

— LIVE —
INTRAREDE
— 2021 —

PROGRAMABILIDADE DAS REDES: VOCÊ TEM QUE IR MUITO ALÉM DA CLI PARA NÃO FICAR OBSOLETO

— 10/3 às 10h (UTC-3) —

intrarede.nic.br

ceptro.br nic.br 25 anos cgi.br

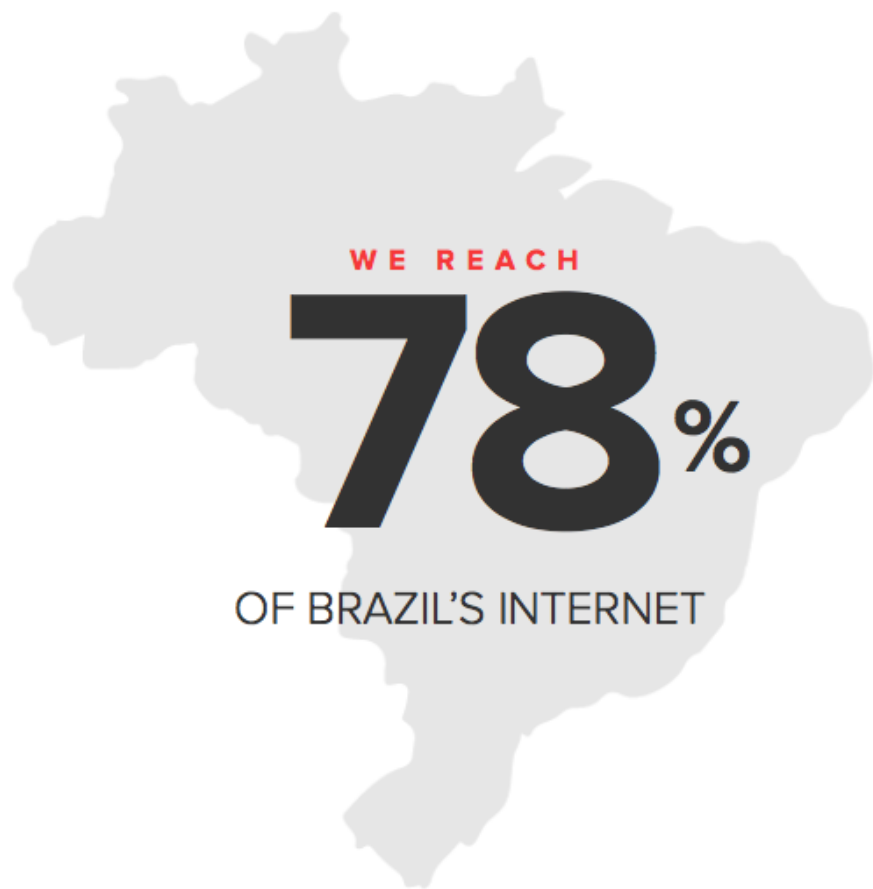




Largest media group in Latin America

WE HAVE MORE THAN

