echo 360
active learning

EchoSystem 5.5 Schedule API

Reference Guide

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1. Introduction

This document covers the Scheduling API supported by EchoSystem 5.4. The API enables programmatic EchoSystem scheduling via a RESTful interface. The EchoSystem Server is the central component of the EchoSystem platform. It stores all data for capture schedules, manages user access to data contained within the system, as well as controls the capturing and processing activities performed by the related capture devices and media processors.

Some of the data contained within the EchoSystem Server is also contained within other systems in the university environment. Similarly, some of the data contained within the EchoSystem Server is often related to information contained within other systems. For this reason it may be desirable to more closely integrate the EchoSystem Server with these related systems.

The API is an extension to the EchoSystem Server application that provides external systems direct access to query, create, update and delete the data contained within the EchoSystem Server.

Example Use Cases:

1) Integration with a third party timetabling system to automate the scheduling process within the EchoSystem server. Room booking is extracted from the third party system and would automatically create the required entities in the EchoSystem to populate schedules.

2) Creation of an online booking form that enables Faculty/Academics to request their lectures to be captured. Such a web form might have a backend that integrates with the EchoSystem Server to add the capture schedules dynamically.

3) Automating the process of creating users, courses, and sections between the Student Information System (SIS) and the EchoSystem server.

2. The Basics

This section provides detailed documentation for all of the actions made available by the EchoSystem schedule API.

2.1. Common Symbols

Curly Braces { }: This document encloses symbolic variables within curly braces. The API user will substitute the variable with a concrete value. For example: "GET /buildings/{building-id}/rooms/{room-id}" indicates the caller should provide a concrete Building ID and Room ID when issuing the stated HTTP GET.

Square Brackets [ ]: Items enclosed in square brackets indicate optional parameters. For example: " GET /buildings/{building-id}/rooms[?term="{name-pattern}"] " indicates that the list rooms query supports an option parameters called "term" which takes a name pattern value.

{base-uri}: Within this document, the {base-uri} symbol represents the common or root HTTP URL used by all API requests.

The actual base-uri will be determined by the EchoSystem configuration on the Systems Settings page. The DNS name and port numbers can be customized on this page by each customer. To determine your {base-uri} logon to the EchoSystem as an system administrator and navigate to System > System Settings and review the "Public Application Base URL" setting.

An example {base-uri} is: https://ess.institution.com:8443/ess/scheduleapi/v1

{entityName-id}: Many of the API request URLs require the caller to specify one or more entity IDs. These IDs are GUID strings or the use of the alternate ID for a previously created entity. The documentation will simply use the {entityName-id} symbol to indicate that the caller provides an entity id.

Representations of entities are transferred by the EchoSystem schedule API. Three standard "levels" of entity representation (XML) are supported by the API; detailed, summary, and link. These levels are referred to in the API reference tables as "Rep. Levels".

Link: The "link" representation is the corresponding URL that will retrieve an entity's "detailed" representation. Links usually refer to associated parent or child entities. For instance: a "detailed" building representation will contain a link to it's rooms. The XML element "link" along with it's attributes "href", "rel", and "title", define the link representation. For example:

<link href="{base-uri}/buildings/{building-id}/rooms" rel="http://schemas.com.echo360.rooms" title="rooms"/>

There can be optional content for the link element. This is expected to be a short description of the link target.

Detailed: The "detailed" representation contains all fields of a given attribute. This representation is provided on "POST" requests and "GET" entity responses. The top level XML element will be the entity name; such as "room". Its children elements map to the entity's properties/attributes. For example:

```
<room>

    <id>938ab3edf432047a</id>

    <link href="{base-uri}/buildings/{GUID}"

          rel="http://schemas.com.ech360.building"
title="building"/>

    <name>washington-101</name>

</room>
```

Summary: When lists of entities are requested, the API response is a list of entity summaries. Each summary contains a link to the detailed entity. This special link uses a "rel=self" link attribute.

{name-patterm}: A name or partial name of an entity, used for searching

2.2.   Basic API Response

Following the RESTful API pattern, the EchoSystem Scheduling API returns HTTP response headers with a XML content/body. The returned XML is either a "collection" of summary entities or a single detailed "entity" XML element. Typically, a given collection element is simply plural name of the entities within the collection.

Entity vs. Entity Collection: Each entity operated upon by the API has an associated entity collection. For instance: a "room" entity has an associated "rooms" collection.

Following the RESTful pattern, entities are accessed from their associated collection.

So a request for a specific room is addressed relative to the rooms collection. This pattern shows up in the API request URL. The basic URL pattern is:

"{base-uri}/{collection-name}/{entity-id}"

Examples:

"GET {base-uri}/rooms/{room-id}" returns the "detailed" representation of the given room.

"GET {base-uri}/rooms/{alternate-ID}" returns the "detailed" representation of the given room.

The associated collection name is the English plural of the entity name. Collections are returned by the API when the URL does not specify an entity id.

Example: "GET {base-uri}/rooms" returns a collection of all rooms within the organization.

For instance the "rooms" collection is:

```
<rooms>

    <total-results>25</total-results>

    <items-per-page>25</items-per-page>

    <start-index>0</start-index>
```

```
    <!-- each room element is the "summary" representation of the
entity -->

    <room><room/>

    <room><room/>

    <room><room/>

    ...

</rooms>
```

2.3. API Error Responses

EchoSystem Scheduling API returns appropriate status codes in the HTTP headers in case of an error.

400 Status codes - Client/Data Errors: These 400 errors usually mean bad user input; unauthorized request, bad XML etc. The returned response body has more description of the actual cause of the error.

500 Status codes - Server Error: These errors indicate that something went wrong on the server. The returned response body has more description of the actual cause of the error.

2.4. Authentication and Authorization

EchoSystem Server Scheduling API utilizes OAuth for handling system authentication and authorization.

Authentication is the process of verifying who sent a given API request. It also includes steps to verify that the request was not altered by an intermediate party. Note: Authentication does not address privacy of the data being transmitted.

The Echo360 System requires each API request to be "signed" by an API key and shared secret. The OAuth standard defines how to sign the HTTP API requests; including the format of the HTTP Authorization header field.

For the Scheduling API the key and shared secret are referred to as a "Trusted System". Each trusted system must register with the Echo360 System via the Administration User Interface page at (https://ess.institution.edu/ess/security/ListTrustedSystems.html). The registration process generates a Trusted System ID and a shared secret. The Trusted system then signs all their associated requests with these credentials. The third party system needs to secure the credentials; to prevent another party from impersonating the trusted system.

Authorization is the process of determining if a given Authenticated API user is allowed to perform the request action. Many systems define user roles which restrict the action that a user can take. Currently, the Scheduling API does not restrict the actions of an Authenticated API user.

OAuth Specifics

The Scheduling API uses a simplified two-legged OAuth authorization process. The OAuth standard also supports a more complex three-legged process that uses session based request/auth tokens along with the consumer key/secret. The three-step process is

targeted to internet hosted services that are accessed by many diverse consumer clients. The RFC reference can be found at: http://tools.ietf.org/html/rfc5849.

In the simplified two-legged scheme, the consumer needs to register with the Echo360 System, in order to be assigned a unique consumer key and shared secret. These credentials are long lived and not limited to a session timeout. The consumer does not need to request a session token/secret (OAuth request & auth tokens/secrets) before initiating a request to the Echo360 System. Instead, the consumer just uses the consumer key/secret and an empty auth token/secret to sign all scheduling API requests.

As per the OAuth specification, the OAuth parameters and signature are passed in the HTTP "Authorization" header field.

OAuth Terms

Below are the terms defined by the OAuth specification and how they apply to the Scheduling API.

Producer: The Echo360 System.

Consumer: The system trusted by the Echo360 System.

Consumer Key: The key supplied by the API User when registering as a Trusted System.

Consumer Secret: The shared secret generated by the Echo360 System when the consumer was registered as a Trusted System.

Here is a sample OAuth Request Header:

Name: Authorization

Value: OAuth

```
realm="https%3A%2F%2Fess.echo360.com%3A8445%2Fess
%2Fscheduleapi%2Fv1%2Fproduct-groups%2F0464bfc5-8785-435f-
bbb6-34edc04f134f",oauth_signature_method="HMAC-
SHA1",oauth_version="1.0",oauth_nonce="wD2NmM",oauth_timestamp
="1320236659",oauth_consumer_key="EchoCenter-048965",oauth_sig
nature="FNWMxwf24nomQl1wPTJulx1%2Fsa4%3D"
```

OAuth Tools and Code References

Tools

- Firefox RESTClient - https://addons.mozilla.org/en-us/firefox/addon/restclient/
- Chrome Advanced Rest Client - https://chrome.google.com/webstore/detail/advanced-rest-client/hgmloofddffdnphfgcellkdfbfbjeloo?hl=en-US

Code Examples:

- PHP - http://code.google.com/p/oauth-php/wiki/ConsumerHowTo
- Python - https://github.com/simplegeo/python-oauth2
- Ruby - https://github.com/intridea/oauth2

3. REST API

3.1. Organizations API

Organizations allow you to implement a hierarchy of administration. You can have two hierarchical levels: parent and child. You can have only one parent but any number of child organizations. The parent organization, typically the university, is established automatically when you install EchoSystem. Child organizations are encouraged, because they can be changed, edited, and deleted if necessary. The parent organization cannot be deleted.

Child organizations initially inherit the settings of the parent but you can customize those settings. Customization allows an individual organization to define its own policies on such subjects as frequency of capture, the need for confidence monitoring, retention policies, and many other topics.

3.2. Organization Entity's XML mapping

The below table defines the mapping of organization attributes/fields to/from it's various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
name	All	string	Organization name
alternateId	All	string	Alternate Identified for object
display-name	All	string	Required, Organizations display name
license-identifier	All	string	Parent license or customer identifier
parent-id	All	string	Unique identifier referring to the parent organization

3.2.1. Organization Collection Request

Get all organizations on the EchoSystem.

> **URL:** GET {base-uri}/organizations
>
> **Example:** https://ess.institution.com:8443/ess/scheduleapi/v1/organizations
>
> **Status Codes:**
>
> > **200 OK** – See response XML
>
> **Response XML:**

```
<?xml version="1.0" encoding="UTF-8"?>

<organizations>
```

```xml
<total-results>32</total-results>
<items-per-page>32</items-per-page>
<start-index>0</start-index>
<organization>
  <id>001f9510-978b-4357-a632-cb95ecc44243</id>
  <etag>0</etag>
  <name>UB</name>
  <alternateId/>
  <display-name>Institution</display-name>
  <license-identifier>10302019406501</license-identifier>
  <link rel="self" title="self" href= "https://ess.echo360.com/
ess/scheduleapi/v1/organizations/001f9510-978b-4357-a632-
cb95ecc44243" />
</organization>
<organization>
  <id>09f7ba67-d136-484e-92e0-f7eaabd02843</id>
  <etag>0</etag>
  <name>GMU</name>
  <alternateId/>
  <display-name>Institution / GMU</display-name>
  <license-identifier/>
<link rel="self" title="self" href= "https://pilot.echo360.com/
ess/scheduleapi/v1/organizations/09f7ba67-d136-484e-92e0-
f7eaabd02843" />
</organization>
<organization>
  <id>20652a1f-277b-4b98-82d1-3a1dfac2ffbb</id>
  <etag>0</etag>
  <name>ODU</name>
  <alternateId/>
  <display-name>Echo360 / ODU</display-name>
  <license-identifier/>
```

```
    <link rel="self" title="self" href= "https://ess.echo360.com/
ess/scheduleapi/v1/organizations/
20652a1f-277b-4b98-82d1-3a1dfac2ffbb" />

</organization>
```

3.2.2. Get Organization Details

Retrieve the detailed information on the Organization entity.

URL: GET {base-uri}/organizations/{organization-id}

URL: GET {base-uri}/organizations/{alternate-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/organizations/
20652a1f-277b-4b98-82d1-3a1dfac2ffbb

Status Codes:

200 OK – See response XML

409 Bad Request - The organization name provided already exists for the parent
ID given.

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<organization>

   <id>09f7ba67-d136-484e-92e0-f7eaabd02843</id>

   <etag>0</etag>

   <name>GMU</name>

   <alternateId/>

   <display-name>Echo360 / GMU</display-name>

   <license-identifier/>

   <parent-id>2d99cf8a-ba4e-4b0f-8438-81833922dc40</parent-id>

   <description>George Mason University</description>

</organization>
```

3.2.3. Add Organization

URL: POST {base-uri}/organizations

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/organizations

Request XML:

```
<organization>

   <name>Virtual Campus</name>
```

```
<alternateId>VirtualCampus</alternateId >

<parent-id>2d99cf8a-ba4e-4b0f-8438-81833922dc40</parent-id>

<description>Institution Virtual Campus</description>
```
</organization>

Status Codes:

200 OK – See response XML

400 Bad Request

- The organization name provided already exists for the parent ID given.
- Missing or empty required element 'parent-id'
- Cannot create a root level Organization
- Cannot create an Organization more than 2 level deep.

Response XML:

```
<organization>

  <id>defc2203-e342-43b7-846a-314fdbbcb9c3</id>

  <name>Virtual Campus</name>

  <alternateId>VirtualCampus</alternateId >

  <display-name>Institution / Virtual Campus</display-name>

  <parent-id>2d99cf8a-ba4e-4b0f-8438-81833922dc40</parent-id>

  <license-identifier>

  </license-identifier>

  <description>Institution Virtual Campus</description>

  <link rel="self" title="self" href="https://ess.echo360.com:
8445/ess/scheduleapi/v1/organizations/defc2203-
e342-43b7-846a-314fdbbcb9c3"/>
```
</organization>

3.2.4. Update Organization

URL: PUT {base-uri}/organizations/{organization-id}

URL: PUT {base-uri}/organizations/{alternate-id}

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/organizations/ 20652a1f-277b-4b98-82d1-3a1dfac2ffbb

Errors: Same as for Add Child (create) organization

Request XML:

Only need to specify the fields that are being updated. Non-updatable fields are ignored.

```
<organization>

   name>Virtual Campus</name>

</organization>
```

3.2.5. *Delete Organization*

Remove the Organization.

> **URL:** DELETE {base-uri}/organizations/{organization-id}

> **URL:** DELETE {base-uri}/ organizations/{alternate-id}

> **Errors:**

>> **404** - Entity 'organization-id', ID '<OrgID>' was not found

>> **500** - Internal Error, examine error for specific exception

3.3. Person API

A person in EchoSystem can have one or more organization-roles. EchoSystem comes configured with several user roles, each with a unique set of rights. When the role is associated with the parent organization, the user can perform that role for the parent organization or any child organization. When the role is associated with a child organization, the user can affect only objects owned by the child organization.
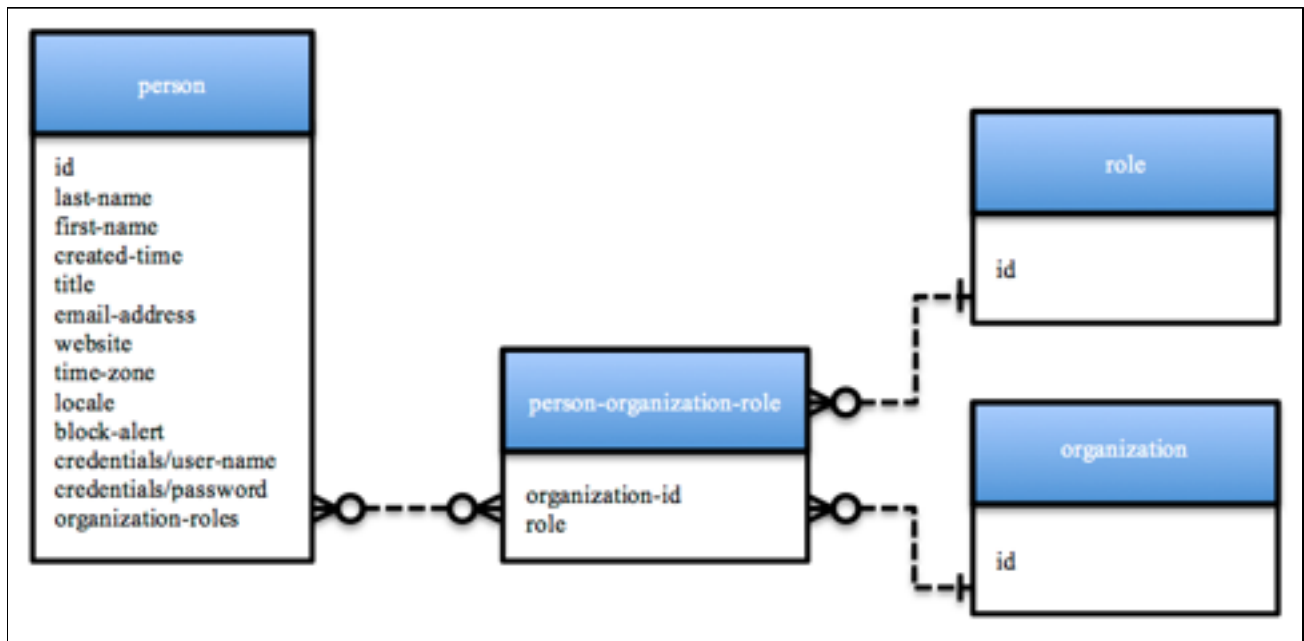
3.3.1. *Person Entity's XML mapping*

The below table defines the mapping of person attributes/fields to/from its various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
alternateId	All	string	Optional alternate system identifier
user-name	All	string	Person's user name in the system (same as credentials/user-name)
display-name	All	string	Required, Person's display name
last-name	All	string	Required Person's last name
first-name	All	string	Required, Person's first name
created-time	Detailed	iso-time	Auto populated with the creation time stamp.
title	Detailed	string	Optional formal title of the Person
email-address	Detailed	string	Optional email address for the Person
website	Detailed	string	Optional URL for the person's reference website.
time-zone	Detailed	string	Optional time zone of the Person.
locale	Detailed	string	Optional Locale of the Person.
block-alerts	Detailed	boolean	Relates to system alerts and requires e-mail address when true. Default is false.
credentials / user-name	Detailed	string	Required on create, the login user-name string.
credentials / password	Detailed	string	Required on create, the login password string. Due to security concerns, the password is never included in the Person response message.
organization-roles	Detailed	roles collection	List of organization-roles assigned to the person. Inline collection of "organization-roles" containing "organization-role" names. Inline since organization-role entity is a simple structure.

3.3.2. *"organization-roles" inline collection XML mapping*

The Person's assigned role(s) are a simple collection element called "roles"; which contains "role" names. Each "role" element has a text role name and a UUID or organization name.

Field / Element	Rep. Levels	Type (length)	Information

organization-id	All	UUID	Optional, System generated entity identifier.
organization-name	All	string	Optional, name of the organization, required if organization-id is missing
organization-role	All	enum string	Short or long role name. For example: "admin" or "role-admin" are the short/long role names for the System Administrator Role. Short Role Names: "admin", "system-admin", "av-technician", "academic-staff", "scheduler", "license-manager" "license-manager" is only applicable at the root organization level

3.3.3. People Collection Request

Get all people within the organization. The optional "term" parameter limits the list to matching on the name (last, first) attribute.

URL: GET {base-uri}/people

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/people

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<people>
   <total-results>16</total-results>
   <items-per-page>16</items-per-page>
   <start-index>0</start-index>
   <person>
        <id>de83c9bf-a56d-467f-bfd9-0278a6eb9905</id>
        <etag>1</etag>
        <user-name>GMU.Admin</user-name>
        <display-name>GMU Admin</display-name>
        <first-name>Gmu</first-name>
        <last-name>Admin</last-name>
        <created-time>2006-01-19T12:35:19.000Z</created-time>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/people/de83c9bf-a56d-467f-bfd9-0278a6eb9905"
rel="self" title="self"/>
   </person>
```

```
<person>

    <id>c53114ac-1ea2-4bb7-8651-55d4104510d3</id>

    <etag>1</etag>

    <user-name>ODU.Admin</user-name>

    <display-name>ODU Admin</display-name>

    <first-name>Odu</first-name>

    <last-name>Admin</last-name>

    <created-time>2006-01-19T12:35:19.000Z</created-time>

    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/people/c53114ac-1ea2-4bb7-8651-55d4104510d3"
rel="self" title="self"/>

  </person>

</people>
```

3.3.4. *Get Person*

Retrieve the detailed information on the Person entity.

