Pool Party!

Autoscaling on EC2
EC2 for the criminally lazy
autoElastic cloud computing on EC2

Ari Lerner – CitrusByte

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Amazon's EC2

What

- Clustered, web-service
- Easy scaled computing
- Completely customizable
- Pay for only what you use
- Highly elastic
- Incredibly flexible

Issues

- No auto-scaling
- No load-balancing
- Non-persistent instance data storage
- Volatile with no failover solution

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Pool Party

- Self-healing computing clusters
- Auto-scales cloud based on user-configured parameters
- Inherent load-balancing
- Persistent data storage on instances using s3
- Failover safety
- CloudSpeak DSL – easily communicate with your cloud

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How?

Load Balancing	Haproxy
Fail safety	Heartbeat

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How?

Persistent data storage	S3F(use)
Auto-scaling	PoolParty

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*nix

HAProxy

This application-agnostic, hot-swappable load-balancer built from the ground up for high availability clusters is speedy because of it's closeness to the os.

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Heartbeat

Robust, enterprise-standard services monitor that provides pool party failover capabilities.

S3Fs

S3 backed filesystem in userspace (FUSE) uses little-to-no caching to reduce race conditions. Pool party uses the unlimited s3 data-store to provide instances access to the same data across the instances while providing an easy deployable.

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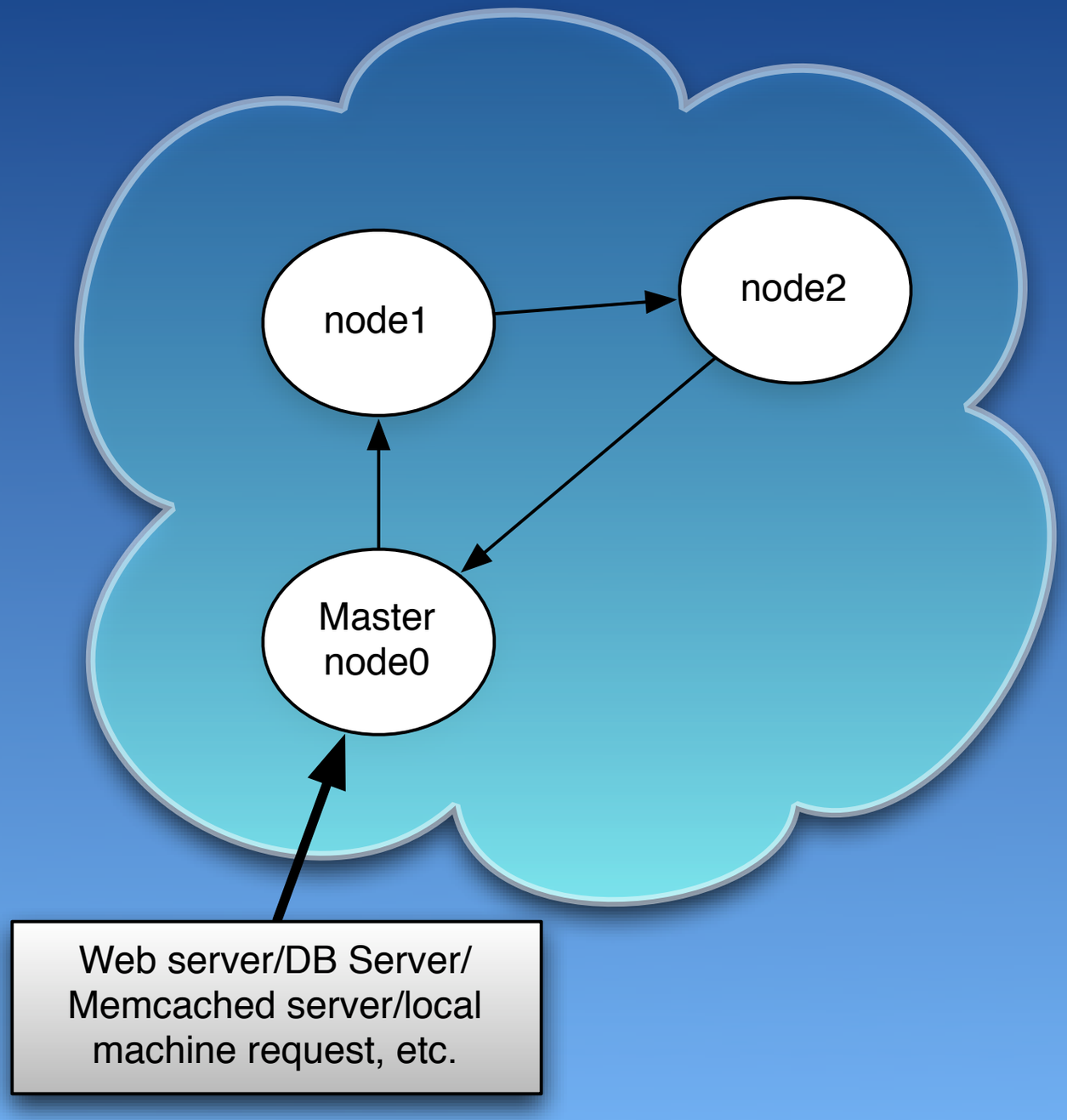
Load Balancing



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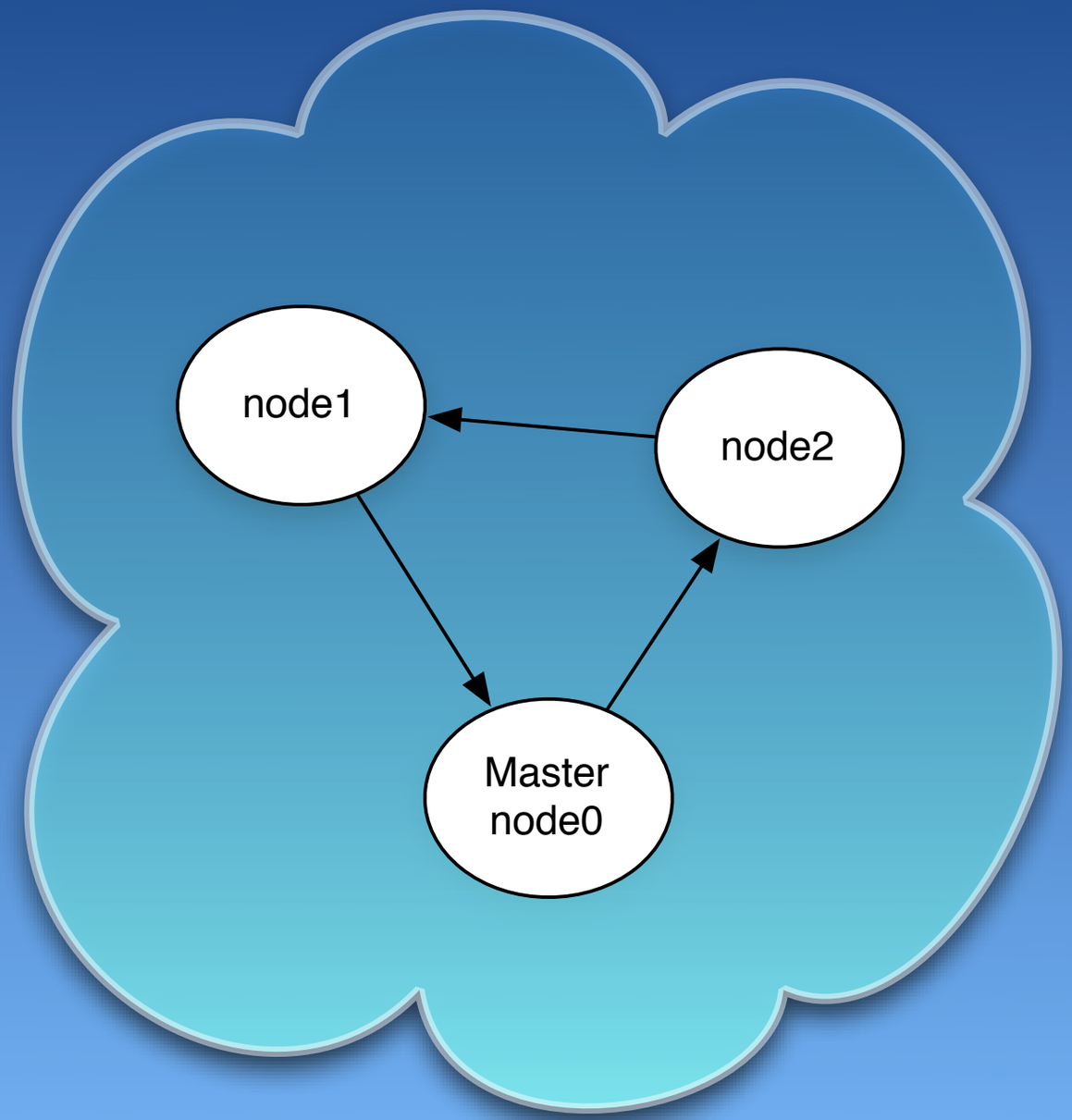
Failover (instance)



