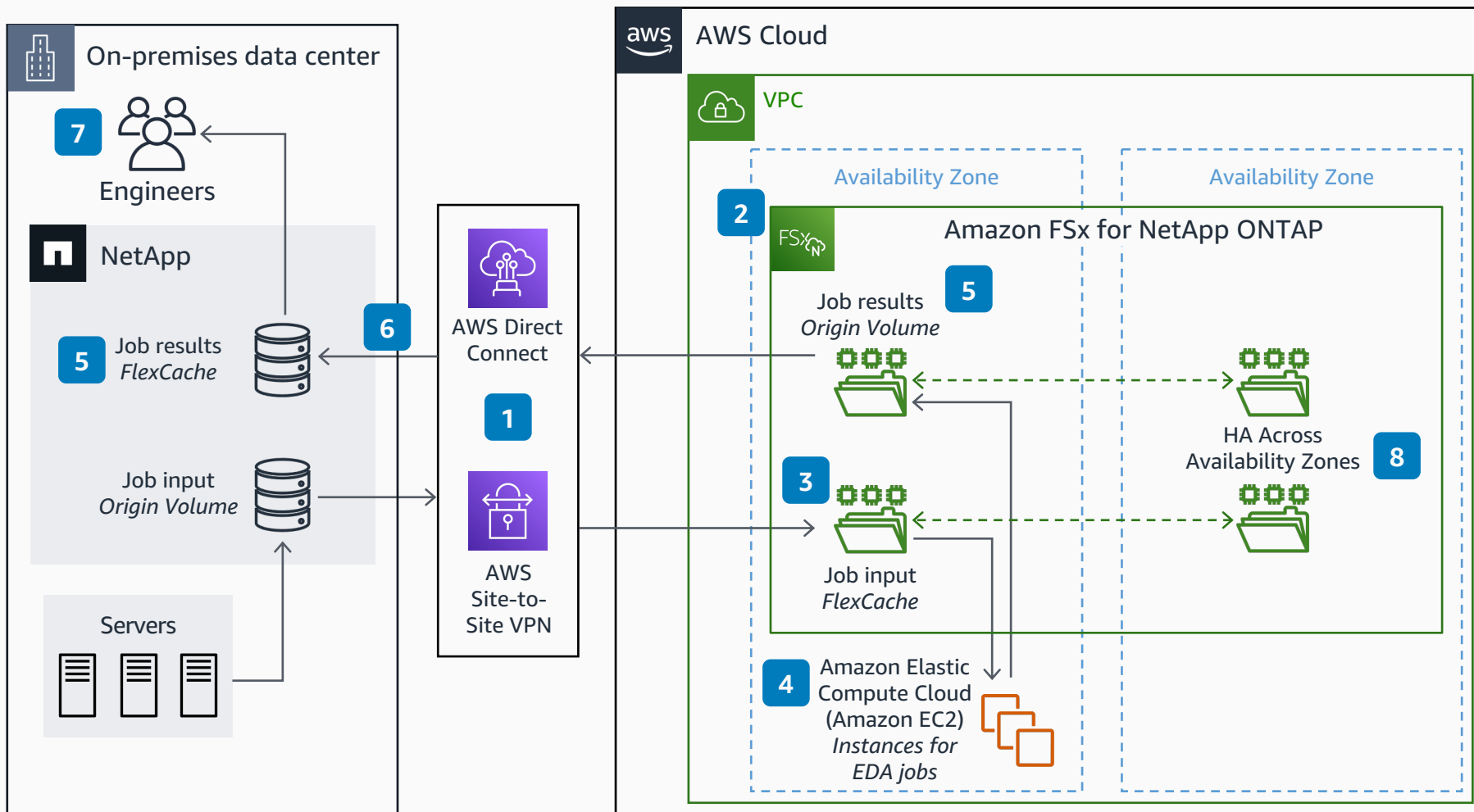


Cloud bursting EDA with FSx for NetApp ONTAP

Enable Electronic Design Automation (EDA) cloud-bursting with bidirectional caching of job data

Engineers working on-premises can burst jobs to AWS and quickly access the results



- 1 Establish fast, secure networking between on-premises data center and AWS with **AWS Direct Connect** (for production) or optionally with **AWS Site-to-Site VPN** (for initial testing and/or proof of concept (POC)).
- 2 Deploy **Amazon FSx for NetApp ONTAP** in AWS and configure cluster peering with the on-premises system.
- 3 FlexCache volume is created in **Amazon FSx for NetApp ONTAP** and paired with the on-premises origin volume to allow **Amazon EC2** instances Network File System (NFS) access to cached data from the on-premises file system.
- 4 **EC2** instances run EDA jobs using the local FlexCache volume. Required file-blocks are loaded on demand and cached in AWS. Output is written to a local output origin volume in the Cloud.
- 5 Within the on-premises NetApp system, a FlexCache volume is created and paired with the **Amazon FSx for NetApp ONTAP** origin volume, enabling access to output data in the on-premises data center.
- 6 Only data read by users is fetched from the origin volume in AWS, minimizing bandwidth utilization.
- 7 Multiple engineers/users accessing the same files in on-premises FlexCache volume, or users accessing the files multiple times, receive the file from the local cache.
- 8 High Availability (HA) is included in **Amazon FSx for NetApp ONTAP** by leveraging a multi-AZ configuration.



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AWS Reference Architecture