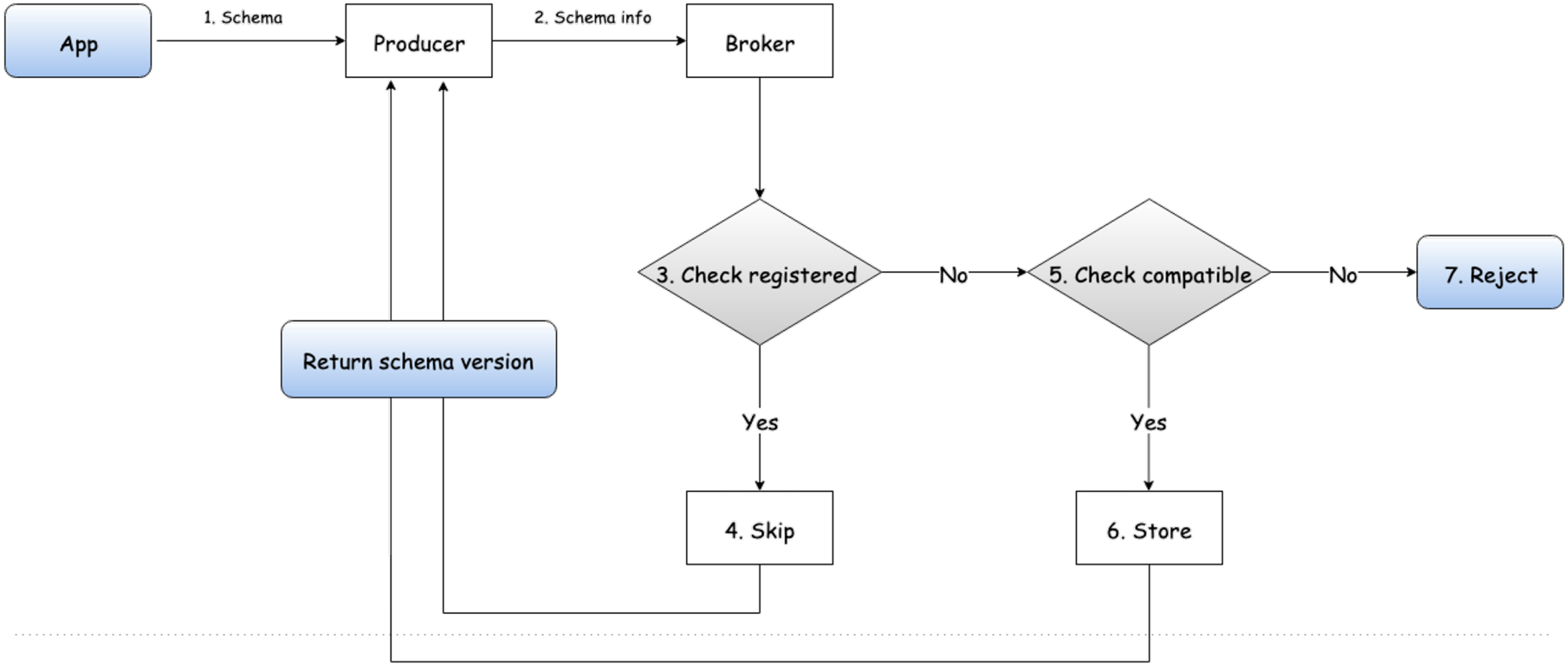
TGIP Episode 013

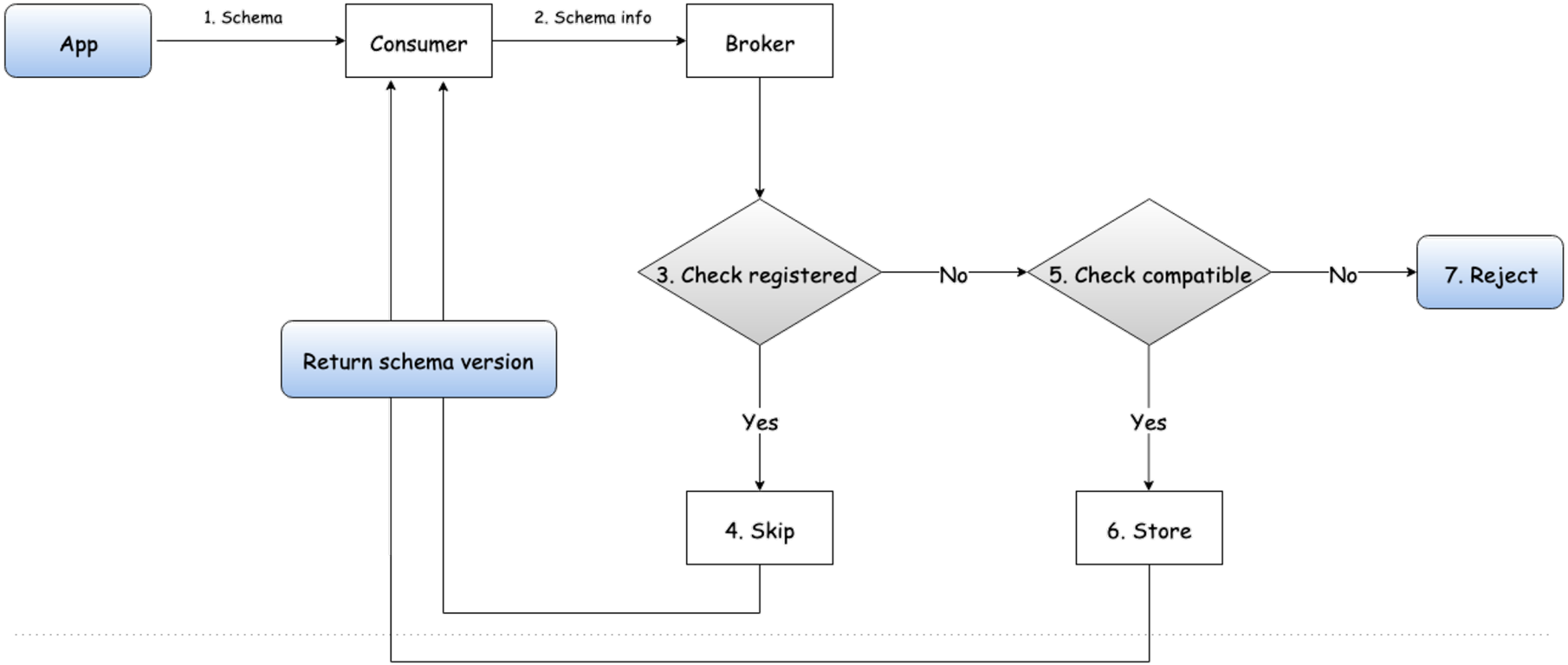
Pulsar Schema and Presto SQL

Producer



StreamNative

Consumer



StreamNative

Schema compatibility check

- ✓ Schema Compatibility Checker
  - ✓ One checker per schema type
  - ✓ Configured by `schemaRegistryCompatibilityCheckers`
  - ✓ Only AVRO and JSON supports schema evolution for now
  - ✓ All other schema types don’t allow schema evolution

