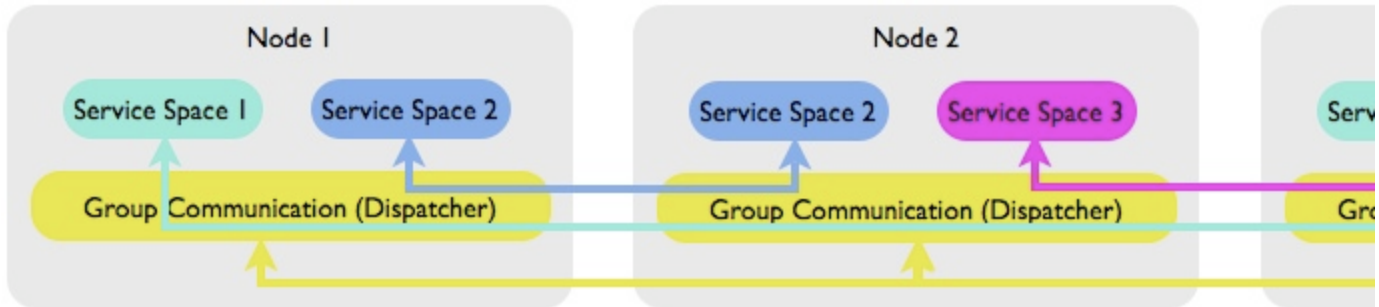


# 1. Group Communication Services & Service Spaces

## Group Communication Services & Service Spaces Overview



## Group Communication Services

Each node hosts a Group Communication component, abstracted by:

- `org.codehaus.wadi.group.Dispatcher`; and
- `org.codehaus.wadi.group.Cluster`.

Group communication components see each others and can dispatch messages, more accurately `org.codehaus.wadi.group.Envelope`, to each others.

WADI provides four implementations of the Group Communication API, defined in `wadi-group`:

- `in-vm`: in JVM implementation for testing purposes. This implementation is in `wadi-group`;
- `Tribes`: leverage Tribes as the actual group communication implementation. This implementation is in `wadi-tribes`;
- `JGroups`: leverage JGroups as the actual group communication implementation. This implementation is in `wadi-jgroups`; and
- `ActiveCluster`: leverage ActiveCluster as the actual group communication implementation. This implementation is in `wadi-activecluster`.

## Service Space

Service Spaces are components building on top of the above group communication infrastructure. They provide a logical group communication service, which restricts the view that clients have of the cluster to the sub-set of the nodes hosting a given Service Space.

For instance, Service Space 1 is hosted by Node 1 and Node 3. Clients on Node 1 using the logical group communication service of Service Space 1 only see Node 3. Also, they can only dispatch messages to Node 3.

Service Spaces are used to share the physical group communication services of a node between multiple applications, e.g. Web-applications.