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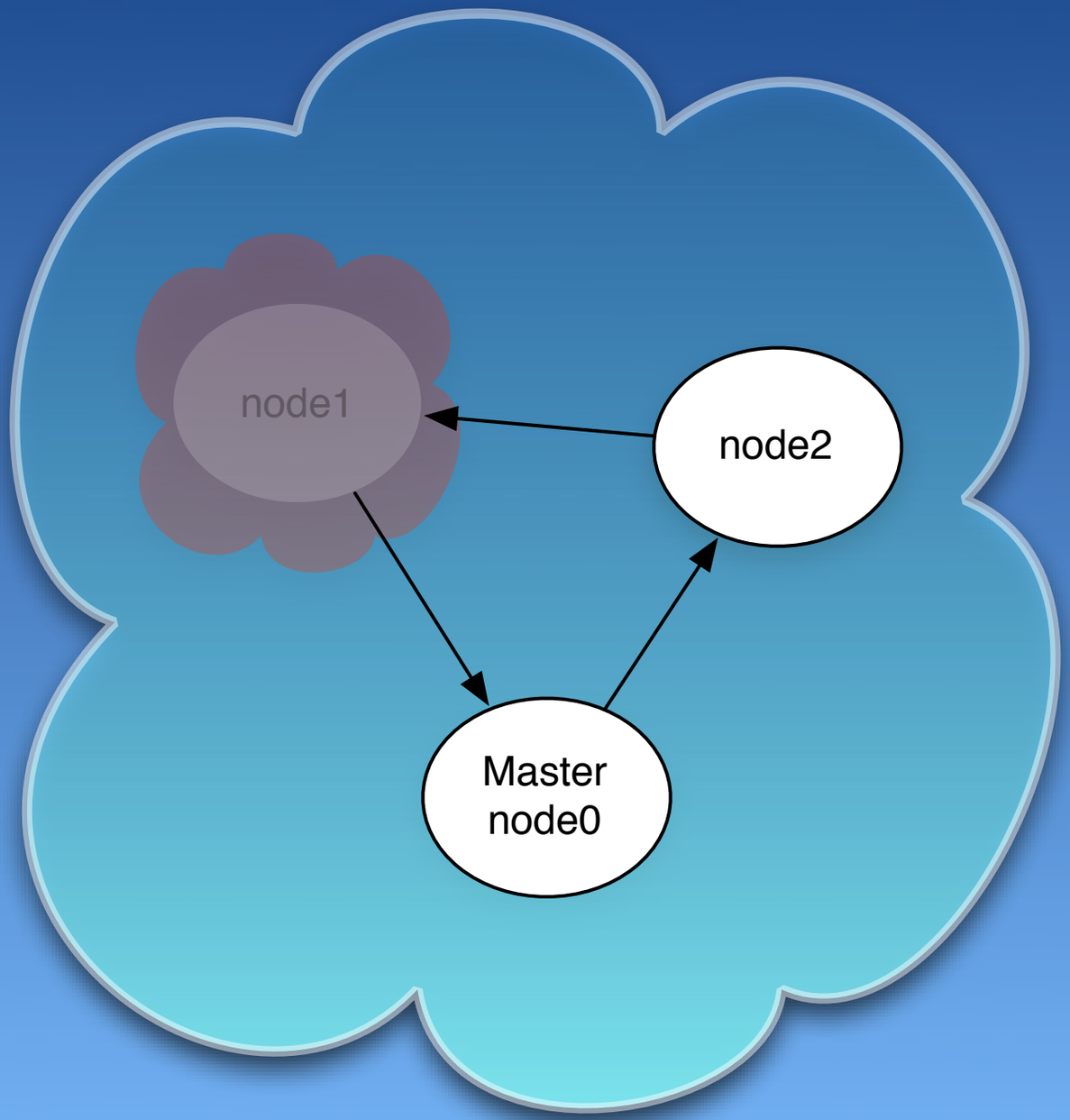
Failover (instance)



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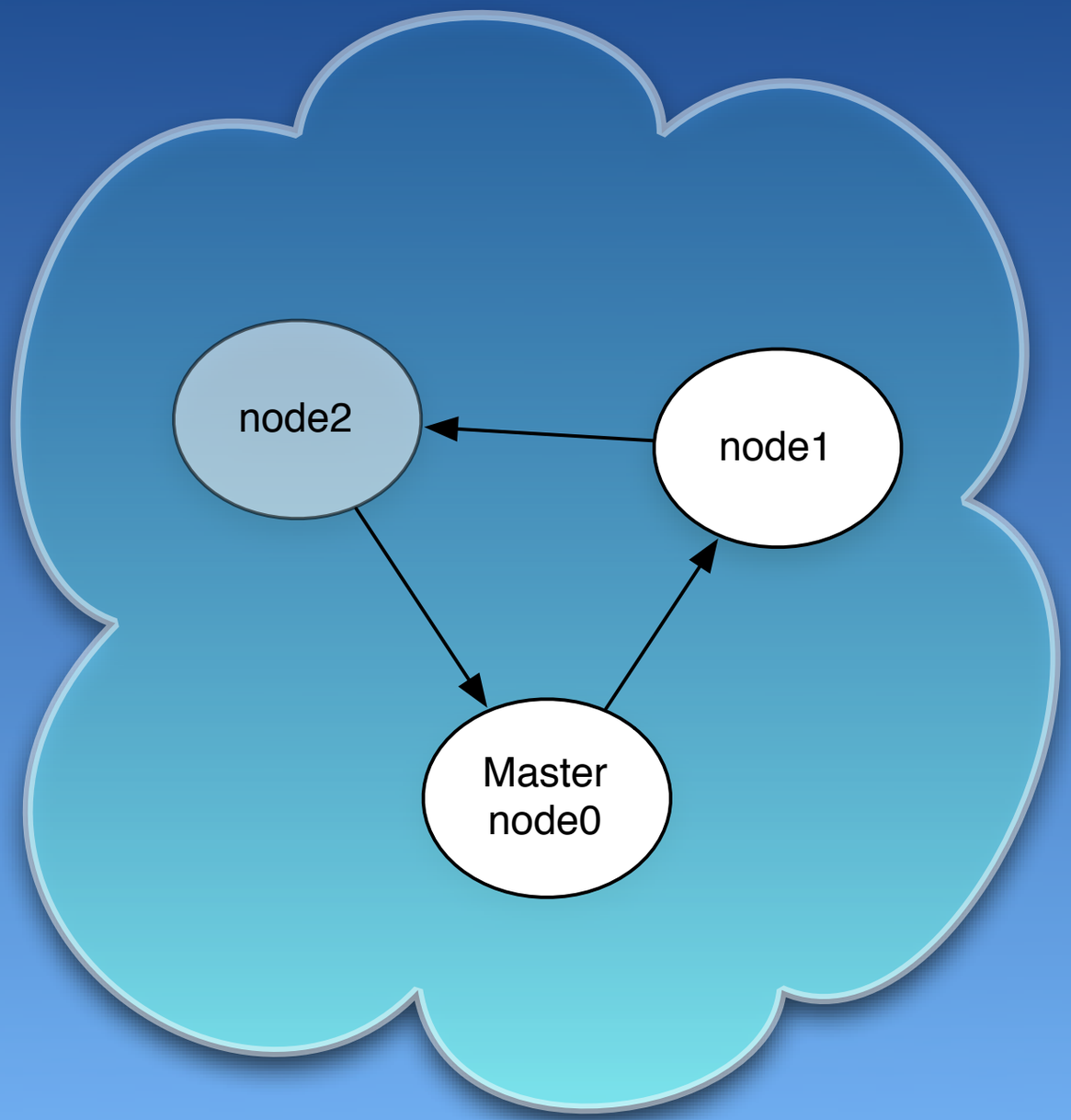
Failover (instance)



