

SIG Network 2017 Plan

This document is intended to outline the high level goals of SIG network for 2017, including breaking down the goals on a per-quarter basis. It will serve as a reference for users interested in the direction of SIG network, as well as for the SIG during release planning.

High-level Goals

User Experience

- Documentation:
 - Ensure user-facing documentation is comprehensive.
 - Specs:
 - DNS Schema
 - Services abstraction
 - Pod networking & healthchecks
- Address main networking pain-points for Kubernetes users
 - Do we know what these are?
 - Bare-metal load-balancing
 - DNS stability & perf
 - DNS stub domains

Testing

Audit existing test coverage, fill in major gaps.

- Scale testing
- Try to test unit-ish stuff in unit tests, and integration-y stuff in integration tests, rather than stuffing everything into end-to-end tests, which take a lot longer to set up and run
- Get unit test coverage numbers for our pkgs
- Decide unit test coverage targets for various milestones (e.g v1.6, v1.7, ...)

Finishing existing features

Focus on stability and bringing existing APIs to GA.

- Move kubenet to standalone CNI plugin
- Bring Network Policy to GA
 - Final decision: [] vs nil semantics
- Bring CNI plugin interface to GA
 - Missing hostPort support
- Deprecate exec driver & kubenet driver

New Features

- IPv6
- Multiple Networks
- Multiple IP addresses per pod
- Multi-tenancy
- QoS Support - bandwidth limitation
- Egress NetworkPolicy
- CIDR based NetworkPolicy

Questions:

- What about long-standing PRs and issues (e.g. multi-interface, local services, etc)?
- Where does multi-tenancy support fit? (Sukhdev)