

— // 实践课堂 / 第3季 / 深圳站 —

■ QingCloud Workshop Season 3 / Shenzhen ■

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基于青云 SDN2.0 的网络架构

陈海泉 | 青云QingCloud 云计算基础平台研发总监

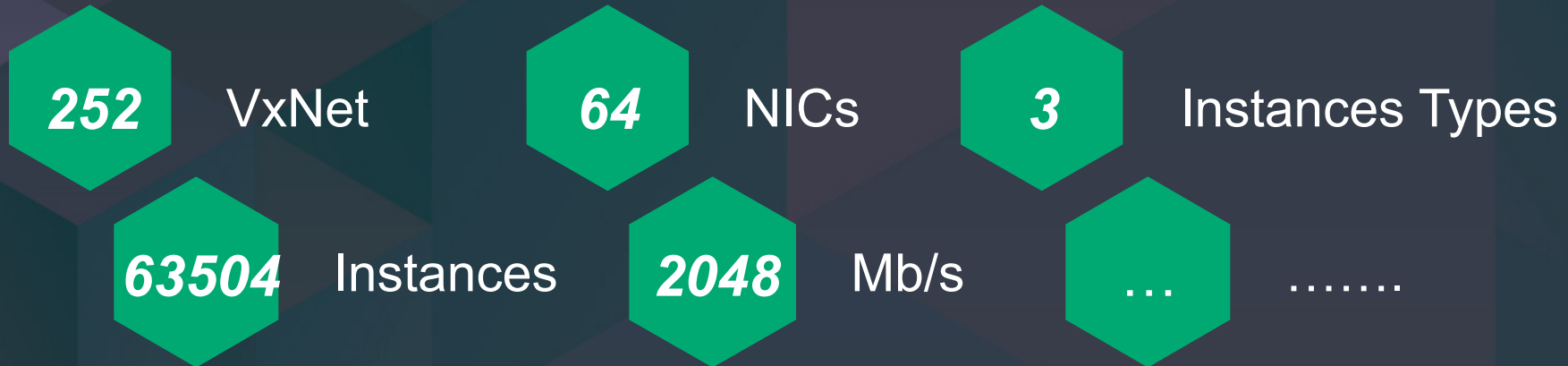
