

How do I create a Service Package in NetScaler MAS?

Introduction:

Multi-tenancy is the key attribute of any cloud based deployment, and it applies to all three layers of a cloud (IaaS, PaaS, SaaS). When a particular tenant or application is trying to consume some resource of a cloud (compute or storage or networking), there need to be a provisioning mechanism to dynamically allocate these resources considering the fact that clouds are expected to deliver on-demand resources. Similarly when different tenants/applications are trying to consume NetScaler resources through OpenStack Cloud, SLAs defined in Service Packages are used by NetScaler MAS to allocate NetScaler resources.

Service Package in NetScaler MAS is a set of SLAs which define the way NetScaler resources have to be allocated.

1. Consumption Model
 - a. Dedicated NetScaler
 - b. NetScaler Partition
 - c. Shared (NetScaler shared by a group of users)
2. Provisioning type
 - a. Auto-provision NetScaler
 - b. Pre-provisioned NetScaler
3. NetScaler Device Type
 - a. MPX
 - b. SDX
 - c. VPX (on supported Hypervisors)
 - d. VPX on NOVA(OpenStack)
4. NetScaler allocation based on
 - a. Tenants
 - b. Placement policies based on subnet or LBmethod or poolname etc.

For example in an enterprise if there are two departments running their applications in the cloud, and department one has higher preference over department two. If these two departments are trying to consume LBaaS from a cloud, then more resources need to be allocated to department one compared to department two. To achieve this using a service package cloud admin need to create service packages with certain SLA's accordingly and assign to those departments (tenants). When these departments try to consume LBaaS, dynamically based on the SLA's defined in service package NetScaler resources are allocated. Please check the below configuration steps to achieve this in the NetScaler MAS integrated with OpenStack environment.

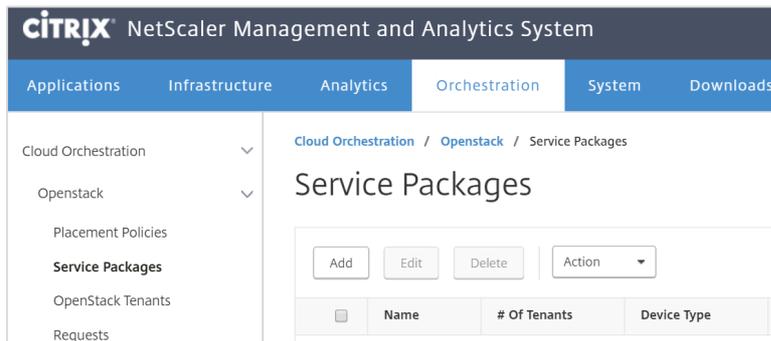
Note: Possible combination of Isolation policy + Provisioning type + Device Type are:

- Dedicated/Partition + Pre-provision + MPX
- Dedicated/Partition + Pre-provision + VPX
- Dedicated/Partition + Auto-provision + VPX on OpenStack Nova
- Dedicated/Partition + Auto-provision + VPX on SDX
- Shared + Pre-provision + MPX
- Shared + Pre-provision + VPX

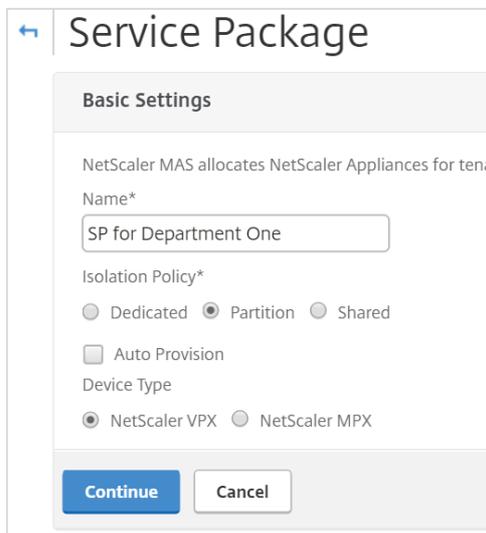
Assumptions:

- OpenStack environment is registered with the NetScaler MAS.
- Required OpenStack tenants are added to NetScaler MAS
- NetScaler device is added to NetScaler MAS

