Step 1: Clone the Repository

git clone https://github.com/ndeepakprasanth/dapr-eks-pubsub-ready.git

cd dapr-eks-pubsub-ready

Step 2: Set execute permissions

chmod +x oneclick.sh

chmod +x test.sh

chmod +x scripts/*.sh

Step 3: One-Click deployment

# Replace with your AWS Account ID

ACCOUNT_ID=<Enter_Your_AWS_ACCOUNT_ID>
AWS_PROFILE=<Enter_Your_AWS_Profile> ./oneclick.sh

Step 4: Verify deployment

# Check pods (should show 2/2 Ready)

kubectl -n dapr-apps get pods -o wide

# Check services

kubectl -n dapr-apps get svc

# Check Dapr components

kubectl -n dapr-apps get components

Step 5: Test Pub/Sub functionality

./test.sh

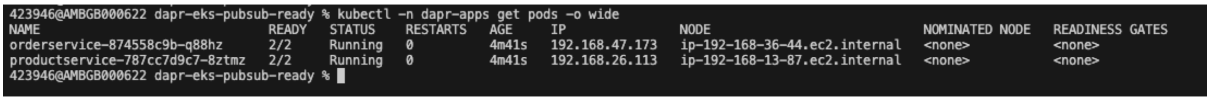
Step 6: View ECR repositories

aws ecr describe-repositories --region us-east-1

Step 7: Clean up when completed

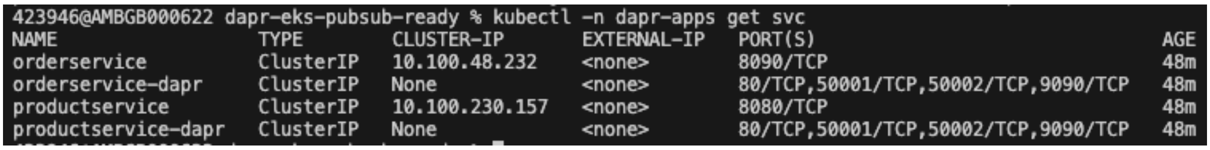
./destroy.sh

1. Running pods:



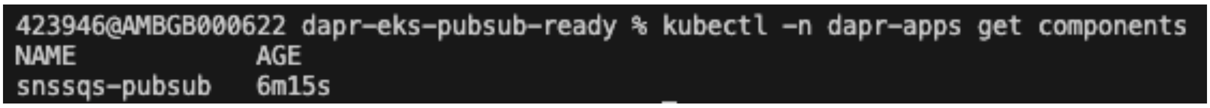
```
423946@AMBGB000622 dapr-eks-pubsub-ready % kubectl -n dapr-apps get pods -o wide
NAME                              READY   STATUS    RESTARTS   AGE     IP               NODE                            NOMINATED NODE   READINESS GATES
orderservice-874558c9b-q88hz      2/2     Running   0          4m41s   192.168.47.173   ip-192-168-36-44.ec2.internal   <none>           <none>
productservice-787cc7d9c7-8ztmz   2/2     Running   0          4m41s   192.168.26.113   ip-192-168-13-87.ec2.internal   <none>           <none>
423946@AMBGB000622 dapr-eks-pubsub-ready % 
```