100 MILLION USERS



WE ARE

LEADERS IN

VIDEOS

SPORTS

NEWS

ENTERTAINMENT



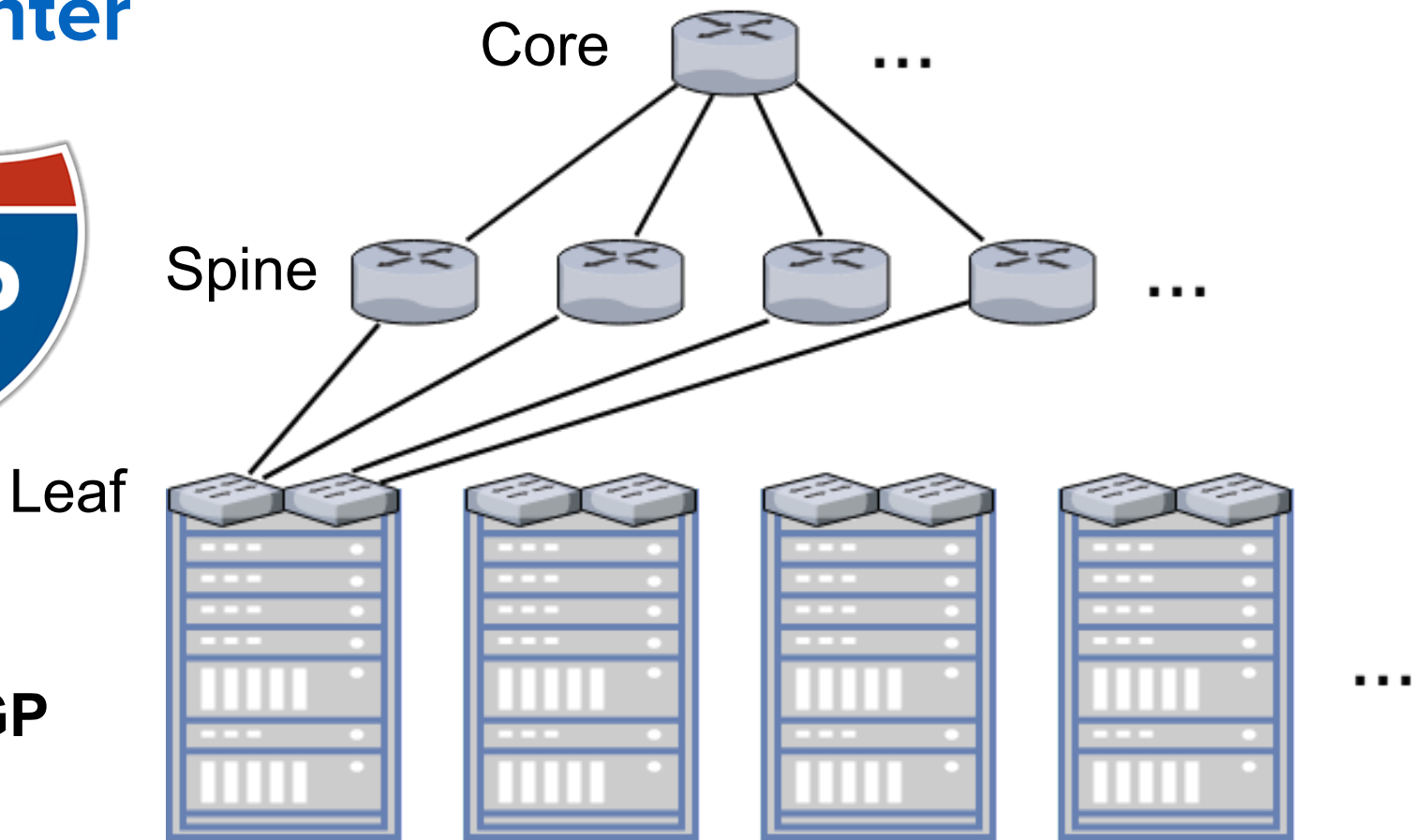


Datacenter

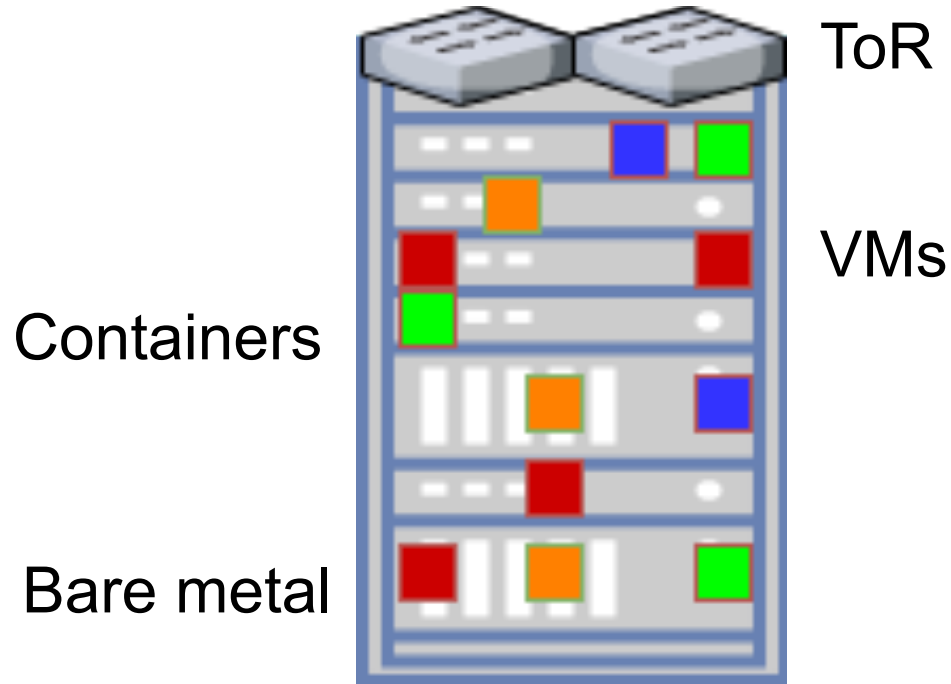
5000
servers

3.1 Tb/s
Bandwidth

Datacenter



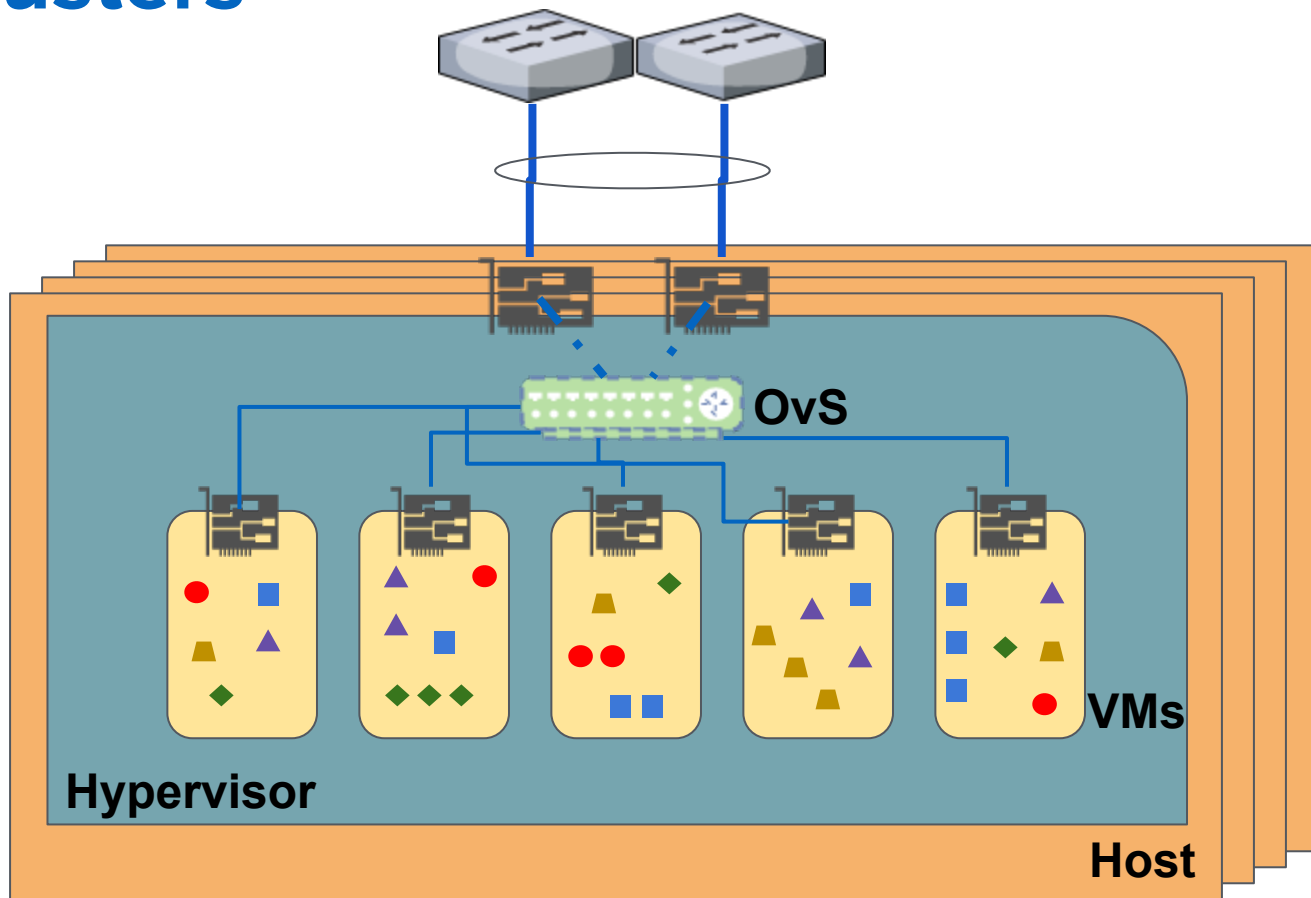
Fabric PoDs



