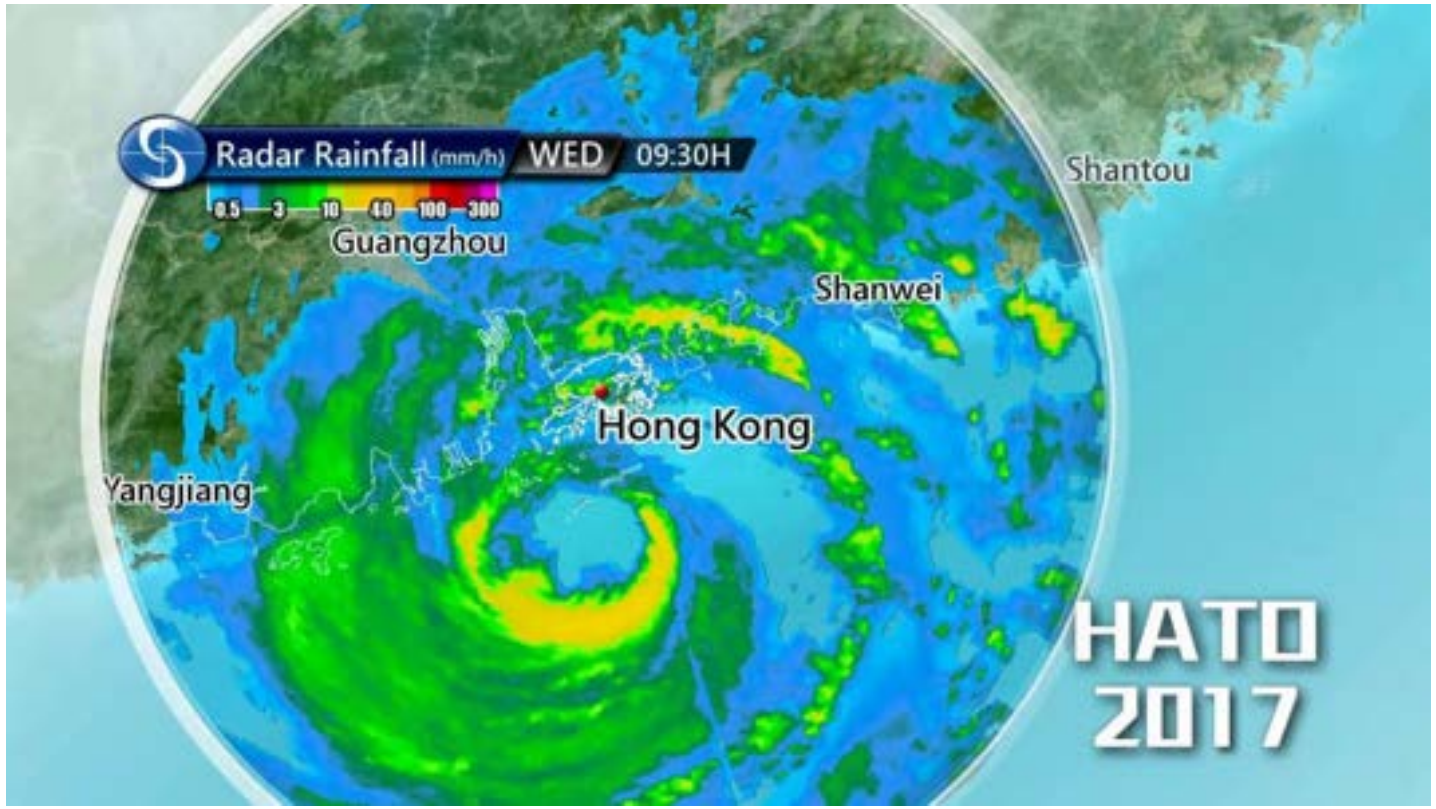
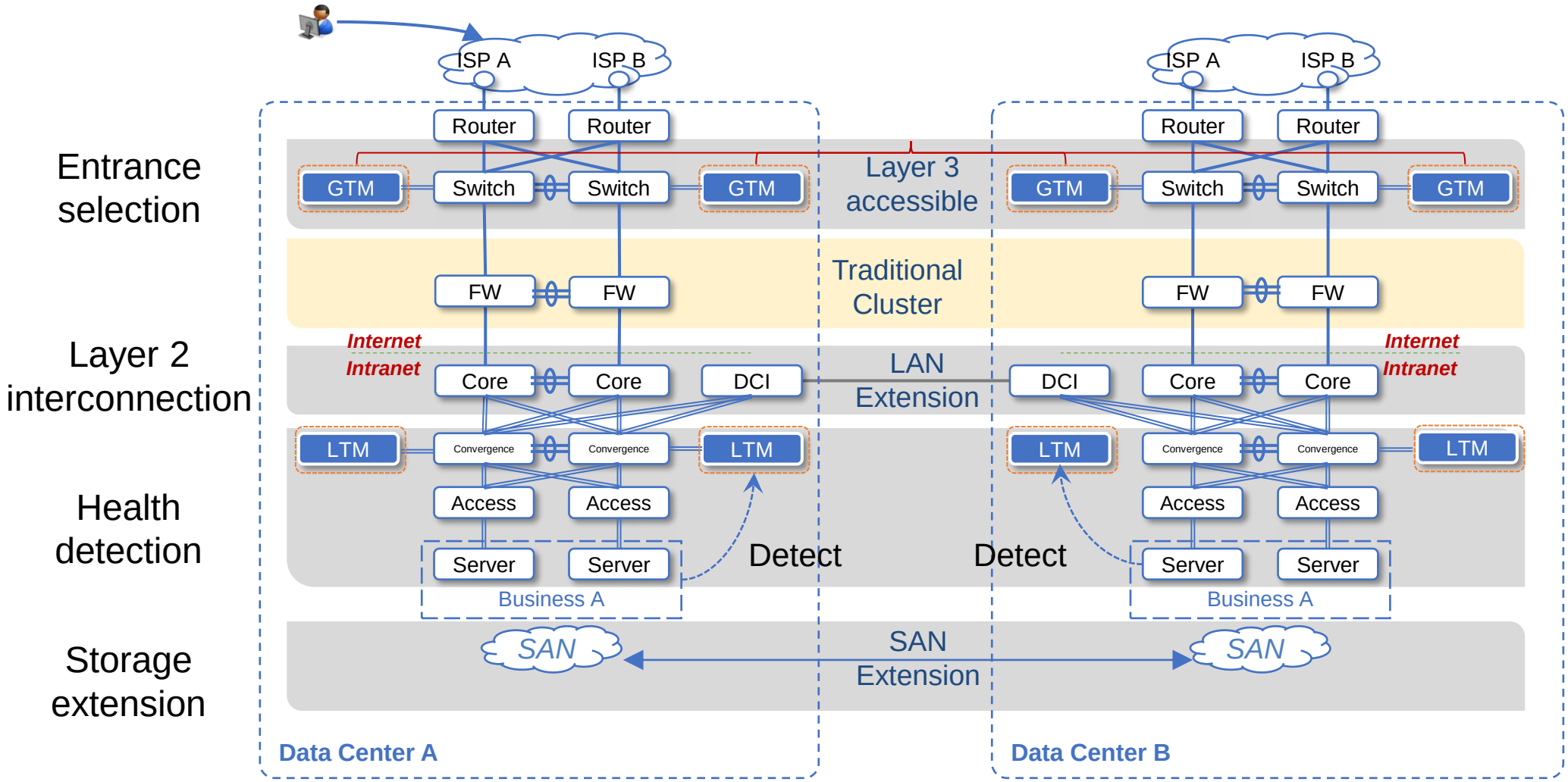
How to optimize data center network security while reducing costs

