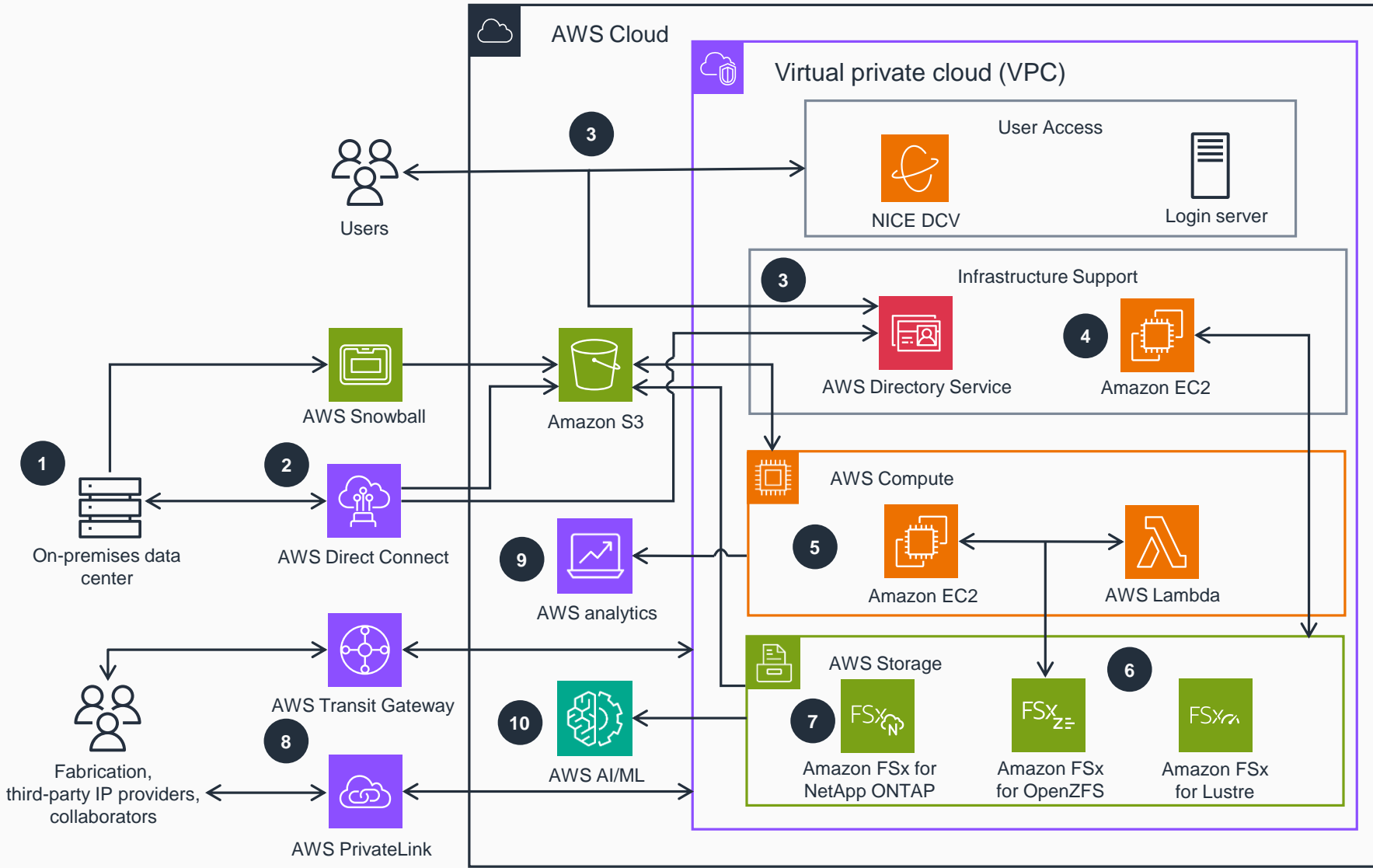


# Guidance for Running Semiconductor Design Workflows on AWS

This architecture diagram shows data movement options for semiconductor design workflows using AWS services.



- 1 Determine what data is needed for proof of concept or test.
- 2 Transfer data required for design or tests from the on-premises data center into **Amazon Simple Storage Service (Amazon S3)** through **AWS Snowball** or **AWS Direct Connect**.
- 3 Users connect to a remote desktop or command line environment on AWS with the **NICE DCV** server and manage access with a login server. Simplify access from on-premises and remote user access with **AWS Directory Service**.
- 4 Manage licenses and jobs supporting design and testing workflows with **Amazon Elastic Compute Cloud (Amazon EC2)**.
- 5 Run workflows with **Amazon EC2** and **AWS Lambda** using data stored in **Amazon S3**.
- 6 Store tools and job data processed on infrastructure to support **Amazon EC2** instances on **Amazon FSx for NetApp ONTAP**, **Amazon FSx Open ZFS**, and **Amazon FSx for Lustre**.
- 7 Move data from **Amazon FSx** services to **Amazon S3** as needed to leverage the range of storage classes.
- 8 Connect **Amazon Virtual Private Cloud (Amazon VPC)** securely to fabrication, third-party IP providers, and collaborators with **AWS Transit Gateway** and **AWS PrivateLink**.
- 9 Analyze wafer data with the suite of **AWS analytics services**.
- 10 Optimize job queues and license usage using **AWS AI/ML services** to perform near real-time inference in the cloud or on-premises.