



The Way Of JBoss Big Data

jGroups JBossCache Infinispan

Kylin Soong
Global Support Services, Red Hat

Agenda

- jGroups
- JBossCache
- Infinispan

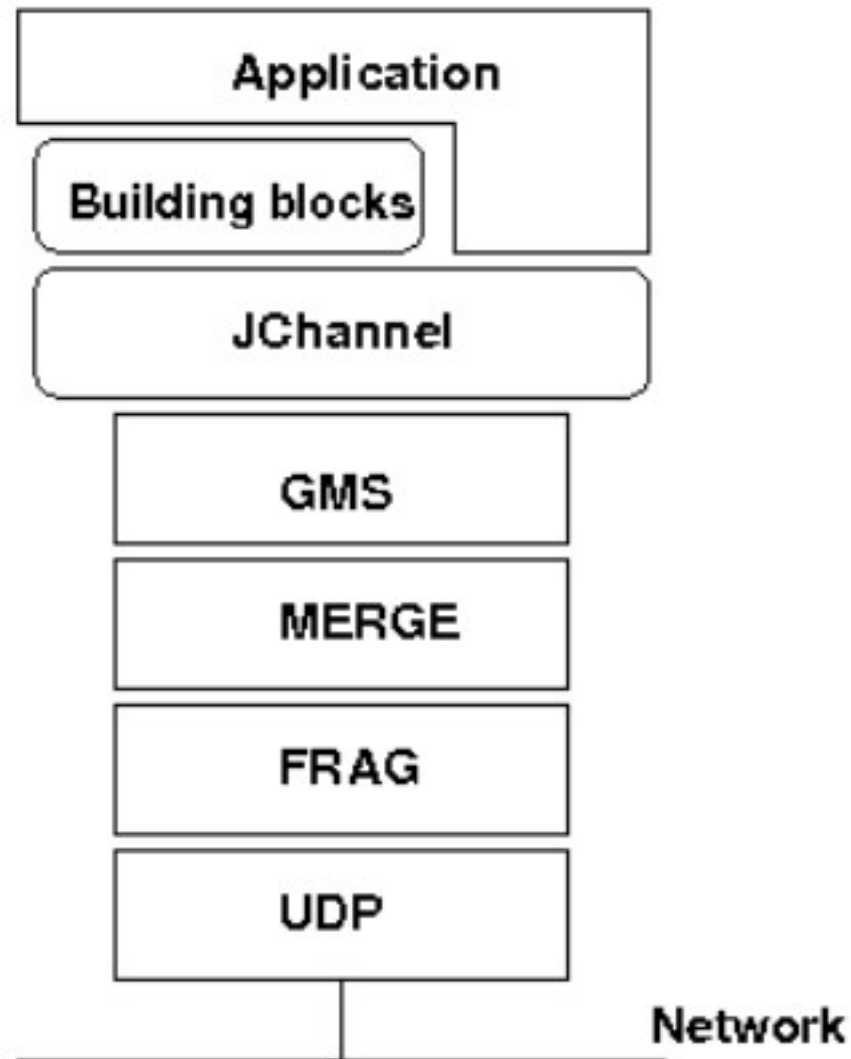


jGroups Introduction

- JGroups is a toolkit for reliable multicast communication
- JGroups is a mature library, 50+ release



jGroups Architecture



jGroups Chat Demo

```
JChannel channel = new JChannel();  
channel.setName("node1");  
channel.setReceiver(ReceiverAdapter);  
channel.connect("ChatDemo");  
channel.send(msg);
```

```
JChannel channel = new JChannel();  
channel.setName("node2");  
channel.setReceiver(ReceiverAdapter);  
channel.connect("ChatDemo");  
channel.send(msg);
```

