stable offset (or LSO) of the partition. This is the last offset such that the state of all transactional records prior to this offset have been decided (ABORTED or COMMITTED)

log_start_offset	The current log start offset.
aborted_transactions	The aborted transactions.
producer_id	The producer id associated with the aborted transaction.
first_offset	The first offset in the aborted transaction.
_tagged_fields	The tagged fields
preferred_read_replica	The preferred read replica for the consumer to use on its next fetch request
records	The record data.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

ListOffsets API (Key: 2):

Requests:

```
ListOffsets Request (Version: 0) => replica_id [topics]
  replica_id => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index timestamp max_num_offsets
      partition_index => INT32
      timestamp => INT64
      max_num_offsets => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the requester, or -1 if this request is being made by a normal consumer.
topics	Each topic in the request.
name	The topic name.
partitions	Each partition in the request.
partition_index	The partition index.
timestamp	The current timestamp.
max_num_offsets	The maximum number of offsets to report.

```
ListOffsets Request (Version: 1) => replica_id [topics]
  replica_id => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index timestamp
      partition_index => INT32
      timestamp => INT64
```

FIELD	DESCRIPTION
replica_id	The broker ID of the requester, or -1 if this request is being made by a normal consumer.
topics	Each topic in the request.
name	The topic name.
partitions	Each partition in the request.
partition_index	The partition index.
timestamp	The current timestamp.

```
ListOffsets Request (Version: 2) => replica_id isolation_level [topics]
  replica_id => INT32
  isolation_level => INT8
  topics => name [partitions]
    name => STRING
    partitions => partition_index timestamp
      partition_index => INT32
      timestamp => INT64
```

FIELD	DESCRIPTION
replica_id	The broker ID of the requester, or -1 if this request is being made by a normal consumer.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	Each topic in the request.
name	The topic name.
partitions	Each partition in the request.
partition_index	The partition index.
timestamp	The current timestamp.

```
ListOffsets Request (Version: 3) => replica_id isolation_level [topics]
  replica_id => INT32
  isolation_level => INT8
  topics => name [partitions]
    name => STRING
    partitions => partition_index timestamp
      partition_index => INT32
      timestamp => INT64
```

FIELD	DESCRIPTION
replica_id	The broker ID of the requester, or -1 if this request is being made by a normal consumer.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	Each topic in the request.
name	The topic name.
partitions	Each partition in the request.
partition_index	The partition index.
timestamp	The current timestamp.

```
ListOffsets Request (Version: 4) => replica_id isolation_level [topics]
  replica_id => INT32
  isolation_level => INT8
  topics => name [partitions]
    name => STRING
    partitions => partition_index current_leader_epoch timestamp
      partition_index => INT32
      current_leader_epoch => INT32
      timestamp => INT64
```

FIELD	DESCRIPTION
replica_id	The broker ID of the requester, or -1 if this request is being made by a normal consumer.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	Each topic in the request.
name	The topic name.
partitions	Each partition in the request.
partition_index	The partition index.
current_leader_epoch	The current leader epoch.
timestamp	The current timestamp.

```
ListOffsets Request (Version: 5) => replica_id isolation_level [topics]
  replica_id => INT32
  isolation_level => INT8
  topics => name [partitions]
    name => STRING
    partitions => partition_index current_leader_epoch timestamp
      partition_index => INT32
      current_leader_epoch => INT32
      timestamp => INT64
```

FIELD	DESCRIPTION
replica_id	The broker ID of the requester, or -1 if this request is being made by a normal consumer.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	Each topic in the request.
name	The topic name.
partitions	Each partition in the request.
partition_index	The partition index.
current_leader_epoch	The current leader epoch.
timestamp	The current timestamp.

```
ListOffsets Request (Version: 6) => replica_id isolation_level [topics] TAG_BUFFER
  replica_id => INT32
  isolation_level => INT8
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index current_leader_epoch timestamp TAG_BUFFER
```

```
      partition_index => INT32
      current_leader_epoch => INT32
      timestamp => INT64
```

FIELD	DESCRIPTION
replica_id	The broker ID of the requester, or -1 if this request is being made by a normal consumer.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	Each topic in the request.
name	The topic name.
partitions	Each partition in the request.
partition_index	The partition index.
current_leader_epoch	The current leader epoch.
timestamp	The current timestamp.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
ListOffsets Request (Version: 7) => replica_id isolation_level [topics] TAG_BUFFER
  replica_id => INT32
  isolation_level => INT8
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index current_leader_epoch timestamp TAG_BUFFER
      partition_index => INT32
      current_leader_epoch => INT32
      timestamp => INT64
```

FIELD	DESCRIPTION
replica_id	The broker ID of the requester, or -1 if this request is being made by a normal consumer.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	Each topic in the request.
name	The topic name.
partitions	Each partition in the request.
partition_index	The partition index.
current_leader_epoch	The current leader epoch.
timestamp	The current timestamp.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
ListOffsets Request (Version: 8) => replica_id isolation_level [topics] TAG_BUFFER
  replica_id => INT32
  isolation_level => INT8
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index current_leader_epoch timestamp TAG_BUFFER
      partition_index => INT32
      current_leader_epoch => INT32
      timestamp => INT64
```

FIELD	DESCRIPTION
replica_id	The broker ID of the requester, or -1 if this request is being made by a normal consumer.
isolation_level	This setting controls the visibility of transactional records. Using READ_UNCOMMITTED (isolation_level = 0) makes all records visible. With READ_COMMITTED (isolation_level = 1), non-transactional and COMMITTED transactional records are visible. To be more concrete, READ_COMMITTED returns all data from offsets smaller than the current LSO (last stable offset), and enables the inclusion of the list of aborted transactions in the result, which allows consumers to discard ABORTED transactional records
topics	Each topic in the request.
name	The topic name.
partitions	Each partition in the request.
partition_index	The partition index.
current_leader_epoch	The current leader epoch.
timestamp	The current timestamp.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
ListOffsets Response (Version: 0) => [topics]
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code [old_style_offsets]
      partition_index => INT32
      error_code => INT16
      old_style_offsets => INT64
```

FIELD	DESCRIPTION
topics	Each topic in the response.
name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
old_style_offsets	The result offsets.

```
ListOffsets Response (Version: 1) => [topics]
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code timestamp offset
      partition_index => INT32
      error_code => INT16
      timestamp => INT64
      offset => INT64
```

FIELD	DESCRIPTION
topics	Each topic in the response.
name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
timestamp	The timestamp associated with the returned offset.
offset	The returned offset.

```
ListOffsets Response (Version: 2) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code timestamp offset
      partition_index => INT32
      error_code => INT16
      timestamp => INT64
      offset => INT64
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic in the response.
name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
timestamp	The timestamp associated with the returned offset.
offset	The returned offset.

```
ListOffsets Response (Version: 3) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code timestamp offset
      partition_index => INT32
      error_code => INT16
      timestamp => INT64
      offset => INT64
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic in the response.

name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
timestamp	The timestamp associated with the returned offset.
offset	The returned offset.

```
ListOffsets Response (Version: 4) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code timestamp offset leader_epoch
      partition_index => INT32
      error_code => INT16
      timestamp => INT64
      offset => INT64
      leader_epoch => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic in the response.
name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
timestamp	The timestamp associated with the returned offset.
offset	The returned offset.
leader_epoch	

```
ListOffsets Response (Version: 5) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code timestamp offset leader_epoch
      partition_index => INT32
      error_code => INT16
      timestamp => INT64
      offset => INT64
      leader_epoch => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic in the response.
name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
timestamp	The timestamp associated with the returned offset.
offset	The returned offset.
leader_epoch	

```
ListOffsets Response (Version: 6) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index error_code timestamp offset leader_epoch TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      timestamp => INT64
      offset => INT64
      leader_epoch => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic in the response.
name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
timestamp	The timestamp associated with the returned offset.
offset	The returned offset.
leader_epoch	
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
ListOffsets Response (Version: 7) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index error_code timestamp offset leader_epoch TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      timestamp => INT64
      offset => INT64
      leader_epoch => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic in the response.
name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
timestamp	The timestamp associated with the returned offset.
offset	The returned offset.
leader_epoch	
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
ListOffsets Response (Version: 8) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index error_code timestamp offset leader_epoch TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      timestamp => INT64
      offset => INT64
      leader_epoch => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic in the response.
name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
timestamp	The timestamp associated with the returned offset.
offset	The returned offset.
leader_epoch	
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Metadata API (Key: 3):

Requests:

```
Metadata Request (Version: 0) => [topics]
  topics => name
    name => STRING
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.

name	The topic name.

```
Metadata Request (Version: 1) => [topics]
  topics => name
    name => STRING
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
name	The topic name.

```
Metadata Request (Version: 2) => [topics]
  topics => name
    name => STRING
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
name	The topic name.

```
Metadata Request (Version: 3) => [topics]
  topics => name
    name => STRING
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
name	The topic name.

```
Metadata Request (Version: 4) => [topics] allow_auto_topic_creation
  topics => name
    name => STRING
  allow_auto_topic_creation => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
name	The topic name.
allow_auto_topic_creation	If this is true, the broker may auto-create topics that we requested which do not already exist, if it is configured to do so.

```
Metadata Request (Version: 5) => [topics] allow_auto_topic_creation
  topics => name
    name => STRING
  allow_auto_topic_creation => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
name	The topic name.
allow_auto_topic_creation	If this is true, the broker may auto-create topics that we requested which do not already exist, if it is configured to do so.

```
Metadata Request (Version: 6) => [topics] allow_auto_topic_creation
  topics => name
    name => STRING
  allow_auto_topic_creation => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
name	The topic name.
allow_auto_topic_creation	If this is true, the broker may auto-create topics that we requested which do not already exist, if it is configured to do so.

```
Metadata Request (Version: 7) => [topics] allow_auto_topic_creation
  topics => name
    name => STRING
  allow_auto_topic_creation => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
name	The topic name.
allow_auto_topic_creation	If this is true, the broker may auto-create topics that we requested which do not already exist, if it is configured to do so.

```
Metadata Request (Version: 8) => [topics] allow_auto_topic_creation include_cluster_authorized_operations include_topic_authorized_operations
  topics => name
    name => STRING
  allow_auto_topic_creation => BOOLEAN
  include_cluster_authorized_operations => BOOLEAN
  include_topic_authorized_operations => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
name	The topic name.
allow_auto_topic_creation	If this is true, the broker may auto-create topics that we requested which do not already exist, if it is configured to do so.
include_cluster_authorized_operations	Whether to include cluster authorized operations.
include_topic_authorized_operations	Whether to include topic authorized operations.

```
Metadata Request (Version: 9) => [topics] allow_auto_topic_creation include_cluster_authorized_operations include_topic_authorized_operations TAG_BUFFER
  topics => name TAG_BUFFER
    name => COMPACT_STRING
  allow_auto_topic_creation => BOOLEAN
  include_cluster_authorized_operations => BOOLEAN
  include_topic_authorized_operations => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
name	The topic name.
_tagged_fields	The tagged fields
allow_auto_topic_creation	If this is true, the broker may auto-create topics that we requested which do not already exist, if it is configured to do so.
include_cluster_authorized_operations	Whether to include cluster authorized operations.
include_topic_authorized_operations	Whether to include topic authorized operations.
_tagged_fields	The tagged fields

```
Metadata Request (Version: 10) => [topics] allow_auto_topic_creation include_cluster_authorized_operations include_topic_authorized_operations TAG_BUFFER
  topics => topic_id name TAG_BUFFER
    topic_id => UUID
    name => COMPACT_NULLABLE_STRING
  allow_auto_topic_creation => BOOLEAN
  include_cluster_authorized_operations => BOOLEAN
  include_topic_authorized_operations => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
topic_id	The topic id.
name	The topic name.
_tagged_fields	The tagged fields
allow_auto_topic_creation	If this is true, the broker may auto-create topics that we requested which do not already exist, if it is configured to do so.
include_cluster_authorized_operations	Whether to include cluster authorized operations.
include_topic_authorized_operations	Whether to include topic authorized operations.
_tagged_fields	The tagged fields

```
Metadata Request (Version: 11) => [topics] allow_auto_topic_creation include_topic_authorized_operations TAG_BUFFER
  topics => topic_id name TAG_BUFFER
    topic_id => UUID
    name => COMPACT_NULLABLE_STRING
  allow_auto_topic_creation => BOOLEAN
  include_topic_authorized_operations => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
topic_id	The topic id.
name	The topic name.
_tagged_fields	The tagged fields
allow_auto_topic_creation	If this is true, the broker may auto-create topics that we requested which do not already exist, if it is configured to do so.
include_topic_authorized_operations	Whether to include topic authorized operations.
_tagged_fields	The tagged fields

```
Metadata Request (Version: 12) => [topics] allow_auto_topic_creation include_topic_authorized_operations TAG_BUFFER
  topics => topic_id name TAG_BUFFER
    topic_id => UUID
    name => COMPACT_NULLABLE_STRING
  allow_auto_topic_creation => BOOLEAN
  include_topic_authorized_operations => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to fetch metadata for.
topic_id	The topic id.
name	The topic name.
_tagged_fields	The tagged fields
allow_auto_topic_creation	If this is true, the broker may auto-create topics that we requested which do not already exist, if it is configured to do so.
include_topic_authorized_operations	Whether to include topic authorized operations.
_tagged_fields	The tagged fields

Responses:

```
Metadata Response (Version: 0) => [brokers] [topics]
  brokers => node_id host port
    node_id => INT32
    host => STRING
    port => INT32
  topics => error_code name [partitions]
    error_code => INT16
    name => STRING
    partitions => error_code partition_index leader_id [replica_nodes] [isr_nodes]
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      replica_nodes => INT32
      isr_nodes => INT32
```

FIELD	DESCRIPTION
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.

```
Metadata Response (Version: 1) => [brokers] controller_id [topics]
  brokers => node_id host port rack
    node_id => INT32
    host => STRING
    port => INT32
    rack => NULLABLE_STRING
  controller_id => INT32
  topics => error_code name is_internal [partitions]
    error_code => INT16
    name => STRING
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id [replica_nodes] [isr_nodes]
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      replica_nodes => INT32
      isr_nodes => INT32
```

FIELD	DESCRIPTION
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.

```
Metadata Response (Version: 2) => [brokers] cluster_id controller_id [topics]
  brokers => node_id host port rack
    node_id => INT32
    host => STRING
    port => INT32
    rack => NULLABLE_STRING
  cluster_id => NULLABLE_STRING
  controller_id => INT32
  topics => error_code name is_internal [partitions]
    error_code => INT16
    name => STRING
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id [replica_nodes] [isr_nodes]
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      replica_nodes => INT32
      isr_nodes => INT32
```

FIELD	DESCRIPTION
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.

```
Metadata Response (Version: 3) => throttle_time_ms [brokers] cluster_id controller_id [topics]
  throttle_time_ms => INT32
  brokers => node_id host port rack
    node_id => INT32
    host => STRING
    port => INT32
    rack => NULLABLE_STRING
  cluster_id => NULLABLE_STRING
  controller_id => INT32
  topics => error_code name is_internal [partitions]
    error_code => INT16
    name => STRING
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id [replica_nodes] [isr_nodes]
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      replica_nodes => INT32
      isr_nodes => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.

port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.

```
Metadata Response (Version: 4) => throttle_time_ms [brokers] cluster_id controller_id [topics]
  throttle_time_ms => INT32
  brokers => node_id host port rack
    node_id => INT32
    host => STRING
    port => INT32
    rack => NULLABLE_STRING
  cluster_id => NULLABLE_STRING
  controller_id => INT32
  topics => error_code name is_internal [partitions]
    error_code => INT16
    name => STRING
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id [replica_nodes] [isr_nodes]
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      replica_nodes => INT32
      isr_nodes => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.

```
Metadata Response (Version: 5) => throttle_time_ms [brokers] cluster_id controller_id [topics]
  throttle_time_ms => INT32
  brokers => node_id host port rack
    node_id => INT32
    host => STRING
    port => INT32
    rack => NULLABLE_STRING
  cluster_id => NULLABLE_STRING
  controller_id => INT32
  topics => error_code name is_internal [partitions]
    error_code => INT16
    name => STRING
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id [replica_nodes] [isr_nodes] [offline_replicas]
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      replica_nodes => INT32
      isr_nodes => INT32
      offline_replicas => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.
offline_replicas	The set of offline replicas of this partition.

```
Metadata Response (Version: 6) => throttle_time_ms [brokers] cluster_id controller_id [topics]
  throttle_time_ms => INT32
  brokers => node_id host port rack
    node_id => INT32
    host => STRING
    port => INT32
    rack => NULLABLE_STRING
  cluster_id => NULLABLE_STRING
  controller_id => INT32
  topics => error_code name is_internal [partitions]
    error_code => INT16
    name => STRING
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id [replica_nodes] [isr_nodes] [offline_replicas]
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      replica_nodes => INT32
      isr_nodes => INT32
      offline_replicas => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.

```
Metadata Response (Version: 7) => throttle_time_ms [brokers] cluster_id controller_id [topics]
  throttle_time_ms => INT32
  brokers => node_id host port rack
    node_id => INT32
    host => STRING
    port => INT32
    rack => NULLABLE_STRING
  cluster_id => NULLABLE_STRING
  controller_id => INT32
  topics => error_code name is_internal [partitions]
    error_code => INT16
    name => STRING
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id leader_epoch [replica_nodes] [isr_nodes] [offline_replicas]
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      leader_epoch => INT32
      replica_nodes => INT32
      isr_nodes => INT32
      offline_replicas => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
leader_epoch	The leader epoch of this partition.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.
offline_replicas	The set of offline replicas of this partition.

```
Metadata Response (Version: 8) => throttle_time_ms [brokers] cluster_id controller_id [topics] cluster_authorized_operations
  throttle_time_ms => INT32
  brokers => node_id host port rack
    node_id => INT32
    host => STRING
    port => INT32
    rack => NULLABLE_STRING
  cluster_id => NULLABLE_STRING
  controller_id => INT32
  topics => error_code name is_internal [partitions] topic_authorized_operations
    error_code => INT16
    name => STRING
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id leader_epoch [replica_nodes] [isr_nodes] [offline_replicas]
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      leader_epoch => INT32
      replica_nodes => INT32
      isr_nodes => INT32
      offline_replicas => INT32
    topic_authorized_operations => INT32
  cluster_authorized_operations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
leader_epoch	The leader epoch of this partition.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.
offline_replicas	The set of offline replicas of this partition.
topic_authorized_operations	32-bit bitfield to represent authorized operations for this topic.
cluster_authorized_operations	32-bit bitfield to represent authorized operations for this cluster.

```
Metadata Response (Version: 9) => throttle_time_ms [brokers] cluster_id controller_id [topics] cluster_authorized_operations TAG_BUFFER
  throttle_time_ms => INT32
  brokers => node_id host port rack TAG_BUFFER
    node_id => INT32
    host => COMPACT_STRING
    port => INT32
    rack => COMPACT_NULLABLE_STRING
  cluster_id => COMPACT_NULLABLE_STRING
  controller_id => INT32
  topics => error_code name is_internal [partitions] topic_authorized_operations TAG_BUFFER
    error_code => INT16
    name => COMPACT_STRING
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id leader_epoch [replica_nodes] [isr_nodes] [offline_replicas] TAG_BUFFER
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      leader_epoch => INT32
      replica_nodes => INT32
      isr_nodes => INT32
      offline_replicas => INT32
    topic_authorized_operations => INT32
  cluster_authorized_operations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
_tagged_fields	The tagged fields
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
leader_epoch	The leader epoch of this partition.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.
offline_replicas	The set of offline replicas of this partition.

_tagged_fields	The tagged fields
topic_authorized_operations	32-bit bitfield to represent authorized operations for this topic.
_tagged_fields	The tagged fields
cluster_authorized_operations	32-bit bitfield to represent authorized operations for this cluster.
_tagged_fields	The tagged fields

```
Metadata Response (Version: 10) => throttle_time_ms [brokers] cluster_id controller_id [topics] cluster_authorized_operations TAG_BUFFER
  throttle_time_ms => INT32
  brokers => node_id host port rack TAG_BUFFER
    node_id => INT32
    host => COMPACT_STRING
    port => INT32
    rack => COMPACT_NULLABLE_STRING
  cluster_id => COMPACT_NULLABLE_STRING
  controller_id => INT32
  topics => error_code name topic_id is_internal [partitions] topic_authorized_operations TAG_BUFFER
    error_code => INT16
    name => COMPACT_STRING
    topic_id => UUID
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id leader_epoch [replica_nodes] [isr_nodes] [offline_replicas] TAG_BUFFER
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      leader_epoch => INT32
      replica_nodes => INT32
      isr_nodes => INT32
      offline_replicas => INT32
    topic_authorized_operations => INT32
  cluster_authorized_operations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
_tagged_fields	The tagged fields
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
topic_id	The topic id.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
leader_epoch	The leader epoch of this partition.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.
offline_replicas	The set of offline replicas of this partition.
_tagged_fields	The tagged fields
topic_authorized_operations	32-bit bitfield to represent authorized operations for this topic.
_tagged_fields	The tagged fields
cluster_authorized_operations	32-bit bitfield to represent authorized operations for this cluster.
_tagged_fields	The tagged fields

```
Metadata Response (Version: 11) => throttle_time_ms [brokers] cluster_id controller_id [topics] TAG_BUFFER
  throttle_time_ms => INT32
  brokers => node_id host port rack TAG_BUFFER
    node_id => INT32
    host => COMPACT_STRING
    port => INT32
    rack => COMPACT_NULLABLE_STRING
  cluster_id => COMPACT_NULLABLE_STRING
  controller_id => INT32
  topics => error_code name topic_id is_internal [partitions] topic_authorized_operations TAG_BUFFER
    error_code => INT16
    name => COMPACT_STRING
    topic_id => UUID
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id leader_epoch [replica_nodes] [isr_nodes] [offline_replicas] TAG_BUFFER
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      leader_epoch => INT32
      replica_nodes => INT32
      isr_nodes => INT32
      offline_replicas => INT32
    topic_authorized_operations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
_tagged_fields	The tagged fields
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
topic_id	The topic id.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
leader_epoch	The leader epoch of this partition.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.
offline_replicas	The set of offline replicas of this partition.
_tagged_fields	The tagged fields
topic_authorized_operations	32-bit bitfield to represent authorized operations for this topic.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
Metadata Response (Version: 12) => throttle_time_ms [brokers] cluster_id controller_id [topics] TAG_BUFFER
  throttle_time_ms => INT32
  brokers => node_id host port rack TAG_BUFFER
    node_id => INT32
    host => COMPACT_STRING
    port => INT32
    rack => COMPACT_NULLABLE_STRING
  cluster_id => COMPACT_NULLABLE_STRING
  controller_id => INT32
  topics => error_code name topic_id is_internal [partitions] topic_authorized_operations TAG_BUFFER
    error_code => INT16
    name => COMPACT_NULLABLE_STRING
    topic_id => UUID
    is_internal => BOOLEAN
    partitions => error_code partition_index leader_id leader_epoch [replica_nodes] [isr_nodes] [offline_replicas] TAG_BUFFER
      error_code => INT16
      partition_index => INT32
      leader_id => INT32
      leader_epoch => INT32
      replica_nodes => INT32
      isr_nodes => INT32
      offline_replicas => INT32
    topic_authorized_operations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
brokers	Each broker in the response.
node_id	The broker ID.
host	The broker hostname.

port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
_tagged_fields	The tagged fields
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
topics	Each topic in the response.
error_code	The topic error, or 0 if there was no error.
name	The topic name.
topic_id	The topic id.
is_internal	True if the topic is internal.
partitions	Each partition in the topic.
error_code	The partition error, or 0 if there was no error.
partition_index	The partition index.
leader_id	The ID of the leader broker.
leader_epoch	The leader epoch of this partition.
replica_nodes	The set of all nodes that host this partition.
isr_nodes	The set of nodes that are in sync with the leader for this partition.
offline_replicas	The set of offline replicas of this partition.
_tagged_fields	The tagged fields
topic_authorized_operations	32-bit bitfield to represent authorized operations for this topic.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

LeaderAndIsr API (Key: 4):

Requests:

```
LeaderAndIsr Request (Version: 0) => controller_id controller_epoch [ungrouped_partition_states] [live_leaders]
  controller_id => INT32
  controller_epoch => INT32
  ungrouped_partition_states => topic_name partition_index controller_epoch leader leader_epoch [isr] partition_epoch [replicas]
    topic_name => STRING
    partition_index => INT32
    controller_epoch => INT32
    leader => INT32
    leader_epoch => INT32
    isr => INT32
    partition_epoch => INT32
    replicas => INT32
  live_leaders => broker_id host_name port
    broker_id => INT32
    host_name => STRING
    port => INT32
```

FIELD	DESCRIPTION
controller_id	The current controller ID.
controller_epoch	The current controller epoch.
ungrouped_partition_states	The state of each partition, in a v0 or v1 message.
topic_name	The topic name. This is only present in v0 or v1.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
partition_epoch	The current epoch for the partition. The epoch is a monotonically increasing value which is incremented after every partition change. (Since the LeaderAndIsr request is only used by the legacy controller, this corresponds to the zkVersion)
replicas	The replica IDs.
live_leaders	The current live leaders.
broker_id	The leader's broker ID.
host_name	The leader's hostname.
port	The leader's port.

```
LeaderAndIsr Request (Version: 1) => controller_id controller_epoch [ungrouped_partition_states] [live_leaders]
  controller_id => INT32
  controller_epoch => INT32
  ungrouped_partition_states => topic_name partition_index controller_epoch leader leader_epoch [isr] partition_epoch [replicas] is_new
    topic_name => STRING
    partition_index => INT32
    controller_epoch => INT32
    leader => INT32
    leader_epoch => INT32
    isr => INT32
    partition_epoch => INT32
    replicas => INT32
    is_new => BOOLEAN
  live_leaders => broker_id host_name port
    broker_id => INT32
    host_name => STRING
    port => INT32
```

FIELD	DESCRIPTION
controller_id	The current controller ID.
controller_epoch	The current controller epoch.
ungrouped_partition_states	The state of each partition, in a v0 or v1 message.
topic_name	The topic name. This is only present in v0 or v1.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
partition_epoch	The current epoch for the partition. The epoch is a monotonically increasing value which is incremented after every partition change. (Since the LeaderAndIsr request is only used by the legacy controller, this corresponds to the zkVersion)
replicas	The replica IDs.
is_new	Whether the replica should have existed on the broker or not.
live_leaders	The current live leaders.
broker_id	The leader's broker ID.
host_name	The leader's hostname.
port	The leader's port.

```
LeaderAndIsr Request (Version: 2) => controller_id controller_epoch broker_epoch [topic_states] [live_leaders]
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  topic_states => topic_name [partition_states]
    topic_name => STRING
    partition_states => partition_index controller_epoch leader leader_epoch [isr] partition_epoch [replicas] is_new
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      partition_epoch => INT32
      replicas => INT32
      is_new => BOOLEAN
  live_leaders => broker_id host_name port
    broker_id => INT32
    host_name => STRING
    port => INT32
```

FIELD	DESCRIPTION
controller_id	The current controller ID.
controller_epoch	The current controller epoch.
broker_epoch	The current broker epoch.
topic_states	Each topic.
topic_name	The topic name.
partition_states	The state of each partition
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
partition_epoch	The current epoch for the partition. The epoch is a monotonically increasing value which is incremented after every partition change. (Since the LeaderAndIsr request is only used by the legacy controller, this corresponds to the zkVersion)
replicas	The replica IDs.
is_new	Whether the replica should have existed on the broker or not.
live_leaders	The current live leaders.
broker_id	The leader's broker ID.

host_name	The leader's hostname.
port	The leader's port.

```
LeaderAndIsr Request (Version: 3) => controller_id controller_epoch broker_epoch [topic_states] [live_leaders]
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  topic_states => topic_name [partition_states]
    topic_name => STRING
    partition_states => partition_index controller_epoch leader leader_epoch [isr] partition_epoch [replicas] [adding_replicas] [removing_replicas] is_new
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      partition_epoch => INT32
      replicas => INT32
      adding_replicas => INT32
      removing_replicas => INT32
      is_new => BOOLEAN
  live_leaders => broker_id host_name port
    broker_id => INT32
    host_name => STRING
    port => INT32
```

FIELD	DESCRIPTION
controller_id	The current controller ID.
controller_epoch	The current controller epoch.
broker_epoch	The current broker epoch.
topic_states	Each topic.
topic_name	The topic name.
partition_states	The state of each partition
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
partition_epoch	The current epoch for the partition. The epoch is a monotonically increasing value which is incremented after every partition change. (Since the LeaderAndIsr request is only used by the legacy controller, this corresponds to the zkVersion)
replicas	The replica IDs.
adding_replicas	The replica IDs that we are adding this partition to, or null if no replicas are being added.
removing_replicas	The replica IDs that we are removing this partition from, or null if no replicas are being removed.
is_new	Whether the replica should have existed on the broker or not.
live_leaders	The current live leaders.
broker_id	The leader's broker ID.
host_name	The leader's hostname.
port	The leader's port.