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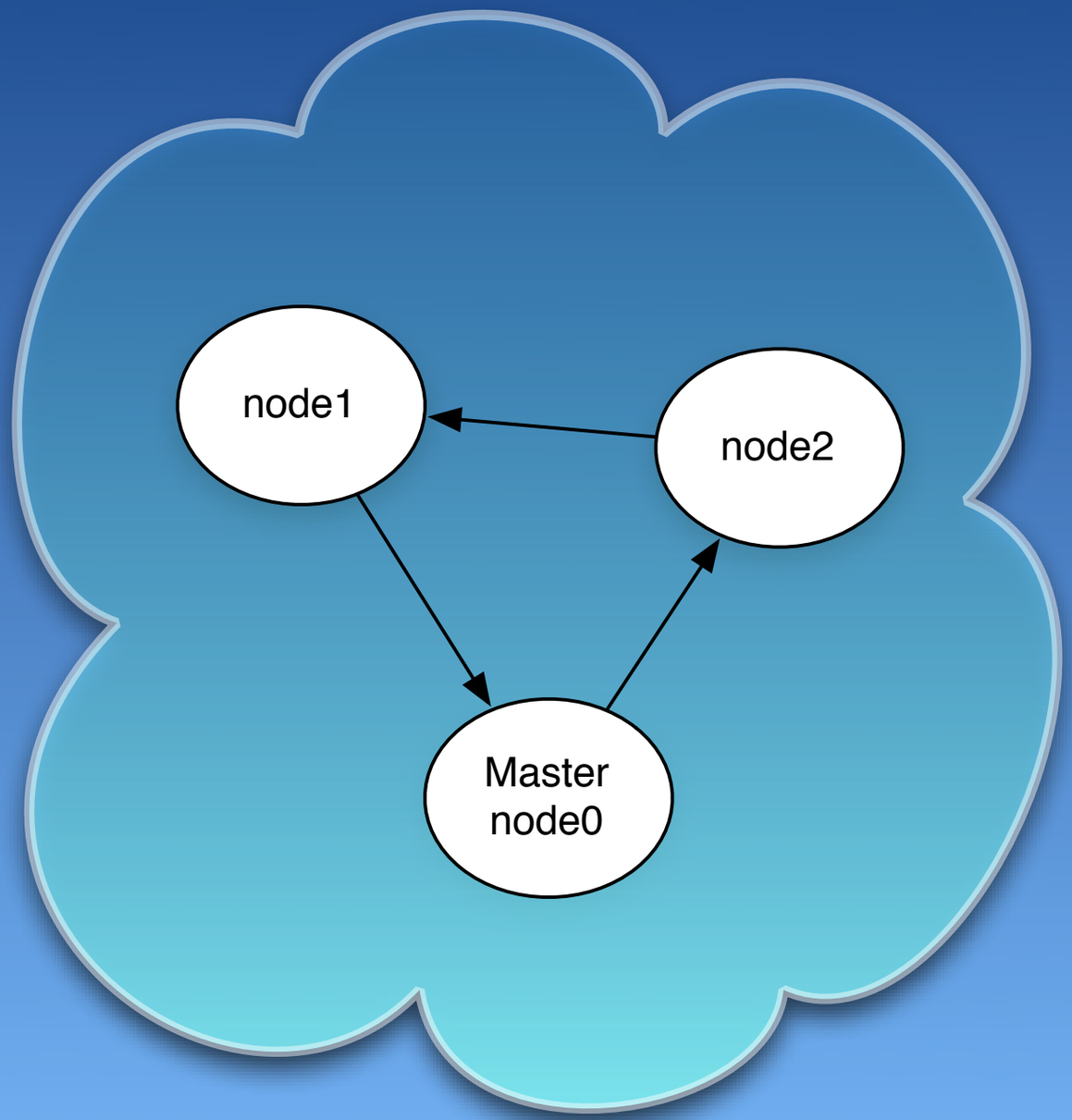
Failover (master)



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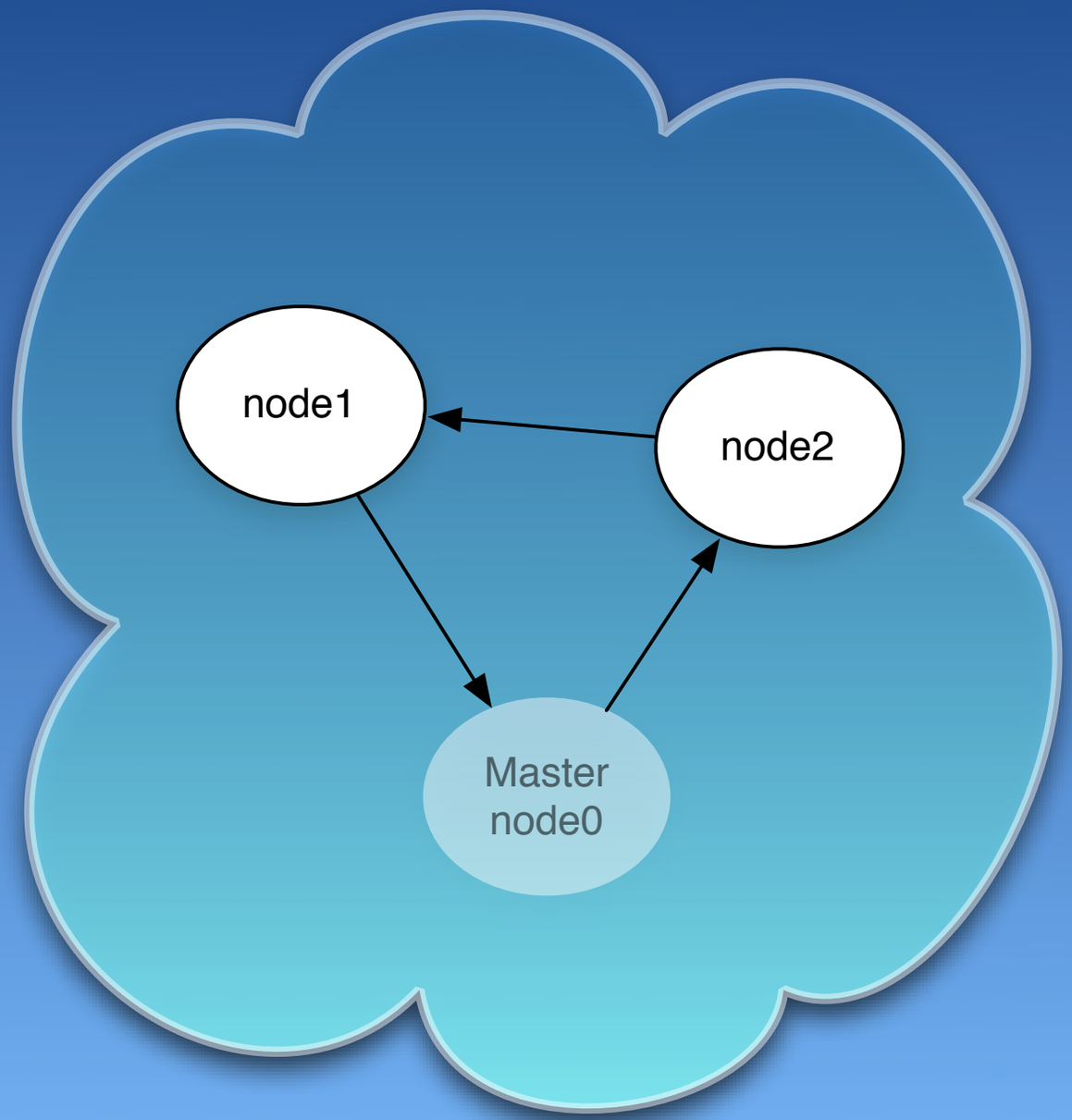
Failover (master)



