Integration Testing Infrastructure
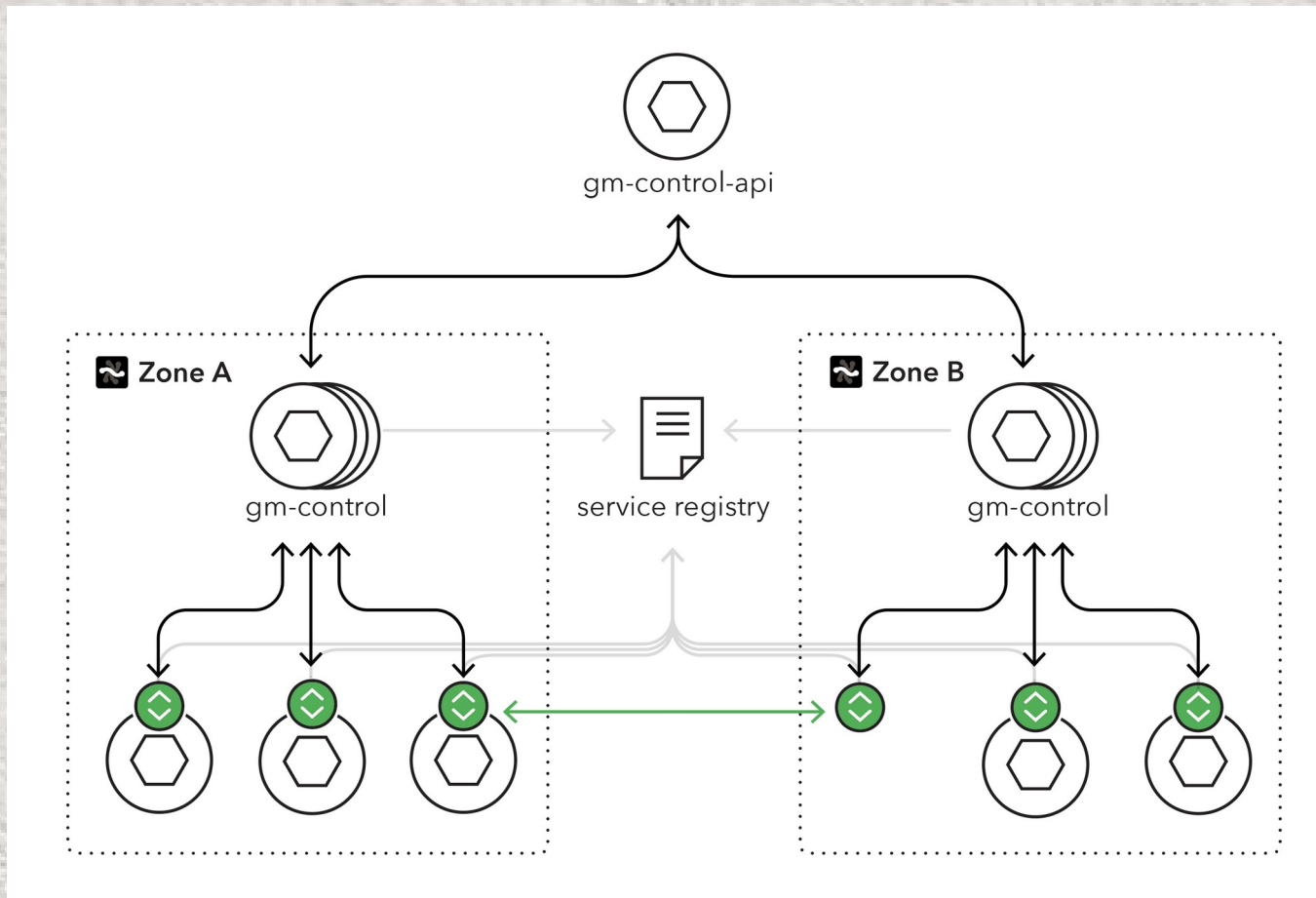