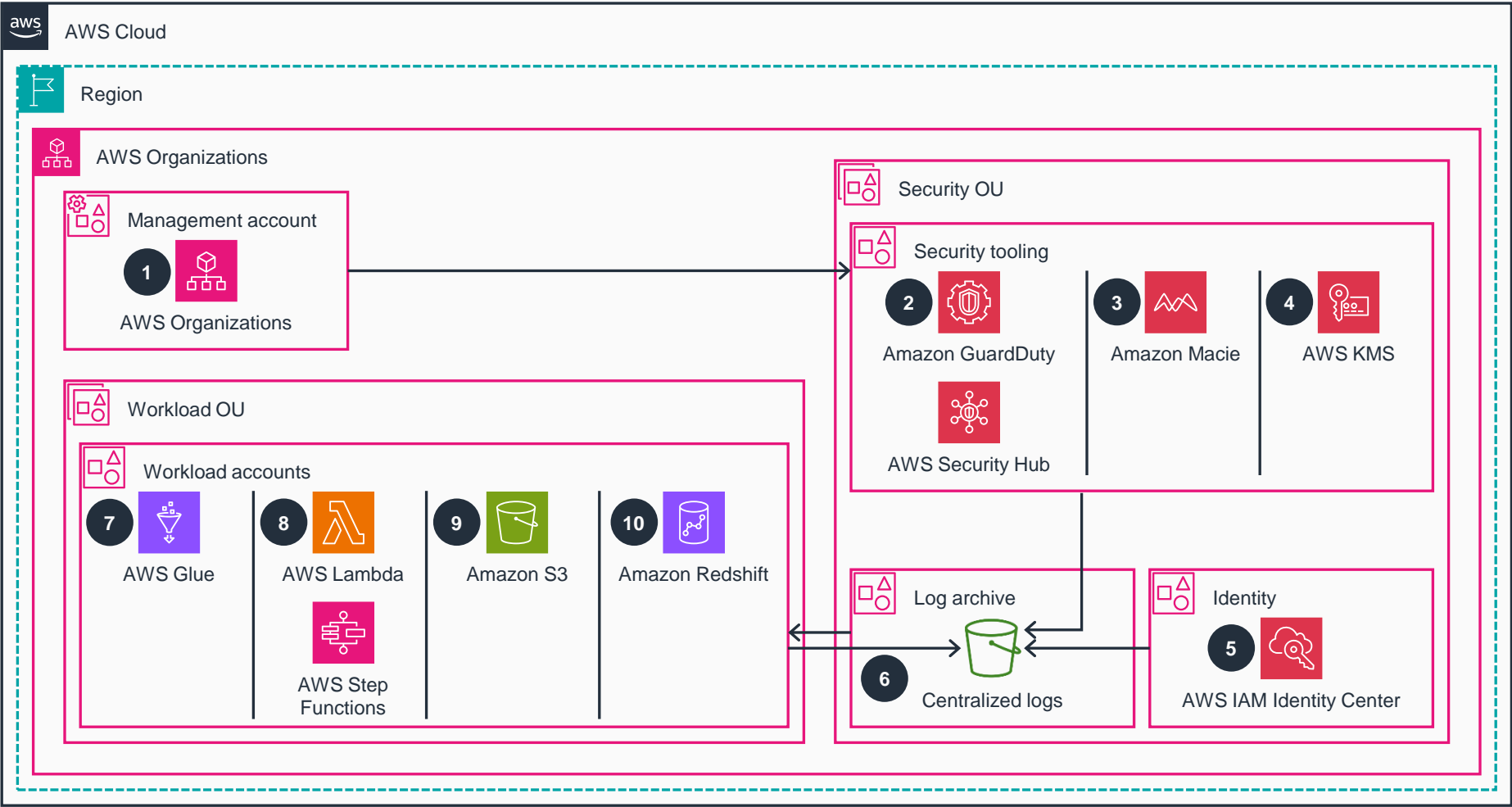


Guidance for Data Anonymization on AWS

This architecture diagram shows how to integrate AWS services to anonymize data, protecting sensitive information while facilitating secure and compliant data usage in a reliable, secure, and scalable cloud environment.



- 1 Within **AWS Organizations**, enable **Amazon GuardDuty**, **AWS Security Hub**, **Amazon Macie**, and **AWS Key Management Service (AWS KMS)** for your home and operational AWS Regions.
- 2 Configure **GuardDuty** and **Security Hub** in your home and operational Regions to provide comprehensive threat monitoring, centralize security incident management, and help achieve compliance with AWS security best practices and industry standards.
- 3 Set up **Macie** in your home and operational Regions to identify sensitive data in your specific accounts or in **Amazon Simple Storage Service (Amazon S3)** buckets.
- 4 Use **AWS KMS** to create and control cryptographic keys, facilitating secure data encryption across your AWS services.
- 5 Use **AWS Identity and Access Management (IAM) Identity Center** to securely manage access to AWS resources by making sure that only authorized personnel and services can perform anonymization tasks and access anonymized data.
- 6 Send relevant logs to a centralized log storage bucket for compliance retention and analysis.
- 7 Use **AWS Glue** to orchestrate extract, transform, and load (ETL) workflows that prepare and transform data for anonymization, using its built-in personally identifiable information detection feature to automatically identify and redact sensitive information.
- 8 Optionally, if you have your own scripts, use **AWS Lambda** to implement them and **AWS Step Functions** to orchestrate the workflows to seamlessly implement tasks and coordinate processes.
- 9 Use **Amazon S3** as a data lake for storing both raw and anonymized data.
- 10 Use **Amazon Redshift** to store and manage structured, anonymized data in a data warehouse, enabling efficient querying and analysis while integrating with your data lake.