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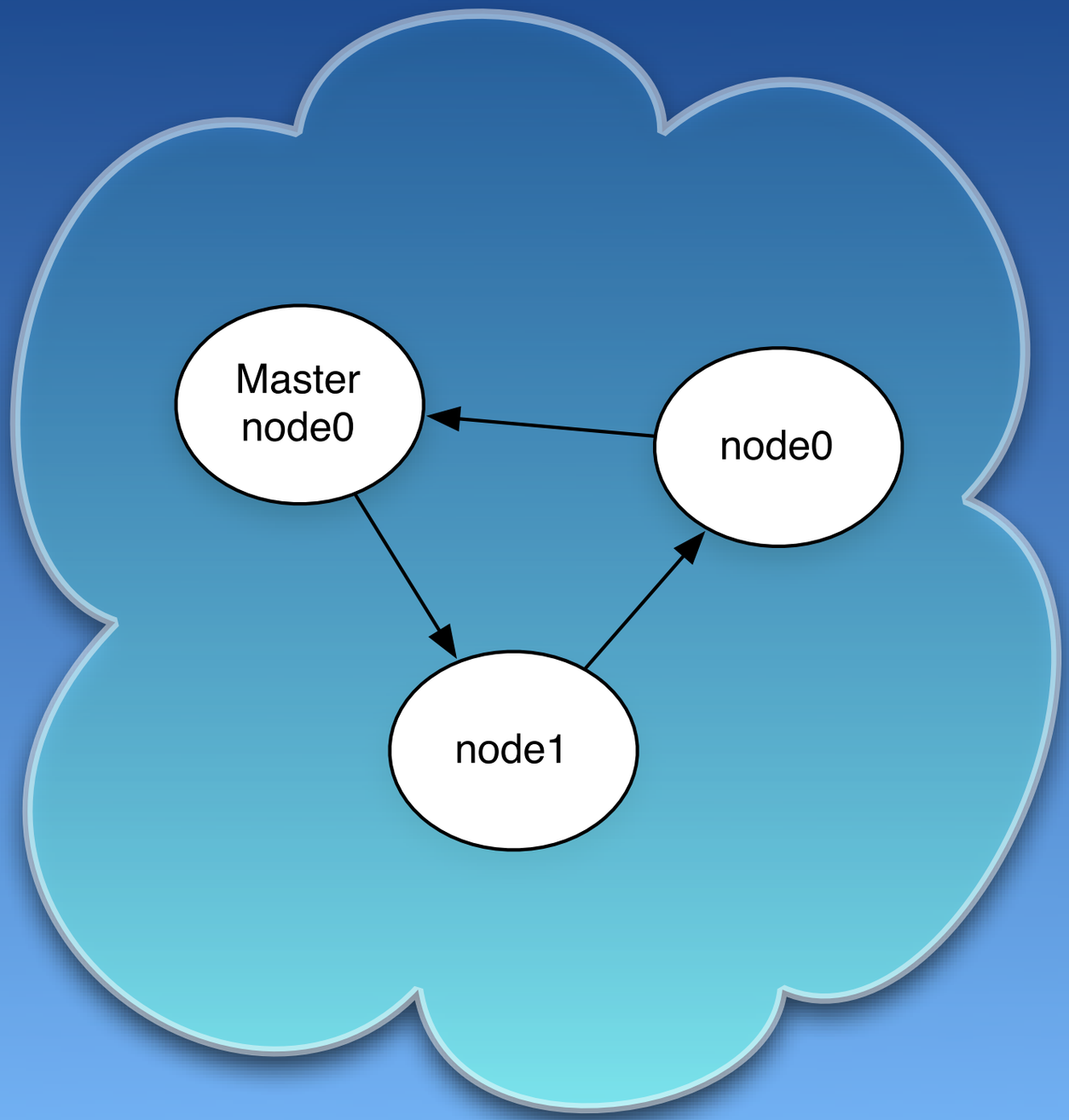
Failover (master)



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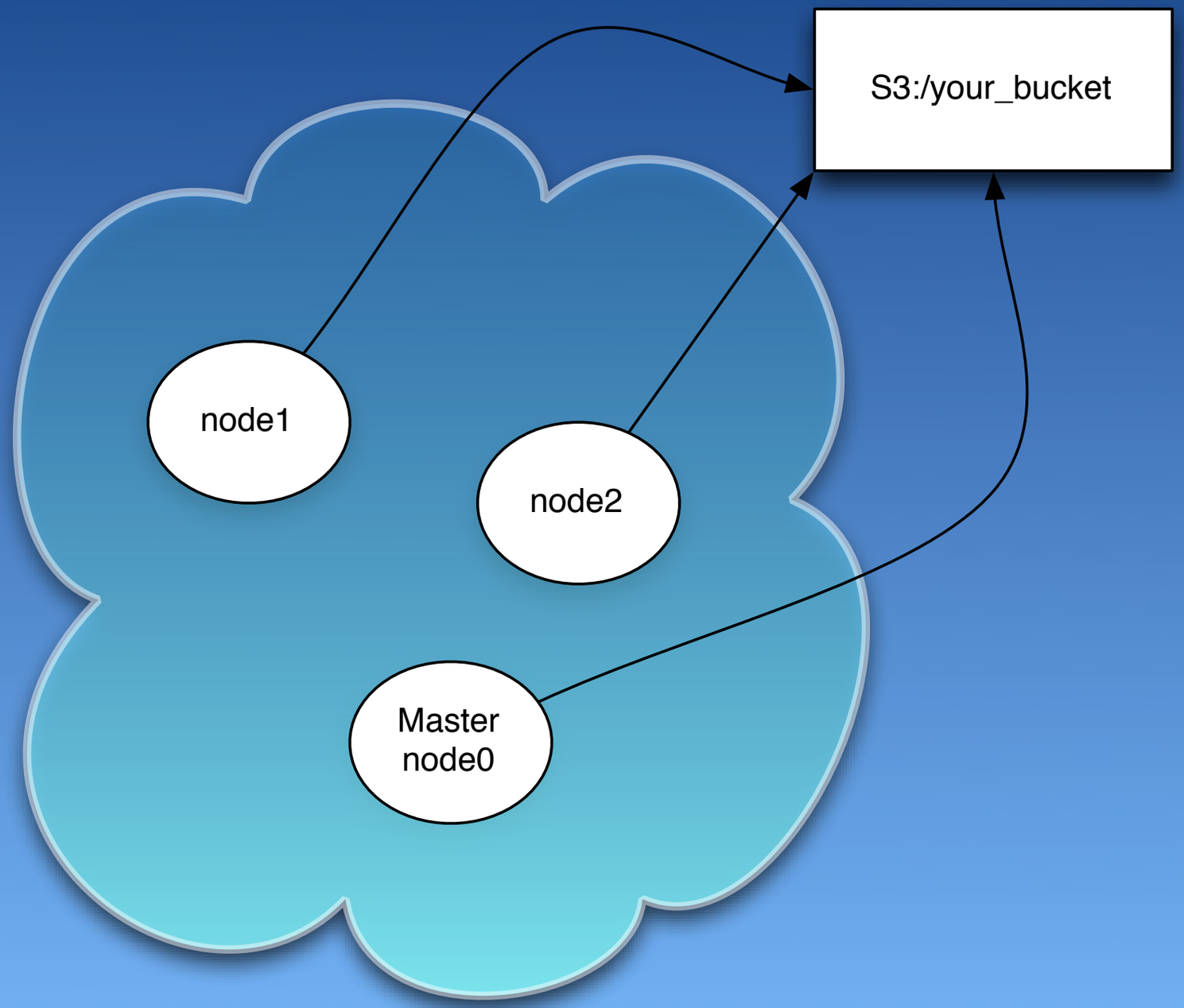
Persistent data store



