Snowball

- Physical ==data transport solution== that helps moving TBs or PBs of data in or out of AWS
- Alternative to moving data over the ==network the network== (and Paying network Fees)
- Pay Per Data Transfer Job

- Use cases: Large data cloud migrations , DC decommission, Disaster recovery

If it Take more than a week to transfer over the network, use Snowball Devices !
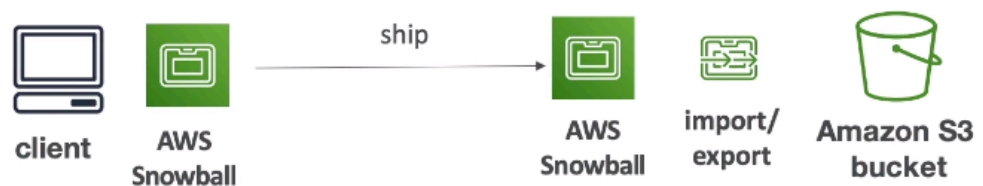
Snowball Process:
1. Request snowball devices from the AWS console for delivery
2. Install the snowball client on your servers
3. Connect the to your servers and Copy files using the client
4. Ship back the device when you are done (Goes to the right AWS facility)
5. Data will be Loaded into an S3 Bucket
6. Snowball is completely wiped

Diagrams

- Direct upload to S3:

www: 10Gbit/s

client → Amazon S3 bucket

- With snowball

client — AWS Snowball — ship → AWS Snowball — import/export — Amazon S3 bucket

Snowball Edge

- Snowball edge (100 TB) ad computational capability to the device
- Support a custom EC2 AMI so you can perform processing on the go
- Support Custom Lambda functions

- Very useful to pre-process the data while moving
- Use case: Data migration, Image collation, IoT Capture, Machine Learning
  "Snowball" is deprecated in favor of "Snowball Edge"

  1 EB to GB → 0.0001 EB = 1,00,000 GB
   1 EB= 1000 PB =1,000,000 TBs = 1,000,000 * 1000 GB

  1 TB = 1000 GB
  1 PB = 1000 TB
  1 EB = 1000 PB

AWS Snowmobile

- Transfer exabytes of data (1 EB = 1,000 PB = 1,000,000 TBs)
- Each Snowmobile has 100 PB of capacity (use multiple in parallel)
- Better than Snowball if you transfer more than 10 PB