2. Services:



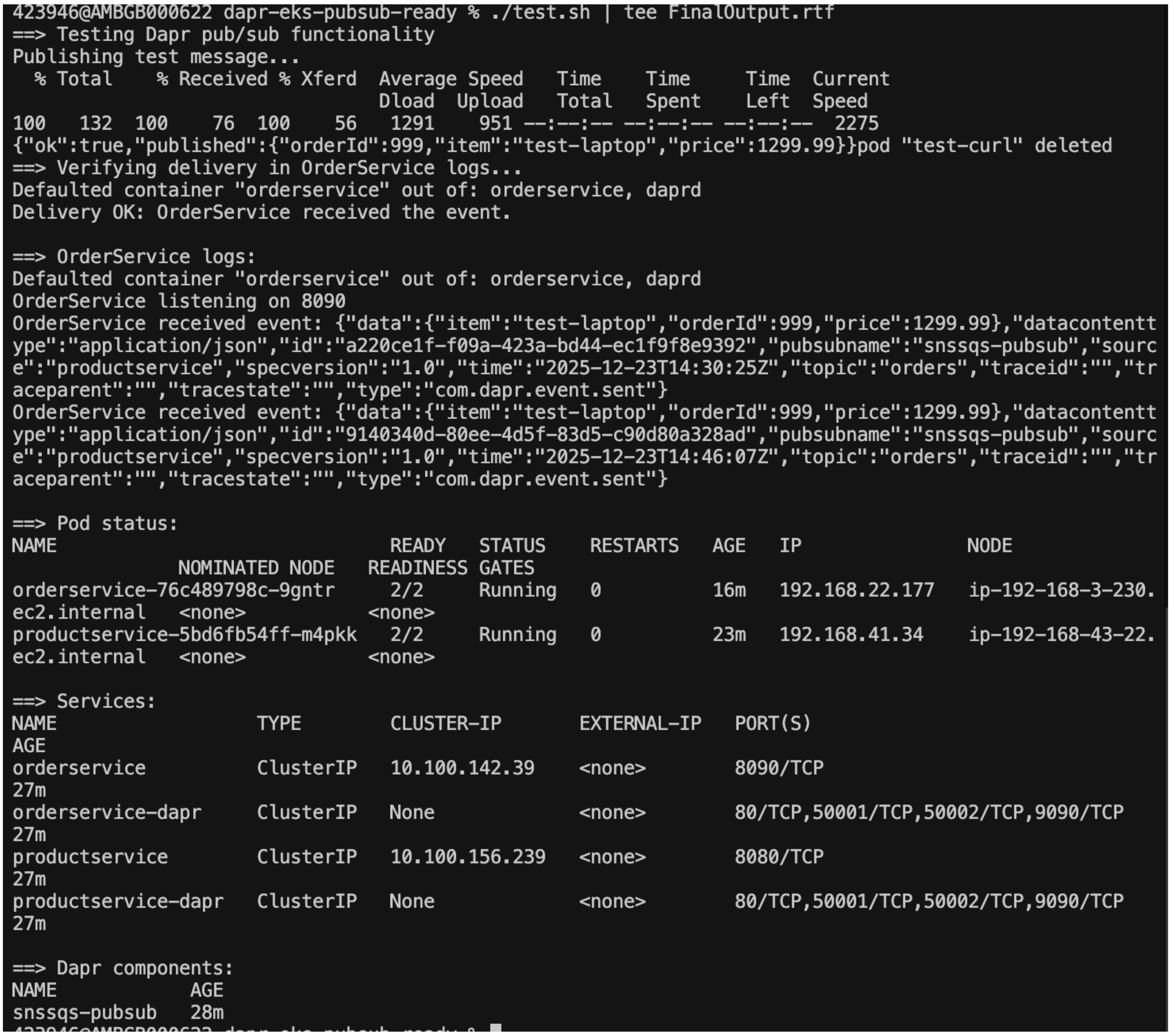
```
423946@AMBGB000622 dapr-eks-pubsub-ready % kubectl -n dapr-apps get svc
NAME                  TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)                               AGE
orderservice          ClusterIP   10.100.48.232    <none>        8090/TCP                              48m
orderservice-dapr     ClusterIP   None             <none>        80/TCP,50001/TCP,50002/TCP,9090/TCP   48m
productservice        ClusterIP   10.100.230.157   <none>        8080/TCP                              48m
productservice-dapr   ClusterIP   None             <none>        80/TCP,50001/TCP,50002/TCP,9090/TCP   48m
```