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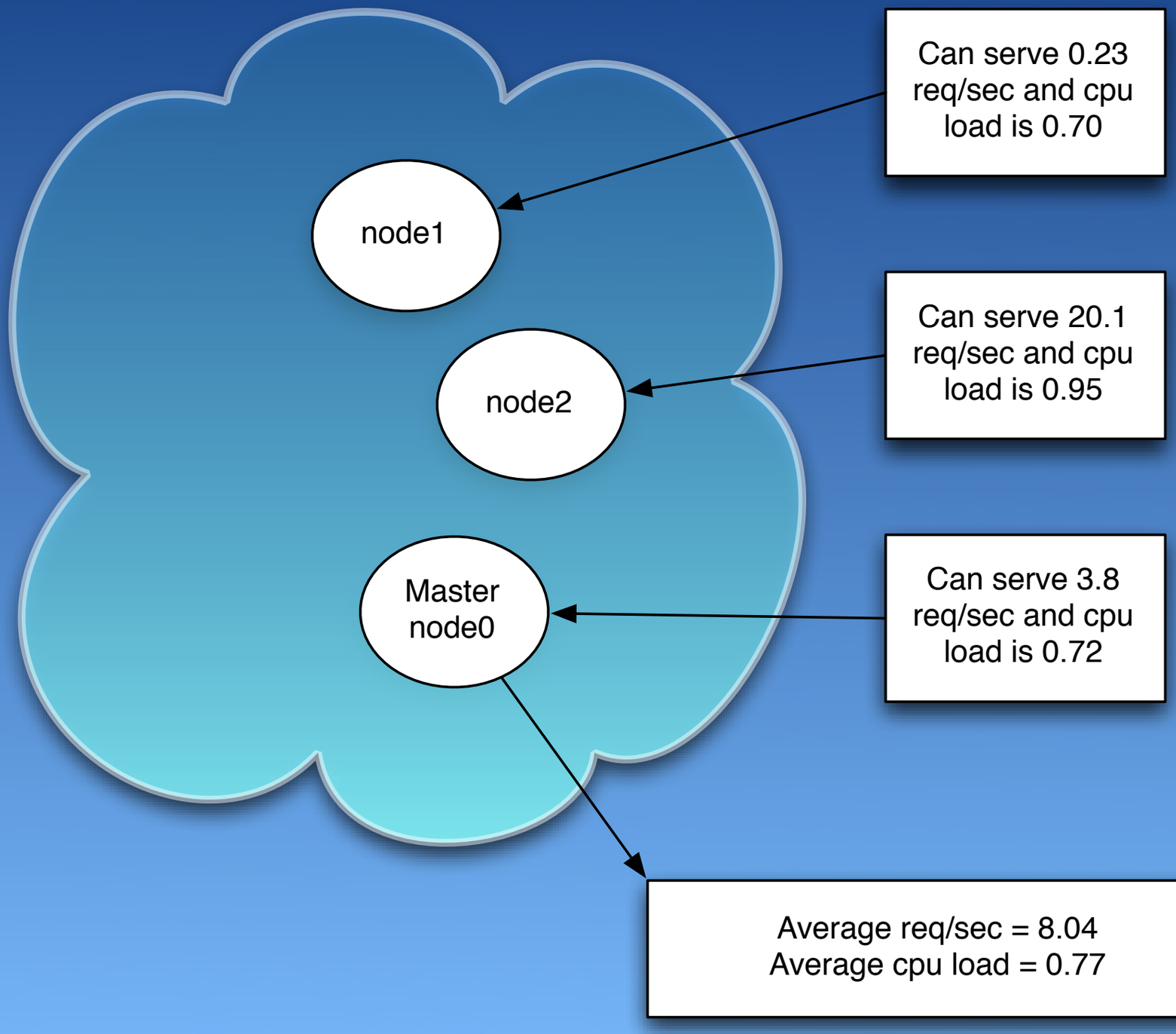
Auto-scaling



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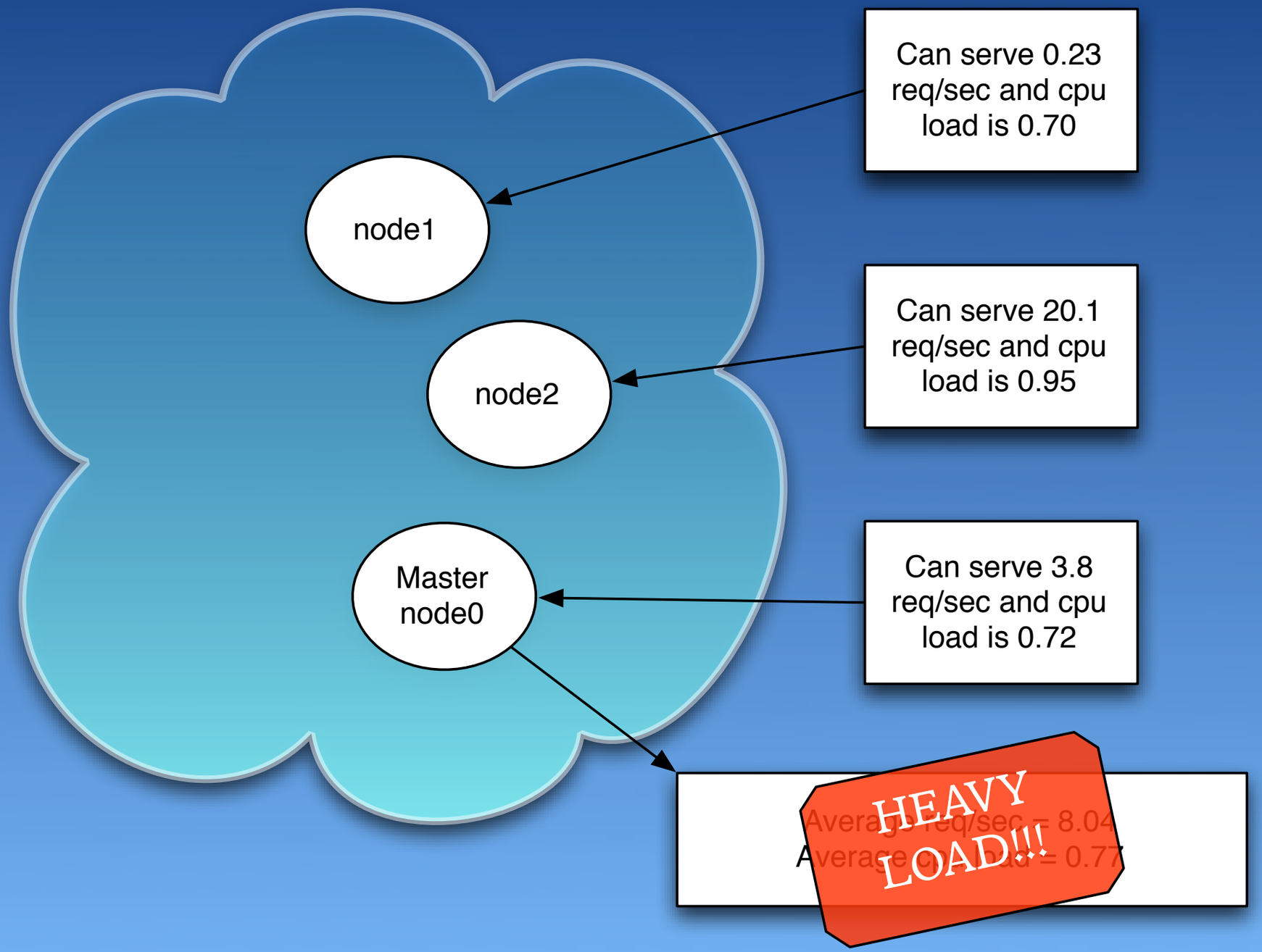
Auto-scaling



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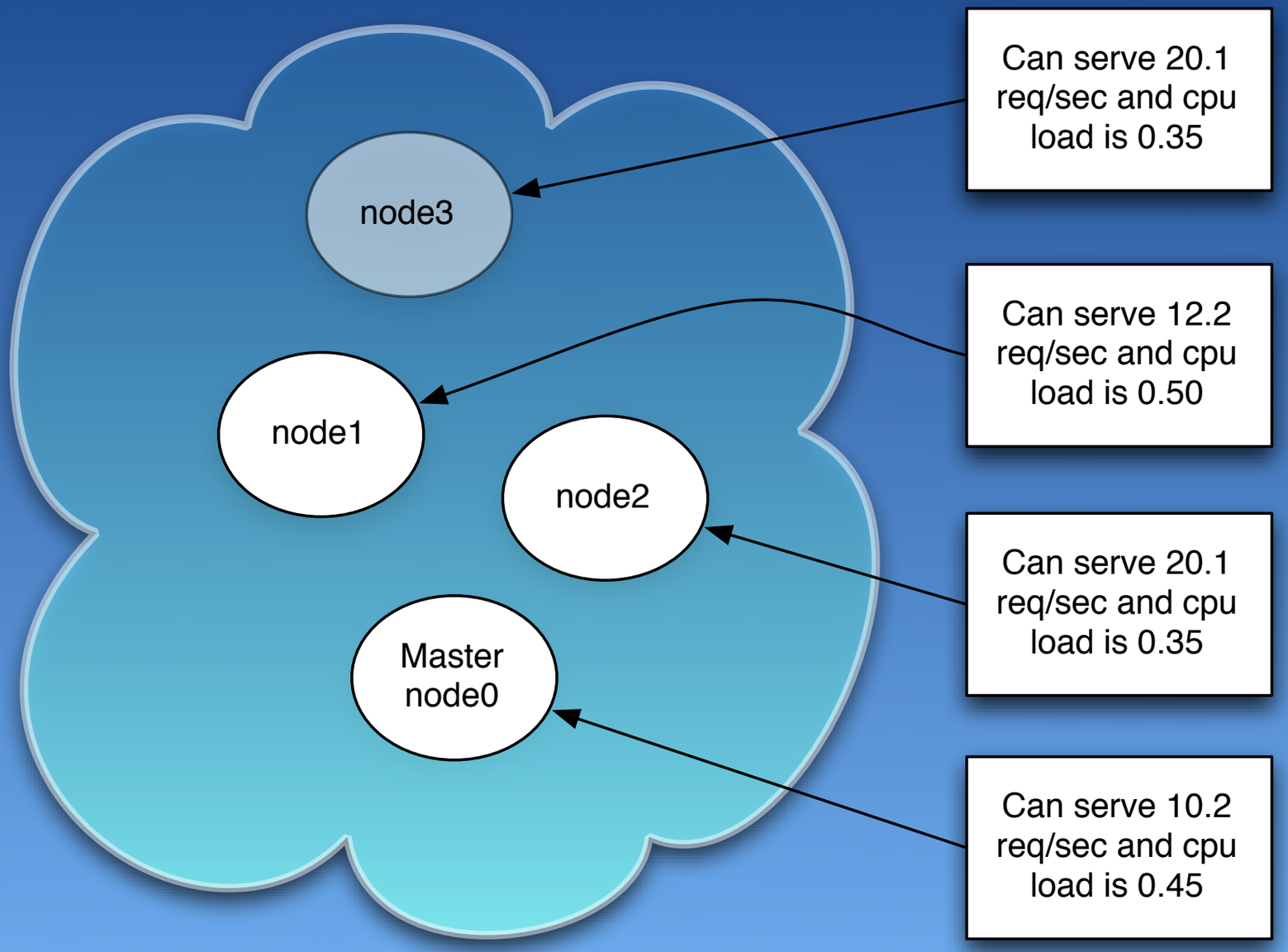
Auto-scaling



