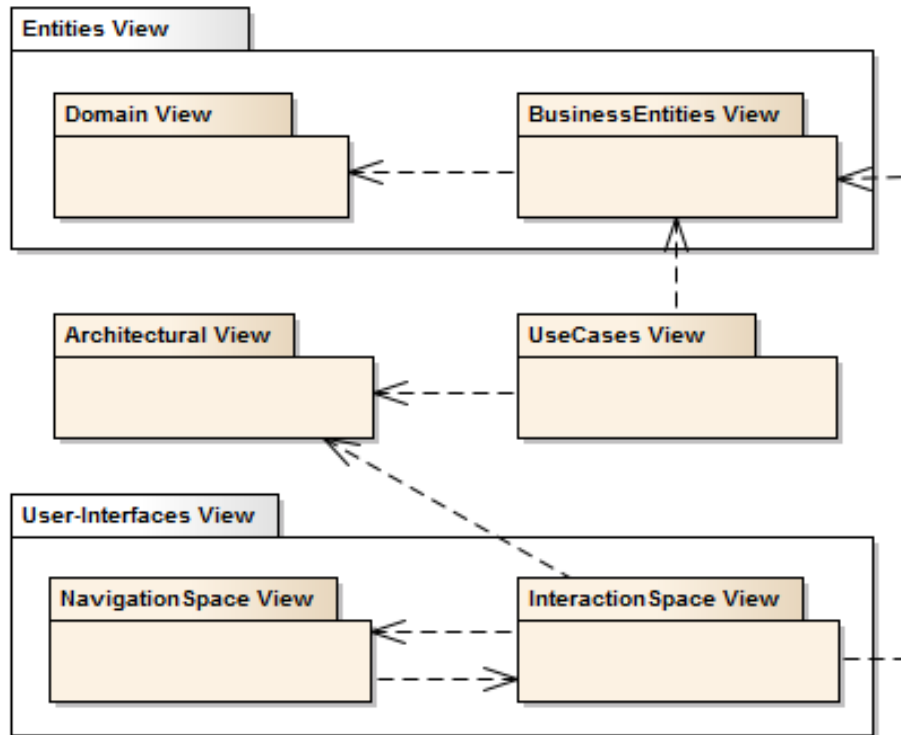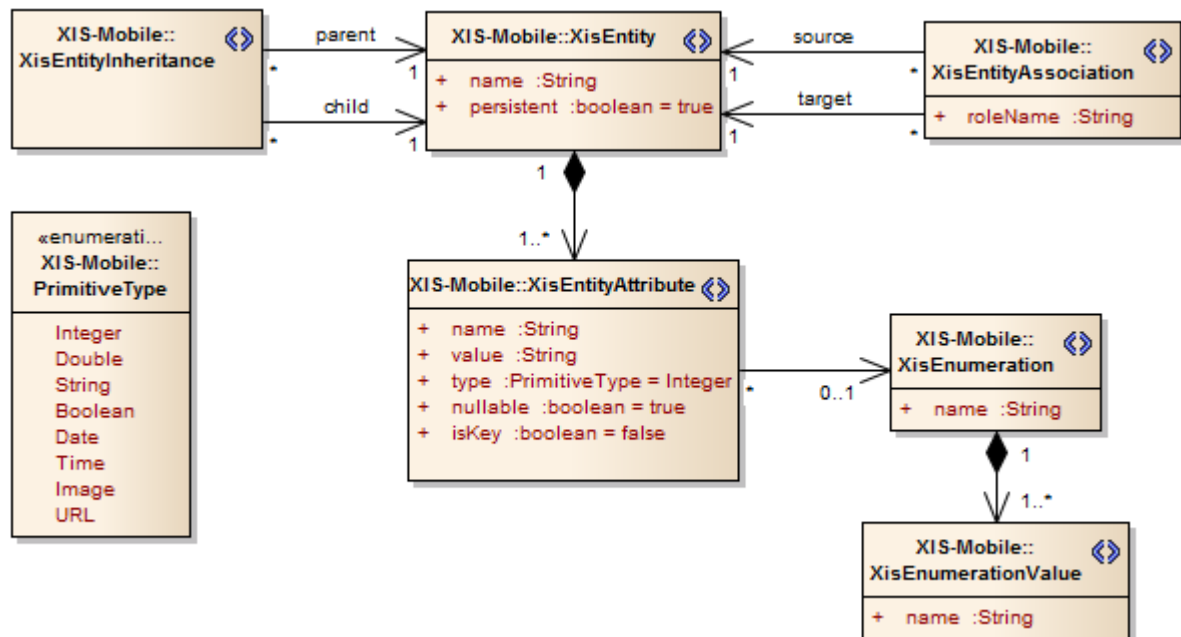# XIS-Mobile Profile Specification

