Validation Report: Baseline vs Via-Tokyo Latency Analysis

Inter-Region Egress Orchestration Performance Testing

Test Scenarios:

Scenario 1: Baseline (Direct Singapore Egress)

- **Network Path:** EC2 → Internet Gateway → Internet

Request 1: 99ms

Request 2: 91ms

Request 3: 93ms

Request 4: 225ms !!!!

Request 5: 93ms

Request 6: 97ms

Request 7: 93ms

Request 8: 91ms

Request 9: 92ms

Request 10: 93ms

Result:

Median: 93ms

Min: 91ms

Max:225ms

Scenario 2: Via Tokyo (Proxy Egress)

- **Network Path:** EC2 → VPC Peering → Fargate Proxy (Tokyo) → Internet

Request 1: 512ms

Request 2: 508ms

Request 3: 510ms

Request 4: 510ms

Request 5: 510ms

Request 6: 521ms

Request 7: 520ms

Request 8: 509ms

Request 9: 521ms

Request 10: 509ms

Result:

Median: 510ms

Min: 508ms

Max: 521ms

Egress Verification:

[ec2-user@ip-10-1-10-48 ~]$ curl https://api.binance.com/api/v3/time

{"serverTime":1760803634302}

```
[ec2-user@ip-10-1-10-48 ~]$ curl https://ipinfo.io
{
  "ip": "52.197.122.128",
  "hostname": "ec2-52-197-122-128.ap-northeast-1.compute.amazonaws.com",
  "city": "Tokyo",
  "region": "Tokyo",
  "country": "JP",
  "loc": "35.6895,139.6917",
  "org": "AS16509 Amazon.com, Inc.",
  "postal": "101-8656",
  "timezone": "Asia/Tokyo",
  "readme": "https://ipinfo.io/missingauth"
}
```

Summary

The inter-region egress architecture successfully routes traffic from Singapore through Tokyo with +415ms latency overhead