今天聊什么？

- ▶ 什么是 VPC?
- ▶ 架构
- ▶ 组件：DVR、网卡、IP、LBC、边界路由器、防火墙、SPAN
- ▶ 总结

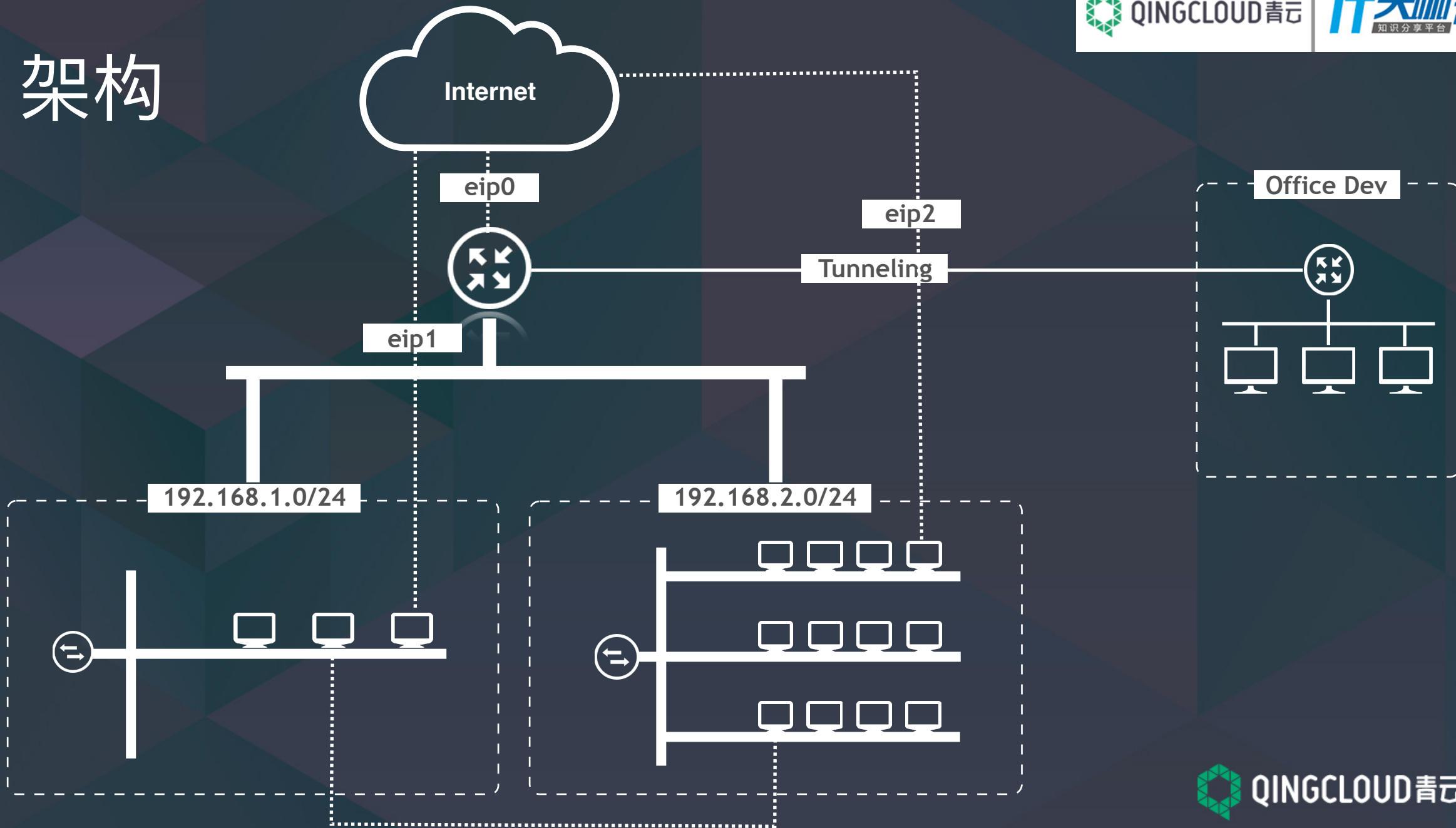
什么是 VPC

- ▶ 安全：二层隔离，防火墙...
- ▶ 方便：自定义 IP，路由...
- ▶ 强大：SDN Passthrough，支持广播、组播和 VIP...