URL: GET {base-uri}/people/{person-id}

URL: GET {base-uri}/people/{alternate-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/people/d2f5d4e6-fb9d-4f34-abc5-9b930647979e

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<person>

  <id>d2f5d4e6-fb9d-4f34-abc5-9b930647979e</id>

  <etag>1</etag>

  <user-name>Root.Admin</user-name>

  <display-name>Root.Admin</display-name>

  <first-name>Root</first-name>

  <last-name>Admin</last-name>

  <created-time>2006-01-19T12:35:19.000Z</created-time>

  <alternateId/>

  <title/>

  <email-address>radmin@echo360.com</email-address>
```

```
<website/>

<block-alerts>false</block-alerts>

<time-zone>US/Eastern</time-zone>

<locale>en_US</locale>

<credentials>

      <user-name>radmin@echo360.com</user-name>

</credentials>

<organization-roles>

      <organization-role>

            <organization-id>e8b76e41-e9d1-454d-
ac6b-18ceb464851a</organization-id>

            <role>role-name-admin</role>

      </organization-role>

</organization-roles>

</person>
```

3.3.5. Add Person

URL: POST {base-uri}/people

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/people

Request XML:

```
<person>

   <first-name>Clark</first-name>

   <last-name>Kent</last-name>

   <display-name>Clark Kent</display-name>

   <title>Super Hero</title>

   <alternateId>ckent@echo360.com</alternateId>

   <email-address>ckent@echo360.com</email-address>

   <block-alerts>false</block-alerts>

   <time-zone>US/Eastern</time-zone>

   <locale>en_US</locale>

   <credentials>

      <user-name>ckent@echo360.com</user-name>
```

```xml
                <password>password</password>
    </credentials>
    <organization-roles>
        <organization-role>
            <organization-id>2dfce6cb-eb9f-4085-9673-
fe27363ab797</organization-id>
            <role>role-name-admin</role>
        </organization-role>
    </organization-roles>
</person>
```

Response XML:

```xml
<person>
    <id>b141a223-4b3e-4db0-901a-4071c45dfd37</id>
    <etag>0</etag>
    <user-name>ckent@echo360.com</user-name>
    <display-name>Clark Kent</display-name>
    <first-name>Clark</first-name>
    <last-name>Kent</last-name>
    <created-time>2013-09-06T18:21:37.502Z</created-time>
    <alternateId>ckent@echo360.com</alternateId>
    <link rel="self" title="self" href= "https://
ess.institution.edu/ess/scheduleapi/v1/people/
b141a223-4b3e-4db0-901a-4071c45dfd37" />
</person>
```

Errors (400):

- Person must have at least one Organization-Role
- First Name cannot be blank.
- Last Name canot be blank.
- Email address cannot be blank.
- Display name cannot be blank.
- Username cannot be blank if password is provided
- Duplicate user name

- Duplicate email addres

3.3.6. Update Person

Allows for changes to the person details, including the ability to change user status, setting to "retired" or returning from retired to "active".

NOTE: If you retire a user who is the sole instructor for a section or schedule-rule, the system automatically assigns those sections/schedules to the "Default Presenter".

URL: PUT {base-uri}/people/{person-id}

URL: PUT {base-uri}/people/{alternate-id}

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/people/ b141a223-4b3e-4db0-901a-4071c45dfd37

Errors: same as for Add Person.

Request XML:

Only need to specify the fields that are being updated. Non-updatable fields are ignored.

```
<person>

   <display-name>Lois Kent</display-name>

   <last-name>Kent</last-name>

</person>
```

Or to update status:

```
<person>

   <status>retired</status>

</person>
```

3.3.7. Delete Person

Remove the Person. Echoes with deleted Persons as their only Presenters will be assigned to the Default Presenter.

URL: DELETE {base-uri}/people/{person-id}

URL: DELETE {base-uri}/people/{alternate-id}

Errors:

- **404** if person doesn't exist with that id
- **500** - Internal Error, examine error for specific exception

3.3.8. Get all Schedules for a Person

Retrieve a list of schedule-rules associated with a person.

URL: GET {base-uri}/people/{person-id}/schedule-rules

**URL:** GET {base-uri}/people/{alternate-id}/schedule-rules

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/people/
b141a223-4b3e-4db0-901a-4071c45dfd37/schedule-rules

Errors:

- **404** if person doesn't exist with that id

3.4. Campus, Building & Room API

The information on the university's/organization's meeting or classrooms is maintained by the EchoSystem. The Room entity/resource is a key scheduling component. Capture Devices and Course Sections are assigned to rooms. The Campus and Building are secondary entities/resources that provide natural groupings of rooms.
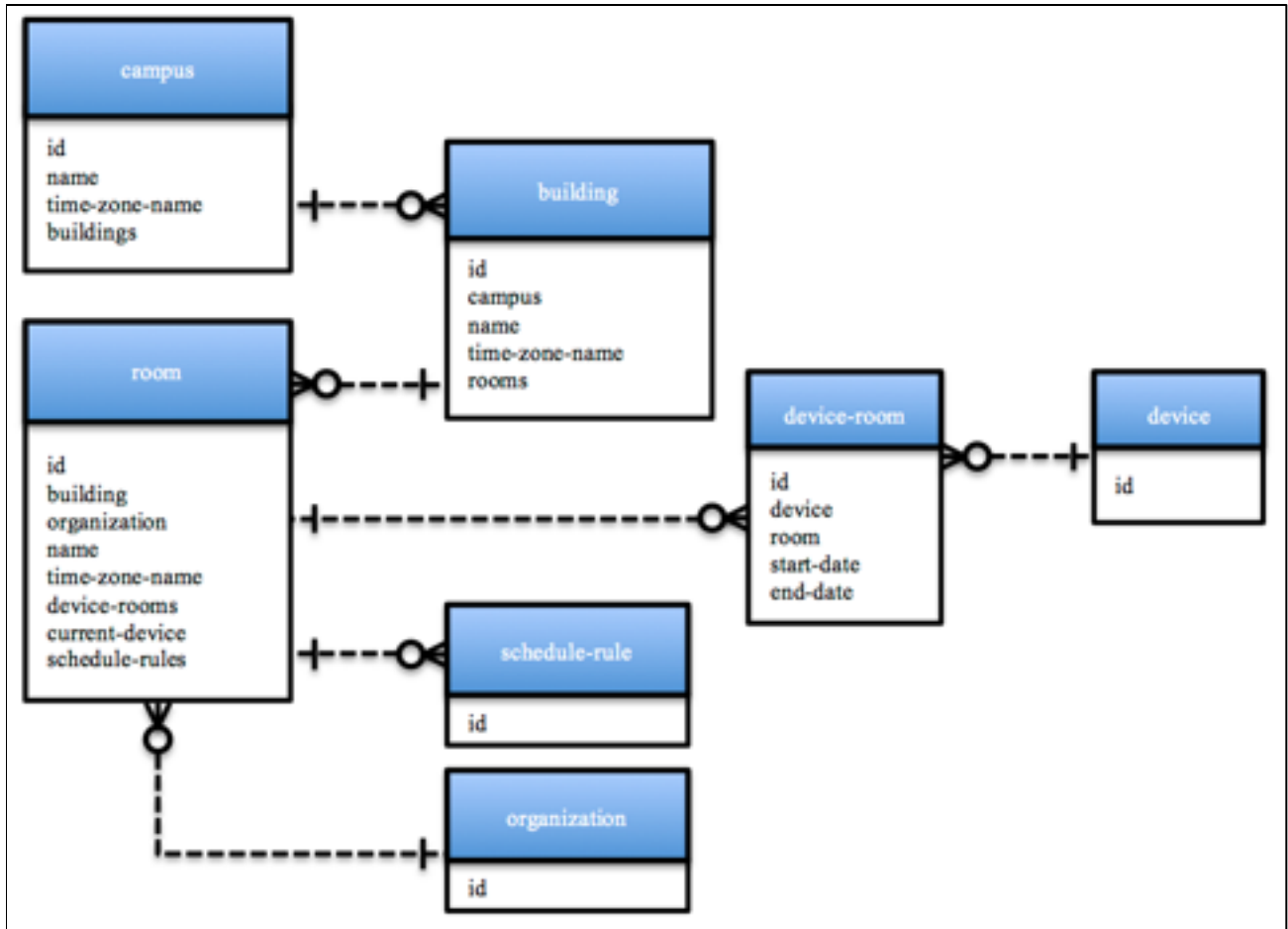
3.4.1. Campus Entity XML mapping

This table defines the mapping of Campus attributes/fields to/from it's various XML representations (summary or detailed). Note: optional fields can be omitted from the XML representations if the value is null/empty. Omitting empty fields allows concise data representation.

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
name	All	string	Required, unique campus name.
alternateId	All	string	Alternate identifier

Field / Element	Rep. Levels	Type (length)	Information
time-zone-name	Detailed	string	Optional, defaults to caller's default time zone. http://en.wikipedia.org/wiki/List_of_zoneinfo_time_zones Examples: "America/New_York", "Pacific/Honolulu"
buildings	Detailed	link	Link to the building collection. Initially empty at create.

3.4.2. Building Entity XML mapping

This table defines the mapping of building attributes/fields to/from it's various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
campus	All	link	Link to the parent Campus.
name	All	string	Required, unique name within the Campus.
alternateId	All	string	External System ID
time-zone-name	Detailed	string	This field is read-only and inherited from the parent Campus. It is included on "read" operations as a convenience.
rooms	Detailed	link	Link to the room collection. Initially empty at create.

3.4.3. Get Campus Collection

A Campus has a collection of Buildings. The Campus entity primarily provides a means of grouping rooms. The campus time zone attribute is inherited by all buildings and associated rooms within the campus.

URL: GET {base-uri}/campuses[?term="{name-pattern}"]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/campuses

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<campuses>
   <total-results>2</total-results>
   <items-per-page>2</items-per-page>
   <start-index>0</start-index>
   <campus>
```

```xml
        <id>e8a82f52-2e3f-4856-8967-5efc353a5826</id>

        <etag>0</etag>

        <name>GMU Fairfax Campus</name>

        <alternateId>GMU_Fairfax</alternateId>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/campuses/e8a82f52-2e3f-4856-8967-5efc353a5826"
rel="self" title="self"/>

    </campus>

    <campus>

        <id>c1c6c465-5470-4a86-b2f4-8d0a7f46057e</id>

        <etag>0</etag>

        <name>Old Dominion Sterling Campus</name>

        <alternateId>ODU_Sterling</alternateId>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/campuses/c1c6c465-5470-4a86-b2f4-8d0a7f46057e"
rel="self" title="self"/>

    </campus>

</campuses>
```

3.4.4. *Get Campus*

URL: GET {base-uri}/campuses/{campus-id}

URL: GET {base-uri}/campuses/{alternate-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/campuses/
e8a82f52-2e3f-4856-8967-5efc353a5826

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<campus>

    <id>e8a82f52-2e3f-4856-8967-5efc353a5826</id>

    <etag>0</etag>

    <name>GMU Fairfax Campus</name>

    <alternateId>GMU_Fairfax</alternateId>

    <time-zone-name>US/Eastern</time-zone-name>
```

```
   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/campuses/e8a82f52-2e3f-4856-8967-5efc353a5826/buildings"
rel="http://schemas.com.echo360.building" title="buildings"/>

</campus>
```

3.4.5. Add Campus

Sent from the ESS to generate a new Tenant entity for the given Customer and ESS deployment.

URL: POST {base-uri}/campuses

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/campuses

Request XML:

```
<campus>

   <name>GMU Fairfax Campus – 2</name>

   <alternateId>GMU_Fairfax_2</alternateId>

   <time-zone-name>US/Eastern</time-zone-name>

</campus>
```

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<campus>

   <id>c0db2f75-89ba-4187-a1dd-7148ed3e0b79</id>

   <etag>0</etag>

   <name>GMU Fairfax Campus – 2</name>

   <alternateId>GMU_Fairfax_2</alternateId>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/campuses/c0db2f75-89ba-4187-a1dd-7148ed3e0b79" rel="self"
title="self"/>

</campus>
```

3.4.6. Update Campus

URL: PUT {base-uri}/campuses/{campus-id}

URL: PUT {base-uri}/campuses/{alternate-id}

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/campuses/
e8a82f52-2e3f-4856-8967-5efc353a5826

Request XML:

```xml
<campus>

    <name>GMU Prince William Campus</name>

</campus>
```

3.4.7. Delete Campus

Remove the campus.

URL: DELETE {base-uri}/campuses/{campus-id}

URL: DELETE {base-uri}/campuses/{alternate-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/campuses/
c0db2f75-89ba-4187-a1dd-7148ed3e0b79

Errors:

- **404** - Entity 'campus-id', ID '<MyCampusID>' was not found
- **500** - Internal Error, examine error for specific exception

3.4.8. Get Building Collection in a Campus

A Building belongs to a parent Campus and has a collection of Rooms. The time zone attribute is inherited by the Building from the parent Campus.

URL: GET {base-uri}/campuses/{campus-id}/buildings

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/campuses/
e8a82f52-2e3f-4856-8967-5efc353a5826/buildings

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<buildings>

  <total-results>1</total-results>

  <items-per-page>1</items-per-page>

  <start-index>0</start-index>

  <building>

      <id>75638692-b5a3-423e-9fa1-36baaeaa2cc9</id>

      <etag>0</etag>

      <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/campuses/e8a82f52-2e3f-4856-8967-5efc353a5826"
rel="http://schemas.com.echo360.campus" title="campus"/>
```

```
        <name>Science and Tech Building 2</name>

        <alternateId>ScienceTech2</alternateId>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9"
rel="self" title="self"/>

    </building>

</buildings>
```

3.4.9. Add Building to a Campus

Add a new building to the specified campus resource.

URL: POST {base-uri}/campuses{campus-id}/buildings

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/campuses/
e8a82f52-2e3f-4856-8967-5efc353a5826/buildings

Errors:

- **400** - duplicate name
- **500** - Internal Error, examine error for specific exception

Request XML:

```
<building>

     <name>Science and Tech Building 2</name>

    <alternateId>ScienceTech2</alternateId>

</building>
```

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<building>

   <id>4b04b1b6-b122-4f78-a653-abe2824d73a4</id>

   <etag>0</etag>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/campuses/e8a82f52-2e3f-4856-8967-5efc353a5826" rel="http://
schemas.com.echo360.campus" title="campus"/>

   <name>Science and Tech Building 2</name>

   <alternateId>ScienceTech2</alternateId>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/buildings/4b04b1b6-b122-4f78-a653-abe2824d73a4" rel="self"
title="self"/>
```

```
    </building>
```

3.4.10. Get Building Collection across all Campuses

Retrieve the list of all Buildings across all Campuses. The optional "term" parameter limits the list to buildings who's name is like the search term value.

URL: GET{base-uri}/buildings[?term="{name-pattern}"]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/buildings

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<buildings>

   <total-results>3</total-results>

   <items-per-page>3</items-per-page>

   <start-index>0</start-index>

   <building>

        <id>4b04b1b6-b122-4f78-a653-abe2824d73a4</id>

        <etag>0</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/campuses/e8a82f52-2e3f-4856-8967-5efc353a5826"
rel="http://schemas.com.echo360.campus" title="campus"/>

        <name>Science and Tech Building 2</name>

        <alternateId>ScienceTech2</alternateId>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/4b04b1b6-b122-4f78-a653-abe2824d73a4"
rel="self" title="self"/>

   </building>

   <building>

        <id>75638692-b5a3-423e-9fa1-36baaeaa2cc9</id>

        <etag>0</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/campuses/e8a82f52-2e3f-4856-8967-5efc353a5826"
rel="http://schemas.com.echo360.campus" title="campus"/>

        <name>Science and Tech Building I</name>

        <alternateId>ScienceTech1</alternateId>
```

```
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9"
rel="self" title="self"/>

    </building>

    <building>

        <id>5df6a341-52f1-4970-bb82-0cb75e2d5398</id>

        <etag>0</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/campuses/c1c6c465-5470-4a86-b2f4-8d0a7f46057e"
rel="http://schemas.com.echo360.campus" title="campus"/>

        <name>Signal Hill Plaza</name>

        <alternateId>SignalHillPlaza</alternateId>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/5df6a341-52f1-4970-bb82-0cb75e2d5398"
rel="self" title="self"/>

    </building>

</buildings>
```

3.4.11. Get Building Details

URL: GET {base-uri}/buildings/{building-id}

URL: GET {base-uri}/buildings/{alternate-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<building>

    <id>75638692-b5a3-423e-9fa1-36baaeaa2cc9</id>

    <etag>0</etag>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/campuses/e8a82f52-2e3f-4856-8967-5efc353a5826" rel="http://
schemas.com.echo360.campus" title="campus"/>

    <name>Science and Tech Building I</name>

    <alternateId>ScienceTech1</alternateId>

    <time-zone-name>US/Eastern</time-zone-name>
```

```
    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9/rooms"
rel="http://schemas.com.echo360.room" title="rooms"/>

</building>
```

3.4.12.Update building

URL: PUT {base-uri}/buildings/{building-id}

URL: PUT {base-uri}/buildings/{alternate-id}

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/buildings/4b04b1b6-b122-4f78-a653-abe2824d73a4

Request XML:

```
<building>

    <name>Science and Tech Building 2 NEW</name>

</building>
```

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<building>

   <id>4b04b1b6-b122-4f78-a653-abe2824d73a4</id>

   <etag>1</etag>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/campuses/e8a82f52-2e3f-4856-8967-5efc353a5826" rel="http://
schemas.com.echo360.campus" title="campus"/>

   <name>Science and Tech Building 2 NEW</name>

   <alternateId>ScienceTech2</alternateId>

   <time-zone-name>US/Eastern</time-zone-name>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/buildings/4b04b1b6-b122-4f78-a653-abe2824d73a4/rooms"
rel="http://schemas.com.echo360.room" title="rooms"/>