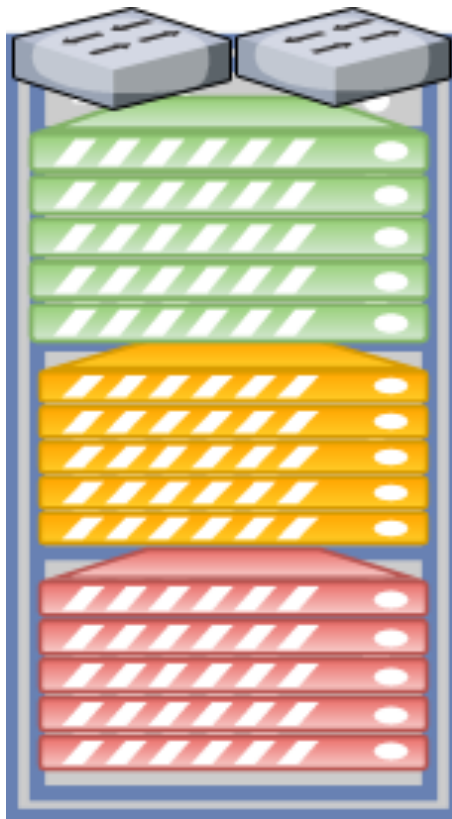
Cloud



Xen Clusters



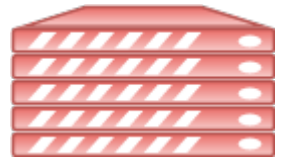
Xen/XCP Clusters and KVM



Environments

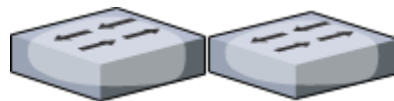
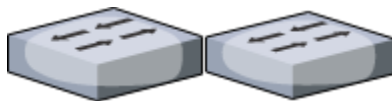
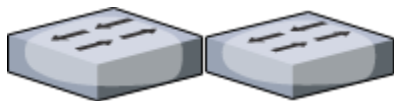
● Backend - BE