几组数字

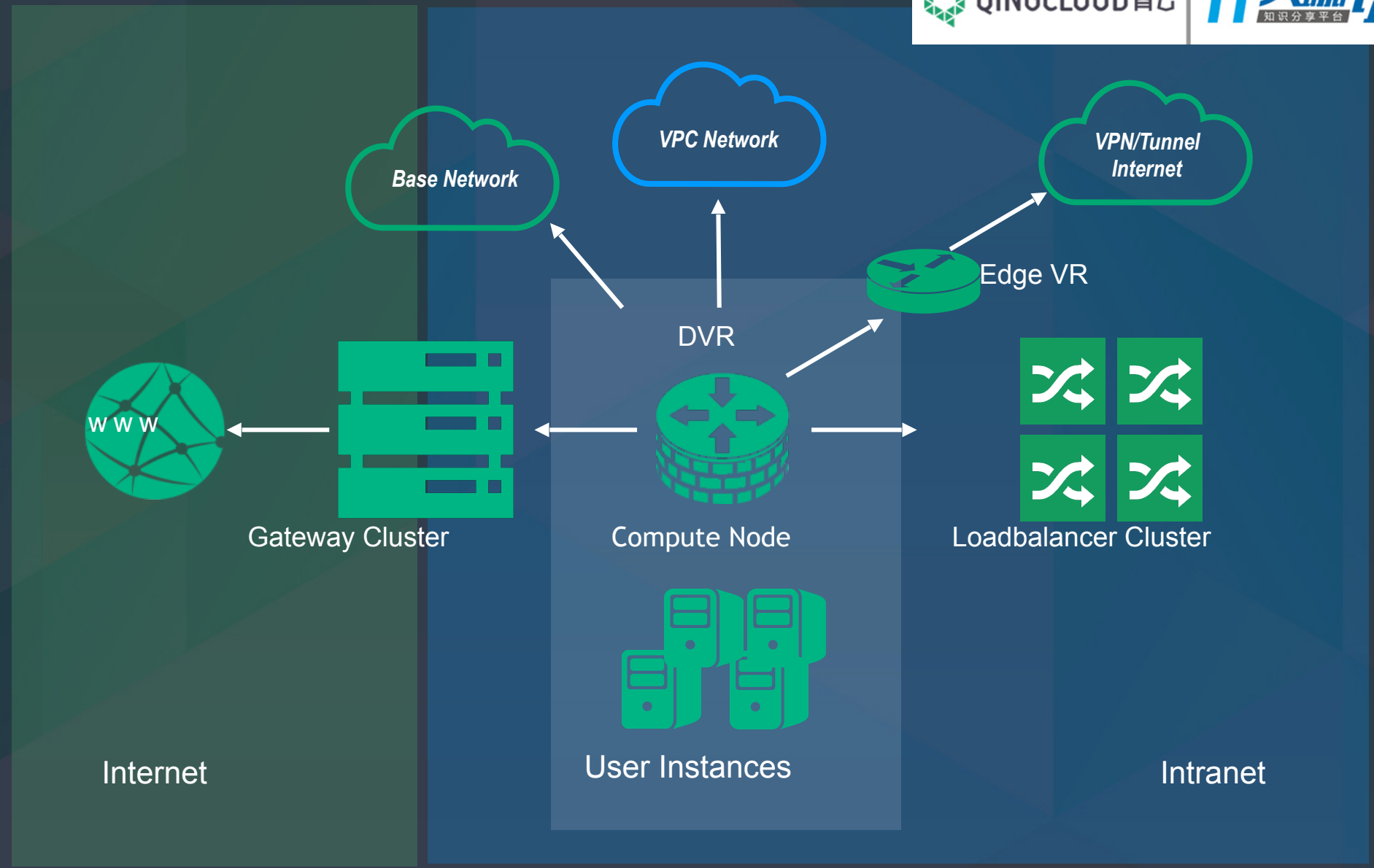


架构



DVR

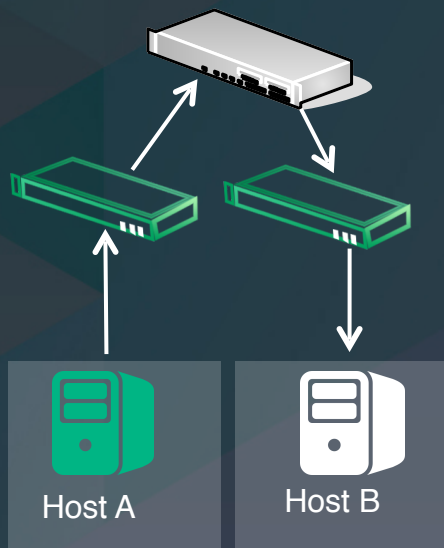
- ▶ 分布式网关
- ▶ 点对点直通