```
LeaderAndIsr Request (Version: 4) => controller_id controller_epoch broker_epoch [topic_states] [live_leaders] TAG_BUFFER
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  topic_states => topic_name [partition_states] TAG_BUFFER
    topic_name => COMPACT_STRING
    partition_states => partition_index controller_epoch leader leader_epoch [isr] partition_epoch [replicas] [adding_replicas] [removing_replicas] is_new TAG_BUFFER
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      partition_epoch => INT32
      replicas => INT32
      adding_replicas => INT32
      removing_replicas => INT32
      is_new => BOOLEAN
  live_leaders => broker_id host_name port TAG_BUFFER
    broker_id => INT32
    host_name => COMPACT_STRING
    port => INT32
```

FIELD	DESCRIPTION
controller_id	The current controller ID.
controller_epoch	The current controller epoch.
broker_epoch	The current broker epoch.
topic_states	Each topic.
topic_name	The topic name.
partition_states	The state of each partition
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
partition_epoch	The current epoch for the partition. The epoch is a monotonically increasing value which is incremented after every partition change. (Since the LeaderAndIsr request is only used by the legacy controller, this corresponds to the zkVersion)
replicas	The replica IDs.
adding_replicas	The replica IDs that we are adding this partition to, or null if no replicas are being added.
removing_replicas	The replica IDs that we are removing this partition from, or null if no replicas are being removed.
is_new	Whether the replica should have existed on the broker or not.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
live_leaders	The current live leaders.
broker_id	The leader's broker ID.
host_name	The leader's hostname.
port	The leader's port.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
LeaderAndIsr Request (Version: 5) => controller_id controller_epoch broker_epoch type [topic_states] [live_leaders] TAG_BUFFER
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  type => INT8
  topic_states => topic_name topic_id [partition_states] TAG_BUFFER
    topic_name => COMPACT_STRING
    topic_id => UUID
    partition_states => partition_index controller_epoch leader leader_epoch [isr] partition_epoch [replicas] [adding_replicas] [removing_replicas] is_new TAG_BUFFER
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      partition_epoch => INT32
      replicas => INT32
      adding_replicas => INT32
      removing_replicas => INT32
      is_new => BOOLEAN
  live_leaders => broker_id host_name port TAG_BUFFER
    broker_id => INT32
    host_name => COMPACT_STRING
    port => INT32
```

FIELD	DESCRIPTION
controller_id	The current controller ID.
controller_epoch	The current controller epoch.
broker_epoch	The current broker epoch.
type	The type that indicates whether all topics are included in the request
topic_states	Each topic.
topic_name	The topic name.
topic_id	The unique topic ID.
partition_states	The state of each partition
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
partition_epoch	The current epoch for the partition. The epoch is a monotonically increasing value which is incremented after every partition change. (Since the LeaderAndIsr request is only used by the legacy controller, this corresponds to the zkVersion)
replicas	The replica IDs.
adding_replicas	The replica IDs that we are adding this partition to, or null if no replicas are being added.
removing_replicas	The replica IDs that we are removing this partition from, or null if no replicas are being removed.

is_new	Whether the replica should have existed on the broker or not.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
live_leaders	The current live leaders.
broker_id	The leader's broker ID.
host_name	The leader's hostname.
port	The leader's port.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
LeaderAndIsr Request (Version: 6) => controller_id controller_epoch broker_epoch type [topic_states] [live_leaders] TAG_BUFFER
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  type => INT8
  topic_states => topic_name topic_id [partition_states] TAG_BUFFER
    topic_name => COMPACT_STRING
    topic_id => UUID
    partition_states => partition_index controller_epoch leader leader_epoch [isr] partition_epoch [replicas] [adding_replicas] [removing_replicas] is_new leader_recovery_state TAG_BUFFER
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      partition_epoch => INT32
      replicas => INT32
      adding_replicas => INT32
      removing_replicas => INT32
      is_new => BOOLEAN
      leader_recovery_state => INT8
  live_leaders => broker_id host_name port TAG_BUFFER
    broker_id => INT32
    host_name => COMPACT_STRING
    port => INT32
```

FIELD	DESCRIPTION
controller_id	The current controller ID.
controller_epoch	The current controller epoch.
broker_epoch	The current broker epoch.
type	The type that indicates whether all topics are included in the request
topic_states	Each topic.
topic_name	The topic name.
topic_id	The unique topic ID.
partition_states	The state of each partition
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
partition_epoch	The current epoch for the partition. The epoch is a monotonically increasing value which is incremented after every partition change. (Since the LeaderAndIsr request is only used by the legacy controller, this corresponds to the zkVersion)
replicas	The replica IDs.
adding_replicas	The replica IDs that we are adding this partition to, or null if no replicas are being added.
removing_replicas	The replica IDs that we are removing this partition from, or null if no replicas are being removed.
is_new	Whether the replica should have existed on the broker or not.
leader_recovery_state	1 if the partition is recovering from an unclean leader election; 0 otherwise.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
live_leaders	The current live leaders.
broker_id	The leader's broker ID.
host_name	The leader's hostname.
port	The leader's port.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
LeaderAndIsr Request (Version: 7) => controller_id is_kraft_controller controller_epoch broker_epoch type [topic_states] [live_leaders] TAG_BUFFER
  controller_id => INT32
  is_kraft_controller => BOOLEAN
  controller_epoch => INT32
  broker_epoch => INT64
  type => INT8
  topic_states => topic_name topic_id [partition_states] TAG_BUFFER
    topic_name => COMPACT_STRING
    topic_id => UUID
    partition_states => partition_index controller_epoch leader leader_epoch [isr] partition_epoch [replicas] [adding_replicas] [removing_replicas] is_new leader_recovery_state TAG_BUFFER
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      partition_epoch => INT32
      replicas => INT32
      adding_replicas => INT32
      removing_replicas => INT32
      is_new => BOOLEAN
      leader_recovery_state => INT8
  live_leaders => broker_id host_name port TAG_BUFFER
    broker_id => INT32
    host_name => COMPACT_STRING
    port => INT32
```

FIELD	DESCRIPTION
controller_id	The current controller ID.
is_kraft_controller	If KRaft controller id is used during migration. See KIP-866
controller_epoch	The current controller epoch.
broker_epoch	The current broker epoch.
type	The type that indicates whether all topics are included in the request
topic_states	Each topic.
topic_name	The topic name.
topic_id	The unique topic ID.
partition_states	The state of each partition
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
partition_epoch	The current epoch for the partition. The epoch is a monotonically increasing value which is incremented after every partition change. (Since the LeaderAndIsr request is only used by the legacy controller, this corresponds to the zkVersion)
replicas	The replica IDs.
adding_replicas	The replica IDs that we are adding this partition to, or null if no replicas are being added.
removing_replicas	The replica IDs that we are removing this partition from, or null if no replicas are being removed.
is_new	Whether the replica should have existed on the broker or not.
leader_recovery_state	1 if the partition is recovering from an unclean leader election; 0 otherwise.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
live_leaders	The current live leaders.
broker_id	The leader's broker ID.
host_name	The leader's hostname.
port	The leader's port.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
LeaderAndIsr Response (Version: 0) => error_code [partition_errors]
  error_code => INT16
  partition_errors => topic_name partition_index error_code
    topic_name => STRING
    partition_index => INT32
    error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
partition_errors	Each partition in v0 to v4 message.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.

```
LeaderAndIsr Response (Version: 1) => error_code [partition_errors]
  error_code => INT16
  partition_errors => topic_name partition_index error_code
    topic_name => STRING
    partition_index => INT32
    error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
partition_errors	Each partition in v0 to v4 message.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.

```
LeaderAndIsr Response (Version: 2) => error_code [partition_errors]
  error_code => INT16
  partition_errors => topic_name partition_index error_code
    topic_name => STRING
    partition_index => INT32
    error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
partition_errors	Each partition in v0 to v4 message.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.

```
LeaderAndIsr Response (Version: 3) => error_code [partition_errors]
  error_code => INT16
  partition_errors => topic_name partition_index error_code
    topic_name => STRING
    partition_index => INT32
    error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
partition_errors	Each partition in v0 to v4 message.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.

```
LeaderAndIsr Response (Version: 4) => error_code [partition_errors] TAG_BUFFER
  error_code => INT16
  partition_errors => topic_name partition_index error_code TAG_BUFFER
    topic_name => COMPACT_STRING
    partition_index => INT32
    error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
partition_errors	Each partition in v0 to v4 message.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
LeaderAndIsr Response (Version: 5) => error_code [topics] TAG_BUFFER
  error_code => INT16
  topics => topic_id [partition_errors] TAG_BUFFER
    topic_id => UUID
    partition_errors => partition_index error_code TAG_BUFFER
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
topics	Each topic
topic_id	The unique topic ID
partition_errors	Each partition.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
LeaderAndIsr Response (Version: 6) => error_code [topics] TAG_BUFFER
  error_code => INT16
  topics => topic_id [partition_errors] TAG_BUFFER
    topic_id => UUID
    partition_errors => partition_index error_code TAG_BUFFER
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
topics	Each topic
topic_id	The unique topic ID
partition_errors	Each partition.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
LeaderAndIsr Response (Version: 7) => error_code [topics] TAG_BUFFER
  error_code => INT16
  topics => topic_id [partition_errors] TAG_BUFFER
    topic_id => UUID
    partition_errors => partition_index error_code TAG_BUFFER
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
topics	Each topic
topic_id	The unique topic ID
partition_errors	Each partition.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

StopReplica API (Key: 5):

Requests:

```
StopReplica Request (Version: 0) => controller_id controller_epoch delete_partitions [ungrouped_partitions]
  controller_id => INT32
  controller_epoch => INT32
  delete_partitions => BOOLEAN
  ungrouped_partitions => topic_name partition_index
    topic_name => STRING
    partition_index => INT32
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
delete_partitions	Whether these partitions should be deleted.
ungrouped_partitions	The partitions to stop.
topic_name	The topic name.
partition_index	The partition index.

```
StopReplica Request (Version: 1) => controller_id controller_epoch broker_epoch delete_partitions [topics]
```

```
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  delete_partitions => BOOLEAN
  topics => name [partition_indexes]
    name => STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
broker_epoch	The broker epoch.
delete_partitions	Whether these partitions should be deleted.
topics	The topics to stop.
name	The topic name.
partition_indexes	The partition indexes.

```
StopReplica Request (Version: 2) => controller_id controller_epoch broker_epoch delete_partitions [topics] TAG_BUFFER
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  delete_partitions => BOOLEAN
  topics => name [partition_indexes] TAG_BUFFER
    name => COMPACT_STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
broker_epoch	The broker epoch.
delete_partitions	Whether these partitions should be deleted.
topics	The topics to stop.
name	The topic name.
partition_indexes	The partition indexes.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
StopReplica Request (Version: 3) => controller_id controller_epoch broker_epoch [topic_states] TAG_BUFFER
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  topic_states => topic_name [partition_states] TAG_BUFFER
    topic_name => COMPACT_STRING
    partition_states => partition_index leader_epoch delete_partition TAG_BUFFER
      partition_index => INT32
      leader_epoch => INT32
      delete_partition => BOOLEAN
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
broker_epoch	The broker epoch.
topic_states	Each topic.
topic_name	The topic name.
partition_states	The state of each partition
partition_index	The partition index.
leader_epoch	The leader epoch.
delete_partition	Whether this partition should be deleted.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
StopReplica Request (Version: 4) => controller_id is_kraft_controller controller_epoch broker_epoch [topic_states] TAG_BUFFER
  controller_id => INT32
  is_kraft_controller => BOOLEAN
  controller_epoch => INT32
  broker_epoch => INT64
  topic_states => topic_name [partition_states] TAG_BUFFER
    topic_name => COMPACT_STRING
    partition_states => partition_index leader_epoch delete_partition TAG_BUFFER
      partition_index => INT32
      leader_epoch => INT32
      delete_partition => BOOLEAN
```

FIELD	DESCRIPTION
controller_id	The controller id.
is_kraft_controller	If KRaft controller id is used during migration. See KIP-866
controller_epoch	The controller epoch.
broker_epoch	The broker epoch.
topic_states	Each topic.
topic_name	The topic name.
partition_states	The state of each partition
partition_index	The partition index.
leader_epoch	The leader epoch.
delete_partition	Whether this partition should be deleted.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
StopReplica Response (Version: 0) => error_code [partition_errors]
  error_code => INT16
  partition_errors => topic_name partition_index error_code
    topic_name => STRING
    partition_index => INT32
    error_code => INT16
```

FIELD	DESCRIPTION
error_code	The top-level error code, or 0 if there was no top-level error.
partition_errors	The responses for each partition.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no partition error.

```
StopReplica Response (Version: 1) => error_code [partition_errors]
  error_code => INT16
  partition_errors => topic_name partition_index error_code
    topic_name => STRING
    partition_index => INT32
    error_code => INT16
```

FIELD	DESCRIPTION
error_code	The top-level error code, or 0 if there was no top-level error.
partition_errors	The responses for each partition.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no partition error.

```
StopReplica Response (Version: 2) => error_code [partition_errors] TAG_BUFFER
  error_code => INT16
  partition_errors => topic_name partition_index error_code TAG_BUFFER
    topic_name => COMPACT_STRING
    partition_index => INT32
    error_code => INT16
```

FIELD	DESCRIPTION
error_code	The top-level error code, or 0 if there was no top-level error.
partition_errors	The responses for each partition.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no partition error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
StopReplica Response (Version: 3) => error_code [partition_errors] TAG_BUFFER
```

```
    partition_errors => topic_name partition_index error_code TAG_BUFFER
      topic_name => COMPACT_STRING
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
error_code	The top-level error code, or 0 if there was no top-level error.
partition_errors	The responses for each partition.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no partition error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
StopReplica Response (Version: 4) => error_code [partition_errors] TAG_BUFFER
  error_code => INT16
  partition_errors => topic_name partition_index error_code TAG_BUFFER
    topic_name => COMPACT_STRING
    partition_index => INT32
    error_code => INT16
```

FIELD	DESCRIPTION
error_code	The top-level error code, or 0 if there was no top-level error.
partition_errors	The responses for each partition.
topic_name	The topic name.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no partition error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

UpdateMetadata API (Key: 6):

Requests:

```
UpdateMetadata Request (Version: 0) => controller_id controller_epoch [ungrouped_partition_states] [live_brokers]
  controller_id => INT32
  controller_epoch => INT32
  ungrouped_partition_states => topic_name partition_index controller_epoch leader leader_epoch [isr] zk_version [replicas]
    topic_name => STRING
    partition_index => INT32
    controller_epoch => INT32
    leader => INT32
    leader_epoch => INT32
    isr => INT32
    zk_version => INT32
    replicas => INT32
  live_brokers => id v0_host v0_port
    id => INT32
    v0_host => STRING
    v0_port => INT32
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
ungrouped_partition_states	In older versions of this RPC, each partition that we would like to update.
topic_name	In older versions of this RPC, the topic name.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The ID of the broker which is the current partition leader.
leader_epoch	The leader epoch of this partition.
isr	The brokers which are in the ISR for this partition.
zk_version	The Zookeeper version.
replicas	All the replicas of this partition.
live_brokers	
id	The broker id.
v0_host	The broker hostname.
v0_port	The broker port.

```
UpdateMetadata Request (Version: 1) => controller_id controller_epoch [ungrouped_partition_states] [live_brokers]
  controller_id => INT32
  controller_epoch => INT32
  ungrouped_partition_states => topic_name partition_index controller_epoch leader leader_epoch [isr] zk_version [replicas]
    topic_name => STRING
    partition_index => INT32
    controller_epoch => INT32
    leader => INT32
    leader_epoch => INT32
    isr => INT32
    zk_version => INT32
    replicas => INT32
  live_brokers => id [endpoints]
    id => INT32
    endpoints => port host security_protocol
      port => INT32
      host => STRING
      security_protocol => INT16
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
ungrouped_partition_states	In older versions of this RPC, each partition that we would like to update.
topic_name	In older versions of this RPC, the topic name.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The ID of the broker which is the current partition leader.
leader_epoch	The leader epoch of this partition.
isr	The brokers which are in the ISR for this partition.
zk_version	The Zookeeper version.
replicas	All the replicas of this partition.
live_brokers	
id	The broker id.
endpoints	The broker endpoints.
port	The port of this endpoint
host	The hostname of this endpoint
security_protocol	The security protocol type.

```
UpdateMetadata Request (Version: 2) => controller_id controller_epoch [ungrouped_partition_states] [live_brokers]
  controller_id => INT32
  controller_epoch => INT32
  ungrouped_partition_states => topic_name partition_index controller_epoch leader leader_epoch [isr] zk_version [replicas]
    topic_name => STRING
    partition_index => INT32
    controller_epoch => INT32
    leader => INT32
    leader_epoch => INT32
    isr => INT32
    zk_version => INT32
    replicas => INT32
  live_brokers => id [endpoints] rack
    id => INT32
    endpoints => port host security_protocol
      port => INT32
      host => STRING
      security_protocol => INT16
    rack => NULLABLE_STRING
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
ungrouped_partition_states	In older versions of this RPC, each partition that we would like to update.
topic_name	In older versions of this RPC, the topic name.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The ID of the broker which is the current partition leader.
leader_epoch	The leader epoch of this partition.
isr	The brokers which are in the ISR for this partition.
zk_version	The Zookeeper version.
replicas	All the replicas of this partition.
live_brokers	

endpoints	The broker endpoints.
port	The port of this endpoint
host	The hostname of this endpoint
security_protocol	The security protocol type.
rack	The rack which this broker belongs to.

```
UpdateMetadata Request (Version: 3) => controller_id controller_epoch [ungrouped_partition_states] [live_brokers]
  controller_id => INT32
  controller_epoch => INT32
  ungrouped_partition_states => topic_name partition_index controller_epoch leader leader_epoch [isr] zk_version [replicas]
    topic_name => STRING
    partition_index => INT32
    controller_epoch => INT32
    leader => INT32
    leader_epoch => INT32
    isr => INT32
    zk_version => INT32
    replicas => INT32
  live_brokers => id [endpoints] rack
    id => INT32
    endpoints => port host listener security_protocol
      port => INT32
      host => STRING
      listener => STRING
      security_protocol => INT16
    rack => NULLABLE_STRING
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
ungrouped_partition_states	In older versions of this RPC, each partition that we would like to update.
topic_name	In older versions of this RPC, the topic name.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The ID of the broker which is the current partition leader.
leader_epoch	The leader epoch of this partition.
isr	The brokers which are in the ISR for this partition.
zk_version	The Zookeeper version.
replicas	All the replicas of this partition.
live_brokers	
id	The broker id.
endpoints	The broker endpoints.
port	The port of this endpoint
host	The hostname of this endpoint
listener	The listener name.
security_protocol	The security protocol type.
rack	The rack which this broker belongs to.

```
UpdateMetadata Request (Version: 4) => controller_id controller_epoch [ungrouped_partition_states] [live_brokers]
  controller_id => INT32
  controller_epoch => INT32
  ungrouped_partition_states => topic_name partition_index controller_epoch leader leader_epoch [isr] zk_version [replicas] [offline_replicas]
    topic_name => STRING
    partition_index => INT32
    controller_epoch => INT32
    leader => INT32
    leader_epoch => INT32
    isr => INT32
    zk_version => INT32
    replicas => INT32
    offline_replicas => INT32
  live_brokers => id [endpoints] rack
    id => INT32
    endpoints => port host listener security_protocol
      port => INT32
      host => STRING
      listener => STRING
      security_protocol => INT16
    rack => NULLABLE_STRING
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
ungrouped_partition_states	In older versions of this RPC, each partition that we would like to update.
topic_name	In older versions of this RPC, the topic name.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The ID of the broker which is the current partition leader.
leader_epoch	The leader epoch of this partition.
isr	The brokers which are in the ISR for this partition.
zk_version	The Zookeeper version.
replicas	All the replicas of this partition.
offline_replicas	The replicas of this partition which are offline.
live_brokers	
id	The broker id.
endpoints	The broker endpoints.
port	The port of this endpoint
host	The hostname of this endpoint
listener	The listener name.
security_protocol	The security protocol type.
rack	The rack which this broker belongs to.

```
UpdateMetadata Request (Version: 5) => controller_id controller_epoch broker_epoch [topic_states] [live_brokers]
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  topic_states => topic_name [partition_states]
    topic_name => STRING
    partition_states => partition_index controller_epoch leader leader_epoch [isr] zk_version [replicas] [offline_replicas]
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      zk_version => INT32
      replicas => INT32
      offline_replicas => INT32
  live_brokers => id [endpoints] rack
    id => INT32
    endpoints => port host listener security_protocol
      port => INT32
      host => STRING
      listener => STRING
      security_protocol => INT16
    rack => NULLABLE_STRING
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
broker_epoch	The broker epoch.
topic_states	In newer versions of this RPC, each topic that we would like to update.
topic_name	The topic name.
partition_states	The partition that we would like to update.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The ID of the broker which is the current partition leader.
leader_epoch	The leader epoch of this partition.
isr	The brokers which are in the ISR for this partition.
zk_version	The Zookeeper version.
replicas	All the replicas of this partition.
offline_replicas	The replicas of this partition which are offline.
live_brokers	
id	The broker id.
endpoints	The broker endpoints.
port	The port of this endpoint
host	The hostname of this endpoint
listener	The listener name.
security_protocol	The security protocol type.

rack	The rack which this broker belongs to.

```
UpdateMetadata Request (Version: 6) => controller_id controller_epoch broker_epoch [topic_states] [live_brokers] TAG_BUFFER
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  topic_states => topic_name [partition_states] TAG_BUFFER
    topic_name => COMPACT_STRING
    partition_states => partition_index controller_epoch leader leader_epoch [isr] zk_version [replicas] [offline_replicas] TAG_BUFFER
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      zk_version => INT32
      replicas => INT32
      offline_replicas => INT32
  live_brokers => id [endpoints] rack TAG_BUFFER
    id => INT32
    endpoints => port host listener security_protocol TAG_BUFFER
      port => INT32
      host => COMPACT_STRING
      listener => COMPACT_STRING
      security_protocol => INT16
    rack => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
broker_epoch	The broker epoch.
topic_states	In newer versions of this RPC, each topic that we would like to update.
topic_name	The topic name.
partition_states	The partition that we would like to update.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The ID of the broker which is the current partition leader.
leader_epoch	The leader epoch of this partition.
isr	The brokers which are in the ISR for this partition.
zk_version	The Zookeeper version.
replicas	All the replicas of this partition.
offline_replicas	The replicas of this partition which are offline.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
live_brokers	
id	The broker id.
endpoints	The broker endpoints.
port	The port of this endpoint
host	The hostname of this endpoint
listener	The listener name.
security_protocol	The security protocol type.
_tagged_fields	The tagged fields
rack	The rack which this broker belongs to.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
UpdateMetadata Request (Version: 7) => controller_id controller_epoch broker_epoch [topic_states] [live_brokers] TAG_BUFFER
  controller_id => INT32
  controller_epoch => INT32
  broker_epoch => INT64
  topic_states => topic_name topic_id [partition_states] TAG_BUFFER
    topic_name => COMPACT_STRING
    topic_id => UUID
    partition_states => partition_index controller_epoch leader leader_epoch [isr] zk_version [replicas] [offline_replicas] TAG_BUFFER
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      zk_version => INT32
      replicas => INT32
      offline_replicas => INT32
  live_brokers => id [endpoints] rack TAG_BUFFER
    id => INT32
    endpoints => port host listener security_protocol TAG_BUFFER
      port => INT32
      host => COMPACT_STRING
      listener => COMPACT_STRING
      security_protocol => INT16
    rack => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
controller_id	The controller id.
controller_epoch	The controller epoch.
broker_epoch	The broker epoch.
topic_states	In newer versions of this RPC, each topic that we would like to update.
topic_name	The topic name.
topic_id	The topic id.
partition_states	The partition that we would like to update.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The ID of the broker which is the current partition leader.
leader_epoch	The leader epoch of this partition.
isr	The brokers which are in the ISR for this partition.
zk_version	The Zookeeper version.
replicas	All the replicas of this partition.
offline_replicas	The replicas of this partition which are offline.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
live_brokers	
id	The broker id.
endpoints	The broker endpoints.
port	The port of this endpoint
host	The hostname of this endpoint
listener	The listener name.
security_protocol	The security protocol type.
_tagged_fields	The tagged fields
rack	The rack which this broker belongs to.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
UpdateMetadata Request (Version: 8) => controller_id is_kraft_controller controller_epoch broker_epoch [topic_states] [live_brokers] TAG_BUFFER
  controller_id => INT32
  is_kraft_controller => BOOLEAN
  controller_epoch => INT32
  broker_epoch => INT64
  topic_states => topic_name topic_id [partition_states] TAG_BUFFER
    topic_name => COMPACT_STRING
    topic_id => UUID
    partition_states => partition_index controller_epoch leader leader_epoch [isr] zk_version [replicas] [offline_replicas] TAG_BUFFER
      partition_index => INT32
      controller_epoch => INT32
      leader => INT32
      leader_epoch => INT32
      isr => INT32
      zk_version => INT32
      replicas => INT32
      offline_replicas => INT32
  live_brokers => id [endpoints] rack TAG_BUFFER
    id => INT32
    endpoints => port host listener security_protocol TAG_BUFFER
      port => INT32
      host => COMPACT_STRING
      listener => COMPACT_STRING
      security_protocol => INT16
    rack => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
controller_id	The controller id.
is_kraft_controller	If KRaft controller id is used during migration. See KIP-866
controller_epoch	The controller epoch.
broker_epoch	The broker epoch.

topic_states	In newer versions of this RPC, each topic that we would like to update.
topic_name	The topic name.
topic_id	The topic id.
partition_states	The partition that we would like to update.
partition_index	The partition index.
controller_epoch	The controller epoch.
leader	The ID of the broker which is the current partition leader.
leader_epoch	The leader epoch of this partition.
isr	The brokers which are in the ISR for this partition.
zk_version	The Zookeeper version.
replicas	All the replicas of this partition.
offline_replicas	The replicas of this partition which are offline.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
live_brokers	
id	The broker id.
endpoints	The broker endpoints.
port	The port of this endpoint
host	The hostname of this endpoint
listener	The listener name.
security_protocol	The security protocol type.
_tagged_fields	The tagged fields
rack	The rack which this broker belongs to.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
UpdateMetadata Response (Version: 0) => error_code
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.

```
UpdateMetadata Response (Version: 1) => error_code
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.

```
UpdateMetadata Response (Version: 2) => error_code
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.

```
UpdateMetadata Response (Version: 3) => error_code
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.

```
UpdateMetadata Response (Version: 4) => error_code
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.

```
UpdateMetadata Response (Version: 5) => error_code
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.

```
UpdateMetadata Response (Version: 6) => error_code TAG_BUFFER
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields

```
UpdateMetadata Response (Version: 7) => error_code TAG_BUFFER
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields

```
UpdateMetadata Response (Version: 8) => error_code TAG_BUFFER
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields

ControlledShutdown API (Key: 7):

Requests:

```
ControlledShutdown Request (Version: 0) => broker_id
  broker_id => INT32
```

FIELD	DESCRIPTION
broker_id	The id of the broker for which controlled shutdown has been requested.

```
ControlledShutdown Request (Version: 1) => broker_id
  broker_id => INT32
```

FIELD	DESCRIPTION
broker_id	The id of the broker for which controlled shutdown has been requested.

```
ControlledShutdown Request (Version: 2) => broker_id broker_epoch
  broker_id => INT32
  broker_epoch => INT64
```

FIELD	DESCRIPTION
broker_id	The id of the broker for which controlled shutdown has been requested.
broker_epoch	The broker epoch.

```
ControlledShutdown Request (Version: 3) => broker_id broker_epoch TAG_BUFFER
  broker_id => INT32
  broker_epoch => INT64
```

FIELD	DESCRIPTION
broker_id	The id of the broker for which controlled shutdown has been requested.
broker_epoch	The broker epoch.
_tagged_fields	The tagged fields

Responses:

```
ControlledShutdown Response (Version: 0) => error_code [remaining_partitions]
  error_code => INT16
  remaining_partitions => topic_name partition_index
    topic_name => STRING
    partition_index => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error code.
remaining_partitions	The partitions that the broker still leads.
topic_name	The name of the topic.
partition_index	The index of the partition.

```
ControlledShutdown Response (Version: 1) => error_code [remaining_partitions]
  error_code => INT16
  remaining_partitions => topic_name partition_index
    topic_name => STRING
    partition_index => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error code.
remaining_partitions	The partitions that the broker still leads.
topic_name	The name of the topic.
partition_index	The index of the partition.

```
ControlledShutdown Response (Version: 2) => error_code [remaining_partitions]
  error_code => INT16
  remaining_partitions => topic_name partition_index
    topic_name => STRING
    partition_index => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error code.
remaining_partitions	The partitions that the broker still leads.
topic_name	The name of the topic.
partition_index	The index of the partition.

```
ControlledShutdown Response (Version: 3) => error_code [remaining_partitions] TAG_BUFFER
  error_code => INT16
  remaining_partitions => topic_name partition_index TAG_BUFFER
    topic_name => COMPACT_STRING
    partition_index => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error code.
remaining_partitions	The partitions that the broker still leads.
topic_name	The name of the topic.
partition_index	The index of the partition.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

OffsetCommit API (Key: 8):

Requests:

```
OffsetCommit Request (Version: 0) => group_id [topics]
  group_id => STRING
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
topics	The topics to commit offsets for.
name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
committed_metadata	Any associated metadata the client wants to keep.

```
OffsetCommit Request (Version: 1) => group_id generation_id_or_member_epoch member_id [topics]
  group_id => STRING
  generation_id_or_member_epoch => INT32
  member_id => STRING
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset commit_timestamp committed_metadata
      partition_index => INT32
      committed_offset => INT64
      commit_timestamp => INT64
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id_or_member_epoch	The generation of the group if using the generic group protocol or the member epoch if using the consumer protocol.
member_id	The member ID assigned by the group coordinator.
topics	The topics to commit offsets for.
name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
commit_timestamp	The timestamp of the commit.
committed_metadata	Any associated metadata the client wants to keep.

```
OffsetCommit Request (Version: 2) => group_id generation_id_or_member_epoch member_id retention_time_ms [topics]
  group_id => STRING
  generation_id_or_member_epoch => INT32
  member_id => STRING
  retention_time_ms => INT64
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id_or_member_epoch	The generation of the group if using the generic group protocol or the member epoch if using the consumer protocol.
member_id	The member ID assigned by the group coordinator.
retention_time_ms	The time period in ms to retain the offset.
topics	The topics to commit offsets for.
name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
committed_metadata	Any associated metadata the client wants to keep.

```
OffsetCommit Request (Version: 3) => group_id generation_id_or_member_epoch member_id retention_time_ms [topics]
  group_id => STRING
  generation_id_or_member_epoch => INT32
  member_id => STRING
  retention_time_ms => INT64
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id_or_member_epoch	The generation of the group if using the generic group protocol or the member epoch if using the consumer protocol.
member_id	The member ID assigned by the group coordinator.
retention_time_ms	The time period in ms to retain the offset.
topics	The topics to commit offsets for.
name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
committed_metadata	Any associated metadata the client wants to keep.

```
OffsetCommit Request (Version: 4) => group_id generation_id_or_member_epoch member_id retention_time_ms [topics]
  group_id => STRING
  generation_id_or_member_epoch => INT32
  member_id => STRING
  retention_time_ms => INT64
  topics => name [partitions]
    name => STRING
```

```
    partitions => partition_index committed_offset committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id_or_member_epoch	The generation of the group if using the generic group protocol or the member epoch if using the consumer protocol.
member_id	The member ID assigned by the group coordinator.
retention_time_ms	The time period in ms to retain the offset.
topics	The topics to commit offsets for.
name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
committed_metadata	Any associated metadata the client wants to keep.

```
OffsetCommit Request (Version: 5) => group_id generation_id_or_member_epoch member_id [topics]
  group_id => STRING
  generation_id_or_member_epoch => INT32
  member_id => STRING
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id_or_member_epoch	The generation of the group if using the generic group protocol or the member epoch if using the consumer protocol.
member_id	The member ID assigned by the group coordinator.
topics	The topics to commit offsets for.
name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
committed_metadata	Any associated metadata the client wants to keep.

```
OffsetCommit Request (Version: 6) => group_id generation_id_or_member_epoch member_id [topics]
  group_id => STRING
  generation_id_or_member_epoch => INT32
  member_id => STRING
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_leader_epoch committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_leader_epoch => INT32
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id_or_member_epoch	The generation of the group if using the generic group protocol or the member epoch if using the consumer protocol.
member_id	The member ID assigned by the group coordinator.
topics	The topics to commit offsets for.
name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
committed_leader_epoch	The leader epoch of this partition.
committed_metadata	Any associated metadata the client wants to keep.

```
OffsetCommit Request (Version: 7) => group_id generation_id_or_member_epoch member_id group_instance_id [topics]
  group_id => STRING
  generation_id_or_member_epoch => INT32
  member_id => STRING
  group_instance_id => NULLABLE_STRING
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_leader_epoch committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_leader_epoch => INT32
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id_or_member_epoch	The generation of the group if using the generic group protocol or the member epoch if using the consumer protocol.
member_id	The member ID assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
topics	The topics to commit offsets for.
name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
committed_leader_epoch	The leader epoch of this partition.
committed_metadata	Any associated metadata the client wants to keep.

```
OffsetCommit Request (Version: 8) => group_id generation_id_or_member_epoch member_id group_instance_id [topics] TAG_BUFFER
  group_id => COMPACT_STRING
  generation_id_or_member_epoch => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index committed_offset committed_leader_epoch committed_metadata TAG_BUFFER
      partition_index => INT32
      committed_offset => INT64
      committed_leader_epoch => INT32
      committed_metadata => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id_or_member_epoch	The generation of the group if using the generic group protocol or the member epoch if using the consumer protocol.
member_id	The member ID assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
topics	The topics to commit offsets for.
name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
committed_leader_epoch	The leader epoch of this partition.
committed_metadata	Any associated metadata the client wants to keep.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
OffsetCommit Request (Version: 9) => group_id generation_id_or_member_epoch member_id group_instance_id [topics] TAG_BUFFER
  group_id => COMPACT_STRING
  generation_id_or_member_epoch => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index committed_offset committed_leader_epoch committed_metadata TAG_BUFFER
      partition_index => INT32
      committed_offset => INT64
      committed_leader_epoch => INT32
      committed_metadata => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id_or_member_epoch	The generation of the group if using the generic group protocol or the member epoch if using the consumer protocol.
member_id	The member ID assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
topics	The topics to commit offsets for.

name	The topic name.
partitions	Each partition to commit offsets for.
partition_index	The partition index.
committed_offset	The message offset to be committed.
committed_leader_epoch	The leader epoch of this partition.
committed_metadata	Any associated metadata the client wants to keep.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
OffsetCommit Response (Version: 0) => [topics]
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
OffsetCommit Response (Version: 1) => [topics]
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
OffsetCommit Response (Version: 2) => [topics]
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
OffsetCommit Response (Version: 3) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
OffsetCommit Response (Version: 4) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
OffsetCommit Response (Version: 5) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
OffsetCommit Response (Version: 6) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
OffsetCommit Response (Version: 7) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
OffsetCommit Response (Version: 8) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
```

```
    partitions => partition_index error_code TAG_BUFFER
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
OffsetCommit Response (Version: 9) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index error_code TAG_BUFFER
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

OffsetFetch API (Key: 9):

Requests:

```
OffsetFetch Request (Version: 0) => group_id [topics]
  group_id => STRING
  topics => name [partition_indexes]
    name => STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
group_id	The group to fetch offsets for.
topics	Each topic we would like to fetch offsets for, or null to fetch offsets for all topics.
name	The topic name.
partition_indexes	The partition indexes we would like to fetch offsets for.