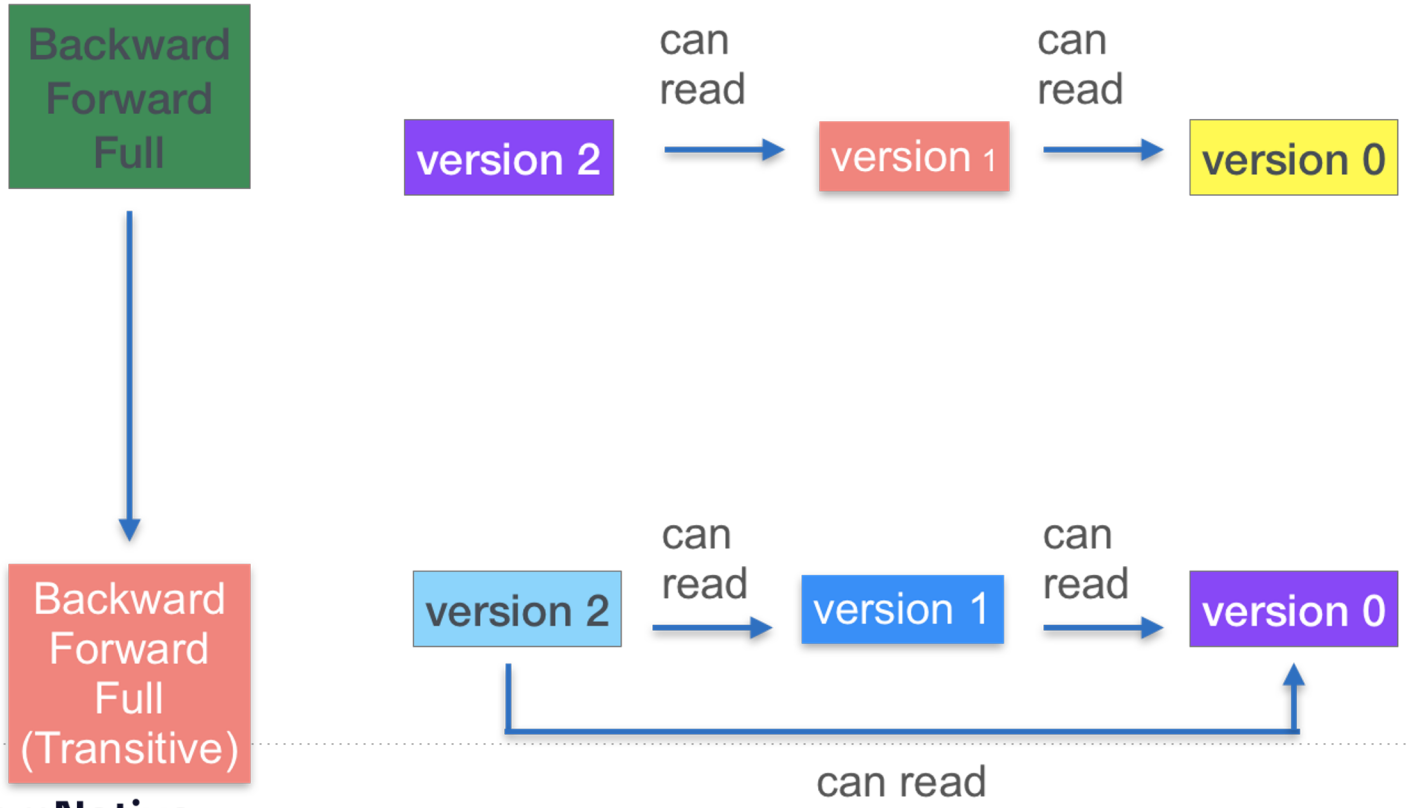
Compatibility check

Strategy	Changes Allowed	Check against what schemas	Upgrade first
ALWAYS_INCOMPATIBLE	All changes are disabled	All previous versions	None
ALWAYS_COMPATIBLE	All changes are allowed	Latest version	Depends
BACKWARD	• Delete fields • Add optional fields	Latest version	Consumers
FORWARD	• Add fields • Delete optional fields	Latest version	Producers
FULL	Modify optional fields	Latest version	Any Order

Order of upgrading clients

- ✓ BACKWARD
  - ✓ Upgrade all consumers before producing new events
- ✓ FORWARD
  - ✓ Upgrade all producers to new schema
  - ✓ Make sure the data produced using old schemas are not available to consumers anymore
  - ✓ Then upgrade producers and consumers independently
- ✓ FULL
  - ✓ Upgrade producers and consumers independently
- ✓ ALWAYS_COMPATIBLE
  - ✓ Be cautious about when to upgrade clients