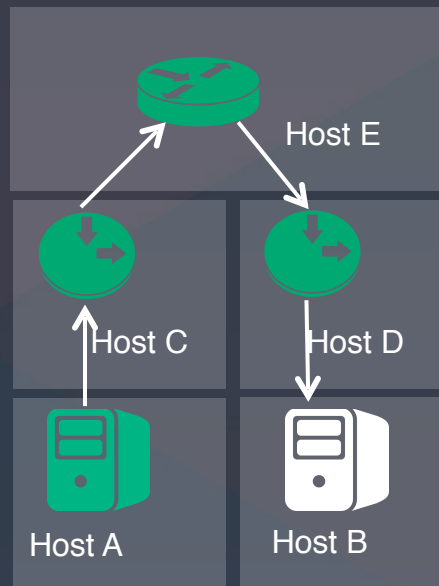
DVR

► 分布式网关

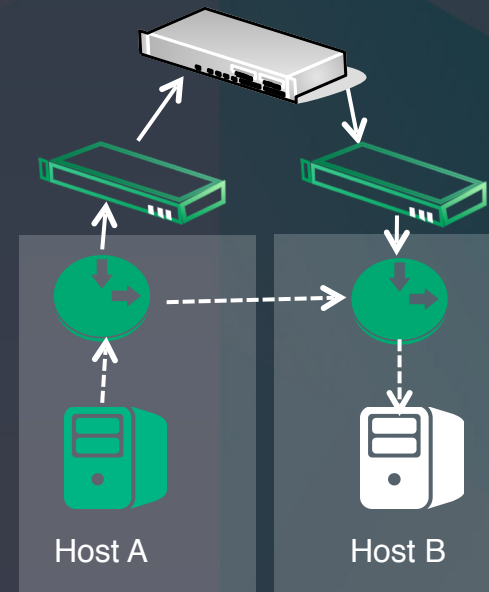
► 点对点直通



物理网络
A → B 需要4跳



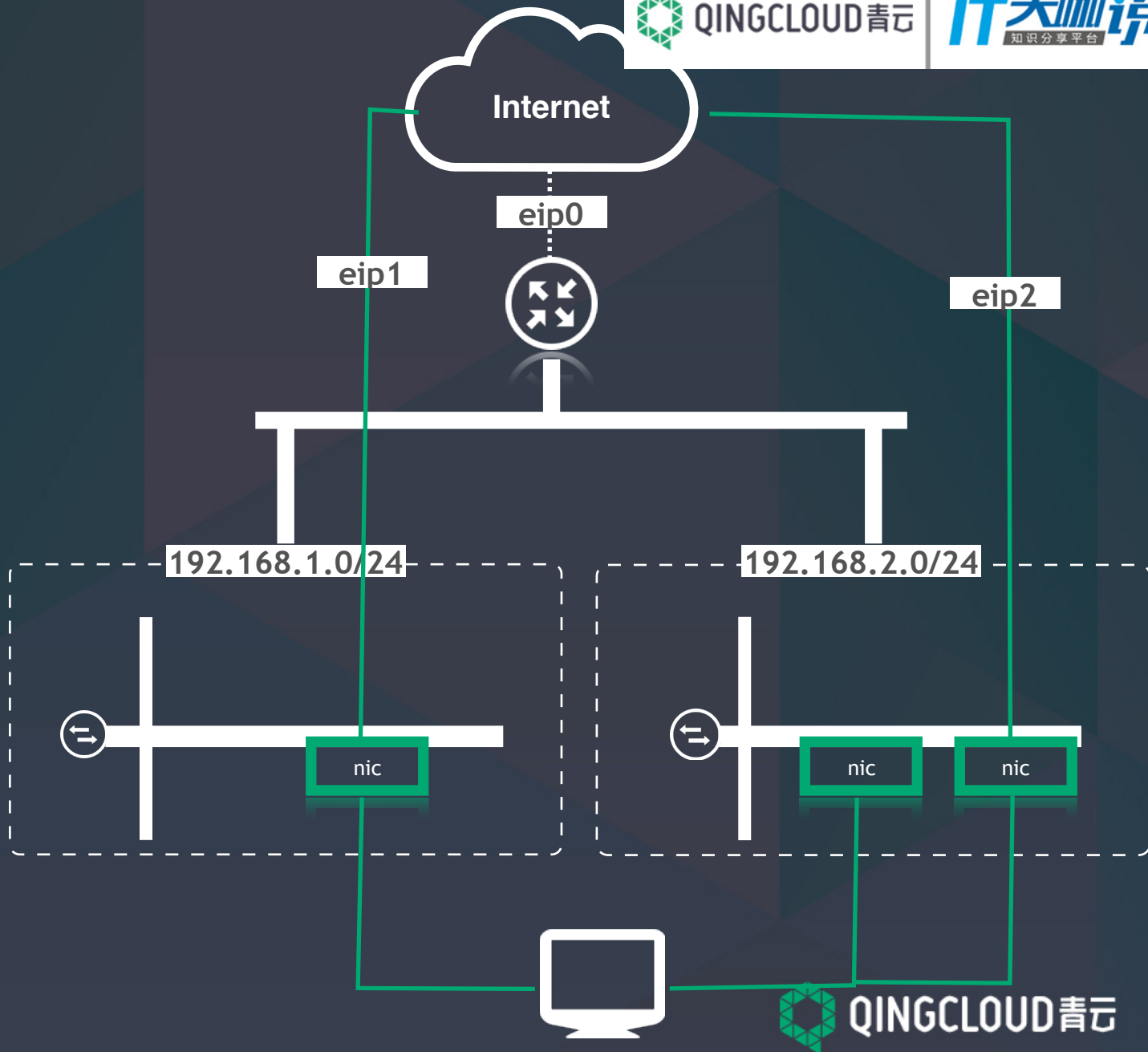