● Frontend - FE





Access Control Lists



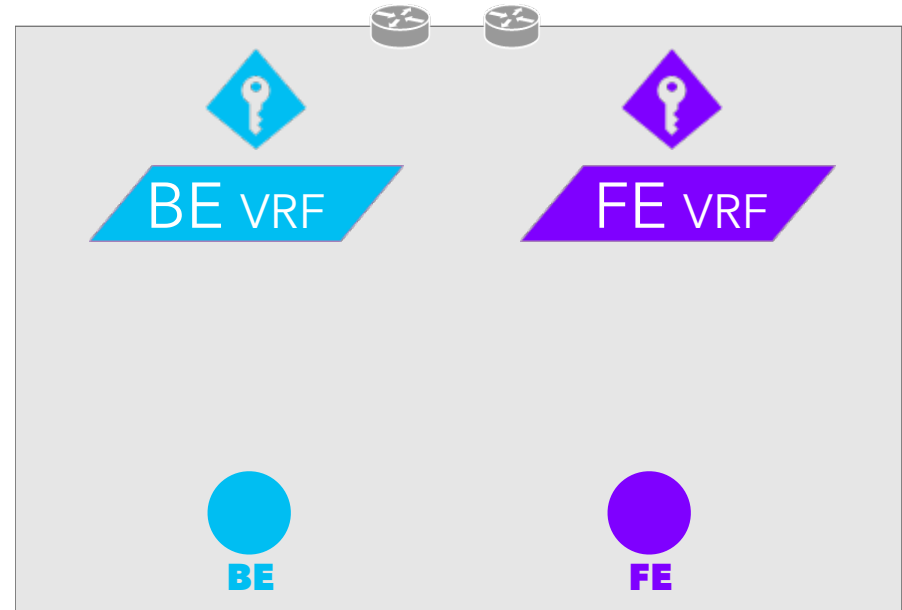
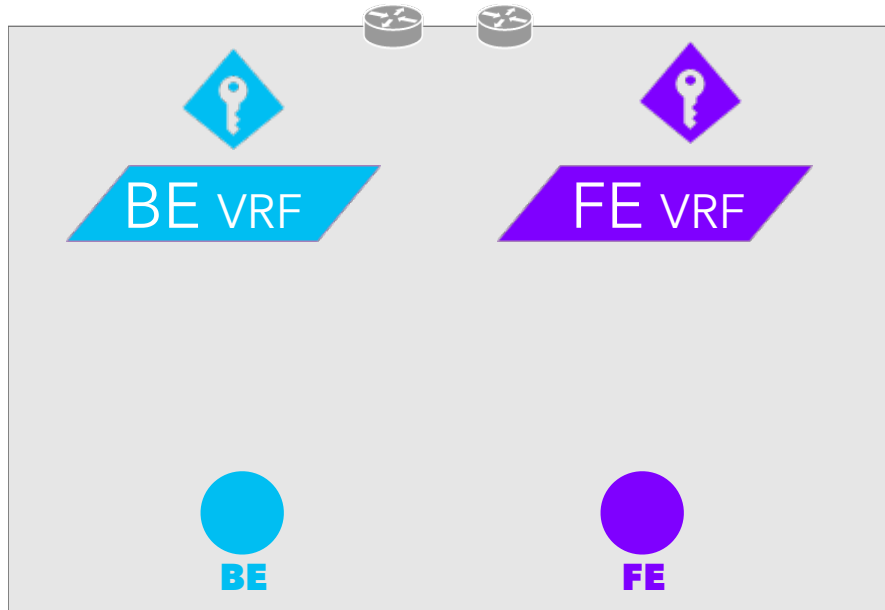
150000+

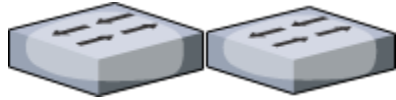
ACLs



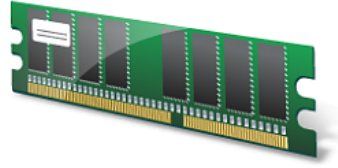
ACL API

Environment segmentation





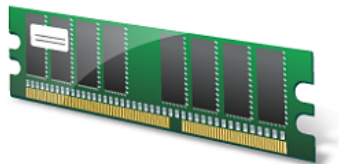
TCAM



Expensive

Upgrade

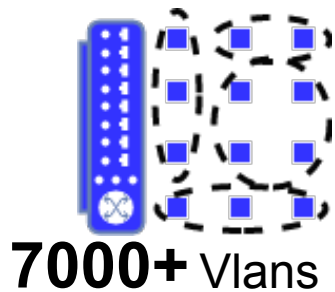
Small



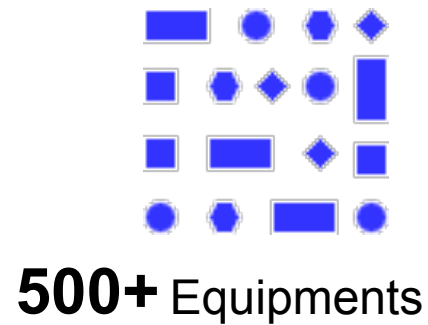
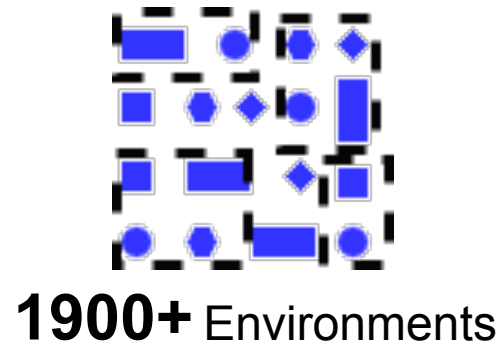
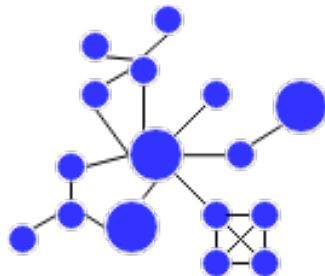
**No policies on
networks**