</building>
```

3.4.13.Delete building

Remove the building.

URL: DELETE {base-uri}/buildings/{building-id}

URL: DELETE {base-uri}/buildings/{alternate-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/buildings/4b04b1b6-b122-4f78-a653-abe2824d73a4

Errors:

- **404** - The server has not found anything matching the request URI
- **500** - Internal Error, examine error for specific exception

3.5.   Room

A room is a central component of a lecture capture schedule. A room belongs to a parent Building. Rooms are reserved/scheduled for Course Sections and their associated capture events. A Room can be in either a "retired" or "active" state. Only active Rooms can be scheduled for Course Sections. Only retired Rooms can be deleted.

3.5.1. Room Entity's XML mapping

This table defines the mapping of room attributes/fields to its various XML representations (summary or detailed). A room contains many link fields due to it being reserved by Course Sections and Captures.

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
alternateId	All	string	External System ID
buildingName	All	string	Name of the parent Building
campusName	All	string	Name of the parent Campus
building	All	link	Link to the parent Building.
name	All	string(32)	Required, unique name within the parent Building.
time-zone-name	Detailed	string	This field is read-only and inherited from the grandparent Campus. It is included on "read" operations as a convenience.
device-rooms	Detailed	link	Link to fetch devices that are/were (history) used by a room. The typical case is that 1 device is dedicated to a given room. The device-room abstraction allows moving a device to another room, or device swapping for maintenance/upgrades. (see Device Resource)
current-device	Detailed	composite element	For convenience, the current device that is assigned to the room (read-only). If no device is assigned, then the XML element is empty. Otherwise, it contains the "id" and "key" fields of the assigned device.
schedule-rules	Detailed	link	Link to fetch the schedule-rules for this room. schedule-rules contain Capture reservations for Course Sections, as well as lecture capture events. (see Schedule Rules Resource) Link = "GET {base-uri}/rooms/{room-id}/schedule-rules"

3.5.2. "current-device" XML mapping

The Room's current device composite XML element is described by the below table.

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated identifier of the Device.
key	All	string	unique device key used when addressing the device

3.5.3. Get Room Collection in a Building

A room is a central component of a lecture capture schedule. A room belongs to a parent Building. Rooms are reserved/scheduled for Course Sections and their associated capture events. Retrieve the list of Rooms that are assigned to the Building. The optional "term" parameter limits the list to rooms who's name is like the search term value.

URL: GET {base-uri}/buildings/{building-id}/rooms

URL: GET {base-uri}/buildings/{alternate-id}/rooms

URL: GET {base-uri}/buildings/{building-id}/rooms[?term="{name-pattern}"]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9/rooms

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<rooms>
   <total-results>6</total-results>
   <items-per-page>6</items-per-page>
   <start-index>0</start-index>
   <room>
        <id>204b1e6b-e115-4fdb-9fdf-95abd5780d8d</id>
        <etag>0</etag>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9"
rel="http://schemas.com.echo360.building" title="building"/>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/
303c4e3b-9803-4826-9fb0-578ed2d505fc" rel="http://
schemas.com.echo360.organization" title="organization"/>
        <name>Podium Room 1</name>
        <alternateId>Podium_Room_1</alternateId>
        <status>active</status>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/rooms/204b1e6b-e115-4fdb-9fdf-95abd5780d8d"
rel="self" title="self"/>
   </room>
   <room>
        <id>6f232d02-49b1-4805-95ee-d30a2a60b51a</id>
```

```
        <etag>1</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9"
rel="http://schemas.com.echo360.building" title="building"/>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <name>Shared Room</name>

        <alternateId>Shared_Room</alternateId>

        <status>retired</status>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/rooms/6f232d02-49b1-4805-95ee-d30a2a60b51a"
rel="self" title="self"/>

    </room>

    …

</rooms>
```

3.5.4. *Add a New Room to a Building*

URL: POST {base-uri}/buildings/{building-id}/rooms

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9/rooms

Request XML:

```
<room>

    <name>Random Room 2</name>

</room>
```

3.5.5. *Get Room Collection in a Campus*

Get all rooms within the specified Campus. Optional "term" parameter limits list to rooms with the matching name search pattern.

URL: GET {base-uri}/campuses/{campus-id}/rooms[?term="{name-pattern}"]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/campuses/e8a82f52-2e3f-4856-8967-5efc353a5826/rooms

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<rooms>
   <total-results>7</total-results>
   <items-per-page>7</items-per-page>
   <start-index>0</start-index>
   <room>
        <id>204b1e6b-e115-4fdb-9fdf-95abd5780d8d</id>
        <etag>0</etag>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9"
rel="http://schemas.com.echo360.building" title="building"/>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/
303c4e3b-9803-4826-9fb0-578ed2d505fc" rel="http://
schemas.com.echo360.organization" title="organization"/>
        <name>Podium Room 1</name>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/rooms/204b1e6b-e115-4fdb-9fdf-95abd5780d8d"
rel="self" title="self"/>
   </room>
   <room>
        <id>6f232d02-49b1-4805-95ee-d30a2a60b51a</id>
        <etag>1</etag>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/75638692-b5a3-423e-9fa1-36baaeaa2cc9"
rel="http://schemas.com.echo360.building" title="building"/>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>
        <name>Shared Room</name>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/rooms/6f232d02-49b1-4805-95ee-d30a2a60b51a"
rel="self" title="self"/>
   </room>
   …
```

```
…

…
</rooms>
```

3.5.6. *Get Room Collection in the entire Organization*

URL: GET {base-uri}/rooms[?filter={name-pattern}]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/rooms

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<rooms>

    <total-results>14</total-results>

    <items-per-page>14</items-per-page>

    <start-index>0</start-index>

    <room>

        <id>be3ee55d-2003-43de-bae7-43d6aa78ad53</id>

        <etag>0</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/5df6a341-52f1-4970-bb82-0cb75e2d5398"
rel="http://schemas.com.echo360.building" title="building"/>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/2dca51e6-f376-4579-8019-
fdbe70dfb1f5" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <name>ODU Room 1</name>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/rooms/be3ee55d-2003-43de-bae7-43d6aa78ad53"
rel="self" title="self"/>

    </room>

    <room>

        <id>458aee25-8fd3-4ebf-a683-5fcb0f0dcc95</id>

        <etag>1</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/5df6a341-52f1-4970-bb82-0cb75e2d5398"
rel="http://schemas.com.echo360.building" title="building"/>
```

```
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/2dca51e6-f376-4579-8019-
fdbe70dfb1f5" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <name>ODU Room 2</name>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/rooms/458aee25-8fd3-4ebf-a683-5fcb0f0dcc95"
rel="self" title="self"/>

    </room>

    ...

    ...

    ...

</rooms>
```

3.5.7. *Get Room Details*

URL: GET {base-uri}/rooms/{room-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/rooms/
be3ee55d-2003-43de-bae7-43d6aa78ad53

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<room>

    <id>be3ee55d-2003-43de-bae7-43d6aa78ad53</id>

    <etag>0</etag>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/buildings/5df6a341-52f1-4970-bb82-0cb75e2d5398" rel="http://
schemas.com.echo360.building" title="building"/>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/2dca51e6-f376-4579-8019-fdbe70dfb1f5"
rel="http://schemas.com.echo360.organization"
title="organization"/>

    <name>ODU Room 1</name>

    <status>active</status>

    <time-zone-name>US/Eastern</time-zone-name>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/rooms/be3ee55d-2003-43de-bae7-43d6aa78ad53/device-rooms"
rel="http://schemas.com.echo360.device-room" title="device-
rooms"/>
```

```
   <current-device/>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/rooms/be3ee55d-2003-43de-bae7-43d6aa78ad53/schedule-rules"
rel="http://schemas.com.echo360.schedule-rule" title="schedule-
rules"/>

</room>
```

3.5.8. *Update Room*

This call can be used for changing the name of the room and for changing the room state between "active" and "retired".

> **URL:** PUT {base-uri}/rooms/{room-id}
>
> **Http Request header:** Content-Type=application/xml
>
> **Example:** https://ess.institution.com:8443/ess/scheduleapi/v1/rooms/
> be3ee55d-2003-43de-bae7-43d6aa78ad53
>
> **Request XML:**

```
<room>

     <name>ODU Room 1 UPDATED</name>

     <status>active</status>

</room>
```

3.5.9. *Delete Room*

Permanently deletes the Room from the system. Only "retired" Rooms can be deleted.

> **URL:** DELETE {base-uri}/rooms/{room-id}
>
> **Example:** https://ess.institution.com:8443/ess/scheduleapi/v1/rooms/68adfdd5-
> ebc7-459d-9452-db762b2dd9b6

3.6. **Product-Group, Publisher & Publish-Channel API**

Product groups identify the processed output that will be delivered based on the input from each capture. Publishers and publishing channels identify how the processed echoes are being delivered to end users.

3.6.1. *Get Product-Group Collection*

> **URL:** GET {base-uri}/product-groups
>
> **Example:** https://ess.institution.com:8443/ess/scheduleapi/v1/product-groups
>
> **Response XML:**

```
<?xml version="1.0" encoding="UTF-8"?>
```

```xml
<product-groups>

   <total-results>11</total-results>

   <items-per-page>11</items-per-page>

   <start-index>0</start-index>

   <product-group>

        <id>0464bfc5-8785-435f-bbb6-34edc04f134f</id>

        <etag>0</etag>

        <name>Video Only (Podcast/Vodcast/EchoPlayer). Optimized
for presenter capture quality (SD)</name>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/product-groups/0464bfc5-8785-435f-
bbb6-34edc04f134f" rel="self" title="self"/>

   </product-group>

   <product-group>

        <id>111b3180-b9fb-4675-b306-2bd715d1d01d</id>

        <etag>0</etag>

        <name>Display Only (Podcast/Vodcast/EchoPlayer).
Optimized for detailed PowerPoint presentations</name>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/product-groups/111b3180-b9fb-4675-
b306-2bd715d1d01d" rel="self" title="self"/>

   </product-group>

   ...

   ...

   ...

</product-groups>
```

3.6.2. *Product-Group Details*

URL: GET {base-uri}/product-groups/{product-group-id}

Request XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<product-group>

   <id>0464bfc5-8785-435f-bbb6-34edc04f134f</id>

   <etag>0</etag>
```

```
    <name>Video Only (Podcast/Vodcast/EchoPlayer). Optimized for
presenter capture quality (SD)</name>
</product-group>
```

3.6.3. Publisher Collection

URL: GET {base-uri}/publishers

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/publishers

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>
<publishers>
    <total-results>1</total-results>
    <items-per-page>1</items-per-page>
    <start-index>0</start-index>
    <publisher>
        <id>4b29bf3a-13ac-46b4-a321-9eef2d87b7b2</id>
        <etag>0</etag>
        <name>Publisher1</name>
        <description/>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/publishers/4b29bf3a-13ac-46b4-a321-9eef2d87b7b2"
rel="self" title="self"/>
    </publisher>
</publishers>
```

3.6.4. Publisher Detail

URL: GET {base-uri}/publishers/{publisher-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/publishers/
4b29bf3a-13ac-46b4-a321-9eef2d87b7b2

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>
<publisher>
    <id>4b29bf3a-13ac-46b4-a321-9eef2d87b7b2</id>
    <etag>0</etag>
    <name>Publisher1</name>
```

```
    <description/>

    <properties/>

</publisher>
```

3.6.5. *Publish-Channel Collection in a Section*

URL: GET {base-uri}/sections/{section-id}/publish-channels

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/
72b017b9-52cb-4e54-a90b-cf2f45e83375/publish-channels

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<publish-channels>

    <total-results>1</total-results>

    <items-per-page>1</items-per-page>

    <start-index>0</start-index>

    <publish-channel>

        <id>56ff4eee-93c7-4d99-8b50-46c6ca3ac2ce</id>

        <etag>0</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/sections/72b017b9-52cb-4e54-a90b-cf2f45e83375"
rel="http://schemas.com.echo360.section" title="section"/>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/publishers/9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3"
rel="http://schemas.com.echo360.publisher" title="publisher"/>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/publish-channels/
56ff4eee-93c7-4d99-8b50-46c6ca3ac2ce" rel="self" title="self"/>

    </publish-channel>

</publish-channels>
```

3.6.6. *Delete Publish-Channel Collection from a Section*

URL: DELETE {base-uri}/sections/{section-id}/publish-channels

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/
72b017b9-52cb-4e54-a90b-cf2f45e83375/publish-channels

3.6.7. *Publish-Channel Detail*

URL: GET {base-uri}/publish-channels/{publish-channel-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/publish-channels/ 56ff4eee-93c7-4d99-8b50-46c6ca3ac2ce

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<publish-channel>

    <id>56ff4eee-93c7-4d99-8b50-46c6ca3ac2ce</id>

    <etag>0</etag>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/sections/72b017b9-52cb-4e54-a90b-cf2f45e83375" rel="http://
schemas.com.echo360.section" title="section"/>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/publishers/9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3" rel="http://
schemas.com.echo360.publisher" title="publisher"/>

    <properties/>

</publish-channel>
```

3.6.8. *Update Publish-Channel*

URL: PUT {base-uri}/publish-channels/{publish-channel-id}

Http Request Header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/publish-channels/ 837203a8-5e75-49e6-8ffd-fadb718ba3c7

Request XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<publish-channel>

   <properties>

        <property>

             <key>target-id</key>

             <value>cmsid-1</value>

        </property>

   </properties>

</publish-channel>
```

3.6.9. Delete Publish-Channel

URL: DELETE {base-uri}/publish-channels/{publish-channel-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/publish-channels/837203a8-5e75-49e6-8ffd-fadb718ba3c7

> **NOTE:** For the below API calls, the {section-id} entity can be the EchoSystem ID or the Alternate ID for the section. To make API calls using an Alternate ID, the ID must have been entered into the ESS for the object (in this case, for the section).

3.6.10. Publish-Channel Collection in a Section by Publisher

URL: GET {base-uri}/sections/{section-id}/publishers/{publisher-id}/publish-channels

Alternate URL: GET {base-uri}/publishers/{publisher-id}/sections/{section-id}/publish-channels

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/72b017b9-52cb-4e54-a90b-cf2f45e83375/publishers/9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3/publish-channels

Alernate URL Example: https://ess.institution.com:8443/ess/scheduleapi/v1/publishers/9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3/sections/72b017b9-52cb-4e54-a90b-cf2f45e83375/publish-channels

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<publish-channels>

   <total-results>1</total-results>

   <items-per-page>1</items-per-page>

   <start-index>0</start-index>

   <publish-channel>

       <id>56ff4eee-93c7-4d99-8b50-46c6ca3ac2ce</id>

       <etag>0</etag>

       <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/sections/72b017b9-52cb-4e54-a90b-cf2f45e83375"
rel="http://schemas.com.echo360.section" title="section"/>

       <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/publishers/9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3"
rel="http://schemas.com.echo360.publisher" title="publisher"/>

       <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/publish-channels/
56ff4eee-93c7-4d99-8b50-46c6ca3ac2ce" rel="self" title="self"/>

   </publish-channel>
```

```
</publish-channels>
```

3.6.11.Add new Publish-Channel to Section targeting a Publisher

URL: PUT {base-uri}/sections/{section-id}/publishers/{publisher-id}/publish-channels

Http Request header: Content-Type=application/xml

Alternate URL: PUT {base-uri}/publishers/{publisher-id}/sections/{section-id}/publish-channels

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/publishers/ 9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3/sections/72b017b9-52cb-4e54-a90b-cf2f45e83375/publish-channels

Request XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<publish-channel>

   <properties>

        <property>

             <key>target-id</key>

             <value>cmsid-2</value>

        </property>

   </properties>

</publish-channel>
```

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<publish-channel>

   <id>2534d6df-412c-44b7-843f-336df779a9cf</id>

   <etag>0</etag>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/sections/72b017b9-52cb-4e54-a90b-cf2f45e83375" rel="http://
schemas.com.echo360.section" title="section"/>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/publishers/9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3" rel="http://
schemas.com.echo360.publisher" title="publisher"/>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/publish-channels/2534d6df-412c-44b7-843f-336df779a9cf"
rel="self" title="self"/>

</publish-channel>
```

3.6.12. Delete Publish-Channel from a Section matching a Publisher

URL: DELETE {base-uri}/sections/{section-id}/publishers/{publisher-id}/publish-channels

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ 72b017b9-52cb-4e54-a90b-cf2f45e83375/publishers/ 9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3/publish-channels

3.6.13. Publish-Channel Collection targeting a Publisher

**URL:** GET {base-uri}/publishers/{publisher-id}/publish-channels

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/publishers/ 9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3/publish-channels

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<publish-channels>

   <total-results>1</total-results>

   <items-per-page>1</items-per-page>

   <start-index>0</start-index>

   <publish-channel>

        <id>80fae587-a643-4739-a41f-be0c957a67ec</id>

        <etag>0</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/sections/72b017b9-52cb-4e54-a90b-cf2f45e83375"
rel="http://schemas.com.echo360.section" title="section"/>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/publishers/9e218dd1-3d6e-4b82-9d19-9615fe3a7bd3"
rel="http://schemas.com.echo360.publisher" title="publisher"/>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/publish-channels/80fae587-a643-4739-a41f-
be0c957a67ec" rel="self" title="self"/>