NFV without DVR
VM A → B 需要 4 * 4跳



DVR
VM A → B 需要 4跳
跟物理网络一致

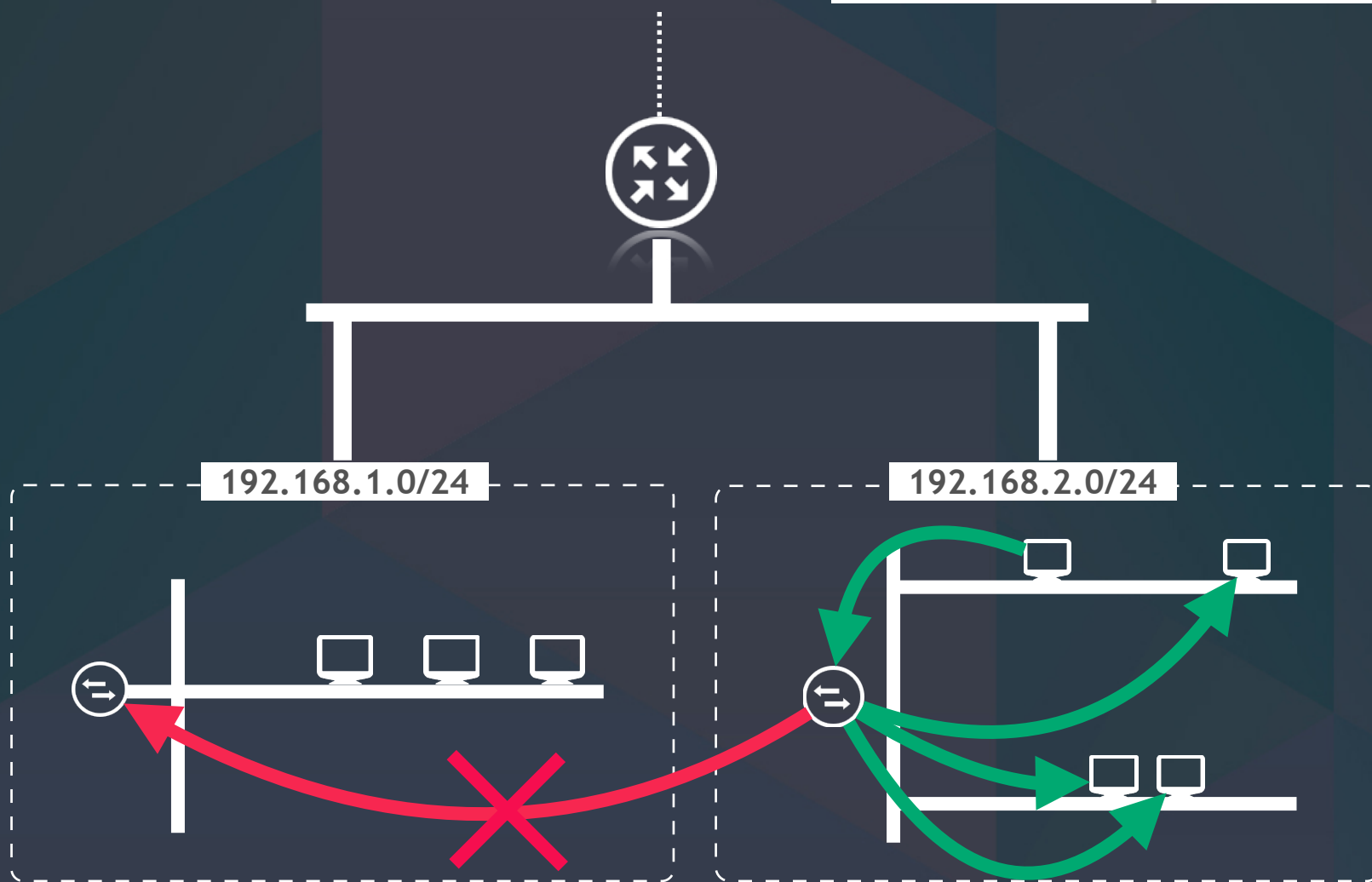
网卡

- ▶ 绑定独立的防火墙、EIP、LB