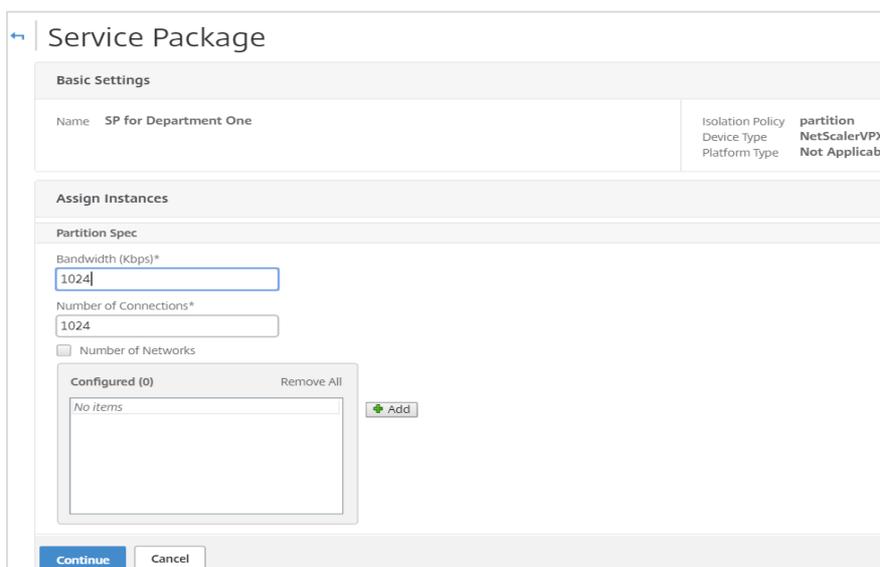
Step1: In NetScaler MAS, Go to Cloud Orchestration, OpenStack, Service Packages and click Add to add new Service Package



Step2: Provide name for Service Package, Select isolation policy as partition and device type as VPX and click continue



Step3: Fill the Bandwidth, number of connections and click "Add" to add the instance and click Continue.



Step4: Select OpenStack Tenants and click “Add” to see the list of available tenants.

Assign Placement Policies/OpenStack Tenants

OpenStack Tenants Placement Policies

Configured (0) Remove All

No items

+ Add

Continue Cancel

Step5: Click on the “+” against Department One on the left side to Assign Department One tenant to service package and click continue.

Assign Placement Policies/OpenStack Tenants

OpenStack Tenants Placement Policies

Available (3) Select All

admin	+
Department Two	+
Department One	+

→

←

Configured (0) Remove All

No items

Continue Cancel

Assign Placement Policies/OpenStack Tenants

OpenStack Tenants
 Placement Policies

Available (2) Select All

admin	+
Department Two	+

➔

➜

Configured (1) Remove All

Department One	-
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Step6: Click "Done" to finish the creation of Service package for Department One.

Assign Tenant

OpenStack Tenants
 Placement Policies

Configured (1) Remove All

Department One	-
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Step7: View the created Service package for Department One.

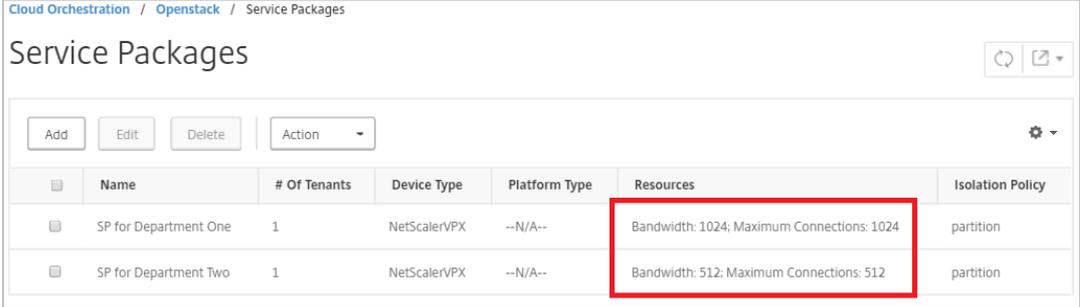
Cloud Orchestration / Openstack / Service Packages

Service Packages

Action ▾

	Name	# Of Tenants	Device Type	Platform Type	Resources	Isolation Policy
☐	SP for Department One	1	NetScalerVPX	--N/A--	Bandwidth: 1024; Maximum Connections: 1024	partition

Step8: similarly create another service package with less Bandwidth and less number of connections and assign it to tenant "Department Two".



The screenshot shows the 'Service Packages' page in the OpenStack Cloud Orchestration interface. It features a table with two rows of service packages. The first row is for 'SP for Department One' with a bandwidth of 1024 and 1024 maximum connections. The second row is for 'SP for Department Two' with a bandwidth of 512 and 512 maximum connections. The 'Resources' column for the second row is highlighted with a red box.

	Name	# Of Tenants	Device Type	Platform Type	Resources	Isolation Policy
<input type="checkbox"/>	SP for Department One	1	NetScalerVPX	--N/A--	Bandwidth: 1024; Maximum Connections: 1024	partition
<input type="checkbox"/>	SP for Department Two	1	NetScalerVPX	--N/A--	Bandwidth: 512; Maximum Connections: 512	partition

In the above screen shot we can see that two service packages with two different SLA's are created for two different tenants.

When these tenants try to consume NetScaler as LBaaS through OpenStack, NetScaler MAS will receive the request and create a NetScaler partition with the defined SLAs in the service package.