

ONAP Services List

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Introduction

Service endpoint information

ONAP services need to be registered to MSB to leverage the service discovery/routing/LB capabilities of MSB. The below table is the information MSB need for service registration.

See the official reference list of exposed ports for OOM at [OOM NodePort List](#) - until most of the ports are generated dynamically

Attribute	Description	Required
Service Name	An unique name of the service, it should be constant so the service consumer can access the service. Service name recommendation: <ul style="list-style-type: none">• If a project has multiple services, the service name should include the project name as well as the microservice name to ensure uniqueness, for example, 'aai-cloudInfrastructure'• If a simple project has only one service, the service name should be the same as the project name.	Yes
Service Type	api or ui	Yes
Version	Service version. Only the major version is used in the URI. RESTful API Design Specification#Versioning	Yes
URL	The actual URL of the service to be registered	Yes
Customized Path	The customized publish path of this service. If this parameter is specified when registering the service, the service will be published to api gateway under this path. Otherwise, the service will be published to api gateway using a fixed format: api/{serviceName} /{version} . The customized publish path should only be used for back-compatible.	No
Published URL	If "Customized Path" attribute is not specified,The published URL is the fixed format api/{serviceName} /{version} . If "Customized Path" attribute is specified,The published URL is the same as the "Customized Path".	Yes

Visual Range	Visibility of the service. External(can be accessed by external systems):0 Internal(can only be accessed by ONAP microservices):1	Yes
LB Method	Load balancing method used when MSB routes the service requests. Currently, Round robin and IP hash are supported.	Yes
Port	The service endpoint port.	Yes
Enable SSL	True if the registered service is based on https. False if the registered service is based on http. Default is False.	No

MSB will be deployed at a well-known IP or DNS name by OOM, so the onap components can easily get the service endpoint of MSB.

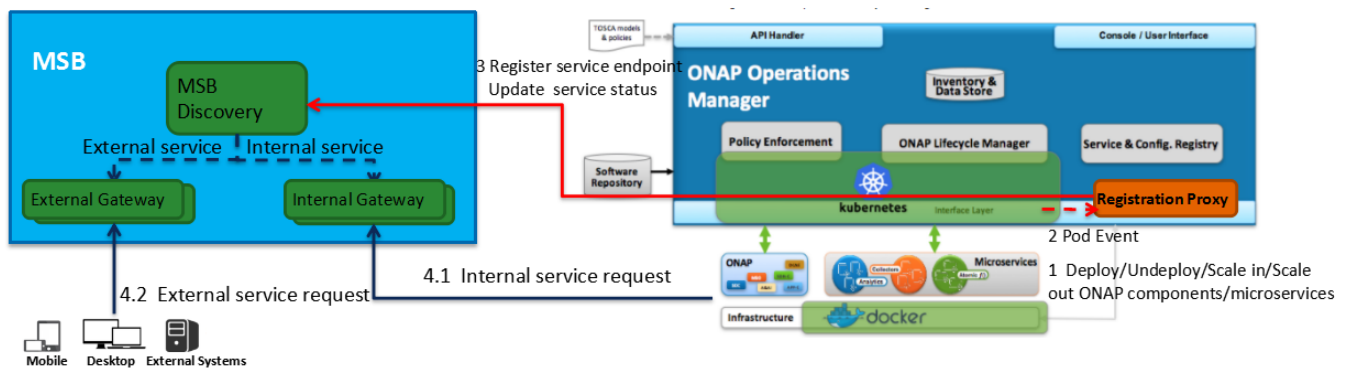
How to access the api service: `http://[msb_api_gateway_ip]:[port]/api/{service name}/v{version number}/{resource path}`

How to access the ui service: `http://[msb_api_gateway_ip]:[port]/iui/{service name}/{resource path}`

Service Registration

No code modification needed for individual projects to register themselves to MSB and leverage MSB capability for service routing and load balancing. MSB is working with OOM to register the collected service information to MSB. In Amsterdam release, we're focusing on kubernetes container deployment, the process would be like:

- The collected service endpoint information will be added to OOM deployment blueprint, which is kubernetes configuration file in Amsterdam release.
- OOM deploy MSB as the first component
- OOM deploy Registrator, which watches the kubernetes POD events
- OOM deploy other ONAP components, like AAI, Poliy, SO, VFC, APPC, etc.
- Registrator get notified with the POD event, then get the service information form POD environment variables and service instance(POD) IP from kubernetes
- Registrator registers the service endpoint info to MSB
- MSB use these service info to route service requests



Service information to be registered to MSB can be added as an annotation "msb.onap.org/service-info" to K8s service spec YAML.