Moving forward

SDN

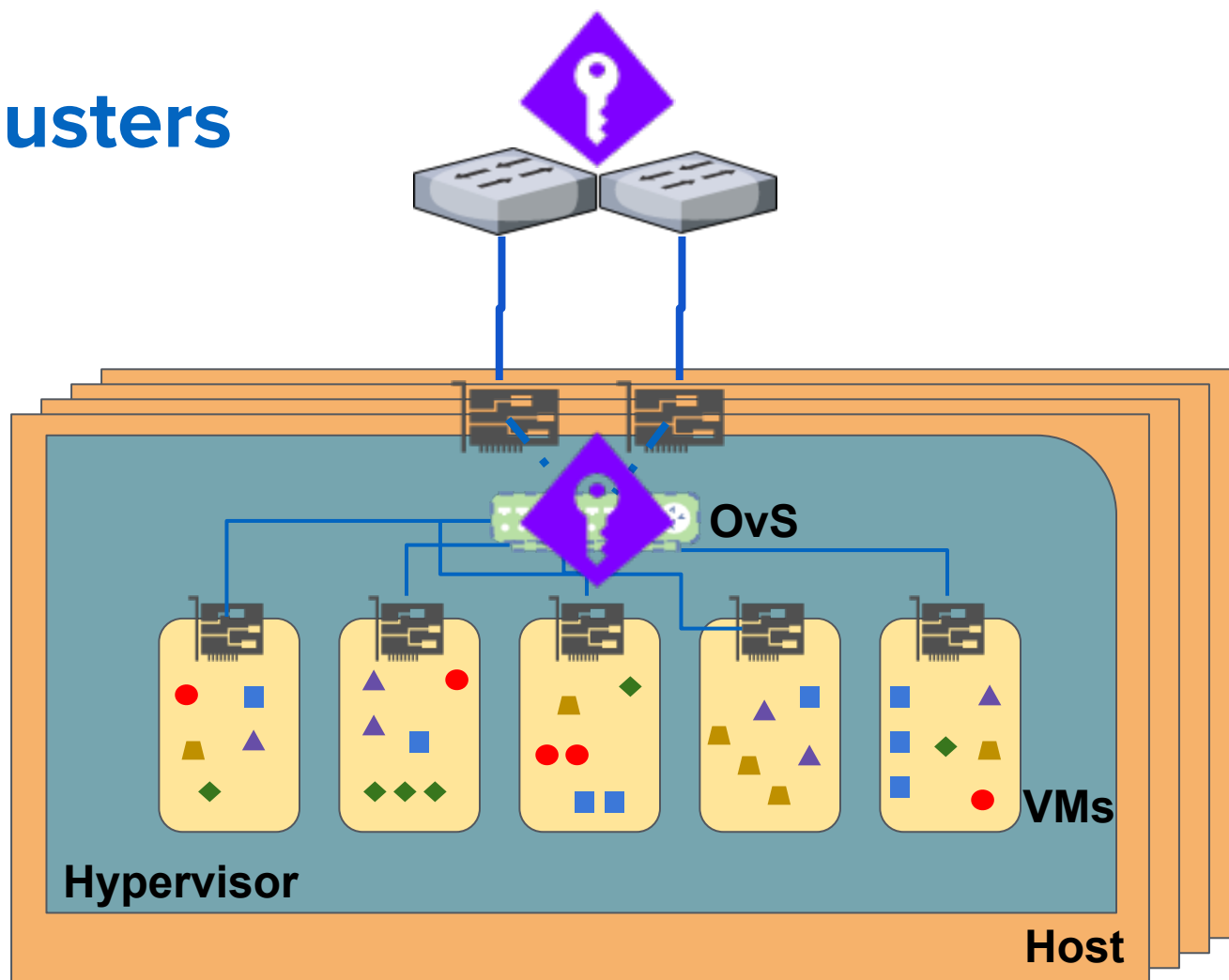


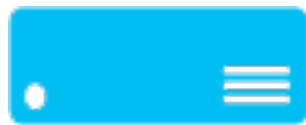
9000+ Networks



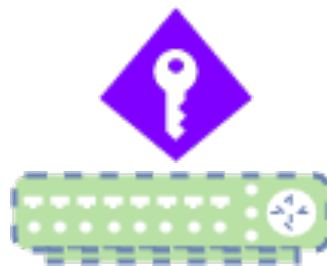
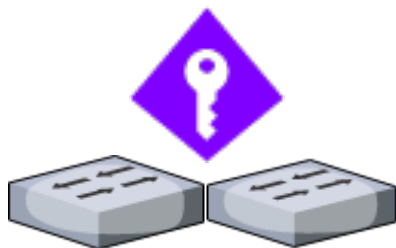
Network API