```
OffsetFetch Request (Version: 1) => group_id [topics]
  group_id => STRING
  topics => name [partition_indexes]
    name => STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
group_id	The group to fetch offsets for.
topics	Each topic we would like to fetch offsets for, or null to fetch offsets for all topics.
name	The topic name.
partition_indexes	The partition indexes we would like to fetch offsets for.

```
OffsetFetch Request (Version: 2) => group_id [topics]
  group_id => STRING
  topics => name [partition_indexes]
    name => STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
group_id	The group to fetch offsets for.
topics	Each topic we would like to fetch offsets for, or null to fetch offsets for all topics.
name	The topic name.
partition_indexes	The partition indexes we would like to fetch offsets for.

```
OffsetFetch Request (Version: 3) => group_id [topics]
  group_id => STRING
  topics => name [partition_indexes]
    name => STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
group_id	The group to fetch offsets for.
topics	Each topic we would like to fetch offsets for, or null to fetch offsets for all topics.
name	The topic name.
partition_indexes	The partition indexes we would like to fetch offsets for.

```
OffsetFetch Request (Version: 4) => group_id [topics]
  group_id => STRING
  topics => name [partition_indexes]
    name => STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
group_id	The group to fetch offsets for.
topics	Each topic we would like to fetch offsets for, or null to fetch offsets for all topics.
name	The topic name.
partition_indexes	The partition indexes we would like to fetch offsets for.

```
OffsetFetch Request (Version: 5) => group_id [topics]
  group_id => STRING
  topics => name [partition_indexes]
    name => STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
group_id	The group to fetch offsets for.
topics	Each topic we would like to fetch offsets for, or null to fetch offsets for all topics.
name	The topic name.
partition_indexes	The partition indexes we would like to fetch offsets for.

```
OffsetFetch Request (Version: 6) => group_id [topics] TAG_BUFFER
  group_id => COMPACT_STRING
  topics => name [partition_indexes] TAG_BUFFER
    name => COMPACT_STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
group_id	The group to fetch offsets for.
topics	Each topic we would like to fetch offsets for, or null to fetch offsets for all topics.
name	The topic name.
partition_indexes	The partition indexes we would like to fetch offsets for.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
OffsetFetch Request (Version: 7) => group_id [topics] require_stable TAG_BUFFER
  group_id => COMPACT_STRING
  topics => name [partition_indexes] TAG_BUFFER
    name => COMPACT_STRING
    partition_indexes => INT32
  require_stable => BOOLEAN
```

FIELD	DESCRIPTION
group_id	The group to fetch offsets for.
topics	Each topic we would like to fetch offsets for, or null to fetch offsets for all topics.
name	The topic name.

partition_indexes	The partition indexes we would like to fetch offsets for.
_tagged_fields	The tagged fields
require_stable	Whether broker should hold on returning unstable offsets but set a retriable error code for the partitions.
_tagged_fields	The tagged fields

```
OffsetFetch Request (Version: 0) => [groups] require_stable TAG_BUFFER
  groups => group_id [topics] TAG_BUFFER
    group_id => COMPACT_STRING
    topics => name [partition_indexes] TAG_BUFFER
      name => COMPACT_STRING
      partition_indexes => INT32
  require_stable => BOOLEAN
```

FIELD	DESCRIPTION
groups	Each group we would like to fetch offsets for
group_id	The group ID.
topics	Each topic we would like to fetch offsets for, or null to fetch offsets for all topics.
name	The topic name.
partition_indexes	The partition indexes we would like to fetch offsets for.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
require_stable	Whether broker should hold on returning unstable offsets but set a retriable error code for the partitions.
_tagged_fields	The tagged fields

Responses:

```
OffsetFetch Response (Version: 0) => [topics]
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset metadata error_code
      partition_index => INT32
      committed_offset => INT64
      metadata => NULLABLE_STRING
      error_code => INT16
```

FIELD	DESCRIPTION
topics	The responses per topic.
name	The topic name.
partitions	The responses per partition
partition_index	The partition index.
committed_offset	The committed message offset.
metadata	The partition metadata.
error_code	The error code, or 0 if there was no error.

```
OffsetFetch Response (Version: 1) => [topics]
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset metadata error_code
      partition_index => INT32
      committed_offset => INT64
      metadata => NULLABLE_STRING
      error_code => INT16
```

FIELD	DESCRIPTION
topics	The responses per topic.
name	The topic name.
partitions	The responses per partition
partition_index	The partition index.
committed_offset	The committed message offset.
metadata	The partition metadata.
error_code	The error code, or 0 if there was no error.

```
OffsetFetch Response (Version: 2) => [topics] error_code
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset metadata error_code
      partition_index => INT32
      committed_offset => INT64
      metadata => NULLABLE_STRING
      error_code => INT16
  error_code => INT16
```

FIELD	DESCRIPTION
topics	The responses per topic.
name	The topic name.
partitions	The responses per partition
partition_index	The partition index.
committed_offset	The committed message offset.
metadata	The partition metadata.
error_code	The error code, or 0 if there was no error.
error_code	The top-level error code, or 0 if there was no error.

```
OffsetFetch Response (Version: 3) => throttle_time_ms [topics] error_code
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset metadata error_code
      partition_index => INT32
      committed_offset => INT64
      metadata => NULLABLE_STRING
      error_code => INT16
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses per topic.
name	The topic name.
partitions	The responses per partition
partition_index	The partition index.
committed_offset	The committed message offset.
metadata	The partition metadata.
error_code	The error code, or 0 if there was no error.
error_code	The top-level error code, or 0 if there was no error.

```
OffsetFetch Response (Version: 4) => throttle_time_ms [topics] error_code
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset metadata error_code
      partition_index => INT32
      committed_offset => INT64
      metadata => NULLABLE_STRING
      error_code => INT16
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses per topic.
name	The topic name.
partitions	The responses per partition
partition_index	The partition index.
committed_offset	The committed message offset.
metadata	The partition metadata.
error_code	The error code, or 0 if there was no error.
error_code	The top-level error code, or 0 if there was no error.

```
OffsetFetch Response (Version: 5) => throttle_time_ms [topics] error_code
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_leader_epoch metadata error_code
      partition_index => INT32
      committed_offset => INT64
      committed_leader_epoch => INT32
      metadata => NULLABLE_STRING
      error_code => INT16
  error_code => INT16
```

FIELD	DESCRIPTION

throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses per topic.
name	The topic name.
partitions	The responses per partition
partition_index	The partition index.
committed_offset	The committed message offset.
committed_leader_epoch	The leader epoch.
metadata	The partition metadata.
error_code	The error code, or 0 if there was no error.
error_code	The top-level error code, or 0 if there was no error.

```
OffsetFetch Response (Version: 6) => throttle_time_ms [topics] error_code TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index committed_offset committed_leader_epoch metadata error_code TAG_BUFFER
      partition_index => INT32
      committed_offset => INT64
      committed_leader_epoch => INT32
      metadata => COMPACT_NULLABLE_STRING
      error_code => INT16
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses per topic.
name	The topic name.
partitions	The responses per partition
partition_index	The partition index.
committed_offset	The committed message offset.
committed_leader_epoch	The leader epoch.
metadata	The partition metadata.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
error_code	The top-level error code, or 0 if there was no error.
_tagged_fields	The tagged fields

```
OffsetFetch Response (Version: 7) => throttle_time_ms [topics] error_code TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index committed_offset committed_leader_epoch metadata error_code TAG_BUFFER
      partition_index => INT32
      committed_offset => INT64
      committed_leader_epoch => INT32
      metadata => COMPACT_NULLABLE_STRING
      error_code => INT16
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses per topic.
name	The topic name.
partitions	The responses per partition
partition_index	The partition index.
committed_offset	The committed message offset.
committed_leader_epoch	The leader epoch.
metadata	The partition metadata.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
error_code	The top-level error code, or 0 if there was no error.
_tagged_fields	The tagged fields

```
OffsetFetch Response (Version: 8) => throttle_time_ms [groups] TAG_BUFFER
  throttle_time_ms => INT32
  groups => group_id [topics] error_code TAG_BUFFER
    group_id => COMPACT_STRING
    topics => name [partitions] TAG_BUFFER
      name => COMPACT_STRING
      partitions => partition_index committed_offset committed_leader_epoch metadata error_code TAG_BUFFER
        partition_index => INT32
        committed_offset => INT64
        committed_leader_epoch => INT32
        metadata => COMPACT_NULLABLE_STRING
        error_code => INT16
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
groups	The responses per group id.
group_id	The group ID.
topics	The responses per topic.
name	The topic name.
partitions	The responses per partition
partition_index	The partition index.
committed_offset	The committed message offset.
committed_leader_epoch	The leader epoch.
metadata	The partition metadata.
error_code	The partition-level error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
error_code	The group-level error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

FindCoordinator API (Key: 10):

Requests:

```
FindCoordinator Request (Version: 0) => key
  key => STRING
```

FIELD	DESCRIPTION
key	The coordinator key.

```
FindCoordinator Request (Version: 1) => key key_type
  key => STRING
  key_type => INT8
```

FIELD	DESCRIPTION
key	The coordinator key.
key_type	The coordinator key type. (Group, transaction, etc.)

```
FindCoordinator Request (Version: 2) => key key_type
  key => STRING
  key_type => INT8
```

FIELD	DESCRIPTION
key	The coordinator key.
key_type	The coordinator key type. (Group, transaction, etc.)

```
FindCoordinator Request (Version: 3) => key key_type TAG_BUFFER
  key => COMPACT_STRING
  key_type => INT8
```

FIELD	DESCRIPTION
key	The coordinator key.
key_type	The coordinator key type. (Group, transaction, etc.)
_tagged_fields	The tagged fields

```
FindCoordinator Request (Version: 4) => key_type [coordinator_keys] TAG_BUFFER
  key_type => INT8
  coordinator_keys => COMPACT_STRING
```

FIELD	DESCRIPTION
key_type	The coordinator key type. (Group, transaction, etc.)
coordinator_keys	The coordinator keys.
_tagged_fields	The tagged fields

Responses:

```
FindCoordinator Response (Version: 0) => error_code node_id host port
  error_code => INT16
  node_id => INT32
  host => STRING
  port => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
node_id	The node id.
host	The host name.
port	The port.

```
FindCoordinator Response (Version: 1) => throttle_time_ms error_code error_message node_id host port
  throttle_time_ms => INT32
  error_code => INT16
  error_message => NULLABLE_STRING
  node_id => INT32
  host => STRING
  port => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
node_id	The node id.
host	The host name.
port	The port.

```
FindCoordinator Response (Version: 2) => throttle_time_ms error_code error_message node_id host port
  throttle_time_ms => INT32
  error_code => INT16
  error_message => NULLABLE_STRING
  node_id => INT32
  host => STRING
  port => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
node_id	The node id.
host	The host name.
port	The port.

```
FindCoordinator Response (Version: 3) => throttle_time_ms error_code error_message node_id host port TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  node_id => INT32
  host => COMPACT_STRING
  port => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
node_id	The node id.
host	The host name.
port	The port.
_tagged_fields	The tagged fields

```
FindCoordinator Response (Version: 4) => throttle_time_ms [coordinators] TAG_BUFFER
  throttle_time_ms => INT32
  coordinators => key node_id host port error_code error_message TAG_BUFFER
    key => COMPACT_STRING
    node_id => INT32
    host => COMPACT_STRING
    port => INT32
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
coordinators	Each coordinator result in the response
key	The coordinator key.
node_id	The node id.
host	The host name.
port	The port.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

JoinGroup API (Key: 11):

Requests:

```
JoinGroup Request (Version: 0) => group_id session_timeout_ms member_id protocol_type [protocols]
  group_id => STRING
  session_timeout_ms => INT32
  member_id => STRING
  protocol_type => STRING
  protocols => name metadata
    name => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.
member_id	The member id assigned by the group coordinator.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.

```
JoinGroup Request (Version: 1) => group_id session_timeout_ms rebalance_timeout_ms member_id protocol_type [protocols]
  group_id => STRING
  session_timeout_ms => INT32
  rebalance_timeout_ms => INT32
  member_id => STRING
  protocol_type => STRING
  protocols => name metadata
    name => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.
rebalance_timeout_ms	The maximum time in milliseconds that the coordinator will wait for each member to rejoin when rebalancing the group.
member_id	The member id assigned by the group coordinator.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.

```
JoinGroup Request (Version: 2) => group_id session_timeout_ms rebalance_timeout_ms member_id protocol_type [protocols]
  group_id => STRING
  session_timeout_ms => INT32
  rebalance_timeout_ms => INT32
  member_id => STRING
  protocol_type => STRING
  protocols => name metadata
```

```
    metadata => BYTES
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.
rebalance_timeout_ms	The maximum time in milliseconds that the coordinator will wait for each member to rejoin when rebalancing the group.
member_id	The member id assigned by the group coordinator.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.

```
JoinGroup Request (Version: 3) => group_id session_timeout_ms rebalance_timeout_ms member_id protocol_type [protocols]
  group_id => STRING
  session_timeout_ms => INT32
  rebalance_timeout_ms => INT32
  member_id => STRING
  protocol_type => STRING
  protocols => name metadata
    name => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.
rebalance_timeout_ms	The maximum time in milliseconds that the coordinator will wait for each member to rejoin when rebalancing the group.
member_id	The member id assigned by the group coordinator.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.

```
JoinGroup Request (Version: 4) => group_id session_timeout_ms rebalance_timeout_ms member_id protocol_type [protocols]
  group_id => STRING
  session_timeout_ms => INT32
  rebalance_timeout_ms => INT32
  member_id => STRING
  protocol_type => STRING
  protocols => name metadata
    name => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.
rebalance_timeout_ms	The maximum time in milliseconds that the coordinator will wait for each member to rejoin when rebalancing the group.
member_id	The member id assigned by the group coordinator.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.

```
JoinGroup Request (Version: 5) => group_id session_timeout_ms rebalance_timeout_ms member_id group_instance_id protocol_type [protocols]
  group_id => STRING
  session_timeout_ms => INT32
  rebalance_timeout_ms => INT32
  member_id => STRING
  group_instance_id => NULLABLE_STRING
  protocol_type => STRING
  protocols => name metadata
    name => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.
rebalance_timeout_ms	The maximum time in milliseconds that the coordinator will wait for each member to rejoin when rebalancing the group.
member_id	The member id assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.

```
JoinGroup Request (Version: 6) => group_id session_timeout_ms rebalance_timeout_ms member_id group_instance_id protocol_type [protocols] TAG_BUFFER
  group_id => COMPACT_STRING
  session_timeout_ms => INT32
  rebalance_timeout_ms => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
  protocol_type => COMPACT_STRING
  protocols => name metadata TAG_BUFFER
    name => COMPACT_STRING
    metadata => COMPACT_BYTES
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.
rebalance_timeout_ms	The maximum time in milliseconds that the coordinator will wait for each member to rejoin when rebalancing the group.
member_id	The member id assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
JoinGroup Request (Version: 7) => group_id session_timeout_ms rebalance_timeout_ms member_id group_instance_id protocol_type [protocols] TAG_BUFFER
  group_id => COMPACT_STRING
  session_timeout_ms => INT32
  rebalance_timeout_ms => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
  protocol_type => COMPACT_STRING
  protocols => name metadata TAG_BUFFER
    name => COMPACT_STRING
    metadata => COMPACT_BYTES
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.
rebalance_timeout_ms	The maximum time in milliseconds that the coordinator will wait for each member to rejoin when rebalancing the group.
member_id	The member id assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
JoinGroup Request (Version: 8) => group_id session_timeout_ms rebalance_timeout_ms member_id group_instance_id protocol_type [protocols] reason TAG_BUFFER
  group_id => COMPACT_STRING
  session_timeout_ms => INT32
  rebalance_timeout_ms => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
  protocol_type => COMPACT_STRING
  protocols => name metadata TAG_BUFFER
    name => COMPACT_STRING
    metadata => COMPACT_BYTES
  reason => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.

rebalance_timeout_ms	The maximum time in milliseconds that the coordinator will wait for each member to rejoin when rebalancing the group.
member_id	The member id assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.
_tagged_fields	The tagged fields
reason	The reason why the member (re-)joins the group.
_tagged_fields	The tagged fields

```
JoinGroup Request (Version: 9) => group_id session_timeout_ms rebalance_timeout_ms member_id group_instance_id protocol_type [protocols] reason TAG_BUFFER
  group_id => COMPACT_STRING
  session_timeout_ms => INT32
  rebalance_timeout_ms => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
  protocol_type => COMPACT_STRING
  protocols => name metadata TAG_BUFFER
    name => COMPACT_STRING
    metadata => COMPACT_BYTES
  reason => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The group identifier.
session_timeout_ms	The coordinator considers the consumer dead if it receives no heartbeat after this timeout in milliseconds.
rebalance_timeout_ms	The maximum time in milliseconds that the coordinator will wait for each member to rejoin when rebalancing the group.
member_id	The member id assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
protocol_type	The unique name the for class of protocols implemented by the group we want to join.
protocols	The list of protocols that the member supports.
name	The protocol name.
metadata	The protocol metadata.
_tagged_fields	The tagged fields
reason	The reason why the member (re-)joins the group.
_tagged_fields	The tagged fields

Responses:

```
JoinGroup Response (Version: 0) => error_code generation_id protocol_name leader member_id [members]
  error_code => INT16
  generation_id => INT32
  protocol_name => STRING
  leader => STRING
  member_id => STRING
  members => member_id metadata
    member_id => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.
protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
member_id	The member ID assigned by the group coordinator.
members	
member_id	The group member ID.
metadata	The group member metadata.

```
JoinGroup Response (Version: 1) => error_code generation_id protocol_name leader member_id [members]
  error_code => INT16
  generation_id => INT32
  protocol_name => STRING
  leader => STRING
  member_id => STRING
  members => member_id metadata
    member_id => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.
protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
member_id	The member ID assigned by the group coordinator.
members	
member_id	The group member ID.
metadata	The group member metadata.

```
JoinGroup Response (Version: 2) => throttle_time_ms error_code generation_id protocol_name leader member_id [members]
  throttle_time_ms => INT32
  error_code => INT16
  generation_id => INT32
  protocol_name => STRING
  leader => STRING
  member_id => STRING
  members => member_id metadata
    member_id => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.
protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
member_id	The member ID assigned by the group coordinator.
members	
member_id	The group member ID.
metadata	The group member metadata.

```
JoinGroup Response (Version: 3) => throttle_time_ms error_code generation_id protocol_name leader member_id [members]
  throttle_time_ms => INT32
  error_code => INT16
  generation_id => INT32
  protocol_name => STRING
  leader => STRING
  member_id => STRING
  members => member_id metadata
    member_id => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.
protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
member_id	The member ID assigned by the group coordinator.
members	
member_id	The group member ID.
metadata	The group member metadata.

```
JoinGroup Response (Version: 4) => throttle_time_ms error_code generation_id protocol_name leader member_id [members]
  throttle_time_ms => INT32
  error_code => INT16
  generation_id => INT32
  protocol_name => STRING
  leader => STRING
  member_id => STRING
  members => member_id metadata
    member_id => STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.

protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
member_id	The member ID assigned by the group coordinator.
members	
member_id	The group member ID.
metadata	The group member metadata.

```
JoinGroup Response (Version: 5) => throttle_time_ms error_code generation_id protocol_name leader member_id [members]
  throttle_time_ms => INT32
  error_code => INT16
  generation_id => INT32
  protocol_name => STRING
  leader => STRING
  member_id => STRING
  members => member_id group_instance_id metadata
    member_id => STRING
    group_instance_id => NULLABLE_STRING
    metadata => BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.
protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
member_id	The member ID assigned by the group coordinator.
members	
member_id	The group member ID.
group_instance_id	The unique identifier of the consumer instance provided by end user.
metadata	The group member metadata.

```
JoinGroup Response (Version: 6) => throttle_time_ms error_code generation_id protocol_name leader member_id [members] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  generation_id => INT32
  protocol_name => COMPACT_STRING
  leader => COMPACT_STRING
  member_id => COMPACT_STRING
  members => member_id group_instance_id metadata TAG_BUFFER
    member_id => COMPACT_STRING
    group_instance_id => COMPACT_NULLABLE_STRING
    metadata => COMPACT_BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.
protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
member_id	The member ID assigned by the group coordinator.
members	
member_id	The group member ID.
group_instance_id	The unique identifier of the consumer instance provided by end user.
metadata	The group member metadata.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
JoinGroup Response (Version: 7) => throttle_time_ms error_code generation_id protocol_type protocol_name leader member_id [members] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  generation_id => INT32
  protocol_type => COMPACT_NULLABLE_STRING
  protocol_name => COMPACT_NULLABLE_STRING
  leader => COMPACT_STRING
  member_id => COMPACT_STRING
  members => member_id group_instance_id metadata TAG_BUFFER
    member_id => COMPACT_STRING
    group_instance_id => COMPACT_NULLABLE_STRING
    metadata => COMPACT_BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.
protocol_type	The group protocol name.
protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
member_id	The member ID assigned by the group coordinator.
members	
member_id	The group member ID.
group_instance_id	The unique identifier of the consumer instance provided by end user.
metadata	The group member metadata.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
JoinGroup Response (Version: 8) => throttle_time_ms error_code generation_id protocol_type protocol_name leader member_id [members] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  generation_id => INT32
  protocol_type => COMPACT_NULLABLE_STRING
  protocol_name => COMPACT_NULLABLE_STRING
  leader => COMPACT_STRING
  member_id => COMPACT_STRING
  members => member_id group_instance_id metadata TAG_BUFFER
    member_id => COMPACT_STRING
    group_instance_id => COMPACT_NULLABLE_STRING
    metadata => COMPACT_BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.
protocol_type	The group protocol name.
protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
member_id	The member ID assigned by the group coordinator.
members	
member_id	The group member ID.
group_instance_id	The unique identifier of the consumer instance provided by end user.
metadata	The group member metadata.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
JoinGroup Response (Version: 9) => throttle_time_ms error_code generation_id protocol_type protocol_name leader skip_assignment member_id [members] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  generation_id => INT32
  protocol_type => COMPACT_NULLABLE_STRING
  protocol_name => COMPACT_NULLABLE_STRING
  leader => COMPACT_STRING
  skip_assignment => BOOLEAN
  member_id => COMPACT_STRING
  members => member_id group_instance_id metadata TAG_BUFFER
    member_id => COMPACT_STRING
    group_instance_id => COMPACT_NULLABLE_STRING
    metadata => COMPACT_BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
generation_id	The generation ID of the group.
protocol_type	The group protocol name.
protocol_name	The group protocol selected by the coordinator.
leader	The leader of the group.
skip_assignment	True if the leader must skip running the assignment.
member_id	The member ID assigned by the group coordinator.
members	

member_id	The group member ID.
group_instance_id	The unique identifier of the consumer instance provided by end user.
metadata	The group member metadata.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Heartbeat API (Key: 12):

Requests:

```
Heartbeat Request (Version: 0) => group_id generation_id member_id
  group_id => STRING
  generation_id => INT32
  member_id => STRING
```

FIELD	DESCRIPTION
group_id	The group id.
generation_id	The generation of the group.
member_id	The member ID.

```
Heartbeat Request (Version: 1) => group_id generation_id member_id
  group_id => STRING
  generation_id => INT32
  member_id => STRING
```

FIELD	DESCRIPTION
group_id	The group id.
generation_id	The generation of the group.
member_id	The member ID.

```
Heartbeat Request (Version: 2) => group_id generation_id member_id
  group_id => STRING
  generation_id => INT32
  member_id => STRING
```

FIELD	DESCRIPTION
group_id	The group id.
generation_id	The generation of the group.
member_id	The member ID.

```
Heartbeat Request (Version: 3) => group_id generation_id member_id group_instance_id
  group_id => STRING
  generation_id => INT32
  member_id => STRING
  group_instance_id => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The group id.
generation_id	The generation of the group.
member_id	The member ID.
group_instance_id	The unique identifier of the consumer instance provided by end user.

```
Heartbeat Request (Version: 4) => group_id generation_id member_id group_instance_id TAG_BUFFER
  group_id => COMPACT_STRING
  generation_id => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The group id.
generation_id	The generation of the group.
member_id	The member ID.
group_instance_id	The unique identifier of the consumer instance provided by end user.
_tagged_fields	The tagged fields

Responses:

```
Heartbeat Response (Version: 0) => error_code
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.

```
Heartbeat Response (Version: 1) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.

```
Heartbeat Response (Version: 2) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.

```
Heartbeat Response (Version: 3) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.

```
Heartbeat Response (Version: 4) => throttle_time_ms error_code TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields

LeaveGroup API (Key: 13):

Requests:

```
LeaveGroup Request (Version: 0) => group_id member_id
  group_id => STRING
  member_id => STRING
```

FIELD	DESCRIPTION
group_id	The ID of the group to leave.
member_id	The member ID to remove from the group.

```
LeaveGroup Request (Version: 1) => group_id member_id
  group_id => STRING
  member_id => STRING
```

FIELD	DESCRIPTION
group_id	The ID of the group to leave.
member_id	The member ID to remove from the group.

```
LeaveGroup Request (Version: 2) => group_id member_id
  group_id => STRING
  member_id => STRING
```

FIELD	DESCRIPTION
group_id	The ID of the group to leave.
member_id	The member ID to remove from the group.

```
LeaveGroup Request (Version: 3) => group_id [members]
  group_id => STRING
  members => member_id group_instance_id
```

```
  group_instance_id => NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The ID of the group to leave.
members	List of leaving member identities.
member_id	The member ID to remove from the group.
group_instance_id	The group instance ID to remove from the group.

```
LeaveGroup Request (Version: 4) => group_id [members] TAG_BUFFER
  group_id => COMPACT_STRING
  members => member_id group_instance_id TAG_BUFFER
    member_id => COMPACT_STRING
    group_instance_id => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The ID of the group to leave.
members	List of leaving member identities.
member_id	The member ID to remove from the group.
group_instance_id	The group instance ID to remove from the group.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
LeaveGroup Request (Version: 5) => group_id [members] TAG_BUFFER
  group_id => COMPACT_STRING
  members => member_id group_instance_id reason TAG_BUFFER
    member_id => COMPACT_STRING
    group_instance_id => COMPACT_NULLABLE_STRING
    reason => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
group_id	The ID of the group to leave.
members	List of leaving member identities.
member_id	The member ID to remove from the group.
group_instance_id	The group instance ID to remove from the group.
reason	The reason why the member left the group.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
LeaveGroup Response (Version: 0) => error_code
  error_code => INT16
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.

```
LeaveGroup Response (Version: 1) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.

```
LeaveGroup Response (Version: 2) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.

```
LeaveGroup Response (Version: 3) => throttle_time_ms error_code [members]
  throttle_time_ms => INT32
  error_code => INT16
  members => member_id group_instance_id error_code
    member_id => STRING
    group_instance_id => NULLABLE_STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
members	List of leaving member responses.
member_id	The member ID to remove from the group.
group_instance_id	The group instance ID to remove from the group.
error_code	The error code, or 0 if there was no error.

```
LeaveGroup Response (Version: 4) => throttle_time_ms error_code [members] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  members => member_id group_instance_id error_code TAG_BUFFER
    member_id => COMPACT_STRING
    group_instance_id => COMPACT_NULLABLE_STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
members	List of leaving member responses.
member_id	The member ID to remove from the group.
group_instance_id	The group instance ID to remove from the group.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
LeaveGroup Response (Version: 5) => throttle_time_ms error_code [members] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  members => member_id group_instance_id error_code TAG_BUFFER
    member_id => COMPACT_STRING
    group_instance_id => COMPACT_NULLABLE_STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
members	List of leaving member responses.
member_id	The member ID to remove from the group.
group_instance_id	The group instance ID to remove from the group.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

SyncGroup API (Key: 14):

Requests:

```
SyncGroup Request (Version: 0) => group_id generation_id member_id [assignments]
  group_id => STRING
  generation_id => INT32
  member_id => STRING
  assignments => member_id assignment
    member_id => STRING
    assignment => BYTES
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id	The generation of the group.
member_id	The member ID assigned by the group.
assignments	Each assignment.
member_id	The ID of the member to assign.
assignment	The member assignment.

```
SyncGroup Request (Version: 1) => group_id generation_id member_id [assignments]
```

```
  generation_id => INT32
  member_id => STRING
  assignments => member_id assignment
    member_id => STRING
    assignment => BYTES
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id	The generation of the group.
member_id	The member ID assigned by the group.
assignments	Each assignment.
member_id	The ID of the member to assign.
assignment	The member assignment.

```
SyncGroup Request (Version: 2) => group_id generation_id member_id [assignments]
  group_id => STRING
  generation_id => INT32
  member_id => STRING
  assignments => member_id assignment
    member_id => STRING
    assignment => BYTES
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id	The generation of the group.
member_id	The member ID assigned by the group.
assignments	Each assignment.
member_id	The ID of the member to assign.
assignment	The member assignment.

```
SyncGroup Request (Version: 3) => group_id generation_id member_id group_instance_id [assignments]
  group_id => STRING
  generation_id => INT32
  member_id => STRING
  group_instance_id => NULLABLE_STRING
  assignments => member_id assignment
    member_id => STRING
    assignment => BYTES
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id	The generation of the group.
member_id	The member ID assigned by the group.
group_instance_id	The unique identifier of the consumer instance provided by end user.
assignments	Each assignment.
member_id	The ID of the member to assign.
assignment	The member assignment.

```
SyncGroup Request (Version: 4) => group_id generation_id member_id group_instance_id [assignments] TAG_BUFFER
  group_id => COMPACT_STRING
  generation_id => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
  assignments => member_id assignment TAG_BUFFER
    member_id => COMPACT_STRING
    assignment => COMPACT_BYTES
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id	The generation of the group.
member_id	The member ID assigned by the group.
group_instance_id	The unique identifier of the consumer instance provided by end user.
assignments	Each assignment.
member_id	The ID of the member to assign.
assignment	The member assignment.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
SyncGroup Request (Version: 5) => group_id generation_id member_id group_instance_id protocol_type protocol_name [assignments] TAG_BUFFER
  group_id => COMPACT_STRING
  generation_id => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
  protocol_type => COMPACT_NULLABLE_STRING
  protocol_name => COMPACT_NULLABLE_STRING
  assignments => member_id assignment TAG_BUFFER
    member_id => COMPACT_STRING
    assignment => COMPACT_BYTES
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
generation_id	The generation of the group.
member_id	The member ID assigned by the group.
group_instance_id	The unique identifier of the consumer instance provided by end user.
protocol_type	The group protocol type.
protocol_name	The group protocol name.
assignments	Each assignment.
member_id	The ID of the member to assign.
assignment	The member assignment.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
SyncGroup Response (Version: 0) => error_code assignment
  error_code => INT16
  assignment => BYTES
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
assignment	The member assignment.