   </publish-channel>

</publish-channels>
```

3.7. Term API

An academic "term" is a period in time in which a collection of courses is offered to students. Typical terms are: Fall, Spring, Summer I, etc.
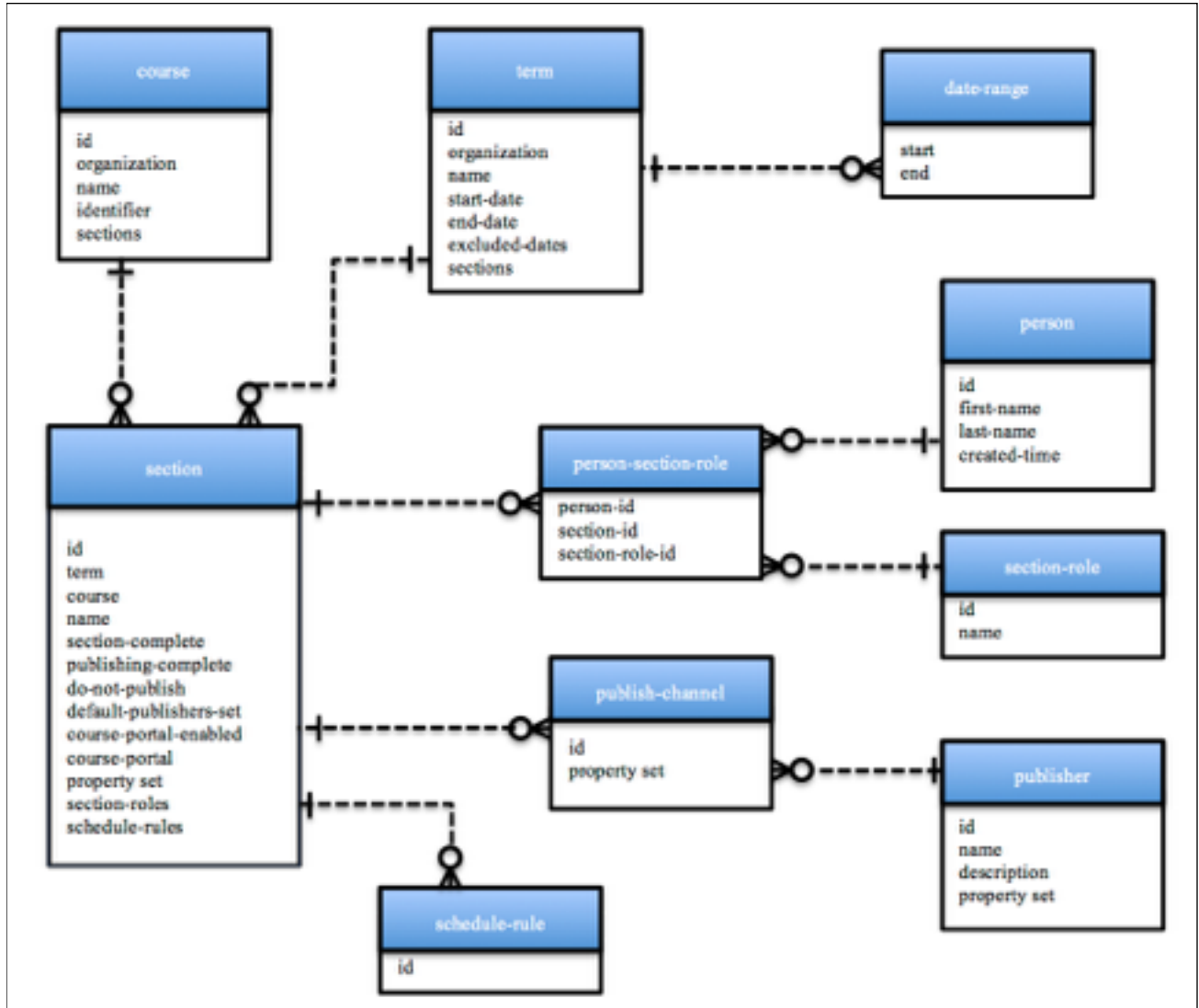
3.7.1. Term Entity's XML mapping

This table defines the mapping of term attributes/fields to/from it's various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
alternateID	All	String	External system ID

Field / Element	Rep. Levels	Type (length)	Information
organiation-id	All	GUID	Organization identifier
organization	All	link	Link to the parent organization for this Term. Auto set to the caller's default organization.
name	All	string(32)	Required, unique name.
start-date	All	iso-date	The date of the first day of the Term. Format: "YYYY-MM-DD"
end-date	All	iso-date	The date of the last day of the Term. Format: "YYYY-MM-DD"
excluded-dates	Detailed	composite collection	An inline collection of date ranges which indicate dates when the Term is not in session. These could be scheduled holiday and break dates. The collection child element is "date-range".
sections	Detailed	link	Link to fetch the collection of Course Sections offered within the academic term.

3.7.2. "date-range" collection item

The Term contains an inline "excluded-dates" collection; which is a list of "date-range" XML elements. A "date-range" element is a simple container holding a "start", and "end" ISO-date element. The format of the date-range element is in the below table.

Field / Element	Rep. Levels	Type (length)	Information
start	All	iso-date	The date of the first day of the date range. Format: "YYYY-MM-DD"
end	All	iso-date	The date of the last day of the date range. Format: "YYYY-MM-DD"

3.7.3. Term Collection

The [?term="name-pattern"] URL parameter filters Terms by matching the Term's name to the search term pattern. Don't confuse the search "term" URL parameter with the "Term" entity.

URL: GET {base-uri}/terms[?term="{name-pattern}"]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```xml
<terms>

   <total-results>3</total-results>

   <items-per-page>3</items-per-page>

   <start-index>0</start-index>

   <term>

        <id>382c9bd7-2cd7-422e-9d8b-aaff921ffd12</id>

        <etag>12</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <name>Spring 2011</name>

         <alternateId>Term alternate ID</alternateId>

        <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

        <start-date>2011-01-01</start-date>

        <end-date>2011-05-31</end-date>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/terms/382c9bd7-2cd7-422e-9d8b-aaff921ffd12"
rel="self" title="self"/>

   </term>

   …

   …

   …

</terms>
```

3.7.4. Add New Term

URL: POST {base-uri}/terms

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms

Request XML:

```xml
<term>

   <name>Autumn 2011</name>

    <alternateId>Term alternate ID</alternateId>
```

```
    <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

    <start-date>2011-09-01</start-date>

    <end-date>2011-11-30</end-date>

</term>
```

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<term>

    <id>c0862d72-467a-45f8-8154-4f3a44c53d9d</id>

    <etag>0</etag>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/e8b76e41-e9d1-454d-ac6b-18ceb464851a"
rel="http://schemas.com.echo360.organization"
title="organization"/>

    <name>Autumn 2011</name>

     <alternateId>Term alternate ID</alternateId>

    <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

    <start-date>2011-09-01</start-date>

    <end-date>2011-11-30</end-date>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/terms/c0862d72-467a-45f8-8154-4f3a44c53d9d" rel="self"
title="self"/>

</term>
```

3.7.5. *Term Detail*

URL: GET {base-uri}/terms/{term-id}

URL: GET {base-uri}/terms/{term-alternate-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms/
382c9bd7-2cd7-422e-9d8b-aaff921ffd12

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<term>

    <id>382c9bd7-2cd7-422e-9d8b-aaff921ffd12</id>
```

```
    <etag>12</etag>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/e8b76e41-e9d1-454d-ac6b-18ceb464851a"
rel="http://schemas.com.echo360.organization"
title="organization"/>

    <name>Spring 2011</name>

     <alternateId>Term alternate ID</alternateId>

    <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

    <start-date>2011-01-01</start-date>

    <end-date>2011-05-31</end-date>

    <excluded-dates>

        <total-results>0</total-results>

        <items-per-page>0</items-per-page>

        <start-index>0</start-index>

    </excluded-dates>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/terms/382c9bd7-2cd7-422e-9d8b-aaff921ffd12/sections"
rel="http://schemas.com.echo360.section" title="sections"/>

</term>
```

3.7.6. *Update Term*

Update the specified Term entity. If the "excluded-date" element is present in the request content, then the current excluded dates are replaced by the request contents.

Request Content: "term" detail XML. Only need to specify the fields that are being updated (name, start/end date, excluded-dates). Non-updatable fields are ignored.

Response Content: Status Only

Errors: not found, duplicate name, client error(bad data format)

URL: PUT {base-uri}/terms/{term-id}

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms/c0862d72-467a-45f8-8154-4f3a44c53d9d

Request XML:

```
<term>

    <name>Autumn 2011 – Special Term</name>
```

```
</term>
```

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<term>

   <id>c0862d72-467a-45f8-8154-4f3a44c53d9d</id>

   <etag>1</etag>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/e8b76e41-e9d1-454d-ac6b-18ceb464851a"
rel="http://schemas.com.echo360.organization"
title="organization"/>

   <name>Autumn 2011 - Special Term</name>

   <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

   <start-date>2011-09-01</start-date>

   <end-date>2011-11-30</end-date>

   <excluded-dates>

        <total-results>0</total-results>

        <items-per-page>0</items-per-page>

        <start-index>0</start-index>

   </excluded-dates>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/terms/c0862d72-467a-45f8-8154-4f3a44c53d9d/sections"
rel="http://schemas.com.echo360.section" title="sections"/>

</term>
```

3.7.7. *Delete Term*

Remove the Term. Removes all content from Term if it is not empty. This includes all Sections, Schedules, and Echoes. The Term will be quickly removed from visibility in the ESS UI, but depending on how many other entities need to be deleted, may remain in the system for several days or even weeks.

URL: DELETE {base-uri}/terms/{term-id}

Errors: not found, client error (undeletable).

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms/
c0862d72-467a-45f8-8154-4f3a44c53d9d

3.7.8. Get Term's Excluded Dates

On Term add or update API requests, the caller can include an excluded-dates collection within the uploaded Term XML. If present, the excluded dates collection defines (on add) or replaces (on update) the current Term excluded dates. This inline collection support is a convenience provided by the API.

The alternate approach is to manage the Term's excluded dates separate from the Term. The table below defines the resource URL calls for managing the exclude dates collection separate from the Term entity.

URL: GET {base-uri}/terms/{term-id}/excluded-dates

URL: GET {base-uri}/terms/{term-alternate-id}/excluded-dates

Reply Content: "excluded-dates" collection that contains "date-range" elements.

Errors: not found

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms/8c9ab585-daa3-4f7a-ba73-3c8a400cd686/excluded-dates

```xml
<?xml version="1.0" encoding="UTF-8"?>
<excluded-dates>
   <total-results>2</total-results>
   <items-per-page>2</items-per-page>
   <start-index>0</start-index>
   <date-range>
       <start>2011-11-24</start>
       <end>2011-11-25</end>
   </date-range>
   <date-range>
       <start>2011-12-23</start>
       <end>2011-12-26</end>
   </date-range>
</excluded-dates>
```

3.7.9. Add Term's Excluded Dates

URL: PUT {base-uri}/terms/{term-id}/excluded-dates

Http Request header: Content-Type=application/xml

Request XML:

```xml
<date-range>
   <start>2011-10-24</start>
```

```
    <end>2011-10-25</end>

</date-range>
```

Response XML:

```
<date-range>

    <start>2011-10-24</start>

    <end>2011-10-25</end>

</date-range>
```

3.7.10. Delete Term's Excluded Dates

Remove (clear) all entries from the specified Term's excluded-date collection.

Errors: not found

URL: DELETE {base-uri}/terms/{term-id}/excluded-dates

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms/8c9ab585-daa3-4f7a-ba73-3c8a400cd686/excluded-dates

3.8. Course API

A Course is offered as one or more Sections within various academic Terms.

Not all schools divide Courses into Sections. In this case, the Course will have only one section. To facilitate this use case, the Echo System can be configured to create a Section record in the "current" academic Term for any newly created Course. If this is the case at your installation, then adding a Course via the API will also create the default Course Section.

3.8.1. Course Entity's XML mapping

This table defines the mapping of Course attributes/fields to/from its various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
alternateId	All	string	External system ID
organization-id	All	GUID	System ID of the parent organization
organization	All	link	Link to the parent organization for this Course. Auto set to the caller's default organization.
name	All	string	Required, unique course name.
identifier	All	string	Course identifier known externally by the organization.

Field / Element	Rep. Levels	Type (length)	Information
sections	Detail	link	Link to fetch the collection of Sections offered for this Course.

3.8.2. Get all Courses

URL: GET {base-uri}/courses[?term="{name-pattern}"]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/courses

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<courses>

   <total-results>5</total-results>

   <items-per-page>5</items-per-page>

   <start-index>0</start-index>

   <course>

        <id>e7163b85-0947-4158-a03f-f7ac1d8c8a40</id>

        <etag>40</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <name>A new course</name>

         <alternateId>Course Alternate Id</alternateId>

        <identifier>ECHO000</identifier>

        <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/courses/e7163b85-0947-4158-a03f-f7ac1d8c8a40"
rel="self" title="self"/>

   </course>

   …

   …

   …

</courses>
```

3.8.3. Add a New Course

URL: POST {base-uri}/courses

Http Request header: Content-Type=application/xml

Request Content: "course" detail XML (name, identifier)

Response Content: "course" summary XML ("id" element holds new ID)

Errors: duplicate "name", client error (content invalid)

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/courses

Request XML:

```
<course>

   <name>Math 101</name>

   <identifier>M101</identifier>

</course>
```

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<course>

   <id>73894863-cfed-4be7-b508-9126e9630ce8</id>

   <etag>0</etag>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/e8b76e41-e9d1-454d-ac6b-18ceb464851a"
rel="http://schemas.com.echo360.organization"
title="organization"/>

   <name>Math 101</name>

    <alternateId>Course Alternate Id</alternateId>

   <identifier>M101</identifier>

   <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/courses/73894863-cfed-4be7-b508-9126e9630ce8" rel="self"
title="self"/>

</course>
```

3.8.4. Get Courses in a Term

Get all Courses with at least one Section within the specified Academic Term.

Reply Content: "courses" collection XML containing "course" summary elements.

Errors: Term not found

URL: GET {base-uri}/terms/{term-id}/courses

URL: GET {base-uri}/terms/{term-id}/courses[?term="{name-pattern}"]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms/8c9ab585-daa3-4f7a-ba73-3c8a400cd686/courses

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<courses>

   <total-results>5</total-results>

   <items-per-page>5</items-per-page>

   <start-index>0</start-index>

   <course>

       <id>e7163b85-0947-4158-a03f-f7ac1d8c8a40</id>

       <etag>40</etag>

       <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>

       <name>A new course</name>

        <alternateId>Course Alternate Id</alternateId>

       <identifier>ECHO000</identifier>

       <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

       <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/courses/e7163b85-0947-4158-a03f-f7ac1d8c8a40"
rel="self" title="self"/>

   </course>

   ...

   ...

   ...

</courses>
```

3.8.5. Course Detail

Retrieve the detailed information on the Course entity.

Reply Content: "course" detailed XML.

Errors: Course not found

URL: GET {base-url}/courses/{course-id}

URL: GET {base-url}/courses/{course-alternate-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/courses/
e7163b85-0947-4158-a03f-f7ac1d8c8a40

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<course>

   <id>e7163b85-0947-4158-a03f-f7ac1d8c8a40</id>

   <etag>40</etag>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/e8b76e41-e9d1-454d-ac6b-18ceb464851a"
rel="http://schemas.com.echo360.organization"
title="organization"/>

   <name>A new course</name>

    <alternateId>Course Alternate Id</alternateId>

   <identifier>ECHO000</identifier>

   <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/courses/e7163b85-0947-4158-a03f-f7ac1d8c8a40/sections"
rel="http://schemas.com.echo360.section" title="sections"/>

</course>
```

3.8.6. Update Course

Update the specified Course entity.

Request Content: "course" detail XML. Only need to specify the fields that are being updated (name, identifier). Non-updatable fields are ignored.

Response Content: Status Only

Errors: not found, duplicate name, client error(bad data format)

URL: PUT {base-url}/courses/{course-id}

URL: PUT {base-url}/courses/{course-alternate-id}

Http Request header: Content-Type=application/xml

Request XML:

```
<course>

   <name>Math 102 – updated</name>

   <identifier>M102-updated</identifier>

        <organization-id>e8b76e41-e9d1-454d-ac6b-18ceb464851a</
organization-id>

</course>
```

3.8.7. Delete Course

Remove the Course. All entities specifically tied to this Course will also be deleted, including Sections, Schedules, and Echoes. The Course will be removed from the ESS UI quickly, but depending on the size and number of related entities, could remain in the system for several days or weeks.

Errors: not found, client error (undeletable).

URL: DELETE {base-url}/courses/{course-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/courses/73894863-cfed-4be7-b508-9126e9630ce8

3.9.   Section

A Section is an offering of a Course for a particular Academic Term. Sections are scheduled against rooms and have lecture captures. The Section's schedule is a set of associated Schedule Event Rules.

3.9.1. Section Entity's XML mapping

This table defines the mapping of section attributes/fields to/from it's various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
term	All	link	Link to the academic term for this Section.
course	All	link	Link to the Section's parent course.
alternateId	All	string	External system ID
name	All	string(32)	Required, unique section name.
section-complete	Detailed	boolean	Indicates if the Section is now complete. If complete, no more captures are scheduled for the section.

Field / Element	Rep. Levels	Type (length)	Information
publishing-complete	Detailed	boolean	Have all the section captures been published.
do-not-publish	Detailed	boolean	Don't allow captures from the section to be published.
default-publishers-set	Detailed	boolean	Were the default publishers setup for the section.
course-portal-enabled	Detailed	boolean	
course-portal	Detailed	link	
properties	Detailed	inline collection	Inline collection of Section "property" items. [New in v2.6]
section-roles	Detailed	inline collection	Inline list of presenters associated with the Section.
schedule-rules	Detailed	link	Link to fetch the schedule-rules for this Section. Schedule-rules contain Capture reservations for Sections, as well as lecture capture events. (see Schedule Rules Resource)
branding-banner-background-asset	Detailed	Link	
logo-asset	Detailed	Link	
branding-intro-asset	Detailed	Link	
branding-outro-asset	Detailed	Link	
branding-watermark-asset	Detailed	Link	

3.9.2. Section Property Item's XML mapping

A Section has a set of Media Property assignments. These settings are implemented as a Section property set. Below, is the "property" XML mapping table .

Field / Element	Rep. Levels	Type (length)	Information
key	All	string	Unique Section property key.
value	All	string	Value bound/assigned to the property.

3.9.3. section-roles inline collection item

The Section entity contains an inline section-roles collection; which is a list of "section-role" XML elements. A "section-role" element is a simple container holding a "person" reference element. The format of the nested "person" xml element is in the below table. Valid section roles are: instructor, ta, student-presenter, guest-presenter. All require the Person to have the academic staff role in the Organization.

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	ID of the person which is a used as a "presenter.
first-name	All	string	The person's first name.
last-name	All	string	The person's last name.
created-time	All		
self	All	Link	

Sample section-roles:

```
<section-roles>

    <section-role>

        <person>

            <id>880e9358-c724-4729-9b1b-9bb28f243683</id>

            <etag>1</etag>

            <first-name>Samuel</first-name>

            <last-name>Clemens</last-name>

            <created-time>2006-01-19T12:35:19.000Z</
created-time>

            <link href="null/people/880e9358-
c724-4729-9b1b-9bb28f243683" rel="self" title="self"/>

        </person>

        <role>section-role-name-instructor</role>

    </section-role>

</section-roles>
```

3.9.4. *Get Sections*

Retrieve the list of Sections. The optional search "term" parameter limits the list to Sections matching on the name attribute.

Reply Content: "sections" collection XML containing "section" summary elements.

Errors: course/term not found

URL: [GET]{base-url}/terms/{term-id}/courses/{course-id}/sections[?term="{name-pattern}"]

Alternate URL 1: {base-uri}/courses/{course-id}/sections[?term="{name-pattern}"]

Retrieve the list of Sections for the given Course. The optional "term" parameter limits the list to Sections matching on the search name attribute.

Reply Content: "sections" collection XML containing "section" summary elements.

Errors: course not found

Alternate URL 2: {base-uri}/terms/{term-id}/sections[?term="{name-pattern}"]

Retrieve the list of Sections for the given Academic Term. The optional search "term" parameter limits the list to Sections matching on the name attribute.

Reply Content: "sections" collection XML containing "section" summary elements.

Errors: Term not found

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms/8c9ab585-daa3-4f7a-ba73-3c8a400cd686/courses/8dbee430-a63b-44eb-986c-bb6847add25f/sections

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<sections>

   <total-results>3</total-results>

   <items-per-page>3</items-per-page>

   <start-index>0</start-index>

   <section>

        <id>99c14ad9-3077-430f-921f-643261b7c4c8</id>

        <etag>3</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/terms/8c9ab585-daa3-4f7a-ba73-3c8a400cd686"
rel="http://schemas.com.echo360.term" title="term"/>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/courses/8dbee430-a63b-44eb-986c-bb6847add25f"
rel="http://schemas.com.echo360.course" title="course"/>
```

```
      <name>100-001</name>

      <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/sections/99c14ad9-3077-430f-921f-643261b7c4c8"
rel="self" title="self"/>

   </section>

   ...

   ...

   ...

</sections>
```

3.9.5. Add a new Section to Course and Term

Add a new Section to the specified Course and Academic Term.