- ▶ 加入多个网络
- ▶ SDN Passthrough, Docker



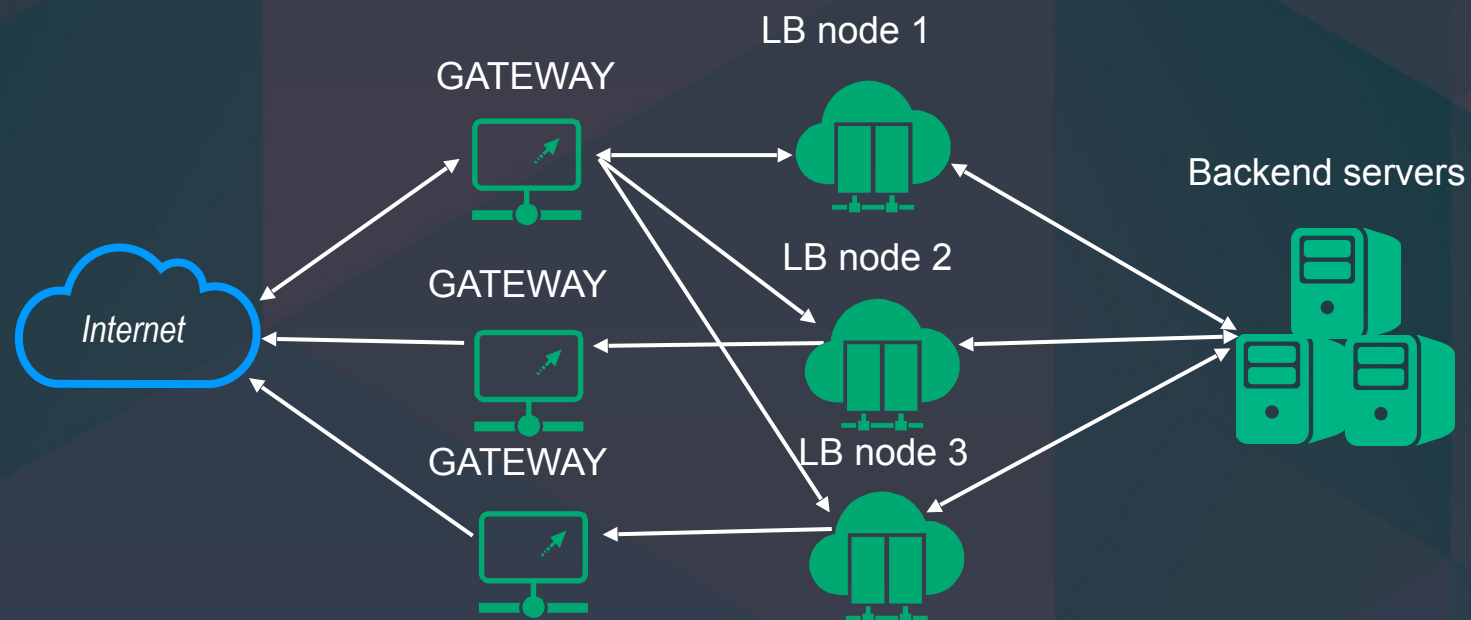
IP

- ▶ 支持广播、组播和 VIP
- ▶ ARP Flood 抑制
- ▶ 路由推送、网关修改



