```xml
1   <?xml version="1.0" encoding="UTF-8"?>
2   <!--
3       WS-Calendar Streams Version 1.0
4       Committee Specification Draft 02
5       28 March 2013
6   -->
7   <!--
8       These extensions were developed to meet the specific for an extensible variant of
9       WS-Calendar for use in transaction processing of interval-based information.
10
11      iCalendar streams are intended to to be transformable into artifacts that work in conjunction
12      with conformant implementations of IETF RFC 5545 ( http://www.rfc-editor.org/rfc/rfc5545.txt ),
13      the normative specification of iCalendar, but are not themselves so conformant. -->
14  <!--Streams extensions to icalendar -->
15  <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xcal="urn:ietf:params:xml:ns:icalendar-2.0" xmlns:strm="
    urn:ietf:params:xml:ns:icalendar-2.0:streams" targetNamespace="urn:ietf:params:xml:ns:icalendar-2.0:streams"
    elementFormDefault="qualified">
16      <!-- =====================================================================
17      1.0 Stream Properties
18      ===================================================================== -->
19      <xs:import namespace="urn:ietf:params:xml:ns:icalendar-2.0" schemaLocation="
    http://docs.oasis-open.org/ws-calendar/ws-calendar-spec/v1.0/cs01/xsd/iCalendar-props.xsd"/>
20      <xs:import namespace="urn:ietf:params:xml:ns:icalendar-2.0" schemaLocation="
    http://docs.oasis-open.org/ws-calendar/ws-calendar-spec/v1.0/cs01/xsd/iCalendar-wscal-extensions.xsd"/>
21      <!-- 1.0 Abstract Stream Base -->
22      <xs:element name="streamBase" type="strm:StreamBaseType" abstract="true"/>
23      <xs:complexType name="StreamBaseType" abstract="true">
24          <xs:annotation>
25              <xs:documentation>abstract base for communication of schedules for signals and observations</xs:documentation>
26          </xs:annotation>
27          <xs:sequence>
28              <xs:element ref="xcal:dtstart" minOccurs="0" maxOccurs="1">
29                  <xs:annotation>
30                      <xs:documentation>Indicates when the Designated Interval of the Stream begins. May be inherited from containing
    artifact.</xs:documentation>
31                  </xs:annotation>
32              </xs:element>
33              <xs:element ref="xcal:duration" minOccurs="0" maxOccurs="1">
34                  <xs:annotation>
35                      <xs:documentation>Indicates the duration inherited by the intervals. May be inherited from containing artifact.</
    xs:documentation>
36                  </xs:annotation>
37              </xs:element>
38              <xs:element ref="xcal:related-to" minOccurs="0" maxOccurs="1">
39                  <xs:annotation>
40                      <xs:documentation>References an interval in the Stream as the Designated Interval. Optional. Default behavior is
    that the "first" interval is the Desgnated Interval</xs:documentation>
41                  </xs:annotation>
42              </xs:element>
43              <xs:element ref="strm:intervals" minOccurs="0" maxOccurs="1"/>
44          </xs:sequence>
45      </xs:complexType>
46      <!-- 2.0 Stream Intervals Type -->
47      <xs:element name="intervals" type="strm:ArrayofStreamIntervals"/>
48      <xs:complexType name="ArrayofStreamIntervals">
49          <xs:annotation>
50              <xs:documentation>Collection of Stream Interval derived elements that comprise a signal partition.</xs:documentation>
51          </xs:annotation>
52          <xs:sequence>
53              <xs:element ref="strm:streamInterval" minOccurs="0" maxOccurs="unbounded"/>
54          </xs:sequence>
55      </xs:complexType>
56      <!-- 2.1 Stream Interval Type -->
57      <xs:element name="streamInterval" type="strm:StreamIntervalType" abstract="true"/>
58      <xs:complexType name="StreamIntervalType" abstract="true" mixed="false">
59          <xs:annotation>
60              <xs:documentation xml:lang="en">Restricted variant of ws-calendar interval for streams. Stream Intervals are restricted
    expressions of the WS-Calendar Interval that are transformable to but not identical to WS-Calendar Intervals.</xs:documentation>
```

```
61          </xs:annotation>
62          <xs:sequence>
63            <xs:element ref="xcal:baseProperty" minOccurs="0" maxOccurs="unbounded"/>
64            <xs:element ref="strm:streamPayloadBase" minOccurs="1" maxOccurs="1"/>
65          </xs:sequence>
66        </xs:complexType>
67        <!-- 3.0 Abstract Stream Payload -->
68        <xs:element name="streamPayloadBase" type="strm:StreamPayloadBaseType" abstract="true"/>
69        <xs:complexType name="StreamPayloadBaseType" abstract="true">
70          <xs:annotation>
71            <xs:documentation>Abstract class to convey a payload for a stream. When a Stream is transformed to or from a
          WS-Calendar Interval, the contents of the Stream Payload defined element are transformed into the contents of a WS-Calendar
          artifactBase.</xs:documentation>
72          </xs:annotation>
73        </xs:complexType>
74      </xs:schema>
75
```