Request Content: "section" detail XML (name, retention parameters, presenters)

Response Content: "section" summary XML ("id" element holds new ID)

Errors: duplicate name, course/term not found, client error (content invalid)

URL: POST {base-url}/terms/{term-id}/courses/{course-id}/sections

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms/8c9ab585-daa3-4f7a-ba73-3c8a400cd686/courses/8dbee430-a63b-44eb-986c-bb6847add25f/sections

Request XML:

```
<section>
 <name>100-099</name>
 <section-roles>
  <section-role>
    <person-id>4e7103ef-9440-4d19-9d55-3c0350b556e9</person-id>
    <role-name>section-role-name-instructor</role-name>
  </section-role>
 </section-roles>
</section>
```

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<section>

   <id>b1063a53-227d-4bc6-89a1-40dd52635703</id>
```

```
    <etag>2</etag>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/terms/8c9ab585-daa3-4f7a-ba73-3c8a400cd686" rel="http://
schemas.com.echo360.term" title="term"/>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/courses/8dbee430-a63b-44eb-986c-bb6847add25f" rel="http://
schemas.com.echo360.course" title="course"/>

    <name>100-099</name>

     <alternateId>alternate section id</alternateId>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/sections/b1063a53-227d-4bc6-89a1-40dd52635703" rel="self"
title="self"/>

</section>
```

3.9.6. *Section Detail*

Retrieve the detailed information on the Section entity.

Reply Content: "section" detailed XML.

Errors: Section not found

URL: {base-uri}/sections/{section-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/
60053c45-7fe2-415b-b006-b2e08c1aa396

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<section>

    <id>60053c45-7fe2-415b-b006-b2e08c1aa396</id>

    <etag>3</etag>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/terms/382c9bd7-2cd7-422e-9d8b-aaff921ffd12" rel="http://
schemas.com.echo360.term" title="term"/>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/courses/8dbee430-a63b-44eb-986c-bb6847add25f" rel="http://
schemas.com.echo360.course" title="course"/>

    <name>100-001</name>

    <section-complete>true</section-complete>

    <publishing-complete>true</publishing-complete>

    <do-not-publish>false</do-not-publish>
```

```xml
<default-publishers-set>true</default-publishers-set>
<course-portal-enabled>true</course-portal-enabled>
<link href="http://10.3.11.174:8082/ess/portal/section/
60053c45-7fe2-415b-b006-b2e08c1aa396" title="course-portal"/>
<section-roles>
    <section-role>
        <person>
            <id>880e9358-c724-4729-9b1b-9bb28f243683</id>
            <etag>1</etag>
            <first-name>Samuel</first-name>
            <last-name>Clemens</last-name>
            <created-time>2006-01-19T12:35:19.000Z</created-time>
            <link href="null/people/880e9358-
c724-4729-9b1b-9bb28f243683" rel="self" title="self"/>
        </person>
        <role>section-role-name-instructor</role>
    </section-role>
</section-roles>
<properties>
    <property>
        <key>product-group</key>
        <value>74156b84-8edb-4016-a597-35abc0c1c486</value>
    </property>
    ...
    ...
    ...
</properties>
    <link title="ec-branding-logo"/>
<link title="branding-banner-background-asset"/>
<link title="logo-asset"/>
<link title="branding-intro-asset"/>
```

```
    <link title="branding-outro-asset"/>

    <link title="branding-watermark-asset"/>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/sections/60053c45-7fe2-415b-b006-b2e08c1aa396/schedule-rules"
rel="http://schemas.com.echo360.schedule-rule" title="schedule-
rules"/>

</section>
```

3.9.7. *Update Section*

Update the specified Section entity.

Request Content: "section" detail XML. Only need to specify the fields that are being updated (retention attributes, presenters). Non-updatable fields are ignored.

Response Content: Status Only

Errors: Section not found, duplicate name, client error(bad data format)

URL: PUT {base-uri}/sections/{section-id}

Http Request header: Content-Type=application/xml

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ 60053c45-7fe2-415b-b006-b2e08c1aa396

Request XML:

```
<section>

    <name>100-099-updated</name>

</section>
```

3.9.8. *Delete Section*

Remove the Section. Deletion will also result in the deletion of all Schedules and Echoes associated with this section. The Section is quickly removed from the ESS UI, but depending on the number of entities associated with it, may remain in the system for longer.

Errors: Section not found, client error (undeletable).

URL: DELETE {base-uri}/sections/{section-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ 60053c45-7fe2-415b-b006-b2e08c1aa396

3.9.9. *Get Section Presenters*

The section presenters can be specified within the Section entity XML, or via the following presenter URLs. These URLs allow direct manipulation of a Section's presenter list.

URL: [GET]{base-uri}/sections/{section-id}/presenters

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ 3c27c936-4c2e-43f3-a577-42292317fd57/presenters

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section-roles>
   <total-results>1</total-results>
   <items-per-page>1</items-per-page>
   <start-index>0</start-index>
   <section-role>
        <person-id>880e9358-c724-4729-9b1b-9bb28f243683</person-id>
        <section-id>3c27c936-4c2e-43f3-a577-42292317fd57</section-id>
        <role-name>section-role-name-instructor</role-name>
   </section-role>
</section-roles>
```

3.9.10. Delete

Clear the Section's presenter list. Removes all presenters currently assigned to the Section.

Errors: Section not found

URL: [DELETE]{base-uri}/sections/{section-id}/presenters

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ 32d73ef8-3511-4ddb-a882-b88824b752fb/presenters/

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section-roles><total-results>0</total-results><items-per-page>0</items-per-page><start-index>0</start-index></section-roles>
```

3.9.11. Section Presenter Detail

Can be used to confirm that a person is a presenter of the Section.

Errors: Section/Person was not found, or the person was not a presenter.

URL: [GET] {base-uri}/sections/{section-id}/presenters/{person-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ 32d73ef8-3511-4ddb-a882-b88824b752fb/presenters/a7a26e4e-4915-4300-acd1-12a5ca14b93c

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>
```

```
<section-role>

   <person-id>a7a26e4e-4915-4300-acd1-12a5ca14b93c</person-id>

   <section-id>32d73ef8-3511-4ddb-a882-b88824b752fb</section-id>

   <role-name>section-role-name-instructor</role-name>

</section-role>
```

3.9.12. Add Section Presenter

Add the person to the Section's presenter list (if they are not already assigned).

Errors: Section/Person was not found

URL: PUT {base-uri}/sections/{section-id}/presenters/{person-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ 32d73ef8-3511-4ddb-a882-b88824b752fb/presenters/a7a26e4e-4915-4300- acd1-12a5ca14b93c

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<section-role>

   <person-id>a7a26e4e-4915-4300-acd1-12a5ca14b93c</person-id>

   <section-id>32d73ef8-3511-4ddb-a882-b88824b752fb</section-id>

   <role-name>section-role-name-guest-presenter</role-name>

</section-role>
```

3.9.13. Delete Section Presenter

Remove the Person from the Section's presenter list.

Errors: Section/Person was not found. Person was not a presenter.

URL: [DELETE] {base-uri}/sections/{section-id}/presenters/{person-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ 32d73ef8-3511-4ddb-a882-b88824b752fb/presenters/a7a26e4e-4915-4300- acd1-12a5ca14b93c

3.9.14. Get all sections for a given Presenter

URL: [GET] {base-uri}/presenters/{person-id}/sections

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/presenters/ a7a26e4e-4915-4300-acd1-12a5ca14b93c/sections

Response XML:

```
 <?xml version="1.0" encoding="UTF-8"?>

<section-roles>
```

```
    <total-results>6</total-results>

    <items-per-page>6</items-per-page>

    <start-index>0</start-index>

    <section-role>

        <person-id>a7a26e4e-4915-4300-acd1-12a5ca14b93c</person-
id>

        <section-id>32d73ef8-3511-4ddb-a882-b88824b752fb</
section-id>

        <role-name>section-role-name-instructor</role-name>

    </section-role>

    ...

</section-roles>
```

3.9.15. Security Module Detail

Can be used to retrieve a listing of the Security Module names and UUID values within EchoSystem.

URL: [GET] {base-uri}/security-modules

[GET] {base-uri}/security-modules/<Security Module ID>

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/security-modules

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<security-modules>

  <total-results>3</total-results>

  <items-per-page>3</items-per-page>

  <start-index>0</start-index>

  <security-module>

    <id>41f562db-bea5-42fb-9368-64a8e297798b</id>

    <etag>0</etag>

    <name>Authentication Required</name>

    <description>Access to content requires authentication
(single sign-on or seamless sign-on if configured, or via ESS
database)</description>

    <organization-id>9174c9d6-3ca9-4adc-9973-02235d3dad3f</
organization-id>
```

```xml
      <link rel="self" title="self" href="https://
10.11.3.200:8443/ess/scheduleapi/v1/security-modules/41f562db-
bea5-42fb-9368-64a8e297798b"/>

  </security-module>

  <security-module>

    <id>5c600793-45ff-4d27-b546-f6a9bb61e2cf</id>

    <etag>0</etag>

    <name>Allow All</name>

    <description>Allows anyone to have access to content, no
authentication is required</description>

    <organization-id>9174c9d6-3ca9-4adc-9973-02235d3dad3f</
organization-id>

    <link rel="self" title="self" href="https://
10.11.3.200:8443/ess/scheduleapi/v1/security-modules/
5c600793-45ff-4d27-b546-f6a9bb61e2cf"/>

  </security-module>

  <security-module>

    <id>d59497f2-e705-481a-acf7-854d413b6e28</id>

    <etag>0</etag>

    <name>Seamless Only</name>

    <description>Access to content is only allowed using
seamless authentication from an external system</description>

    <organization-id>9174c9d6-3ca9-4adc-9973-02235d3dad3f</
organization-id>

    <link rel="self" title="self" href="https://
10.11.3.200:8443/ess/scheduleapi/v1/security-modules/d59497f2-
e705-481a-acf7-854d413b6e28"/>

  </security-module>

</security-modules>
```

3.10. Schedule

A Schedule is used to identify the device and room to be used for a capture, and link it to a section, a presenter and a product group for a single or set of specified dates and times.
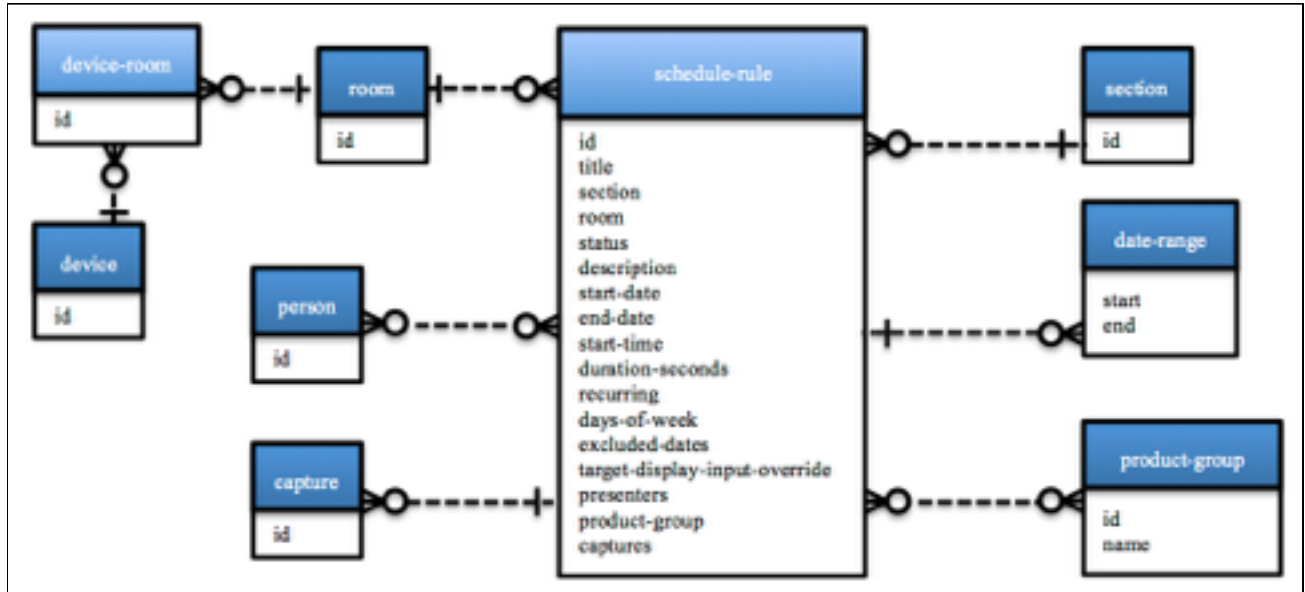
3.10.1.Schedule Rule Entity's XML mapping

This table defines the mapping of Schedule Rule attributes/fields for it's various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
section	All	link	link to the parent Section offering.
room	All	link	Link to the room assignment for capturing the section. Note: the rule can have an unassigned room; which results in an absent room link.
title	All	string	Required name/title for the rule. Useful for searching.
status	All	string	Enumeration constant: (draft, active, complete, trashed)
alternateID	All	string	External system ID
description	Detail	string	Optional text description of the rule

Field / Element	Rep. Levels	Type (length)	Information
start-date	Detail	iso-date	The starting period for this rule. Can be empty if the rule is still in "draft" state. Format: "YYYY-MM-DD"
end date	Detail	iso-date	If this is a recurring capture, then the end date of the rule is required. Format: "YYYY-MM-DD"
start-time	Detail	iso-time	The starting period for this rule. Can be empty.
duration-seconds	Detail	int	Each capture is scheduled to run this many seconds.
recurring	Detail	boolean	Is this rule a one time capture event or does it capture multiple events?
days-of-week	Detail	composite element	Group of Booleans that indicate which days of the week the recurring capture is performed. The field is empty if the recurring bit is false.
end-date	Detail	iso-date	If this is a recurring capture, then the end date of the rule is required. Format: "YYYY-MM-DD"
start-time	Detail	iso-time	The starting period for this rule. Can be empty.
duration-seconds	Detail	int	Each capture is scheduled to run this many seconds.
recurring	Detail	boolean	Is this rule a one time capture event or does it capture multiple events?
days-of-week	Detail	composite element	Group of Booleans that indicate which days of the week the recurring capture is performed. The field is empty if the recurring bit is false.
excluded-dates	Detail	date-range collection	Inline list of "date-range" elements representing dates when the capture should not take place. For example breaks or holidays. See Term Entity's "excluded-dates".
excluded-dates	Detail	date-range collection	Inline list of "date-range" elements representing dates when the capture should not take place. For example breaks or holidays. See Term Entity's "excluded-dates".
target-display-input-override	Detail	string	Optional setting for the capture input dimensions generated by this rule. For example: "640x720".
presenters	Detail	presenter collection	Inline list of presenters for the capture events. See Section Entity's "presenters".
product-group	Detail		

Field / Element	Rep. Levels	Type (length)	Information
captures	Detail	link	Link to the Capture Events generated by this schedule rule.
target-display-input-override	Detail	string	Optional setting for the capture input dimensions generated by this rule. For example: "640x720".
presenters	Detail	presenter collection	Inline list of presenters for the capture events. See Section Entity's "presenters".
product-group	Detail		
captures	Detail	link	Link to the Capture Events generated by this schedule rule.

3.10.2. *"schedule-rule/days-of-week" XML mapping*

This table defines the mapping of the days-of-week data structure to its XML representations.

Field / Element	Rep. Levels	Type (length)	Information
sunday	All	boolean	True if the capture recurs every Sunday.
monday	All	boolean	True if the capture recurs every Monday.
tuesday	All	boolean	True if the capture recurs every Tuesday.
wednesday	All	boolean	True if the capture recurs every Wednesday.
thursday	All	boolean	True if the capture recurs every Thursday.
friday	All	boolean	True if the capture recurs every Friday.
saturday	All	boolean	True if the capture recurs every Saturday.

3.10.3. *Get all Rules in a Section*

Get all Rules associated with the specified Section offering.

URL: [GET]{base-uri}/sections/{section-id}/schedule-rules[?term="name-pattern"]

Reply content: "schedule-rules" collection XML containing "schedule-rule" summary elements.

Errors: Section not found.

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ee408624-a703-4488-be88-0f9ac5245cdc/schedule-rules

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<schedule-rules>

   <total-results>3</total-results>

   <items-per-page>3</items-per-page>

   <start-index>0</start-index>

   <schedule-rule>

       <id>07ff5c3d-c64b-4677-a458-381802bcb9d0</id>

       <etag>3</etag>

       <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/sections/99c14ad9-3077-430f-921f-643261b7c4c8"
rel="http://schemas.com.echo360.section" title="section"/>

       <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/rooms/144682f9-0c88-4d4c-b96b-dd3cc2b44d79"
rel="http://schemas.com.echo360.room" title="room"/>

       <title>Introduction to EchoSystem Server
(ECHO100-100-001) Fall 2011</title>

       <status>completed</status>

        <alternateId>Schedule Rule Alternate ID</alternateId>

       <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/schedule-rules/07ff5c3d-c64b-4677-
a458-381802bcb9d0" rel="self" title="self"/>

   </schedule-rule>

   …

</schedule-rules>
```

3.10.4. Get all Rules in a Term

URL: [GET] {base-uri}/terms/{term-id}/schedule-rules

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/terms/8c9ab585-daa3-4f7a-ba73-3c8a400cd686/schedule-rules

3.10.5. Add a new Schedule Rule to a Section

Add a new Schedule Rule to the Section.