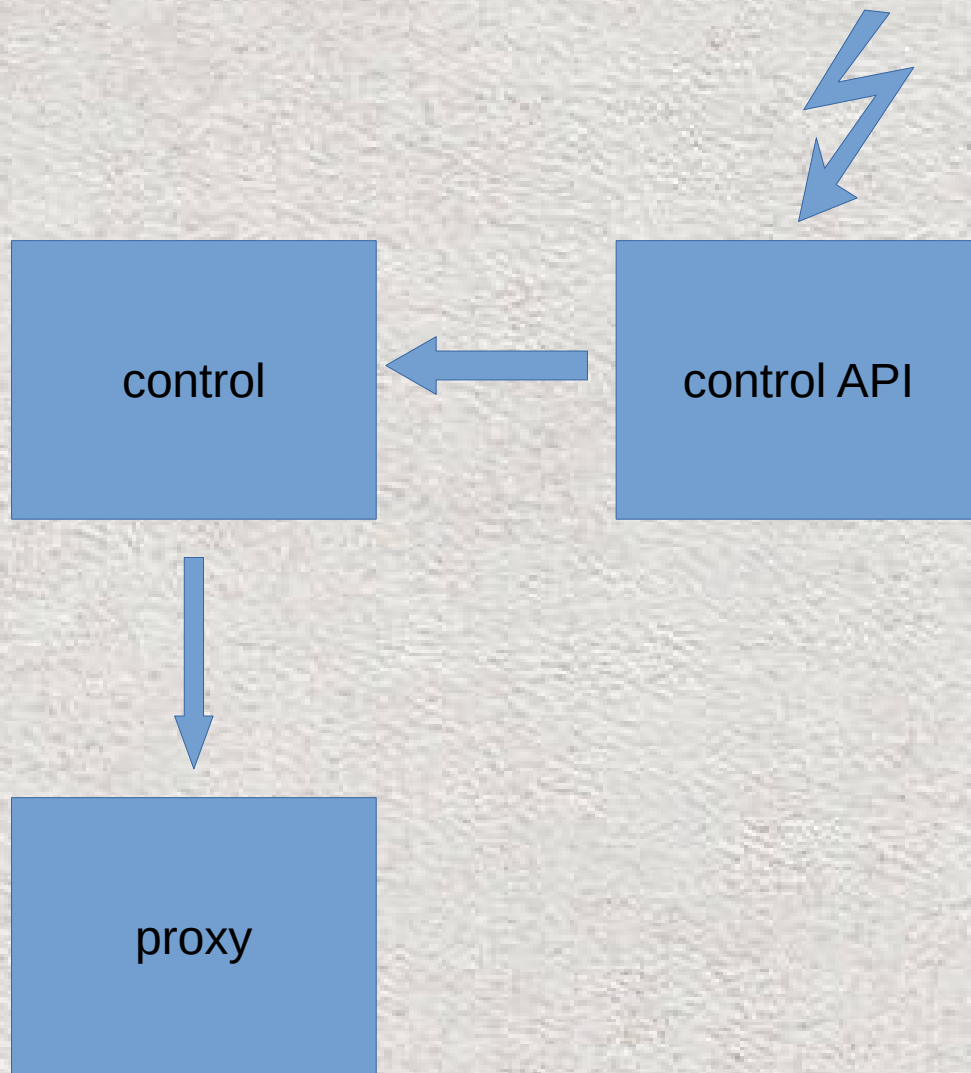
Grey Matter Dynamic Configuration