```
SyncGroup Response (Version: 1) => throttle_time_ms error_code assignment
  throttle_time_ms => INT32
  error_code => INT16
  assignment => BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
assignment	The member assignment.

```
SyncGroup Response (Version: 2) => throttle_time_ms error_code assignment
  throttle_time_ms => INT32
  error_code => INT16
  assignment => BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
assignment	The member assignment.

```
SyncGroup Response (Version: 3) => throttle_time_ms error_code assignment
  throttle_time_ms => INT32
  error_code => INT16
  assignment => BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
assignment	The member assignment.

```
SyncGroup Response (Version: 4) => throttle_time_ms error_code assignment TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  assignment => COMPACT_BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
assignment	The member assignment.
_tagged_fields	The tagged fields

```
SyncGroup Response (Version: 5) => throttle_time_ms error_code protocol_type protocol_name assignment TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  protocol_type => COMPACT_NULLABLE_STRING
  protocol_name => COMPACT_NULLABLE_STRING
  assignment => COMPACT_BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
protocol_type	The group protocol type.
protocol_name	The group protocol name.
assignment	The member assignment.
_tagged_fields	The tagged fields

DescribeGroups API (Key: 15):

Requests:

```
DescribeGroups Request (Version: 0) => [groups]
  groups => STRING
```

FIELD	DESCRIPTION
groups	The names of the groups to describe

```
DescribeGroups Request (Version: 1) => [groups]
  groups => STRING
```

FIELD	DESCRIPTION
groups	The names of the groups to describe

```
DescribeGroups Request (Version: 2) => [groups]
  groups => STRING
```

FIELD	DESCRIPTION
groups	The names of the groups to describe

```
DescribeGroups Request (Version: 3) => [groups] include_authorized_operations
  groups => STRING
  include_authorized_operations => BOOLEAN
```

FIELD	DESCRIPTION
groups	The names of the groups to describe
include_authorized_operations	Whether to include authorized operations.

```
DescribeGroups Request (Version: 4) => [groups] include_authorized_operations
  groups => STRING
  include_authorized_operations => BOOLEAN
```

FIELD	DESCRIPTION
groups	The names of the groups to describe
include_authorized_operations	Whether to include authorized operations.

```
DescribeGroups Request (Version: 5) => [groups] include_authorized_operations TAG_BUFFER
  groups => COMPACT_STRING
  include_authorized_operations => BOOLEAN
```

FIELD	DESCRIPTION
groups	The names of the groups to describe
include_authorized_operations	Whether to include authorized operations.
_tagged_fields	The tagged fields

Responses:

```
DescribeGroups Response (Version: 0) => [groups]
  groups => error_code group_id group_state protocol_type protocol_data [members]
    error_code => INT16
    group_id => STRING
    group_state => STRING
    protocol_type => STRING
    protocol_data => STRING
    members => member_id client_id client_host member_metadata member_assignment
      member_id => STRING
      client_id => STRING
      client_host => STRING
      member_metadata => BYTES
      member_assignment => BYTES
```

FIELD	DESCRIPTION
groups	Each described group.
error_code	The describe error, or 0 if there was no error.
group_id	The group ID string.
group_state	The group state string, or the empty string.
protocol_type	The group protocol type, or the empty string.
protocol_data	The group protocol data, or the empty string.
members	The group members.
member_id	The member ID assigned by the group coordinator.
client_id	The client ID used in the member's latest join group request.
client_host	The client host.
member_metadata	The metadata corresponding to the current group protocol in use.
member_assignment	The current assignment provided by the group leader.

```
DescribeGroups Response (Version: 1) => throttle_time_ms [groups]
  throttle_time_ms => INT32
  groups => error_code group_id group_state protocol_type protocol_data [members]
    error_code => INT16
    group_id => STRING
    group_state => STRING
    protocol_type => STRING
    protocol_data => STRING
    members => member_id client_id client_host member_metadata member_assignment
      member_id => STRING
      client_id => STRING
      client_host => STRING
      member_metadata => BYTES
      member_assignment => BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
groups	Each described group.
error_code	The describe error, or 0 if there was no error.
group_id	The group ID string.
group_state	The group state string, or the empty string.
protocol_type	The group protocol type, or the empty string.
protocol_data	The group protocol data, or the empty string.
members	The group members.
member_id	The member ID assigned by the group coordinator.
client_id	The client ID used in the member's latest join group request.
client_host	The client host.
member_metadata	The metadata corresponding to the current group protocol in use.
member_assignment	The current assignment provided by the group leader.

```
DescribeGroups Response (Version: 2) => throttle_time_ms [groups]
  throttle_time_ms => INT32
  groups => error_code group_id group_state protocol_type protocol_data [members]
    error_code => INT16
    group_id => STRING
    group_state => STRING
    protocol_type => STRING
    protocol_data => STRING
    members => member_id client_id client_host member_metadata member_assignment
      member_id => STRING
```

```
    client_id => STRING
    client_host => STRING
    member_metadata => BYTES
    member_assignment => BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
groups	Each described group.
error_code	The describe error, or 0 if there was no error.
group_id	The group ID string.
group_state	The group state string, or the empty string.
protocol_type	The group protocol type, or the empty string.
protocol_data	The group protocol data, or the empty string.
members	The group members.
member_id	The member ID assigned by the group coordinator.
client_id	The client ID used in the member's latest join group request.
client_host	The client host.
member_metadata	The metadata corresponding to the current group protocol in use.
member_assignment	The current assignment provided by the group leader.

```
DescribeGroups Response (Version: 3) => throttle_time_ms [groups]
  throttle_time_ms => INT32
  groups => error_code group_id group_state protocol_type protocol_data [members] authorized_operations
    error_code => INT16
    group_id => STRING
    group_state => STRING
    protocol_type => STRING
    protocol_data => STRING
    members => member_id client_id client_host member_metadata member_assignment
      member_id => STRING
      client_id => STRING
      client_host => STRING
      member_metadata => BYTES
      member_assignment => BYTES
    authorized_operations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
groups	Each described group.
error_code	The describe error, or 0 if there was no error.
group_id	The group ID string.
group_state	The group state string, or the empty string.
protocol_type	The group protocol type, or the empty string.
protocol_data	The group protocol data, or the empty string.
members	The group members.
member_id	The member ID assigned by the group coordinator.
client_id	The client ID used in the member's latest join group request.
client_host	The client host.
member_metadata	The metadata corresponding to the current group protocol in use.
member_assignment	The current assignment provided by the group leader.
authorized_operations	32-bit bitfield to represent authorized operations for this group.

```
DescribeGroups Response (Version: 4) => throttle_time_ms [groups]
  throttle_time_ms => INT32
  groups => error_code group_id group_state protocol_type protocol_data [members] authorized_operations
    error_code => INT16
    group_id => STRING
    group_state => STRING
    protocol_type => STRING
    protocol_data => STRING
    members => member_id group_instance_id client_id client_host member_metadata member_assignment
      member_id => STRING
      group_instance_id => NULLABLE_STRING
      client_id => STRING
      client_host => STRING
      member_metadata => BYTES
      member_assignment => BYTES
    authorized_operations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
groups	Each described group.
error_code	The describe error, or 0 if there was no error.
group_id	The group ID string.
group_state	The group state string, or the empty string.
protocol_type	The group protocol type, or the empty string.
protocol_data	The group protocol data, or the empty string.
members	The group members.
member_id	The member ID assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
client_id	The client ID used in the member's latest join group request.
client_host	The client host.
member_metadata	The metadata corresponding to the current group protocol in use.
member_assignment	The current assignment provided by the group leader.
authorized_operations	32-bit bitfield to represent authorized operations for this group.

```
DescribeGroups Response (Version: 5) => throttle_time_ms [groups] TAG_BUFFER
  throttle_time_ms => INT32
  groups => error_code group_id group_state protocol_type protocol_data [members] authorized_operations TAG_BUFFER
    error_code => INT16
    group_id => COMPACT_STRING
    group_state => COMPACT_STRING
    protocol_type => COMPACT_STRING
    protocol_data => COMPACT_STRING
    members => member_id group_instance_id client_id client_host member_metadata member_assignment TAG_BUFFER
      member_id => COMPACT_STRING
      group_instance_id => COMPACT_NULLABLE_STRING
      client_id => COMPACT_STRING
      client_host => COMPACT_STRING
      member_metadata => COMPACT_BYTES
      member_assignment => COMPACT_BYTES
    authorized_operations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
groups	Each described group.
error_code	The describe error, or 0 if there was no error.
group_id	The group ID string.
group_state	The group state string, or the empty string.
protocol_type	The group protocol type, or the empty string.
protocol_data	The group protocol data, or the empty string.
members	The group members.
member_id	The member ID assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
client_id	The client ID used in the member's latest join group request.
client_host	The client host.
member_metadata	The metadata corresponding to the current group protocol in use.
member_assignment	The current assignment provided by the group leader.
_tagged_fields	The tagged fields
authorized_operations	32-bit bitfield to represent authorized operations for this group.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

ListGroups API (Key: 16):

Requests:

```
ListGroups Request (Version: 0) =>
```

FIELD	DESCRIPTION

```
ListGroups Request (Version: 1) =>
```

FIELD	DESCRIPTION

```
ListGroups Request (Version: 2) =>
```

FIELD	DESCRIPTION

```
ListGroups Request (Version: 3) => TAG_BUFFER
```

FIELD	DESCRIPTION
_tagged_fields	The tagged fields

```
ListGroups Request (Version: 4) => [states_filter] TAG_BUFFER
  states_filter => COMPACT_STRING
```

FIELD	DESCRIPTION
states_filter	The states of the groups we want to list. If empty all groups are returned with their state.
_tagged_fields	The tagged fields

Responses:

```
ListGroups Response (Version: 0) => error_code [groups]
  error_code => INT16
  groups => group_id protocol_type
    group_id => STRING
    protocol_type => STRING
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
groups	Each group in the response.
group_id	The group ID.
protocol_type	The group protocol type.

```
ListGroups Response (Version: 1) => throttle_time_ms error_code [groups]
  throttle_time_ms => INT32
  error_code => INT16
  groups => group_id protocol_type
    group_id => STRING
    protocol_type => STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
groups	Each group in the response.
group_id	The group ID.
protocol_type	The group protocol type.

```
ListGroups Response (Version: 2) => throttle_time_ms error_code [groups]
  throttle_time_ms => INT32
  error_code => INT16
  groups => group_id protocol_type
    group_id => STRING
    protocol_type => STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
groups	Each group in the response.
group_id	The group ID.
protocol_type	The group protocol type.

```
ListGroups Response (Version: 3) => throttle_time_ms error_code [groups] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  groups => group_id protocol_type TAG_BUFFER
    group_id => COMPACT_STRING
    protocol_type => COMPACT_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
groups	Each group in the response.
group_id	The group ID.
protocol_type	The group protocol type.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
ListGroups Response (Version: 4) => throttle_time_ms error_code [groups] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  groups => group_id protocol_type group_state TAG_BUFFER
    group_id => COMPACT_STRING
    protocol_type => COMPACT_STRING
    group_state => COMPACT_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
groups	Each group in the response.
group_id	The group ID.
protocol_type	The group protocol type.
group_state	The group state name.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

SaslHandshake API (Key: 17):

Requests:

```
SaslHandshake Request (Version: 0) => mechanism
  mechanism => STRING
```

FIELD	DESCRIPTION
mechanism	The SASL mechanism chosen by the client.

```
SaslHandshake Request (Version: 1) => mechanism
  mechanism => STRING
```

FIELD	DESCRIPTION
mechanism	The SASL mechanism chosen by the client.

Responses:

```
SaslHandshake Response (Version: 0) => error_code [mechanisms]
  error_code => INT16
  mechanisms => STRING
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
mechanisms	The mechanisms enabled in the server.

```
SaslHandshake Response (Version: 1) => error_code [mechanisms]
  error_code => INT16
  mechanisms => STRING
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
mechanisms	The mechanisms enabled in the server.

ApiVersions API (Key: 18):

Requests:

```
ApiVersions Request (Version: 0) =>
```

FIELD	DESCRIPTION

```
ApiVersions Request (Version: 1) =>
```

FIELD	DESCRIPTION

```
ApiVersions Request (Version: 2) =>
```

FIELD	DESCRIPTION

```
ApiVersions Request (Version: 3) => client_software_name client_software_version TAG_BUFFER
  client_software_name => COMPACT_STRING
  client_software_version => COMPACT_STRING
```

FIELD	DESCRIPTION
client_software_name	The name of the client.
client_software_version	The version of the client.
_tagged_fields	The tagged fields

Responses:

```
ApiVersions Response (Version: 0) => error_code [api_keys]
  error_code => INT16
  api_keys => api_key min_version max_version
    api_key => INT16
    min_version => INT16
    max_version => INT16
```

FIELD	DESCRIPTION
error_code	The top-level error code.
api_keys	The APIs supported by the broker.
api_key	The API index.
min_version	The minimum supported version, inclusive.
max_version	The maximum supported version, inclusive.

```
ApiVersions Response (Version: 1) => error_code [api_keys] throttle_time_ms
  error_code => INT16
  api_keys => api_key min_version max_version
    api_key => INT16
    min_version => INT16
    max_version => INT16
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error code.
api_keys	The APIs supported by the broker.
api_key	The API index.
min_version	The minimum supported version, inclusive.
max_version	The maximum supported version, inclusive.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
ApiVersions Response (Version: 2) => error_code [api_keys] throttle_time_ms
  error_code => INT16
  api_keys => api_key min_version max_version
    api_key => INT16
    min_version => INT16
    max_version => INT16
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error code.
api_keys	The APIs supported by the broker.
api_key	The API index.
min_version	The minimum supported version, inclusive.
max_version	The maximum supported version, inclusive.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
ApiVersions Response (Version: 3) => error_code [api_keys] throttle_time_ms TAG_BUFFER
  error_code => INT16
  api_keys => api_key min_version max_version TAG_BUFFER
    api_key => INT16
    min_version => INT16
    max_version => INT16
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error code.
api_keys	The APIs supported by the broker.
api_key	The API index.
min_version	The minimum supported version, inclusive.
max_version	The maximum supported version, inclusive.
_tagged_fields	The tagged fields
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
_tagged_fields	The tagged fields

CreateTopics API (Key: 19):

Requests:

```
CreateTopics Request (Version: 0) => [topics] timeout_ms
  topics => name num_partitions replication_factor [assignments] [configs]
    name => STRING
    num_partitions => INT32
    replication_factor => INT16
    assignments => partition_index [broker_ids]
      partition_index => INT32
      broker_ids => INT32
    configs => name value
      name => STRING
      value => NULLABLE_STRING
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topics	The topics to create.
name	The topic name.
num_partitions	The number of partitions to create in the topic, or -1 if we are either specifying a manual partition assignment or using the default partitions.
replication_factor	The number of replicas to create for each partition in the topic, or -1 if we are either specifying a manual partition assignment or using the default replication factor.
assignments	The manual partition assignment, or the empty array if we are using automatic assignment.
partition_index	The partition index.
broker_ids	The brokers to place the partition on.
configs	The custom topic configurations to set.
name	The configuration name.
value	The configuration value.
timeout_ms	How long to wait in milliseconds before timing out the request.

```
CreateTopics Request (Version: 1) => [topics] timeout_ms validate_only
  topics => name num_partitions replication_factor [assignments] [configs]
    name => STRING
    num_partitions => INT32
    replication_factor => INT16
    assignments => partition_index [broker_ids]
      partition_index => INT32
      broker_ids => INT32
    configs => name value
      name => STRING
      value => NULLABLE_STRING
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to create.
name	The topic name.
num_partitions	The number of partitions to create in the topic, or -1 if we are either specifying a manual partition assignment or using the default partitions.
replication_factor	The number of replicas to create for each partition in the topic, or -1 if we are either specifying a manual partition assignment or using the default replication factor.
assignments	The manual partition assignment, or the empty array if we are using automatic assignment.
partition_index	The partition index.
broker_ids	The brokers to place the partition on.
configs	The custom topic configurations to set.
name	The configuration name.
value	The configuration value.
timeout_ms	How long to wait in milliseconds before timing out the request.
validate_only	If true, check that the topics can be created as specified, but don't create anything.

```
CreateTopics Request (Version: 2) => [topics] timeout_ms validate_only
```

```
  topics => name num_partitions replication_factor [assignments] [configs]
    name => STRING
    num_partitions => INT32
    replication_factor => INT16
    assignments => partition_index [broker_ids]
      partition_index => INT32
      broker_ids => INT32
    configs => name value
      name => STRING
      value => NULLABLE_STRING
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to create.
name	The topic name.
num_partitions	The number of partitions to create in the topic, or -1 if we are either specifying a manual partition assignment or using the default partitions.
replication_factor	The number of replicas to create for each partition in the topic, or -1 if we are either specifying a manual partition assignment or using the default replication factor.
assignments	The manual partition assignment, or the empty array if we are using automatic assignment.
partition_index	The partition index.
broker_ids	The brokers to place the partition on.
configs	The custom topic configurations to set.
name	The configuration name.
value	The configuration value.
timeout_ms	How long to wait in milliseconds before timing out the request.
validate_only	If true, check that the topics can be created as specified, but don't create anything.

```
CreateTopics Request (Version: 3) => [topics] timeout_ms validate_only
  topics => name num_partitions replication_factor [assignments] [configs]
    name => STRING
    num_partitions => INT32
    replication_factor => INT16
    assignments => partition_index [broker_ids]
      partition_index => INT32
      broker_ids => INT32
    configs => name value
      name => STRING
      value => NULLABLE_STRING
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to create.
name	The topic name.
num_partitions	The number of partitions to create in the topic, or -1 if we are either specifying a manual partition assignment or using the default partitions.
replication_factor	The number of replicas to create for each partition in the topic, or -1 if we are either specifying a manual partition assignment or using the default replication factor.
assignments	The manual partition assignment, or the empty array if we are using automatic assignment.
partition_index	The partition index.
broker_ids	The brokers to place the partition on.
configs	The custom topic configurations to set.
name	The configuration name.
value	The configuration value.
timeout_ms	How long to wait in milliseconds before timing out the request.
validate_only	If true, check that the topics can be created as specified, but don't create anything.

```
CreateTopics Request (Version: 4) => [topics] timeout_ms validate_only
  topics => name num_partitions replication_factor [assignments] [configs]
    name => STRING
    num_partitions => INT32
    replication_factor => INT16
    assignments => partition_index [broker_ids]
      partition_index => INT32
      broker_ids => INT32
    configs => name value
      name => STRING
      value => NULLABLE_STRING
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to create.
name	The topic name.
num_partitions	The number of partitions to create in the topic, or -1 if we are either specifying a manual partition assignment or using the default partitions.
replication_factor	The number of replicas to create for each partition in the topic, or -1 if we are either specifying a manual partition assignment or using the default replication factor.
assignments	The manual partition assignment, or the empty array if we are using automatic assignment.
partition_index	The partition index.
broker_ids	The brokers to place the partition on.
configs	The custom topic configurations to set.
name	The configuration name.
value	The configuration value.
timeout_ms	How long to wait in milliseconds before timing out the request.
validate_only	If true, check that the topics can be created as specified, but don't create anything.

```
CreateTopics Request (Version: 5) => [topics] timeout_ms validate_only TAG_BUFFER
  topics => name num_partitions replication_factor [assignments] [configs] TAG_BUFFER
    name => COMPACT_STRING
    num_partitions => INT32
    replication_factor => INT16
    assignments => partition_index [broker_ids] TAG_BUFFER
      partition_index => INT32
      broker_ids => INT32
    configs => name value TAG_BUFFER
      name => COMPACT_STRING
      value => COMPACT_NULLABLE_STRING
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to create.
name	The topic name.
num_partitions	The number of partitions to create in the topic, or -1 if we are either specifying a manual partition assignment or using the default partitions.
replication_factor	The number of replicas to create for each partition in the topic, or -1 if we are either specifying a manual partition assignment or using the default replication factor.
assignments	The manual partition assignment, or the empty array if we are using automatic assignment.
partition_index	The partition index.
broker_ids	The brokers to place the partition on.
_tagged_fields	The tagged fields
configs	The custom topic configurations to set.
name	The configuration name.
value	The configuration value.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
timeout_ms	How long to wait in milliseconds before timing out the request.
validate_only	If true, check that the topics can be created as specified, but don't create anything.
_tagged_fields	The tagged fields

```
CreateTopics Request (Version: 6) => [topics] timeout_ms validate_only TAG_BUFFER
  topics => name num_partitions replication_factor [assignments] [configs] TAG_BUFFER
    name => COMPACT_STRING
    num_partitions => INT32
    replication_factor => INT16
    assignments => partition_index [broker_ids] TAG_BUFFER
      partition_index => INT32
      broker_ids => INT32
    configs => name value TAG_BUFFER
      name => COMPACT_STRING
      value => COMPACT_NULLABLE_STRING
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to create.
name	The topic name.
num_partitions	The number of partitions to create in the topic, or -1 if we are either specifying a manual partition assignment or using the default partitions.
replication_factor	The number of replicas to create for each partition in the topic, or -1 if we are either specifying a manual partition assignment or using the default replication factor.
assignments	The manual partition assignment, or the empty array if we are using automatic assignment.
partition_index	The partition index.
broker_ids	The brokers to place the partition on.
_tagged_fields	The tagged fields

configs	The custom topic configurations to set.
name	The configuration name.
value	The configuration value.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
timeout_ms	How long to wait in milliseconds before timing out the request.
validate_only	If true, check that the topics can be created as specified, but don't create anything.
_tagged_fields	The tagged fields

```
CreateTopics Request (Version: 7) => [topics] timeout_ms validate_only TAG_BUFFER
  topics => name num_partitions replication_factor [assignments] [configs] TAG_BUFFER
    name => COMPACT_STRING
    num_partitions => INT32
    replication_factor => INT16
    assignments => partition_index [broker_ids] TAG_BUFFER
      partition_index => INT32
      broker_ids => INT32
    configs => name value TAG_BUFFER
      name => COMPACT_STRING
      value => COMPACT_NULLABLE_STRING
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	The topics to create.
name	The topic name.
num_partitions	The number of partitions to create in the topic, or -1 if we are either specifying a manual partition assignment or using the default partitions.
replication_factor	The number of replicas to create for each partition in the topic, or -1 if we are either specifying a manual partition assignment or using the default replication factor.
assignments	The manual partition assignment, or the empty array if we are using automatic assignment.
partition_index	The partition index.
broker_ids	The brokers to place the partition on.
_tagged_fields	The tagged fields
configs	The custom topic configurations to set.
name	The configuration name.
value	The configuration value.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
timeout_ms	How long to wait in milliseconds before timing out the request.
validate_only	If true, check that the topics can be created as specified, but don't create anything.
_tagged_fields	The tagged fields

Responses:

```
CreateTopics Response (Version: 0) => [topics]
  topics => name error_code
    name => STRING
    error_code => INT16
```

FIELD	DESCRIPTION
topics	Results for each topic we tried to create.
name	The topic name.
error_code	The error code, or 0 if there was no error.

```
CreateTopics Response (Version: 1) => [topics]
  topics => name error_code error_message
    name => STRING
    error_code => INT16
    error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
topics	Results for each topic we tried to create.
name	The topic name.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.

```
CreateTopics Response (Version: 2) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name error_code error_message
    name => STRING
    error_code => INT16
    error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Results for each topic we tried to create.
name	The topic name.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.

```
CreateTopics Response (Version: 3) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name error_code error_message
    name => STRING
    error_code => INT16
    error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Results for each topic we tried to create.
name	The topic name.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.

```
CreateTopics Response (Version: 4) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name error_code error_message
    name => STRING
    error_code => INT16
    error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Results for each topic we tried to create.
name	The topic name.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.

```
CreateTopics Response (Version: 5) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name error_code error_message num_partitions replication_factor [configs] TAG_BUFFER
    name => COMPACT_STRING
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    num_partitions => INT32
    replication_factor => INT16
    configs => name value read_only config_source is_sensitive TAG_BUFFER
      name => COMPACT_STRING
      value => COMPACT_NULLABLE_STRING
      read_only => BOOLEAN
      config_source => INT8
      is_sensitive => BOOLEAN
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Results for each topic we tried to create.
name	The topic name.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
num_partitions	Number of partitions of the topic.
replication_factor	Replication factor of the topic.
configs	Configuration of the topic.
name	The configuration name.
value	The configuration value.
read_only	True if the configuration is read-only.
config_source	The configuration source.
is_sensitive	True if this configuration is sensitive.
tagged_fields	The tagged fields

_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
CreateTopics Response (Version: 6) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name error_code error_message num_partitions replication_factor [configs] TAG_BUFFER
    name => COMPACT_STRING
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    num_partitions => INT32
    replication_factor => INT16
    configs => name value read_only config_source is_sensitive TAG_BUFFER
      name => COMPACT_STRING
      value => COMPACT_NULLABLE_STRING
      read_only => BOOLEAN
      config_source => INT8
      is_sensitive => BOOLEAN
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Results for each topic we tried to create.
name	The topic name.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
num_partitions	Number of partitions of the topic.
replication_factor	Replication factor of the topic.
configs	Configuration of the topic.
name	The configuration name.
value	The configuration value.
read_only	True if the configuration is read-only.
config_source	The configuration source.
is_sensitive	True if this configuration is sensitive.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
CreateTopics Response (Version: 7) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name topic_id error_code error_message num_partitions replication_factor [configs] TAG_BUFFER
    name => COMPACT_STRING
    topic_id => UUID
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    num_partitions => INT32
    replication_factor => INT16
    configs => name value read_only config_source is_sensitive TAG_BUFFER
      name => COMPACT_STRING
      value => COMPACT_NULLABLE_STRING
      read_only => BOOLEAN
      config_source => INT8
      is_sensitive => BOOLEAN
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Results for each topic we tried to create.
name	The topic name.
topic_id	The unique topic ID
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
num_partitions	Number of partitions of the topic.
replication_factor	Replication factor of the topic.
configs	Configuration of the topic.
name	The configuration name.
value	The configuration value.
read_only	True if the configuration is read-only.
config_source	The configuration source.
is_sensitive	True if this configuration is sensitive.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

DeleteTopics API (Key: 20):

Requests:

```
DeleteTopics Request (Version: 0) => [topic_names] timeout_ms
  topic_names => STRING
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topic_names	The names of the topics to delete
timeout_ms	The length of time in milliseconds to wait for the deletions to complete.

```
DeleteTopics Request (Version: 1) => [topic_names] timeout_ms
  topic_names => STRING
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topic_names	The names of the topics to delete
timeout_ms	The length of time in milliseconds to wait for the deletions to complete.

```
DeleteTopics Request (Version: 2) => [topic_names] timeout_ms
  topic_names => STRING
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topic_names	The names of the topics to delete
timeout_ms	The length of time in milliseconds to wait for the deletions to complete.

```
DeleteTopics Request (Version: 3) => [topic_names] timeout_ms
  topic_names => STRING
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topic_names	The names of the topics to delete
timeout_ms	The length of time in milliseconds to wait for the deletions to complete.

```
DeleteTopics Request (Version: 4) => [topic_names] timeout_ms TAG_BUFFER
  topic_names => COMPACT_STRING
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topic_names	The names of the topics to delete
timeout_ms	The length of time in milliseconds to wait for the deletions to complete.
_tagged_fields	The tagged fields

```
DeleteTopics Request (Version: 5) => [topic_names] timeout_ms TAG_BUFFER
  topic_names => COMPACT_STRING
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topic_names	The names of the topics to delete
timeout_ms	The length of time in milliseconds to wait for the deletions to complete.
_tagged_fields	The tagged fields

```
DeleteTopics Request (Version: 6) => [topics] timeout_ms TAG_BUFFER
  topics => name topic_id TAG_BUFFER
    name => COMPACT_NULLABLE_STRING
    topic_id => UUID
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topics	The name or topic ID of the topic
name	The topic name
topic_id	The unique topic ID
_tagged_fields	The tagged fields

timeout_ms	The length of time in milliseconds to wait for the deletions to complete.
_tagged_fields	The tagged fields

Responses:

```
DeleteTopics Response (Version: 0) => [responses]
  responses => name error_code
    name => STRING
    error_code => INT16
```

FIELD	DESCRIPTION
responses	The results for each topic we tried to delete.
name	The topic name
error_code	The deletion error, or 0 if the deletion succeeded.

```
DeleteTopics Response (Version: 1) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => name error_code
    name => STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The results for each topic we tried to delete.
name	The topic name
error_code	The deletion error, or 0 if the deletion succeeded.

```
DeleteTopics Response (Version: 2) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => name error_code
    name => STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The results for each topic we tried to delete.
name	The topic name
error_code	The deletion error, or 0 if the deletion succeeded.

```
DeleteTopics Response (Version: 3) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => name error_code
    name => STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The results for each topic we tried to delete.
name	The topic name
error_code	The deletion error, or 0 if the deletion succeeded.

```
DeleteTopics Response (Version: 4) => throttle_time_ms [responses] TAG_BUFFER
  throttle_time_ms => INT32
  responses => name error_code TAG_BUFFER
    name => COMPACT_STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The results for each topic we tried to delete.
name	The topic name
error_code	The deletion error, or 0 if the deletion succeeded.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DeleteTopics Response (Version: 5) => throttle_time_ms [responses] TAG_BUFFER
  throttle_time_ms => INT32
  responses => name error_code error_message TAG_BUFFER
    name => COMPACT_STRING
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The results for each topic we tried to delete.
name	The topic name
error_code	The deletion error, or 0 if the deletion succeeded.
error_message	The error message, or null if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DeleteTopics Response (Version: 6) => throttle_time_ms [responses] TAG_BUFFER
  throttle_time_ms => INT32
  responses => name topic_id error_code error_message TAG_BUFFER
    name => COMPACT_NULLABLE_STRING
    topic_id => UUID
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The results for each topic we tried to delete.
name	The topic name
topic_id	the unique topic ID
error_code	The deletion error, or 0 if the deletion succeeded.
error_message	The error message, or null if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

DeleteRecords API (Key: 21):

Requests:

```
DeleteRecords Request (Version: 0) => [topics] timeout_ms
  topics => name [partitions]
    name => STRING
    partitions => partition_index offset
      partition_index => INT32
      offset => INT64
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topics	Each topic that we want to delete records from.
name	The topic name.
partitions	Each partition that we want to delete records from.
partition_index	The partition index.
offset	The deletion offset.
timeout_ms	How long to wait for the deletion to complete, in milliseconds.

```
DeleteRecords Request (Version: 1) => [topics] timeout_ms
  topics => name [partitions]
    name => STRING
    partitions => partition_index offset
      partition_index => INT32
      offset => INT64
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topics	Each topic that we want to delete records from.
name	The topic name.
partitions	Each partition that we want to delete records from.
partition_index	The partition index.
offset	The deletion offset.
timeout_ms	How long to wait for the deletion to complete, in milliseconds.

```
DeleteRecords Request (Version: 2) => [topics] timeout_ms TAG_BUFFER
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
```

```
    partitions => partition_index offset TAG_BUFFER
      partition_index => INT32
      offset => INT64
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topics	Each topic that we want to delete records from.
name	The topic name.
partitions	Each partition that we want to delete records from.
partition_index	The partition index.
offset	The deletion offset.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
timeout_ms	How long to wait for the deletion to complete, in milliseconds.
_tagged_fields	The tagged fields

Responses:

```
DeleteRecords Response (Version: 0) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index low_watermark error_code
      partition_index => INT32
      low_watermark => INT64
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic that we wanted to delete records from.
name	The topic name.
partitions	Each partition that we wanted to delete records from.
partition_index	The partition index.
low_watermark	The partition low water mark.
error_code	The deletion error code, or 0 if the deletion succeeded.

```
DeleteRecords Response (Version: 1) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index low_watermark error_code
      partition_index => INT32
      low_watermark => INT64
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic that we wanted to delete records from.
name	The topic name.
partitions	Each partition that we wanted to delete records from.
partition_index	The partition index.
low_watermark	The partition low water mark.
error_code	The deletion error code, or 0 if the deletion succeeded.

