Replacing a Node

At some point, for various reasons, you might need to replace a node in your Riak cluster (which is different from recovering a failed node). Here is the recommended way to go about replacing a node.

1. Back up your data directory on the node in question. In this example scenario, we'll call the node **riak4**:

   Shell
   ```
   sudo tar -czf riak_backup.tar.gz /var/lib/riak /etc/
   ```

2. Download and install Riak on the new node you wish to bring into the cluster and have replace the **riak4** node. We'll call this node **riak7** for the purpose of this example.

3. Start the new **riak7** node with `riak start`:

   Shell
   ```
   riak start
   ```

4. Plan the join of the new **riak7** node to an existing node already participating in he cluster; for example **riak0** with the `riak-admin cluster join` command executed on the the new**riak7** node:

   Shell
   ```
   riak-admin cluster join riak0
   ```

5. Plan the replacement of the existing **riak4** node with the new**riak7** node using the `riak-admin cluster replace` command:

   Shell
   ```
   riak-admin cluster replace riak4 riak7
   ```

Single Nodes

> If a node is started singly using default settings (as, for example, you might do when you are building your first test environment), you will need to remove the ring files from the data directory after you edit `etc/vm.args`. `riak-admin cluster replace` will not work as the node has not been joined to a cluster.

6. Examine the proposed cluster changes with the `riak-admin cluster plan` command executed on the the new **riak7** node:

   Shell
   ```
   riak-admin cluster plan
   ```

7. If the changes are correct, you can commit them with the `riak-admin cluster commit` command:

   Shell
   ```
   riak-admin cluster commit
   ```

If you need to clear the proposed plan and start over, use `riak-admin cluster clear`:

Shell
```
riak-admin cluster clear
```

Once you have successfully replaced the node, it should begin leaving the cluster. You can check on ring readiness after replacing the node with the `riak-admin ringready` and `riak-admin member-status` commands.

Ring Settling

You'll need to make sure that no other ring changes occur between the time when you start the new node and the ring settles with the new IP info.

The ring is considered settled when the new node reports **true** using the `riak-admin ringready` command.

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