



Blå Coordinator  
Coordinator Resource Interface

1.0.8



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## Coordinator Resource Interface

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# 1 About This Document

## 1.1 General

This document describes the concept of and how to use the Coordinator Resource Interface (CRI).

## 1.2 Related documents

- ▶ Coordinator Workflow Interface
- ▶ Coordinator Information Interface
- ▶ Coordinator Integration Adapter Installation and Configuration

## 1.3 Intended audience

Intended audience is internal isMobile personnel and external partners which are developing integration solutions for the Blå Coordinator.

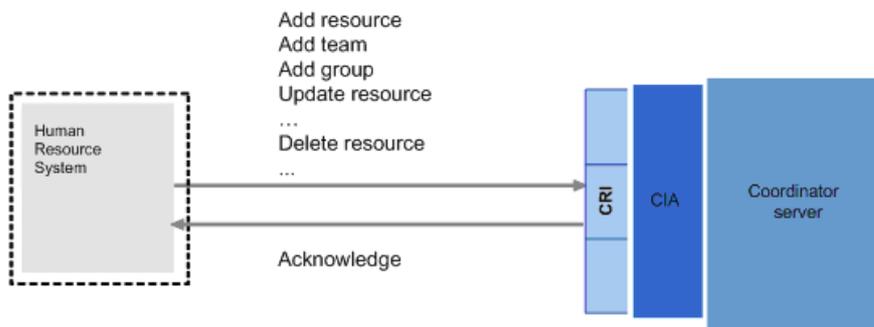
## 2 Coordinator Resource Interface

### 2.1 Interface overview

This document describes how to perform operations on the different Coordinator objects and their properties via XML based messaging

The Coordinator Resource Interface (CRI) is based on XML and gives you a simple, powerful and secure connection between your organizations backend systems and the Blå Coordinator server. The Coordinator Integration Adapter (CIA) module is the glue between the Blå Coordinator server and customer backend or otherwise external systems that need to interact in any way with the operations of the server.

The Coordinator Integration Adapter receives new resources/teams from a backend HR system where the CRI provides functionality for replication of resources and team information from the HR system. The information may be transported using MQ messages or by SOAP messages using the CRI web service.



**Figure – Coordinator Resource Interface**

The information is extracted from a backend HR system and transported to Blå Coordinator using JMS or SOAP messages. The Coordinator Integration Adapter receives the messages from the backend system and sends status updates and reports back to the backend system.

The information is transported via JMS XML messages or via WSDL SOAP bindings as Document/literal style/use format.

For each of the operations the backend system submits a XML based message to the Coordinator server.

Each incoming operation (IN) supports acknowledgement functionality. If Blå Coordinator receives a message that asks for an acknowledgement, a return message is sent back to the sending system.

CRI operations are defined according to xml schemas and WSDL definition as listed in Appendix A - SCHEMAS and WSDLs

Typical message exchange sequences for the CRI are:

**Send message to Blå Coordinator:**

1. XML message is prepared in backend HR system by defining parameters
2. Message is by the back end system or via any integration middleware to the Coordinator Integration Adapter.
3. The Coordinator Integration Adapter passes the request with its parameters to the Blå Coordinator server for processing.

**Receive message from Blå Coordinator:**

1. An acknowledgement messages are requested from the backend system
2. The Coordinator responds with an Acknowledge message to the backend HR system.

## 2.2 Object model

The Coordinator Resource Interface interacts with the organization data via *objects* defined in an internal object model in the Coordinator. Object instances from this model are programmatic representations of data entities stored in the Coordinator server and/or a backend system.

*Object properties* represent fields in those data entities; systems integrating with Coordinator set or retrieve data values via these properties. For example, a Resource object represents resource, and a Resource object has fields that represent the resource name, skills, and description and so on.

### 2.2.1 Resource

A Resource in the system may be defined as one of the types *Dispatcher*, *Mobile worker* or *Resource*. A Resource defined as type *Resource* is not a user in the system, this type of resource is typically used for other additional objects that needs to be allocated for a work order, for example a work order that requires some sort of vehicle. The work order may then be assigned to this type of resource as well.