The XIS-Mobile UML Profile comprises six views: Domain View, BusinessEntity View, Architectural View, UseCases View, NavigationSpace View and InteractionSpace View. Each one of them is detailed in the next sections.

1. Domain View

Stereotype	Metaclass
XisEntity	Class
XisEntityAttribute	Property
XisEnumeration	Enumeration
XisEnumerationValue	EnumerationLiteral
XisEntityAssociation	Association
XisEntityInheritance	Generalization

XisEntity		
Represents a domain entity.		
Tagged Value	**Type**	**Description**
name	String	Specifies the name of the domain entity.
persistent	Boolean	Specifies if the entity should be persisted or not.

| XisEntityAttribute		
Represents an attribute or property of a domain entity (XisEntity).		
Tagged Value	**Type**	**Description**
name	String	Specifies the name of the attribute.
value	String	Assigns a value to the entity attribute.
type	PrimitiveType	Specifies the type of the domain entity.
nullable	Boolean	Specifies if the attribute can be null.
isKey	Boolean	Specifies if the attribute is a

		key.

XisEnumeration		
Represents an enumeration that can be used as an attribute of a domain entity.		
Tagged Value	**Type**	**Description**
name	String	Specifies the identifier of the enumeration.

XisEnumerationValue		
Represents an enumeration literal, i.e., a possible value of an enumeration (XisEnumeration).		
Tagged Value	**Type**	**Description**
name	String	Specifies the identifier of the enumeration value.

XisEntityAssociation		
Associates two domain entities (XisEntity).		
Tagged Value	**Type**	**Description**
roleName	String	Specifies the identifier of the association.

XisEntityInheritance		
Represents a generalization between two domain entities (a parent and its child).		

2. BusinessEntity View
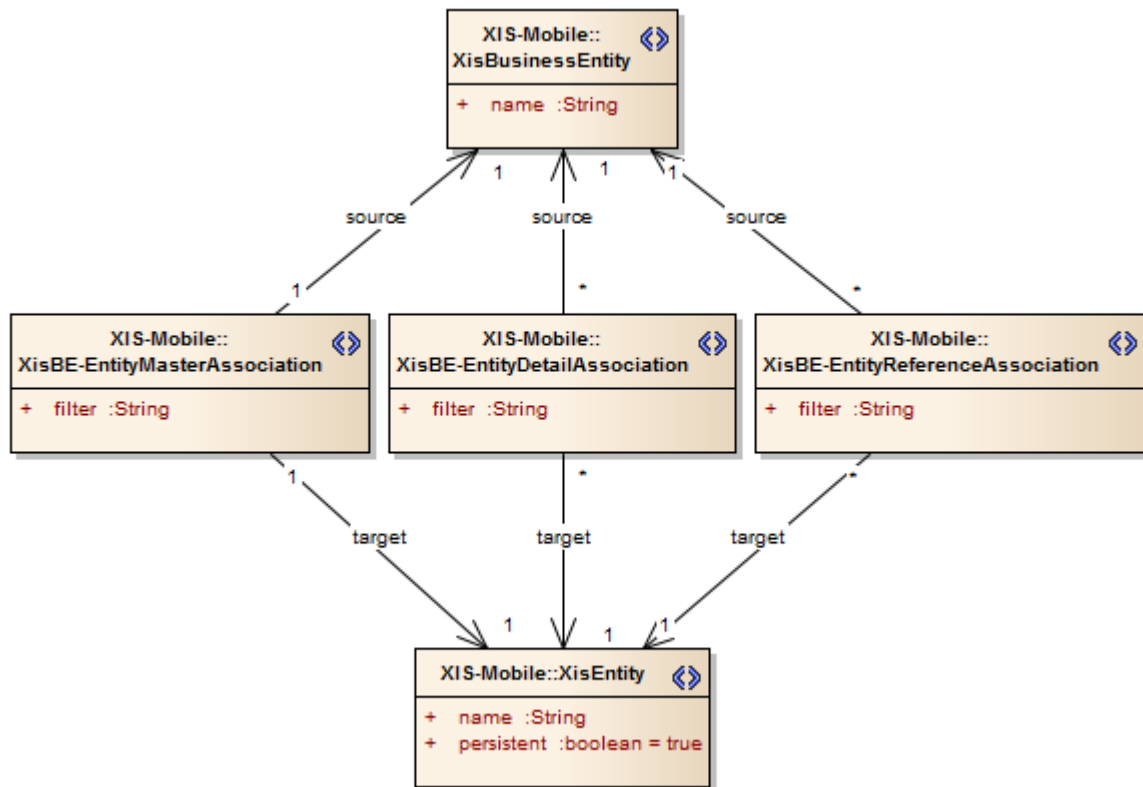
Stereotype	Metaclass
XisBusinessEntity	Class
XisBE-EntityMasterAssociation	Association
XisBE-EntityDetailAssociation	Association
XisBE-EntityReferenceAssociation	Association

