XEP-0202: Entity Time

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<table>
<thead>
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<td>time</td>
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This specification defines an XMPP protocol extension for communicating the local time of an entity, including the time in UTC according to the entity as well as the offset from UTC. The time format itself conforms to the dateTime profile of ISO 8601 defined in XEP-0082.
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2 Protocol Definition

The protocol defined herein provides a standard way for XMPP entities to exchange information about the local time. The information is communicated in a request/response pair using an <iq/> element that contains a <time/> element qualified by the 'urn:xmpp:time' namespace. The following children of the <time/> element are defined for use in IQ stanzas of type 'result':

2 A list of English-language time zone names and abbreviations is located at <http://www.timeanddate.com/library/abbreviations/timezones/>, but it is not a canonical list and there are no such localized lists for all languages.
### 3 Examples

**Listing 1: Querying Another Entity for the Local Time**

```xml
<iq type='get'
    from='romeo@montague.net/orchard'
    to='juliet@capulet.com/balcony'
    id='time_1'>
   <time xmlns='urn:xmpp:time'/>
</iq>
```

**Listing 2: A Response to the Query**

```xml
<iq type='result'
    from='juliet@capulet.com/balcony'
    to='romeo@montague.net/orchard'
    id='time_1'>
   <time xmlns='urn:xmpp:time'>
      <tzo>-06:00</tzo>
      <utc>2006-12-19T17:58:35Z</utc>
   </time>
</iq>
```

The standard error conditions described in Error Condition Mappings (XEP-0086)\(^4\) apply (e.g., `<service-unavailable/>` if the entity does not support the namespace).

### 4 Service Discovery

If an entity supports the Entity Time protocol, it MUST report that by including a service discovery feature of "urn:xmpp:time" in response to a Service Discovery (XEP-0030)\(^5\) info-

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6 SECURITY CONSIDERATIONS

Revealing an entity’s numeric time zone offset may leak limited information about the entity’s
current location. If the entity’s understanding of UTC is far off from actual UTC, revealing
that discrepancy may make it possible for an attacker to send XML stanzas that appear to be
in the past or future even though they are not; therefore an entity should use the Network
Time Protocol (RFC 958) or a similar technology to stay synchronized with actual UTC.

7 IANA Considerations

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

8 XMPP Registrar Considerations

8.1 Protocol Namespace

The XMPP Registrar includes 'urn:xmpp:time' in its registry of protocol namespaces (see <https://xmpp.org/registrar/namespaces.html>).

9 XML Schema

```xml
<?xml version='1.0' encoding='UTF-8'?>
<xs:schema
    xmlns:xs='http://www.w3.org/2001/XMLSchema'
    targetNamespace='urn:xmpp:time'
    xmlns='urn:xmpp:time'
    elementFormDefault='qualified'>
    <xs:annotation>
        <xs:documentation>
            The protocol documented by this schema is defined in XEP-0202: http://www.xmpp.org/extensions/xep-0202.html
        </xs:documentation>
    </xs:annotation>

    <xs:element name='time'>
        <xs:complexType>
            <xs:sequence minOccurs='0'>
                <xs:element name='tzo' type='xs:string'/>
                <xs:element name='utc' type='xs:string'/>
            </xs:sequence>
        </xs:complexType>
    </xs:element>
</xs:schema>
```

7 The 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/>.

8 The 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/>.
</xs:schema>