```
DeleteRecords Response (Version: 2) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index low_watermark error_code TAG_BUFFER
      partition_index => INT32
      low_watermark => INT64
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic that we wanted to delete records from.
name	The topic name.
partitions	Each partition that we wanted to delete records from.
partition_index	The partition index.
low_watermark	The partition low water mark.
error_code	The deletion error code, or 0 if the deletion succeeded.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

InitProducerId API (Key: 22):

Requests:

```
InitProducerId Request (Version: 0) => transactional_id transaction_timeout_ms
  transactional_id => NULLABLE_STRING
  transaction_timeout_ms => INT32
```

FIELD	DESCRIPTION
transactional_id	The transactional id, or null if the producer is not transactional.
transaction_timeout_ms	The time in ms to wait before aborting idle transactions sent by this producer. This is only relevant if a TransactionalId has been defined.

```
InitProducerId Request (Version: 1) => transactional_id transaction_timeout_ms
  transactional_id => NULLABLE_STRING
  transaction_timeout_ms => INT32
```

FIELD	DESCRIPTION
transactional_id	The transactional id, or null if the producer is not transactional.
transaction_timeout_ms	The time in ms to wait before aborting idle transactions sent by this producer. This is only relevant if a TransactionalId has been defined.

```
InitProducerId Request (Version: 2) => transactional_id transaction_timeout_ms TAG_BUFFER
  transactional_id => COMPACT_NULLABLE_STRING
  transaction_timeout_ms => INT32
```

FIELD	DESCRIPTION
transactional_id	The transactional id, or null if the producer is not transactional.
transaction_timeout_ms	The time in ms to wait before aborting idle transactions sent by this producer. This is only relevant if a TransactionalId has been defined.
_tagged_fields	The tagged fields

```
InitProducerId Request (Version: 3) => transactional_id transaction_timeout_ms producer_id producer_epoch TAG_BUFFER
  transactional_id => COMPACT_NULLABLE_STRING
  transaction_timeout_ms => INT32
  producer_id => INT64
  producer_epoch => INT16
```

FIELD	DESCRIPTION
transactional_id	The transactional id, or null if the producer is not transactional.
transaction_timeout_ms	The time in ms to wait before aborting idle transactions sent by this producer. This is only relevant if a TransactionalId has been defined.
producer_id	The producer id. This is used to disambiguate requests if a transactional id is reused following its expiration.
producer_epoch	The producer's current epoch. This will be checked against the producer epoch on the broker, and the request will return an error if they do not match.
_tagged_fields	The tagged fields

```
InitProducerId Request (Version: 4) => transactional_id transaction_timeout_ms producer_id producer_epoch TAG_BUFFER
  transactional_id => COMPACT_NULLABLE_STRING
  transaction_timeout_ms => INT32
  producer_id => INT64
  producer_epoch => INT16
```

FIELD	DESCRIPTION
transactional_id	The transactional id, or null if the producer is not transactional.
transaction_timeout_ms	The time in ms to wait before aborting idle transactions sent by this producer. This is only relevant if a TransactionalId has been defined.
producer_id	The producer id. This is used to disambiguate requests if a transactional id is reused following its expiration.
producer_epoch	The producer's current epoch. This will be checked against the producer epoch on the broker, and the request will return an error if they do not match.
_tagged_fields	The tagged fields

Responses:

```
InitProducerId Response (Version: 0) => throttle_time_ms error_code producer_id producer_epoch
  throttle_time_ms => INT32
  error_code => INT16
  producer_id => INT64
  producer_epoch => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
producer_id	The current producer id.
producer_epoch	The current epoch associated with the producer id.

```
InitProducerId Response (Version: 1) => throttle_time_ms error_code producer_id producer_epoch
  throttle_time_ms => INT32
  error_code => INT16
  producer_id => INT64
  producer_epoch => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
producer_id	The current producer id.
producer_epoch	The current epoch associated with the producer id.

```
InitProducerId Response (Version: 2) => throttle_time_ms error_code producer_id producer_epoch TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  producer_id => INT64
  producer_epoch => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
producer_id	The current producer id.
producer_epoch	The current epoch associated with the producer id.
_tagged_fields	The tagged fields

```
InitProducerId Response (Version: 3) => throttle_time_ms error_code producer_id producer_epoch TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  producer_id => INT64
  producer_epoch => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
producer_id	The current producer id.
producer_epoch	The current epoch associated with the producer id.
_tagged_fields	The tagged fields

```
InitProducerId Response (Version: 4) => throttle_time_ms error_code producer_id producer_epoch TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  producer_id => INT64
  producer_epoch => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
producer_id	The current producer id.
producer_epoch	The current epoch associated with the producer id.
_tagged_fields	The tagged fields

OffsetForLeaderEpoch API (Key: 23):

Requests:

```
OffsetForLeaderEpoch Request (Version: 0) => [topics]
  topics => topic [partitions]
    topic => STRING
    partitions => partition leader_epoch
      partition => INT32
      leader_epoch => INT32
```

FIELD	DESCRIPTION
topics	Each topic to get offsets for.
topic	The topic name.
partitions	Each partition to get offsets for.
partition	The partition index.
leader_epoch	The epoch to look up an offset for.

```
OffsetForLeaderEpoch Request (Version: 1) => [topics]
  topics => topic [partitions]
    topic => STRING
    partitions => partition leader_epoch
      partition => INT32
      leader_epoch => INT32
```

FIELD	DESCRIPTION
topics	Each topic to get offsets for.
topic	The topic name.
partitions	Each partition to get offsets for.
partition	The partition index.
leader_epoch	The epoch to look up an offset for.

```
OffsetForLeaderEpoch Request (Version: 2) => [topics]
  topics => topic [partitions]
    topic => STRING
    partitions => partition current_leader_epoch leader_epoch
      partition => INT32
      current_leader_epoch => INT32
      leader_epoch => INT32
```

FIELD	DESCRIPTION
topics	Each topic to get offsets for.
topic	The topic name.
partitions	Each partition to get offsets for.
partition	The partition index.
current_leader_epoch	An epoch used to fence consumers/replicas with old metadata. If the epoch provided by the client is larger than the current epoch known to the broker, then the UNKNOWN_LEADER_EPOCH error code will be returned. If the provided epoch is smaller, then the FENCED_LEADER_EPOCH error code will be returned.
leader_epoch	The epoch to look up an offset for.

```
OffsetForLeaderEpoch Request (Version: 3) => replica_id [topics]
  replica_id => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => partition current_leader_epoch leader_epoch
      partition => INT32
      current_leader_epoch => INT32
      leader_epoch => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
topics	Each topic to get offsets for.
topic	The topic name.
partitions	Each partition to get offsets for.
partition	The partition index.
current_leader_epoch	An epoch used to fence consumers/replicas with old metadata. If the epoch provided by the client is larger than the current epoch known to the broker, then the UNKNOWN_LEADER_EPOCH error code will be returned. If the provided epoch is smaller, then the FENCED_LEADER_EPOCH error code will be returned.
leader_epoch	The epoch to look up an offset for.

```
OffsetForLeaderEpoch Request (Version: 4) => replica_id [topics] TAG_BUFFER
  replica_id => INT32
  topics => topic [partitions] TAG_BUFFER
    topic => COMPACT_STRING
    partitions => partition current_leader_epoch leader_epoch TAG_BUFFER
      partition => INT32
      current_leader_epoch => INT32
      leader_epoch => INT32
```

FIELD	DESCRIPTION
replica_id	The broker ID of the follower, of -1 if this request is from a consumer.
topics	Each topic to get offsets for.
topic	The topic name.

partitions	Each partition to get offsets for.
partition	The partition index.
current_leader_epoch	An epoch used to fence consumers/replicas with old metadata. If the epoch provided by the client is larger than the current epoch known to the broker, then the UNKNOWN_LEADER_EPOCH error code will be returned. If the provided epoch is smaller, then the FENCED_LEADER_EPOCH error code will be returned.
leader_epoch	The epoch to look up an offset for.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
OffsetForLeaderEpoch Response (Version: 0) => [topics]
  topics => topic [partitions]
    topic => STRING
    partitions => error_code partition end_offset
      error_code => INT16
      partition => INT32
      end_offset => INT64
```

FIELD	DESCRIPTION
topics	Each topic we fetched offsets for.
topic	The topic name.
partitions	Each partition in the topic we fetched offsets for.
error_code	The error code 0, or if there was no error.
partition	The partition index.
end_offset	The end offset of the epoch.

```
OffsetForLeaderEpoch Response (Version: 1) => [topics]
  topics => topic [partitions]
    topic => STRING
    partitions => error_code partition leader_epoch end_offset
      error_code => INT16
      partition => INT32
      leader_epoch => INT32
      end_offset => INT64
```

FIELD	DESCRIPTION
topics	Each topic we fetched offsets for.
topic	The topic name.
partitions	Each partition in the topic we fetched offsets for.
error_code	The error code 0, or if there was no error.
partition	The partition index.
leader_epoch	The leader epoch of the partition.
end_offset	The end offset of the epoch.

```
OffsetForLeaderEpoch Response (Version: 2) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => error_code partition leader_epoch end_offset
      error_code => INT16
      partition => INT32
      leader_epoch => INT32
      end_offset => INT64
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic we fetched offsets for.
topic	The topic name.
partitions	Each partition in the topic we fetched offsets for.
error_code	The error code 0, or if there was no error.
partition	The partition index.
leader_epoch	The leader epoch of the partition.
end_offset	The end offset of the epoch.

```
OffsetForLeaderEpoch Response (Version: 3) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => topic [partitions]
    topic => STRING
    partitions => error_code partition leader_epoch end_offset
      error_code => INT16
      partition => INT32
      leader_epoch => INT32
      end_offset => INT64
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic we fetched offsets for.
topic	The topic name.
partitions	Each partition in the topic we fetched offsets for.
error_code	The error code 0, or if there was no error.
partition	The partition index.
leader_epoch	The leader epoch of the partition.
end_offset	The end offset of the epoch.

```
OffsetForLeaderEpoch Response (Version: 4) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => topic [partitions] TAG_BUFFER
    topic => COMPACT_STRING
    partitions => error_code partition leader_epoch end_offset TAG_BUFFER
      error_code => INT16
      partition => INT32
      leader_epoch => INT32
      end_offset => INT64
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic we fetched offsets for.
topic	The topic name.
partitions	Each partition in the topic we fetched offsets for.
error_code	The error code 0, or if there was no error.
partition	The partition index.
leader_epoch	The leader epoch of the partition.
end_offset	The end offset of the epoch.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

AddPartitionsToTxn API (Key: 24):

Requests:

```
AddPartitionsToTxn Request (Version: 0) => v3_and_below_transactional_id v3_and_below_producer_id v3_and_below_producer_epoch [v3_and_below_topics]
  v3_and_below_transactional_id => STRING
  v3_and_below_producer_id => INT64
  v3_and_below_producer_epoch => INT16
  v3_and_below_topics => name [partitions]
    name => STRING
    partitions => INT32
```

FIELD	DESCRIPTION
v3_and_below_transactional_id	The transactional id corresponding to the transaction.
v3_and_below_producer_id	Current producer id in use by the transactional id.
v3_and_below_producer_epoch	Current epoch associated with the producer id.
v3_and_below_topics	The partitions to add to the transaction.
name	The name of the topic.
partitions	The partition indexes to add to the transaction

```
AddPartitionsToTxn Request (Version: 1) => v3_and_below_transactional_id v3_and_below_producer_id v3_and_below_producer_epoch [v3_and_below_topics]
  v3_and_below_transactional_id => STRING
  v3_and_below_producer_id => INT64
  v3_and_below_producer_epoch => INT16
  v3_and_below_topics => name [partitions]
    name => STRING
    partitions => INT32
```

FIELD	DESCRIPTION
v3_and_below_transactional_id	The transactional id corresponding to the transaction.

v3_and_below_producer_id	Current producer id in use by the transactional id.
v3_and_below_producer_epoch	Current epoch associated with the producer id.
v3_and_below_topics	The partitions to add to the transaction.
name	The name of the topic.
partitions	The partition indexes to add to the transaction

```
AddPartitionsToTxn Request (Version: 2) => v3_and_below_transactional_id v3_and_below_producer_id v3_and_below_producer_epoch [v3_and_below_topics]
  v3_and_below_transactional_id => STRING
  v3_and_below_producer_id => INT64
  v3_and_below_producer_epoch => INT16
  v3_and_below_topics => name [partitions]
    name => STRING
    partitions => INT32
```

FIELD	DESCRIPTION
v3_and_below_transactional_id	The transactional id corresponding to the transaction.
v3_and_below_producer_id	Current producer id in use by the transactional id.
v3_and_below_producer_epoch	Current epoch associated with the producer id.
v3_and_below_topics	The partitions to add to the transaction.
name	The name of the topic.
partitions	The partition indexes to add to the transaction

```
AddPartitionsToTxn Request (Version: 3) => v3_and_below_transactional_id v3_and_below_producer_id v3_and_below_producer_epoch [v3_and_below_topics] TAG_BUFFER
  v3_and_below_transactional_id => COMPACT_STRING
  v3_and_below_producer_id => INT64
  v3_and_below_producer_epoch => INT16
  v3_and_below_topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => INT32
```

FIELD	DESCRIPTION
v3_and_below_transactional_id	The transactional id corresponding to the transaction.
v3_and_below_producer_id	Current producer id in use by the transactional id.
v3_and_below_producer_epoch	Current epoch associated with the producer id.
v3_and_below_topics	The partitions to add to the transaction.
name	The name of the topic.
partitions	The partition indexes to add to the transaction
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
AddPartitionsToTxn Request (Version: 4) => [transactions] TAG_BUFFER
  transactions => transactional_id producer_id producer_epoch verify_only [topics] TAG_BUFFER
    transactional_id => COMPACT_STRING
    producer_id => INT64
    producer_epoch => INT16
    verify_only => BOOLEAN
    topics => name [partitions] TAG_BUFFER
      name => COMPACT_STRING
      partitions => INT32
```

FIELD	DESCRIPTION
transactions	List of transactions to add partitions to.
transactional_id	The transactional id corresponding to the transaction.
producer_id	Current producer id in use by the transactional id.
producer_epoch	Current epoch associated with the producer id.
verify_only	Boolean to signify if we want to check if the partition is in the transaction rather than add it.
topics	The partitions to add to the transaction.
name	The name of the topic.
partitions	The partition indexes to add to the transaction
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
AddPartitionsToTxn Response (Version: 0) => throttle_time_ms [results_by_topic_v3_and_below]
  throttle_time_ms => INT32
  results_by_topic_v3_and_below => name [results_by_partition]
    name => STRING
    results_by_partition => partition_index partition_error_code
      partition_index => INT32
      partition_error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results_by_topic_v3_and_below	The results for each topic.
name	The topic name.
results_by_partition	The results for each partition
partition_index	The partition indexes.
partition_error_code	The response error code.

```
AddPartitionsToTxn Response (Version: 1) => throttle_time_ms [results_by_topic_v3_and_below]
  throttle_time_ms => INT32
  results_by_topic_v3_and_below => name [results_by_partition]
    name => STRING
    results_by_partition => partition_index partition_error_code
      partition_index => INT32
      partition_error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results_by_topic_v3_and_below	The results for each topic.
name	The topic name.
results_by_partition	The results for each partition
partition_index	The partition indexes.
partition_error_code	The response error code.

```
AddPartitionsToTxn Response (Version: 2) => throttle_time_ms [results_by_topic_v3_and_below]
  throttle_time_ms => INT32
  results_by_topic_v3_and_below => name [results_by_partition]
    name => STRING
    results_by_partition => partition_index partition_error_code
      partition_index => INT32
      partition_error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results_by_topic_v3_and_below	The results for each topic.
name	The topic name.
results_by_partition	The results for each partition
partition_index	The partition indexes.
partition_error_code	The response error code.

```
AddPartitionsToTxn Response (Version: 3) => throttle_time_ms [results_by_topic_v3_and_below] TAG_BUFFER
  throttle_time_ms => INT32
  results_by_topic_v3_and_below => name [results_by_partition] TAG_BUFFER
    name => COMPACT_STRING
    results_by_partition => partition_index partition_error_code TAG_BUFFER
      partition_index => INT32
      partition_error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results_by_topic_v3_and_below	The results for each topic.
name	The topic name.
results_by_partition	The results for each partition
partition_index	The partition indexes.
partition_error_code	The response error code.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
AddPartitionsToTxn Response (Version: 4) => throttle_time_ms error_code [results_by_transaction] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  results_by_transaction => transactional_id [topic_results] TAG_BUFFER
    transactional_id => COMPACT_STRING
    topic_results => name [results_by_partition] TAG_BUFFER
```

```
      name => COMPACT_STRING
      results_by_partition => partition_index partition_error_code TAG_BUFFER
        partition_index => INT32
        partition_error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The response top level error code.
results_by_transaction	Results categorized by transactional ID.
transactional_id	The transactional id corresponding to the transaction.
topic_results	The results for each topic.
name	The topic name.
results_by_partition	The results for each partition
partition_index	The partition indexes.
partition_error_code	The response error code.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

AddOffsetsToTxn API (Key: 25):

Requests:

```
AddOffsetsToTxn Request (Version: 0) => transactional_id producer_id producer_epoch group_id
  transactional_id => STRING
  producer_id => INT64
  producer_epoch => INT16
  group_id => STRING
```

FIELD	DESCRIPTION
transactional_id	The transactional id corresponding to the transaction.
producer_id	Current producer id in use by the transactional id.
producer_epoch	Current epoch associated with the producer id.
group_id	The unique group identifier.

```
AddOffsetsToTxn Request (Version: 1) => transactional_id producer_id producer_epoch group_id
  transactional_id => STRING
  producer_id => INT64
  producer_epoch => INT16
  group_id => STRING
```

FIELD	DESCRIPTION
transactional_id	The transactional id corresponding to the transaction.
producer_id	Current producer id in use by the transactional id.
producer_epoch	Current epoch associated with the producer id.
group_id	The unique group identifier.

```
AddOffsetsToTxn Request (Version: 2) => transactional_id producer_id producer_epoch group_id
  transactional_id => STRING
  producer_id => INT64
  producer_epoch => INT16
  group_id => STRING
```

FIELD	DESCRIPTION
transactional_id	The transactional id corresponding to the transaction.
producer_id	Current producer id in use by the transactional id.
producer_epoch	Current epoch associated with the producer id.
group_id	The unique group identifier.

```
AddOffsetsToTxn Request (Version: 3) => transactional_id producer_id producer_epoch group_id TAG_BUFFER
  transactional_id => COMPACT_STRING
  producer_id => INT64
  producer_epoch => INT16
  group_id => COMPACT_STRING
```

FIELD	DESCRIPTION
transactional_id	The transactional id corresponding to the transaction.
producer_id	Current producer id in use by the transactional id.
producer_epoch	Current epoch associated with the producer id.
group_id	The unique group identifier.
_tagged_fields	The tagged fields

Responses:

```
AddOffsetsToTxn Response (Version: 0) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The response error code, or 0 if there was no error.

```
AddOffsetsToTxn Response (Version: 1) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The response error code, or 0 if there was no error.

```
AddOffsetsToTxn Response (Version: 2) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The response error code, or 0 if there was no error.

```
AddOffsetsToTxn Response (Version: 3) => throttle_time_ms error_code TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The response error code, or 0 if there was no error.
_tagged_fields	The tagged fields

EndTxn API (Key: 26):

Requests:

```
EndTxn Request (Version: 0) => transactional_id producer_id producer_epoch committed
  transactional_id => STRING
  producer_id => INT64
  producer_epoch => INT16
  committed => BOOLEAN
```

FIELD	DESCRIPTION
transactional_id	The ID of the transaction to end.
producer_id	The producer ID.
producer_epoch	The current epoch associated with the producer.
committed	True if the transaction was committed, false if it was aborted.

```
EndTxn Request (Version: 1) => transactional_id producer_id producer_epoch committed
  transactional_id => STRING
  producer_id => INT64
  producer_epoch => INT16
  committed => BOOLEAN
```

FIELD	DESCRIPTION
transactional_id	The ID of the transaction to end.
producer_id	The producer ID.
producer_epoch	The current epoch associated with the producer.
committed	True if the transaction was committed, false if it was aborted.

```
EndTxn Request (Version: 2) => transactional_id producer_id producer_epoch committed
  transactional_id => STRING
  producer_id => INT64
  producer_epoch => INT16
  committed => BOOLEAN
```

FIELD	DESCRIPTION
transactional_id	The ID of the transaction to end.
producer_id	The producer ID.
producer_epoch	The current epoch associated with the producer.
committed	True if the transaction was committed, false if it was aborted.

```
EndTxn Request (Version: 3) => transactional_id producer_id producer_epoch committed TAG_BUFFER
  transactional_id => COMPACT_STRING
  producer_id => INT64
  producer_epoch => INT16
  committed => BOOLEAN
```

FIELD	DESCRIPTION
transactional_id	The ID of the transaction to end.
producer_id	The producer ID.
producer_epoch	The current epoch associated with the producer.
committed	True if the transaction was committed, false if it was aborted.
_tagged_fields	The tagged fields

Responses:

```
EndTxn Response (Version: 0) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.

```
EndTxn Response (Version: 1) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.

```
EndTxn Response (Version: 2) => throttle_time_ms error_code
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.

```
EndTxn Response (Version: 3) => throttle_time_ms error_code TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields

WriteTxnMarkers API (Key: 27):

Requests:

```
WriteTxnMarkers Request (Version: 0) => [markers]
  markers => producer_id producer_epoch transaction_result [topics] coordinator_epoch
    producer_id => INT64
    producer_epoch => INT16
    transaction_result => BOOLEAN
    topics => name [partition_indexes]
      name => STRING
      partition_indexes => INT32
    coordinator_epoch => INT32
```

FIELD	DESCRIPTION
markers	The transaction markers to be written.
producer_id	The current producer ID.
producer_epoch	The current epoch associated with the producer ID.
transaction_result	The result of the transaction to write to the partitions (false = ABORT, true = COMMIT).
topics	Each topic that we want to write transaction marker(s) for.
name	The topic name.
partition_indexes	The indexes of the partitions to write transaction markers for.
coordinator_epoch	Epoch associated with the transaction state partition hosted by this transaction coordinator

```
WriteTxnMarkers Request (Version: 1) => [markers] TAG_BUFFER
  markers => producer_id producer_epoch transaction_result [topics] coordinator_epoch TAG_BUFFER
    producer_id => INT64
    producer_epoch => INT16
    transaction_result => BOOLEAN
    topics => name [partition_indexes] TAG_BUFFER
      name => COMPACT_STRING
      partition_indexes => INT32
    coordinator_epoch => INT32
```

FIELD	DESCRIPTION
markers	The transaction markers to be written.
producer_id	The current producer ID.
producer_epoch	The current epoch associated with the producer ID.
transaction_result	The result of the transaction to write to the partitions (false = ABORT, true = COMMIT).
topics	Each topic that we want to write transaction marker(s) for.
name	The topic name.
partition_indexes	The indexes of the partitions to write transaction markers for.
_tagged_fields	The tagged fields
coordinator_epoch	Epoch associated with the transaction state partition hosted by this transaction coordinator
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
WriteTxnMarkers Response (Version: 0) => [markers]
  markers => producer_id [topics]
    producer_id => INT64
    topics => name [partitions]
      name => STRING
      partitions => partition_index error_code
        partition_index => INT32
        error_code => INT16
```

FIELD	DESCRIPTION
markers	The results for writing makers.
producer_id	The current producer ID in use by the transactional ID.
topics	The results by topic.
name	The topic name.
partitions	The results by partition.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
WriteTxnMarkers Response (Version: 1) => [markers] TAG_BUFFER
  markers => producer_id [topics] TAG_BUFFER
    producer_id => INT64
    topics => name [partitions] TAG_BUFFER
      name => COMPACT_STRING
      partitions => partition_index error_code TAG_BUFFER
        partition_index => INT32
        error_code => INT16
```

FIELD	DESCRIPTION
markers	The results for writing makers.

producer_id	The current producer ID in use by the transactional ID.
topics	The results by topic.
name	The topic name.
partitions	The results by partition.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

TxnOffsetCommit API (Key: 28):

Requests:

```
TxnOffsetCommit Request (Version: 0) => transactional_id group_id producer_id producer_epoch [topics]
  transactional_id => STRING
  group_id => STRING
  producer_id => INT64
  producer_epoch => INT16
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
transactional_id	The ID of the transaction.
group_id	The ID of the group.
producer_id	The current producer ID in use by the transactional ID.
producer_epoch	The current epoch associated with the producer ID.
topics	Each topic that we want to commit offsets for.
name	The topic name.
partitions	The partitions inside the topic that we want to commit offsets for.
partition_index	The index of the partition within the topic.
committed_offset	The message offset to be committed.
committed_metadata	Any associated metadata the client wants to keep.

```
TxnOffsetCommit Request (Version: 1) => transactional_id group_id producer_id producer_epoch [topics]
  transactional_id => STRING
  group_id => STRING
  producer_id => INT64
  producer_epoch => INT16
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
transactional_id	The ID of the transaction.
group_id	The ID of the group.
producer_id	The current producer ID in use by the transactional ID.
producer_epoch	The current epoch associated with the producer ID.
topics	Each topic that we want to commit offsets for.
name	The topic name.
partitions	The partitions inside the topic that we want to commit offsets for.
partition_index	The index of the partition within the topic.
committed_offset	The message offset to be committed.
committed_metadata	Any associated metadata the client wants to keep.

```
TxnOffsetCommit Request (Version: 2) => transactional_id group_id producer_id producer_epoch [topics]
  transactional_id => STRING
  group_id => STRING
  producer_id => INT64
  producer_epoch => INT16
  topics => name [partitions]
    name => STRING
    partitions => partition_index committed_offset committed_leader_epoch committed_metadata
      partition_index => INT32
      committed_offset => INT64
      committed_leader_epoch => INT32
      committed_metadata => NULLABLE_STRING
```

FIELD	DESCRIPTION
transactional_id	The ID of the transaction.
group_id	The ID of the group.
producer_id	The current producer ID in use by the transactional ID.
producer_epoch	The current epoch associated with the producer ID.
topics	Each topic that we want to commit offsets for.
name	The topic name.
partitions	The partitions inside the topic that we want to commit offsets for.
partition_index	The index of the partition within the topic.
committed_offset	The message offset to be committed.
committed_leader_epoch	The leader epoch of the last consumed record.
committed_metadata	Any associated metadata the client wants to keep.

```
TxnOffsetCommit Request (Version: 3) => transactional_id group_id producer_id producer_epoch generation_id member_id group_instance_id [topics] TAG_BUFFER
  transactional_id => COMPACT_STRING
  group_id => COMPACT_STRING
  producer_id => INT64
  producer_epoch => INT16
  generation_id => INT32
  member_id => COMPACT_STRING
  group_instance_id => COMPACT_NULLABLE_STRING
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index committed_offset committed_leader_epoch committed_metadata TAG_BUFFER
      partition_index => INT32
      committed_offset => INT64
      committed_leader_epoch => INT32
      committed_metadata => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
transactional_id	The ID of the transaction.
group_id	The ID of the group.
producer_id	The current producer ID in use by the transactional ID.
producer_epoch	The current epoch associated with the producer ID.
generation_id	The generation of the consumer.
member_id	The member ID assigned by the group coordinator.
group_instance_id	The unique identifier of the consumer instance provided by end user.
topics	Each topic that we want to commit offsets for.
name	The topic name.
partitions	The partitions inside the topic that we want to commit offsets for.
partition_index	The index of the partition within the topic.
committed_offset	The message offset to be committed.
committed_leader_epoch	The leader epoch of the last consumed record.
committed_metadata	Any associated metadata the client wants to keep.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
TxnOffsetCommit Response (Version: 0) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.

partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
TxnOffsetCommit Response (Version: 1) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
TxnOffsetCommit Response (Version: 2) => throttle_time_ms [topics]
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
TxnOffsetCommit Response (Version: 3) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index error_code TAG_BUFFER
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

DescribeAcls API (Key: 29):

Requests:

```
DescribeAcls Request (Version: 0) => resource_type_filter resource_name_filter principal_filter host_filter operation permission_type
  resource_type_filter => INT8
  resource_name_filter => NULLABLE_STRING
  principal_filter => NULLABLE_STRING
  host_filter => NULLABLE_STRING
  operation => INT8
  permission_type => INT8
```

FIELD	DESCRIPTION
resource_type_filter	The resource type.
resource_name_filter	The resource name, or null to match any resource name.
principal_filter	The principal to match, or null to match any principal.
host_filter	The host to match, or null to match any host.
operation	The operation to match.
permission_type	The permission type to match.

```
DescribeAcls Request (Version: 1) => resource_type_filter resource_name_filter pattern_type_filter principal_filter host_filter operation permission_type
  resource_type_filter => INT8
  resource_name_filter => NULLABLE_STRING
  pattern_type_filter => INT8
  principal_filter => NULLABLE_STRING
  host_filter => NULLABLE_STRING
  operation => INT8
  permission_type => INT8
```

FIELD	DESCRIPTION
resource_type_filter	The resource type.
resource_name_filter	The resource name, or null to match any resource name.
pattern_type_filter	The resource pattern to match.
principal_filter	The principal to match, or null to match any principal.
host_filter	The host to match, or null to match any host.
operation	The operation to match.
permission_type	The permission type to match.

```
DescribeAcls Request (Version: 2) => resource_type_filter resource_name_filter pattern_type_filter principal_filter host_filter operation permission_type TAG_BUFFER
  resource_type_filter => INT8
  resource_name_filter => COMPACT_NULLABLE_STRING
  pattern_type_filter => INT8
  principal_filter => COMPACT_NULLABLE_STRING
  host_filter => COMPACT_NULLABLE_STRING
  operation => INT8
  permission_type => INT8
```

FIELD	DESCRIPTION
resource_type_filter	The resource type.
resource_name_filter	The resource name, or null to match any resource name.
pattern_type_filter	The resource pattern to match.
principal_filter	The principal to match, or null to match any principal.
host_filter	The host to match, or null to match any host.
operation	The operation to match.
permission_type	The permission type to match.
_tagged_fields	The tagged fields

```
DescribeAcls Request (Version: 3) => resource_type_filter resource_name_filter pattern_type_filter principal_filter host_filter operation permission_type TAG_BUFFER
  resource_type_filter => INT8
  resource_name_filter => COMPACT_NULLABLE_STRING
  pattern_type_filter => INT8
  principal_filter => COMPACT_NULLABLE_STRING
  host_filter => COMPACT_NULLABLE_STRING
  operation => INT8
  permission_type => INT8
```

FIELD	DESCRIPTION
resource_type_filter	The resource type.
resource_name_filter	The resource name, or null to match any resource name.
pattern_type_filter	The resource pattern to match.
principal_filter	The principal to match, or null to match any principal.
host_filter	The host to match, or null to match any host.
operation	The operation to match.
permission_type	The permission type to match.
_tagged_fields	The tagged fields

Responses:

```
DescribeAcls Response (Version: 0) => throttle_time_ms error_code error_message [resources]
  throttle_time_ms => INT32
  error_code => INT16
  error_message => NULLABLE_STRING
  resources => resource_type resource_name [acls]
    resource_type => INT8
```

```
    acls => principal host operation permission_type
      principal => STRING
      host => STRING
      operation => INT8
      permission_type => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
resources	Each Resource that is referenced in an ACL.
resource_type	The resource type.
resource_name	The resource name.
acls	The ACLs.
principal	The ACL principal.
host	The ACL host.
operation	The ACL operation.
permission_type	The ACL permission type.

```
DescribeAcls Response (Version: 1) => throttle_time_ms error_code error_message [resources]
  throttle_time_ms => INT32
  error_code => INT16
  error_message => NULLABLE_STRING
  resources => resource_type resource_name pattern_type [acls]
    resource_type => INT8
    resource_name => STRING
    pattern_type => INT8
    acls => principal host operation permission_type
      principal => STRING
      host => STRING
      operation => INT8
      permission_type => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
resources	Each Resource that is referenced in an ACL.
resource_type	The resource type.
resource_name	The resource name.
pattern_type	The resource pattern type.
acls	The ACLs.
principal	The ACL principal.
host	The ACL host.
operation	The ACL operation.
permission_type	The ACL permission type.

