Additional Computing Services

Amazon Web Services

What is Batch Computing?

Batch computing refers to the execution of a series of programs ("jobs") on one or more computers without manual intervention. You specify input parameters scripts, command-line arguments, control files etc. A given batch job may depend on the completion of preceding jobs, or on the availability of certain inputs, making the sequencing and scheduling of multiple jobs important, and incompatible with interactive processing.

Batch Computing Benefits

- Process jobs when greater or less expensive capacity is available.
- Avoid idle compute resources with frequent manual intervention and supervision.
- Increases efficiency by driving higher utilization of compute resources.
- Prioritize jobs, aligning resource allocation with business objectives.

AWS Batch

AWS Batch enables you to easily and efficiently run hundreds of thousands of batch computing jobs on AWS. You can dynamically provisions the optimal quantity and type of compute resources (e.g., CPU or memory optimized instances) based on the volume and specific resource requirements of the batch jobs submitted. AWS Batch plans, schedules, and executes your batch computing workloads across the full range of AWS compute services and features, such as Amazon EC2 and Spot Instances.

AWS Batch

AWS Batch

AWS Batch carefully monitors the progress of your jobs. When capacity is no longer needed, AWS Batch will remove it. AWS Batch also provides the ability to submit jobs that are part of a pipeline or workflow, enabling you to express any interdependencies that exist between them as you submit jobs.

AWS Batch

AWS Batch Use Case

Automate the analysis of the day's transaction costs, execution reporting, and market performance.
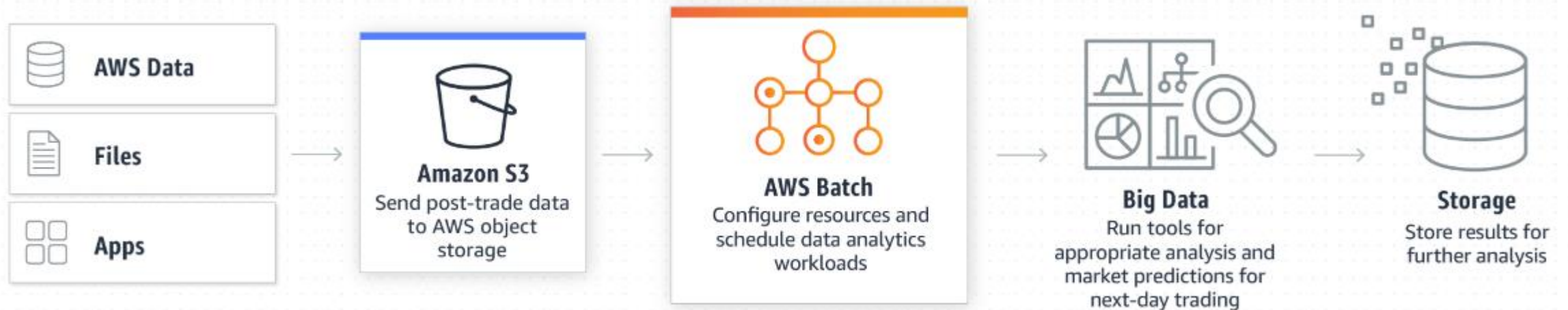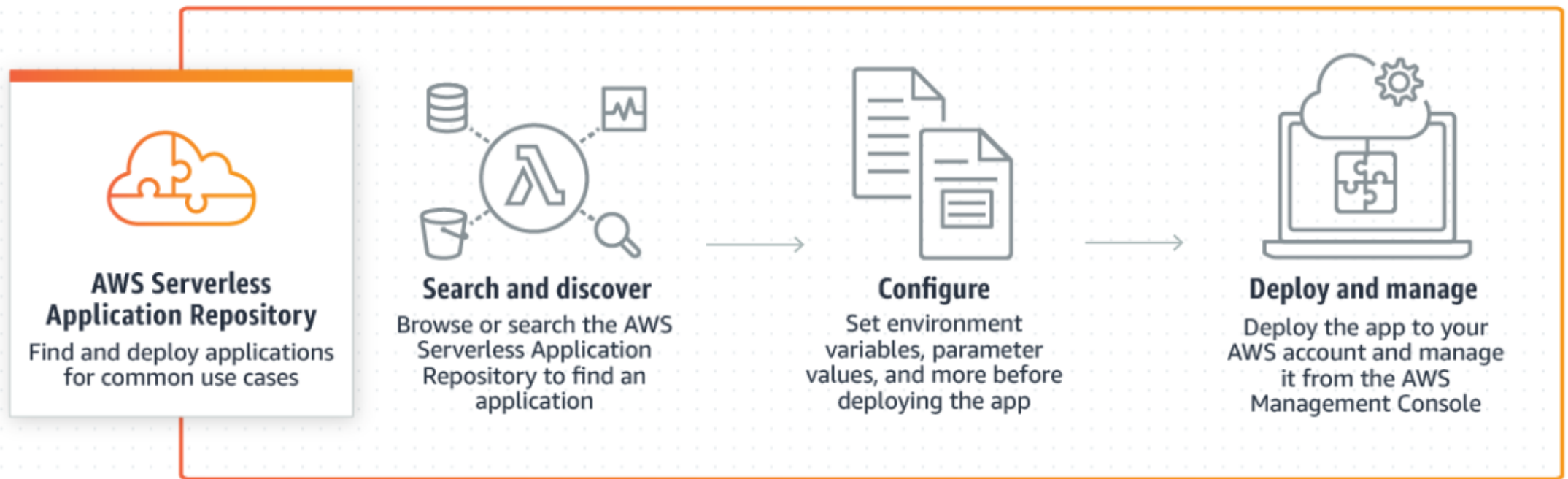
AWS Serverless Application Repository

AWS Serverless Application Repository is a managed repository for Serverless applications. You can store and share reusable code/apps, and easily assemble and deploy Serverless architectures in the cloud. There is no need to clone, build, package, or publish source code to AWS before deploying it. Using this repository, you can use pre-built applications in your Serverless architectures, thereby reducing duplicated work, ensure organizational best practices, and get to market faster.