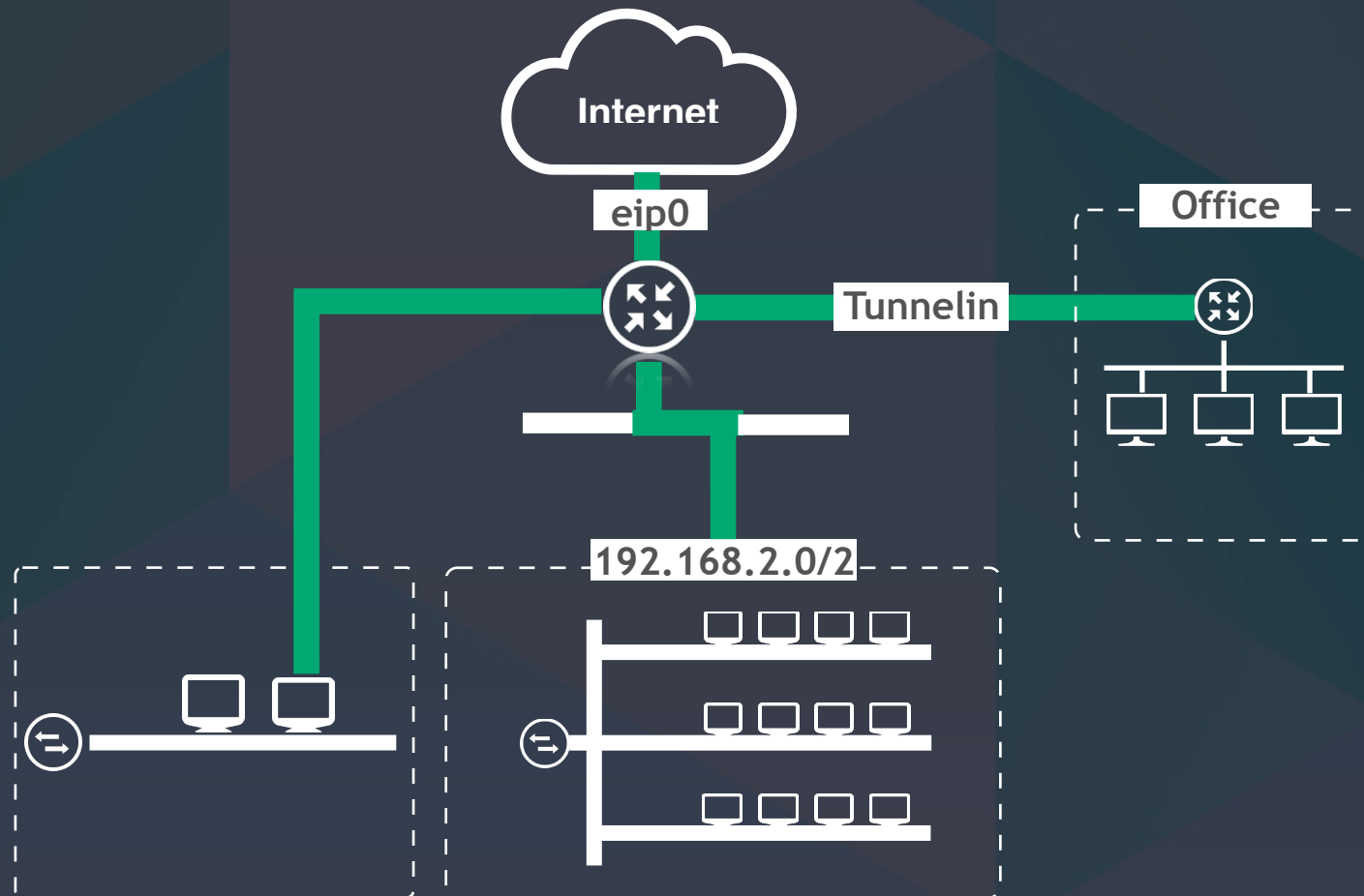
LBC

- ▶ 全球独有的 TCP/HTTP/HTTPS 全透明代理
- ▶ 后端主机可以在任何网络
- ▶ 无限的下行带宽
- ▶ 无限的 HTTPS 卸载能力
- ▶ 容器构建的集群，性能卓越