```
DescribeAcls Response (Version: 2) => throttle_time_ms error_code error_message [resources] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  resources => resource_type resource_name pattern_type [acls] TAG_BUFFER
    resource_type => INT8
    resource_name => COMPACT_STRING
    pattern_type => INT8
    acls => principal host operation permission_type TAG_BUFFER
      principal => COMPACT_STRING
      host => COMPACT_STRING
      operation => INT8
      permission_type => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
resources	Each Resource that is referenced in an ACL.
resource_type	The resource type.
resource_name	The resource name.
pattern_type	The resource pattern type.
acls	The ACLs.
principal	The ACL principal.
host	The ACL host.
operation	The ACL operation.
permission_type	The ACL permission type.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DescribeAcls Response (Version: 3) => throttle_time_ms error_code error_message [resources] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  resources => resource_type resource_name pattern_type [acls] TAG_BUFFER
    resource_type => INT8
    resource_name => COMPACT_STRING
    pattern_type => INT8
    acls => principal host operation permission_type TAG_BUFFER
      principal => COMPACT_STRING
      host => COMPACT_STRING
      operation => INT8
      permission_type => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
resources	Each Resource that is referenced in an ACL.
resource_type	The resource type.
resource_name	The resource name.
pattern_type	The resource pattern type.
acls	The ACLs.
principal	The ACL principal.
host	The ACL host.
operation	The ACL operation.
permission_type	The ACL permission type.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

CreateAcls API (Key: 30):

Requests:

```
CreateAcls Request (Version: 0) => [creations]
  creations => resource_type resource_name principal host operation permission_type
    resource_type => INT8
    resource_name => STRING
    principal => STRING
    host => STRING
    operation => INT8
    permission_type => INT8
```

FIELD	DESCRIPTION
creations	The ACLs that we want to create.
resource_type	The type of the resource.
resource_name	The resource name for the ACL.
principal	The principal for the ACL.
host	The host for the ACL.
operation	The operation type for the ACL (read, write, etc.).
permission_type	The permission type for the ACL (allow, deny, etc.).

```
CreateAcls Request (Version: 1) => [creations]
  creations => resource_type resource_name resource_pattern_type principal host operation permission_type
    resource_type => INT8
    resource_name => STRING
    resource_pattern_type => INT8
    principal => STRING
```

```
    operation => INT8
    permission_type => INT8
```

FIELD	DESCRIPTION
creations	The ACLs that we want to create.
resource_type	The type of the resource.
resource_name	The resource name for the ACL.
resource_pattern_type	The pattern type for the ACL.
principal	The principal for the ACL.
host	The host for the ACL.
operation	The operation type for the ACL (read, write, etc.).
permission_type	The permission type for the ACL (allow, deny, etc.).

```
CreateAcls Request (Version: 2) => [creations] TAG_BUFFER
  creations => resource_type resource_name resource_pattern_type principal host operation permission_type TAG_BUFFER
    resource_type => INT8
    resource_name => COMPACT_STRING
    resource_pattern_type => INT8
    principal => COMPACT_STRING
    host => COMPACT_STRING
    operation => INT8
    permission_type => INT8
```

FIELD	DESCRIPTION
creations	The ACLs that we want to create.
resource_type	The type of the resource.
resource_name	The resource name for the ACL.
resource_pattern_type	The pattern type for the ACL.
principal	The principal for the ACL.
host	The host for the ACL.
operation	The operation type for the ACL (read, write, etc.).
permission_type	The permission type for the ACL (allow, deny, etc.).
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
CreateAcls Request (Version: 3) => [creations] TAG_BUFFER
  creations => resource_type resource_name resource_pattern_type principal host operation permission_type TAG_BUFFER
    resource_type => INT8
    resource_name => COMPACT_STRING
    resource_pattern_type => INT8
    principal => COMPACT_STRING
    host => COMPACT_STRING
    operation => INT8
    permission_type => INT8
```

FIELD	DESCRIPTION
creations	The ACLs that we want to create.
resource_type	The type of the resource.
resource_name	The resource name for the ACL.
resource_pattern_type	The pattern type for the ACL.
principal	The principal for the ACL.
host	The host for the ACL.
operation	The operation type for the ACL (read, write, etc.).
permission_type	The permission type for the ACL (allow, deny, etc.).
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
CreateAcls Response (Version: 0) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => error_code error_message
    error_code => INT16
    error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each ACL creation.
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.

```
CreateAcls Response (Version: 1) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => error_code error_message
    error_code => INT16
    error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each ACL creation.
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.

```
CreateAcls Response (Version: 2) => throttle_time_ms [results] TAG_BUFFER
  throttle_time_ms => INT32
  results => error_code error_message TAG_BUFFER
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each ACL creation.
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
CreateAcls Response (Version: 3) => throttle_time_ms [results] TAG_BUFFER
  throttle_time_ms => INT32
  results => error_code error_message TAG_BUFFER
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each ACL creation.
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

DeleteAcls API (Key: 31):

Requests:

```
DeleteAcls Request (Version: 0) => [filters]
  filters => resource_type_filter resource_name_filter principal_filter host_filter operation permission_type
    resource_type_filter => INT8
    resource_name_filter => NULLABLE_STRING
    principal_filter => NULLABLE_STRING
    host_filter => NULLABLE_STRING
    operation => INT8
    permission_type => INT8
```

FIELD	DESCRIPTION
filters	The filters to use when deleting ACLs.
resource_type_filter	The resource type.
resource_name_filter	The resource name.
principal_filter	The principal filter, or null to accept all principals.
host_filter	The host filter, or null to accept all hosts.
operation	The ACL operation.
permission_type	The permission type.

```
DeleteAcls Request (Version: 1) => [filters]
  filters => resource_type_filter resource_name_filter pattern_type_filter principal_filter host_filter operation permission_type
    resource_type_filter => INT8
    resource_name_filter => NULLABLE_STRING
```

```
  principal_filter => NULLABLE_STRING
  host_filter => NULLABLE_STRING
  operation => INT8
  permission_type => INT8
```

FIELD	DESCRIPTION
filters	The filters to use when deleting ACLs.
resource_type_filter	The resource type.
resource_name_filter	The resource name.
pattern_type_filter	The pattern type.
principal_filter	The principal filter, or null to accept all principals.
host_filter	The host filter, or null to accept all hosts.
operation	The ACL operation.
permission_type	The permission type.

```
DeleteAcls Request (Version: 2) => [filters] TAG_BUFFER
  filters => resource_type_filter resource_name_filter pattern_type_filter principal_filter host_filter operation permission_type TAG_BUFFER
    resource_type_filter => INT8
    resource_name_filter => COMPACT_NULLABLE_STRING
    pattern_type_filter => INT8
    principal_filter => COMPACT_NULLABLE_STRING
    host_filter => COMPACT_NULLABLE_STRING
    operation => INT8
    permission_type => INT8
```

FIELD	DESCRIPTION
filters	The filters to use when deleting ACLs.
resource_type_filter	The resource type.
resource_name_filter	The resource name.
pattern_type_filter	The pattern type.
principal_filter	The principal filter, or null to accept all principals.
host_filter	The host filter, or null to accept all hosts.
operation	The ACL operation.
permission_type	The permission type.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DeleteAcls Request (Version: 3) => [filters] TAG_BUFFER
  filters => resource_type_filter resource_name_filter pattern_type_filter principal_filter host_filter operation permission_type TAG_BUFFER
    resource_type_filter => INT8
    resource_name_filter => COMPACT_NULLABLE_STRING
    pattern_type_filter => INT8
    principal_filter => COMPACT_NULLABLE_STRING
    host_filter => COMPACT_NULLABLE_STRING
    operation => INT8
    permission_type => INT8
```

FIELD	DESCRIPTION
filters	The filters to use when deleting ACLs.
resource_type_filter	The resource type.
resource_name_filter	The resource name.
pattern_type_filter	The pattern type.
principal_filter	The principal filter, or null to accept all principals.
host_filter	The host filter, or null to accept all hosts.
operation	The ACL operation.
permission_type	The permission type.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
DeleteAcls Response (Version: 0) => throttle_time_ms [filter_results]
  throttle_time_ms => INT32
  filter_results => error_code error_message [matching_acls]
    error_code => INT16
    error_message => NULLABLE_STRING
    matching_acls => error_code error_message resource_type resource_name principal host operation permission_type
      error_code => INT16
      error_message => NULLABLE_STRING
      resource_type => INT8
      resource_name => STRING
      principal => STRING
      host => STRING
      operation => INT8
      permission_type => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
filter_results	The results for each filter.
error_code	The error code, or 0 if the filter succeeded.
error_message	The error message, or null if the filter succeeded.
matching_acls	The ACLs which matched this filter.
error_code	The deletion error code, or 0 if the deletion succeeded.
error_message	The deletion error message, or null if the deletion succeeded.
resource_type	The ACL resource type.
resource_name	The ACL resource name.
principal	The ACL principal.
host	The ACL host.
operation	The ACL operation.
permission_type	The ACL permission type.

```
DeleteAcls Response (Version: 1) => throttle_time_ms [filter_results]
  throttle_time_ms => INT32
  filter_results => error_code error_message [matching_acls]
    error_code => INT16
    error_message => NULLABLE_STRING
    matching_acls => error_code error_message resource_type resource_name pattern_type principal host operation permission_type
      error_code => INT16
      error_message => NULLABLE_STRING
      resource_type => INT8
      resource_name => STRING
      pattern_type => INT8
      principal => STRING
      host => STRING
      operation => INT8
      permission_type => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
filter_results	The results for each filter.
error_code	The error code, or 0 if the filter succeeded.
error_message	The error message, or null if the filter succeeded.
matching_acls	The ACLs which matched this filter.
error_code	The deletion error code, or 0 if the deletion succeeded.
error_message	The deletion error message, or null if the deletion succeeded.
resource_type	The ACL resource type.
resource_name	The ACL resource name.
pattern_type	The ACL resource pattern type.
principal	The ACL principal.
host	The ACL host.
operation	The ACL operation.
permission_type	The ACL permission type.

```
DeleteAcls Response (Version: 2) => throttle_time_ms [filter_results] TAG_BUFFER
  throttle_time_ms => INT32
  filter_results => error_code error_message [matching_acls] TAG_BUFFER
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    matching_acls => error_code error_message resource_type resource_name pattern_type principal host operation permission_type TAG_BUFFER
      error_code => INT16
      error_message => COMPACT_NULLABLE_STRING
      resource_type => INT8
      resource_name => COMPACT_STRING
      pattern_type => INT8
      principal => COMPACT_STRING
      host => COMPACT_STRING
      operation => INT8
      permission_type => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
filter_results	The results for each filter.
error_code	The error code, or 0 if the filter succeeded.
error_message	The error message, or null if the filter succeeded.
matching_acls	The ACLs which matched this filter.
error_code	The deletion error code, or 0 if the deletion succeeded.
error_message	The deletion error message, or null if the deletion succeeded.
resource_type	The ACL resource type.
resource_name	The ACL resource name.
pattern_type	The ACL resource pattern type.
principal	The ACL principal.
host	The ACL host.
operation	The ACL operation.
permission_type	The ACL permission type.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DeleteAcls Response (Version: 3) => throttle_time_ms [filter_results] TAG_BUFFER
  throttle_time_ms => INT32
  filter_results => error_code error_message [matching_acls] TAG_BUFFER
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    matching_acls => error_code error_message resource_type resource_name pattern_type principal host operation permission_type TAG_BUFFER
      error_code => INT16
      error_message => COMPACT_NULLABLE_STRING
      resource_type => INT8
      resource_name => COMPACT_STRING
      pattern_type => INT8
      principal => COMPACT_STRING
      host => COMPACT_STRING
      operation => INT8
      permission_type => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
filter_results	The results for each filter.
error_code	The error code, or 0 if the filter succeeded.
error_message	The error message, or null if the filter succeeded.
matching_acls	The ACLs which matched this filter.
error_code	The deletion error code, or 0 if the deletion succeeded.
error_message	The deletion error message, or null if the deletion succeeded.
resource_type	The ACL resource type.
resource_name	The ACL resource name.
pattern_type	The ACL resource pattern type.
principal	The ACL principal.
host	The ACL host.
operation	The ACL operation.
permission_type	The ACL permission type.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

DescribeConfigs API (Key: 32):

Requests:

```
DescribeConfigs Request (Version: 0) => [resources]
  resources => resource_type resource_name [configuration_keys]
    resource_type => INT8
    resource_name => STRING
    configuration_keys => STRING
```

FIELD	DESCRIPTION
resources	The resources whose configurations we want to describe.
resource_type	The resource type.
resource_name	The resource name.
configuration_keys	The configuration keys to list, or null to list all configuration keys.

```
DescribeConfigs Request (Version: 1) => [resources] include_synonyms
  resources => resource_type resource_name [configuration_keys]
    resource_type => INT8
    resource_name => STRING
    configuration_keys => STRING
  include_synonyms => BOOLEAN
```

FIELD	DESCRIPTION
resources	The resources whose configurations we want to describe.
resource_type	The resource type.
resource_name	The resource name.
configuration_keys	The configuration keys to list, or null to list all configuration keys.
include_synonyms	True if we should include all synonyms.

```
DescribeConfigs Request (Version: 2) => [resources] include_synonyms
  resources => resource_type resource_name [configuration_keys]
    resource_type => INT8
    resource_name => STRING
    configuration_keys => STRING
  include_synonyms => BOOLEAN
```

FIELD	DESCRIPTION
resources	The resources whose configurations we want to describe.
resource_type	The resource type.
resource_name	The resource name.
configuration_keys	The configuration keys to list, or null to list all configuration keys.
include_synonyms	True if we should include all synonyms.

```
DescribeConfigs Request (Version: 3) => [resources] include_synonyms include_documentation
  resources => resource_type resource_name [configuration_keys]
    resource_type => INT8
    resource_name => STRING
    configuration_keys => STRING
  include_synonyms => BOOLEAN
  include_documentation => BOOLEAN
```

FIELD	DESCRIPTION
resources	The resources whose configurations we want to describe.
resource_type	The resource type.
resource_name	The resource name.
configuration_keys	The configuration keys to list, or null to list all configuration keys.
include_synonyms	True if we should include all synonyms.
include_documentation	True if we should include configuration documentation.

```
DescribeConfigs Request (Version: 4) => [resources] include_synonyms include_documentation TAG_BUFFER
  resources => resource_type resource_name [configuration_keys] TAG_BUFFER
    resource_type => INT8
    resource_name => COMPACT_STRING
    configuration_keys => COMPACT_STRING
  include_synonyms => BOOLEAN
  include_documentation => BOOLEAN
```

FIELD	DESCRIPTION
resources	The resources whose configurations we want to describe.
resource_type	The resource type.
resource_name	The resource name.
configuration_keys	The configuration keys to list, or null to list all configuration keys.
_tagged_fields	The tagged fields
include_synonyms	True if we should include all synonyms.
include_documentation	True if we should include configuration documentation.
_tagged_fields	The tagged fields

Responses:

```
DescribeConfigs Response (Version: 0) => throttle_time_ms [results]
  throttle_time_ms => INT32
```

```
  error_code => INT16
  error_message => NULLABLE_STRING
  resource_type => INT8
  resource_name => STRING
  configs => name value read_only is_default is_sensitive
    name => STRING
    value => NULLABLE_STRING
    read_only => BOOLEAN
    is_default => BOOLEAN
    is_sensitive => BOOLEAN
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each resource.
error_code	The error code, or 0 if we were able to successfully describe the configurations.
error_message	The error message, or null if we were able to successfully describe the configurations.
resource_type	The resource type.
resource_name	The resource name.
configs	Each listed configuration.
name	The configuration name.
value	The configuration value.
read_only	True if the configuration is read-only.
is_default	True if the configuration is not set.
is_sensitive	True if this configuration is sensitive.

```
DescribeConfigs Response (Version: 1) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => error_code error_message resource_type resource_name [configs]
    error_code => INT16
    error_message => NULLABLE_STRING
    resource_type => INT8
    resource_name => STRING
    configs => name value read_only config_source is_sensitive [synonyms]
      name => STRING
      value => NULLABLE_STRING
      read_only => BOOLEAN
      config_source => INT8
      is_sensitive => BOOLEAN
      synonyms => name value source
        name => STRING
        value => NULLABLE_STRING
        source => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each resource.
error_code	The error code, or 0 if we were able to successfully describe the configurations.
error_message	The error message, or null if we were able to successfully describe the configurations.
resource_type	The resource type.
resource_name	The resource name.
configs	Each listed configuration.
name	The configuration name.
value	The configuration value.
read_only	True if the configuration is read-only.
config_source	The configuration source.
is_sensitive	True if this configuration is sensitive.
synonyms	The synonyms for this configuration key.
name	The synonym name.
value	The synonym value.
source	The synonym source.

```
DescribeConfigs Response (Version: 2) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => error_code error_message resource_type resource_name [configs]
    error_code => INT16
    error_message => NULLABLE_STRING
    resource_type => INT8
    resource_name => STRING
    configs => name value read_only config_source is_sensitive [synonyms]
      name => STRING
      value => NULLABLE_STRING
      read_only => BOOLEAN
      config_source => INT8
      is_sensitive => BOOLEAN
      synonyms => name value source
        name => STRING
        value => NULLABLE_STRING
        source => INT8
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each resource.
error_code	The error code, or 0 if we were able to successfully describe the configurations.
error_message	The error message, or null if we were able to successfully describe the configurations.
resource_type	The resource type.
resource_name	The resource name.
configs	Each listed configuration.
name	The configuration name.
value	The configuration value.
read_only	True if the configuration is read-only.
config_source	The configuration source.
is_sensitive	True if this configuration is sensitive.
synonyms	The synonyms for this configuration key.
name	The synonym name.
value	The synonym value.
source	The synonym source.

```
DescribeConfigs Response (Version: 3) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => error_code error_message resource_type resource_name [configs]
    error_code => INT16
    error_message => NULLABLE_STRING
    resource_type => INT8
    resource_name => STRING
    configs => name value read_only config_source is_sensitive [synonyms] config_type documentation
      name => STRING
      value => NULLABLE_STRING
      read_only => BOOLEAN
      config_source => INT8
      is_sensitive => BOOLEAN
      synonyms => name value source
        name => STRING
        value => NULLABLE_STRING
        source => INT8
      config_type => INT8
      documentation => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each resource.
error_code	The error code, or 0 if we were able to successfully describe the configurations.
error_message	The error message, or null if we were able to successfully describe the configurations.
resource_type	The resource type.
resource_name	The resource name.
configs	Each listed configuration.
name	The configuration name.
value	The configuration value.
read_only	True if the configuration is read-only.
config_source	The configuration source.
is_sensitive	True if this configuration is sensitive.
synonyms	The synonyms for this configuration key.
name	The synonym name.
value	The synonym value.
source	The synonym source.
config_type	The configuration data type. Type can be one of the following values - BOOLEAN, STRING, INT, SHORT, LONG, DOUBLE, LIST, CLASS, PASSWORD
documentation	The configuration documentation.

```
DescribeConfigs Response (Version: 4) => throttle_time_ms [results] TAG_BUFFER
```

```
  results => error_code error_message resource_type resource_name [configs] TAG_BUFFER
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    resource_type => INT8
    resource_name => COMPACT_STRING
    configs => name value read_only config_source is_sensitive [synonyms] config_type documentation TAG_BUFFER
      name => COMPACT_STRING
      value => COMPACT_NULLABLE_STRING
      read_only => BOOLEAN
      config_source => INT8
      is_sensitive => BOOLEAN
      synonyms => name value source TAG_BUFFER
        name => COMPACT_STRING
        value => COMPACT_NULLABLE_STRING
        source => INT8
      config_type => INT8
      documentation => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each resource.
error_code	The error code, or 0 if we were able to successfully describe the configurations.
error_message	The error message, or null if we were able to successfully describe the configurations.
resource_type	The resource type.
resource_name	The resource name.
configs	Each listed configuration.
name	The configuration name.
value	The configuration value.
read_only	True if the configuration is read-only.
config_source	The configuration source.
is_sensitive	True if this configuration is sensitive.
synonyms	The synonyms for this configuration key.
name	The synonym name.
value	The synonym value.
source	The synonym source.
_tagged_fields	The tagged fields
config_type	The configuration data type. Type can be one of the following values - BOOLEAN, STRING, INT, SHORT, LONG, DOUBLE, LIST, CLASS, PASSWORD
documentation	The configuration documentation.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

AlterConfigs API (Key: 33):

Requests:

```
AlterConfigs Request (Version: 0) => [resources] validate_only
  resources => resource_type resource_name [configs]
    resource_type => INT8
    resource_name => STRING
    configs => name value
      name => STRING
      value => NULLABLE_STRING
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
resources	The updates for each resource.
resource_type	The resource type.
resource_name	The resource name.
configs	The configurations.
name	The configuration key name.
value	The value to set for the configuration key.
validate_only	True if we should validate the request, but not change the configurations.

```
AlterConfigs Request (Version: 1) => [resources] validate_only
  resources => resource_type resource_name [configs]
    resource_type => INT8
    resource_name => STRING
    configs => name value
      name => STRING
      value => NULLABLE_STRING
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
resources	The updates for each resource.
resource_type	The resource type.
resource_name	The resource name.
configs	The configurations.
name	The configuration key name.
value	The value to set for the configuration key.
validate_only	True if we should validate the request, but not change the configurations.

```
AlterConfigs Request (Version: 2) => [resources] validate_only TAG_BUFFER
  resources => resource_type resource_name [configs] TAG_BUFFER
    resource_type => INT8
    resource_name => COMPACT_STRING
    configs => name value TAG_BUFFER
      name => COMPACT_STRING
      value => COMPACT_NULLABLE_STRING
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
resources	The updates for each resource.
resource_type	The resource type.
resource_name	The resource name.
configs	The configurations.
name	The configuration key name.
value	The value to set for the configuration key.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
validate_only	True if we should validate the request, but not change the configurations.
_tagged_fields	The tagged fields

Responses:

```
AlterConfigs Response (Version: 0) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => error_code error_message resource_type resource_name
    error_code => INT16
    error_message => NULLABLE_STRING
    resource_type => INT8
    resource_name => STRING
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The responses for each resource.
error_code	The resource error code.
error_message	The resource error message, or null if there was no error.
resource_type	The resource type.
resource_name	The resource name.

```
AlterConfigs Response (Version: 1) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => error_code error_message resource_type resource_name
    error_code => INT16
    error_message => NULLABLE_STRING
    resource_type => INT8
    resource_name => STRING
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The responses for each resource.
error_code	The resource error code.
error_message	The resource error message, or null if there was no error.
resource_type	The resource type.
resource_name	The resource name.

```
AlterConfigs Response (Version: 2) => throttle_time_ms [responses] TAG_BUFFER
```

```
  responses => error_code error_message resource_type resource_name TAG_BUFFER
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    resource_type => INT8
    resource_name => COMPACT_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The responses for each resource.
error_code	The resource error code.
error_message	The resource error message, or null if there was no error.
resource_type	The resource type.
resource_name	The resource name.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

AlterReplicaLogDirs API (Key: 34):

Requests:

```
AlterReplicaLogDirs Request (Version: 0) => [dirs]
  dirs => path [topics]
    path => STRING
    topics => name [partitions]
      name => STRING
      partitions => INT32
```

FIELD	DESCRIPTION
dirs	The alterations to make for each directory.
path	The absolute directory path.
topics	The topics to add to the directory.
name	The topic name.
partitions	The partition indexes.

```
AlterReplicaLogDirs Request (Version: 1) => [dirs]
  dirs => path [topics]
    path => STRING
    topics => name [partitions]
      name => STRING
      partitions => INT32
```

FIELD	DESCRIPTION
dirs	The alterations to make for each directory.
path	The absolute directory path.
topics	The topics to add to the directory.
name	The topic name.
partitions	The partition indexes.

```
AlterReplicaLogDirs Request (Version: 2) => [dirs] TAG_BUFFER
  dirs => path [topics] TAG_BUFFER
    path => COMPACT_STRING
    topics => name [partitions] TAG_BUFFER
      name => COMPACT_STRING
      partitions => INT32
```

FIELD	DESCRIPTION
dirs	The alterations to make for each directory.
path	The absolute directory path.
topics	The topics to add to the directory.
name	The topic name.
partitions	The partition indexes.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
AlterReplicaLogDirs Response (Version: 0) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => topic_name [partitions]
    topic_name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each topic.
topic_name	The name of the topic.
partitions	The results for each partition.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
AlterReplicaLogDirs Response (Version: 1) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => topic_name [partitions]
    topic_name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each topic.
topic_name	The name of the topic.
partitions	The results for each partition.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

```
AlterReplicaLogDirs Response (Version: 2) => throttle_time_ms [results] TAG_BUFFER
  throttle_time_ms => INT32
  results => topic_name [partitions] TAG_BUFFER
    topic_name => COMPACT_STRING
    partitions => partition_index error_code TAG_BUFFER
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for each topic.
topic_name	The name of the topic.
partitions	The results for each partition.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

DescribeLogDirs API (Key: 35):

Requests:

```
DescribeLogDirs Request (Version: 0) => [topics]
  topics => topic [partitions]
    topic => STRING
    partitions => INT32
```

FIELD	DESCRIPTION
topics	Each topic that we want to describe log directories for, or null for all topics.
topic	The topic name
partitions	The partition indexes.

```
DescribeLogDirs Request (Version: 1) => [topics]
  topics => topic [partitions]
    topic => STRING
    partitions => INT32
```

FIELD	DESCRIPTION
topics	Each topic that we want to describe log directories for, or null for all topics.
topic	The topic name
partitions	The partition indexes.

```
DescribeLogDirs Request (Version: 2) => [topics] TAG_BUFFER
  topics => topic [partitions] TAG_BUFFER
    topic => COMPACT_STRING
    partitions => INT32
```

FIELD	DESCRIPTION
topics	Each topic that we want to describe log directories for, or null for all topics.
topic	The topic name
partitions	The partition indexes.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DescribeLogDirs Request (Version: 3) => [topics] TAG_BUFFER
  topics => topic [partitions] TAG_BUFFER
    topic => COMPACT_STRING
    partitions => INT32
```

FIELD	DESCRIPTION
topics	Each topic that we want to describe log directories for, or null for all topics.
topic	The topic name
partitions	The partition indexes.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DescribeLogDirs Request (Version: 4) => [topics] TAG_BUFFER
  topics => topic [partitions] TAG_BUFFER
    topic => COMPACT_STRING
    partitions => INT32
```

FIELD	DESCRIPTION
topics	Each topic that we want to describe log directories for, or null for all topics.
topic	The topic name
partitions	The partition indexes.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
DescribeLogDirs Response (Version: 0) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => error_code log_dir [topics]
    error_code => INT16
    log_dir => STRING
    topics => name [partitions]
      name => STRING
      partitions => partition_index partition_size offset_lag is_future_key
        partition_index => INT32
        partition_size => INT64
        offset_lag => INT64
        is_future_key => BOOLEAN
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The log directories.
error_code	The error code, or 0 if there was no error.
log_dir	The absolute log directory path.
topics	Each topic.
name	The topic name.
partitions	
partition_index	The partition index.
partition_size	The size of the log segments in this partition in bytes.
offset_lag	The lag of the log's LEO w.r.t. partition's HW (if it is the current log for the partition) or current replica's LEO (if it is the future log for the partition)
is_future_key	True if this log is created by AlterReplicaLogDirsRequest and will replace the current log of the replica in the future.

```
DescribeLogDirs Response (Version: 1) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => error_code log_dir [topics]
    error_code => INT16
    log_dir => STRING
    topics => name [partitions]
      name => STRING
      partitions => partition_index partition_size offset_lag is_future_key
        partition_index => INT32
        partition_size => INT64
        offset_lag => INT64
        is_future_key => BOOLEAN
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The log directories.
error_code	The error code, or 0 if there was no error.
log_dir	The absolute log directory path.
topics	Each topic.
name	The topic name.
partitions	
partition_index	The partition index.
partition_size	The size of the log segments in this partition in bytes.
offset_lag	The lag of the log's LEO w.r.t. partition's HW (if it is the current log for the partition) or current replica's LEO (if it is the future log for the partition)
is_future_key	True if this log is created by AlterReplicaLogDirsRequest and will replace the current log of the replica in the future.

```
DescribeLogDirs Response (Version: 2) => throttle_time_ms [results] TAG_BUFFER
  throttle_time_ms => INT32
  results => error_code log_dir [topics] TAG_BUFFER
    error_code => INT16
    log_dir => COMPACT_STRING
    topics => name [partitions] TAG_BUFFER
      name => COMPACT_STRING
      partitions => partition_index partition_size offset_lag is_future_key TAG_BUFFER
        partition_index => INT32
        partition_size => INT64
        offset_lag => INT64
        is_future_key => BOOLEAN
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The log directories.
error_code	The error code, or 0 if there was no error.
log_dir	The absolute log directory path.
topics	Each topic.
name	The topic name.
partitions	
partition_index	The partition index.
partition_size	The size of the log segments in this partition in bytes.
offset_lag	The lag of the log's LEO w.r.t. partition's HW (if it is the current log for the partition) or current replica's LEO (if it is the future log for the partition)
is_future_key	True if this log is created by AlterReplicaLogDirsRequest and will replace the current log of the replica in the future.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DescribeLogDirs Response (Version: 3) => throttle_time_ms error_code [results] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  results => error_code log_dir [topics] TAG_BUFFER
    error_code => INT16
    log_dir => COMPACT_STRING
    topics => name [partitions] TAG_BUFFER
      name => COMPACT_STRING
      partitions => partition_index partition_size offset_lag is_future_key TAG_BUFFER
        partition_index => INT32
        partition_size => INT64
        offset_lag => INT64
        is_future_key => BOOLEAN
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
results	The log directories.
error_code	The error code, or 0 if there was no error.
log_dir	The absolute log directory path.
topics	Each topic.
name	The topic name.
partitions	
partition_index	The partition index.
partition_size	The size of the log segments in this partition in bytes.
offset_lag	The lag of the log's LEO w.r.t. partition's HW (if it is the current log for the partition) or current replica's LEO (if it is the future log for the partition)
is_future_key	True if this log is created by AlterReplicaLogDirsRequest and will replace the current log of the replica in the future.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DescribeLogDirs Response (Version: 4) => throttle_time_ms error_code [results] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  results => error_code log_dir [topics] total_bytes usable_bytes TAG_BUFFER
    error_code => INT16
    log_dir => COMPACT_STRING
    topics => name [partitions] TAG_BUFFER
      name => COMPACT_STRING
      partitions => partition_index partition_size offset_lag is_future_key TAG_BUFFER
        partition_index => INT32
        partition_size => INT64
        offset_lag => INT64
        is_future_key => BOOLEAN
    total_bytes => INT64
    usable_bytes => INT64
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
results	The log directories.
error_code	The error code, or 0 if there was no error.
log_dir	The absolute log directory path.
topics	Each topic.
name	The topic name.
partitions	
partition_index	The partition index.
partition_size	The size of the log segments in this partition in bytes.
offset_lag	The lag of the log's LEO w.r.t. partition's HW (if it is the current log for the partition) or current replica's LEO (if it is the future log for the partition)
is_future_key	True if this log is created by AlterReplicaLogDirsRequest and will replace the current log of the replica in the future.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
total_bytes	The total size in bytes of the volume the log directory is in.
usable_bytes	The usable size in bytes of the volume the log directory is in.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

SaslAuthenticate API (Key: 36):

Requests:

```
SaslAuthenticate Request (Version: 0) => auth_bytes
  auth_bytes => BYTES
```

FIELD	DESCRIPTION
auth_bytes	The SASL authentication bytes from the client, as defined by the SASL mechanism.

```
SaslAuthenticate Request (Version: 1) => auth_bytes
  auth_bytes => BYTES
```

FIELD	DESCRIPTION
auth_bytes	The SASL authentication bytes from the client, as defined by the SASL mechanism.

```
SaslAuthenticate Request (Version: 2) => auth_bytes TAG_BUFFER
  auth_bytes => COMPACT_BYTES
```

FIELD	DESCRIPTION
auth_bytes	The SASL authentication bytes from the client, as defined by the SASL mechanism.
_tagged_fields	The tagged fields

Responses:

```
SaslAuthenticate Response (Version: 0) => error_code error_message auth_bytes
  error_code => INT16
  error_message => NULLABLE_STRING
  auth_bytes => BYTES
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
auth_bytes	The SASL authentication bytes from the server, as defined by the SASL mechanism.

