

AllShare API Reference (ASF 0.4)

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This chapter defines a set of application interface used for developing convergence services such as contents sharing, device control, etc.

Note

This document contains information about AllShare API compatible with Samsung SDK 3.5 only. Please visit [AllShare API Reference \(ASF1.5\)](#) in order to see information written for Samsung SDK 4.0 version and higher.

This chapter defines a set of application interface used for developing convergence services such as contents sharing, device control, etc. An AllShare API can be defines as an application interface with which a widget application can use a set of features provided by other devices. This chapter provides the functionalities which are applicable to all types of devices including:

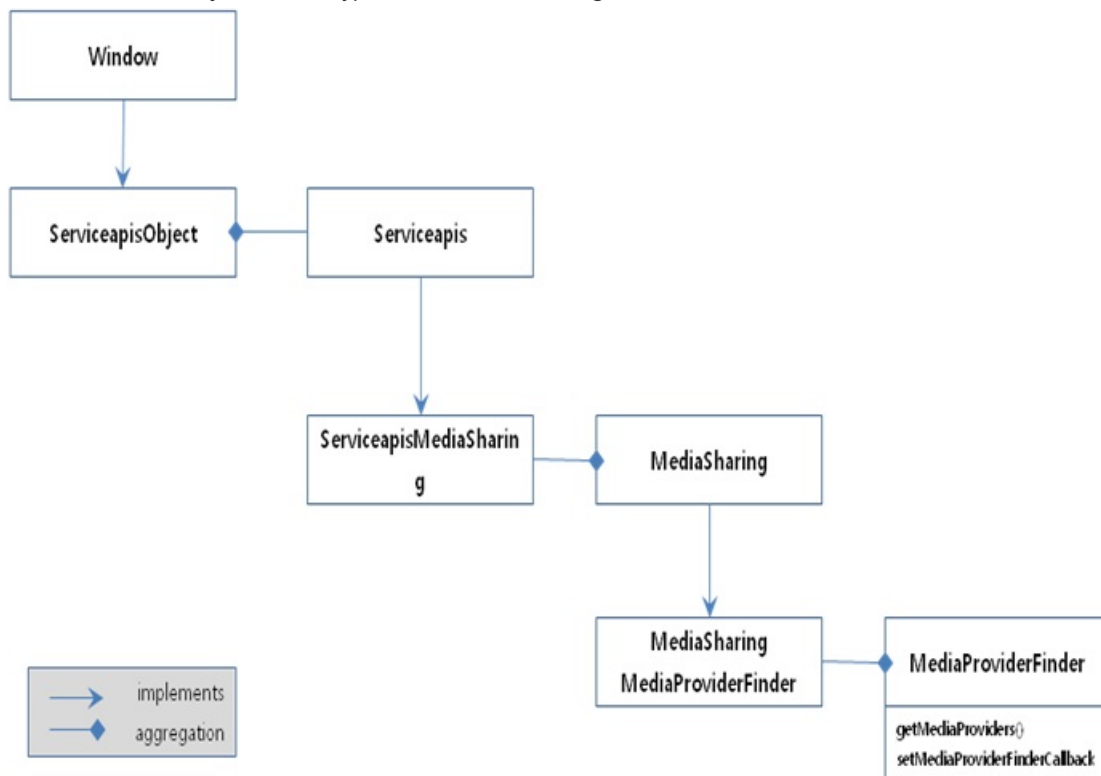
- Share media between different devices
- Discovery devices distributed in a home network
- Provide access control to different pre-defined devices

AllShare APIs applicable to DTV devices consist of 6 modules including device, devicefinder, item, mediasharing, provider, and serviceapis modules. The device module represents all types of the devices located on local and remote network. This device module can be a DLNA device such as a digital media server (DMS) device, a digital media renderer (DMS) device, and a local device in the DLNA domain. Developers can get a set of information including its name, identification, etc through interfaces in this module. The provider module is a specific type of device that shares its media contents to other devices. Developers can browse or search media contents shared by the provider device thought interfaces in this module. Additionally, developers can get a set of device information for the provider device. These devices can be discovered by using interfaces defined in the devicefinder module. The devicefinder module provides features with which developers can discover any types of devices providing services such as media sharing, device controlling, etc. The item module represents any types of shared media provided by a provider device. The item can be a folder, image, audio, and video. Through interfaces in this module, developers can get meta-data for the items and information on how to access the media contents. The serviceapis module provides a general mechanism such as error handling specific for the AllShare APIs. The interfaces defined by this AllShare APIs are the below:

Module	Interface	Description
devicefinder	MediaSharingMediaProviderFinder MediaProviderDiscoveryCallback MediaProviderFinder	provides access to device discovery features
provider	MediaProviderType MediaProviderBrowseItemsSuccessCallback MediaProviderBrowseItemsErrorCallback MediaProviderSearchItemsSuccessCallback MediaProviderSearchItemsErrorCallback MediaProvider	provides access to contents browsing and searching

Module	Interface	Description
device	Device	provides generic features common for all types of devices
item	ItemType Item FolderItem AudioItem ImageItem VideoItem	provides access to contents' meta data retrieval features
serviceapis	ServiceapisObject Serviceapis ServiceAPIError	provides generic features common for all the AllShare APIs
mediasharing	ServiceapisMediaSharing MediaSharing	internally used for aggregating devicefinder interfaces into serviceapis module

Developers can use the APIs defined in the devicefinder modules through the window object provided by web browsers based on the following interface hierarchy. The Window interface whose instance is provided by web browser implements the ServiceapisObject interface. The Serviceapis interface that is defined as an attribute of the ServiceapisObject interface implements the ServiceapisMediaSharing interface which has an attribute object whose type is the Mediasharing interface.



For example, a widget code discovering provider devices might be like the below:

```

var devFinder = serviceapis.mediasharing.mediaproviderfinder;
var providerList = devFinder.getMediaProviders();

```

The above service modules refer to the deviceapis module for asynchronous invocation mechanisms. The deviceapis module provides generic success and error callback interfaces that are used for several AllShare APIs. In addition the deviceapis module provides a function with which a widget application can cancel its asynchronous call during its execution by providing the PendingOperation interface.

Interface	Description
SuccessCallback	used in functions not requiring any return value in the success callback
ErrorCallback	used in functions requiring only an error as an input parameter in the error callback
PendingOperation	An object representing the pending operation of an asynchronous call. Interface that is returned by asynchronous operations in order to provide a cancellation operation.

Interface	Description
Feature	Provides all the information about a feature
Param	Represents a parameter linked to a feature

Additionally, the AllShare APIs uses basic type definitions defined by the deviceapis module. The type definition includes the below:

Type definition	Description
StringArray	Array of DOMStrings.
UnsignedShortArray	Array of unsigned short values.
ShortArray	Array of short values.
FeatureArray	Array of Feature IRIs.
Param	Array of Feature parameters.

The interfaces provided by this AllShare APIs are based on the JAVA APIs defined by ASF 0.4. This AllShare APIs will be updated as the ASF APIs' update.