Xen Clusters

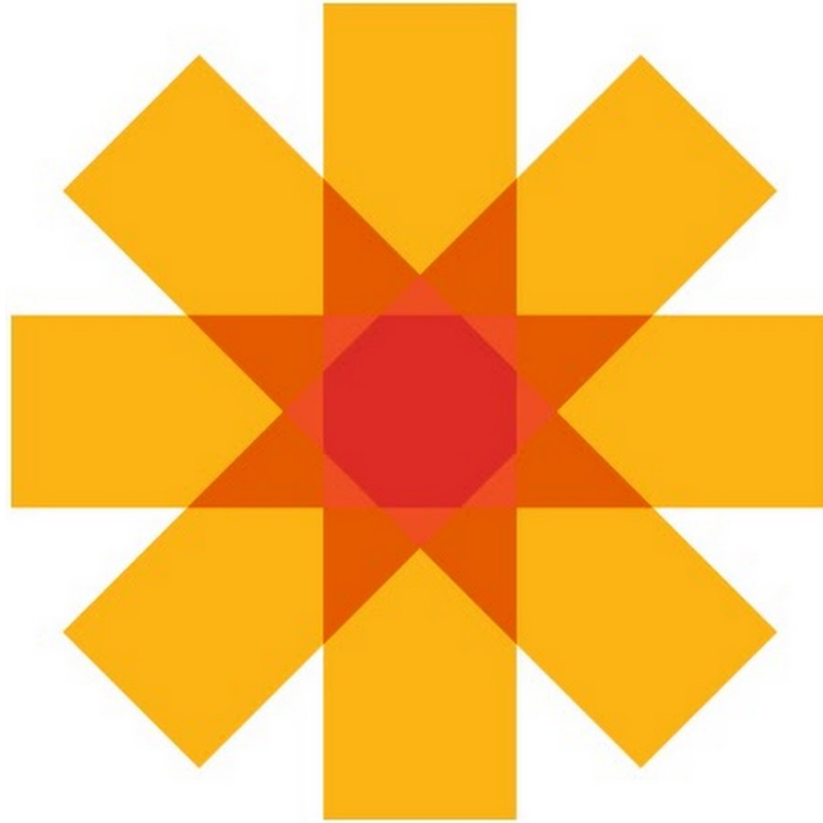




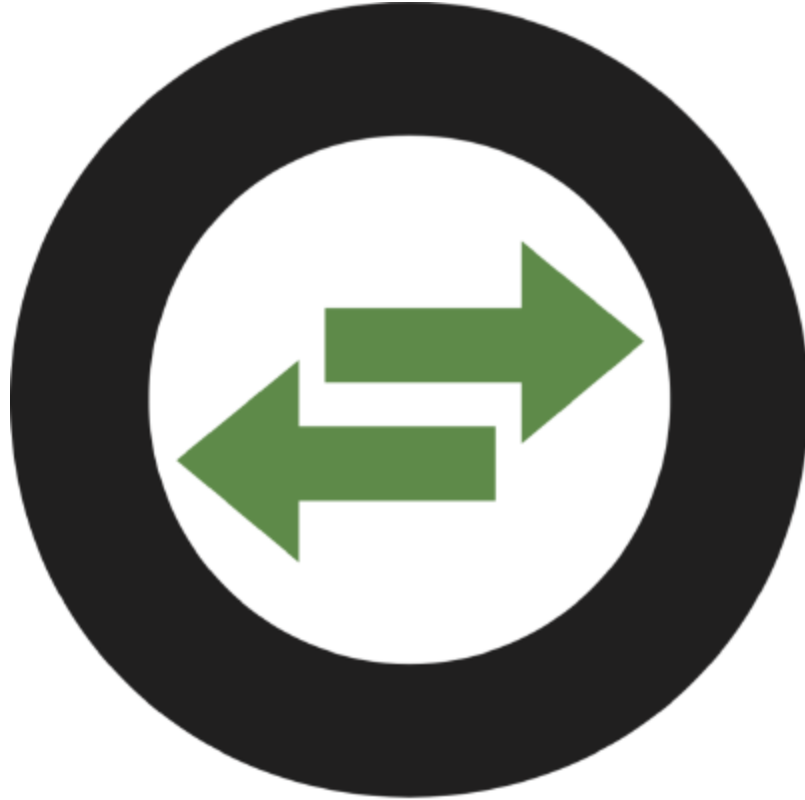
Network API

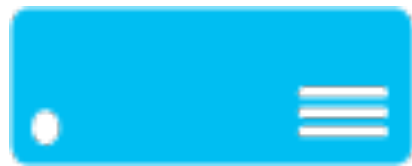


Controller

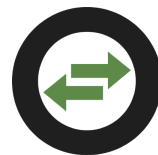
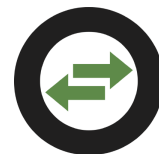
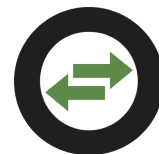
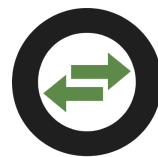
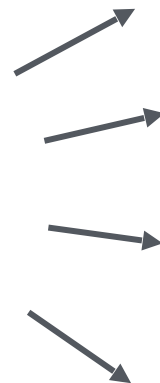


