Multi-Cloud Networking – Addressing Architectural Challenges

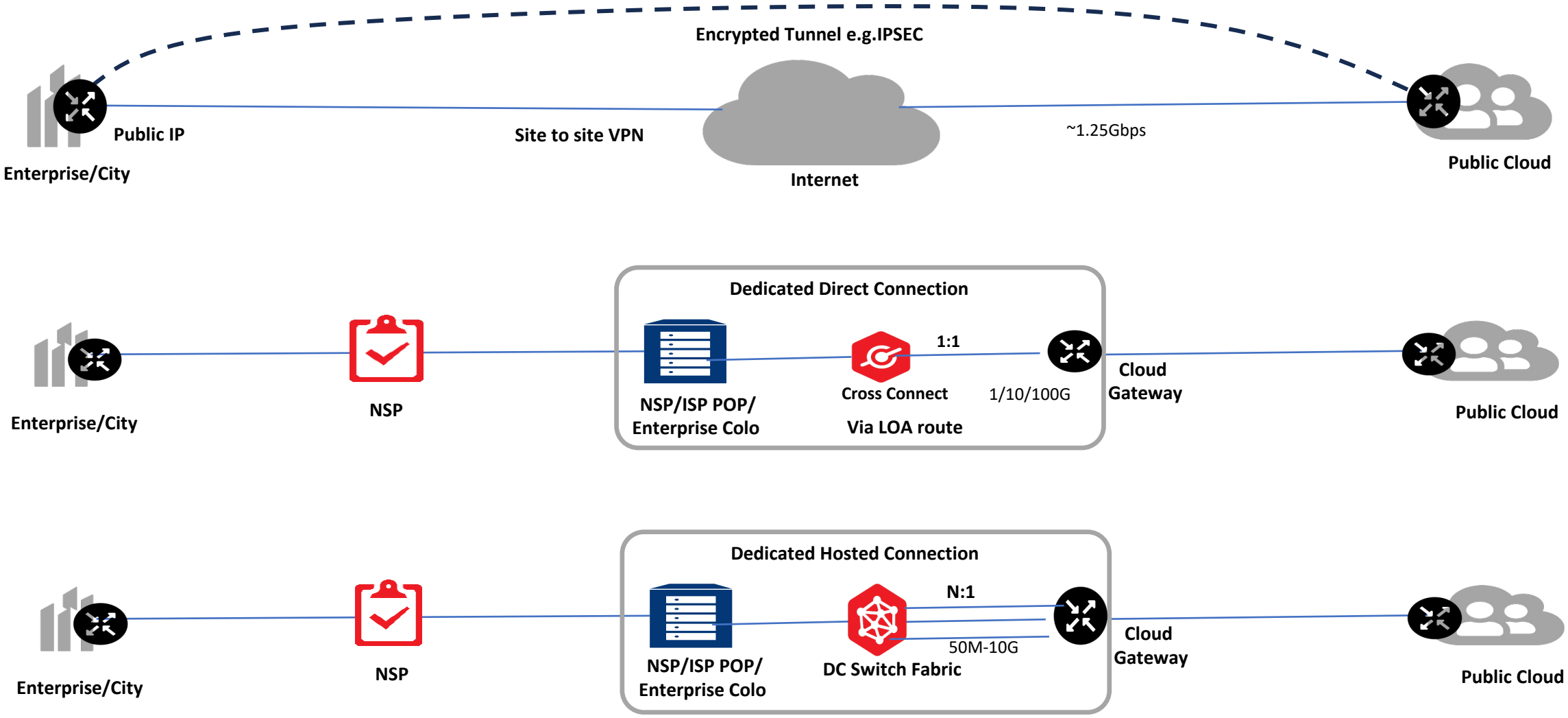
Nihar Ranjan Panda (Sr. Global Solutions Architect, APAC)