URL: POST {base-uri}/sections/{section-id}/schedule-rules

Errors: duplicate name, client error (content invalid)

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/
32d73ef8-3511-4ddb-a882-b88824b752fb/schedule-rules

Request XML:

```xml
<schedule-rule>

   <title>EchoSystem Server Administration (ECHO101-101-001) Fall
2011</title>

   <status>active</status>

   <description/>

   <start-date>2011-11-23</start-date>

   <end-date>2011-11-23</end-date>

   <start-time>15:00:00.000</start-time>

   <duration-seconds>300</duration-seconds>

   <recurring>false</recurring>

   <days-of-week>

        <sunday>false</sunday>

        <monday>false</monday>

        <tuesday>false</tuesday>

        <wednesday>false</wednesday>

        <thursday>false</thursday>

        <friday>false</friday>

        <saturday>false</saturday>

   </days-of-week>

   <excluded-dates>

   </excluded-dates>

   <target-display-input-override>800x600</target-display-input-
override>

   <product-group>

        <id>74156b84-8edb-4016-a597-35abc0c1c486</id>

        <name>Display Only (Podcast/Vodcast/EchoPlayer). Balanced
between file size &amp; quality</name>

   </product-group>

        <capture-output-type>archive</capture-output-type>
```

```
        <room><id>144682f9-0c88-4d4c-b96b-dd3cc2b44d79</id></
room>

</schedule-rule>
```

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<schedule-rule><id>2a7d38ea-4e73-4891-bc13-84c14ead03fd</
id><etag>2</etag><link rel="http://schemas.com.echo360.section"
title="section" href="https://ess.institution.com:8443/ess/
scheduleapi/v1/sections/ee408624-a703-4488-be88-0f9ac5245cdc"/
><link rel="http://schemas.com.echo360.room" title="room"
href="https://ess.institution.com:8443/ess/scheduleapi/v1/rooms/
144682f9-0c88-4d4c-b96b-dd3cc2b44d79"/><title>EchoSystem Server
Administration (ECHO101-101-001) Fall 2011</
title><status>active</status><link rel="self" title="self"
href="https://ess.institution.com:8443/ess/scheduleapi/v1/
schedule-rules/2a7d38ea-4e73-4891-bc13-84c14ead03fd"/></
schedule-rule>
```

3.10.6. Get Schedule-Rule Detail

Retrieve the detailed information on the Schedule Rule.

Reply content: "schedule-rule" detailed XML..

Errors: not found.

URL: [GET] {base-uri}/schedule-rules/{schedule-rule-id}

URL: [GET] {base-uri}/schedule-rules/{schedule-rule-alternate-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/
412848e0-5d1c-42ec-8845-13a4e3602d67

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<schedule-rule>

   <id>412848e0-5d1c-42ec-8845-13a4e3602d67</id>

   <etag>3</etag>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/sections/ee408624-a703-4488-be88-0f9ac5245cdc" rel="http://
schemas.com.echo360.section" title="section"/>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/rooms/144682f9-0c88-4d4c-b96b-dd3cc2b44d79" rel="http://
schemas.com.echo360.room" title="room"/>
```

```xml
<title>EchoSystem Server Administration (ECHO101-101-001) Fall
2011</title>

<status>completed</status>

 <alternateId>Schedule Rule Alternate ID</alternateId>

<description/>

<start-date>2011-10-31</start-date>

<end-date>2011-10-31</end-date>

<start-time>16:15:00.000</start-time>

<duration-seconds>3000</duration-seconds>

<recurring>false</recurring>

<days-of-week>

      <sunday>false</sunday>

      <monday>false</monday>

      <tuesday>false</tuesday>

      <wednesday>false</wednesday>

      <thursday>false</thursday>

      <friday>false</friday>

      <saturday>false</saturday>

</days-of-week>

<excluded-dates>

      <total-results>0</total-results>

      <items-per-page>0</items-per-page>

      <start-index>0</start-index>

</excluded-dates>

<target-display-input-override>800x600</target-display-input-
override>

<presenters>

      <person>

            <id>a7a26e4e-4915-4300-acd1-12a5ca14b93c</id>

            <etag>1</etag>

            <first-name>Jason</first-name>

            <last-name>Bourne</last-name>
```

```
            <created-time>2006-07-10T09:16:27.000Z</created-
time>

            <link href="null/people/a7a26e4e-4915-4300-
acd1-12a5ca14b93c" rel="self" title="self"/>

        </person>

    </presenters>

    <product-group>

        <id>244d88c9-4738-450d-8a50-bab64fa9e468</id>

        <etag>0</etag>

        <name>Display/Video (Podcast/Vodcast/EchoPlayer).
Balanced between file size &amp; quality</name>

    </product-group>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/schedule-rules/412848e0-5d1c-42ec-8845-13a4e3602d67/captures"
rel="http://schemas.com.echo360.capture" title="captures"/>

</schedule-rule>
```

3.10.7.Update Schedule-Rule

Update the specified Schedule Rule.

>   **URL:** PUT {base-uri}/schedule-rules/{schedule-rule-id}

>   **URL:** PUT {base-uri}/schedule-rules/{schedule-rule-alternate-id}

>   **Request Content:** "schedule-rule" detail XML (description, start-date, start-time, end-date, duration-seconds, target-display-override, recurring, days-of-week, exclude-dates, status, presenters). Note: Only the fields that have changed are required to be present.

>   **Errors:** duplicate name, client error (content invalid)

>   **Example:** https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/9cfb0cc4-7086-41e6-aeba-dcbe0b847b2c

>   **Request XML:**

```
<schedule-rule>

    <title>UPDATED Introduction to EchoSystem Server
(ECHO100-100-001) Fall 2011</title>

<product-group>

        <id>244d88c9-4738-450d-8a50-bab64fa9e468</id>

        <etag>0</etag>
```

```
        <name>Display/Video (Podcast/Vodcast/EchoPlayer).
Balanced between file size &amp; quality</name>

   </product-group>


</schedule-rule>
```

3.10.8. Delete Schedule-Rule

Remove the schedule rule. This will remove all future scheduled Captures, but any Captures that are in progress or completed will not be removed. In progress Captures will be stopped.

URL: [DELETE] {base-uri}/schedule-rules/{schedule-rule-id}

URL: [DELETE] {base-uri}/schedule-rules/{schedule-rule-alternate-id}

Errors: not found

3.10.9. Get Schedule-Rule Rooms

Retrieve a "rooms" collection for the specified Schedule Rule. The collection will contain zero or one room summary entity.

On Schedule Rule add or update API requests, the caller can include the assigned room within the uploaded entity XML. The alternate approach is to manage the room assignment operation separate from the Schedule Rule entity update operation.

Reply Content: "rooms" collection that contains zero/one "room" element.

Errors: Schedule Rule was not found

URL: [GET] {base-uri}/schedule-rules/{schedule-rule-id}/rooms

URL: [GET] {base-uri}/schedule-rules/{schedule-rule-alternate-id}/rooms

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/ 412848e0-5d1c-42ec-8845-13a4e3602d67/rooms

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<rooms>

   <total-results>1</total-results>

   <items-per-page>1</items-per-page>

   <start-index>0</start-index>

   <room>

        <id>144682f9-0c88-4d4c-b96b-dd3cc2b44d79</id>

        <etag>1</etag>
```

```
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/buildings/5df6a341-52f1-4970-bb82-0cb75e2d5398"
rel="http://schemas.com.echo360.building" title="building"/>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <name>Capture Appliance Room</name>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/rooms/144682f9-0c88-4d4c-b96b-dd3cc2b44d79"
rel="self" title="self"/>

    </room>

</rooms>
```

3.10.10. Delete Schedule-Rule Rooms

Set the room assignment to empty/null.

Errors: Schedule Rule was not found.

URL: [DELETE] {base-uri}/schedule-rules/{schedule-rule-id}/rooms

URL: [DELETE] {base-uri}/schedule-rules/{schedule-rule-alternate-id}/rooms

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/
412848e0-5d1c-42ec-8845-13a4e3602d67/rooms

3.10.11. Get Schedule-Rule Room

Check if the given Room is already assigned to the specified Schedule Rule.

Returns 200: if the room is already assigned to the rule.

Returns 400 (not found): if the room is not assigned to the rule.

Returns 400 (not found): if the Schedule Rule or Room are not found.

URL: [GET] {base-uri}/schedule-rules/{schedule-rule-id}/rooms/{room-id}

URL: [GET] {base-uri}/schedule-rules/{schedule-rule-alternate-id}/rooms/{room-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/
21e3022b-3b13-48df-ab87-d8db599c4703/rooms/144682f9-0c88-4d4c-b96b-
dd3cc2b44d79

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<room>

    <id>144682f9-0c88-4d4c-b96b-dd3cc2b44d79</id>

    <etag>1</etag>
```

```
    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/buildings/5df6a341-52f1-4970-bb82-0cb75e2d5398" rel="http://
schemas.com.echo360.building" title="building"/>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/e8b76e41-e9d1-454d-ac6b-18ceb464851a"
rel="http://schemas.com.echo360.organization"
title="organization"/>

    <name>Capture Appliance Room</name>

    <time-zone-name>US/Eastern</time-zone-name>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/rooms/144682f9-0c88-4d4c-b96b-dd3cc2b44d79/device-rooms"
rel="http://schemas.com.echo360.device-room" title="device-
rooms"/>

    <current-device>

        <id>e935c8f3-ebcb-4280-b368-5c9a30c2101c</id>

        <key>00-50-c2-8e-ae-5b</key>

    </current-device>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/rooms/144682f9-0c88-4d4c-b96b-dd3cc2b44d79/schedule-rules"
rel="http://schemas.com.echo360.schedule-rule" title="schedule-
rules"/>

</room>
```

3.10.12. Add Room to Schedule-Rule

Assign the given room to the specified schedule-rule.

Errors: Schedule Rule or Room was not found.

URL: PUT {base-uri}/schedule-rules/{schedule-rule-id}/rooms/{room-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/
2b46f818-7aff-43a6-849a-60fc12906cc7/rooms/144682f9-0c88-4d4c-b96b-
dd3cc2b44d79

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<room>

    <id>144682f9-0c88-4d4c-b96b-dd3cc2b44d79</id>

    <etag>1</etag>
```

```
    <link href="null/buildings/5df6a341-52f1-4970-
bb82-0cb75e2d5398" rel="http://schemas.com.echo360.building"
title="building"/>

    <link href="null/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>

    <name>Capture Appliance Room</name>

    <link href="null/rooms/144682f9-0c88-4d4c-b96b-dd3cc2b44d79"
rel="self" title="self"/>

</room>
```

3.10.13. Delete Room from Schedule-Rule

Remove the room from the Schedule Rule.

Errors: Schedule Rule or Room was not found, or the Room was not assigned to the rule.

URL: [DELETE] {base-uri}/schedule-rules/{schedule-rule-id}/rooms/{room-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/
2b46f818-7aff-43a6-849a-60fc12906cc7/rooms/144682f9-0c88-4d4c-b96b-
dd3cc2b44d79

3.10.14. Get Schedule-Rule Excluded-Dates

Retrieve the excluded-dates collection for the specified Schedule Rule.

On Schedule Rule add or update API requests, the caller can include an excluded-dates collection within the uploaded entity XML. If present, the excluded dates collection defines (on add) or replaces (on update) the current Schedule Rule's excluded dates. This inline collection support is a convenience provided by the API.

The alternate approach is to manage the excluded dates separate from the Schedule Rule entity.

URL: [GET]{base-uri}/schedule-rules/{schedule-rule-id}/excluded-dates

Reply content: "excluded-dates" collection that contains "date-range" elements.

Errors: Schedule Rule was not found.

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/
239e6662-3873-46ea-8ecb-1b21692d516f/excluded-dates

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<excluded-dates>

    <total-results>2</total-results>

    <items-per-page>2</items-per-page>
```

```
<start-index>0</start-index>
<date-range>
      <start>2011-11-24</start>
      <end>2011-11-25</end>
</date-range>
<date-range>
      <start>2011-12-23</start>
      <end>2011-12-25</end>
</date-range>
</excluded-dates>
```

3.10.15. Add Excluded-Dates to Schedule-Rule

Add a date range to the Schedule Rule's excluded dates collection.

> **Request Content:** "date-range" XML.
>
> **Response Content:** "date-range" XML (can be ignored)
>
> **Errors:** not found, client error(bad data format)
>
> **URL:** PUT {base-uri}/schedule-rules/{schedule-rule-id}/excluded-dates
>
> **Example:** https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/ 239e6662-3873-46ea-8ecb-1b21692d516f/excluded-dates
>
> **Request XML:**

```
<date-range>
<start>2011-11-11</start>
<end>2011-11-10</end>
</date-range>
```

> **Response XML:**

```
<?xml version="1.0" encoding="UTF-8"?>
<date-range><start>2011-11-11</start><end>2011-11-10</end></
date-range>
```

3.10.16. Delete All Excluded-Dates from Schedule-Rule

Remove all entries from the specified Schedule Rule's excluded-date collection.

> **Errors:** not found
>
> **URL:** [DELETE] {base-uri}/schedule-rules/{schedule-rule-id}/excluded-dates

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/ 239e6662-3873-46ea-8ecb-1b21692d516f/excluded-dates

3.10.17.Get Schedule-Rule Presenters

Retrieve the list of presenters for the specified Schedule Rule. See also *Get all Schedules for a Person* on page 15.

> **Reply content:** "presenters" collection of "presenter" elements.

> **Errors:** Schedule Rule was not found.

> **URL:** [GET] {base-uri}/schedule-rules/{schedule-rule-id}/presenters

> **Example:** https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/ 239e6662-3873-46ea-8ecb-1b21692d516f/presenters

> **Response XML:**

```xml
<?xml version="1.0" encoding="UTF-8"?>
<presenters>
   <total-results>1</total-results>
   <items-per-page>1</items-per-page>
   <start-index>0</start-index>
   <presenter>
        <person>
             <id>880e9358-c724-4729-9b1b-9bb28f243683</id>
             <first-name>Samuel</first-name>
             <last-name>Clemens</last-name>
        </person>
   </presenter>
</presenters>
```

3.10.18.Delete all Schedule-Rule Presenters

Clear the Schedule Rule's presenter list.

> **Errors:** Schedule Rule was not found.

> **URL:** [DELETE] {base-uri}/schedule-rules/{schedule-rule-id}/presenters

> **Example:** https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/ 239e6662-3873-46ea-8ecb-1b21692d516f/presenters

3.10.19.Add a Presenter to Schedule-Rule

Add the person to the Schedule Rule's presenter list.

Request Content: Empty

Response Content: Empty

Errors: Schedule Rule was not found.

URL: PUT {base-uri}/schedule-rules/{schedule-rule-id}/presenters/{person-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/
239e6662-3873-46ea-8ecb-1b21692d516f/presenters/880e9358-
c724-4729-9b1b-9bb28f243683

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<presenter><person><id>880e9358-c724-4729-9b1b-9bb28f243683</
id><first-name>Samuel</first-name><last-name>Clemens</last-
name></person></presenter>
```

3.10.20. Delete Person from Schedule-Rule

Remove the Person from the Schedule Rule's presenter list.

Errors: Schedule Rule was not found.

URL: [DELETE]{base-uri}/schedule-rules/{schedule-rule-id}/presenters/{person-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/
239e6662-3873-46ea-8ecb-1b21692d516f/presenters/880e9358-
c724-4729-9b1b-9bb28f243683

3.10.21. Get Schedule Rule Product-Groups

Retrieve the list of Product assignments for the specified Schedule Rule.

Reply Content: "products" collection of "product" elements.

Errors: Schedule Rule not found

URL: [GET]{base-uri}/schedule-rules/{schedule-rule-id}/product-groups

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/
9cfb0cc4-7086-41e6-aeba-dcbe0b847b2c/product-groups

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>
<product-groups>
   <total-results>1</total-results>
   <items-per-page>1</items-per-page>
   <start-index>0</start-index>
   <product-group>
        <id>244d88c9-4738-450d-8a50-bab64fa9e468</id>
```

```
        <etag>0</etag>

        <name>Display/Video (Podcast/Vodcast/EchoPlayer).
Balanced between file size &amp; quality</name>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/product-groups/244d88c9-4738-450d-8a50-
bab64fa9e468" rel="self" title="self"/>

    </product-group>

</product-groups>
```

3.10.22. Delete Schedule-Rule Product-Groups

Clear the Schedule Rule's product list. Removes all products currently assigned to the Rule.

Errors: Schedule Rule not found

URL: [DELETE] {base-uri}/schedule-rules/{schedule-rule-id}/product-groups

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/9cfb0cc4-7086-41e6-aeba-dcbe0b847b2c/product-groups

3.10.23. Get Product-Group Detail

URL: [GET] {base-uri}/schedule-rules/{schedule-rule-id}/product-groups/{product-group-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/9cfb0cc4-7086-41e6-aeba-dcbe0b847b2c/product-groups/244d88c 9-4738-450d-8a50-bab64fa9e468

Response XML:
```
<?xml version="1.0" encoding="UTF-8"?>

<product-group>

    <id>244d88c9-4738-450d-8a50-bab64fa9e468</id>

    <etag>0</etag>

    <name>Display/Video (Podcast/Vodcast/EchoPlayer). Balanced
between file size &amp; quality</name>

</product-group>
```

3.10.24. Add Product-Group to Schedule-Rule

URL: PUT {base-uri}/schedule-rules/{schedule-rule-id}/product-groups/{product-group-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/9cfb0cc4-7086-41e6-aeba-dcbe0b847b2c/product-groups/244d88c 9-4738-450d-8a50-bab64fa9e468