XisBusinessEntity		
Represents a business entity, which consists in an aggregation of domain entities: a main domain entity and a set of entities (detail and reference domain entities) associated to it that contribute to its definition.		
Tagged Value	**Type**	**Description**
name	String	Specifies the identifier of the business entity.

XisBE-EntityMasterAssociation		
Defines the main domain entity of the business entity (XisBusinessEnity).		
Tagged Value	**Type**	**Description**
filter	String	Specifies the domain entity's attributes aggregated by the business entity.

XisBE-EntityDetailAssociation		
Defines the set of detail domain entities[1] related to the master domain entity.		
Tagged Value	**Type**	**Description**
filter	String	Specifies the domain entity's attributes aggregated by the business entity.

| XisBE-EntityReferenceAssociation		
Defines the set of reference domain entities[2] related to the master domain entity.		
Tagged Value	**Type**	**Description**
filter	String	Specifies the domain entity's attributes aggregated by the business entity.

The filter tagged value can have the following values:

- If empty, all domain entity's attributes will be aggregate by the business entity;
- If one entity attribute, should be in the format <DomainEntityName>.<DomainEntityAttributeName>;
- If more than one entity attribute, they should be in the previous format and separated by a semicolon (;).

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[1] Detail domain entities are entities associated to the master domain entity through an aggregation or composition in the Domain View.

[2] Reference domain entities are entities associated to the master entity through an association in the Domain View.

3. UseCases View
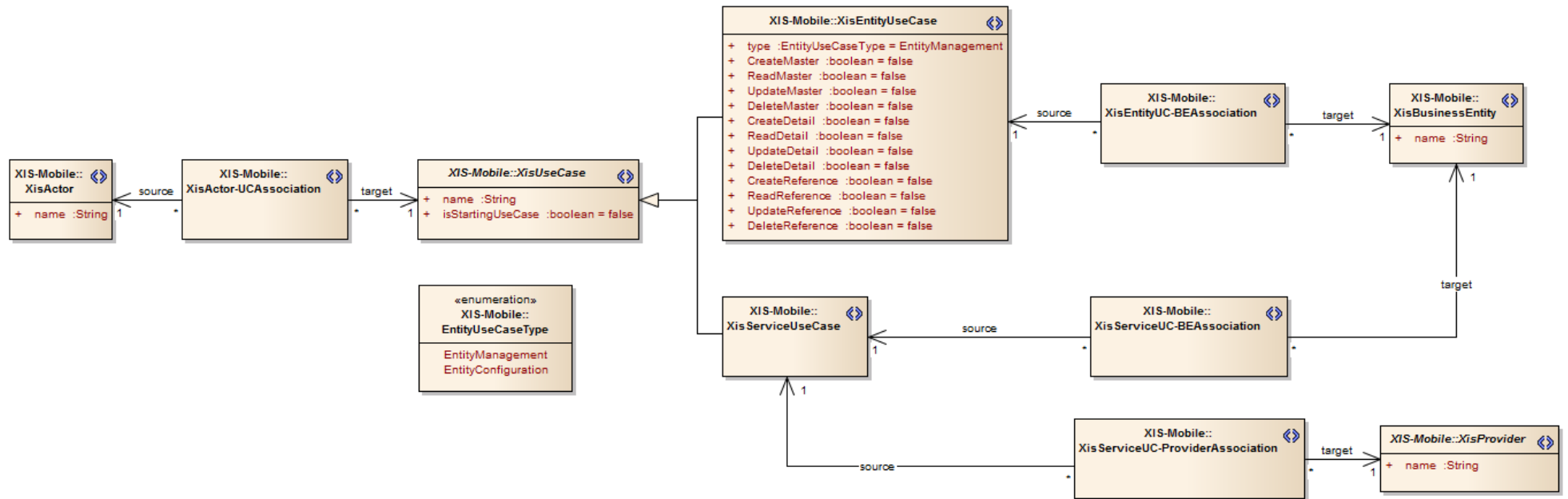
Stereotype	Metaclass
XisActor	Actor
XisActor-UCAssociation	Association
XisUseCase	UseCase
XisEntityUseCase	XisUseCase
XisServiceUseCase	XisUseCase
XisEntityUC-BEAssociation	Association
XisServiceUC-BEAssociation	Association
XisServiceUC-ProviderAssociation	Association