Virtual switch

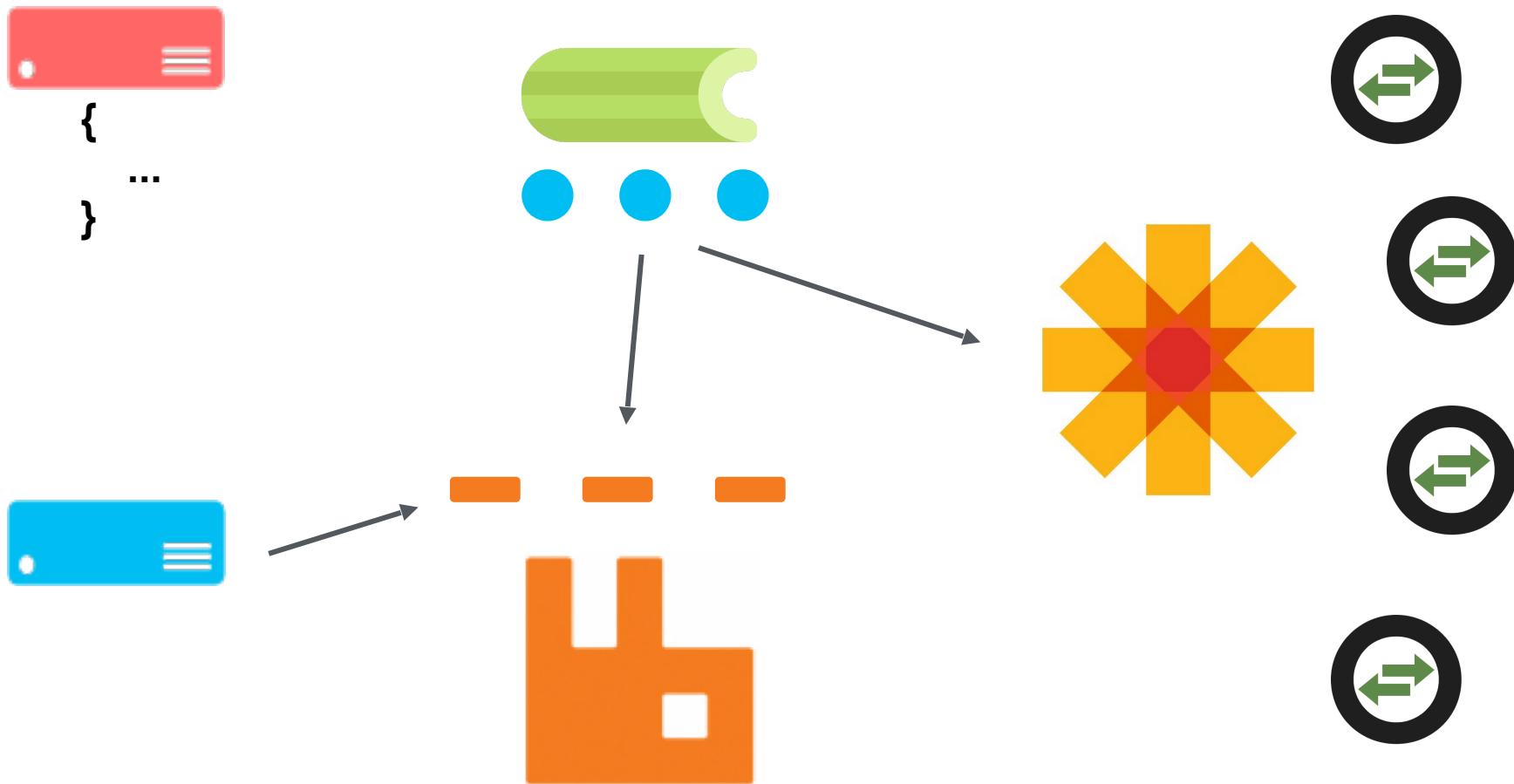




Network API




```
{  
  "kind": "backend#acl",  
  "rules": [{  
    "action": "permit",  
    "description": "Access from application A on port  
80",  
    "destination": "10.0.42.0/24",  
    "id": "222222",  
    "owner": "user",  
    "protocol": "ip",  
    "source": "10.5.190.0/24"  
  }]  
}
```



