This document defines an XMPP protocol extension for communicating information about the television shows, movies, or other videos that a user watches.
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1 Introduction

Publish-Subscribe (XEP-0060) \(^1\) and Personal Eventing Protocol (XEP-0163) \(^2\) can be used to publish a wide variety of "extended presence" information about users. This document specifies an extended presence payload format that communicates information about the television shows, movies, or other videos that a user watches. This information may be of interest to a user’s contacts and can also be used in social networking applications (e.g., IPTV systems).

2 Protocol

2.1 Container Element and Child Elements

Information about video viewing is provided by the user (or automated integration with video systems) and is propagated on the network by the user’s client. The information container for video viewing data is a <video/> element that is qualified by the 'urn:xmpp:viewing:0' namespace. The video information itself is provided as the XML character data of the following children of the <video/> element:

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Example</th>
<th>Datatype</th>
</tr>
</thead>
<tbody>
<tr>
<td>author</td>
<td>The author of the program</td>
<td>Robert Duncan</td>
<td>xs:string</td>
</tr>
<tr>
<td>cast</td>
<td>The cast members of the program</td>
<td>Trace Beaulieu, Frank Conniff, Joel Hodgson, Jim Mallon, Kevin Murphy, Michael J. Nelson, Mary Jo Pehl</td>
<td>xs:string</td>
</tr>
<tr>
<td>channel_name</td>
<td>The name of the channel showing the program</td>
<td>Sci-Fi Channel</td>
<td>xs:string</td>
</tr>
<tr>
<td>description</td>
<td>A description of the program</td>
<td>Terror From The Year 5000</td>
<td>xs:string</td>
</tr>
<tr>
<td>duration</td>
<td>The duration of the program</td>
<td>1800</td>
<td>xs:positiveInteger</td>
</tr>
<tr>
<td>end_time</td>
<td>The end time of the program</td>
<td>2006-08-29T03:30Z</td>
<td>xs:dateTime</td>
</tr>
<tr>
<td>episode</td>
<td>The episode number of the program</td>
<td>807</td>
<td>xs:string</td>
</tr>
<tr>
<td>program_name</td>
<td>The name of the program</td>
<td>Mystery Science Theater 3000</td>
<td>xs:string</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Example</th>
<th>Datatype</th>
</tr>
</thead>
<tbody>
<tr>
<td>program_type</td>
<td>The type of the program</td>
<td>Comedy</td>
<td>xs:string</td>
</tr>
<tr>
<td>start_time</td>
<td>The start time of the program</td>
<td>2006-08-29T03:00Z</td>
<td>xs:dateTime</td>
</tr>
<tr>
<td>subprogram_type</td>
<td>The type of the sub-program (e.g., outtakes on an extended DVD)</td>
<td>Cast interview</td>
<td>xs:string</td>
</tr>
<tr>
<td>uri</td>
<td>A URI for the video or relevant service</td>
<td><a href="http://www.mst3kinfo.com">http://www.mst3kinfo.com</a></td>
<td>xs:anyURI</td>
</tr>
<tr>
<td>user_comment</td>
<td>A user’s free-form comments about the program</td>
<td>This is one of my favorite episodes!</td>
<td>xs:string</td>
</tr>
<tr>
<td>user_rating</td>
<td>The user’s personal rating of the program (on a scale of 1 to 10, with 10 being highest)</td>
<td>9</td>
<td>xs:string</td>
</tr>
</tbody>
</table>

All elements are OPTIONAL.
NOTE: The datatypes specified above are defined in XML Schema Part 2.

### 2.2 Transport Mechanism

When a user starts watching a video, its client may publish that fact to a PEP node whose NodeID is "urn:xmpp:viewing:0" (see Protocol Namespaces regarding issuance of one or more permanent namespaces) or to a generic pubsub node. Because viewing information is not pure presence information and can change independently of the user's availability, it SHOULD NOT be provided as an extension to the <presence/> stanza type.