XisActor		
Represents an Actor.		
Tagged Value	**Type**	**Description**
name	String	Specifies the identifier of the actor.

XisActor-UCAssociation
Associates an actor (XisActor) to a use case (XisUseCase).

XisUseCase		
Represents a use case.		
Tagged Value	**Type**	**Description**
name	String	Specifies the identifier of the use case.
isStartingUseCase	Boolean	Specifies if the use case is the first that should be considered during the Model-to-Model transformation stage.

XisEntityUseCase		
Represents a use case that performs a set of operations over a business entity.		
Tagged Value	**Type**	**Description**
type	EntityUseCaseType	Specifies the type of pattern associated to the use case: EntityManagement or EntityConfiguration
CreateMaster	Boolean	Specifies if the use case will generate models which allow the creation of the associated master entity.
ReadMaster	Boolean	Specifies if the use case will generate models which allow the visualization of the associated master entity.
UpdateMaster	Boolean	Specifies if the use case will generate models which allow

		the edition of the associated master entity.
DeleteMaster	Boolean	Specifies if the use case will generate models which allow the deletion of the associated master entity.
CreateDetail	Boolean	Specifies if the use case will generate models which allow the creation of the associated detail entities.
ReadDetail	Boolean	Specifies if the use case will generate models which allow the visualization of the associated detail entities.
UpdateDetail	Boolean	Specifies if the use case will generate models which allow the edition of the associated detail entities.
DeleteDetail	Boolean	Specifies if the use case will generate models which allow the deletion of the associated detail entities.
CreateReference	Boolean	Specifies if the use case will generate models which allow the creation of the associated reference entities.
ReadReference	Boolean	Specifies if the use case will generate models which allow the visualization of the associated reference entities.
UpdateReference	Boolean	Specifies if the use case will generate models which allow the edition of the associated reference entities.
DeleteReference	Boolean	Specifies if the use case will generate models which allow the deletion of the associated reference entities.

XisServiceUseCase
Represents a use case that uses a set of services provided by a XisProvider and can be connected to a business entity (XisBusinessEntity).

XisEntityUC-BEAssociation
Associates a XisEntityUseCase to a business entity (XisBusinessEntity).

XisServiceUC-BEAssociation
Associates a XisServiceUseCase to a business entity (XisBusinessEntity).

XisServiceUC-ProviderAssociation
Associates a XisServiceUseCase to a provider (XisProvider): XisClientMobileApp, XisServer or XisInternalProvider.

