

# APS Discovery Service Provider

User Guide

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# 1 APSDiscoveryService

This is actually a service directory that also multicasts on the network to find other instances of itself and makes the services in other instances available also.

A *service* here means anything that can be called either with an URL or a host and port. It does not specifically indicate what type of service it is. Each published service however has an id that can be used to better identify it. Basically clients of services have to know the id of the service they want and by that know what it is and how to talk to it.

## 1.1 APIs

---

```
public class APSDiscoveryPublishException extends APSRuntimeException
[se.natusoft.osgi.aps.api.net.discovery.exception] {
```

Thrown on service publish problems.

**public APSDiscoveryPublishException(String message)**

Creates a new *APSDiscoveryPublishException* instance.

*Parameters*

*message* - The exception messaging.

**public APSDiscoveryPublishException(String message, Throwable cause)**

Creates a new *APSDiscoveryPublishException* instance.

*Parameters*

*message* - The exception messaging.

*cause* - The cause of this exception.

```
}
```

---

```
public interface ServiceDescription [se.natusoft.osgi.aps.api.net.discovery.model] {
```

Describes a service.

**String getDescription()**

A short description of the service.

**String getServiceId()**

An id/name of the service.

**String getVersion()**

The version of the service.

**String getServiceHost()**

The targetHost of the service.

**int getServicePort()**

The targetPort of the service.

**String getServiceURL()**

An optional URL to the service.

}

---

```
public class ServiceDescriptionProvider implements ServiceDescription
[se.natusoft.osgi.aps.api.net.discovery.model] {
```

Describes a service.

**public ServiceDescriptionProvider()**

Creates a new ServiceDescription.

**public String toString()**

Returns a string representation of this object.

**public String getDescription()**

A short description of the service.

**public void setDescription(String description)**

Sets a short description of the service.

*Parameters*

*description* - The description to set.

**public void setServiceId(String serviceId)**

Sets the id of the service.

*Parameters*

*serviceId* - The service id to set.

**public void setVersion(String version)**

Sets the version of the service.

#### Parameters

*version* - The version to set.

#### **public void setServiceHost(String serviceHost)**

Sets the targetHost of the service.

#### Parameters

*serviceHost* - The service targetHost to set.

#### **public void setServicePort(int servicePort)**

Sets the targetPort of the service.

#### Parameters

*servicePort* - The service targetPort to set.

Sets an url to the service.

#### Parameters

*serviceURL* - The service url to set.

}

---

**public interface APSSimpleDiscoveryService** [se.natusoft.osgi.aps.api.net.discovery.service] {

A network service discovery.

#### **public List<ServiceDescription> getRemotelyDiscoveredServices()**

Returns all remotely discovered services.

#### **public List<ServiceDescription> getLocallyRegisteredServices()**

Returns the locally registered services.

#### **public List<ServiceDescription> getAllServices()**

Returns all known services, both locally registered and remotely discovered.

#### **public List<ServiceDescription> getService(String serviceId, String version)**

Returns all discovered services with the specified id.

### Parameters

*serviceId* - The id of the service to get.

*version* - The version of the service to get.

### **public void publishService(ServiceDescription service) throws APSDiscoveryPublishException**

Publishes a local service. This will announce it to other known APSSimpleDiscoveryService instances.

### Parameters

*service* - The description of the service to publish.

### Throws

*APSDiscoveryPublishException* - on problems to publish (note: this is a runtime exception!).

### **public void unpublishService(ServiceDescription service) throws APSDiscoveryPublishException**

Recalls the locally published service, announcing to other known APSSimpleDiscoveryService instances that this service is no longer available.

### Parameters

*service* - The service to unpublish.

### Throws

*APSDiscoveryPublishException* - on problems to publish (note: this is a runtime exception!).

}

---