EQUINIX

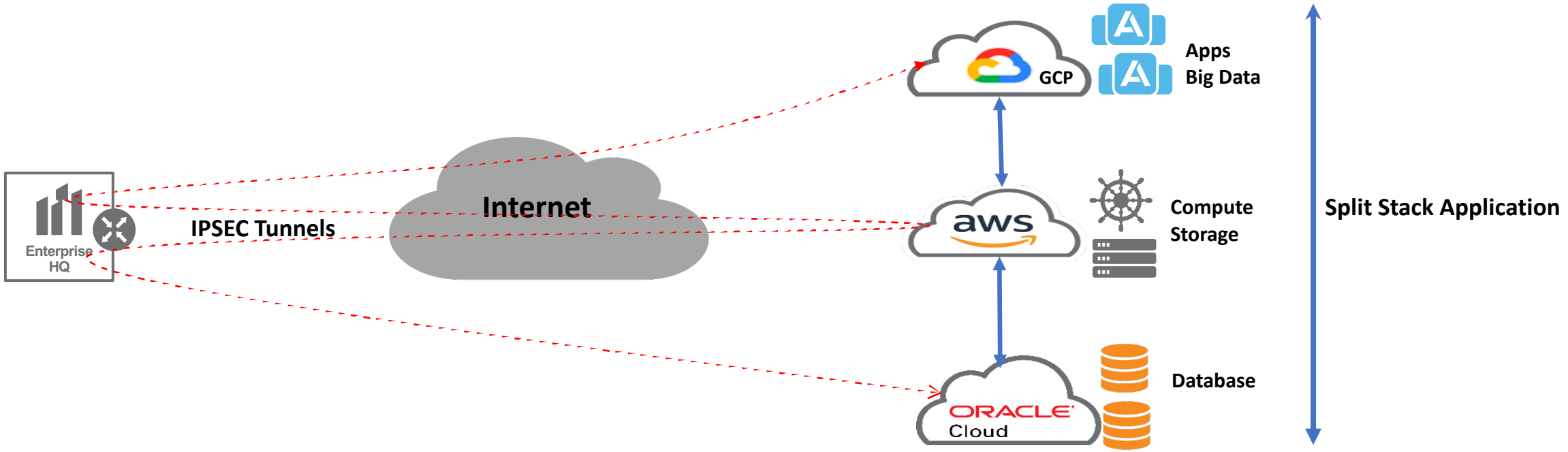
Organizations today are struggling with bill shocks and other challenges from their existing public cloud operations. While multi-cloud adoption has been a crucial step towards alleviating these bill shocks and other potential performance issues, it has posed a new challenge --

