**ECR(Elastic Container Registry)**

**General**

**What is Amazon Elastic Container Registry (Amazon ECR)?**  
Amazon ECR is a fully managed container registry integrated with Amazon ECS, EKS, and AWS Lambda, eliminating the need to operate container repositories and enabling secure, scalable image hosting.

**Why should I use Amazon ECR?**  
Amazon ECR simplifies container registry management, ensures secure HTTPS transfers and encryption, and integrates with AWS services and Docker CLI for efficient workflows.

**What is the pricing for Amazon ECR?**  
Amazon ECR charges only for the data stored and transferred, with no upfront fees.

**Is Amazon ECR a global service?**  
Amazon ECR is Regional but accessible globally, with latency and transfer costs for cross-Region access.

**Can Amazon ECR host public container images?**  
Yes, Amazon ECR supports public repositories for sharing and downloading container images, including an ECR public gallery.

**What is the difference between Amazon ECR public and private repositories?**  
Private repositories require IAM-based authentication; public repositories allow open access and include descriptive content.

**Using Amazon ECR**

**How do I get started using Amazon ECR?**  
Use the Docker CLI to push and pull your first image.

**Can I access Amazon ECR inside a VPC?**  
Yes, using AWS PrivateLink endpoints to avoid public internet traversal.

**What’s the best way to manage my repositories and images?**  
Manage via the CLI, APIs, or ECR console, with Docker CLI integration for tagging and pushing.

**How do I publicly share an image using Amazon ECR?**  
Push the image to a public repository with a unique alias for sharing.

**Can I use a custom alias for my public images?**  
Yes, you can request a custom alias unless reserved or in violation of AWS policies.

**How do I pull a public image from Amazon ECR?**  
Use the docker pull command with the public ECR image URL.

**Does Amazon ECR replicate images across AWS Regions?**  
Yes, images can be automatically replicated across Regions for multi-Region deployment.

**Can I use Amazon ECR within local and on-premises environments?**  
Yes, ECR can be accessed wherever Docker runs.

**Does Amazon ECR work with Amazon ECS?**  
Yes, ECS retrieves images directly from ECR repositories specified in task definitions.

**What version of Docker Engine does Amazon ECR support?**  
Amazon ECR supports Docker Engine 1.7.0 and up.

**What version of the Docker Registry API does Amazon ECR support?**  
ECR supports the Docker Registry V2 API specification.

**Will Amazon ECR automatically build images from a Dockerfile?**  
No, but it integrates with CI/CD solutions for this capability.

**What version of the Docker Image Manifest specification does Amazon ECR support?**  
ECR supports Docker Image Manifest V2, Schema 2, and is backward compatible with Schema 1.

**Does Amazon ECR support the Open Container Initiative (OCI) format?**  
Yes, ECR supports OCI images and can translate between OCI and Docker formats.

**Security**

**How does Amazon ECR help ensure that container images are secure?**  
ECR encrypts images at rest and in transit and manages permissions with IAM policies.

**How can I use AWS Identity and Access Management (IAM) for permissions?**  
Use IAM resource-based policies to control access and monitor repository activities.

**Can I share my images across AWS accounts?**  
Yes, by creating cross-account policies for repository sharing.

**Does Amazon ECR scan container images for vulnerabilities?**  
Yes, ECR scans for OS vulnerabilities and can integrate with Amazon Inspector for enhanced scanning.