3. Dapr compoents



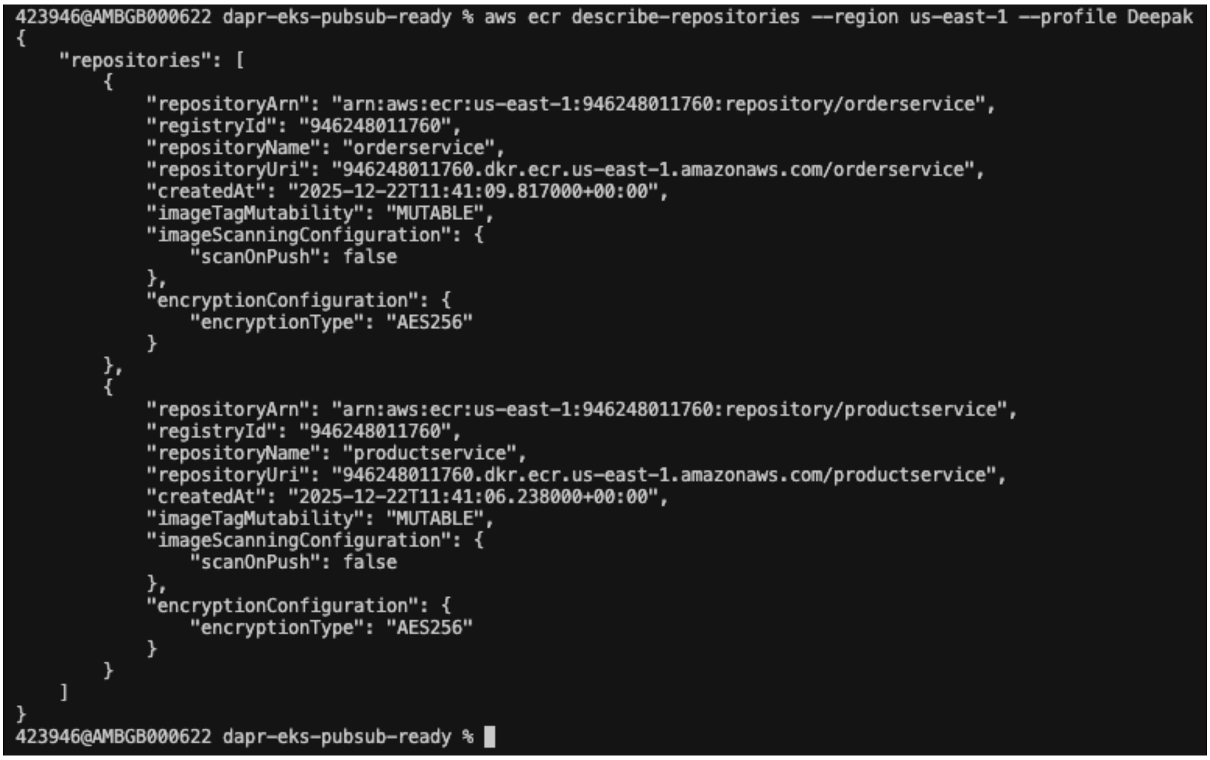
```
423946@AMBGB000622 dapr-eks-pubsub-ready % kubectl -n dapr-apps get components
NAME           AGE
snssqs-pubsub  6m15s
```

4. Test Pub/Sub



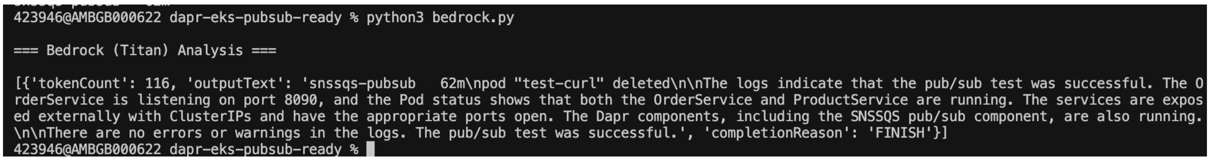
```
423946@AMBGB000622 dapr-eks-pubsub-ready % ./test.sh | tee FinalOutput.rtf
==> Testing Dapr pub/sub functionality
Publishing test message...
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100   132  100    76  100    56   1291    951 --:--:-- --:--:-- --:--:--  2275
{"ok":true,"published":{"orderId":999,"item":"test-laptop","price":1299.99}}pod "test-curl" deleted
==> Verifying delivery in OrderService logs...
Defaulted container "orderservice" out of: orderservice, daprd
Delivery OK: OrderService received the event.

==> OrderService logs:
Defaulted container "orderservice" out of: orderservice, daprd
OrderService listening on 8090
OrderService received event: {"data":{"item":"test-laptop","orderId":999,"price":1299.99},"datacontentt
ype":"application/json","id":"a220ce1f-f09a-423a-bd44-ec1f9f8e9392","pubsubname":"snssqs-pubsub","sourc
e":"productservice","specversion":"1.0","time":"2025-12-23T14:30:25Z","topic":"orders","traceid":"","tr
aceparent":"","tracestate":"","type":"com.dapr.event.sent"}
OrderService received event: {"data":{"item":"test-laptop","orderId":999,"price":1299.99},"datacontentt
ype":"application/json","id":"9140340d-80ee-4d5f-83d5-c90d80a328ad","pubsubname":"snssqs-pubsub","sourc
e":"productservice","specversion":"1.0","time":"2025-12-23T14:46:07Z","topic":"orders","traceid":"","tr
aceparent":"","tracestate":"","type":"com.dapr.event.sent"}

==> Pod status:
NAME                             READY   STATUS    RESTARTS   AGE   IP               NODE
               NOMINATED NODE   READINESS GATES
orderservice-76c489798c-9gntr    2/2     Running   0          16m   192.168.22.177   ip-192-168-3-230.
ec2.internal   <none>           <none>
productservice-5bd6fb54ff-m4pkk   2/2     Running   0          23m   192.168.41.34    ip-192-168-43-22.
ec2.internal   <none>           <none>

==> Services:
NAME                  TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)
AGE
orderservice          ClusterIP   10.100.142.39    <none>        8090/TCP
27m
orderservice-dapr     ClusterIP   None             <none>        80/TCP,50001/TCP,50002/TCP,9090/TCP
27m
productservice        ClusterIP   10.100.156.239   <none>        8080/TCP
27m
productservice-dapr   ClusterIP   None             <none>        80/TCP,50001/TCP,50002/TCP,9090/TCP
27m

==> Dapr components:
NAME            AGE
snssqs-pubsub   28m
423946@AMBGB000622 dapr-eks-pubsub-ready %
```