What Is Business Continuity Important?



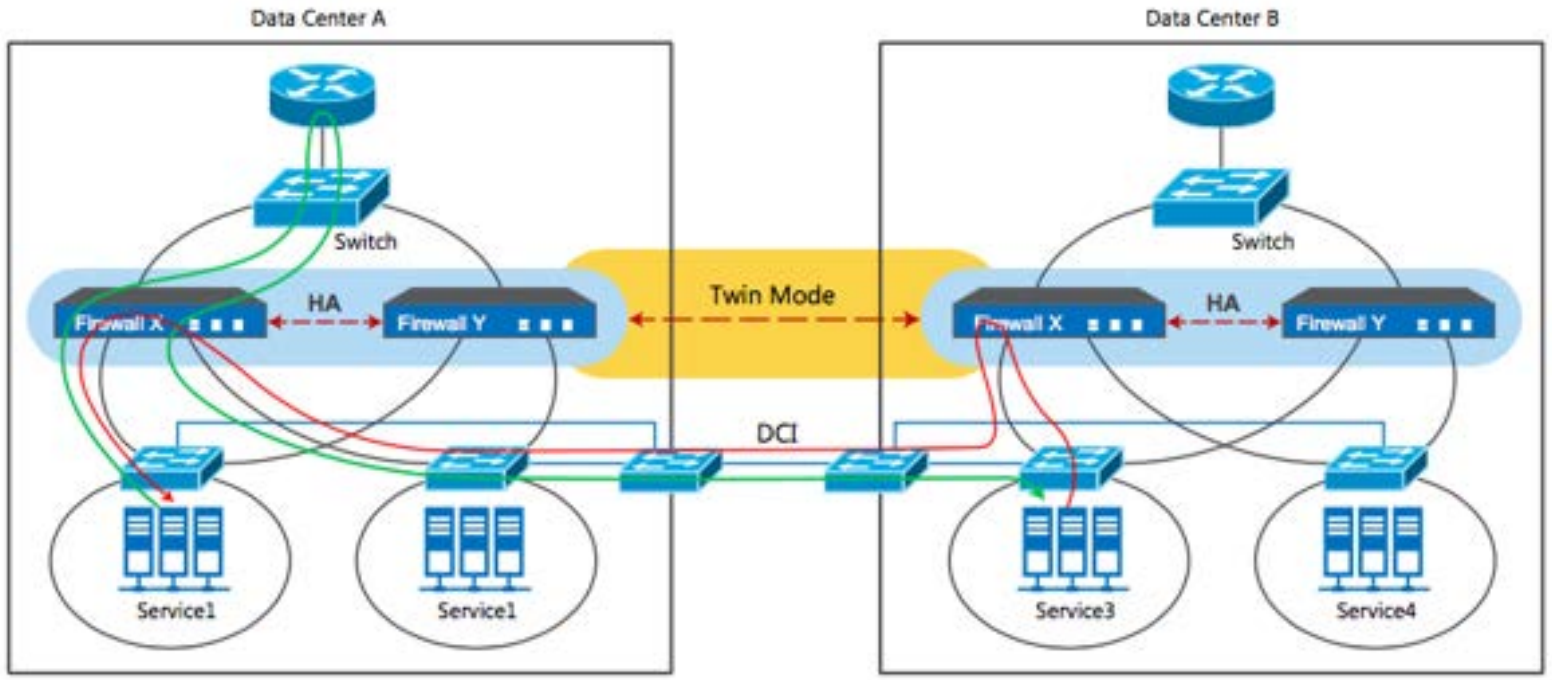
Headache in Traditional Active-Active Datacenter Architecture