./chat.sh -n node1

./chat.sh -n node2

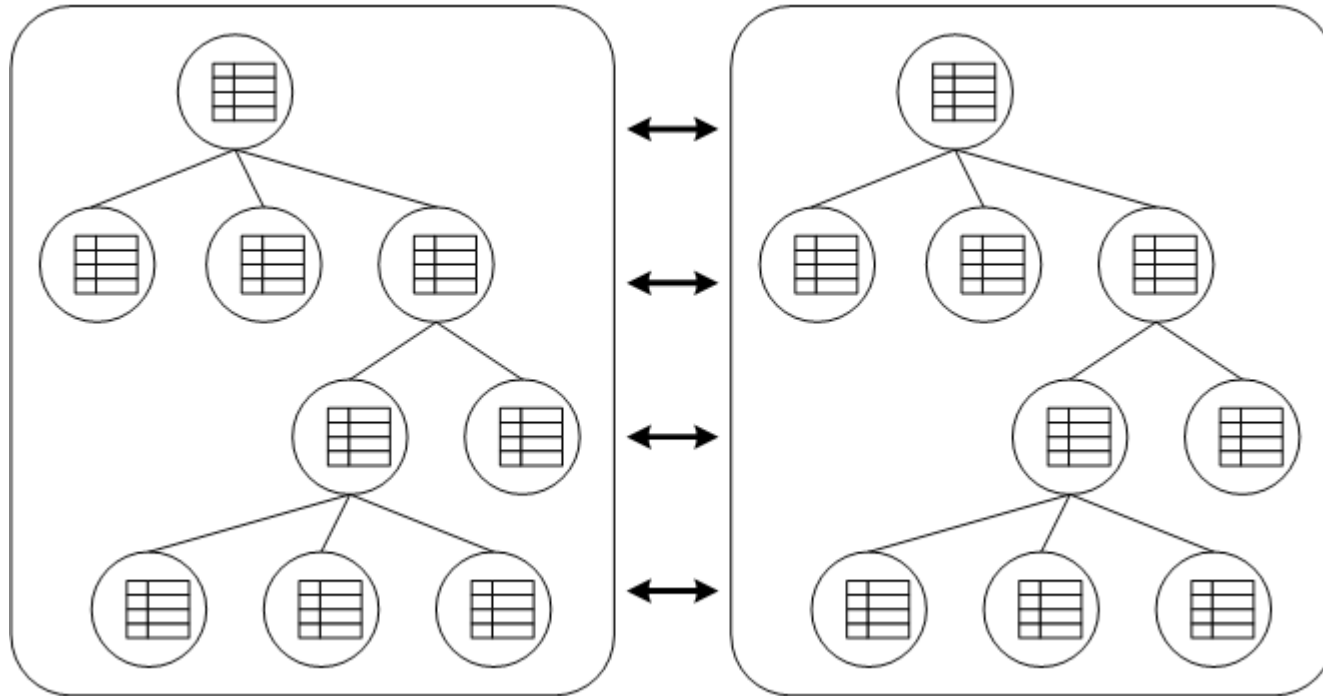


JBossCache Introduction

- JBoss Cache is a tree-structured, clustered, transactional cache.
- Base on jGroups
- Usage
 - JBoss cluster(Web, EJB, JMS, etc)
- 2 way to run
 - Standalone
 - Container