5. ECR repositories with pushed images



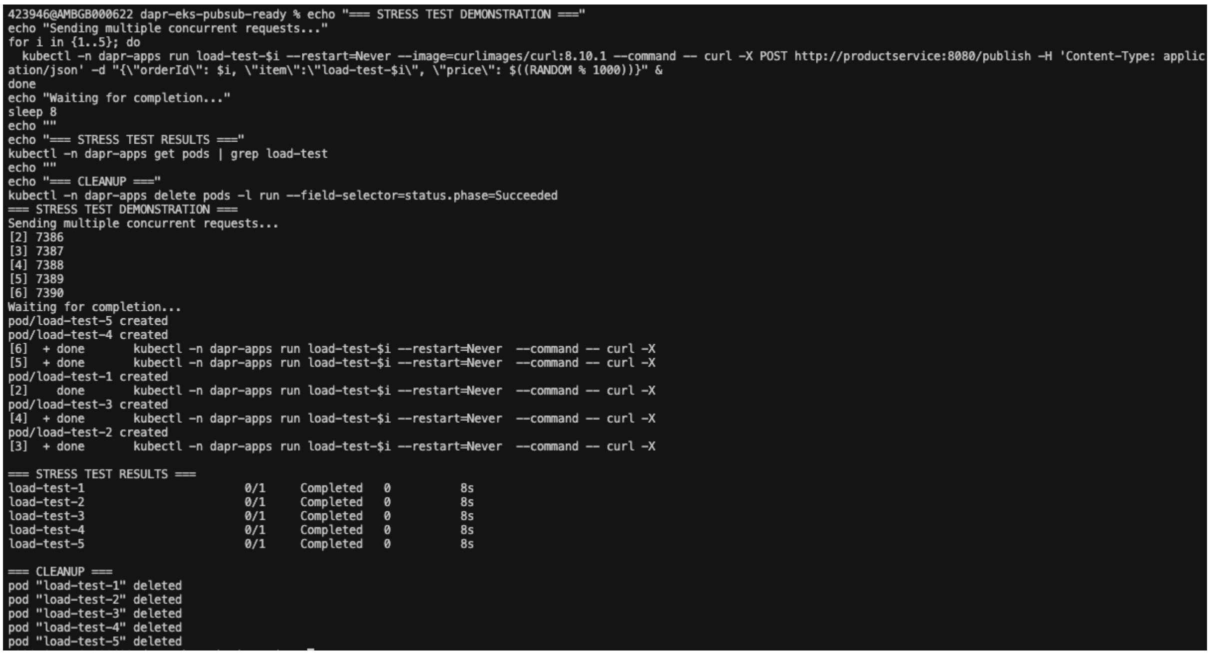
```
423946@AMBGB000622 dapr-eks-pubsub-ready % aws ecr describe-repositories --region us-east-1 --profile Deepak
{
    "repositories": [
        {
            "repositoryArn": "arn:aws:ecr:us-east-1:946248011760:repository/orderservice",
            "registryId": "946248011760",
            "repositoryName": "orderservice",
            "repositoryUri": "946248011760.dkr.ecr.us-east-1.amazonaws.com/orderservice",
            "createdAt": "2025-12-22T11:41:09.817000+00:00",
            "imageTagMutability": "MUTABLE",
            "imageScanningConfiguration": {
                "scanOnPush": false
            },
            "encryptionConfiguration": {
                "encryptionType": "AES256"
            }
        },
        {
            "repositoryArn": "arn:aws:ecr:us-east-1:946248011760:repository/productservice",
            "registryId": "946248011760",
            "repositoryName": "productservice",
            "repositoryUri": "946248011760.dkr.ecr.us-east-1.amazonaws.com/productservice",
            "createdAt": "2025-12-22T11:41:06.238000+00:00",
            "imageTagMutability": "MUTABLE",
            "imageScanningConfiguration": {
                "scanOnPush": false
            },
            "encryptionConfiguration": {
                "encryptionType": "AES256"
            }
        }
    ]
}
423946@AMBGB000622 dapr-eks-pubsub-ready %
```