Example

https://gerit.onap.org/r/gitweb?p=oom.git;a=blob_plain;f=kubernetes/multicloud/templates/service.yaml;hb=refs/heads/master

```

apiVersion: v1
kind: Service
metadata:
  name: {{ .Values.service.portName }}
  namespace: {{ include "common.namespace" . }}
  labels:
    app: {{ include "common.name" . }}
    chart: {{ .Chart.Name }}-{{ .Chart.Version | replace "+" "_" }}
    release: {{ include "common.release" . }}
    heritage: {{ .Release.Service }}
  annotations:
    msb.onap.org/service-info: '[
      {
        "serviceName": "multicloud",
        "version": "v0",
        "url": "/api/multicloud/v0",
        "protocol": "REST",
        "port": "{{ .Values.service.externalPort }}",
        "enable_ssl": {{ .Values.config.ssl_enabled }},
        "visualRange": "1"
      },
      {
        "serviceName": "multicloud",
        "version": "v1",
        "url": "/api/multicloud/v1",
        "protocol": "REST",
        "port": "{{ .Values.service.externalPort }}",
        "enable_ssl": {{ .Values.config.ssl_enabled }},
        "visualRange": "1"
      }
    ]'
spec:
  ports:
    {{if eq .Values.service.type "NodePort" -}}
    - port: {{ .Values.service.externalPort }}
      nodePort: {{ .Values.global.nodePortPrefix | default .Values.nodePortPrefix }}{{ .Values.service.nodePort }}
      name: {{ .Values.service.portName }}
    {{- else -}}
    - port: {{ .Values.service.externalPort }}
      targetPort: {{ .Values.service.internalPort }}
      name: {{ .Values.service.portName }}
    {{- end}}
  selector:
    app: {{ include "common.name" . }}
    release: {{ include "common.release" . }}
  type: {{ .Values.service.type }}

```

Backwards compatible

While trying to provide consistent RESTful APIs to ONAP developers and users, some projects may also want to support their current API version until an appropriate time to deprecate it. In case of that, two service endpoints can be defined for a service, one for the consistent, standard way and one for backwards compatible.

The customized publish path of this service attribute can be used to support the current API. If this parameter is specified when registering the service, the service will be published to api gateway under the specified customer path other than the the fixed format: `api/{serviceName}/{version}`.

for example, [A&AI](#) defines two services for its Cloud Infrastructure API, the "aai-cloudInfrastructure" is published under `/api/aai-cloudInfrastructure/v1/` which is the consistent, standard API URL, and the "aai-cloudInfrastructure-deprecated" is published under `/cloud-infrastructure/` which is the same as its current API URL.

ONAP Services

Linked from <http://onap.readthedocs.io/en/latest/guides/onap-developer/settingup/fullonap.html#onap-components>

MSB

Service Name	Description	Service Type	Version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
microservices	Register/unregister/update/query microservice	api	1	/	N/A	/api/microservices/v1/services/	Internal	Round robin	8086	False

Holmes

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
holmes-rule-mgmt	The rule management module of Holmes	api	1	/api/holmes-rule-mgmt/v1/	N/A	/api/holmes-rule-mgmt/v1/	Internal	Round robin	9101	False
holmes-engine-mgmt	The engine management module of Holmes	api	1	/api/holmes-engine-mgmt/v1/	N/A	/api/holmes-engine-mgmt/v1/	Internal	Round robin	9102	False
holmes-dmaap-dsa	The data source adapter module of Holmes	api	1	/api/holmes-dmaap-dsa/v1/	N/A	/api/holmes-dmaap-dsa/v1/	Internal	Round robin	9103	False

Policy

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
policy-pdp	APIs helps to make queries against Policy Engine	api	1	/pdp	N/A	/api/policy/pdp/v1	Internal	Round robin	8081	