A resource is always member of one team, but may also be member of one or several extra teams which means that a mobile resource will have access to work order/assignment data from all his teams.

The resource type is defined when creating the Resource in the Submarine client or via the backend CRI interface.

The resource object contains information like name, skills, default position and reference to a working calendar, a statemap etc. It also contains custom defined CustomXML data.

The CRI supports the following operations for Resource:

- ▶ **Create resource (IN)**
  - Creates one or several resources for a specified team

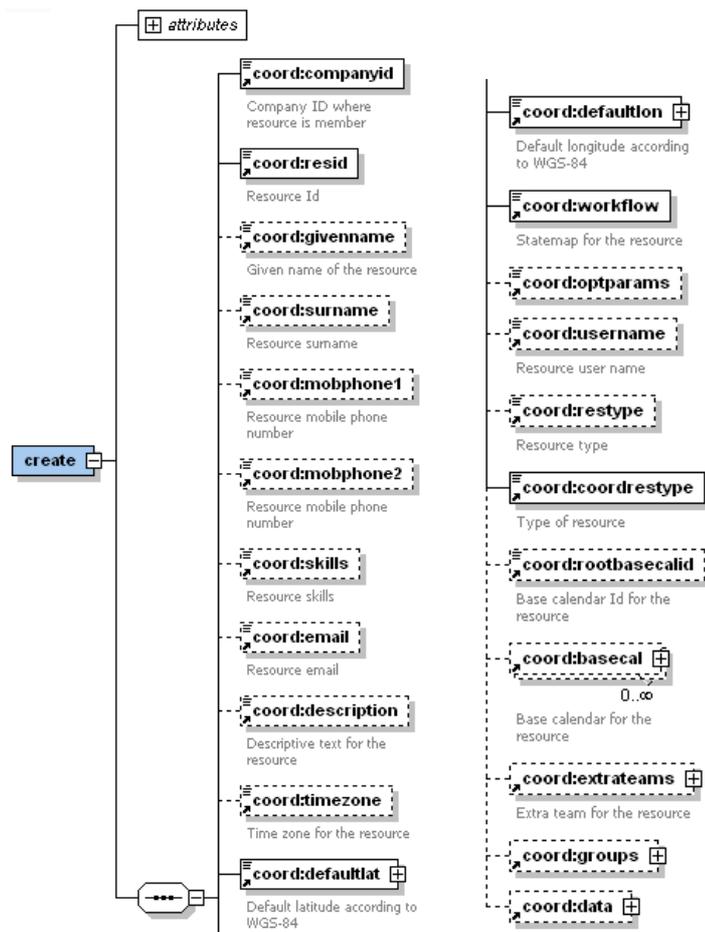


Figure – Schema overview – Create resource operation

- **Update resource (IN)**  
