xBRMS (Web Service) Interface Control Document

**Revision History**

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**Document Approvers & Sign-Off**

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| 5/1 | Ric Merrifield | Release Manager | Accept |
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# Introduction

Please note that throughout this document page names are highlighted in **bold** while page element names are in *italic*.

## Purpose

The xBRMS (Web Service) Interface Control Document describes how the xBRMS Tomcat application, communicates with other components of the Disney Next Generation Experience (NGE).

From the perspective of other components needing to interact with the xBRMS, this document serves as the documentation of the xBRMS application programming interface (API).

## Definitions

|  |  |
| --- | --- |
| **Term** | **Definition** |
| xBRMS | xBand Reader Management System |
| xBRC | xBand Reader Controller |

# xBRMS Interfaces

The xBRMS interfaces with various components:

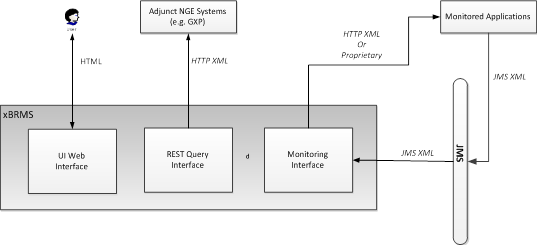


Figure - xBRMS Interfaces

## Monitoring Interface

The xBRMS Monitoring Interface allows xBRMS to monitor the health of various system components. Two communication channels are used, HTTP and JMS (Java Message Queue). The JMS channel is used by the xBRMS to subscribe to the discovery message sent out by the xBRC. This allows for automatic discovery of all xBRC installations on the network. The HTTP channel is used to periodically query the status of any monitored applications.

The xBRMS is capable of monitoring diverse applications. Each new monitored application is added to the xBRMS by subclassing a HealthItem Java class. The HealthItem implementation communicates via HTTP or other protocol with the monitored application to obtain the status of the application. The XBRC and IDMS use the HTTP /status call for this purpose.

## REST Query Interface

The REST Query Interface allows other applications to query the xBRMS system for information about monitored applications, also referred to as facilities.

# Monitoring Interface - JMS Messages

The following JMS messages are processed by the xBRMS.

|  |  |
| --- | --- |
| xbrc\_type | Description |
| DISCOVERY | Periodically sent by the xBRC |

# REST Query Interface

The xBRMS provides the following HTTP requests:

|  |  |
| --- | --- |
| Path | Operation |
| rest/facilities | GET |
| rest/facilities/id | GET |
| rest/facilities/ip | GET |
| rest/status | GET |

## GET facilities

**GET facilities/id/<facility id>**

**GET facilities/ip/<facility ip or hostname>**

This returns a list of xBRC instances monitored by xBRMS. Please note that this call is currently used only by GXP application and that any non-numeric characters are stripped from the id (facility id) as requested by GXP group.

<?xml version="1.0"?>

<xbrms version="1.0.0.1522" time="2012-04-27T18:34:23.609-04:00" name="XBRMS\_BVT" id=”one source id”>

<facilities>

<facility>

<name>Space Mountain</name>

<id>80010190</id>

<url>http://10.110.1.120:8080/</url>

<model>com.disney.xband.xbrc.attractionmodel.CEP</model>

<lastDiscovery>2012-04-27T18:33:59.147-04:00</lastDiscovery>

<nextDiscovery>2012-04-27T18:34:59.147-04:00</nextDiscovery>

<version>1.0.0.1522</version>

<active>true or false</active>

<haStatus>master, slave, solo, or unknown</haStatus>

<vip>10.110.1.107</vip>

<haEnabled>true or false</haEnabled>

</facility>

</facilities>

</xbrms>

|  |  |
| --- | --- |
| Status Element | Purpose |
| xbrms/version | The xBRMS software version. In the form: x.x.x.x.tag |
| xbrms/time | Time of the request. |
| xbrms/name | Instance name of the xBRMS web service. |
| xbrms/id | Disney assigned One Source ID for this xBRMS installation |
| facilities | List of xBRC installations monitored by the xBRMS. |
| facility/ name | The name of the xBRC. |
| facility/id | Unique facility id, also known as venue id. |
| facility/url | URL allowing to make REST calls to the xBRC. |
| facility/model | The name of the Java class implementing the xBRC model. This is typically of the form *com.disney.xband.xbrc.MODEL.CEP* where MODEL is “attractionmodel”, “parkentry” or “space”. |
| facility/ lastDiscovery | Last time the xBRMS was able to contact the xBRC. |
| facility/ nextDiscovery | Next time to contact the xBRC to see if it is alive. |
| facility/version | The xBRC software version. In the form: x.x.x.x.tag |
| facility/active | Whether this xBRC is actually being monitored by xBRMS or disabled at the moment. |
| facility/haStatus | High Availability status. |
| facility/vip | Virtual Ip. |
| facility/haEnabled | Whether HA is enabled on this xBRC. |

The GET facilities/id/<facility id> and GET facilities/ip/<facility ip or hostname> return facility indexed by facility id and facility IP address or hosname in the same format as above. The returned XML will look like the following.

<?xml version="1.0"?>

<xbrms version="1.0.0.1522" time="2012-04-27T19:53:52.332-04:00">

<facility>

...

</facility>

</xbrms>

## GET status

This returns xBRMS’s health status.

<**xbrmsStatus** version="Development" name="XBRMS" id="">

<**databaseVersion**>1.5.0</**databaseVersion**>

<**dbStatus**>Green</**dbStatus**>

<**dbStatusMessage**>OK</**dbStatusMessage**>

<**recentProblems**>

<**problem** timestamp="2013-02-05T20:50:03.949-08:00">Incorrect schema version. Required: 1.5.0. Found: 1.6.0.0001</**problem**>

</**recentProblems**>

<**status**>Red</**status**>

<**statusMessage**>Incorrect schema version. Required: 1.5.0. Found: 1.6.0.0001</**statusMessage**>

</**xbrmsStatus**>

|  |  |
| --- | --- |
| Status Element | Purpose |
| databaseVersion | Database schema version this xBRMS requires. |
| dbStatus | Health status XBRMS database. Possible values are: *Green*, *Yellow*, *Red*. |
| dbStatusMessage | Message associated with the current database health status. |
| recentProblems/problem | Description of a problem XBRMS is having and the time of its last occurrence. |
| status | XBRMS health status. Possible values are: *Green*, *Yellow*, *Red*. |
| statusMessage | Message associated with the health status. |