4. Architectural View
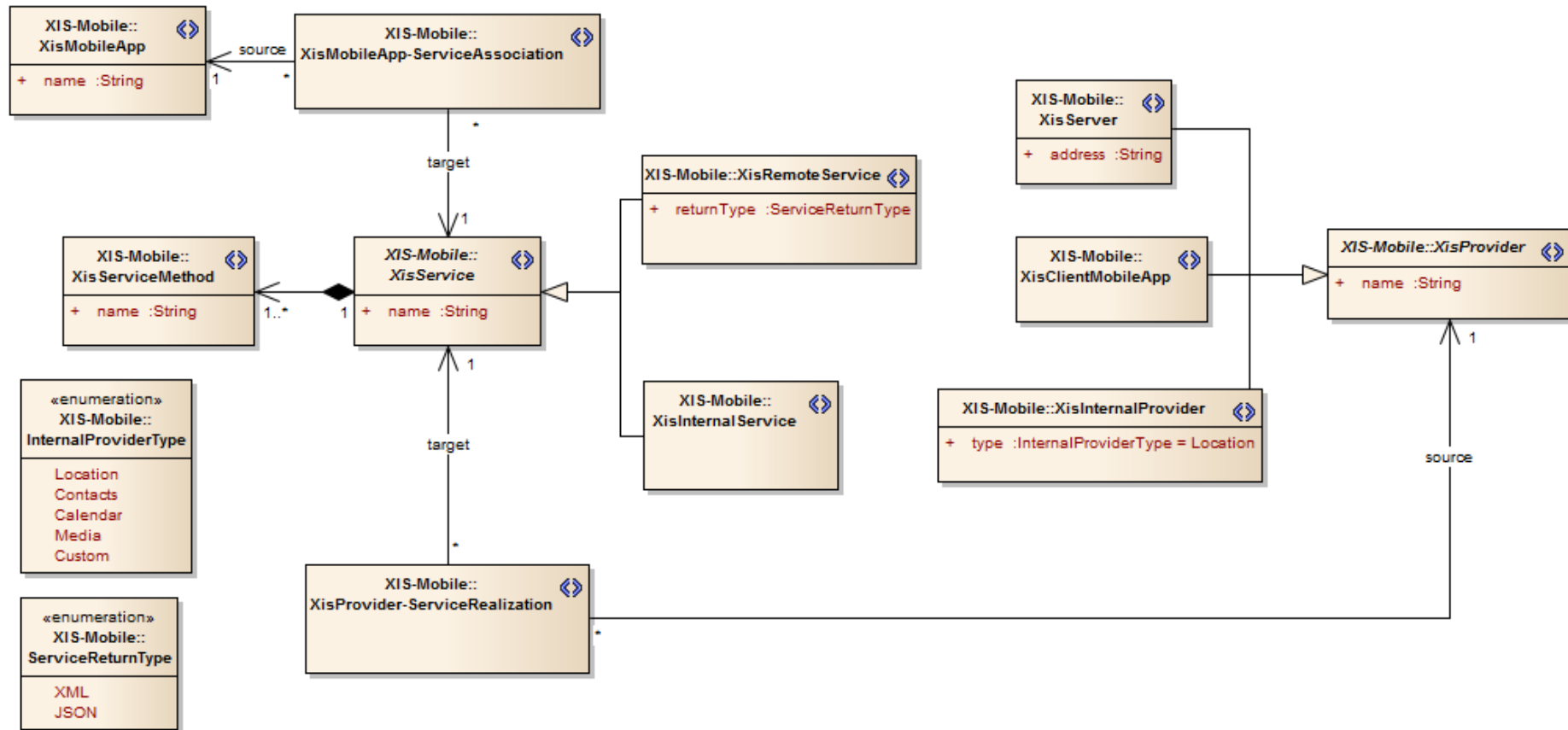
Stereotype	Metaclass
XisMobileApp	Class
XisMobileApp-ServiceAssociation	Association
XisService	Interface
XisServiceMethod	Operation
XisRemoteService	XisService
XisInternalService	XisService
XisProvider-ServiceRealization	Realization
XisProvider	Class
XisServer	XisProvider
XisClientMobileApp	XisProvider
XisInternalProvider	Class

XisMobileApp		
Represents the mobile application detailed in the other views.		
Tagged Value	**Type**	**Description**
name	String	Specifies the name of the mobile application.

XisMobileApp-ServiceAssociation
Associates the mobile application (XisMobileApp) to a service (XisService).

XisService		
Represents a service composed by operations (XisServiceMethod) that can be invoked by the mobile application (XisMobileApp).		
Tagged Value	**Type**	**Description**
name	String	Specifies the identifier of the service.

XisServiceMethod		
Represents an operation provided by a service (XisService).		
Tagged Value	**Type**	**Description**
name	String	Specifies the identifier of the operation.

