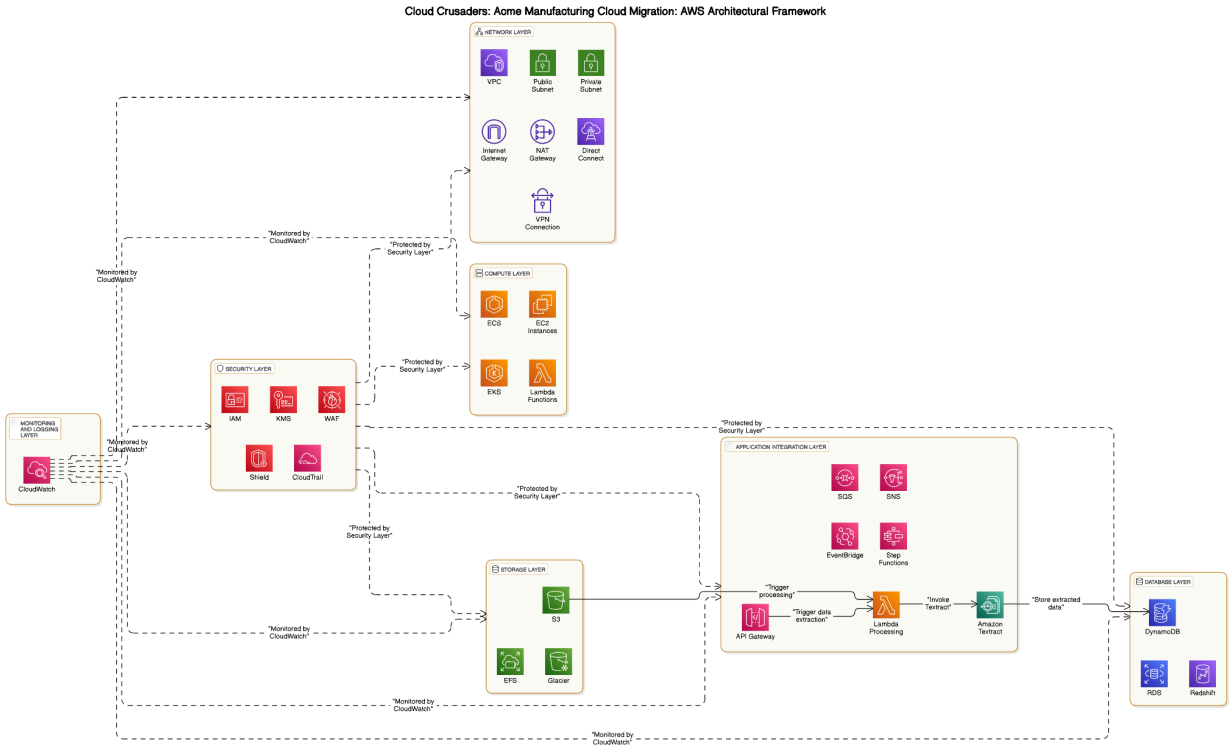
This AWS framework details the architecture depicted in the diagram, aligning with best practices and the AWS Well-Architected Framework. It focuses on security, scalability, and cost-efficiency for Acme Manufacturing's resume processing application.



I. Network Layer:

- **Virtual Private Cloud (VPC):** A logically isolated section of the AWS Cloud, providing a secure environment for all resources.
- **Subnets:** Public subnets for internet-facing components (e.g., API Gateway) and private subnets for internal services (e.g., EC2 instances, databases).
- **Internet Gateway:** Enables connectivity to the public internet.
- **NAT Gateway:** Allows instances in private subnets to access the internet without directly exposing them.
- **Security Groups:** Control inbound and outbound network traffic based on the principle of least privilege. Each resource will have a specific security group defining allowed traffic.

II. Security Layer:

- **Identity and Access Management (IAM):** Provides granular control over access to AWS resources, employing the principle of least privilege. IAM roles are used for applications, rather than static credentials.
- **Key Management Service (KMS):** Manages encryption keys, protecting sensitive data at rest and in transit. All sensitive data is encrypted using KMS-managed keys.
- **Web Application Firewall (WAF) and Shield:** Protect against web and DDoS attacks.
- **CloudTrail:** Provides audit trails for all API calls, maintaining governance and enabling security monitoring.
- **GuardDuty:** Monitors for suspicious activity and potential threats across the AWS environment.
- **Inspector:** Regularly scans EC2 instances for vulnerabilities.

III. Compute Layer:

- **Amazon Elastic Container Service (ECS):** Used for containerized applications to deploy the resume processing pipeline. This provides scalability and maintainability.
- **AWS Lambda:** Serverless functions are used for specific tasks within the pipeline (e.g., Textract integration, data processing). This reduces operational overhead and optimizes costs.
- **Amazon EC2:** Used only where necessary for compute-intensive tasks that are not easily handled by Lambda. Auto Scaling is implemented to adjust resources based on demand.

IV. Storage Layer:

- **Amazon Simple Storage Service (S3):** Stores resume documents and processed data. Lifecycle policies manage storage costs by archiving older data to Glacier.
- **Amazon Elastic File System (EFS):** (Optional) Can be used for storing intermediate processing files if needed by the application.
- **Amazon Glacier:** For long-term archival storage of less frequently accessed data.

V. Database Layer:

- **Amazon DynamoDB:** A NoSQL database ideal for storing unstructured or semi-structured data extracted from resumes by Textract. This choice supports rapid scaling.
- **Amazon RDS (PostgreSQL or similar):** (Optional) Could be used for storing structured metadata related to resumes if needed. Multi-AZ deployment ensures high availability.
- **Amazon Redshift:** (Optional) Used if large-scale data warehousing and analytics are required on the processed resume data.

VI. Application Integration Layer:

- **Amazon API Gateway:** Provides a secure and scalable API endpoint for triggering the resume processing pipeline.

- **AWS Step Functions:** Orchestrates the workflow, managing the execution of different Lambda functions involved in the pipeline.
- **Amazon Textract:** Extracts text and data from resume documents uploaded to S3.
- **Amazon SQS/SNS (Optional):** Message queues could be used for asynchronous communication between different parts of the pipeline for increased resilience.
- **Amazon EventBridge:** (Optional) For event-driven architecture to trigger functions based on events in other services.

VII. Monitoring and Logging Layer:

- **Amazon CloudWatch:** Monitors all aspects of the architecture, providing metrics, logs, and alerts for proactive issue detection. Custom dashboards are created to visualize key performance indicators (KPIs).
- **AWS X-Ray:** (Optional) For detailed tracing of requests through the application.

VIII. Deployment and Management:

- **Infrastructure as Code (IaC):** CloudFormation or Terraform is used to manage the infrastructure. This ensures consistency, repeatability, and enables automated rollbacks.
- **Continuous Integration/Continuous Deployment (CI/CD):** Automated pipeline for building, testing, and deploying changes to the application.

IX. Security Best Practices:

- Regular security assessments and penetration testing are performed.
- Access keys and passwords are regularly rotated.
- IAM policies are reviewed and updated regularly.
- All sensitive data is encrypted both in transit and at rest.

This framework aligns with the diagram, providing a detailed textual description of the architecture and its components, incorporating best practices and ensuring a secure, scalable, and cost-effective solution for Acme Manufacturing.