GATEWAYS & DIRECT CONNECTIONS

- TRANSIT GATEWAY (TGW) - DIRECT CONNECT GATEWAY (DX-GW) - DIRECT CONNECT (DX)
- VPC Peering Connections - VIRTUAL PRIVATE GATEWAY (VGW)
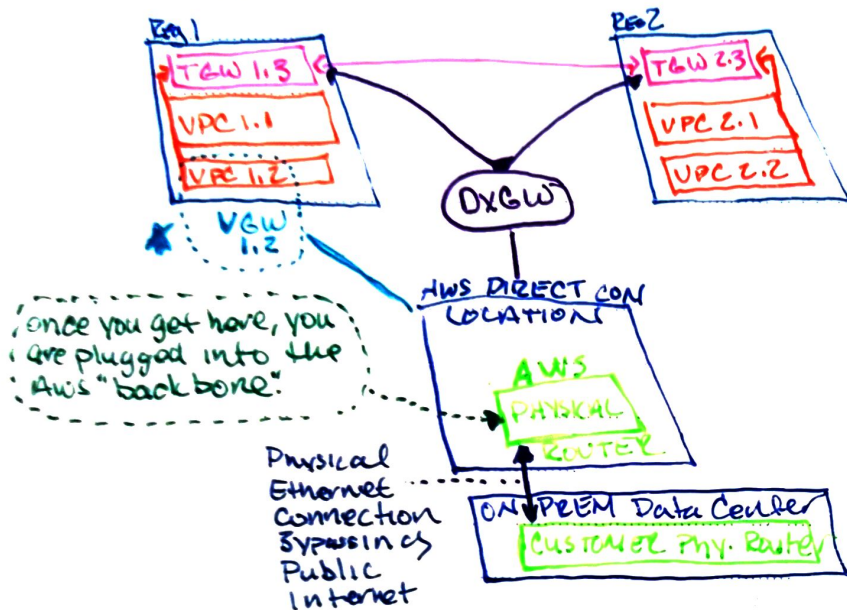
- A2's do not play a major role at this level. Subnets are located in AZ's but don't play in "GATEWAYS"

- VPC's span the entire region.
- VGW's attach to VPC's; and connect to On Prem DC's.
- TGW's reside at Region level and connect VPCs or to another Regions TGW

- when connecting the AWS DX to a VPC there are two methods.
- ① AWS DX can access a VPC directly through a VGW. However, you are limited to only that VPC. Now, that VPC could be connected to a TGW providing expanded access, but this comes at the cost of increased latency due to indirect routing.
- ② AWS DX connects to a DX-GW. DX-GW's connect to multiple TGW's to route traffic efficiently and gain cross-region communication capabilities

ROUTING : Just because it enters the "door", doesn't mean it can find the correct "room"
- when you create a VPC, a main route table is automatically created.