Transitive vs Non-Transitive



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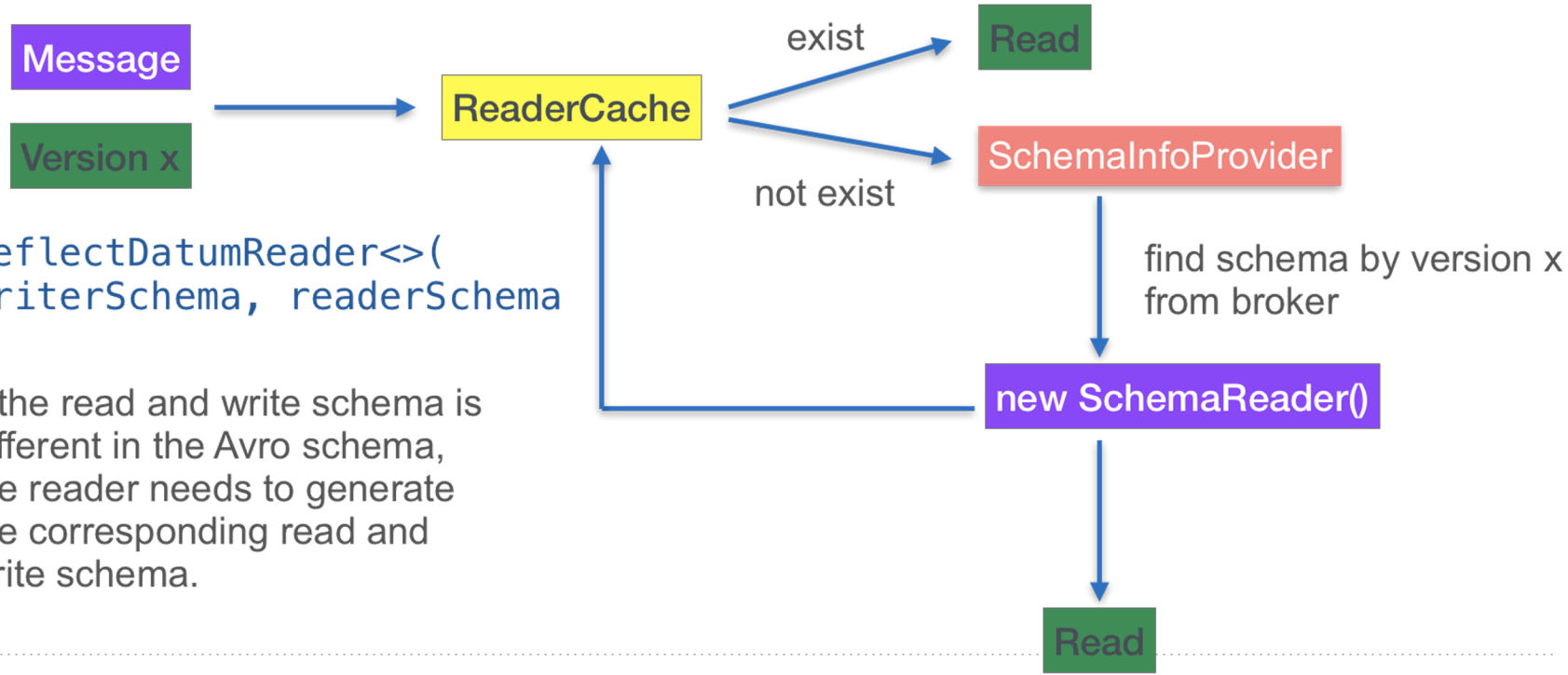
Multi versions




```
new ReflectDatumReader<>(
    writerSchema, readerSchema
)
```

If the read and write schema is different in the Avro schema, the reader needs to generate the corresponding read and write schema.