6. Bedrock analysis



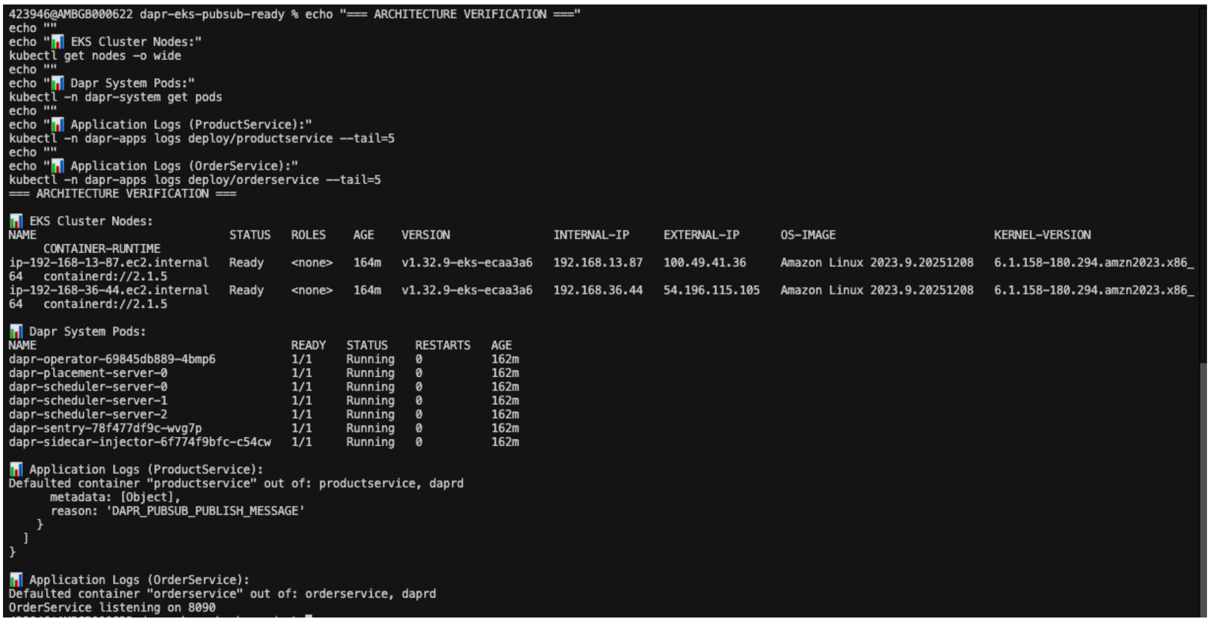
```
423946@AMBGB000622 dapr-eks-pubsub-ready % python3 bedrock.py

=== Bedrock (Titan) Analysis ===

[{'tokenCount': 116, 'outputText': 'snssqs-pubsub   62m\npod "test-curl" deleted\n\nThe logs indicate that the pub/sub test was successful. The O
rderService is listening on port 8090, and the Pod status shows that both the OrderService and ProductService are running. The services are expos
ed externally with ClusterIPs and have the appropriate ports open. The Dapr components, including the SNSSQS pub/sub component, are also running.
\n\nThere are no errors or warnings in the logs. The pub/sub test was successful.', 'completionReason': 'FINISH'}]
423946@AMBGB000622 dapr-eks-pubsub-ready %
```

