

AMF AIO cluster architecture and deployment models

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AMF AIO cluster architectures and deployment models

The AMF All-in-One (AIO) cluster architecture is a single-server solution in which all Access and Mobility Management Function (AMF) pods and their replicas run on one physical or virtual server. This architecture is used in scenarios that do not require distributed clusters, simplifying deployment and resource management for constrained environments.

Table 1: Feature History Table

Feature Name	Release Information	Feature Description
AMF AIO cluster architecture and deployment models	Release 2026.03.0	Deployment of all AMF cluster functions on a single server simplifies setup and reduces infrastructure complexity. Selecting between AIO-Small or AIO-Large configurations triggers automatic resource allocation, consolidating all AMF roles on the chosen server.

Configure AMF AIO cluster architecture and deployment models

Follow these steps to configure AMF AIO cluster architecture and deployment models.

Procedure

Step 1 Configure the AMF AIO cluster with your chosen deployment model.

deployment { app-name *app_name* **| cluster-name** *cluster_name* **| dc-name** *dc_name* **| resource cpu** *resource_cpu_capacity* **| logical-nf-instance-id** *logical_nf_instance_id* **| deployment type { aio | aio-small } }**

- **aio**: Configures the AIO large deployment model.
- **aio-small**: Configures the AIO small deployment model.

Step 2 Execute the following command to enable AMF pods to be deployed on a single Kubernetes node.

k8s { single-node true }

Step 3 Save and commit the configuration.

Note
Enabling / diasbling the AIO large and AIO small configuration requires ops-center shut and start.

The default CPU and memory values for the deployment models are pre-configured within the pods.