```
SaslAuthenticate Response (Version: 1) => error_code error_message auth_bytes session_lifetime_ms
  error_code => INT16
  error_message => NULLABLE_STRING
  auth_bytes => BYTES
  session_lifetime_ms => INT64
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
auth_bytes	The SASL authentication bytes from the server, as defined by the SASL mechanism.
session_lifetime_ms	Number of milliseconds after which only re-authentication over the existing connection to create a new session can occur.

```
SaslAuthenticate Response (Version: 2) => error_code error_message auth_bytes session_lifetime_ms TAG_BUFFER
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  auth_bytes => COMPACT_BYTES
  session_lifetime_ms => INT64
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
error_message	The error message, or null if there was no error.
auth_bytes	The SASL authentication bytes from the server, as defined by the SASL mechanism.
session_lifetime_ms	Number of milliseconds after which only re-authentication over the existing connection to create a new session can occur.
_tagged_fields	The tagged fields

CreatePartitions API (Key: 37):

Requests:

```
CreatePartitions Request (Version: 0) => [topics] timeout_ms validate_only
  topics => name count [assignments]
    name => STRING
    count => INT32
    assignments => [broker_ids]
      broker_ids => INT32
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	Each topic that we want to create new partitions inside.
name	The topic name.
count	The new partition count.
assignments	The new partition assignments.
broker_ids	The assigned broker IDs.
timeout_ms	The time in ms to wait for the partitions to be created.
validate_only	If true, then validate the request, but don't actually increase the number of partitions.

```
CreatePartitions Request (Version: 1) => [topics] timeout_ms validate_only
  topics => name count [assignments]
    name => STRING
    count => INT32
    assignments => [broker_ids]
      broker_ids => INT32
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	Each topic that we want to create new partitions inside.
name	The topic name.
count	The new partition count.
assignments	The new partition assignments.
broker_ids	The assigned broker IDs.
timeout_ms	The time in ms to wait for the partitions to be created.
validate_only	If true, then validate the request, but don't actually increase the number of partitions.

```
CreatePartitions Request (Version: 2) => [topics] timeout_ms validate_only TAG_BUFFER
  topics => name count [assignments] TAG_BUFFER
    name => COMPACT_STRING
    count => INT32
    assignments => [broker_ids] TAG_BUFFER
      broker_ids => INT32
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	Each topic that we want to create new partitions inside.
name	The topic name.
count	The new partition count.
assignments	The new partition assignments.
broker_ids	The assigned broker IDs.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
timeout_ms	The time in ms to wait for the partitions to be created.
validate_only	If true, then validate the request, but don't actually increase the number of partitions.
_tagged_fields	The tagged fields

```
CreatePartitions Request (Version: 3) => [topics] timeout_ms validate_only TAG_BUFFER
  topics => name count [assignments] TAG_BUFFER
    name => COMPACT_STRING
    count => INT32
    assignments => [broker_ids] TAG_BUFFER
      broker_ids => INT32
  timeout_ms => INT32
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
topics	Each topic that we want to create new partitions inside.
name	The topic name.
count	The new partition count.
assignments	The new partition assignments.
broker_ids	The assigned broker IDs.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
timeout_ms	The time in ms to wait for the partitions to be created.
validate_only	If true, then validate the request, but don't actually increase the number of partitions.
_tagged_fields	The tagged fields

Responses:

```
CreatePartitions Response (Version: 0) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => name error_code error_message
    name => STRING
    error_code => INT16
    error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The partition creation results for each topic.
name	The topic name.
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.

```
CreatePartitions Response (Version: 1) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => name error_code error_message
    name => STRING
    error_code => INT16
    error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The partition creation results for each topic.
name	The topic name.
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.

```
CreatePartitions Response (Version: 2) => throttle_time_ms [results] TAG_BUFFER
  throttle_time_ms => INT32
  results => name error_code error_message TAG_BUFFER
    name => COMPACT_STRING
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The partition creation results for each topic.
name	The topic name.
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
CreatePartitions Response (Version: 3) => throttle_time_ms [results] TAG_BUFFER
  throttle_time_ms => INT32
  results => name error_code error_message TAG_BUFFER
    name => COMPACT_STRING
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The partition creation results for each topic.
name	The topic name.
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

CreateDelegationToken API (Key: 38):

Requests:

```
CreateDelegationToken Request (Version: 0) => [renewers] max_lifetime_ms
  renewers => principal_type principal_name
    principal_type => STRING
    principal_name => STRING
  max_lifetime_ms => INT64
```

FIELD	DESCRIPTION
renewers	A list of those who are allowed to renew this token before it expires.
principal_type	The type of the Kafka principal.
principal_name	The name of the Kafka principal.

```
CreateDelegationToken Request (Version: 1) => [renewers] max_lifetime_ms
  renewers => principal_type principal_name
    principal_type => STRING
    principal_name => STRING
  max_lifetime_ms => INT64
```

FIELD	DESCRIPTION
renewers	A list of those who are allowed to renew this token before it expires.
principal_type	The type of the Kafka principal.
principal_name	The name of the Kafka principal.
max_lifetime_ms	The maximum lifetime of the token in milliseconds, or -1 to use the server side default.

```
CreateDelegationToken Request (Version: 2) => [renewers] max_lifetime_ms TAG_BUFFER
  renewers => principal_type principal_name TAG_BUFFER
    principal_type => COMPACT_STRING
    principal_name => COMPACT_STRING
  max_lifetime_ms => INT64
```

FIELD	DESCRIPTION
renewers	A list of those who are allowed to renew this token before it expires.
principal_type	The type of the Kafka principal.
principal_name	The name of the Kafka principal.
_tagged_fields	The tagged fields
max_lifetime_ms	The maximum lifetime of the token in milliseconds, or -1 to use the server side default.
_tagged_fields	The tagged fields

```
CreateDelegationToken Request (Version: 3) => owner_principal_type owner_principal_name [renewers] max_lifetime_ms TAG_BUFFER
  owner_principal_type => COMPACT_NULLABLE_STRING
  owner_principal_name => COMPACT_NULLABLE_STRING
  renewers => principal_type principal_name TAG_BUFFER
    principal_type => COMPACT_STRING
    principal_name => COMPACT_STRING
  max_lifetime_ms => INT64
```

FIELD	DESCRIPTION
owner_principal_type	The principal type of the owner of the token. If it's null it defaults to the token request principal.
owner_principal_name	The principal name of the owner of the token. If it's null it defaults to the token request principal.
renewers	A list of those who are allowed to renew this token before it expires.
principal_type	The type of the Kafka principal.
principal_name	The name of the Kafka principal.
_tagged_fields	The tagged fields
max_lifetime_ms	The maximum lifetime of the token in milliseconds, or -1 to use the server side default.
_tagged_fields	The tagged fields

Responses:

```
CreateDelegationToken Response (Version: 0) => error_code principal_type principal_name issue_timestamp_ms expiry_timestamp_ms max_timestamp_ms token_id hmac throttle_time_ms
  error_code => INT16
  principal_type => STRING
  principal_name => STRING
  issue_timestamp_ms => INT64
  expiry_timestamp_ms => INT64
  max_timestamp_ms => INT64
  token_id => STRING
  hmac => BYTES
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error, or zero if there was no error.
principal_type	The principal type of the token owner.
principal_name	The name of the token owner.
issue_timestamp_ms	When this token was generated.
expiry_timestamp_ms	When this token expires.
max_timestamp_ms	The maximum lifetime of this token.
token_id	The token UUID.
hmac	HMAC of the delegation token.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
CreateDelegationToken Response (Version: 1) => error_code principal_type principal_name issue_timestamp_ms expiry_timestamp_ms max_timestamp_ms token_id hmac throttle_time_ms
  error_code => INT16
  principal_type => STRING
  principal_name => STRING
  issue_timestamp_ms => INT64
  expiry_timestamp_ms => INT64
  max_timestamp_ms => INT64
  token_id => STRING
  hmac => BYTES
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error, or zero if there was no error.
principal_type	The principal type of the token owner.
principal_name	The name of the token owner.
issue_timestamp_ms	When this token was generated.
expiry_timestamp_ms	When this token expires.
max_timestamp_ms	The maximum lifetime of this token.
token_id	The token UUID.
hmac	HMAC of the delegation token.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
CreateDelegationToken Response (Version: 2) => error_code principal_type principal_name issue_timestamp_ms expiry_timestamp_ms max_timestamp_ms token_id hmac throttle_time_ms TAG_BUFFER
  error_code => INT16
  principal_type => COMPACT_STRING
  principal_name => COMPACT_STRING
  issue_timestamp_ms => INT64
  expiry_timestamp_ms => INT64
  max_timestamp_ms => INT64
  token_id => COMPACT_STRING
  hmac => COMPACT_BYTES
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error, or zero if there was no error.
principal_type	The principal type of the token owner.
principal_name	The name of the token owner.
issue_timestamp_ms	When this token was generated.
expiry_timestamp_ms	When this token expires.
max_timestamp_ms	The maximum lifetime of this token.
token_id	The token UUID.
hmac	HMAC of the delegation token.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
_tagged_fields	The tagged fields

```
CreateDelegationToken Response (Version: 3) => error_code principal_type principal_name token_requester_principal_type token_requester_principal_name issue_timestamp_ms expiry_timestamp_ms max_timestamp_ms token_id hmac throttle_time_ms TAG_BUFFER
  error_code => INT16
  principal_type => COMPACT_STRING
  principal_name => COMPACT_STRING
  token_requester_principal_type => COMPACT_STRING
  token_requester_principal_name => COMPACT_STRING
  issue_timestamp_ms => INT64
  expiry_timestamp_ms => INT64
  max_timestamp_ms => INT64
  token_id => COMPACT_STRING
  hmac => COMPACT_BYTES
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The top-level error, or zero if there was no error.
principal_type	The principal type of the token owner.
principal_name	The name of the token owner.
token_requester_principal_type	The principal type of the requester of the token.
token_requester_principal_name	The principal type of the requester of the token.
issue_timestamp_ms	When this token was generated.
expiry_timestamp_ms	When this token expires.
max_timestamp_ms	The maximum lifetime of this token.
token_id	The token UUID.

hmac	HMAC of the delegation token.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
_tagged_fields	The tagged fields

RenewDelegationToken API (Key: 39):

Requests:

```
RenewDelegationToken Request (Version: 0) => hmac renew_period_ms
  hmac => BYTES
  renew_period_ms => INT64
```

FIELD	DESCRIPTION
hmac	The HMAC of the delegation token to be renewed.
renew_period_ms	The renewal time period in milliseconds.

```
RenewDelegationToken Request (Version: 1) => hmac renew_period_ms
  hmac => BYTES
  renew_period_ms => INT64
```

FIELD	DESCRIPTION
hmac	The HMAC of the delegation token to be renewed.
renew_period_ms	The renewal time period in milliseconds.

```
RenewDelegationToken Request (Version: 2) => hmac renew_period_ms TAG_BUFFER
  hmac => COMPACT_BYTES
  renew_period_ms => INT64
```

FIELD	DESCRIPTION
hmac	The HMAC of the delegation token to be renewed.
renew_period_ms	The renewal time period in milliseconds.
_tagged_fields	The tagged fields

Responses:

```
RenewDelegationToken Response (Version: 0) => error_code expiry_timestamp_ms throttle_time_ms
  error_code => INT16
  expiry_timestamp_ms => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
expiry_timestamp_ms	The timestamp in milliseconds at which this token expires.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
RenewDelegationToken Response (Version: 1) => error_code expiry_timestamp_ms throttle_time_ms
  error_code => INT16
  expiry_timestamp_ms => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
expiry_timestamp_ms	The timestamp in milliseconds at which this token expires.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
RenewDelegationToken Response (Version: 2) => error_code expiry_timestamp_ms throttle_time_ms TAG_BUFFER
  error_code => INT16
  expiry_timestamp_ms => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
expiry_timestamp_ms	The timestamp in milliseconds at which this token expires.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
_tagged_fields	The tagged fields

ExpireDelegationToken API (Key: 40):

Requests:

```
ExpireDelegationToken Request (Version: 0) => hmac expiry_time_period_ms
  hmac => BYTES
  expiry_time_period_ms => INT64
```

FIELD	DESCRIPTION
hmac	The HMAC of the delegation token to be expired.
expiry_time_period_ms	The expiry time period in milliseconds.

```
ExpireDelegationToken Request (Version: 1) => hmac expiry_time_period_ms
  hmac => BYTES
  expiry_time_period_ms => INT64
```

FIELD	DESCRIPTION
hmac	The HMAC of the delegation token to be expired.
expiry_time_period_ms	The expiry time period in milliseconds.

```
ExpireDelegationToken Request (Version: 2) => hmac expiry_time_period_ms TAG_BUFFER
  hmac => COMPACT_BYTES
  expiry_time_period_ms => INT64
```

FIELD	DESCRIPTION
hmac	The HMAC of the delegation token to be expired.
expiry_time_period_ms	The expiry time period in milliseconds.
_tagged_fields	The tagged fields

Responses:

```
ExpireDelegationToken Response (Version: 0) => error_code expiry_timestamp_ms throttle_time_ms
  error_code => INT16
  expiry_timestamp_ms => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
expiry_timestamp_ms	The timestamp in milliseconds at which this token expires.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
ExpireDelegationToken Response (Version: 1) => error_code expiry_timestamp_ms throttle_time_ms
  error_code => INT16
  expiry_timestamp_ms => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
expiry_timestamp_ms	The timestamp in milliseconds at which this token expires.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
ExpireDelegationToken Response (Version: 2) => error_code expiry_timestamp_ms throttle_time_ms TAG_BUFFER
  error_code => INT16
  expiry_timestamp_ms => INT64
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
expiry_timestamp_ms	The timestamp in milliseconds at which this token expires.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
_tagged_fields	The tagged fields

DescribeDelegationToken API (Key: 41):

Requests:

```
DescribeDelegationToken Request (Version: 0) => [owners]
  owners => principal_type principal_name
    principal_type => STRING
    principal_name => STRING
```

FIELD	DESCRIPTION

owners	Each owner that we want to describe delegation tokens for, or null to describe all tokens.
principal_type	The owner principal type.
principal_name	The owner principal name.

```
DescribeDelegationToken Request (Version: 1) => [owners]
  owners => principal_type principal_name
    principal_type => STRING
    principal_name => STRING
```

FIELD	DESCRIPTION
owners	Each owner that we want to describe delegation tokens for, or null to describe all tokens.
principal_type	The owner principal type.
principal_name	The owner principal name.

```
DescribeDelegationToken Request (Version: 2) => [owners] TAG_BUFFER
  owners => principal_type principal_name TAG_BUFFER
    principal_type => COMPACT_STRING
    principal_name => COMPACT_STRING
```

FIELD	DESCRIPTION
owners	Each owner that we want to describe delegation tokens for, or null to describe all tokens.
principal_type	The owner principal type.
principal_name	The owner principal name.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DescribeDelegationToken Request (Version: 3) => [owners] TAG_BUFFER
  owners => principal_type principal_name TAG_BUFFER
    principal_type => COMPACT_STRING
    principal_name => COMPACT_STRING
```

FIELD	DESCRIPTION
owners	Each owner that we want to describe delegation tokens for, or null to describe all tokens.
principal_type	The owner principal type.
principal_name	The owner principal name.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
DescribeDelegationToken Response (Version: 0) => error_code [tokens] throttle_time_ms
  error_code => INT16
  tokens => principal_type principal_name issue_timestamp expiry_timestamp max_timestamp token_id hmac [renewers]
    principal_type => STRING
    principal_name => STRING
    issue_timestamp => INT64
    expiry_timestamp => INT64
    max_timestamp => INT64
    token_id => STRING
    hmac => BYTES
    renewers => principal_type principal_name
      principal_type => STRING
      principal_name => STRING
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
tokens	The tokens.
principal_type	The token principal type.
principal_name	The token principal name.
issue_timestamp	The token issue timestamp in milliseconds.
expiry_timestamp	The token expiry timestamp in milliseconds.
max_timestamp	The token maximum timestamp length in milliseconds.
token_id	The token ID.
hmac	The token HMAC.
renewers	Those who are able to renew this token before it expires.
principal_type	The renewer principal type
principal_name	The renewer principal name
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
DescribeDelegationToken Response (Version: 1) => error_code [tokens] throttle_time_ms
  error_code => INT16
  tokens => principal_type principal_name issue_timestamp expiry_timestamp max_timestamp token_id hmac [renewers]
    principal_type => STRING
    principal_name => STRING
    issue_timestamp => INT64
    expiry_timestamp => INT64
    max_timestamp => INT64
    token_id => STRING
    hmac => BYTES
    renewers => principal_type principal_name
      principal_type => STRING
      principal_name => STRING
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
tokens	The tokens.
principal_type	The token principal type.
principal_name	The token principal name.
issue_timestamp	The token issue timestamp in milliseconds.
expiry_timestamp	The token expiry timestamp in milliseconds.
max_timestamp	The token maximum timestamp length in milliseconds.
token_id	The token ID.
hmac	The token HMAC.
renewers	Those who are able to renew this token before it expires.
principal_type	The renewer principal type
principal_name	The renewer principal name
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

```
DescribeDelegationToken Response (Version: 2) => error_code [tokens] throttle_time_ms TAG_BUFFER
  error_code => INT16
  tokens => principal_type principal_name issue_timestamp expiry_timestamp max_timestamp token_id hmac [renewers] TAG_BUFFER
    principal_type => COMPACT_STRING
    principal_name => COMPACT_STRING
    issue_timestamp => INT64
    expiry_timestamp => INT64
    max_timestamp => INT64
    token_id => COMPACT_STRING
    hmac => COMPACT_BYTES
    renewers => principal_type principal_name TAG_BUFFER
      principal_type => COMPACT_STRING
      principal_name => COMPACT_STRING
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
tokens	The tokens.
principal_type	The token principal type.
principal_name	The token principal name.
issue_timestamp	The token issue timestamp in milliseconds.
expiry_timestamp	The token expiry timestamp in milliseconds.
max_timestamp	The token maximum timestamp length in milliseconds.
token_id	The token ID.
hmac	The token HMAC.
renewers	Those who are able to renew this token before it expires.
principal_type	The renewer principal type
principal_name	The renewer principal name
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
_tagged_fields	The tagged fields

```
DescribeDelegationToken Response (Version: 3) => error_code [tokens] throttle_time_ms TAG_BUFFER
  error_code => INT16
  tokens => principal_type principal_name token_requester_principal_type token_requester_principal_name issue_timestamp expiry_timestamp max_timestamp token_id hmac [renewers] TAG_BUFFER
    principal_type => COMPACT_STRING
```

```
    token_requester_principal_type => COMPACT_STRING
    token_requester_principal_name => COMPACT_STRING
    issue_timestamp => INT64
    expiry_timestamp => INT64
    max_timestamp => INT64
    token_id => COMPACT_STRING
    hmac => COMPACT_BYTES
    renewers => principal_type principal_name TAG_BUFFER
      principal_type => COMPACT_STRING
      principal_name => COMPACT_STRING
  throttle_time_ms => INT32
```

FIELD	DESCRIPTION
error_code	The error code, or 0 if there was no error.
tokens	The tokens.
principal_type	The token principal type.
principal_name	The token principal name.
token_requester_principal_type	The principal type of the requester of the token.
token_requester_principal_name	The principal type of the requester of the token.
issue_timestamp	The token issue timestamp in milliseconds.
expiry_timestamp	The token expiry timestamp in milliseconds.
max_timestamp	The token maximum timestamp length in milliseconds.
token_id	The token ID.
hmac	The token HMAC.
renewers	Those who are able to renew this token before it expires.
principal_type	The renewer principal type
principal_name	The renewer principal name
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
_tagged_fields	The tagged fields

DeleteGroups API (Key: 42):

Requests:

```
DeleteGroups Request (Version: 0) => [groups_names]
  groups_names => STRING
```

FIELD	DESCRIPTION
groups_names	The group names to delete.

```
DeleteGroups Request (Version: 1) => [groups_names]
  groups_names => STRING
```

FIELD	DESCRIPTION
groups_names	The group names to delete.

```
DeleteGroups Request (Version: 2) => [groups_names] TAG_BUFFER
  groups_names => COMPACT_STRING
```

FIELD	DESCRIPTION
groups_names	The group names to delete.
_tagged_fields	The tagged fields

Responses:

```
DeleteGroups Response (Version: 0) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => group_id error_code
    group_id => STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The deletion results
group_id	The group id
error_code	The deletion error, or 0 if the deletion succeeded.

```
DeleteGroups Response (Version: 1) => throttle_time_ms [results]
  throttle_time_ms => INT32
  results => group_id error_code
    group_id => STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The deletion results
group_id	The group id
error_code	The deletion error, or 0 if the deletion succeeded.

```
DeleteGroups Response (Version: 2) => throttle_time_ms [results] TAG_BUFFER
  throttle_time_ms => INT32
  results => group_id error_code TAG_BUFFER
    group_id => COMPACT_STRING
    error_code => INT16
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The deletion results
group_id	The group id
error_code	The deletion error, or 0 if the deletion succeeded.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

ElectLeaders API (Key: 43):

Requests:

```
ElectLeaders Request (Version: 0) => [topic_partitions] timeout_ms
  topic_partitions => topic [partitions]
    topic => STRING
    partitions => INT32
  timeout_ms => INT32
```

FIELD	DESCRIPTION
topic_partitions	The topic partitions to elect leaders.
topic	The name of a topic.
partitions	The partitions of this topic whose leader should be elected.
timeout_ms	The time in ms to wait for the election to complete.

```
ElectLeaders Request (Version: 1) => election_type [topic_partitions] timeout_ms
  election_type => INT8
  topic_partitions => topic [partitions]
    topic => STRING
    partitions => INT32
  timeout_ms => INT32
```

FIELD	DESCRIPTION
election_type	Type of elections to conduct for the partition. A value of '0' elects the preferred replica. A value of '1' elects the first live replica if there are no in-sync replica.
topic_partitions	The topic partitions to elect leaders.
topic	The name of a topic.
partitions	The partitions of this topic whose leader should be elected.
timeout_ms	The time in ms to wait for the election to complete.

```
ElectLeaders Request (Version: 2) => election_type [topic_partitions] timeout_ms TAG_BUFFER
  election_type => INT8
  topic_partitions => topic [partitions] TAG_BUFFER
    topic => COMPACT_STRING
    partitions => INT32
  timeout_ms => INT32
```

FIELD	DESCRIPTION
election_type	Type of elections to conduct for the partition. A value of '0' elects the preferred replica. A value of '1' elects the first live replica if there are no in-sync replica.
topic_partitions	The topic partitions to elect leaders.
topic	The name of a topic.
partitions	The partitions of this topic whose leader should be elected.

_tagged_fields	The tagged fields
timeout_ms	The time in ms to wait for the election to complete.
_tagged_fields	The tagged fields

Responses:

```
ElectLeaders Response (Version: 0) => throttle_time_ms [replica_election_results]
  throttle_time_ms => INT32
  replica_election_results => topic [partition_result]
    topic => STRING
    partition_result => partition_id error_code error_message
      partition_id => INT32
      error_code => INT16
      error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
replica_election_results	The election results, or an empty array if the requester did not have permission and the request asks for all partitions.
topic	The topic name
partition_result	The results for each partition
partition_id	The partition id
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.

```
ElectLeaders Response (Version: 1) => throttle_time_ms error_code [replica_election_results]
  throttle_time_ms => INT32
  error_code => INT16
  replica_election_results => topic [partition_result]
    topic => STRING
    partition_result => partition_id error_code error_message
      partition_id => INT32
      error_code => INT16
      error_message => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
replica_election_results	The election results, or an empty array if the requester did not have permission and the request asks for all partitions.
topic	The topic name
partition_result	The results for each partition
partition_id	The partition id
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.

```
ElectLeaders Response (Version: 2) => throttle_time_ms error_code [replica_election_results] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  replica_election_results => topic [partition_result] TAG_BUFFER
    topic => COMPACT_STRING
    partition_result => partition_id error_code error_message TAG_BUFFER
      partition_id => INT32
      error_code => INT16
      error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code.
replica_election_results	The election results, or an empty array if the requester did not have permission and the request asks for all partitions.
topic	The topic name
partition_result	The results for each partition
partition_id	The partition id
error_code	The result error, or zero if there was no error.
error_message	The result message, or null if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

IncrementalAlterConfigs API (Key: 44):

Requests:

```
IncrementalAlterConfigs Request (Version: 0) => [resources] validate_only
  resources => resource_type resource_name [configs]
    resource_type => INT8
    resource_name => STRING
    configs => name config_operation value
      name => STRING
      config_operation => INT8
      value => NULLABLE_STRING
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
resources	The incremental updates for each resource.
resource_type	The resource type.
resource_name	The resource name.
configs	The configurations.
name	The configuration key name.
config_operation	The type (Set, Delete, Append, Subtract) of operation.
value	The value to set for the configuration key.
validate_only	True if we should validate the request, but not change the configurations.

```
IncrementalAlterConfigs Request (Version: 1) => [resources] validate_only TAG_BUFFER
  resources => resource_type resource_name [configs] TAG_BUFFER
    resource_type => INT8
    resource_name => COMPACT_STRING
    configs => name config_operation value TAG_BUFFER
      name => COMPACT_STRING
      config_operation => INT8
      value => COMPACT_NULLABLE_STRING
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
resources	The incremental updates for each resource.
resource_type	The resource type.
resource_name	The resource name.
configs	The configurations.
name	The configuration key name.
config_operation	The type (Set, Delete, Append, Subtract) of operation.
value	The value to set for the configuration key.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
validate_only	True if we should validate the request, but not change the configurations.
_tagged_fields	The tagged fields

Responses:

```
IncrementalAlterConfigs Response (Version: 0) => throttle_time_ms [responses]
  throttle_time_ms => INT32
  responses => error_code error_message resource_type resource_name
    error_code => INT16
    error_message => NULLABLE_STRING
    resource_type => INT8
    resource_name => STRING
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The responses for each resource.
error_code	The resource error code.
error_message	The resource error message, or null if there was no error.
resource_type	The resource type.
resource_name	The resource name.

```
IncrementalAlterConfigs Response (Version: 1) => throttle_time_ms [responses] TAG_BUFFER
  throttle_time_ms => INT32
  responses => error_code error_message resource_type resource_name TAG_BUFFER
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    resource_type => INT8
    resource_name => COMPACT_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
responses	The responses for each resource.
error_code	The resource error code.
error_message	The resource error message, or null if there was no error.
resource_type	The resource type.
resource_name	The resource name.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

AlterPartitionReassignments API (Key: 45):

Requests:

```
AlterPartitionReassignments Request (Version: 0) => timeout_ms [topics] TAG_BUFFER
  timeout_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index [replicas] TAG_BUFFER
      partition_index => INT32
      replicas => INT32
```

FIELD	DESCRIPTION
timeout_ms	The time in ms to wait for the request to complete.
topics	The topics to reassign.
name	The topic name.
partitions	The partitions to reassign.
partition_index	The partition index.
replicas	The replicas to place the partitions on, or null to cancel a pending reassignment for this partition.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
AlterPartitionReassignments Response (Version: 0) => throttle_time_ms error_code error_message [responses] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  responses => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index error_code error_message TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top-level error code, or 0 if there was no error.
error_message	The top-level error message, or null if there was no error.
responses	The responses to topics to reassign.
name	The topic name
partitions	The responses to partitions to reassign
partition_index	The partition index.
error_code	The error code for this partition, or 0 if there was no error.
error_message	The error message for this partition, or null if there was no error.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

ListPartitionReassignments API (Key: 46):

Requests:

```
ListPartitionReassignments Request (Version: 0) => timeout_ms [topics] TAG_BUFFER
  timeout_ms => INT32
  topics => name [partition_indexes] TAG_BUFFER
    name => COMPACT_STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
timeout_ms	The time in ms to wait for the request to complete.
topics	The topics to list partition reassignments for, or null to list everything.
name	The topic name
partition_indexes	The partitions to list partition reassignments for.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
ListPartitionReassignments Response (Version: 0) => throttle_time_ms error_code error_message [topics] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index [replicas] [adding_replicas] [removing_replicas] TAG_BUFFER
      partition_index => INT32
      replicas => INT32
      adding_replicas => INT32
      removing_replicas => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top-level error code, or 0 if there was no error
error_message	The top-level error message, or null if there was no error.
topics	The ongoing reassignments for each topic.
name	The topic name.
partitions	The ongoing reassignments for each partition.
partition_index	The index of the partition.
replicas	The current replica set.
adding_replicas	The set of replicas we are currently adding.
removing_replicas	The set of replicas we are currently removing.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

OffsetDelete API (Key: 47):

Requests:

```
OffsetDelete Request (Version: 0) => group_id [topics]
  group_id => STRING
  topics => name [partitions]
    name => STRING
    partitions => partition_index
      partition_index => INT32
```

FIELD	DESCRIPTION
group_id	The unique group identifier.
topics	The topics to delete offsets for
name	The topic name.
partitions	Each partition to delete offsets for.
partition_index	The partition index.

Responses:

```
OffsetDelete Response (Version: 0) => error_code throttle_time_ms [topics]
  error_code => INT16
  throttle_time_ms => INT32
  topics => name [partitions]
    name => STRING
    partitions => partition_index error_code
      partition_index => INT32
      error_code => INT16
```

FIELD	DESCRIPTION
error_code	The top-level error code, or 0 if there was no error.
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

topics	The responses for each topic.
name	The topic name.
partitions	The responses for each partition in the topic.
partition_index	The partition index.
error_code	The error code, or 0 if there was no error.

DescribeClientQuotas API (Key: 48):

Requests:

```
DescribeClientQuotas Request (Version: 0) => [components] strict
  components => entity_type match_type match
    entity_type => STRING
    match_type => INT8
    match => NULLABLE_STRING
  strict => BOOLEAN
```

FIELD	DESCRIPTION
components	Filter components to apply to quota entities.
entity_type	The entity type that the filter component applies to.
match_type	How to match the entity (0 = exact name, 1 = default name, 2 = any specified name).
match	The string to match against, or null if unused for the match type.
strict	Whether the match is strict, i.e. should exclude entities with unspecified entity types.