7. Stress test output



```
423946@AMBGB000622 dapr-eks-pubsub-ready % echo "=== STRESS TEST DEMONSTRATION ==="
echo "Sending multiple concurrent requests..."
for i in {1..5}; do
  kubectl -n dapr-apps run load-test-$i --restart=Never --image=curlimages/curl:8.10.1 --command -- curl -X POST http://productservice:8080/publish -H 'Content-Type: applic
ation/json' -d "{\"orderId\": $i, \"item\":\"load-test-$i\", \"price\": $((RANDOM % 1000))}" &
done
echo "Waiting for completion..."
sleep 8
echo ""
echo "=== STRESS TEST RESULTS ==="
kubectl -n dapr-apps get pods | grep load-test
echo ""
echo "=== CLEANUP ==="
kubectl -n dapr-apps delete pods -l run --field-selector=status.phase=Succeeded
=== STRESS TEST DEMONSTRATION ===
Sending multiple concurrent requests...
[2] 7386
[3] 7387
[4] 7388
[5] 7389
[6] 7390
Waiting for completion...
pod/load-test-5 created
pod/load-test-4 created
[6]  + done       kubectl -n dapr-apps run load-test-$i --restart=Never  --command -- curl -X
[5]  + done       kubectl -n dapr-apps run load-test-$i --restart=Never  --command -- curl -X
pod/load-test-1 created
[2]    done       kubectl -n dapr-apps run load-test-$i --restart=Never  --command -- curl -X
pod/load-test-3 created
[4]  + done       kubectl -n dapr-apps run load-test-$i --restart=Never  --command -- curl -X
pod/load-test-2 created
[3]  + done       kubectl -n dapr-apps run load-test-$i --restart=Never  --command -- curl -X

=== STRESS TEST RESULTS ===
load-test-1                     0/1     Completed   0          8s
load-test-2                     0/1     Completed   0          8s
load-test-3                     0/1     Completed   0          8s
load-test-4                     0/1     Completed   0          8s
load-test-5                     0/1     Completed   0          8s

=== CLEANUP ===
pod "load-test-1" deleted
pod "load-test-2" deleted
pod "load-test-3" deleted
pod "load-test-4" deleted
pod "load-test-5" deleted
```

8. Logs screenshot:



```
423946@AMBGB000622 dapr-eks-pubsub-ready % echo "=== ARCHITECTURE VERIFICATION ==="
echo ""
echo "📊 EKS Cluster Nodes:"
kubectl get nodes -o wide
echo ""
echo "📊 Dapr System Pods:"
kubectl -n dapr-system get pods
echo ""
echo "📊 Application Logs (ProductService):"
kubectl -n dapr-apps logs deploy/productservice --tail=5
echo ""
echo "📊 Application Logs (OrderService):"
kubectl -n dapr-apps logs deploy/orderservice --tail=5
=== ARCHITECTURE VERIFICATION ===

📊 EKS Cluster Nodes:
NAME                            STATUS   ROLES    AGE    VERSION               INTERNAL-IP     EXTERNAL-IP      OS-IMAGE                         KERNEL-VERSION
     CONTAINER-RUNTIME
ip-192-168-13-87.ec2.internal   Ready    <none>   164m   v1.32.9-eks-ecaa3a6   192.168.13.87   100.49.41.36     Amazon Linux 2023.9.20251208   6.1.158-180.294.amzn2023.x86_
64   containerd://2.1.5
ip-192-168-36-44.ec2.internal   Ready    <none>   164m   v1.32.9-eks-ecaa3a6   192.168.36.44   54.196.115.105   Amazon Linux 2023.9.20251208   6.1.158-180.294.amzn2023.x86_
64   containerd://2.1.5

📊 Dapr System Pods:
NAME                                    READY   STATUS    RESTARTS   AGE
dapr-operator-69845db889-4bmp6          1/1     Running   0          162m
dapr-placement-server-0                 1/1     Running   0          162m
dapr-scheduler-server-0                 1/1     Running   0          162m
dapr-scheduler-server-1                 1/1     Running   0          162m
dapr-scheduler-server-2                 1/1     Running   0          162m
dapr-sentry-78f477df9c-wvg7p            1/1     Running   0          162m
dapr-sidecar-injector-6f774f9bfc-c54cw  1/1     Running   0          162m

📊 Application Logs (ProductService):
Defaulted container "productservice" out of: productservice, daprd
      metadata: [Object],
      reason: 'DAPR_PUBSUB_PUBLISH_MESSAGE'
    }
  ]
}

📊 Application Logs (OrderService):
Defaulted container "orderservice" out of: orderservice, daprd
OrderService listening on 8090
```