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<product-group>
    <id>244d88c9-4738-450d-8a50-bab64fa9e468</id>
    <etag>0</etag>
    <name>Display/Video (Podcast/Vodcast/EchoPlayer). Balanced
between file size &amp; quality</name>
    <link href="null/product-groups/244d88c9-4738-450d-8a50-
bab64fa9e468" rel="self" title="self"/>
</product-group>
```

3.10.25. Remove Product-Group from Schedule-Rule

URL: [DELETE] {base-uri}/schedule-rules/{schedule-rule-id}/product-groups/{product-group-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/ 9cfb0cc4-7086-41e6-aeba-dcbe0b847b2c/product-groups/244d88c 9-4738-450d-8a50-bab64fa9e468

3.11. Capture

The Capture related entities are only available as read-only entities from the Scheduling API. They represent the capture history as well as the future scheduled capture events. The Scheduling Rule is the updatable entity that control scheduled capture events. Changes to the Schedule Rule will create/modify capture events.

One or more capture entities are created when a Schedule Rule is entered into the Echo360 System. The Captures represent each instance of a lecture capture. The Scheduling API only allows read access to Capture records. Changes made to the parent Schedule Rule will update the related (future) Captures.
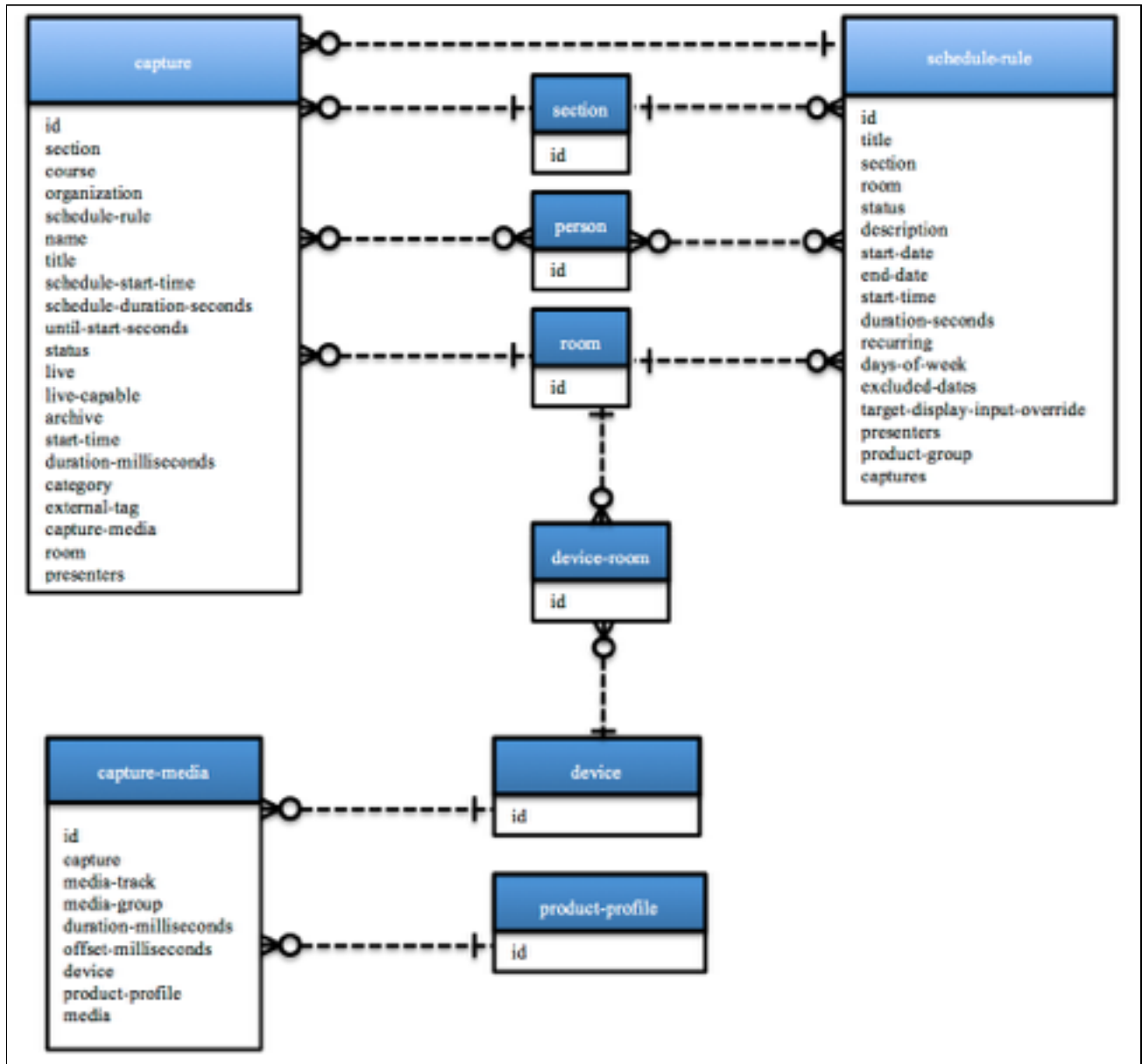
3.11.1.Capture Entity's XML mapping

This table defines the mapping of Capture Event attributes/fields for it's various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
organization	All	link	Link to the parent organization for this Capture. Auto set to the caller's default organization.
schedule-rule	All	link	link to the parent Schedule Rule that created this capture event.
name	All	string(116)	Name used for search.
scheduled-start-time	All	iso-datetime	When the event is/was scheduled to start.
scheduled-duration-seconds	All	int	The scheduled length of the capture event.
start-time	Detail	iso-datetime	The actual start date/time of the captured event. This is set to the scheduled start time if this is a future event.
duration-milliseconds	Detail	int	The actual length of the captured event.
title	Detail	string(255)	Capture event title.
external-tag	Detail	string(50)	Optional field set to an external system's tag property.
status	Detail	string	Status enumeration value.
target-display-input	Detail	string(30)	
capture-video	Detail	boolean	Should the event capture the video feed.
allow-audio-download	Detail	boolean	Is the audio only allowed to be downloaded.
timing-xml	Detail	CLOB	
capture-medias	Detail	link	link to the list of media files (media data) created by this capture event.
[section]	Detail	link	In order to support event data archive, the Section captured is placed in it's own capture field.

Field / Element	Rep. Levels	Type (length)	Information
[room]	Detail	link	In order to support event data archive, the Room captured is placed in it's own capture field.
[presenters]	Detail	inline-collection	In order to support event data archive, the Presenters captured is placed in it's own collection field.

3.11.2.Get Captures for a Schedule-Rule

Get all Captures associated to the specified Schedule Rule.

Reply Content: "captures" collection XML containing "capture" summary elements.

Errors: schedule-rule was not found.

URL: [GET] {base-uri}/schedule-rule/{schedule-rule-id}/captures[?term="{name-pattern}"]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/schedule-rules/239e6662-3873-46ea-8ecb-1b21692d516f/captures

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<captures>
   <total-results>8</total-results>
   <items-per-page>8</items-per-page>
   <start-index>0</start-index>
   <capture>
        <id>8c5d66a8-581c-4fbd-9c47-14179e0f7b69</id>
        <etag>1</etag>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/sections/99c14ad9-3077-430f-921f-643261b7c4c8"
rel="http://schemas.com.echo360.section" title="section"/>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/courses/8dbee430-a63b-44eb-986c-bb6847add25f"
rel="http://schemas.com.echo360.course" title="course"/>
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/
303c4e3b-9803-4826-9fb0-578ed2d505fc" rel="http://
schemas.com.echo360.organization" title="organization"/>
```

```
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/schedule-rules/
239e6662-3873-46ea-8ecb-1b21692d516f" rel="http://
schemas.com.echo360.schedule-rule" title="schedule-rule"/>

        <name>42584795b3c8446db087d34ca688ca23</name>

        <title>Introduction to EchoSystem Server
(ECHO100-100-001) Fall 2011</title>

        <scheduled-start-time
tz="EST">2011-11-07T12:30:00.000-05:00</scheduled-start-time>

        <scheduled-duration-seconds>600</scheduled-duration-
seconds>

        <until-start-seconds>14512</until-start-seconds>

        <status>capture-status-not-started</status>

        <live>false</live>

        <live-capable>false</live-capable>

        <archive>true</archive>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/captures/8c5d66a8-581c-4fbd-9c47-14179e0f7b69"
rel="self" title="self"/>

    </capture>

    ...

    ...

</captures>
```

3.11.3. Get Captures for a Room

Get all Captures associated with a given room.

Reply Content: "captures" collection XML containing "capture" summary elements.

Errors: room was not found.

URL: {base-uri}/rooms/{room-id}/captures[?term="{name-pattern}"]

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/rooms/
144682f9-0c88-4d4c-b96b-dd3cc2b44d79/captures

Response XML:

```
<captures>

    <total-results>10</total-results>

    <items-per-page>10</items-per-page>
```

```xml
<start-index>0</start-index>
<capture>
    <id>988b0214-1d2e-4479-b747-2699133ac051</id>
    <etag>61</etag>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/sections/99c14ad9-3077-430f-921f-643261b7c4c8"
rel="http://schemas.com.echo360.section" title="section"/>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/courses/8dbee430-a63b-44eb-986c-bb6847add25f"
rel="http://schemas.com.echo360.course" title="course"/>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/
303c4e3b-9803-4826-9fb0-578ed2d505fc" rel="http://
schemas.com.echo360.organization" title="organization"/>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/schedule-rules/07ff5c3d-c64b-4677-
a458-381802bcb9d0" rel="http://schemas.com.echo360.schedule-
rule" title="schedule-rule"/>
    <name>45e3c51ccebd40b5a5102d04f36baf27</name>
    <title>Introduction to EchoSystem Server
(ECHO100-100-001) Fall 2011</title>
    <scheduled-start-time
tz="EST">2011-11-21T12:30:00.000-05:00</scheduled-start-time>
    <scheduled-duration-seconds>3000</scheduled-duration-
seconds>
    <until-start-seconds>-1464352</until-start-seconds>
    <status>capture-status-skipped</status>
    <live>false</live>
    <live-capable>false</live-capable>
    <archive>true</archive>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/captures/988b0214-1d2e-4479-b747-2699133ac051"
rel="self" title="self"/>
</capture>
...
</captures>
```

3.11.4.Get Capture Details

Retrieve the detailed information on the Capture event.

Reply Content: "capture" detailed XML.

Errors: not found

URL: [GET] {base-uri}/captures/{capture-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/captures/8c5d66a8-581c-4fbd-9c47-14179e0f7b69

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>
<capture>
    <id>8c5d66a8-581c-4fbd-9c47-14179e0f7b69</id>
    <etag>1</etag>
    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/sections/99c14ad9-3077-430f-921f-643261b7c4c8" rel="http://
schemas.com.echo360.section" title="section"/>
    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/courses/8dbee430-a63b-44eb-986c-bb6847add25f" rel="http://
schemas.com.echo360.course" title="course"/>
    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/303c4e3b-9803-4826-9fb0-578ed2d505fc"
rel="http://schemas.com.echo360.organization"
title="organization"/>
    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/schedule-rules/239e6662-3873-46ea-8ecb-1b21692d516f"
rel="http://schemas.com.echo360.schedule-rule" title="schedule-
rule"/>
    <name>42584795b3c8446db087d34ca688ca23</name>
    <title>Introduction to EchoSystem Server (ECHO100-100-001)
Fall 2011</title>
    <scheduled-start-time tz="EST">2011-11-07T12:30:00.000-05:00</
scheduled-start-time>
    <scheduled-duration-seconds>600</scheduled-duration-seconds>
    <until-start-seconds>13102</until-start-seconds>
    <status>capture-status-not-started</status>
    <live>false</live>
    <live-capable>false</live-capable>
```

```
   <archive>true</archive>

   <start-time tz="EST">2011-11-07T12:30:00.000-05:00</start-
time>

   <duration-milliseconds>600000</duration-milliseconds>

   <category>capture-category-scheduled-recurring</category>

   <external-tag/>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/captures/8c5d66a8-581c-4fbd-9c47-14179e0f7b69/capture-medias"
rel="http://schemas.com.echo360.capture-media" title="capture-
medias"/>

   <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/rooms/144682f9-0c88-4d4c-b96b-dd3cc2b44d79" rel="http://
schemas.com.echo360.room" title="room"/>

   <presenters>

        <person>

              <id>880e9358-c724-4729-9b1b-9bb28f243683</id>

              <etag>1</etag>

              <first-name>Samuel</first-name>

              <last-name>Clemens</last-name>

              <created-time>2006-01-19T12:35:19.000Z</created-
time>

              <link href="null/people/880e9358-
c724-4729-9b1b-9bb28f243683" rel="self" title="self"/>

        </person>

   </presenters>

</capture>
```

3.12. Capture-Media

A single Capture Event can generate multiple media files. Each generated file is represented by the Capture Media Entity. As with the Capture event entity, the Scheduling API only allows read access to the Capture Media records.

3.12.1.Capture Media Entity's XML mapping

This table defines the mapping of Capture Media attributes/fields for it's various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated entity identifier.
capture	All	link	link to the parent Capture Event that created the media.
media-track	All	string	Enumerated constant that indicates how this media is used. values(audio, audio-vga, audio-video, flash-movie, flipbook, thumbnail, vga, video)
media-group	All	string	Enumerated constant that indicates the major media group for this media. values (edit-proxy, master, primary, projector).
duration-milliseconds	Detail	int	Running length of the media in milliseconds.
offset-milliseconds	Detail	int	
device	Detail	link	Link to the Device which generated/captured this media.
product-profiles	Detail	inline collection	Inline list of "product-profile" items. These are the Product Profiles used when generating the media file.
media	Detail	composite element	Detailed media attributes of the captured file.

3.12.2."media" composite element XML mapping

This table defines the mapping of Media attributes/fields for it's XML representation. A Media entity contains information on a capture generated media file.

Field / Element	Rep. Levels	Type (length)	Information
path	All	string	File path of the media.
type	All	string	The media file type: jpg, mp3, aac, m4b, rm, mov, wmv, flv, swf, m4v, h264, mp4
hash	All	composite element	Hash value of the associated capture media file.
file-size-bytes	All	long	Bytes size of the associated media file.
technical	All	composite element	Grouping of file capture technical stats.
tag	All	composite element	Grouping of information attributes about the media contents.

3.12.3."media/hash" composite element XML mapping

This table defines the mapping of Hash attributes/fields for it's XML representation. Each file generated by a capture has an associated hash value that helps verify the file integrity after file transfer.

Field / Element	Rep. Levels	Type (length)	Information
algorithm	All	string	An enumerated string that indicates the hash algorithm used to generate the hash vale. (Adler32, CRC32, MD2, MD5, SHA_1, SHA_256, SHA_384, SHA_512)
value	All	string	The actual hash value generated for the associated capture media file.

3.12.4."media/technical" XML mapping

This table defines the mapping of media-technical attributes/fields to its XML representations.

Field / Element	Rep. Levels	Type (length)	Information
frame-rate	All	numeric	frame rate of the captured media.
bit-rate	All	int	Captured bit-rate of the media.

Field / Element	Rep. Levels	Type (length)	Information
width	All	int	line/pixel width of the media frames.
height	All	int	line/pixel height of the media frames.
file-server	All	string	

3.12.5."media/tag" XML mapping

This table defines the mapping of media tag attributes/fields to its XML representations. Media Tag is a collection of metadata attributes that can be assigned to a captured media. The "tag" attributes are set/edited by a Echo360 user via the presentation UI component.

Field / Element	Rep. Levels	Type (length)	Information
year	All	int	Optional year when the content was produced/recorded
comment	All	string	Optional text describing the content
copyright	All	string	Optional copyright statement covering the content.
album	All	string	Optional album name used to group content.
artist-name	All	string	Optional person who produced the content.
genre	All	string	Optional category of the content.

3.12.6.Get Capture-Medias

Get all Media associated with the specified Capture Event.

Reply Content: "capture-medias" collection XML containing "capture-media" summary elements.

Errors: Capture Event not found.

URL: [GET]{base-uri}/captures/{capture-id}/capture-medias

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/captures/ 75e3a99d-6a6b-4292-8155-bbfd104b9270/capture-medias

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>
<capture-medias>
   <total-results>27</total-results>
   <items-per-page>27</items-per-page>
   <start-index>0</start-index>
```

```xml
<capture-media>
    <id>1c4485ad-a16c-4e95-b448-d241f2a71750</id>
    <etag>1</etag>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/captures/75e3a99d-6a6b-4292-8155-bbfd104b9270"
rel="http://schemas.com.echo360.capture" title="capture"/>
    <media-track>video</media-track>
    <media-group>master</media-group>
    <duration-millis>227250</duration-millis>
    <offset-millis>0</offset-millis>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/devices/e935c8f3-ebcb-4280-b368-5c9a30c2101c"
rel="http://schemas.com.echo360.device" title="device"/>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/capture-medias/1c4485ad-a16c-4e95-b448-
d241f2a71750" rel="self" title="self"/>
</capture-media>
<capture-media>
    <id>cfad3576-77b4-4088-92a4-996228e5a561</id>
    <etag>0</etag>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/captures/75e3a99d-6a6b-4292-8155-bbfd104b9270"
rel="http://schemas.com.echo360.capture" title="capture"/>
    <media-track>mobile-video</media-track>
    <media-group>primary</media-group>
    <duration-millis>227369</duration-millis>
    <offset-millis>0</offset-millis>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/devices/e935c8f3-ebcb-4280-b368-5c9a30c2101c"
rel="http://schemas.com.echo360.device" title="device"/>
    <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/capture-medias/
cfad3576-77b4-4088-92a4-996228e5a561" rel="self" title="self"/>
</capture-media>
...
```

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```
        ...
    </capture-medias>
```

3.12.7.Capture-Media Details

Retrieve the detailed information on the Capture Media.

Reply Content: "capture-media" detailed XML.

Errors: not found.

URL: [GET] {base-uri}/capture-medias/{capture-media-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/capture-medias/ cfad3576-77b4-4088-92a4-996228e5a561

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<capture-media>

    <id>cfad3576-77b4-4088-92a4-996228e5a561</id>

    <etag>0</etag>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/captures/75e3a99d-6a6b-4292-8155-bbfd104b9270" rel="http://
schemas.com.echo360.capture" title="capture"/>

    <media-track>mobile-video</media-track>

    <media-group>primary</media-group>

    <duration-millis>227369</duration-millis>

    <offset-millis>0</offset-millis>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/devices/e935c8f3-ebcb-4280-b368-5c9a30c2101c" rel="http://
schemas.com.echo360.device" title="device"/>

    <product>

        <id>88b22b64-2ada-4088-852e-6504be508a12</id>

        <etag>0</etag>

        <name-key>swf-vga-flv-audio-video</name-key>

        <link href="null/products/
88b22b64-2ada-4088-852e-6504be508a12" rel="self" title="self"/>

    </product>

    <media>

        <path>audio-vga-streamable.m4v</path>
```

```
                <type>m4v</type>

                <hash>

                        <algorithm>Adler32</algorithm>

                        <value>30d38a00</value>

                </hash>

                <file-size-in-bytes>979956</file-size-in-bytes>

                <technical>

                        <frame-rate>4.0</frame-rate>

                        <bit-rate>564000</bit-rate>

                        <width>640</width>

                        <height>480</height>

                        <file-server/>

                </technical>

                <tag/>

        </media>

</capture-media>
```

3.12.8. Get Presentations

URL: [GET] {base-uri}/captures/{capture-id}/presentations

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/captures/ 75e3a99d-6a6b-4292-8155-bbfd104b9270/presentations

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<presentations>

   <total-results>1</total-results>

   <items-per-page>1</items-per-page>

   <start-index>0</start-index>

   <presentation>

        <id>6c7a5f73-e6d4-46fe-94fa-53469af3c051</id>

        <etag>2</etag>

        <until-start-seconds>-585859</until-start-seconds>
```

```
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/
303c4e3b-9803-4826-9fb0-578ed2d505fc" rel="http://
schemas.com.echo360.organization" title="organization"/>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/captures/75e3a99d-6a6b-4292-8155-bbfd104b9270"
rel="http://schemas.com.echo360.capture" title="capture"/>

        <name>2ea2aec153a34325b2f8d4318fe0f856</name>

        <title>EchoSystem Server Administration (ECHO101-101-001)
Fall 2011</title>

        <start-time>2011-10-31T16:15:00.000-04:00</start-time>

        <duration-milliseconds>227250</duration-milliseconds>

        <deleted>false</deleted>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/presentations/6c7a5f73-
e6d4-46fe-94fa-53469af3c051" rel="self" title="self"/>

    </presentation>

</presentations>
```

3.12.9. Get Presentation Details

URL: [GET] {base-uri}/presentations/{presentation-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/presentations/6c7a5f73-e6d4-46fe-94fa-53469af3c051

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<presentation>

    <id>6c7a5f73-e6d4-46fe-94fa-53469af3c051</id>

    <etag>2</etag>

    <until-start-seconds>-585923</until-start-seconds>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/303c4e3b-9803-4826-9fb0-578ed2d505fc"
rel="http://schemas.com.echo360.organization"
title="organization"/>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/captures/75e3a99d-6a6b-4292-8155-bbfd104b9270" rel="http://
schemas.com.echo360.capture" title="capture"/>

    <name>2ea2aec153a34325b2f8d4318fe0f856</name>
```

```xml
<title>EchoSystem Server Administration (ECHO101-101-001) Fall 2011</title>

<start-time>2011-10-31T16:15:00.000-04:00</start-time>

<duration-milliseconds>227250</duration-milliseconds>

<deleted>false</deleted>

<description/>

<available>true</available>

<archived>false</archived>

<link href="http://10.3.11.174:8082/ess/echo/presentation/6c7a5f73-e6d4-46fe-94fa-53469af3c051/media.mp3" title="podcast"/>

<link href="http://10.3.11.174:8082/ess/echo/presentation/6c7a5f73-e6d4-46fe-94fa-53469af3c051/media.m4v" title="vodcast"/>

 <link href="http://10.3.11.174:8082/ess/echo/presentation/6c7a5f73-e6d4-46fe-94fa-53469af3c051/2ea2aec153a34325b2f8d4318fe0f856.zip" title="player"/>

<link href="http://10.3.11.174:8082/ess/echo/presentation/6c7a5f73-e6d4-46fe-94fa-53469af3c051" title="rich-media"/>

<link href="https://ess.institution.com:8443/ess/scheduleapi/v1/sections/ee408624-a703-4488-be88-0f9ac5245cdc" rel="http://schemas.com.echo360.section" title="section"/>

<link href="https://ess.institution.com:8443/ess/scheduleapi/v1/rooms/144682f9-0c88-4d4c-b96b-dd3cc2b44d79" rel="http://schemas.com.echo360.room" title="room"/>

<presenters>

    <person>

        <id>a7a26e4e-4915-4300-acd1-12a5ca14b93c</id>

        <etag>1</etag>

        <first-name>Jason</first-name>

        <last-name>Bourne</last-name>

        <created-time>2006-07-10T09:16:27.000Z</created-time>

        <link href="null/people/a7a26e4e-4915-4300-acd1-12a5ca14b93c" rel="self" title="self"/>
```

```
            </person>

        </presenters>

    </presentation>
```

3.12.10. Get Presentations in a Section

URL: [GET] {base-uri}/sections/{section-id}/presentations

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/sections/
32d73ef8-3511-4ddb-a882-b88824b752fb/x-presentations

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<presentations>

    <total-results>3</total-results>

    <items-per-page>3</items-per-page>

    <start-index>0</start-index>

    <presentation>

        <id>0a1da8bb-349d-417a-ba4f-48de7dfb793e</id>

        <etag>0</etag>

        <until-start-seconds>-172622129</until-start-seconds>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/
303c4e3b-9803-4826-9fb0-578ed2d505fc" rel="http://
schemas.com.echo360.organization" title="organization"/>

        <name>some_presentation_23</name>

        <title>some_presentation_23</title>

        <start-time>2006-05-19T12:35:19.000-04:00</start-time>

        <duration-milliseconds>7200000</duration-milliseconds>

        <deleted>false</deleted>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/presentations/0a1da8bb-349d-417a-
ba4f-48de7dfb793e" rel="self" title="self"/>

    </presentation>

    ...

