InvenTag Demo Corporation

# Cloud Bill of Materials Report

|  |  |
| --- | --- |
| **Generated Date:** | 2025-08-01T01:57:27.355283+00:00 |
| **Total Resources:** | 5 |
| **Processing Time:** | 2.80 seconds |
| **Report Version:** | 1.0 |

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# Executive Summary

This Cloud Bill of Materials (BOM) report provides a comprehensive analysis of AWS resources across the InvenTag Demo Corporation infrastructure. The report covers 5 resources and includes compliance analysis, network security assessment, and operational recommendations.

## Compliance Overview

|  |  |
| --- | --- |
| **Total Resources** | 5 |
| **Compliant Resources** | 3 |
| **Non-Compliant Resources** | 2 |
| **Compliance Percentage** | 60.0% |

## Service Breakdown

|  |  |  |
| --- | --- | --- |
| **Service** | **Resource Count** | **Percentage** |
| EC2 | 1 | 20.0% |
| LAMBDA | 1 | 20.0% |
| RDS | 1 | 20.0% |
| S3 | 1 | 20.0% |
| VPC | 1 | 20.0% |

## Key Findings

• Compliance rate of 60.0% requires immediate attention and remediation

• Infrastructure spans 2 VPCs requiring network optimization review

• Identified 2 high-risk security rules requiring immediate remediation

• Infrastructure utilizes 5 different AWS services

# Service Resources

## EC2 Resources

**Total EC2 resources: 1 (Compliant: 1, Non-compliant: 0)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Id** | **Name** | **Type** | **Region** | **Compliance Status** | **Account Id** | **Vpc Id** | **Subnet Id** |
| i-1234567890abcdef0 | web-server-1 | Instance | us-east-1 | compliant | 123456789012 | vpc-12345678 | subnet-12345678 |

## LAMBDA Resources

**Total LAMBDA resources: 1 (Compliant: 1, Non-compliant: 0)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Id** | **Name** | **Type** | **Region** | **Compliance Status** | **Account Id** | **Arn** | **Memory Size** |
| data-processor | data-processor | Function | us-east-1 | compliant | 123456789012 | arn:aws:lambda:us-east-1:123456789012:function:data-processor | 512 |

## RDS Resources

**Total RDS resources: 1 (Compliant: 1, Non-compliant: 0)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Id** | **Name** | **Type** | **Region** | **Compliance Status** | **Account Id** | **Allocated Storage** | **Arn** |
| production-database | production-database | DBInstance | us-east-1 | compliant | 123456789012 | 100 | arn:aws:rds:us-east-1:123456789012:db:production-database |

## S3 Resources

**Total S3 resources: 1 (Compliant: 0, Non-compliant: 1)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Id** | **Name** | **Type** | **Region** | **Compliance Status** | **Account Id** | **Arn** | **Encryption** |
| company-data-bucket | company-data-bucket | Bucket | us-east-1 | non\_compliant | 123456789012 | arn:aws:s3:::company-data-bucket | AES256 |

## VPC Resources

**Total VPC resources: 1 (Compliant: 0, Non-compliant: 1)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Id** | **Name** | **Type** | **Region** | **Compliance Status** | **Account Id** | **Vpc Id** | **Arn** |
| sg-12345678 | web-server-sg | SecurityGroup | us-east-1 | non\_compliant | 123456789012 | vpc-12345678 | arn:aws:ec2:us-east-1:123456789012:security-group/sg-12345678 |

# Network Analysis

## Network Overview

The infrastructure spans 2 VPCs with 6 subnets. This section provides detailed analysis of network utilization and capacity planning.

## VPC Utilization Analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **VPC ID** | **VPC Name** | **CIDR Block** | **Utilization %** | **Available IPs** |
| vpc-12345678 | production-vpc | 10.0.0.0/16 | 35.2% | 42000 |
| vpc-87654321 | development-vpc | 10.1.0.0/16 | 18.7% | 53000 |

## Network Recommendations

• Monitor VPC utilization and plan for capacity expansion

• Review subnet allocation for optimal resource distribution

• Consider VPC peering for cross-VPC communication needs

• Implement network segmentation best practices

• Regular review of security group rules and NACLs

# Security Analysis

## Security Overview

Security analysis covers 12 security groups with 2 high-risk rules identified. This section provides detailed risk assessment and remediation recommendations.

## High-Risk Security Rules

|  |  |  |  |
| --- | --- | --- | --- |
| **Security Group** | **Rule** | **Risk Level** | **Recommendation** |
| sg-12345678 | 0.0.0.0/0:22 | high | Restrict source to specific CIDR blocks |
| sg-87654321 | 0.0.0.0/0:3389 | high | Restrict source to specific CIDR blocks |

## Security Recommendations

• Review and restrict overly permissive security group rules

• Implement least privilege access principles

• Regular security group audits and cleanup

• Use AWS Config rules for continuous compliance monitoring

• Enable VPC Flow Logs for network traffic analysis

• Implement AWS GuardDuty for threat detection

• Regular penetration testing and vulnerability assessments

# Compliance Details

## Compliance Breakdown by Service

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Service** | **Compliant** | **Non-Compliant** | **Total** | **Compliance %** |
| EC2 | 1 | 0 | 1 | 100.0% |
| LAMBDA | 1 | 0 | 1 | 100.0% |
| RDS | 1 | 0 | 1 | 100.0% |
| S3 | 0 | 1 | 1 | 0.0% |
| VPC | 0 | 1 | 1 | 0.0% |

## Non-Compliant Resources

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Service** | **Type** | **ID** | **Name** | **Region** | **Issues** |
| S3 | Bucket | company-data-bucket | company-data-bucket | us-east-1 | Missing required tags |
| VPC | SecurityGroup | sg-12345678 | web-server-sg | us-east-1 | Missing required tags |

# Appendices

## Appendix A: Report Generation Details

This report was generated on 2025-08-01T01:57:27.355283+00:00 and processed 5 resources in 2.80 seconds. The data source was aws\_resource\_inventory.py.

## Appendix B: Custom Attributes

The following custom attributes were configured for this report: inventag:remarks, inventag:costcenter. These attributes provide organization-specific metadata for resources.