Here’s the updated table structure with separate columns for **Decision**, **Justification**, and **Impact**:

| **Category** | **Decision** | **Justification** | **Impact** |
| --- | --- | --- | --- |
| **Security Risks** | Implement encryption for data at rest and in transit using AWS KMS and TLS. | Encryption ensures that sensitive data is protected from unauthorized access. | Increases security but may add slight overhead due to encryption/decryption processes. |
| **Performance Bottlenecks** | Use AWS Lambda for scalable, stateless processing. | Lambda functions automatically scale based on demand and can process data concurrently. | Improved scalability, but may face cold start latency during infrequent invocations. |
| **Fault Tolerance and Resiliency** | Deploy across multiple availability zones and use cross-region replication for S3 and DynamoDB. | Ensures high availability and minimizes downtime in case of regional failure. | Enhances fault tolerance but increases costs for cross-region replication and resource deployment. |
| **Monitoring and Observability** | Implement AWS CloudWatch for logging, metrics, and alerts. | CloudWatch provides real-time monitoring and visibility into the system’s performance and health. | Facilitates proactive issue detection and troubleshooting but may generate additional cost for logging and metrics. |
| **Compliance and Retention Policies** | Implement data retention policies for compliance with GDPR, using S3 lifecycle policies and DynamoDB TTL. | Ensures compliance with data retention laws and reduces storage costs by automatically deleting outdated data. | Ensures legal compliance and cost efficiency but requires careful planning to avoid accidental data loss or breaches. |

This format provides a clearer breakdown of each decision, its justification, and the resulting impact. Let me know if you need further modifications!