

KIP-907: Add Boolean Serde to public interface

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Status

Current state: Accepted

Discussion thread: [here](#)

Voting thread: [here](#) ([full history](#))

JIRA:

 Unable to render Jira issues macro, execution error.

Motivation

Kafka exposes serialization/deserialization classes for multiple types such as ByteArray, Double, Float etc, in '*org.apache.kafka.common.serialization*' package which is part of public interface. During the task [KAFKA-14491](#) Victoria added BooleanSerde class, It will be useful to have such class in public package.

Public Interfaces

org/apache/kafka/common/serialization package:

BooleanSerde

```
static public final class BooleanSerde extends WrapperSerde<Boolean> {
    public BooleanSerde() {
        super(new BooleanSerializer(), new BooleanDeserializer());
    }
}
```

method Boolean()

```
/**
 * A serde for {@code Boolean} type.
 */
static public Serde<Boolean> Boolean() {
    return new BooleanSerde();
}
```

serdeFrom method

```
if (Boolean.class.isAssignableFrom(type)) {
    return (Serde<T>) Boolean();
}
```

method: serdeFrom, exception message

```
throw new IllegalArgumentException("Unknown class for built-in serializer. Supported types are: " +
    "String, Short, Integer, Long, Float, Double, ByteArray, ByteBuffer, Bytes, UUID, Boolean");
```

BooleanSerializer class

```
public class BooleanSerializer implements Serializer<Boolean> {
    [...]
    public byte[] serialize(final String topic, final Boolean data) { [...] }
}
```

BooleanDeserializer class

```
public class BooleanDeserializer implements Deserializer<Boolean> {
    [...]
    public Boolean deserialize(final String topic, final byte[] data) { [...] }
}
```

Proposed Changes

1. Add Boolean Serde to a `org/apache/kafka/common/serialization` package
 - a. Add static public final class to the `Serdes.java`, update `serdeFrom` method, add `Boolean()` method that returns `BooleanSerde()`;
 - b. Create `BooleanSerializer` class in `BooleanSerializer.java` file, based on what is in `NullableValueAndTimestampSerde.java`
 - c. Create `BooleanDeserializer` class in `BooleanDeserializer.java` file, based on what is in `NullableValueAndTimestampSerde.java`
2. Rewrite `NullableValueAndTimestampSerde.java` file, package: `org.apache.kafka.streams.state.internals` so that it uses `BooleanSerde` from `common/serialization` instead of having own private class.

Compatibility, Deprecation, and Migration Plan

- What impact (if any) will there be on existing users?
 - New Serde for Boolean type.
- If we are changing behavior how will we phase out the older behavior?
 - Update `NullableValueAndTimestampSerde.java` file, to use public class for Serde
- If we need special migration tools, describe them here.
 - N/A
- When will we remove the existing behavior?
 - N/A

Test Plan

I think that in that case unit-tests are sufficient, since the proposed change is a new simple feature it doesn't need system tests.