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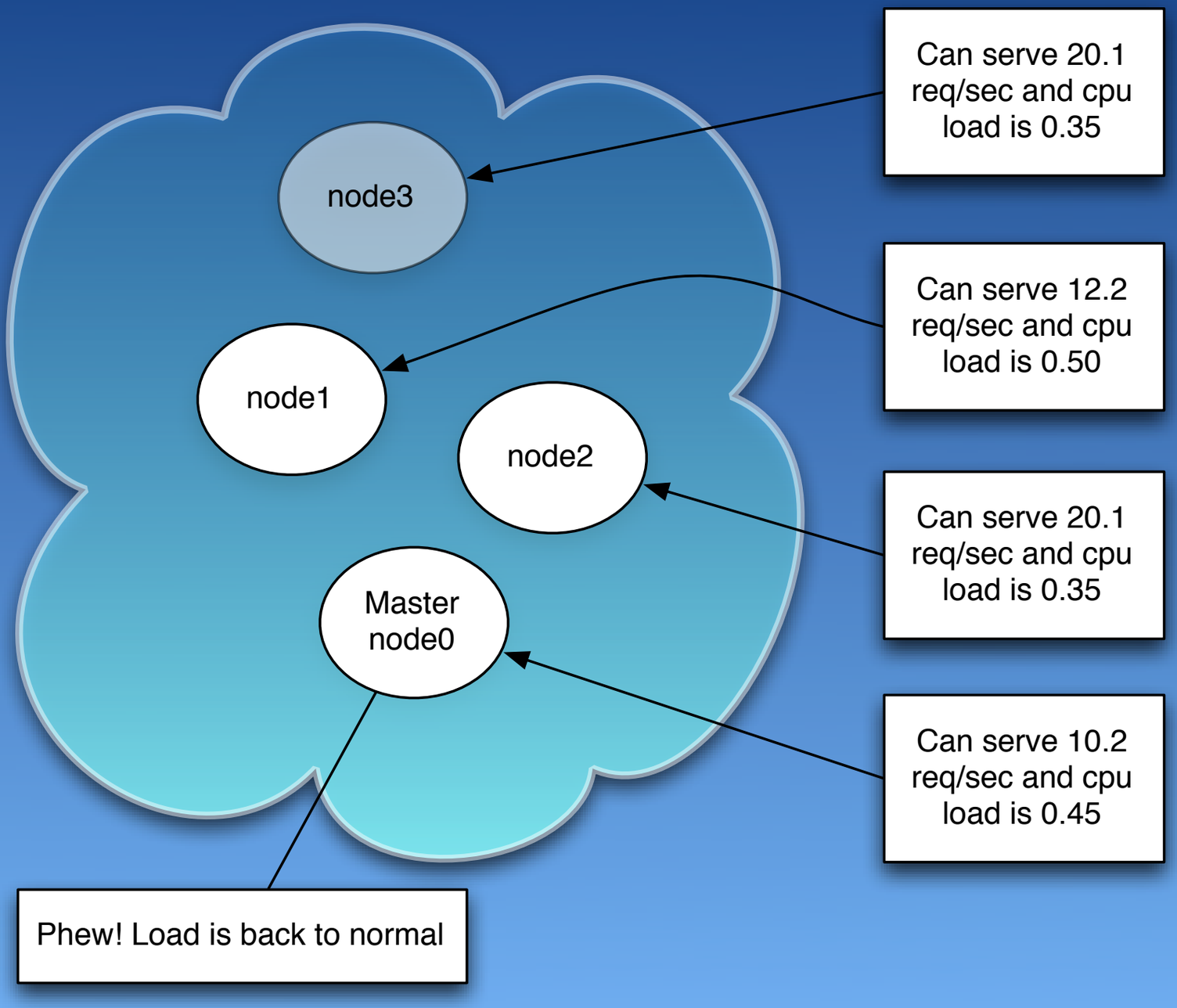
Auto-scaling



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CloudSpeak

- pool
  - start | stop | restart | list | maintain
- instance
  - start | stop | reconfigure | install | ssh | scp | cmd | start_maintain | stop_maintain

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Usage example

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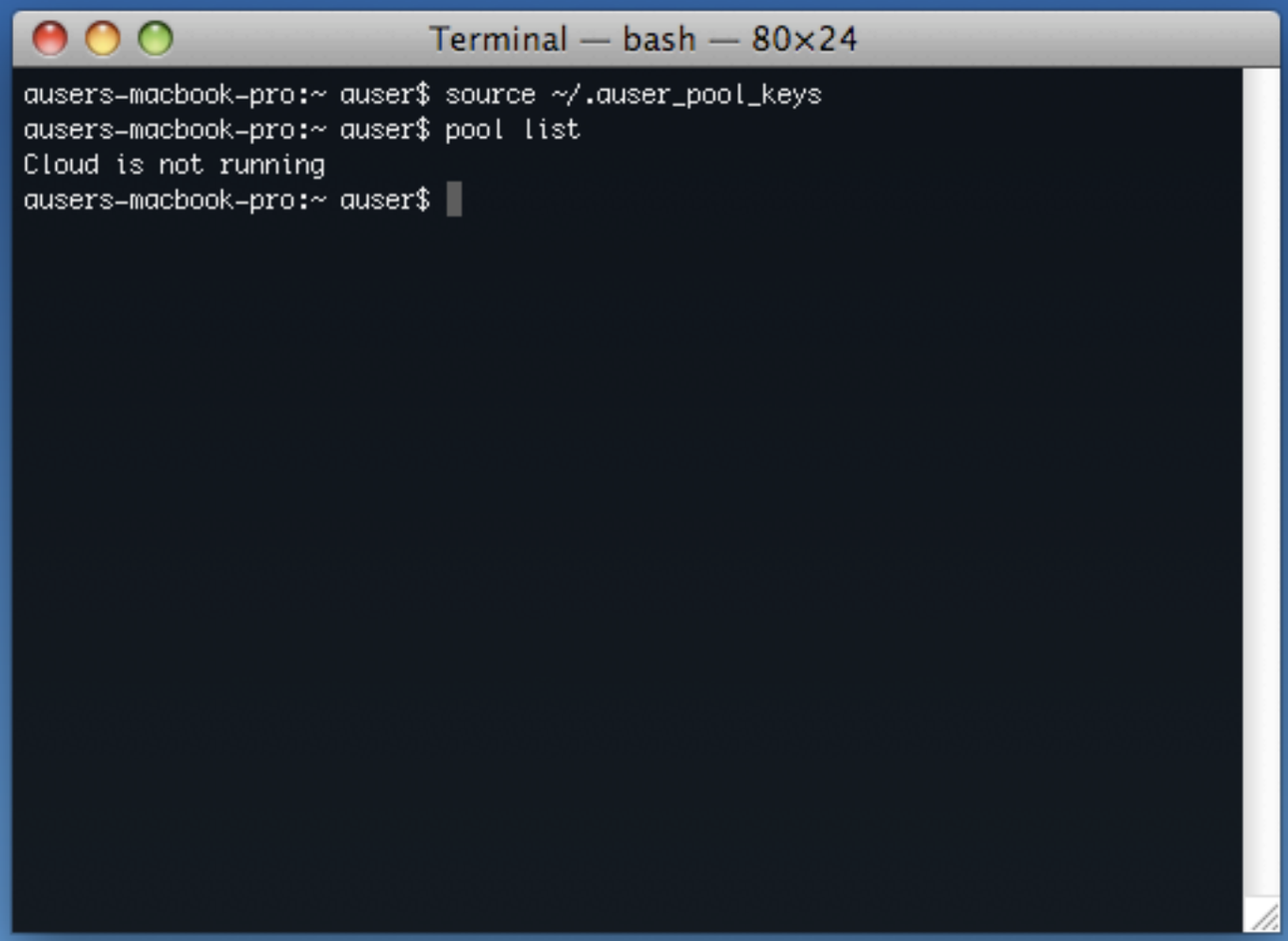
Start with
rake dev:setup
source ~/.key_pool_keys