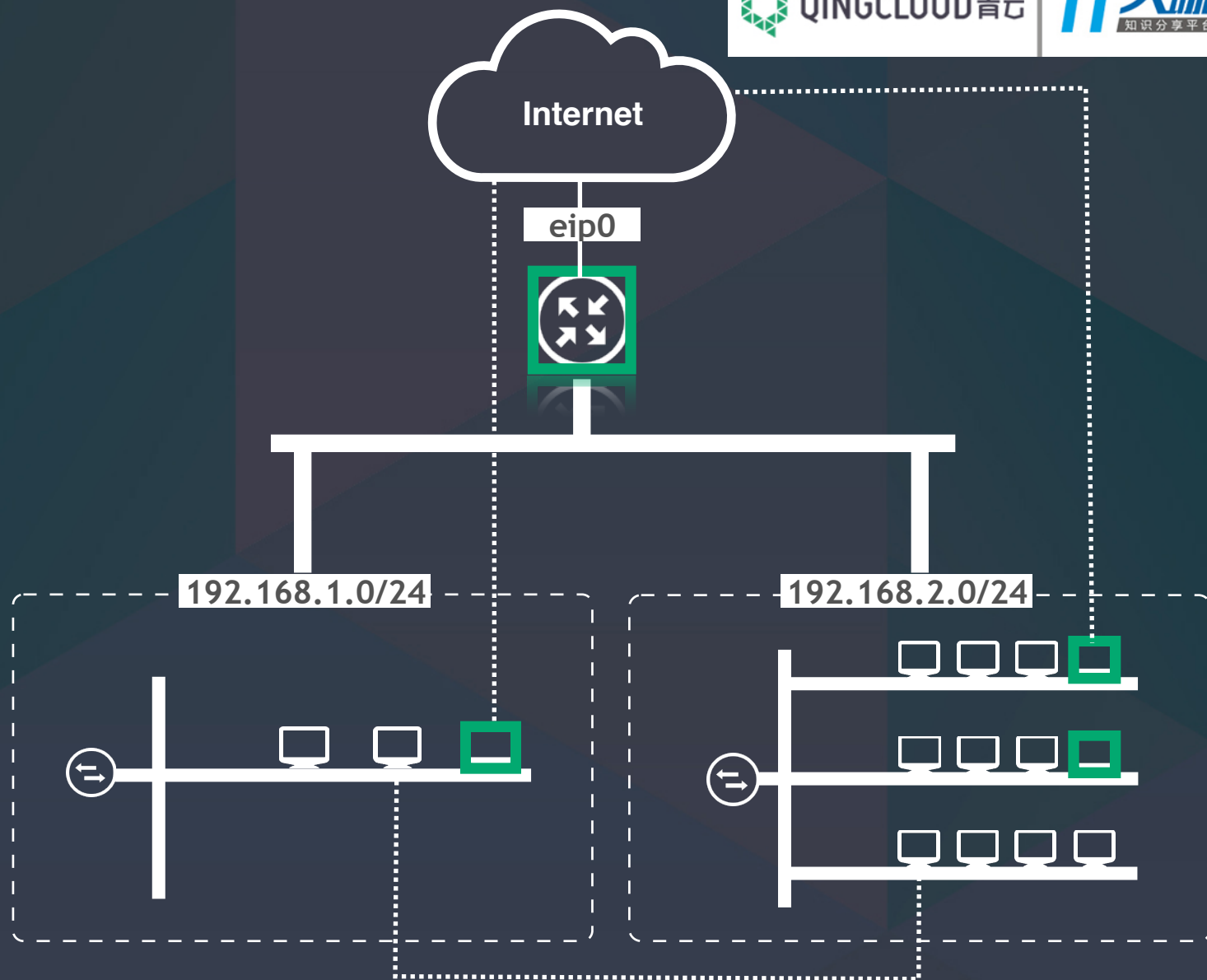
边界路由器

- ▶ 公网网关
- ▶ 公网端口转发
- ▶ 基础网络网关
- ▶ 混合云，连接自有机房和公有云
 - ▶ VPN
 - ▶ GRE/IPSec Tunneling



防火墙

- ▶ VPC 绑定防火墙
- ▶ 主机单独绑定防火墙
- ▶ 基础网络内的租户隔离
- ▶ 海量的 ip/port 规则



SPAN

- ▶ 流量镜像，用于流量分析和审计等
- ▶ 合作伙伴，如：EZSonar



总结

- ▶ 更大规模的网络, 252 VxNets, 63504 Instances
- ▶ DVR
- ▶ 多网卡
- ▶ 分布式 LB
- ▶ 边界路由器
- ▶