XisRemoteService		
Represents a service provided by an external entity.		
Tagged Value	**Type**	**Description**
returnType	ServiceReturnType	Specifies the type of the response: XML or JSON.

XisInternalService
Represents a service provided by an entity within the mobile application's operating system.

| XisProvider-ServiceRealization |
| --- |
| Represents a realization relationship of a service (XisService) by a provider (XisProvider). |

XisProvider		
Represents a content provider.		
Tagged Value	**Type**	**Description**
Name	String	Specifies the identifier of the provider.

XisServer		
Represents a remote server that interacts with the main mobile application (XisMobileApp).		
Tagged Value	**Type**	**Description**
Address	String	Specifies the IP address of the server.

XisClientMobileApp
Represents a mobile application that interacts with the main mobile application (XisMobileApp).

XisInternalProvider		
Represents an internal provider, which allows interacting with the mobile operating system's native features.		
Tagged Value	**Type**	**Description**
Type	InternalProviderType	Specifies the type of the internal provider: Location, Contacts, Calendar, Media or Custom.

5. NavigationSpace View
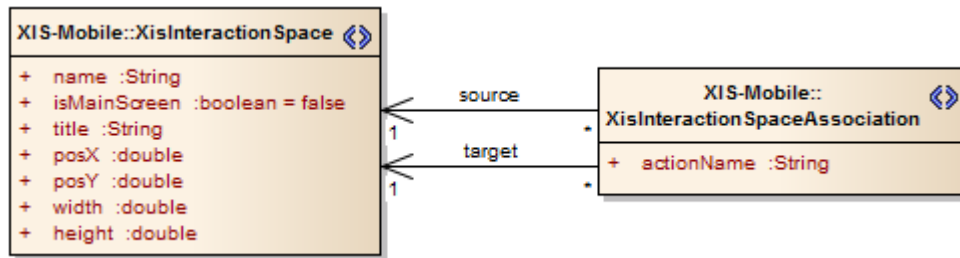
Stereotype	Metaclass
XisInteractionSpaceAssociation	Association

XisInteractionSpaceAssociation		
Defines the transitions between two interaction spaces (XisInteractionSpace).		
Attribute	**Type**	**Description**
actionName	String	Specifies the name of the action that triggered the navigation.