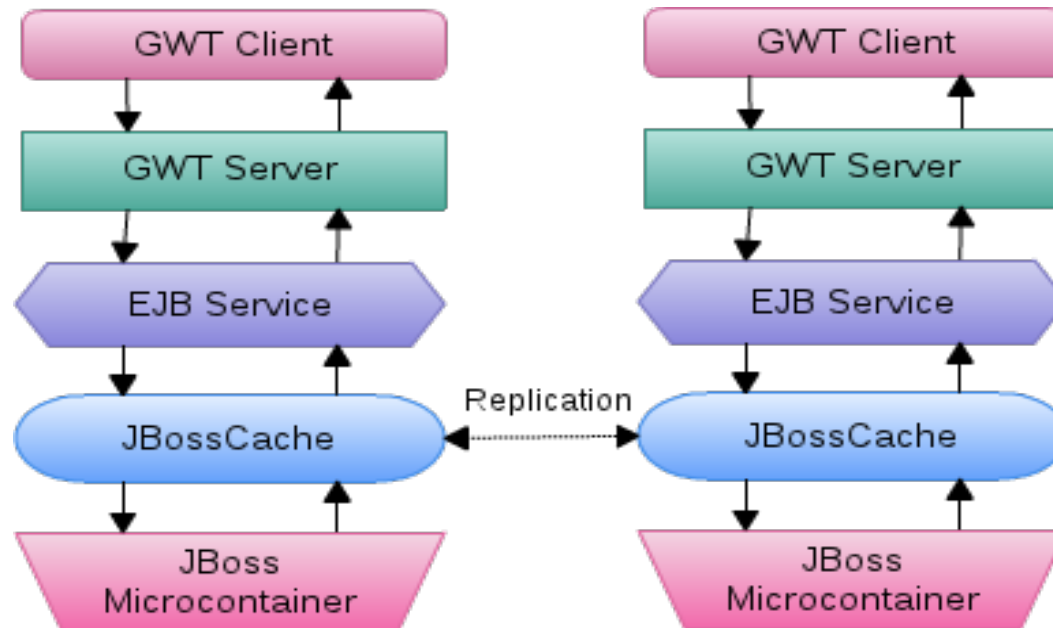


JBossCache Architecture



- Node, root
- Fqn

JBossCache Replication Demo



- Customize JBossCache(deploy/cluster/jboss-cache-manager.sar/META-INF/jboss-cache-manager-jboss-beans.xml)
- Deploy Demo to JBoss(-Djboss.service.binding.set=ports-01)
- Test(<http://localhost:8080/jbosscache/>)

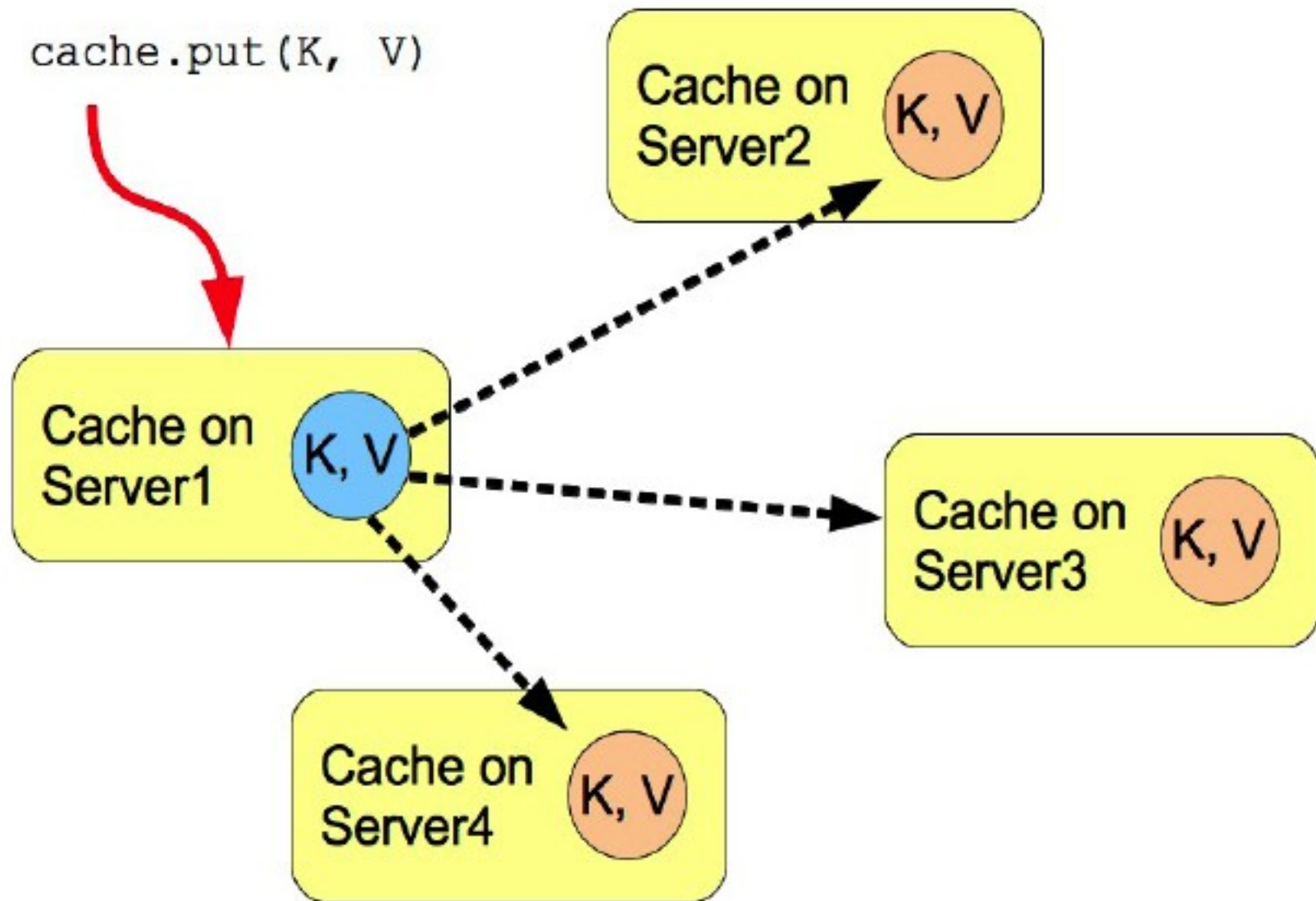


Infinispan Introduction

- Transactional in-memory key/value NoSQL datastore
- Distributed data grid platform
- The 2nd generation JBossCache
- JSR 107, JSR 347