- Update existing resource/resources with new data

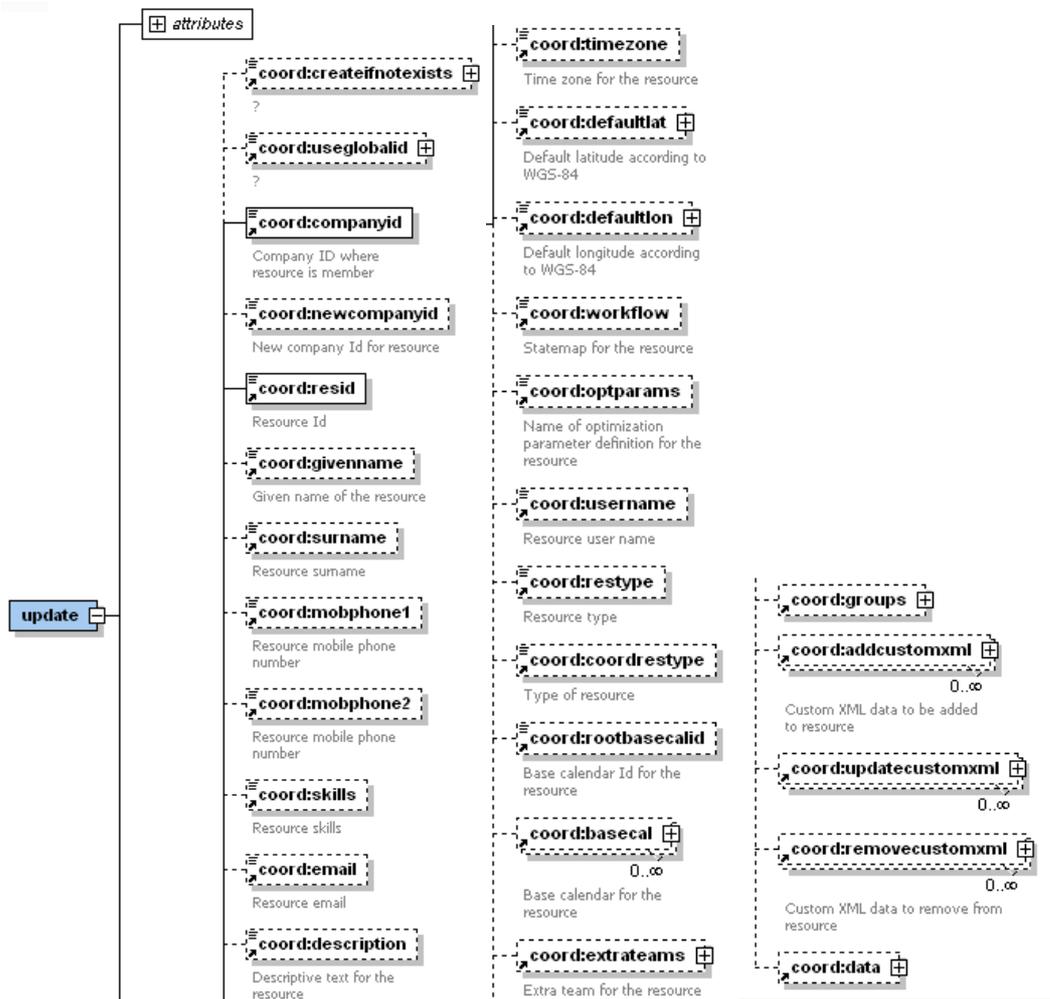


Figure – Schema overview – Update resource operation

- **Delete resource (IN)**  
- Delete existing resource/resources from a team

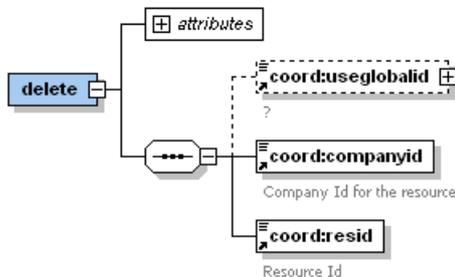


Figure – Schema overview – Delete resource operation

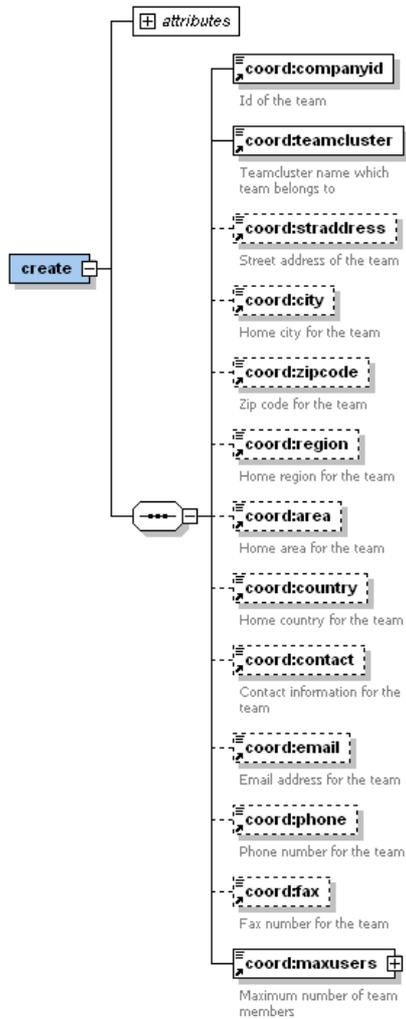
### 2.2.2 Team

A team contains a number of resources working together, has properties like name, contact person, location, etc. A team can be a company, division, a geographical team etc. and could be categorized by geographical,

organizational or other criteria. Part from resources, a team may hold objects like Calendars, Resource Groups, Synchronization data definitions and Service objects.