A&AI

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
aai-cloudInfrastructure	Cloud Infrastructure API.	api	11	/aai/v11/cloud-infrastructure	N/A	/api/aai-cloudInfrastruct ure/v11/	Internal	Round robin	8443	True
aai-cloudInfrastructure-deprecated	For back compatible.	api	11	/aai/v11/cloud-infrastructure	/aai/v11/cloud-infrastructure	/aai/v11/cloud-infrastructure/	Internal	Round robin	8443	True
aai-business	Business API.	api	11	/aai/v11/business	N/A	/api/aai-business/v11/	Internal	Round robin	8443	True
	External System API	api	11	/aai/v11/external-system	/aai/v11/external-system	/api/aai-external-system/v11/	Internal	Round robin	8443	True
aai-business-deprecated	For back compatible.	api	11	/aai/v11/business	/aai/v11/business	/aai/v11/busine ss/	Internal	Round robin	8443	True
aai-search	Search API.	api	11	/aai/v11/search	N/A	/api/aai-search/v11/	Internal	Round robin	8443	True
aai-search-deprecated	For back compatible.	api	11	/aai/v11/search	/aai/v11/search	/aai/v11/search/	Internal	Round robin	8443	True
aai-actions	Actions API.	api	11	/aai/v11/actions	N/A	/api/aai-actions/v11/	Internal	Round robin	8443	True
aai-actions-deprecated	For back compatible.	api	11	/aai/v11/actions	/aai/v11/actions	/aai/v11/actions/	Internal	Round robin	8443	True
aai-service-design-and-creation	Service design and creation API	api	11	/aai/v11/service-design-and-creation	N/A	/api/aai-service-design-and-creation/v11/	Internal	Round robin	8443	True
aai-service-design-and-creation-deprecated	For back compatible.	api	11	/aai/v11/service-design-and-creation	/aai/v11/service-design-and-creation	/aai/v11/service-design-and-creation/	Internal	Round robin	8443	True
aai-network	Network API.	api	11	/aai/v11/network	N/A	/api/aai-network/v11/	Internal	Round robin	8443	True
aai-network-deprecated	For back compatible.	api	11	/aai/v11/network	/aai/v11/network	/aai/v11/networ k/	Internal	Round robin	8443	True
aai-search-service	API for the A&AI search database	api	11	/aai/v11/services/search-data-service	N/A	/api/aai-search-service/v11/	Internal	Round robin	9509	
aai-ui	User Interface for AAI	ui	11	/aai/v11/services/aai/webapp/	N/A	/ui/aai-ui/	Internal	Round Robin	9517	

aai-babel	TOSCA model translator for Model Loader service	api	11	/aai/v11/services/babel-service/v1/app/generateArtifacts	N/A	/api/aai-babel/v11/	Internal	Round Robin	9516	
aai-esr-server	ESR server end	api	1	/api/aai-esr-server/v1/	N/A	/api/aai-esr-server/v1/	Internal	Round robin	9518	
aai-esr-gui	ESR portal	ui	1	/esr-gui	N/A	/ui/aai-esr-gui	Internal	Round robin	9519	
hbase	Database	database							2181 8080 8085 9090 16000 16010 9095 16201 16301	
elasticsearch	Search and Analytics Engine								9200 9300	

SDC/Catalog

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL

VNF-SDK

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
vnfsdk/reporepo	VNF Repository Portal and Backend	ui	1	/openoui/vnfmarket	N/A	/openoui/vnfmarket	External		8702	False

DCAE(Gen2)

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
Consul UI	DACE Consul	UI		/ui					8500	
Cloudify Manager UI	Cloudify Manager UI	UI		/#/deployments					80	
CDAP UI	CDAP Cluster UI	UI		/cdap/ns/cdap_tca_hi_lo					11011	
VES collector	VES data entry point API	API		/eventListener/v1			External		8080	

CLAMP

Not applicable in Amsterdam Release(No port exposed!)

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL

SO

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
so-serviceInstances	Service Instance Orchestration	api	5	/ecompmso/infra/serviceInstances/v5	N/A	/api/so-serviceInstances/v5/	Internal	Round Robin	8080	False
so-serviceInstances-deprecated	For back compatible.	api	5	/ecompmso/infra/serviceInstances/v5	/ecompmso/infra/serviceInstances/v5	/ecompmso/infra/serviceInstances/v5/	Internal	Round Robin	8080	False