6. InteractionSpace View
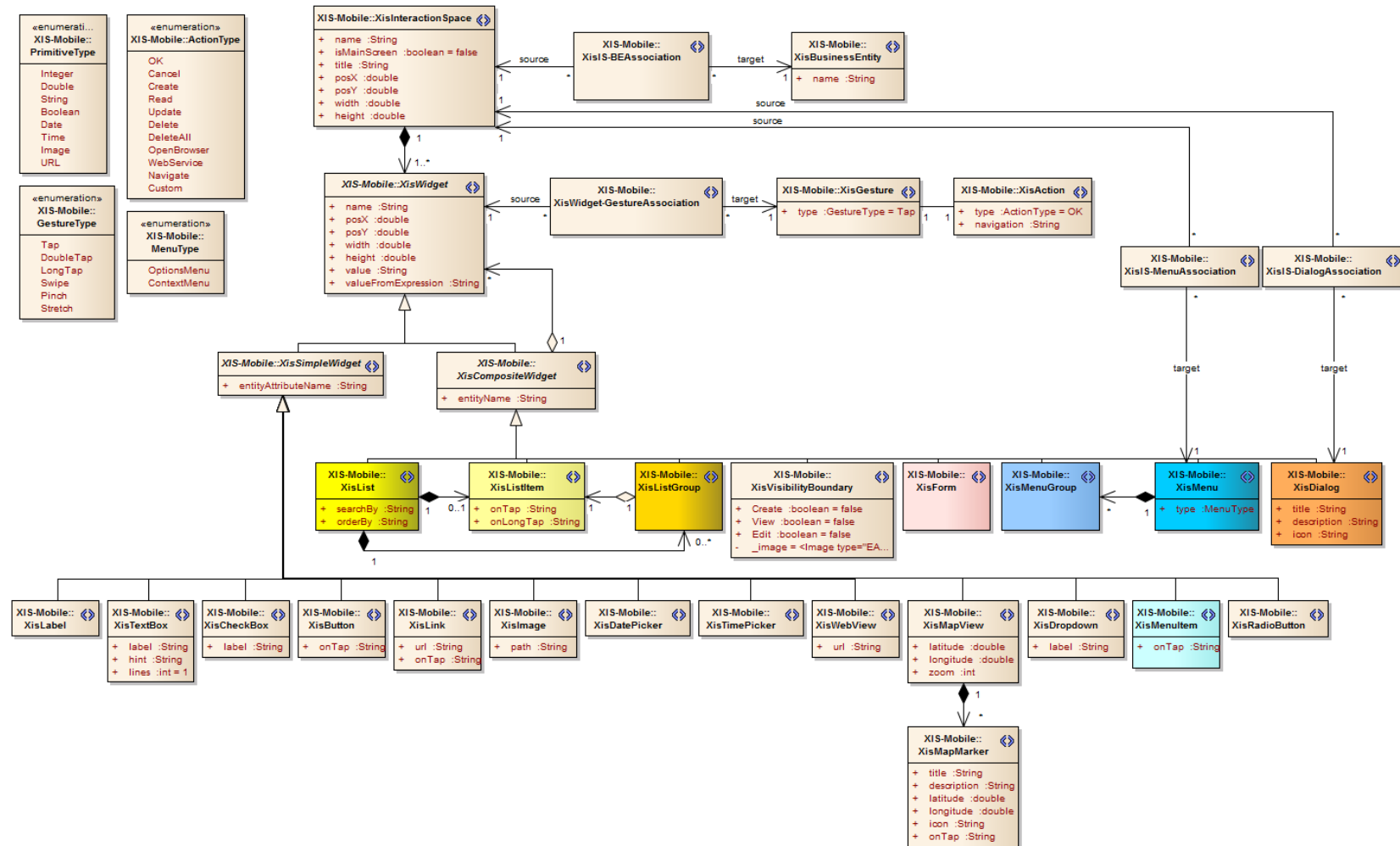
Stereotype	Metaclass
XisInteractionSpace	Class
XisIS-BEAssociation	Association
XisWidget	Class
XisWidget-GestureAssociation	Association
XisGesture	Class
XisAction	Operation
XisSimpleWidget	XisWidget
XisCompositeWidget	XisWidget
XisLabel	XisSimpleWidget
XisTextBox	XisSimpleWidget
XisCheckBox	XisSimpleWidget
XisButton	XisSimpleWidget
XisLink	XisSimpleWidget
XisImage	XisSimpleWidget
XisDatePicker	XisSimpleWidget
XisTimePicker	XisSimpleWidget
XisWebView	XisSimpleWidget
XisMapView	XisSimpleWidget
XisMapMarker	XisSimpleWidget
XisDropdown	XisSimpleWidget
XisMenuItem	XisSimpleWidget
XisRadioButton	XisSimpleWidget
XisList	XisCompositeWidget
XisListItem	XisCompositeWidget
XisListGroup	XisCompositeWidget
XisVisibilityBoundary	XisCompositeWidget
XisForm	XisCompositeWidget
XisMenuGroup	XisCompositeWidget
XisMenu	XisCompositeWidget
XisDialog	XisCompositeWidget
XisIS-MenuAssociation	Association
XisIS-DialogAssociation	Association

XisInteractionSpace		
Represents an interaction space, i.e., an application screen.		
Tagged Value	**Type**	**Description**
name	String	Specifies the identifier of the interaction space.
isMainScreen	Boolean	Specifies if the screen is the first one presented when the mobile application starts.

XisIS-BEAssociation
Associates an interaction space to a business entity.

XisWidget		
Represents a UI widget or control of an interaction space (XisInteractionSpace).		
Tagged Value	**Type**	**Description**

name	String	Specifies the identifier of the widget.
posX	Double	Horizontal position of the widget.
posY	Double	Vertical position of the widget.
width	Double	Specifies the width of the widget.
height	Double	Specifies the height of the widget.
value	String	Assigns a value to the widget.

XisWidget-GestureAssociation		
Represents a textbox.		

XisGesture		
Represents a gesture attached to a UI widget (XisWidget).		
Tagged Value	**Type**	**Description**
name	String	Specifies the identifier of the gesture.
type	GestureType	Specifies the type of the gesture: Tap, DoubleTap, LongTap, Swipe, Pinch or Stretch.