The CRI supports the following operations for Team:

- ▶ **Create team (IN)**
  - Creates one or several teams for a specified team cluster



**Figure – Schema overview – Create team operation**

- ▶ **Update team (IN)**
  - Update existing team/teams with new data

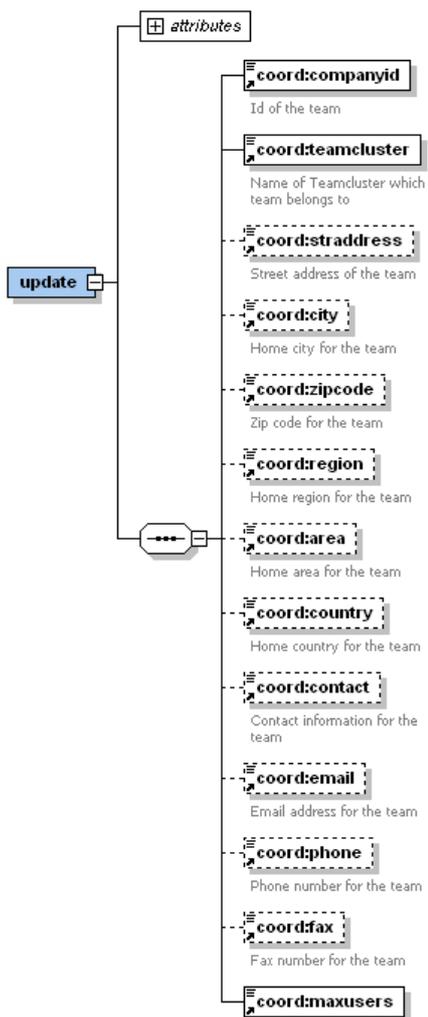


Figure – Schema overview – Update team operation

- ▶ **Delete team (IN)**
  - Delete existing team/teams from a team cluster

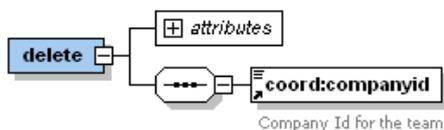


Figure – Schema overview – Delete team operation

### 2.2.3 Group

Object representing and containing a group of resources within a Team. Resources can belong to several Groups.

The CRI supports the following operations for Group:

- ▶ **Create group (IN)**
  - Creates one or several groups within a team

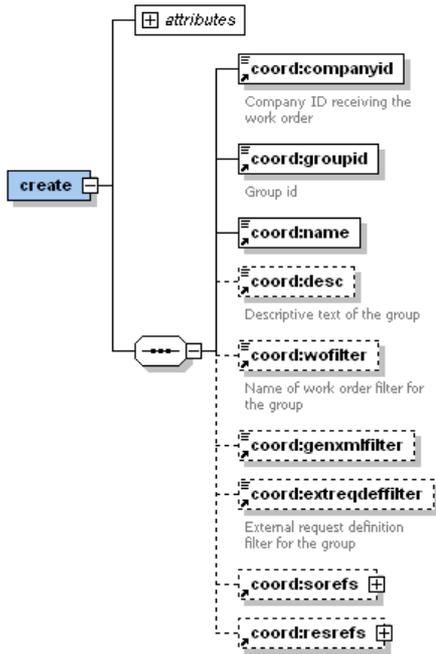


Figure – Schema overview – Create group operation

- ▶ Delete group (IN)
  - Delete existing group/groups from a team

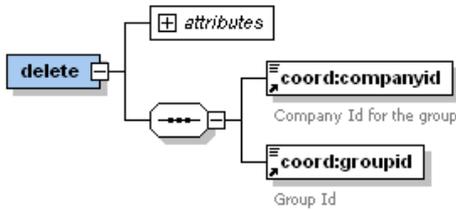


Figure – Schema overview – Delete group operation

- ▶ Update group (IN)
  - Update existing group/groups with new data

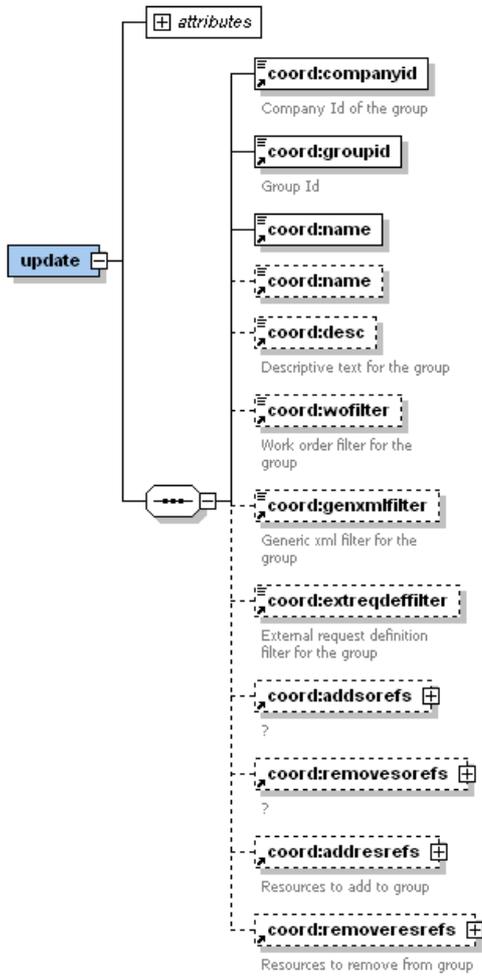


Figure – Schema overview – Update group operation

## Appendices

### Appendix A - SCHEMAS and WSDLs

#### **Create resource schema**

[http://coord.ismobile.com/coordinator/cri/create\\_resource/releases/1.0.5/create\\_resource1.xsd](http://coord.ismobile.com/coordinator/cri/create_resource/releases/1.0.5/create_resource1.xsd)

#### **Update resource schema**

[http://coord.ismobile.com/coordinator/cri/update\\_resource/releases/1.0.7/update\\_resource1.xsd](http://coord.ismobile.com/coordinator/cri/update_resource/releases/1.0.7/update_resource1.xsd)

#### **Delete resource schema**

[http://coord.ismobile.com/coordinator/cri/delete\\_resource/releases/1.0.3/delete\\_resource1.xsd](http://coord.ismobile.com/coordinator/cri/delete_resource/releases/1.0.3/delete_resource1.xsd)

#### **Create team schema**

[http://coord.ismobile.com/coordinator/cri/create\\_team/releases/1.0.2/create\\_team1.xsd](http://coord.ismobile.com/coordinator/cri/create_team/releases/1.0.2/create_team1.xsd)

#### **Update team schema**

[http://coord.ismobile.com/coordinator/cri/update\\_team/releases/1.0.2/update\\_team1.xsd](http://coord.ismobile.com/coordinator/cri/update_team/releases/1.0.2/update_team1.xsd)

#### **Delete team schema**

[http://coord.ismobile.com/coordinator/cri/delete\\_team/releases/1.0.2/delete\\_team1.xsd](http://coord.ismobile.com/coordinator/cri/delete_team/releases/1.0.2/delete_team1.xsd)

#### **Create group schema**

[http://coord.ismobile.com/coordinator/cri/create\\_group/releases/1.0.2/create\\_group1.xsd](http://coord.ismobile.com/coordinator/cri/create_group/releases/1.0.2/create_group1.xsd)

#### **Update group schema**

[http://coord.ismobile.com/coordinator/cri/update\\_group/releases/1.0.2/update\\_group1.xsd](http://coord.ismobile.com/coordinator/cri/update_group/releases/1.0.2/update_group1.xsd)

#### **Delete group schema**

[http://coord.ismobile.com/coordinator/cri/delete\\_group/releases/1.0.2/delete\\_group1.xsd](http://coord.ismobile.com/coordinator/cri/delete_group/releases/1.0.2/delete_group1.xsd)

#### **Acknowledge**

<http://coord.ismobile.com/coordinator/common/acknack/releases/1.0.2/acknack1.xsd>

#### **CRI WSDL**

<http://coord.ismobile.com/coordinator/cri/ws/releases/1.0.7/cri.wsdl>