

What is SNO?

- SNO = Single Node OpenShift
- SNO is a deployment of the OpenShift Container Platform on a single node (master and worker coresident).
- SNO is a specialized installation of OpenShift whose primary use case is for edge computing workloads, including intermittent connectivity, portable clouds, and 5G radio access networks (RAN) close to a base station.
- The major tradeoff with an installation on a single node is the lack of high availability.
- Minimum resource requirement (not enough for MAS):

Profile	vCPU	Memory	Storage
Minimum	8 vCPU cores	32GB of RAM	120GB

- OpenShift Container Platform on a single node is supported on bare metal, vSphere, Red Hat OpenStack, and Red Hat Virtualization platforms.
- Single Node OpenShift is not OpenShift Local (f.k.a. CRC = Code Ready Container)

What is OpenShift Local?

- OpenShift Local is "OpenShift on your laptop", the easiest way to get a local OpenShift environment running on your machine.
- OpenShift Local is designed for local development and testing on an OpenShift cluster, it is ephemeral, and it is not a production environment.
- OpenShift Local does not have a supported upgrade path to newer OpenShift Container Platform versions.
- Requires a hypervisor to run the VM containing OpenShift.
 - macOS: xhyve (default), VirtualBox
 - GNU/Linux: KVM (default), VirtualBox
 - Windows: Hyper-V (default), VirtualBox
- Minimum resource requirement (not enough for MAS):

CPU	Memory	Storage
4 physical CPU	9GB of RAM	35GB

SNO and MAS

- SNO is an opportunity for the Maximo Application Suite Manage function to provide a comparable upgrade environment for those clients running Maximo EAM on a single server.
- SNO is also a more sustainable solution, given the reduced footprint, i.e. lower emissions
- SNO is now a supported deployment for MAS simply because MAS 8.10 supports OCP 4.10 which is the first OpenShift version formally supported by RH for SNO.
- The ability to deploy MAS and its functions on SNO depends on the computer power on which SNO is installed.
- A local storage class is provided by the ODF LVM Operator, using a dedicated disk.
- MAS Core + SLS + UDS + DB2 + Manage has been successfully tested on a 16 vCPU computer with 64GB of RAM. It supports mobile and 70 concurrent users.
- Documentation on how to install MAS on SNO is available here and will be updated to reflect the latest info on the subject.

More considerations...

- Propose MAS 8.10 Manage on SNO to those Maximo EAM 7.6.1.2+ clients that run it on a single server.
- Manage Industry Solutions and Health may fit in a SNO deployment 16x64, but we have not yet tested these configuration.
- SNO 4.11 has introduced composability and the ability to add worker nodes, therefore, with MAS 8.10 supporting OCP 4.12, these enhancement will possibly help reduce footprint and enable MAS functional expansion useful for upsells.
- Use OpenShift Local to run a demo environment of MAS Manage on your laptop.
- If you have a laptop with 16 vCPU and 64GB of RAM, it will be easier (for example a Lenovo ThinkPad P15)
- This laptop can run MAS Core + SLS + DB2 + Manage in the cluster and UDS remote (only needs to be available during first start)
- If you have only 32GB of RAM, it will be a bit more complicated.
- In Windows, you can use a MS SQL Server off-cluster, with MAS Core + SLS + Manage in the cluster and UDS remote.
- Details and scripts provided <u>here</u> (without formal support).

Maximo Application Suite on Single Node OpenShift

Start small and scale your digital transformation journey

Is perfect for

- Upgrading small Maximo customers to MAS
- Winning new logos with small initial deployments
- Making Demo & PoC possible for our Technical Sales and Business Partners

Two deployment options:

1. MAS Production Environment on Single Node Openshift

- Requires 16 vCPU cores & 64GB RAM
- Supports 70 concurrent users (tested at 200) with MAS Manage, Mobile, Health
- Supports Oracle and MS SQL database
- Can extend to all MAS modules with adding HW capacity
- Can be upgraded to MAS on full OpenShift by backup & restore

2. MAS Demo Environment on Openshift Local

- The easiest way to get MAS on SNO running on a laptop
- Runs in VM and requires less HW then SNO for production

Integrated Suite of Applications