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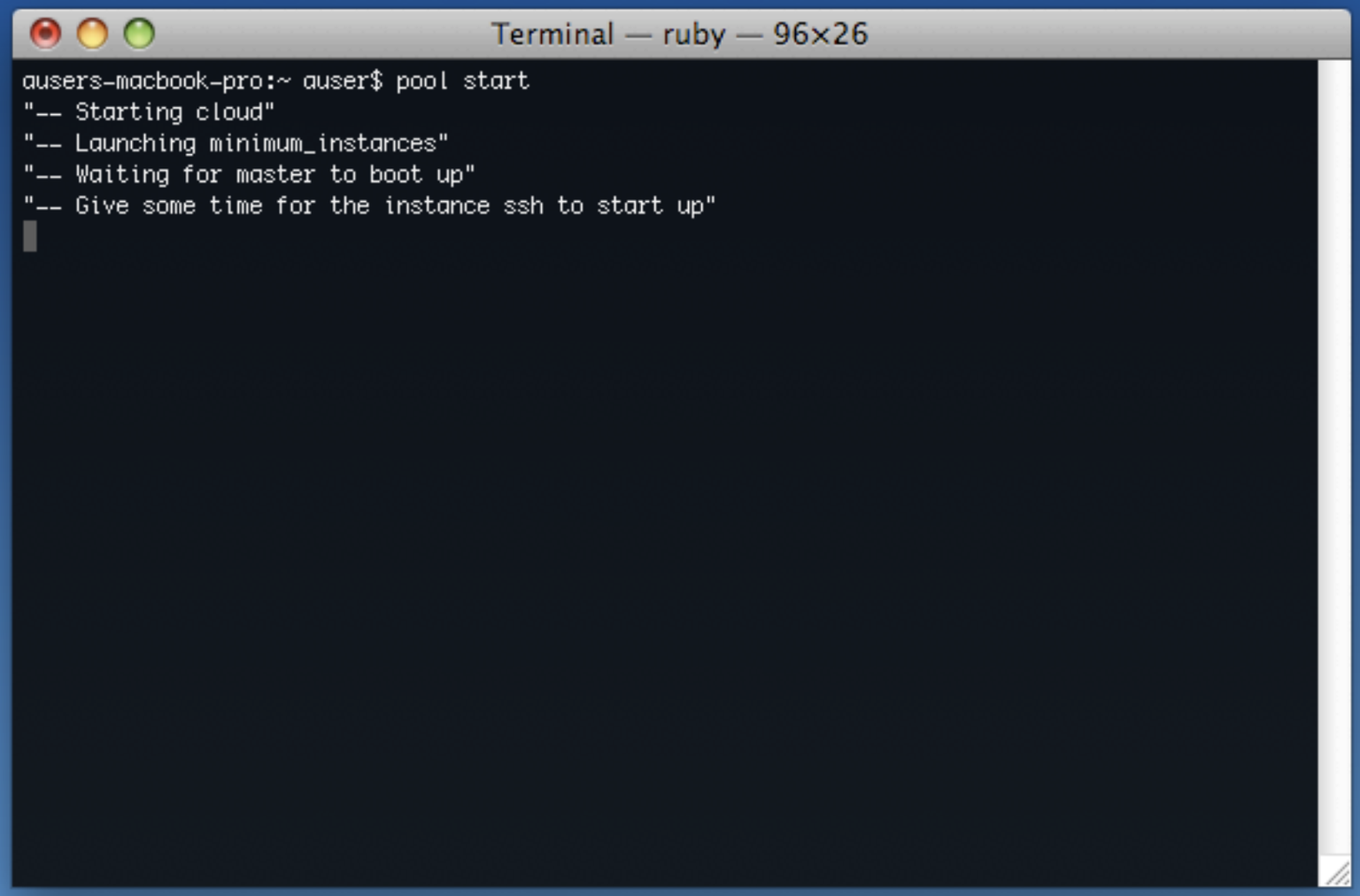
pool start



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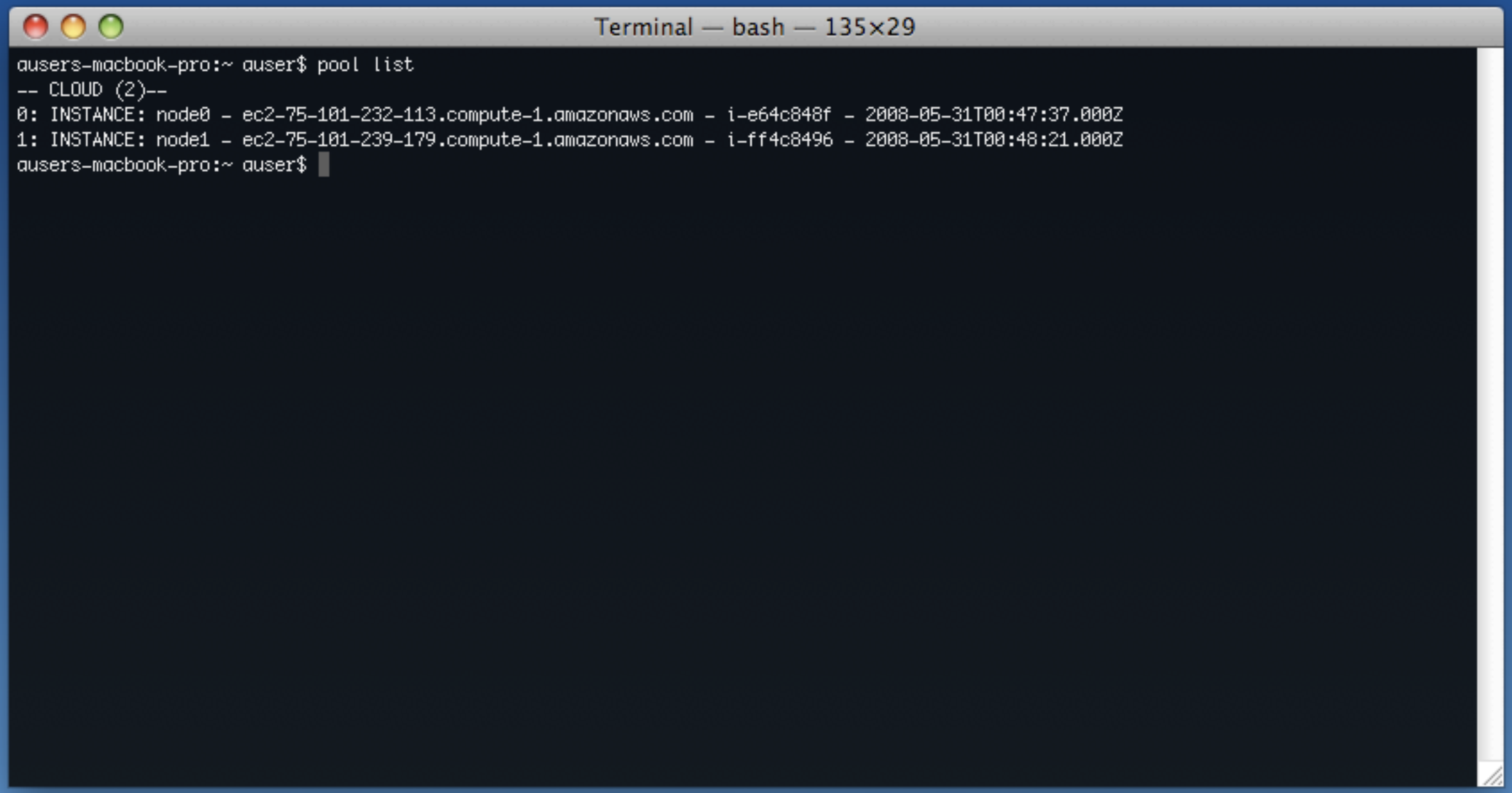
pool list