VF-C

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
nsldcm	NFVO LCM Component.	api	1	/	N/A	/api/nsldcm/v1/	Internal	Round Robin	8403	
ztevnfmdriver	ZTE VNFM Driver Component.	api	1	/	N/A	/api/ztevnfmdriver/v1/	Internal	Round Robin	8410	
ztesdncdriver	ZTE SDNC Driver Component.	api	1	/	N/A	/api/ztesdncdriver/v1/	Internal	Round Robin	8411	
resmgr	NFVO Resource Manager Component.	api	1	/	N/A	/api/resmgr/v1/	Internal	Round Robin	8480	
gvnfmdriver	GVNFM Driver Component	api	1	/	N/A	/api/gvnfmdriver/v1/	Internal	Round Robin	8484	
huaweivnfmdriver	HUAWEI VNFM Driver Component.	api	1	/	N/A	/api/huaweivnfmdriver/v1/	Internal	Round Robin	8482	
nokiavnfmdriver	Nokia VNFM Driver Component	api	1	/	N/A	/api/nokiavnfmdriver/v1/	Internal	Round Robin	8486	
jujuvnfmdriver	JUJU VNFM Driver Component.	api	1	/	N/A	/api/jujuvnfmdriver/v1/	Internal	Round Robin	8483	
vnflcm	VNF Lifecycle Management	api	1	/	N/A	/api/vnflcm/v1/	Internal	Round Robin	8801	
vnfres	VNF Virtual Resource Management	api	1	/	N/A	/api/vnfres/v1/	Internal	Round Robin	8802	
vnfmgr	VNF Init Configuration and Management	api	1	/	N/A	/api/vnfmgr/v1/	Internal	Round Robin	8803	
activiti	VNF Execution Engine	api	1	/	/activiti-rest/	/activiti-rest/	Internal	Round Robin	8804	
workflow	Workflow Management	api	1	/	/mgr	/api/workflow/v1/	internal	Round Robin	8805	
catalog	NFVO Catalog Component.	api	1	/	N/A	/api/catalog/v1/	internal	Round Robin	8806	
emsdriver	EMS driver Component	api	1	/	N/A	/api/emsdriver/v1/	internal	Round Robin	8206	

APP-C

For APPC, please refer to the APPC documentation on [Readthedocs](#)

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL

SDN-C

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
sdnc	Restconf APIs provided by SDN-C (Note: SDNC-C APIs follow the Restconf url construct style)	api	1	/	/	/	internal	Round Robin	8181	
sdnc-portal	Admin portal for SDNC	ui	1	/		ui/sdnc-portal/	external internal	Round Robin	8443	

AAF

Not applicable in Amsterdam Release

MR	onap-message-router	dmaap	3905	30226									
			3904	30227									
MOCK				30288									
MSB	onap-msb	msb-iag	80	30080									
		msb-discovery	10081	30081									
		msb-eag	80	30082									
		msb-consul	8500	30500									
MSO	onap-mso	mso	9990	30222									
			8080	30223									
			3905	30224									
			3904	30225									
			8787	30250									
		mariadb	3306	30252									
Multicloud				30291									
				30292									
				30293									
				30294									
POLICY	onap-policy	brmsgw	9989	30216									
		drools	6969	30217									
		pap	9091	30218									
			8443	30219									
		pdp	8081	30220									
PORTAL	onap-portal	vnc-portal	6080	30211									
			5900	30212									
		portalapps	8006	30213									
			8010	30214									
			8989	30215									
ROBOT	onap-robot	robot	88	30209									
SDC	onap-sdc	sdc-be	8443	30204									
			8080	30205									
		sdc-fe	8181	30206									
			9443	30207									
SDNC	onap-sdnc	sdnc-portal	8843	30201									
		sdnhost	8282	30202									
			8201	30208									
		sdnc-dgbuilder	3000	30203									
UUI				30298									
VFC				30296									
				30403									
				30410									
				30411									
				30480									
				30482									
				30483									
				30484									
				30801									
				30802									
				30803									
				30804									
				30806									
VID	onap-vid	vid-server	8080	30200									
VNFSDK				30297									

Portal Platform

Service Name	Description	Service Type	version	URL	Cstomized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
portal	RESTful service provided by Portal Platform	api	2	/	N/A	/api/portal/v2/	Internal	Round robin	8989	

Usecase UI

Service Name	Description	Service Type	version	URL	Customized Path	Published URL	Visual Range	LB Method	Port	Enable SSL
usecase-ui-server	Server Component for Usecase-UI	api	1	/	N/A	/api/usecaseui/server/v1/	Internal	Round Robin	8901	
usecase-ui	User Interface for Usecase-UI	ui	1	/	N/A	uii/usecaseui/	Internal	Round Robin	8900	

OOM Integration

Every project needs to add the service information to OOM kubernetes configuration files as annotation so OOM can register the service endpoints to MSB.

```
apiVersion: v1
kind: Service
metadata:
  name: aai-service
  annotations:
    msb.onap.org/service-info: '[
      {
        "serviceName": "aai-cloudInfrastructure",
        "version": "v1",
        "url": "/cloud-infrastructure",
        "protocol": "REST",
        "port": "8443",
        "lb_policy": "round-robin",
        "visualRange": "1",
        "enable_ssl": "True"
      },
      {
        "serviceName": "aai-cloudInfrastructure-deprecated",
        "version": "v1",
        "url": "/cloud-infrastructure",
        "protocol": "REST",
        "port": "8443",
        "lb_policy": "round-robin",
        "visualRange": "1",
        "path": "/cloud-infrastructure/" ,
        "enable_ssl": "True"
      }
    ]',
    .....

```