Multi-Cloud Networking

Connecting to a Public Cloud - Architectural Options

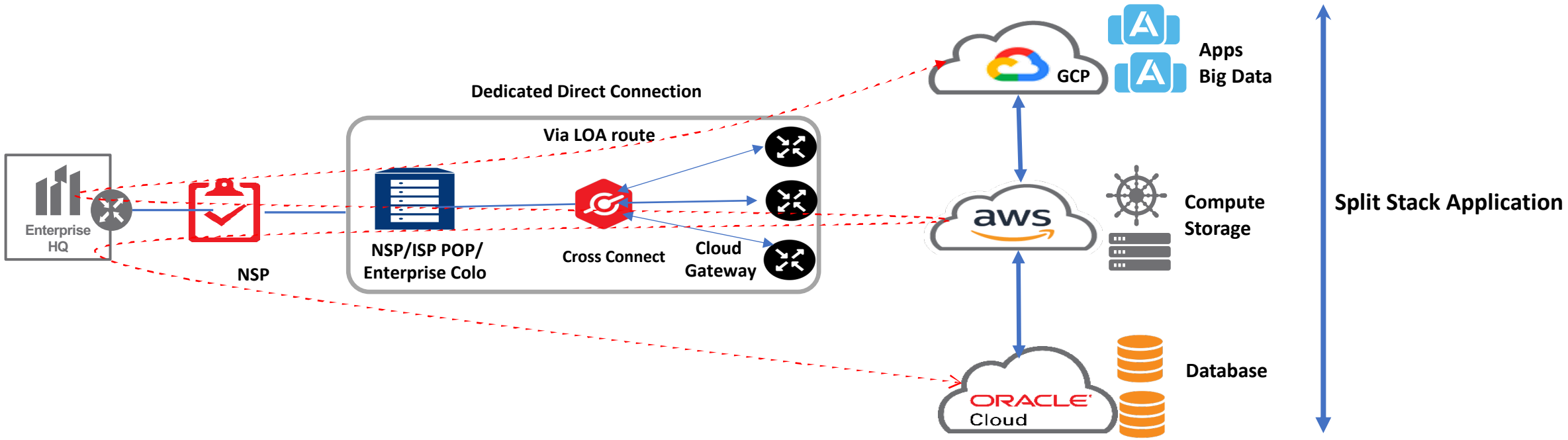


Multicloud Networking Challenge 1



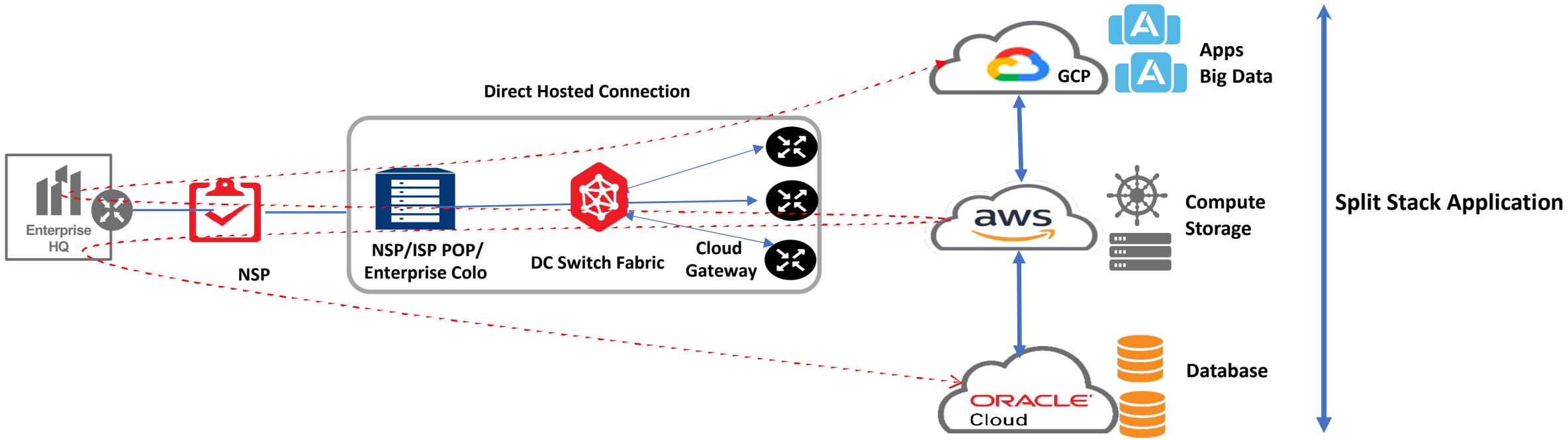
- Traffic Trombone- Traffic movement between CSPs in a split stack environment detour the steering point at the enterprise DC, resulting in high latency- impacting performance
- High overhead over internet due to IPSEC and multiple tunnels, usually 2 per VPC; limited BW
- High egress cost, almost twice than direct connect options

Multicloud Networking Challenge 2



- Traffic Trombone- Traffic movement between CSPs in a split stack environment detour the steering point at the enterprise DC, resulting high latency- impacting performance
- High Lead Time- up to few weeks and Inflexible- fixed BW resulting over/under utilization
- Admin and Technical overheads- Build and Operations; dedicated network functions at HQ incl. routing, security, LB etc.

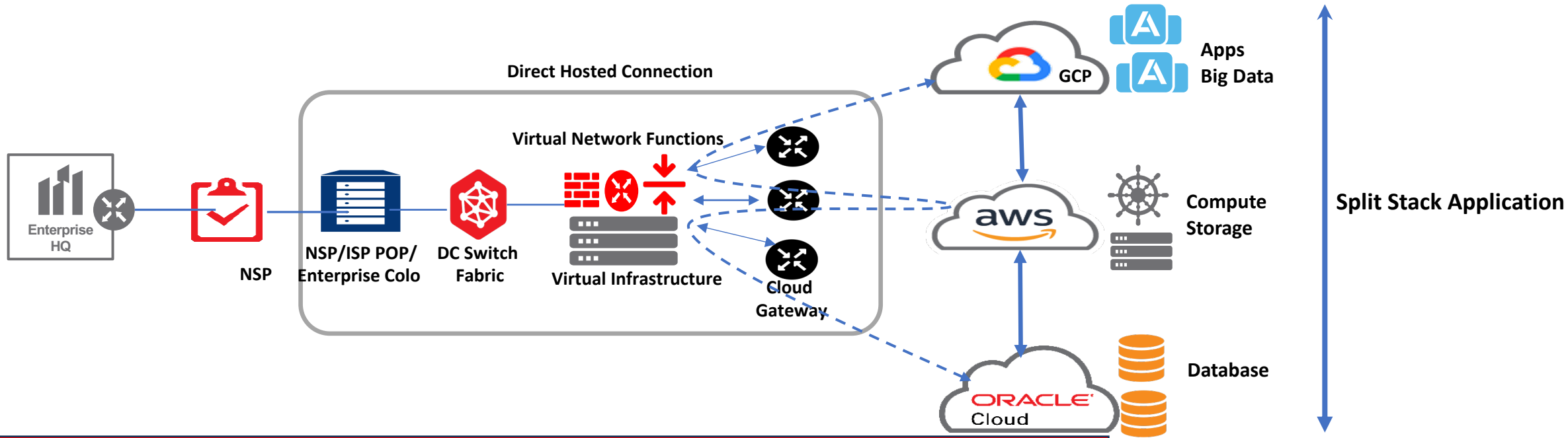
Multicloud Networking Challenge 3



- Traffic Trombone- Traffic movement between CSPs in a split stack environment detour the steering point at the enterprise DC, resulting high latency- impacting performance

- Admin overhead- Build and Operations; dedicated network functions at HQ incl. routing, security, LB etc.

Multicloud Networking - An Optimized Solution Architecture



Traffic steering is localized and adjacent to the CSP POP reducing latency

On-demand and instant provisioning of direct connections using an intent driven approach through API integrated UI

On-demand provisioning of network functions such as routing, security, LB etc. through an orchestrated NFV stack

Improved operational efficiency- On-demand scale-in; scale out, 2-3X reduced egress cost, better visibility/observability

Q&A

THANK
YOU