Workers

40
workers



SDN control

80
servers

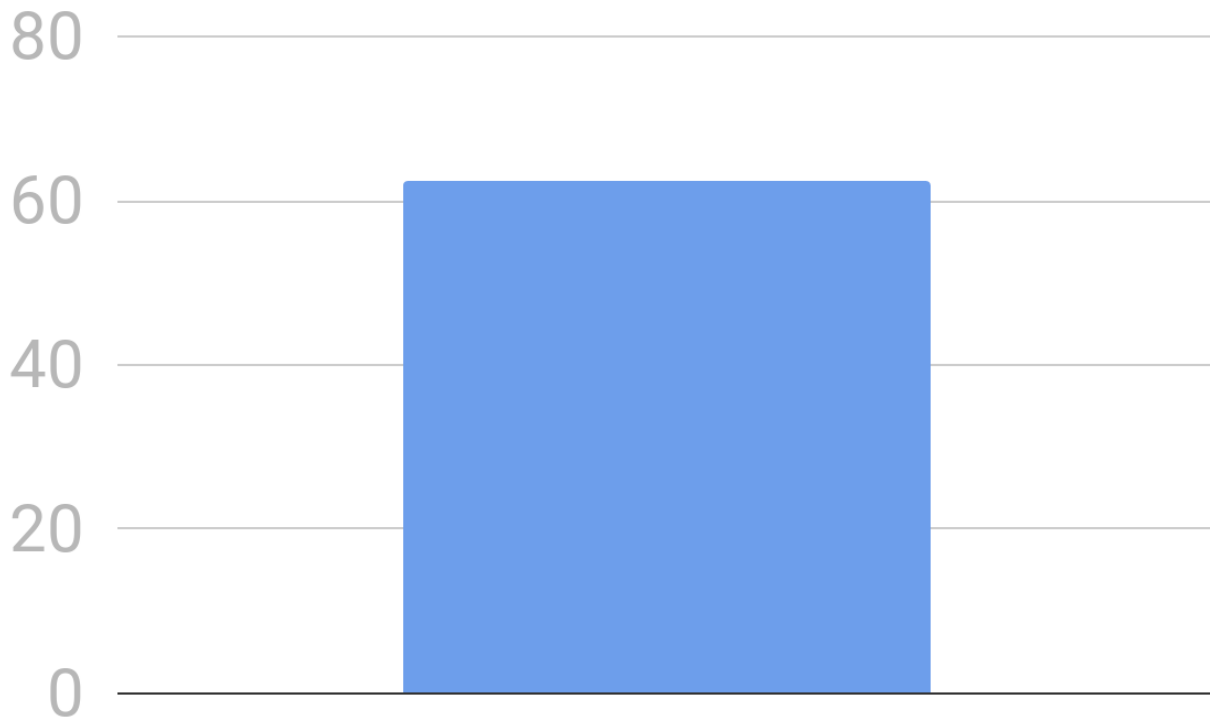


10
clusters

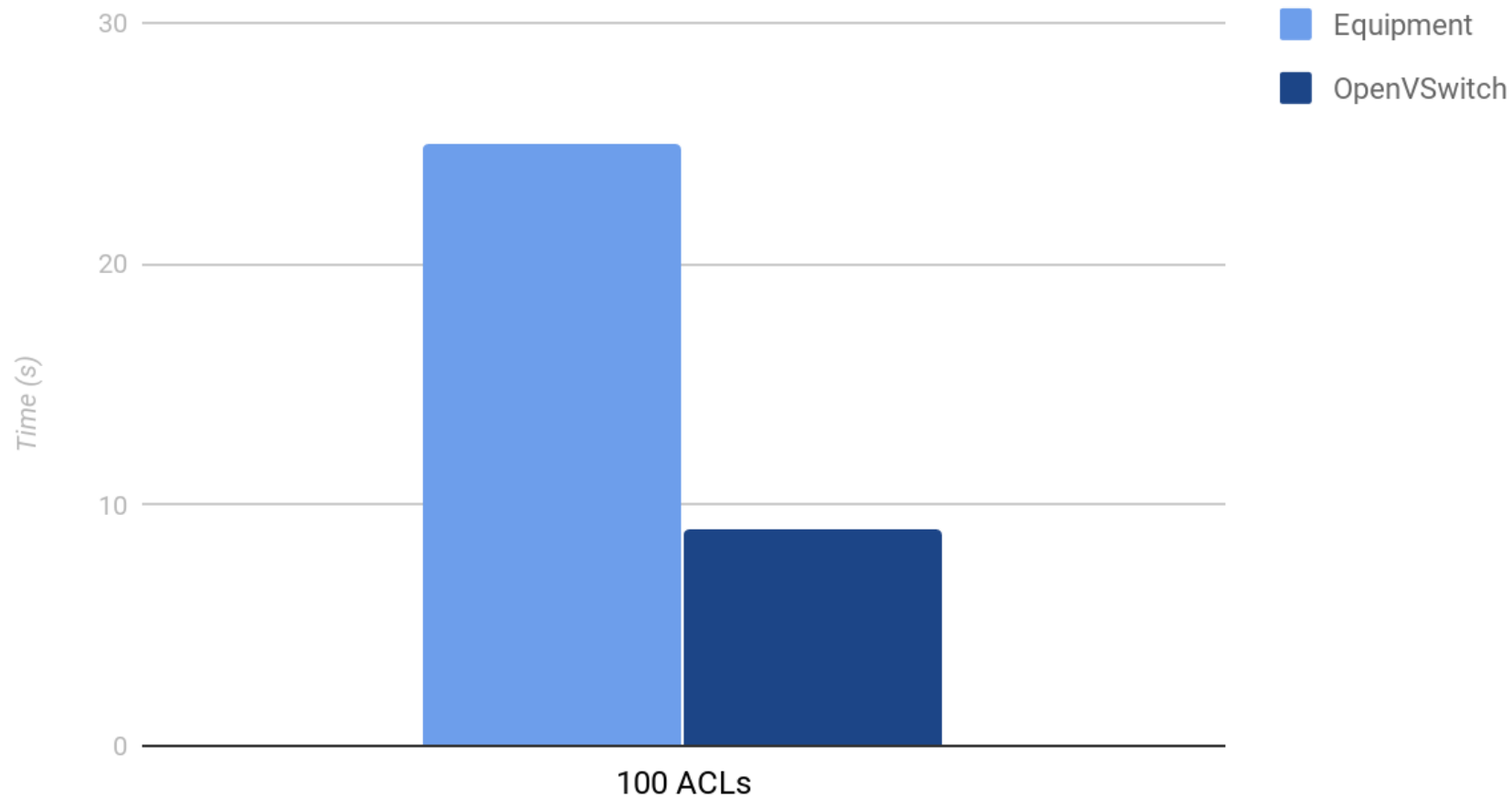


Controller requests per second

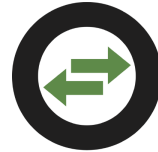
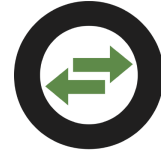
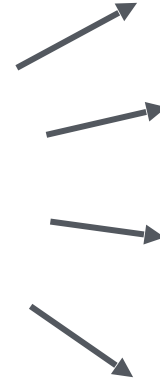
62.5
reqs/sec



ACL Deployment time in seconds



Resilience



Transparent for
users

LIVE
INTRAREDE
2021

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leomauricio@gmail.com



[https://github.com/
leopoldomauricio](https://github.com/leopoldomauricio)

ceptro.br nic.br 25 anos cegi.br