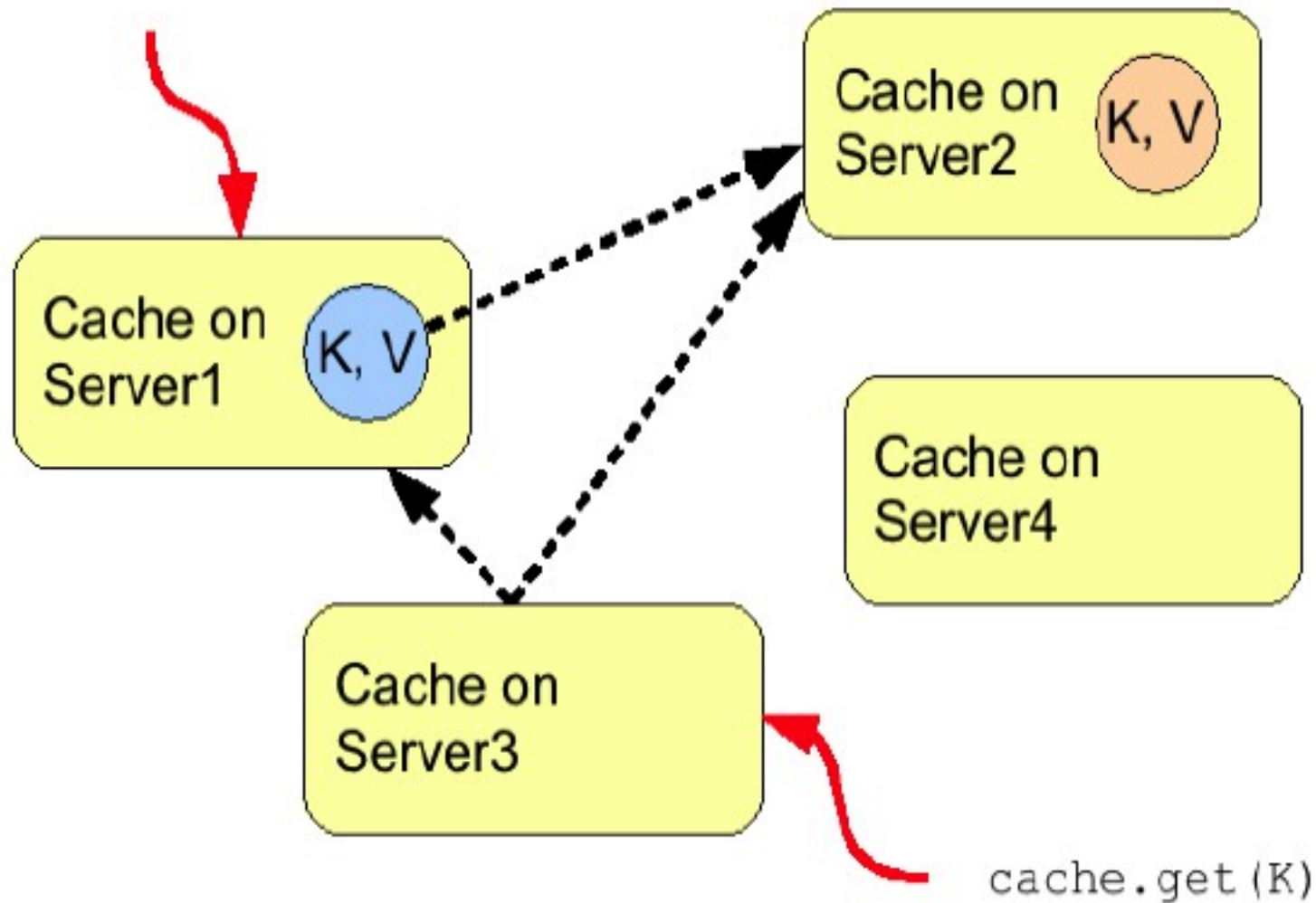


Infinispan Architecture

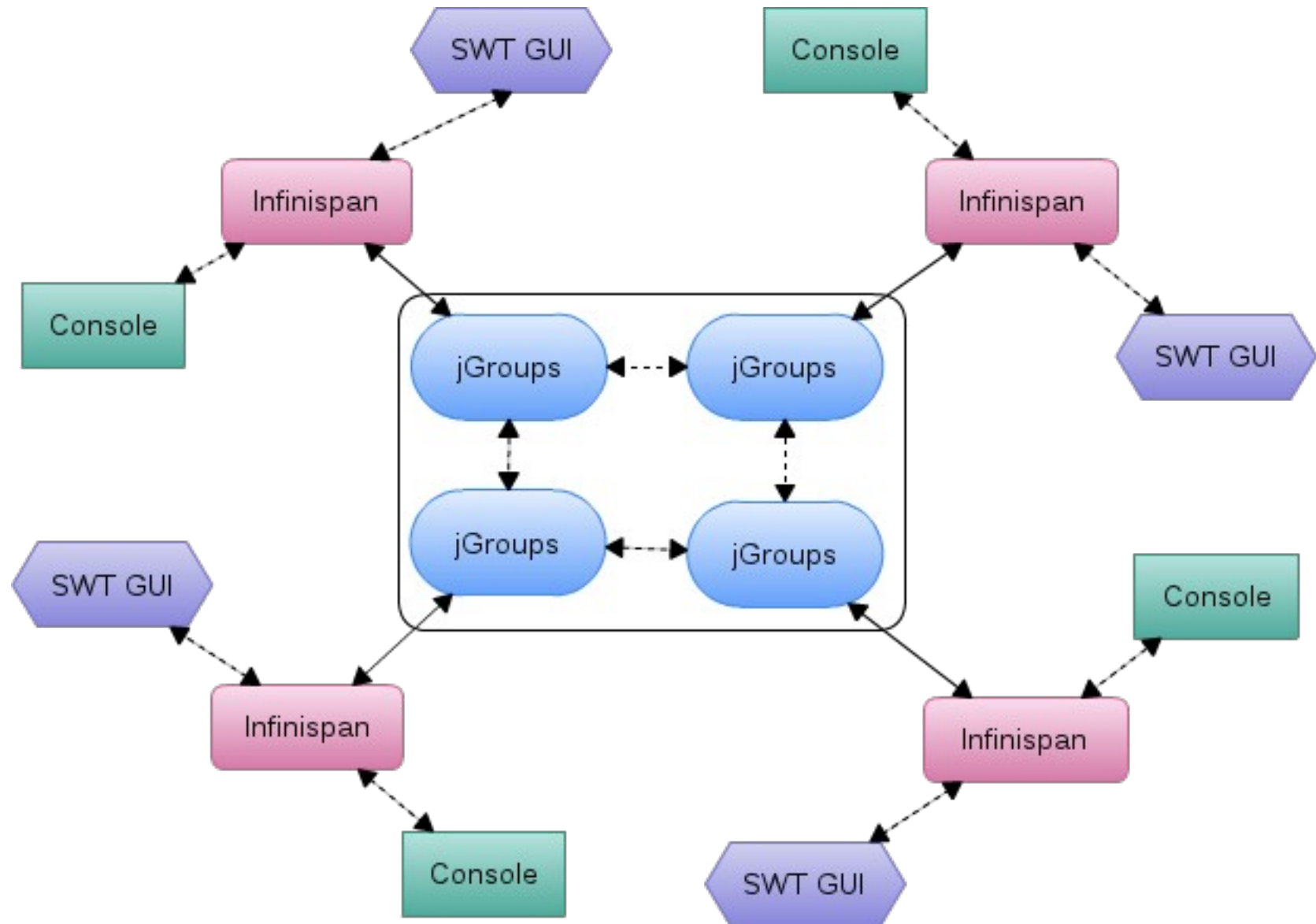


Infinispan Architecture

`cache.put(K, V)`



Infinispan Distribution Demo



Infinispan Distribution Demo

```
./dataGrid.sh -c infinispan-distribution.xml
```

```
./dataGrid.sh -c infinispan-distribution.xml -console
```

```
./dataGrid.sh -c infinispan-replication.xml
```

```
./dataGrid.sh -c infinispan-replication.xml -console
```



Thanks