Disadvantages of Traditional Active-Active Datacenter Architecture

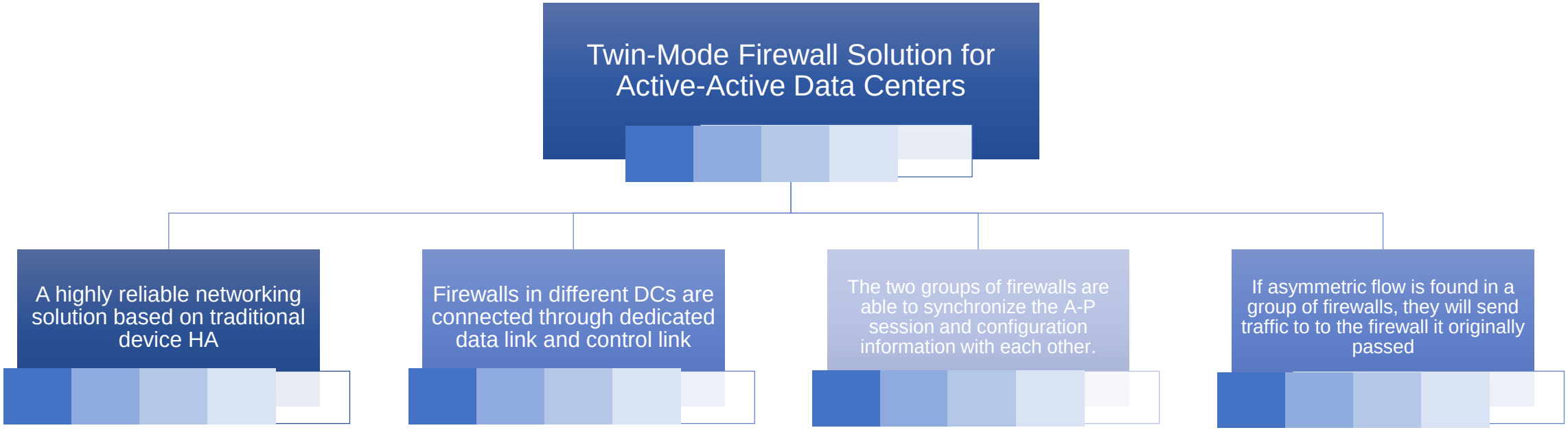
- ✓ Both sites of network architectures must be symmetry. It will increase the cost of investment on infrastructure.
- ✓ It only achieves Active-Active connectivity on layer 4 level. The connection must retry again when network failure. Such as real time transaction of online banking.
- ✓ Occupy large amount of bandwidth of dark fiber between two sides in failover.
- ✓ It can not support asymmetric traffic flow because of general firewall mechanism.
- ✓ HA solution of general firewall is cluster construction. All sessions and control panel are handled by Master. It can not guarantee zero interruption when failover.
- ✓ It must schedule a service downtime when upgrade firmware of firewall.

Twin-Mode Firewall for Active-Active Data Centers



- A transaction sends traffic from servers in data center A (on the left) to servers in data center B (right).
- IT policy requires all Data Center A traffic to traverse Data Center A firewalls (see green line).
- Instantly Twin-Mode Link synchronizes the Data Center A Firewall session configuration and state information with Data Center B firewalls (Red dotted line labeled Twin-Mode).
- The return flow hits the Data Center B firewalls, which, thanks to Twin-Mode , are aware of the session established on firewalls in Data Center A. They forward the return flow to Data Center A firewalls.
- The return flow passes through the Data Center A firewalls successfully and completes the transaction (red line), providing access to the requested information.
- Dual data link ports supports for twin mode connections to reduce the single point failure.

Advantage and Benefit of Twin-Mode solutions



Asymmetric flow across data centers cannot be properly solved.

Ensure business continuity during virtual devices movement

Complete access control and security functions

Traffic between data centers can be visualized

Configuration between multiple firewalls can be automatically synchronized.

Supporting a variety of data center networking

Twin-Mode solutions
“一地兩檢”


Thank you
Q&A