Hybrid Cloud

Cloud VPN

- Cloud VPN - Connect on-premise network to the GCP network
- Implemented using IPSec VPN Tunnel
- Traffic through internet (public)
- Traffic encrypted using Internet Key Exchange protocol
- Two types of Cloud VPN solutions:
- HA VPN (SLA of 99.99% service availability with two external IP addresses)
- Only dynamic routing (BGP) supported
- Classic VPN (SLA of 99.9% service availability, a single external IP address)
- Supports Static routing (policy-based, route-based) and dynamic routing using BGP

Cloud Interconnect

- High speed physical connection between on-premise and VPC networks:
- Highly available and high throughput

- Two types of connections possible
- Dedicated Interconnect - 10 Gbps or 100 Gpbs configurations
- Partner Interconnect - 50 Mbps to 10 Gbps configurations
- Data exchange happens through a private network:
- Communicate using VPC network's internal IP addresses from on-premise network
- Reduces egress costs
- As public internet is NOT used
- (Feature) Supported Google API's and services can be privately accessed from on-premise
- Use only for high bandwidth needs: For low bandwidth, Cloud VPN is recommended

Direct Peering

- Connect customer network to google network using network peering
- Direct path from on-premises network to Google services
- Not a GCP Service
- Lower level network connection outside of GCP
- NOT RECOMMENDED:
- Use Cloud Interconnect and Cloud VPN