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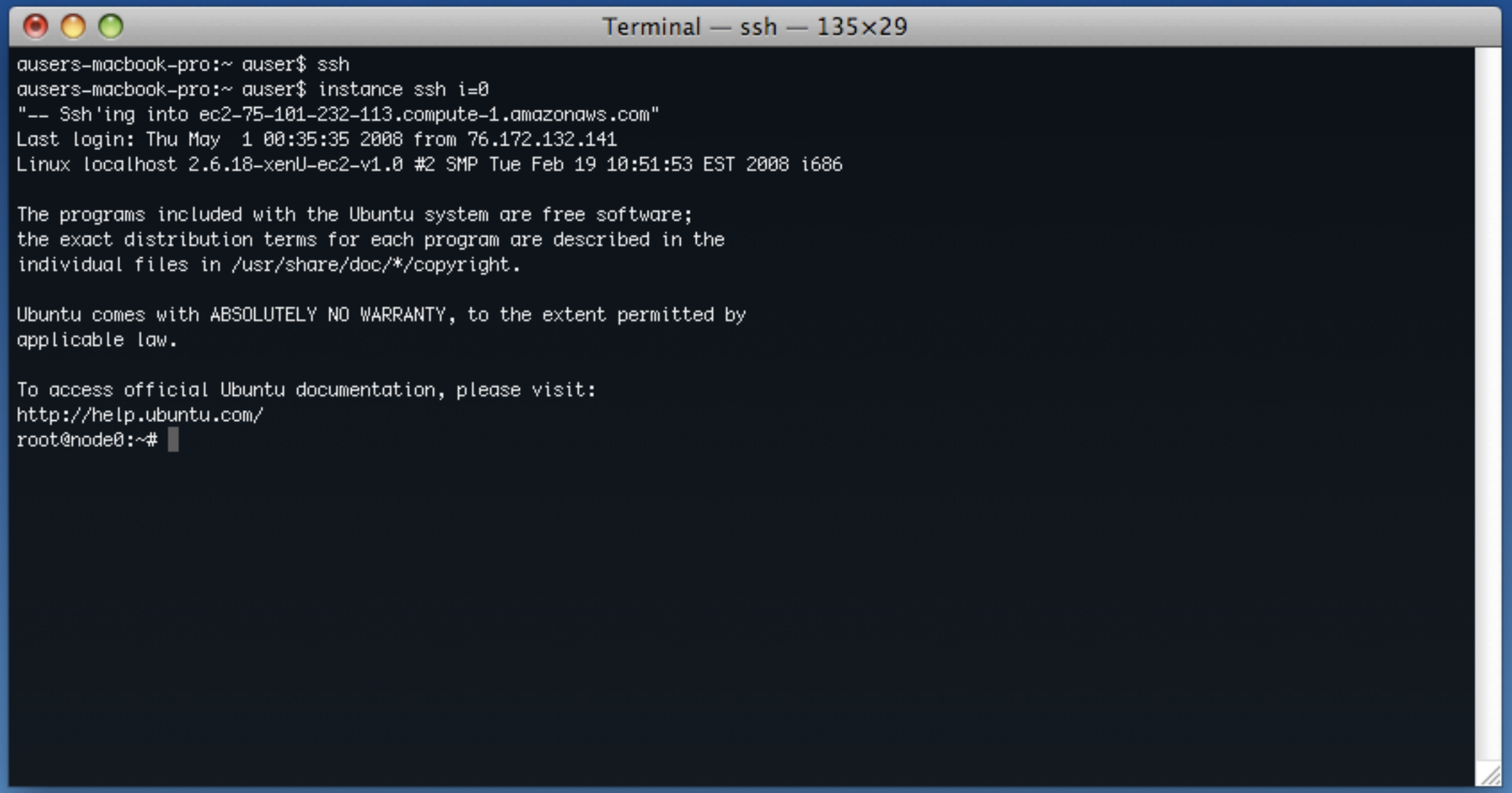
instance ssh



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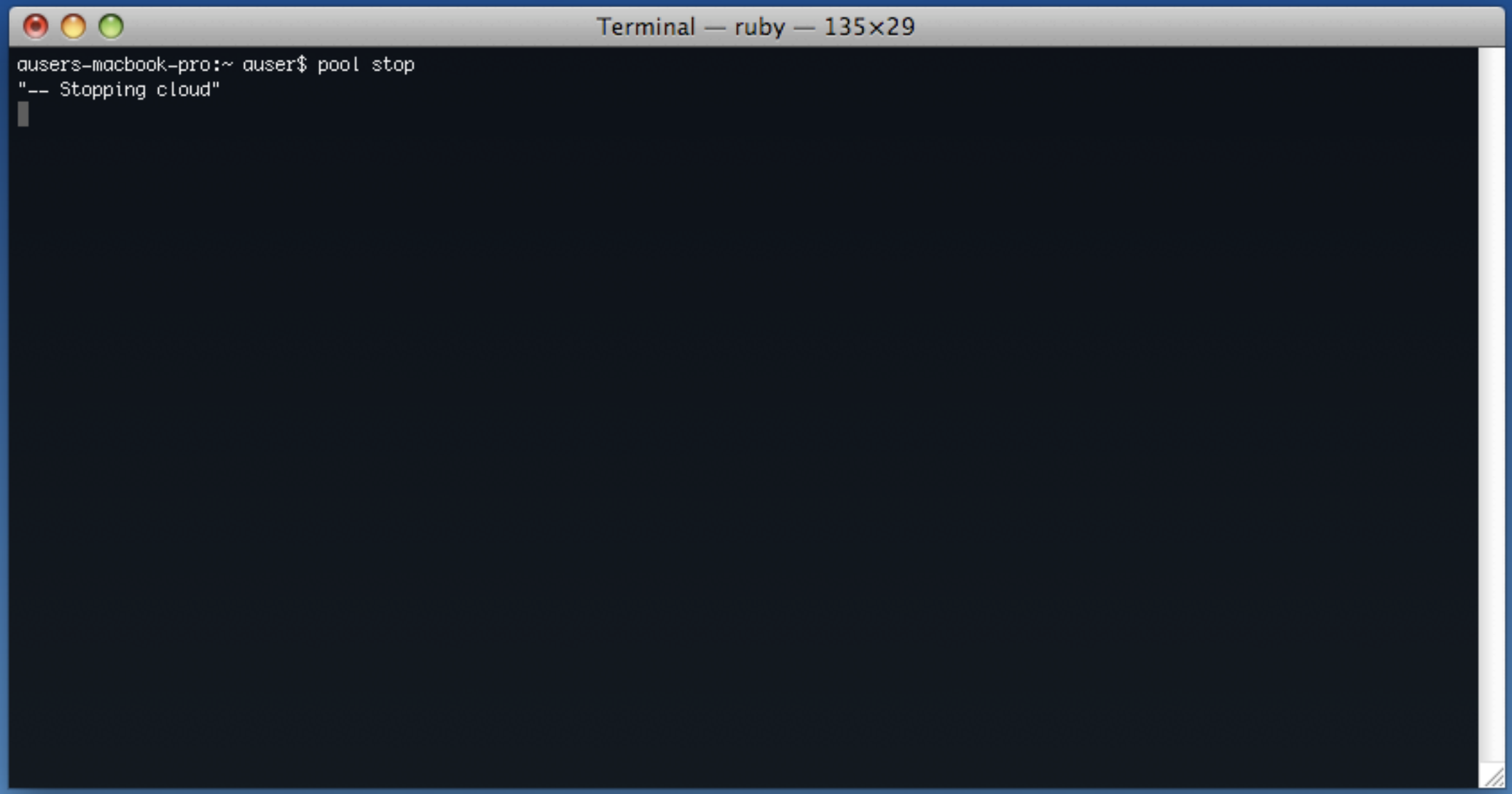
pool stop



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Upcoming features

in development

- Speeding up configuration-time
- Plugin and extensible support
- Front-end client
- Monitor logging
- Capistrano deployment

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Questions?

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Resources

- http://poolpartyrb.com
- http://blog.citrusbyte.com
- http://aws.amazon.com/
- mailto: ari.lerner@citrusbyte.com

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Thanks

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