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**Listing 1: User Publishes Viewing Information**

```xml
<iq type='set' from='stpeter@jabber.org/work' id='viewing1'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <publish node='urn:xmpp:viewing:0'>
      <item id='8ea8ae16651455376dab4eae45772337e9ec372'>
        <video xmlns='urn:xmpp:viewing:0'>
          <name>Mystery Science Theater 3000</name>
          <episode>807</episode>
          <description>Terror From The Year 5000</description>
          <uri>http://www.mst3kinfo.com</uri>
        </video>
      </item>
    </publish>
  </pubsub>
</iq>
```

1XML Schema Part 2: Datatypes [http://www.w3.org/TR/xmlschema11-2/].
The viewing information is then delivered to all subscribers:

```xml
<message from='stpeter@jabber.org' to='maineboy@jabber.org'>
  <event xmlns='http://jabber.org/protocol/pubsub#event'>
    <items node='urn:xmpp:viewing:0'>
      <item id='8eaa8ae16651455376da4b4ae45772337e9ec372'>
        <video xmlns='urn:xmpp:viewing:0'>
          <name>Mystery Science Theater 3000</name>
          <episode>807</episode>
          <description>Terror From The Year 5000</description>
          <uri>http://www.mst3kinfo.com</uri>
        </video>
      </item>
    </items>
  </event>
</message>
```

When the user stops watching the video, the user’s client SHOULD send an empty `<video/>` element with the same ItemID:

```xml
<iq type='set' from='stpeter@jabber.org/work' id='viewing2'>
  <pubsub xmlns='http://jabber.org/protocol/pubsub'>
    <publish node='urn:xmpp:viewing:0'>
      <item id='8eaa8ae16651455376da4b4ae45772337e9ec372'>
        <video xmlns='urn:xmpp:viewing:0'/> 
      </item>
    </publish>
  </pubsub>
</iq>
```

```xml
<message from='stpeter@jabber.org' to='maineboy@jabber.org'>
  <event xmlns='http://jabber.org/protocol/pubsub#event'>
    <items node='urn:xmpp:viewing:0'>
      <item id='8eaa8ae16651455376da4b4ae45772337e9ec372'>
        <video xmlns='urn:xmpp:viewing:0'/> 
      </item>
    </items>
  </event>
</message>
```
3 Security Considerations

The videos that a user watches may be sensitive. A client MUST provide a way for a user to configure which videos or types of videos will not be published (e.g., via user preferences).

4 IANA Considerations

This document requires no interaction with the Internet Assigned Numbers Authority (IANA) 4.

5 XMPP Registrar Considerations

5.1 Protocol Namespaces

This specification defines the following XML namespace:

- urn:xmpp:viewing:0

Upon advancement of this specification from a status of Experimental to a status of Draft, the XMPP Registrar 5 shall add the foregoing namespace to the registry located at <https://xmpp.org/registrar/namespaces.html>, as described in Section 4 of XMPP Registrar Function (XEP-0053) 6.

5.2 Namespace Versioning

If the protocol defined in this specification undergoes a revision that is not fully backwards-compatible with an older version, the XMPP Registrar shall increment the protocol version number found at the end of the XML namespaces defined herein, as described in Section 4 of XEP-0053.

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4The Internet Assigned Numbers Authority (IANA) is the central coordinator for the assignment of unique parameter values for Internet protocols, such as port numbers and URI schemes. For further information, see <http://www.iana.org/>.

5The XMPP Registrar maintains a list of reserved protocol namespaces as well as registries of parameters used in the context of XMPP extension protocols approved by the XMPP Standards Foundation. For further information, see <https://xmpp.org/registrar/>.


6 XML Schema

```xml
<?xml version='1.0' encoding='UTF-8'?>
<xs:schema
 xmlns:xs='http://www.w3.org/2001/XMLSchema'
 targetNamespace='urn:xmpp:viewing:0'
 xmlns='urn:xmpp:viewing:0'
 elementFormDefault='qualified'>
 <xs:element name='room'>
  <xs:complexType>
   <xs:sequence minOccurs='0'>
    <xs:element name='author' type='xs:string' minOccurs='0'/>
    <xs:element name='cast' type='xs:string' minOccurs='0'/>
    <xs:element name='channel_name' type='xs:string' minOccurs='0'/>
    <xs:element name='description' type='xs:string' minOccurs='0'/>
    <xs:element name='duration' type='xs:positiveInteger' minOccurs='0'/>
    <xs:element name='end_time' type='xs:dateTime' minOccurs='0'/>
    <xs:element name='episode' type='xs:string' minOccurs='0'/>
    <xs:element name='program_name' type='xs:string' minOccurs='0'/>
    <xs:element name='program_type' type='xs:string' minOccurs='0'/>
    <xs:element name='start_time' type='xs:dateTime' minOccurs='0'/>
    <xs:element name='subprogram_type' type='xs:string' minOccurs='0'/>
    <xs:element name='uri' type='xs:anyURI' minOccurs='0'/>
    <xs:element name='user_comment' type='xs:string' minOccurs='0'/>
    <xs:element name='user_rating' type='xs:string' minOccurs='0'/>
   </xs:sequence>
  </xs:complexType>
 </xs:element>
</xs:schema>
```