```
DescribeClientQuotas Request (Version: 1) => [components] strict TAG_BUFFER
  components => entity_type match_type match TAG_BUFFER
    entity_type => COMPACT_STRING
    match_type => INT8
    match => COMPACT_NULLABLE_STRING
  strict => BOOLEAN
```

FIELD	DESCRIPTION
components	Filter components to apply to quota entities.
entity_type	The entity type that the filter component applies to.
match_type	How to match the entity (0 = exact name, 1 = default name, 2 = any specified name).
match	The string to match against, or null if unused for the match type.
_tagged_fields	The tagged fields
strict	Whether the match is strict, i.e. should exclude entities with unspecified entity types.
_tagged_fields	The tagged fields

Responses:

```
DescribeClientQuotas Response (Version: 0) => throttle_time_ms error_code error_message [entries]
  throttle_time_ms => INT32
  error_code => INT16
  error_message => NULLABLE_STRING
  entries => [entity] [values]
    entity => entity_type entity_name
      entity_type => STRING
      entity_name => NULLABLE_STRING
    values => key value
      key => STRING
      value => FLOAT64
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or `0` if the quota description succeeded.
error_message	The error message, or `null` if the quota description succeeded.
entries	A result entry.
entity	The quota entity description.
entity_type	The entity type.
entity_name	The entity name, or null if the default.
values	The quota values for the entity.
key	The quota configuration key.
value	The quota configuration value.

```
DescribeClientQuotas Response (Version: 1) => throttle_time_ms error_code error_message [entries] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  entries => [entity] [values] TAG_BUFFER
    entity => entity_type entity_name TAG_BUFFER
      entity_type => COMPACT_STRING
      entity_name => COMPACT_NULLABLE_STRING
    values => key value TAG_BUFFER
      key => COMPACT_STRING
      value => FLOAT64
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or `0` if the quota description succeeded.
error_message	The error message, or `null` if the quota description succeeded.
entries	A result entry.
entity	The quota entity description.
entity_type	The entity type.
entity_name	The entity name, or null if the default.
_tagged_fields	The tagged fields
values	The quota values for the entity.
key	The quota configuration key.
value	The quota configuration value.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

AlterClientQuotas API (Key: 49):

Requests:

```
AlterClientQuotas Request (Version: 0) => [entries] validate_only
  entries => [entity] [ops]
    entity => entity_type entity_name
      entity_type => STRING
      entity_name => NULLABLE_STRING
    ops => key value remove
      key => STRING
      value => FLOAT64
      remove => BOOLEAN
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
entries	The quota configuration entries to alter.
entity	The quota entity to alter.
entity_type	The entity type.
entity_name	The name of the entity, or null if the default.
ops	An individual quota configuration entry to alter.
key	The quota configuration key.
value	The value to set, otherwise ignored if the value is to be removed.
remove	Whether the quota configuration value should be removed, otherwise set.
validate_only	Whether the alteration should be validated, but not performed.

```
AlterClientQuotas Request (Version: 1) => [entries] validate_only TAG_BUFFER
  entries => [entity] [ops] TAG_BUFFER
    entity => entity_type entity_name TAG_BUFFER
      entity_type => COMPACT_STRING
      entity_name => COMPACT_NULLABLE_STRING
    ops => key value remove TAG_BUFFER
      key => COMPACT_STRING
      value => FLOAT64
      remove => BOOLEAN
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
entries	The quota configuration entries to alter.
entity	The quota entity to alter.
entity_type	The entity type.
entity_name	The name of the entity, or null if the default.
_tagged_fields	The tagged fields
ops	An individual quota configuration entry to alter.

key	The quota configuration key.
value	The value to set, otherwise ignored if the value is to be removed.
remove	Whether the quota configuration value should be removed, otherwise set.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
validate_only	Whether the alteration should be validated, but not performed.
_tagged_fields	The tagged fields

Responses:

```
AlterClientQuotas Response (Version: 0) => throttle_time_ms [entries]
  throttle_time_ms => INT32
  entries => error_code error_message [entity]
    error_code => INT16
    error_message => NULLABLE_STRING
    entity => entity_type entity_name
      entity_type => STRING
      entity_name => NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
entries	The quota configuration entries to alter.
error_code	The error code, or `0` if the quota alteration succeeded.
error_message	The error message, or `null` if the quota alteration succeeded.
entity	The quota entity to alter.
entity_type	The entity type.
entity_name	The name of the entity, or null if the default.

```
AlterClientQuotas Response (Version: 1) => throttle_time_ms [entries] TAG_BUFFER
  throttle_time_ms => INT32
  entries => error_code error_message [entity] TAG_BUFFER
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    entity => entity_type entity_name TAG_BUFFER
      entity_type => COMPACT_STRING
      entity_name => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
entries	The quota configuration entries to alter.
error_code	The error code, or `0` if the quota alteration succeeded.
error_message	The error message, or `null` if the quota alteration succeeded.
entity	The quota entity to alter.
entity_type	The entity type.
entity_name	The name of the entity, or null if the default.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

DescribeUserScramCredentials API (Key: 50):

Requests:

```
DescribeUserScramCredentials Request (Version: 0) => [users] TAG_BUFFER
  users => name TAG_BUFFER
    name => COMPACT_STRING
```

FIELD	DESCRIPTION
users	The users to describe, or null/empty to describe all users.
name	The user name.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
DescribeUserScramCredentials Response (Version: 0) => throttle_time_ms error_code error_message [results] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  results => user error_code error_message [credential_infos] TAG_BUFFER
    user => COMPACT_STRING
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
    credential_infos => mechanism iterations TAG_BUFFER
      mechanism => INT8
      iterations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The message-level error code, 0 except for user authorization or infrastructure issues.
error_message	The message-level error message, if any.
results	The results for descriptions, one per user.
user	The user name.
error_code	The user-level error code.
error_message	The user-level error message, if any.
credential_infos	The mechanism and related information associated with the user's SCRAM credentials.
mechanism	The SCRAM mechanism.
iterations	The number of iterations used in the SCRAM credential.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

AlterUserScramCredentials API (Key: 51):

Requests:

```
AlterUserScramCredentials Request (Version: 0) => [deletions] [upsertions] TAG_BUFFER
  deletions => name mechanism TAG_BUFFER
    name => COMPACT_STRING
    mechanism => INT8
  upsertions => name mechanism iterations salt salted_password TAG_BUFFER
    name => COMPACT_STRING
    mechanism => INT8
    iterations => INT32
    salt => COMPACT_BYTES
    salted_password => COMPACT_BYTES
```

FIELD	DESCRIPTION
deletions	The SCRAM credentials to remove.
name	The user name.
mechanism	The SCRAM mechanism.
_tagged_fields	The tagged fields
upsertions	The SCRAM credentials to update/insert.
name	The user name.
mechanism	The SCRAM mechanism.
iterations	The number of iterations.
salt	A random salt generated by the client.
salted_password	The salted password.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
AlterUserScramCredentials Response (Version: 0) => throttle_time_ms [results] TAG_BUFFER
  throttle_time_ms => INT32
  results => user error_code error_message TAG_BUFFER
    user => COMPACT_STRING
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
results	The results for deletions and alterations, one per affected user.
user	The user name.
error_code	The error code.
error_message	The error message, if any.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

DescribeQuorum API (Key: 55):

Requests:

```
DescribeQuorum Request (Version: 0) => [topics] TAG_BUFFER
  topics => topic_name [partitions] TAG_BUFFER
    topic_name => COMPACT_STRING
    partitions => partition_index TAG_BUFFER
      partition_index => INT32
```

FIELD	DESCRIPTION
topics	
topic_name	The topic name.
partitions	
partition_index	The partition index.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DescribeQuorum Request (Version: 1) => [topics] TAG_BUFFER
  topics => topic_name [partitions] TAG_BUFFER
    topic_name => COMPACT_STRING
    partitions => partition_index TAG_BUFFER
      partition_index => INT32
```

FIELD	DESCRIPTION
topics	
topic_name	The topic name.
partitions	
partition_index	The partition index.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
DescribeQuorum Response (Version: 0) => error_code [topics] TAG_BUFFER
  error_code => INT16
  topics => topic_name [partitions] TAG_BUFFER
    topic_name => COMPACT_STRING
    partitions => partition_index error_code leader_id leader_epoch high_watermark [current_voters] [observers] TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      leader_id => INT32
      leader_epoch => INT32
      high_watermark => INT64
      current_voters => replica_id log_end_offset TAG_BUFFER
        replica_id => INT32
        log_end_offset => INT64
      observers => replica_id log_end_offset TAG_BUFFER
        replica_id => INT32
        log_end_offset => INT64
```

FIELD	DESCRIPTION
error_code	The top level error code.
topics	
topic_name	The topic name.
partitions	
partition_index	The partition index.
error_code	
leader_id	The ID of the current leader or -1 if the leader is unknown.
leader_epoch	The latest known leader epoch
high_watermark	
current_voters	
replica_id	
log_end_offset	The last known log end offset of the follower or -1 if it is unknown
_tagged_fields	The tagged fields
observers	
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
DescribeQuorum Response (Version: 1) => error_code [topics] TAG_BUFFER
  error_code => INT16
  topics => topic_name [partitions] TAG_BUFFER
    topic_name => COMPACT_STRING
    partitions => partition_index error_code leader_id leader_epoch high_watermark [current_voters] [observers] TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      leader_id => INT32
      leader_epoch => INT32
      high_watermark => INT64
      current_voters => replica_id log_end_offset last_fetch_timestamp last_caught_up_timestamp TAG_BUFFER
        replica_id => INT32
        log_end_offset => INT64
        last_fetch_timestamp => INT64
        last_caught_up_timestamp => INT64
      observers => replica_id log_end_offset last_fetch_timestamp last_caught_up_timestamp TAG_BUFFER
        replica_id => INT32
        log_end_offset => INT64
        last_fetch_timestamp => INT64
        last_caught_up_timestamp => INT64
```

FIELD	DESCRIPTION
error_code	The top level error code.
topics	
topic_name	The topic name.
partitions	
partition_index	The partition index.
error_code	
leader_id	The ID of the current leader or -1 if the leader is unknown.
leader_epoch	The latest known leader epoch
high_watermark	
current_voters	
replica_id	
log_end_offset	The last known log end offset of the follower or -1 if it is unknown
last_fetch_timestamp	The last known leader wall clock time time when a follower fetched from the leader. This is reported as -1 both for the current leader or if it is unknown for a voter
last_caught_up_timestamp	The leader wall clock append time of the offset for which the follower made the most recent fetch request. This is reported as the current time for the leader and -1 if unknown for a voter
_tagged_fields	The tagged fields
observers	
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

AlterPartition API (Key: 56):

Requests:

```
AlterPartition Request (Version: 0) => broker_id broker_epoch [topics] TAG_BUFFER
  broker_id => INT32
  broker_epoch => INT64
  topics => topic_name [partitions] TAG_BUFFER
    topic_name => COMPACT_STRING
    partitions => partition_index leader_epoch [new_isr] partition_epoch TAG_BUFFER
      partition_index => INT32
      leader_epoch => INT32
      new_isr => INT32
      partition_epoch => INT32
```

FIELD	DESCRIPTION
broker_id	The ID of the requesting broker
broker_epoch	The epoch of the requesting broker
topics	
topic_name	The name of the topic to alter ISRs for
partitions	
partition_index	The partition index
leader_epoch	The leader epoch of this partition
new_isr	The ISR for this partition. Deprecated since version 3.

partition_epoch	The expected epoch of the partition which is being updated. For legacy cluster this is the ZkVersion in the LeaderAndIsr request.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
AlterPartition Request (Version: 1) => broker_id broker_epoch [topics] TAG_BUFFER
  broker_id => INT32
  broker_epoch => INT64
  topics => topic_name [partitions] TAG_BUFFER
    topic_name => COMPACT_STRING
    partitions => partition_index leader_epoch [new_isr] leader_recovery_state partition_epoch TAG_BUFFER
      partition_index => INT32
      leader_epoch => INT32
      new_isr => INT32
      leader_recovery_state => INT8
      partition_epoch => INT32
```

FIELD	DESCRIPTION
broker_id	The ID of the requesting broker
broker_epoch	The epoch of the requesting broker
topics	
topic_name	The name of the topic to alter ISRs for
partitions	
partition_index	The partition index
leader_epoch	The leader epoch of this partition
new_isr	The ISR for this partition. Deprecated since version 3.
leader_recovery_state	1 if the partition is recovering from an unclean leader election; 0 otherwise.
partition_epoch	The expected epoch of the partition which is being updated. For legacy cluster this is the ZkVersion in the LeaderAndIsr request.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
AlterPartition Request (Version: 2) => broker_id broker_epoch [topics] TAG_BUFFER
  broker_id => INT32
  broker_epoch => INT64
  topics => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition_index leader_epoch [new_isr] leader_recovery_state partition_epoch TAG_BUFFER
      partition_index => INT32
      leader_epoch => INT32
      new_isr => INT32
      leader_recovery_state => INT8
      partition_epoch => INT32
```

FIELD	DESCRIPTION
broker_id	The ID of the requesting broker
broker_epoch	The epoch of the requesting broker
topics	
topic_id	The ID of the topic to alter ISRs for
partitions	
partition_index	The partition index
leader_epoch	The leader epoch of this partition
new_isr	The ISR for this partition. Deprecated since version 3.
leader_recovery_state	1 if the partition is recovering from an unclean leader election; 0 otherwise.
partition_epoch	The expected epoch of the partition which is being updated. For legacy cluster this is the ZkVersion in the LeaderAndIsr request.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
AlterPartition Request (Version: 3) => broker_id broker_epoch [topics] TAG_BUFFER
  broker_id => INT32
  broker_epoch => INT64
  topics => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition_index leader_epoch [new_isr_with_epochs] leader_recovery_state partition_epoch TAG_BUFFER
      partition_index => INT32
      leader_epoch => INT32
      new_isr_with_epochs => broker_id broker_epoch TAG_BUFFER
        broker_id => INT32
        broker_epoch => INT64
      leader_recovery_state => INT8
      partition_epoch => INT32
```

FIELD	DESCRIPTION
broker_id	The ID of the requesting broker
broker_epoch	The epoch of the requesting broker
topics	
topic_id	The ID of the topic to alter ISRs for
partitions	
partition_index	The partition index
leader_epoch	The leader epoch of this partition
new_isr_with_epochs	
broker_id	The ID of the broker.
broker_epoch	The epoch of the broker. It will be -1 if the epoch check is not supported.
_tagged_fields	The tagged fields
leader_recovery_state	1 if the partition is recovering from an unclean leader election; 0 otherwise.
partition_epoch	The expected epoch of the partition which is being updated. For legacy cluster this is the ZkVersion in the LeaderAndIsr request.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
AlterPartition Response (Version: 0) => throttle_time_ms error_code [topics] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  topics => topic_name [partitions] TAG_BUFFER
    topic_name => COMPACT_STRING
    partitions => partition_index error_code leader_id leader_epoch [isr] partition_epoch TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      leader_id => INT32
      leader_epoch => INT32
      isr => INT32
      partition_epoch => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code
topics	
topic_name	The name of the topic
partitions	
partition_index	The partition index
error_code	The partition level error code
leader_id	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
partition_epoch	The current epoch for the partition for KRaft controllers. The current ZK version for the legacy controllers.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
AlterPartition Response (Version: 1) => throttle_time_ms error_code [topics] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  topics => topic_name [partitions] TAG_BUFFER
    topic_name => COMPACT_STRING
    partitions => partition_index error_code leader_id leader_epoch [isr] leader_recovery_state partition_epoch TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      leader_id => INT32
      leader_epoch => INT32
      isr => INT32
      leader_recovery_state => INT8
      partition_epoch => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.

topics	
topic_name	The name of the topic
partitions	
partition_index	The partition index
error_code	The partition level error code
leader_id	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
leader_recovery_state	1 if the partition is recovering from an unclean leader election; 0 otherwise.
partition_epoch	The current epoch for the partition for KRaft controllers. The current ZK version for the legacy controllers.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
AlterPartition Response (Version: 2) => throttle_time_ms error_code [topics] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  topics => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition_index error_code leader_id leader_epoch [isr] leader_recovery_state partition_epoch TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      leader_id => INT32
      leader_epoch => INT32
      isr => INT32
      leader_recovery_state => INT8
      partition_epoch => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code
topics	
topic_id	The ID of the topic
partitions	
partition_index	The partition index
error_code	The partition level error code
leader_id	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
leader_recovery_state	1 if the partition is recovering from an unclean leader election; 0 otherwise.
partition_epoch	The current epoch for the partition for KRaft controllers. The current ZK version for the legacy controllers.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
AlterPartition Response (Version: 3) => throttle_time_ms error_code [topics] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  topics => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => partition_index error_code leader_id leader_epoch [isr] leader_recovery_state partition_epoch TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      leader_id => INT32
      leader_epoch => INT32
      isr => INT32
      leader_recovery_state => INT8
      partition_epoch => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code
topics	
topic_id	The ID of the topic
partitions	
partition_index	The partition index
error_code	The partition level error code
leader_id	The broker ID of the leader.
leader_epoch	The leader epoch.
isr	The in-sync replica IDs.
leader_recovery_state	1 if the partition is recovering from an unclean leader election; 0 otherwise.
partition_epoch	The current epoch for the partition for KRaft controllers. The current ZK version for the legacy controllers.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

UpdateFeatures API (Key: 57):

Requests:

```
UpdateFeatures Request (Version: 0) => timeout_ms [feature_updates] TAG_BUFFER
  timeout_ms => INT32
  feature_updates => feature max_version_level allow_downgrade TAG_BUFFER
    feature => COMPACT_STRING
    max_version_level => INT16
    allow_downgrade => BOOLEAN
```

FIELD	DESCRIPTION
timeout_ms	How long to wait in milliseconds before timing out the request.
feature_updates	The list of updates to finalized features.
feature	The name of the finalized feature to be updated.
max_version_level	The new maximum version level for the finalized feature. A value >= 1 is valid. A value < 1, is special, and can be used to request the deletion of the finalized feature.
allow_downgrade	DEPRECATED in version 1 (see DowngradeType). When set to true, the finalized feature version level is allowed to be downgraded/deleted. The downgrade request will fail if the new maximum version level is a value that's not lower than the existing maximum finalized version level.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

```
UpdateFeatures Request (Version: 1) => timeout_ms [feature_updates] validate_only TAG_BUFFER
  timeout_ms => INT32
  feature_updates => feature max_version_level upgrade_type TAG_BUFFER
    feature => COMPACT_STRING
    max_version_level => INT16
    upgrade_type => INT8
  validate_only => BOOLEAN
```

FIELD	DESCRIPTION
timeout_ms	How long to wait in milliseconds before timing out the request.
feature_updates	The list of updates to finalized features.
feature	The name of the finalized feature to be updated.
max_version_level	The new maximum version level for the finalized feature. A value >= 1 is valid. A value < 1, is special, and can be used to request the deletion of the finalized feature.
upgrade_type	Determine which type of upgrade will be performed: 1 will perform an upgrade only (default), 2 is safe downgrades only (lossless), 3 is unsafe downgrades (lossy).
_tagged_fields	The tagged fields
validate_only	True if we should validate the request, but not perform the upgrade or downgrade.
_tagged_fields	The tagged fields

Responses:

```
UpdateFeatures Response (Version: 0) => throttle_time_ms error_code error_message [results] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  results => feature error_code error_message TAG_BUFFER
    feature => COMPACT_STRING
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top-level error code, or `0` if there was no top-level error.
error_message	The top-level error message, or `null` if there was no top-level error.
results	Results for each feature update.
feature	The name of the finalized feature.
error_code	The feature update error code or `0` if the feature update succeeded.
error_message	The feature update error, or `null` if the feature update succeeded.
_tagged_fields	The tagged fields

```
UpdateFeatures Response (Version: 1) => throttle_time_ms error_code error_message [results] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  results => feature error_code error_message TAG_BUFFER
    feature => COMPACT_STRING
    error_code => INT16
    error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top-level error code, or `0` if there was no top-level error.
error_message	The top-level error message, or `null` if there was no top-level error.
results	Results for each feature update.
feature	The name of the finalized feature.
error_code	The feature update error code or `0` if the feature update succeeded.
error_message	The feature update error, or `null` if the feature update succeeded.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Envelope API (Key: 58):

Requests:

```
Envelope Request (Version: 0) => request_data request_principal client_host_address TAG_BUFFER
  request_data => COMPACT_BYTES
  request_principal => COMPACT_NULLABLE_BYTES
  client_host_address => COMPACT_BYTES
```

FIELD	DESCRIPTION
request_data	The embedded request header and data.
request_principal	Value of the initial client principal when the request is redirected by a broker.
client_host_address	The original client's address in bytes.
_tagged_fields	The tagged fields

Responses:

```
Envelope Response (Version: 0) => response_data error_code TAG_BUFFER
  response_data => COMPACT_NULLABLE_BYTES
  error_code => INT16
```

FIELD	DESCRIPTION
response_data	The embedded response header and data.
error_code	The error code, or 0 if there was no error.
_tagged_fields	The tagged fields

DescribeCluster API (Key: 60):

Requests:

```
DescribeCluster Request (Version: 0) => include_cluster_authorized_operations TAG_BUFFER
  include_cluster_authorized_operations => BOOLEAN
```

FIELD	DESCRIPTION
include_cluster_authorized_operations	Whether to include cluster authorized operations.
_tagged_fields	The tagged fields

Responses:

```
DescribeCluster Response (Version: 0) => throttle_time_ms error_code error_message cluster_id controller_id [brokers] cluster_authorized_operations TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  cluster_id => COMPACT_STRING
  controller_id => INT32
  brokers => broker_id host port rack TAG_BUFFER
    broker_id => INT32
    host => COMPACT_STRING
    port => INT32
    rack => COMPACT_NULLABLE_STRING
  cluster_authorized_operations => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top-level error code, or 0 if there was no error
error_message	The top-level error message, or null if there was no error.
cluster_id	The cluster ID that responding broker belongs to.
controller_id	The ID of the controller broker.
brokers	Each broker in the response.
broker_id	The broker ID.
host	The broker hostname.
port	The broker port.
rack	The rack of the broker, or null if it has not been assigned to a rack.
_tagged_fields	The tagged fields
cluster_authorized_operations	32-bit bitfield to represent authorized operations for this cluster.
_tagged_fields	The tagged fields

DescribeProducers API (Key: 61):

Requests:

```
DescribeProducers Request (Version: 0) => [topics] TAG_BUFFER
  topics => name [partition_indexes] TAG_BUFFER
    name => COMPACT_STRING
    partition_indexes => INT32
```

FIELD	DESCRIPTION
topics	
name	The topic name.
partition_indexes	The indexes of the partitions to list producers for.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
DescribeProducers Response (Version: 0) => throttle_time_ms [topics] TAG_BUFFER
  throttle_time_ms => INT32
  topics => name [partitions] TAG_BUFFER
    name => COMPACT_STRING
    partitions => partition_index error_code error_message [active_producers] TAG_BUFFER
      partition_index => INT32
      error_code => INT16
      error_message => COMPACT_NULLABLE_STRING
      active_producers => producer_id producer_epoch last_sequence last_timestamp coordinator_epoch current_txn_start_offset TAG_BUFFER
        producer_id => INT64
        producer_epoch => INT32
        last_sequence => INT32
        last_timestamp => INT64
        coordinator_epoch => INT32
        current_txn_start_offset => INT64
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
topics	Each topic in the response.
name	The topic name
partitions	Each partition in the response.
partition_index	The partition index.
error_code	The partition error code, or 0 if there was no error.
error_message	The partition error message, which may be null if no additional details are available
active_producers	
producer_id	
producer_epoch	
last_sequence	
last_timestamp	
coordinator_epoch	
current_txn_start_offset	
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

_tagged_fields	The tagged fields

UnregisterBroker API (Key: 64):

Requests:

```
UnregisterBroker Request (Version: 0) => broker_id TAG_BUFFER
  broker_id => INT32
```

FIELD	DESCRIPTION
broker_id	The broker ID to unregister.
_tagged_fields	The tagged fields

Responses:

```
UnregisterBroker Response (Version: 0) => throttle_time_ms error_code error_message TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	Duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The error code, or 0 if there was no error.
error_message	The top-level error message, or `null` if there was no top-level error.
_tagged_fields	The tagged fields

DescribeTransactions API (Key: 65):

Requests:

```
DescribeTransactions Request (Version: 0) => [transactional_ids] TAG_BUFFER
  transactional_ids => COMPACT_STRING
```

FIELD	DESCRIPTION
transactional_ids	Array of transactionalIds to include in describe results. If empty, then no results will be returned.
_tagged_fields	The tagged fields

Responses:

```
DescribeTransactions Response (Version: 0) => throttle_time_ms [transaction_states] TAG_BUFFER
  throttle_time_ms => INT32
  transaction_states => error_code transactional_id transaction_state transaction_timeout_ms transaction_start_time_ms producer_id producer_epoch [topics] TAG_BUFFER
    error_code => INT16
    transactional_id => COMPACT_STRING
    transaction_state => COMPACT_STRING
    transaction_timeout_ms => INT32
    transaction_start_time_ms => INT64
    producer_id => INT64
    producer_epoch => INT16
    topics => topic [partitions] TAG_BUFFER
      topic => COMPACT_STRING
      partitions => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
transaction_states	
error_code	
transactional_id	
transaction_state	
transaction_timeout_ms	
transaction_start_time_ms	
producer_id	
producer_epoch	
topics	The set of partitions included in the current transaction (if active). When a transaction is preparing to commit or abort, this will include only partitions which do not have markers.
topic	
partitions	
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

ListTransactions API (Key: 66):

Requests:

```
ListTransactions Request (Version: 0) => [state_filters] [producer_id_filters] TAG_BUFFER
  state_filters => COMPACT_STRING
  producer_id_filters => INT64
```

FIELD	DESCRIPTION
state_filters	The transaction states to filter by: if empty, all transactions are returned; if non-empty, then only transactions matching one of the filtered states will be returned
producer_id_filters	The producerIds to filter by: if empty, all transactions will be returned; if non-empty, only transactions which match one of the filtered producerIds will be returned
_tagged_fields	The tagged fields

Responses:

```
ListTransactions Response (Version: 0) => throttle_time_ms error_code [unknown_state_filters] [transaction_states] TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  unknown_state_filters => COMPACT_STRING
  transaction_states => transactional_id producer_id transaction_state TAG_BUFFER
    transactional_id => COMPACT_STRING
    producer_id => INT64
    transaction_state => COMPACT_STRING
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	
unknown_state_filters	Set of state filters provided in the request which were unknown to the transaction coordinator
transaction_states	
transactional_id	
producer_id	
transaction_state	The current transaction state of the producer
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

AllocateProducerIds API (Key: 67):

Requests:

```
AllocateProducerIds Request (Version: 0) => broker_id broker_epoch TAG_BUFFER
  broker_id => INT32
  broker_epoch => INT64
```

FIELD	DESCRIPTION
broker_id	The ID of the requesting broker
broker_epoch	The epoch of the requesting broker
_tagged_fields	The tagged fields

Responses:

```
AllocateProducerIds Response (Version: 0) => throttle_time_ms error_code producer_id_start producer_id_len TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  producer_id_start => INT64
  producer_id_len => INT32
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top level response error code
producer_id_start	The first producer ID in this range, inclusive
producer_id_len	The number of producer IDs in this range
_tagged_fields	The tagged fields

ConsumerGroupHeartbeat API (Key: 68):

Requests:

```
ConsumerGroupHeartbeat Request (Version: 0) => group_id member_id member_epoch instance_id rack_id rebalance_timeout_ms [subscribed_topic_names] subscribed_topic_regex server_assignor [client_assignors] [topic_partitions] TAG_BUFFER
  group_id => COMPACT_STRING
  member_id => COMPACT_STRING
  member_epoch => INT32
```

```
  instance_id => COMPACT_NULLABLE_STRING
  rack_id => COMPACT_NULLABLE_STRING
  rebalance_timeout_ms => INT32
  subscribed_topic_names => COMPACT_STRING
  subscribed_topic_regex => COMPACT_NULLABLE_STRING
  server_assignor => COMPACT_NULLABLE_STRING
  client_assignors => name minimum_version maximum_version reason metadata_version metadata_bytes TAG_BUFFER
    name => COMPACT_STRING
    minimum_version => INT16
    maximum_version => INT16
    reason => INT8
    metadata_version => INT16
    metadata_bytes => COMPACT_BYTES
  topic_partitions => topic_id [partitions] TAG_BUFFER
    topic_id => UUID
    partitions => INT32
```

FIELD	DESCRIPTION
group_id	The group identifier.
member_id	The member id generated by the coordinator. The member id must be kept during the entire lifetime of the member.
member_epoch	The current member epoch; 0 to join the group; -1 to leave the group; -2 to indicate that the static member will rejoin.
instance_id	null if not provided or if it didn't change since the last heartbeat; the instance Id otherwise.
rack_id	null if not provided or if it didn't change since the last heartbeat; the rack ID of consumer otherwise.
rebalance_timeout_ms	-1 if it didn't chance since the last heartbeat; the maximum time in milliseconds that the coordinator will wait on the member to revoke its partitions otherwise.
subscribed_topic_names	null if it didn't change since the last heartbeat; the subscribed topic names otherwise.
subscribed_topic_regex	null if it didn't change since the last heartbeat; the subscribed topic regex otherwise
server_assignor	null if not used or if it didn't change since the last heartbeat; the server side assignor to use otherwise.
client_assignors	null if not used or if it didn't change since the last heartbeat; the list of client-side assignors otherwise.
name	The name of the assignor.
minimum_version	The minimum supported version for the metadata.
maximum_version	The maximum supported version for the metadata.
reason	The reason of the metadata update.
metadata_version	The version of the metadata.
metadata_bytes	The metadata.
_tagged_fields	The tagged fields
topic_partitions	null if it didn't change since the last heartbeat; the partitions owned by the member.
topic_id	The topic ID.
partitions	The partitions.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Responses:

```
ConsumerGroupHeartbeat Response (Version: 0) => throttle_time_ms error_code error_message member_id member_epoch should_compute_assignment heartbeat_interval_ms assignment TAG_BUFFER
  throttle_time_ms => INT32
  error_code => INT16
  error_message => COMPACT_NULLABLE_STRING
  member_id => COMPACT_NULLABLE_STRING
  member_epoch => INT32
  should_compute_assignment => BOOLEAN
  heartbeat_interval_ms => INT32
  assignment => error [assigned_topic_partitions] [pending_topic_partitions] metadata_version metadata_bytes TAG_BUFFER
    error => INT8
    assigned_topic_partitions => topic_id [partitions] TAG_BUFFER
      topic_id => UUID
      partitions => INT32
    pending_topic_partitions => topic_id [partitions] TAG_BUFFER
      topic_id => UUID
      partitions => INT32
    metadata_version => INT16
    metadata_bytes => COMPACT_BYTES
```

FIELD	DESCRIPTION
throttle_time_ms	The duration in milliseconds for which the request was throttled due to a quota violation, or zero if the request did not violate any quota.
error_code	The top-level error code, or 0 if there was no error
error_message	The top-level error message, or null if there was no error.
member_id	The member id generated by the coordinator. Only provided when the member joins with MemberEpoch == 0.
member_epoch	The member epoch.
should_compute_assignment	True if the member should compute the assignment for the group.
heartbeat_interval_ms	The heartbeat interval in milliseconds.
assignment	null if not provided; the assignment otherwise.
error	The assigned error.
assigned_topic_partitions	The partitions assigned to the member that can be used immediately.
topic_id	The topic ID.
partitions	The partitions.
_tagged_fields	The tagged fields
pending_topic_partitions	The partitions assigned to the member that cannot be used because they are not released by their former owners yet.
metadata_version	The version of the metadata.
metadata_bytes	The assigned metadata.
_tagged_fields	The tagged fields
_tagged_fields	The tagged fields

Some Common Philosophical Questions

Some people have asked why we don't use HTTP. There are a number of reasons, the best is that client implementors can make use of some of the more advanced TCP features--the ability to multiplex requests, the ability to simultaneously poll many connections, etc. We have also found HTTP libraries in many languages to be surprisingly shabby.

Others have asked if maybe we shouldn't support many different protocols. Prior experience with this was that it makes it very hard to add and test new features if they have to be ported across many protocol implementations. Our feeling is that most users don't really see multiple protocols as a feature, they just want a good reliable client in the language of their choice.

Another question is why we don't adopt XMPP, STOMP, AMQP or an existing protocol. The answer to this varies by protocol, but in general the problem is that the protocol does determine large parts of the implementation and we couldn't do what we are doing if we didn't have control over the protocol. Our belief is that it is possible to do better than existing messaging systems have in providing a truly distributed messaging system, and to do this we need to build something that works differently.

A final question is why we don't use a system like Protocol Buffers or Thrift to define our request messages. These packages excel at helping you to managing lots and lots of serialized messages. However we have only a few messages. Support across languages is somewhat spotty (depending on the package). Finally the mapping between binary log format and wire protocol is something we manage somewhat carefully and this would not be possible with these systems. Finally we prefer the style of versioning APIs explicitly and checking this to inferring new values as nulls as it allows more nuanced control of compatibility.