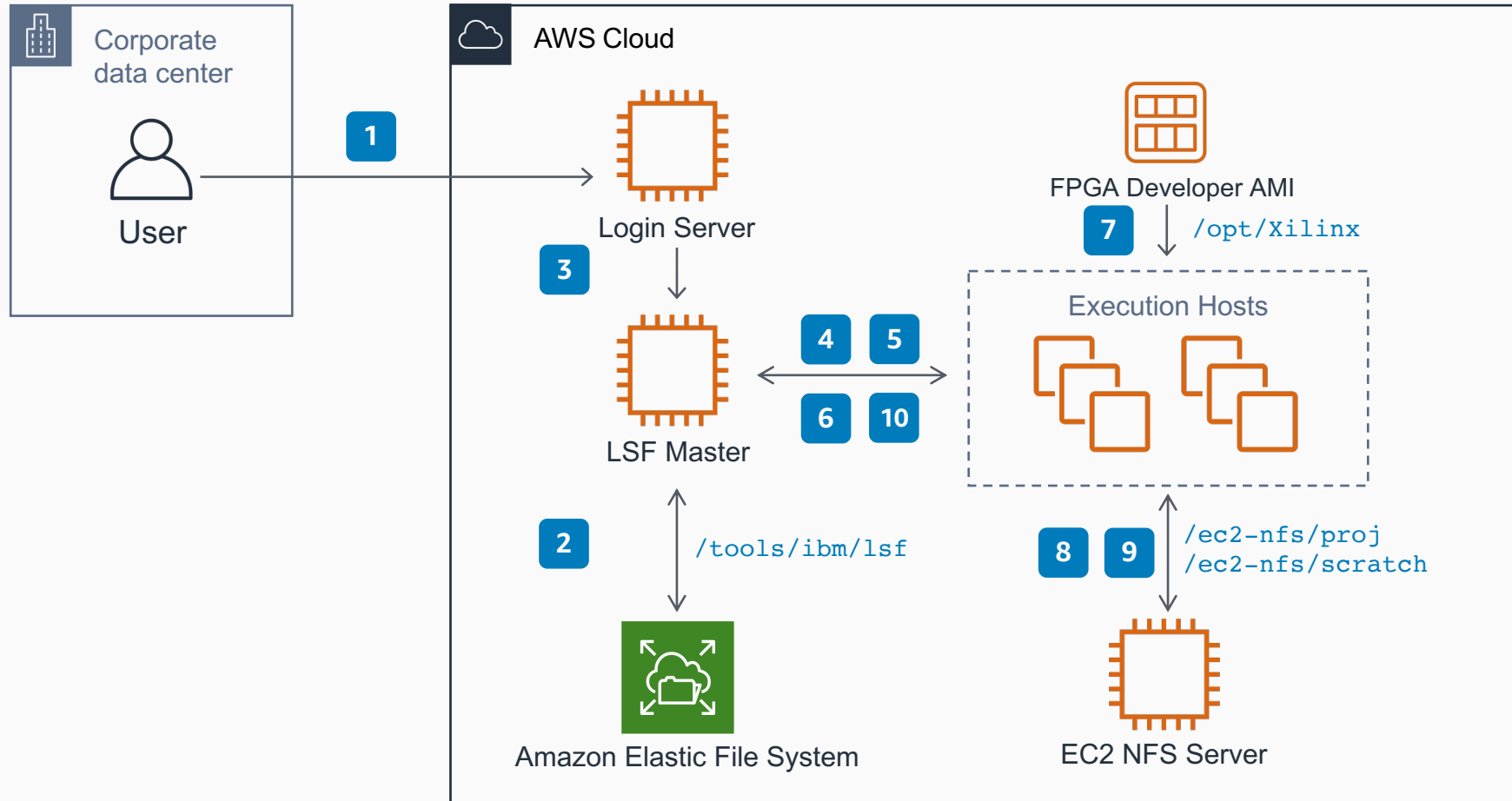# EDA on AWS with IBM Spectrum LSF

## Running EDA workloads on AWS with LSF Resource Connector

Workshop location is on AWS Samples:
https://github.com/aws-samples/aws-eda-workshops/blob/master/workshops/eda-workshop-lsf



Corporate data center

User

**1**

AWS Cloud

Login Server

**3**

LSF Master

**4** **5**

**6** **10**

**2**

/tools/ibm/lsf

Amazon Elastic File System

FPGA Developer AMI

**7** /opt/Xilinx

Execution Hosts

**8** **9** /ec2-nfs/proj
/ec2-nfs/scratch

EC2 NFS Server

**AWS Reference Architecture**

| | |
|---|---|
| **1** | User logs into the login server from from within the corporate network. |
| **2** | **IBM Spectrum LSF** binaries, configuration, and logs are read from and written to **Amazon EFS**. |
| **3** | User submits simulation jobs from the login server. |
| **4** | **IBM Spectrum LSF** provisions **Amazon EC2** instances to satisfy workload in the queue. |
| **5** | Provisioned **Amazon EC2 instances** join the cluster as dynamic execution hosts. |
| **6** | Jobs are dispatched to new execution hosts. |
| **7** | Jobs load pre-licensed **Xilinx Vivado Design Suite** from **FPGA Developer AMI**. |
| **8** | **Vivado** loads example IP and design from /ec2-nfs/proj |
| **9** | **Vivado** writes job runtime data and results to /ec2-nfs/scratch |
| **10** | **Amazon EC2 instances** are terminated by **LSF** after jobs finish. |