The Three Body Problem

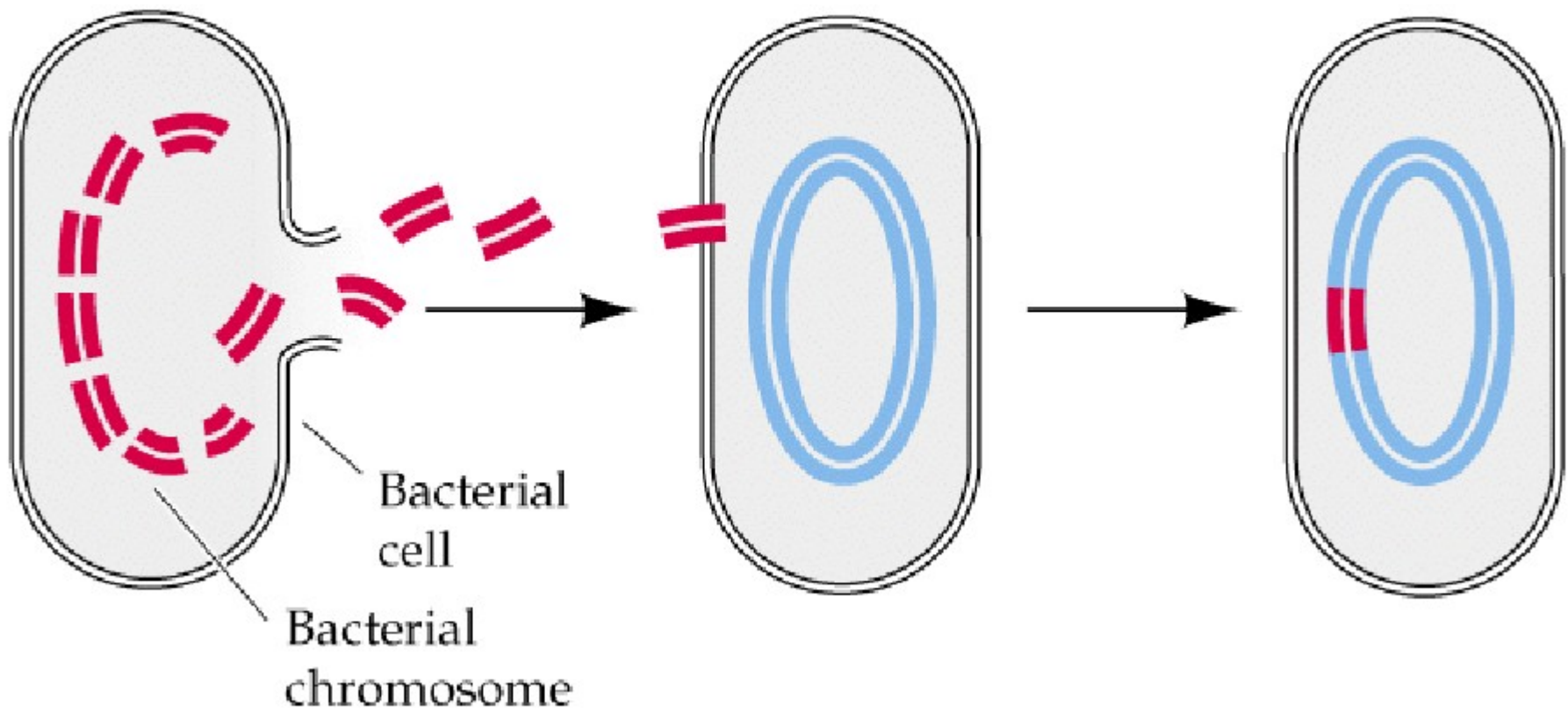# Configuration change: add a metrics filter

```json
"gm_metrics": {
    "metricsPort":                              8081,
    "metricsHost":                              "0.0.0.0",
    "metricsDashboardUriPath":                  "/metrics",
    "metricsPrometheusUriPath":                 "/prometheus",
    "prometheusSystemMetricsIntervalSeconds":   15,
    "metricsRingBufferSize":                    4096,
    "metricsKeyFunction":                       "none"
}
```

Horizontal gene transfer

Transformation

Bacterial cell

Bacterial chromosome

Permission pending from Sinaur Associates, Inc.

Envoy Admin

Command	Description
certs	print certs on machine
clusters	upstream cluster status
config_dump	dump current Envoy configs (experimental)
contention	dump current Envoy mutex contention stats (if enabled)
cpuprofiler	enable/disable the CPU profiler
drain_listeners	drain listeners
healthcheck/fail	cause the server to fail health checks
healthcheck/ok	cause the server to pass health checks
heapprofiler	enable/disable the heap profiler
help	print out list of admin commands
hot_restart_version	print the hot restart compatibility version
listeners	print listener info
logging	query/change logging levels
memory	print current allocation/heap usage
quitquitquit	exit the server
ready	print server state, return 200 if LIVE, otherwise return 503
reset_counters	reset all counters to zero
runtime	print runtime values
runtime_modify	modify runtime values
server_info	print server version/status information
stats	print server stats
stats/prometheus	print server stats in prometheus format
stats/recentlookups	Show recent stat-name lookups
stats/recentlookups/clear	clear list of stat-name lookups and counter
stats/recentlookups/disable	disable recording of reset stat-name lookup names

/config_dump (before)

```json
{
 "@type": "type.googleapis.com/envoy.admin.v3.ListenersConfigDump",
 "version_info": "4f+IQmOPXhZ/f4e26tAi4Q==",
 "dynamic_listeners": [
  {
```

```json
       "http_filters": [
      {
       "name": "envoy.cors",
       "typed_config": {
        "@type":"type.googleapis.com/...filter.http.cors.v2.Cors"
       }
      },
      {
       "name": "envoy.router",
       "typed_config": {
        "@type":"type.googleapis.com/en..filter.http.router.v2.Router",
        "upstream_log": [
```

Config dump after

```
"http_filters": [
    {
      "name": "envoy.cors",
      "typed_config": {
        "@type":"type.googleapis.com/...filter.http.cors.v2.Cors"
      }
    },
    {
      "name": "gm.metrics",
      "typed_config": {
        "@type":"type.googleapis.com/...gm_proxy.filters.MetricsConfig",
        "metrics_port": 8081,
        "metrics_host": "0.0.0.0",
        "metrics_dashboard_uri_path": "/metrics",
        "metrics_prometheus_uri_path": "/prometheus",
        "prometheus_system_metrics_interval_seconds": 15,
        "metrics_ring_buffer_size": 4096,
        "metrics_key_function": "none"
      }
    },
    {
      "name": "envoy.router",
```