AWS Serverless Application Repository

AWS Serverless Application Repository

AWS Serverless Application Repository
Find and deploy applications for common use cases

Search and discover
Browse or search the AWS Serverless Application Repository to find an application

Configure
Set environment variables, parameter values, and more before deploying the app

Deploy and manage
Deploy the app to your AWS account and manage it from the AWS Management Console

VMware on AWS

VMware Cloud on AWS is an integrated cloud offering jointly developed by AWS and VMware delivering a highly scalable, secure and innovative service that allows organizations to seamlessly migrate and extend their on-premises VMware vSphere based environments to the AWS Cloud running on next-generation Amazon Elastic Compute Cloud (Amazon EC2) bare metal infrastructure.

Vmware Cloud on AWS

VMware on AWS

- With VMware Cloud On AWS, you can rapidly add new innovations to their enterprise applications by natively integrating AWS infrastructure and platform capabilities such as AWS Lambda, Amazon Simple Queue Service (SQS), Amazon S3, Elastic Load Balancing, Amazon RDS, Amazon DynamoDB, Amazon Kinesis and Amazon Redshift, among many others.

- You can build complete Hybrid IT operations by using the same VMware Cloud Foundation technologies including vSphere, vSAN, NSX, and vCenter Server across their on-premises data centers and on the AWS Cloud without having to purchase any new or custom hardware, rewrite applications, or modify their operating models.

VMware on AWS

Bare Metal Cloud Infrastructure

Flexible Storage Options

High Performance Networking

Security and Compliance

On Demand Licensing

3rd Party Software Integration

Single Host SDDC

AWS Outposts

AWS Outposts enables you to run AWS services, infrastructure, and operating models in your on-premises data center. You can use the same APIs, the same tools, the same hardware, and the same functionality across on-premises and the cloud to deliver a truly consistent hybrid experience. Outposts can be used to support workloads that need to remain on-premises due to low latency or local data processing needs.
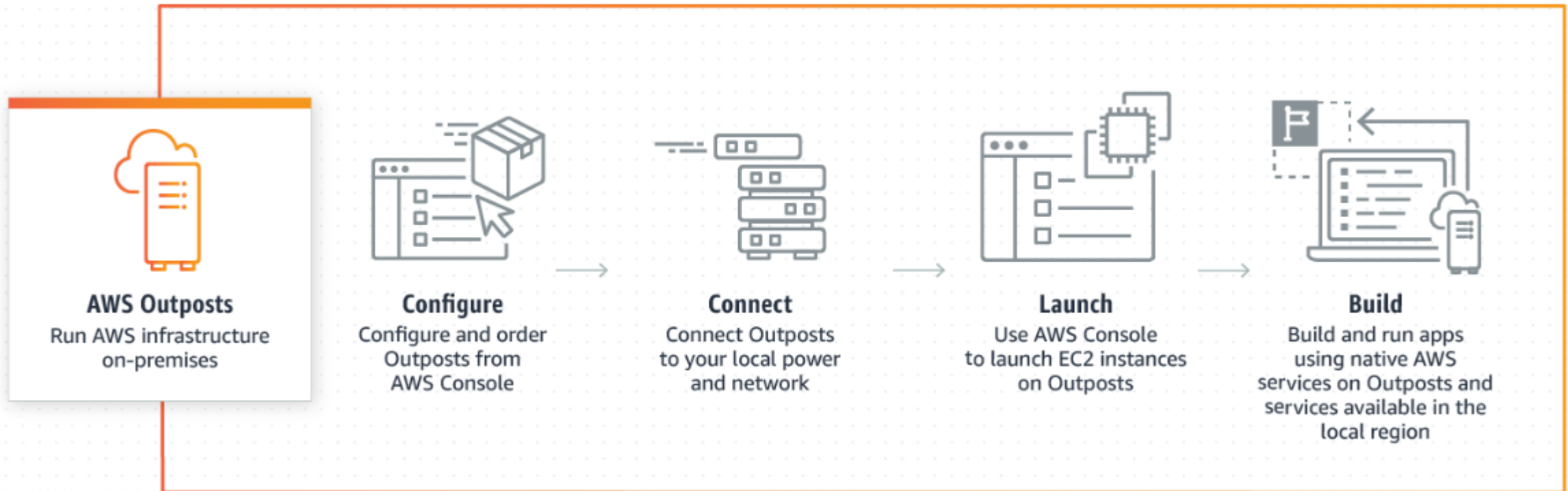
AWS Outposts

AWS Outposts

Two Options

- VMware Cloud on AWS Outposts
- AWS native variant of AWS Outposts

AWS Outposts

AWS Outposts
Run AWS infrastructure on-premises

Configure
Configure and order Outposts from AWS Console

Connect
Connect Outposts to your local power and network

Launch
Use AWS Console to launch EC2 instances on Outposts

Build
Build and run apps using native AWS services on Outposts and services available in the local region

Next Video

Databases on AWS