</presentations>
```

3.13. Device

The Device entity represents the Lecture Capture and Presentation Processing devices registered with the Echo System. Most of the Device attributes are read-only status information used to monitor the device health. The Scheduling API currently supports read-only access to the device entities.

3.13.1. Device Entity's XML mapping

This table defines the mapping of Device attributes/fields for it's various XML representations (summary or detailed).

Field / Element	Rep. Levels	Type (length)	Information
id	All	GUID	System generated product identifier.
key	All	string	Unique MAC address of the device.
type	All	enum string	Choices are: "software-capture", "hardware-capture", "pc-capture", "media-processor", "personal-capture".
description	Detailed	string	Optional text description of the Device.
address	Detailed	string	Device network address.
external-address	Detailed	string	Optional, alternative network address.
operational-mode	Detailed	enum string	Choices are: "fixed".
last-capture-status	Detailed	enum string	Choices are: "active", "complete", "error", "idle", "na", "new", "overdue", "error-time-sync", "paused", "unknown", "waiting".
last-log-upload-status	Detailed	enum string	See last-capture-status.
first-status-time	Detailed	timestamp	When the Echo System first received a status package from the Device.
last-status-time	Detailed	timestamp	When the Echo System last received a status package from the Device. Used to determine overdue devices.
next-status-time	Detailed	timestamp	Max threshold when the Echo System should receive the Device's next Status packet.
last-start-time	Detailed	timestamp	When the Device last cycled power/operation.
last-client-status-time	Detailed	timestamp	Last time when a device client (Ad hoc) communicated directly with the device.

Field / Element	Rep. Levels	Type (length)	Information
time-out-of-sync-for-alert	Detailed	boolean	True if the Device internal clock has drifted from the Echo System clock and an Alert was generated for this condition.
time-out-of-sync-for-reject	Detailed	boolean	True if the Device internal clock has drifter from the Echo System clock; to the point that the Echo system will reject all communication from the device.
platform/os	Detailed	string	The Device's Operating System type/version.
platform/processor	Detailed	string	The Device's CPU brand.
os-details	Detailed	string	More details on the Device OS.

3.13.2. Get all Devices

Get a list of all Devices defined in the Echo System.

Reply Content: "devices" collection XML containing "device" summary elements.

URL: [GET] {base-uri}/devices

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/devices

Response XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<devices>

   <total-results>5</total-results>

   <items-per-page>5</items-per-page>

   <start-index>0</start-index>

   <device>

        <id>da872ee1-276f-4a54-9f4e-ebe1b84bef36</id>

        <etag>1</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <key>00-50-c2-28-6c-1f</key>

        <type>hardware-capture</type>
```

```
        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/devices/da872ee1-276f-4a54-9f4e-ebe1b84bef36"
rel="self" title="self"/>

    </device>

    …

</devices>
```

3.13.3. Get all Devices in a Room

Get a list of Devices associated with the given Room.

> **Reply Content:** "devices" collection XML containing "device" summary elements.
>
> **URL:** [GET] {base-uri}/rooms/{room-id}/devices
>
> **Example:** https://ess.institution.com:8443/ess/scheduleapi/v1/rooms/144682f9-0c88-4d4c-b96b-dd3cc2b44d79/devices
>
> **Response XML:**

```
<?xml version="1.0" encoding="UTF-8"?>

<devices>

    <total-results>1</total-results>

    <items-per-page>1</items-per-page>

    <start-index>0</start-index>

    <device>

        <id>e935c8f3-ebcb-4280-b368-5c9a30c2101c</id>

        <etag>528</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <key>00-50-c2-8e-ae-5b</key>

        <type>hardware-capture</type>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/devices/e935c8f3-ebcb-4280-b368-5c9a30c2101c"
rel="self" title="self"/>

    </device>

</devices>
```

3.13.4. Get all Devices in a Building

Get a list of Devices associated with the given Building.

Reply Content: "devices" collection XML containing "device" summary elements.

URL: [GET] {base-uri}/buildings/{building-id}/devices

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/buildings/
5df6a341-52f1-4970-bb82-0cb75e2d5398/devices

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<devices>

   <total-results>2</total-results>

   <items-per-page>2</items-per-page>

   <start-index>0</start-index>

   <device>

        <id>c592f573-d442-4a14-9fec-586864135ed5</id>

        <etag>1</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/2dca51e6-f376-4579-8019-
fdbe70dfb1f5" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <key>00-50-c2-42-54-e7</key>

        <type>hardware-capture</type>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/devices/c592f573-d442-4a14-9fec-586864135ed5"
rel="self" title="self"/>

   </device>

   <device>

        <id>e935c8f3-ebcb-4280-b368-5c9a30c2101c</id>

        <etag>528</etag>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/organizations/e8b76e41-e9d1-454d-
ac6b-18ceb464851a" rel="http://schemas.com.echo360.organization"
title="organization"/>

        <key>00-50-c2-8e-ae-5b</key>

        <type>hardware-capture</type>

        <link href="https://ess.institution.com:8443/ess/
scheduleapi/v1/devices/e935c8f3-ebcb-4280-b368-5c9a30c2101c"
rel="self" title="self"/>
```

```
        </device>

    </devices>
```

3.13.5. Get Device Details

Retrieve the detailed information on the specified Device.

Reply Content: "device" detailed XML.

Errors: Specified Device was not found.

URL: [GET]{base-uri}/devices/{device-id}

Example: https://ess.institution.com:8443/ess/scheduleapi/v1/devices/e935c8f3-ebcb-4280-b368-5c9a30c2101c

Response XML:

```xml
<?xml version="1.0" encoding="UTF-8"?>

<device>

    <id>e935c8f3-ebcb-4280-b368-5c9a30c2101c</id>

    <etag>528</etag>

    <link href="https://ess.institution.com:8443/ess/scheduleapi/
v1/organizations/e8b76e41-e9d1-454d-ac6b-18ceb464851a"
rel="http://schemas.com.echo360.organization"
title="organization"/>

    <key>00-50-c2-8e-ae-5b</key>

    <type>hardware-capture</type>

    <description/>

    <last-capture-status>idle</last-capture-status>

    <last-log-upload-status>idle</last-log-upload-status>

    <first-status-time>2011-10-31T19:55:18.000Z</first-status-
time>

    <last-status-time>2011-11-07T14:33:11.000Z</last-status-time>

    <next-status-time>2011-11-07T14:33:21.000Z</next-status-time>

    <last-start-time>2011-11-06T08:30:40.000Z</last-start-time>

    <last-client-status-time/>

    <time-out-of-sync-for-alert>false</time-out-of-sync-for-alert>

    <time-out-of-sync-for-reject>false</time-out-of-sync-for-
reject>

    <platform>
```

```xml
        <os>linux.32</os>

        <processor>ppc</processor>

    </platform>

    <os-details/>

    <address>/10.3.10.143</address>

    <external-address>/10.3.10.143</external-address>

    <device-profile>custom: eac6a3bb-eb56-4bbd-949b-bf79d8b1036b</
device-profile>

    <device-rooms>

        <total-results>1</total-results>

        <items-per-page>1</items-per-page>

        <start-index>0</start-index>

        <device-room>

            <link href="null/devices/e935c8f3-ebcb-4280-
b368-5c9a30c2101c" rel="http://schemas.com.echo360.device"
title="device"/>

            <link href="null/rooms/144682f9-0c88-4d4c-b96b-
dd3cc2b44d79" rel="http://schemas.com.echo360.room"
title="room"/>

            <start-date>2011-10-31T19:57:40.000Z</start-date>

            <end-date/>

        </device-room>

    </device-rooms>

</device>
```

Appendix A: Sample Section Property Set XML

```xml
<property>
   <key>presentation-initially-unavailable</key>
   <value>false</value>
</property>
<property>
   <key>product-group</key>
   <value>74156b84-8edb-4016-a597-35abc0c1c486</value>
</property>
<property>
   <key>delete-original-media</key>
   <value>false</value>
</property>
<property>
   <key>delete-original-media-days</key>
   <value>120</value>
</property>
<property>
   <key>security-module</key>
   <value>5c600793-45ff-4d27-b546-f6a9bb61e2cf</value>
</property>
<property>
   <key>enforce-file-upload-quota</key>
   <value>false</value>
</property>
<property>
   <key>file-upload-quota-limit</key>
   <value>21474836480</value>
</property>
<property>
   <key>disable-course-list-end-of-term</key>
```

```
  <value>false</value>
</property>
```

```xml
<property>
  <key>display-podcast-link</key>
  <value>false</value>
</property>
<property>
  <key>display-vodcast-link</key>
  <value>false</value>
</property><property>
  <key>display-rich-media-link</key>
  <value>true</value>
</property>
<property>
  <key>scheduled-capture-label</key>
  <value>Lecture</value>
</property>
<property>
  <key>scheduled-capture-label-plural</key>
  <value>Lectures</value>
</property>
<property>
  <key>unscheduled-capture-label</key>
  <value>Supplemental</value>
</property>
<property>
  <key>unscheduled-capture-label-plural</key>
  <value>Supplementals</value>
</property>
<property>
  <key>external-system-id-1</key>
  <value/>
</property>
```

```xml
<property>
   <key>external-system-id-2</key>
   <value/>
</property>
<property>
   <key>copyright-text</key>
   <value/>
</property>
<property>
   <key>branding-metadata-text-color</key>
   <value>#999999</value>
</property>
```

```xml
<property>
   <key>branding-title-text-color</key>
   <value>#ffffff</value>
</property>
<property>
   <key>logo-tooltip</key>
   <value/>
</property>
<property>
   <key>logo-click-uri</key>
   <value/>
</property>
<property>
   <key>support-text</key>
   <value/>
</property>
<property>
   <key>support-phone</key>
   <value/>
</property>
<property>
   <key>support-uri</key>
   <value/>
</property>
<property>
   <key>application-bookmarks</key>
   <value>true</value>
</property>
<property>
   <key>application-discussions</key>
   <value>true</value>
```

```
</property>
<property>
   <key>application-usage-data</key>
   <value>true</value>
</property>
   <property>
   <key>application-feedback</key>
   <value>true</value>
</property>
   <property>
   <key>application-sharing</key>
   <value>true</value>
</property>
```

Appendix B: Summary Request URL Listing

"/v1/versions" Resource: Versions – List (only) version numbers for various components (JVM, database, etc.).
"/v1/people" Resource: Person - List all People, or Add a new Person.
"/v1/people/{person-id}" Resource: Person - Get, Modify, or Delete a Person.
"/v1/campuses" Resource: Campus - List all Campuses, or Add a new Campus.
"/v1/campuses/{campus-id}" Resource: Campus - Get, Modify, or Delete a given Campus.
"/v1/campuses/{campus-id}/buildings" Resource: Building - List Buildings within a Campus, or Add new Building to a Campus.
"/v1/buildings" Resource: Building - List (only) all Buildings across all Campuses.
"/v1/buildings/{building-id}" Resource: Building - Get, Modify, or Delete a Building.
"/v1/rooms" Resource: Room - List (only) all Rooms.
"/v1/campuses/{campus-id}/rooms" Resource: Room - List Rooms within a specified Campus.
"/v1/buildings/{building-id}/rooms" Resource: Room - List Rooms within a Building, or Add a new Room to a Building.
"/v1/rooms/{room-id}" Resource: Room - Get, Modify, or Delete a Room.
"/v1/organizations" Resource: Organization – List all Organizations, or Add a new Organization.

"/v1/organizations/{organization-id}" Resource: Organization – Get, Modify, or Delete an Organization.
"/v1/product-groups" Resource: ProductGroup - List (only) all Capture/ Presentation Products.
"/v1/product-groups/{product-group-id}" Resource: ProductGroup - Get (only) details of a Product.
"/v1/publishers" Resource: Publisher - List (only) all Publishers.
"/v1/publishers/{publisher-id}" Resource: Publisher - Get (only) details of a Publisher.
"/v1/terms" Resource: Term - List all Academic Terms, or Add a new Term.
"/v1/terms/{term-id}" Resource: Term - Get, Update, or Delete an Academic Term.
"/v1/terms/{term-id}/excluded-dates" Resource: Term.ExcludedDates collection. List the Term's excluded dates, Clear the Term's excluded dates collection, or Add a date range to the Term's excluded date collection.
"/v1/courses" Resource: Course - List all Courses, or Add a new Course. *Depending on the System Configuration, Adding a new Course can auto generate a default Course Section.
"/v1/terms/{term-id}/courses" Resource: Course - List (only) all Courses with at least 1 section within the Academic Term.
"/v1/courses/{course-id}" Resource: Course - Get, Update, or Delete a Course.
"/v1/terms/{term-id}/sections" Resource: Section - List (only) all Sections within the Academic Term.
"/v1/courses/{course-id}/sections" Resource: Section - List (only) all Sections for a Course (across Terms).

"/v1/terms/{term-id}/courses/{course-id}/sections" Resource: Section - List all Sections for a given Course and Academic Term, or Add a new Section to the Course for the given Term.
"/v1/sections/{section-id}" Resource: Section - Get, Modify, or Delete a given Course Section.
"/v1/sections/{section-id}/presenters" Resource: Section.Presenter collection - List or Clear the Section's Presenter collection.
"/v1/sections/{section-id}/presenters/{section-role-id}" Resource: Section. Presenter collection - Direct (empty content) Add or Remove of the Person to/from the Section's Presenter list. (presenter-id = person-id). A GET can be used to confirm the Person is already a Presenter of the Section.
"/v1/sections/{section-id}/publish-channels" Resource: PublishChannel - List or Clear the Section's Publish Channel collection.
"/v1/publish-channels/{publish-channel-id}" Resource: PublishChannel - Get, Modify, or Delete the Section's Publish Channel.
"/v1/publishers/{publisher-id}/sections/{section-id}/publish-channels" Resource: Section.PublishChannel - List, Add, or Clear the Section's Publishing Channels that target the given Publisher.
"/v1/sections/{section-id}/publishers/{publisher-id}/publish-channels" Resource: Section.PublishChannel - List, Add, or Clear the Section's Publishing Channels that target the given Publisher.
"/v1/publishers/{publisher-id}/publish-channels" Resource: Section.PublishChannel - List (only) all Publish Channel that use the given Publisher. (could be a big data set)
"/v1/sections/{section-id}/product-groups" Resource: Section.ProductGroup collection - List or Clear the Section's assigned Capture ProductGroup.
"/v1/sections/{section-id}/product-groups/{product-group-id}" Resource: Section.ProductGroup collection - Direct (empty content) Add or Delete of the ProductGroup to/from the Section's associated ProductsGroups. A GET can be used to confirm the presents of Capture ProductGroup.

"/v1/sections/{section-id}/schedule-rules" Resource: ScheduleRule - List all Schedule event Rules for a course Section, or Add a new Schedule event Rule to the Section.
"/v1/terms/{term-id}/schedule-rules" Resource: ScheduleRule - List (only) Schedule event Rules for an academic Term.
"/v1/people/{person-id}/schedule-rules" Resource: ScheduleRule - List (only) Schedule event Rules for a person.
"/v1/rooms/{room-id}/schedule-rules" Resource: ScheduleRule - List (only) Schedule event Rules for a room.
"/v1/schedule-rules/{schedule-rule-id}" Resource: ScheduleRule - Get, Modify, or Delete a given Schedule event Rule.
"/v1/schedule-rules/{schedule-rule-id}/product-groups" Resource: ScheduleRule.ProductGroup collection - List the ProductGroups assigned to the Schedule event Rule, or Clear the entire assigned ProductGroup collection.
"/v1/schedule-rules/{schedule-rule-id}/product-groups/{product-group-id}" Resource: ScheduleRule.ProductGroup collection - Direct (empty content) Add or Delete of a ProductGroup assignment for a Schedule event Rule. A Get could be used to confirm ProductGroup assignment.
"/v1/schedule-rules/{schedule-rule-id}/rooms" Resource: ScheduleRule.Room collection - List the Rooms that are/were assigned to the Schedule event Rule.   DELETE will Unassign the currently assigned room.
"/v1/schedule-rules/{schedule-rule-id}/rooms/{room-id}" Resource: ScheduleRule.Room collection - Direct (empty content) Add or Delete of the currently assigned room.
"/v1/schedule-rules/{schedule-rule-id}/excluded-dates" Resource: ScheduleRule.ExcludedDate collection - List or Clear the given schedule event Rule's Excluded Dates collection. Also, Add a new date range to the excluded date collection.

"/v1/schedule-rules/{schedule-rule-id}/presenters" Resource: ScheduleRule.Presenter collection - List or Clear the Schedule event Rule's currently assigned Presenters.

"/v1/schedule-rules/{schedule-rule-id}/presenters/{person-id}" Resource: ScheduleRule.Presenter collection - Direct Add or Remove of a Presenter to/from the Schedule event Rule's Presenter collection. A Get can be used to confirm the Person is a Presenter for the Schedule event Rule.

"/v1/schedule-rules/{schedule-rule-id}/captures" Resource: Capture - List (only) all Captures for the given Schedule event Rule.

"/v1/sections/{section-id}/captures" Resource: Capture - List (only) all Captures for the given Section.

"/v1/rooms/{room-id}/captures" Resource: Capture - List (only) all Captures for the given Room.

"/v1/captures/{capture-id}" Resource: Capture - Get (only) details on a given Capture.

"/v1/captures/{capture-id}/capture-medias" Resource: Capture.Media - List (only) the media which was generated by a given Capture.

"/v1/capture-medias/{capture-media-id}" Resource: Capture.Media - Get (only) details for a given Capture Media.

"/v1/devices" Resource: Device - Summary List (only) of all Devices.

"/v1/devices/{device-id}" Resource: Device - Get (only) the details of the Device.

"/v1/rooms/{room-id}/devices" Resource: Device - List (only) of Devices associated to the Room.

"/v1/buildings/{building-id}/devices" Resource: Device - List (only) of Devices associated to the Building.

"/v1/captures/{capture-id}/presentations" Resource: Presentation - Summary List (only) of all Presentations in a given Capture.
"/v1/sections/{section-id}/presentations" Resource: Presentation - Summary List (only) of all Presentation in a given Section.
"/v1/presentations/{presentation-id}" Resource: Presentation – Get.
"**/v1/presenters/{person-id}/sections**" Resource: SectionRole – Summary List.