XisAction		
Represents an action triggered by a gesture.		
Tagged Value	**Type**	**Description**
name	String	Specifies the name of the action.
type	ActionType	Specifies the type of the action: OK, Cancel, Create, Read, Update, Delete, DeleteAll, OpenBrowser, WebService, Navigate or Custom.
navigation	String	Determines if the action causes navigation to another interaction space. If so, its value is the name of the target interaction space.

XisSimpleWidget		
Represents a textbox.		
Tagged Value	**Type**	**Description**
label	String	Specifies the label of the textbox.

XisCompositeWidget		
Represents a textbox.		

Tagged Value	Type	Description
label	String	Specifies the label of the textbox.

XisLabel
Represents a label.

XisTextBox		
Represents a textbox.		
Tagged Value	**Type**	**Description**
label	String	Specifies the label of the textbox.
hint	String	Specifies the hint of the textbox.
lines	Integer	Specifies the number of lines of the textbox.

XisCheckBox		
Represents a checkbox.		
Tagged Value	**Type**	**Description**
label	String	Specifies the label of the checkbox.

XisButton		
Represents a button.		
Tagged Value	**Type**	**Description**
onTap	String	Specifies if the widget has a tap gesture attached. If so, its value is the name of the operation it triggers.

XisLink		
Represents a link.		
Tagged Value	**Type**	**Description**
url	String	Specifies the link's destination.
onTap	String	Specifies if the widget has a tap gesture attached. If so, its value is the name of the operation it triggers.

XisImage		
Represents an image.		
Tagged Value	**Type**	**Description**
path	String	Specifies the image's location.

XisDatePicker
Represents a date picker.

XisTimePicker
Represents a time picker.

XisWebView		
Represents a web view.		
Tagged Value	**Type**	**Description**
url	String	Specifies the address of the web site accessed.

XisMapView		
Represents a Google Maps view.		
Tagged Value	**Type**	**Description**
latitude	Double	Specifies the latitude of the center of the map.
longitude	Double	Specifies the longitude of the center of the map.
zoom	Integer	Specifies the zoom level of the map.

XisMapMarker		
Represents a marker of a Google Maps view (XisMapView).		
Tagged Value	**Type**	**Description**
title	String	Specifies the title of the marker.
description	String	Specifies the description of the marker.
latitude	Double	Specifies the latitude of the marker.
longitude	Double	Specifies the longitude of the marker.
icon	String	Specifies the path of the marker's icon.
onTap	String	Specifies if the marker has a tap gesture attached. If so, its value is the name of the operation it triggers.

XisDropdown
Represents a dropdown.

XisMenuItem		
Represents a menu item.		
Tagged Value	**Type**	**Description**
onTap	String	Specifies if the menu item has a tap gesture attached. If so, its value is the name of the operation it triggers.

XisRadioButton
Represents a radio button.

XisList		
Represents a list.		
Tagged Value	**Type**	**Description**
searchBy	String	Specifies the domain entity's attributes that can be used to filter the items of the list.
orderBy	String	Specifies the domain entity's attributes that can be used to order the items of the list.

XisListItem		
Represents a list item.		
Tagged Value	**Type**	**Description**
onTap	String	Specifies if the list item has a tap gesture attached. If so, its value is the name of the operation it triggers.
onLongTap	String	Specifies if the list item has a long tap gesture attached. If so, its value is the name of the operation it triggers.

XisListGroup
Represents a group of list items.

XisVisibilityBoundary		
Represents a boundary that defines when the UI widgets it includes are visible.		
Tagged Value	**Type**	**Description**
Create	Boolean	Specifies if the widgets included are visible in Create mode.
View	String	Specifies if the widgets included are visible in View mode.
Edit	String	Specifies if the widgets included are visible in Edit mode.

XisForm
Represents a form that groups a set of widgets.

XisMenuGroup
Represents a group of menu items.

XisMenu
Represents a menu.

Tagged Value	Type	Description
type	MenuType	Specifies the type of the menu: OptionsMenu or ContextMenu.

XisDialog		
Represents an information dialog or popup.		
Tagged Value	**Type**	**Description**
title	String	Specifies the title of the dialog.
description	String	Specifies the description of the dialog.
icon	String	Specifies the path of the dialogs's icon.

XisMenuAssociation
Associates an interaction space to a menu.

XisDialogAssociation
Associates an interaction space to a dialog.