An example of an intent which references an acronym is the "SOAP" intent.

1.5 Architectural References

WS-Calendar assumes incorporation into services. Accordingly it assumes a certain amount of definitions of roles, names, and interaction patterns. This document relies heavily on roles and interactions as defined in the OASIS Standard *Reference Model for Service Oriented Architecture* ***[SOA-RM]***.

1.6 Terminology

Certain terms appear throughout this document, some with extensive definitions. The table provides summary definitions for the convenience of the reader and reviewer. When full definitions of the terms below appear in later sections of this document, with the exception of in the appendices, then that later definition is normative.

WS-Calendar terminology begins with a specialized terminology for the segments of time, and for groups of related segments of time. These terms are defined in Table 1-1, below.

Table 1-1: Terminology – Foundational Elements

Time Segment	Definition
Duration	Well-known element from iCalendar and **[XCAL]**, Duration is the length of an event scheduled using iCalendar or any of its derivatives. The **[XCAL]** duration is a data type using the string representation defined in the iCalendar duration. The Duration is the sole descriptive element of the VTODO object that is mandatory in the Interval.
Interval	The Interval is a single duration derived from the common calendar components as defined in iCalendar (**[RFC5545]**) and refined in **[XCAL]**. In Calendar systems, it is processed as a vtodo, but the constraints and conformance are different.
Sequence	A Sequence is a set of Intervals with defined temporal relationships. Sequences may have gaps between Intervals, or even simultaneous activities. A sequence is re-locatable, i.e., it does not have a specific date and time. A Sequence may consist of a single interval. A Sequence may optionally include a Lineage.
Partition	A Partition is a set of consecutive intervals. A Partition includes the trivial case of a single Interval. A Partition is used to define a single service or behavior which varies over time. Examples include energy prices over time and energy usage over time.
Gluon	A gluon is influences the serialization of Intervals in a Sequence, though inheritance and through schedule setting. The Gluon is similar to the Interval, but has no service or schedule effects until applied to an Interval or Sequence.
Artifact	An Artifact is the thing that occurs during an Interval. WS-Calendar extends the **[XCAL]** attach object to contain this placeholder. The contents of the Artifact are not specified in WS-Calendar, rather the Artifact provides an extension base for the use of WS-Calendar in other specifications. Artifacts may inherit elements as do intervals within a sequence.

WS-Calendar works with groups of intervals that have relationships between them. These relations constrain the final instantiation of a schedule-based service. Relations can control the ordering of intervals in a sequence. They can describe when a service can be, or is prevented from, being invoked. They establish the parameters for how information will be shared between elements using Inheritance. The terminology for these relationships is defined in Table 1-2.

192 *Table 1-2: Terminology – Relations, Limits, and Constraints*

Term	Definition
Link	The Link is used by one WS-Calendar object to reference another. A link can reference either an internal object, within the same calendar, or an external object in a remote system.
Relationship	Relationships are incorporated into links and define how intervals are connected for Binding. ICalendar defines several relationships, but WS-Calendar uses only the Parent relationship, and that only to bind Gluons to each other and to Intervals.
Temporal Relationship	Temporal Relationships are incorporated into Links and define how Intervals become a sequence by creating an order between Intervals. The Predecessor Interval includes a Temporal Relation which references the Successor Interval. When the start time and duration of one Interval is known, the start time of the others can be computed through applying Temporal Relations.
Availability	Availability expresses the range of times in which an Interval or Sequence can be Scheduled. Availability is often used to overlay or be overlaid by Busy. a Availability can be Inherited
Busy	Busy expresses the range of times in which an Interval or Sequence cannot be Scheduled. Busy is often used to overlay or be overlaid by Availability. Busy can be Inherited
Child, Children	The PARENT relationship type (rel_type) defines a logical link (via URI or UID) from parent object to a child object. A Child object is the target of one or more PARENT links and may have zero to many Parent objects.
Parent [Gluon]	A Gluon that (in a Sequence) that includes a PARENT relationship toobject. type (rel_type) defines a logical link (via URI or UID) from parent object to a child object. A Parent object is the contains one or more PARENT links
Lineage	The ordered set of Parents that results in a given inheritance or execution context for a Sequence.

193 WS-Calendar describes how to modify and complete the specification of sequences. WS-Calendar calls
194 this process Inheritance and specifies a number of rules that govern inheritance. Table 1-3 defines the
195 terms used to describe inheritance.

196 *Table 1-3: Terminology – Sequence State and Completeness*

Term	Definition
Lineage	The ordered set of Parents that results in a given inheritance or execution context for a Sequence.
Inheritance	Parents bequeath information to Children that inherit them. If a child does not already possess that information, then it accepts the inheritance. WS-Calendar specifies rules whereby information specified in one informational object is considered present in another that is itself lacking expression of that information. This information is termed the Inheritance of that object.
Bequeath	A Parent Bequeaths attributes (Inheritance) to its Children
Inherit	A Child Inherits attributes (Inheritance) from its Parent

Term	Definition
Covarying Attributes	Some attributes are inherited as a group. If any member of that group is expressed in a Child, all members of that group are deemed expressed in that Child, albeit some may be default values. These characteristics are called covarying or covariant. A parent bequeaths covarying characteristics as a group and a child accepts or refuses them as a group.
Decouplable Attributes	Antonym for Covarying Attributes. Decouplable Attributes can be inherited separately.

As intervals are processed, as intervals are assembled, and as inheritance is processed, the information conveyed about each element changes. When WS-Calendar is used to describe a business process or service, it may pass through several stages in which the information is not yet complete or actionable, but is still a conforming expression of time and sequence. Table 1-41 defines the terms used when discussing the processing or processability of intervals and sequences.

Table 1-4: Terminology – Describing Intervals

Term	Definition
Anchored	An Interval is Anchored [in time] if it is Bound to a full date and time. A Sequence or Partition is Anchored if it contains an Anchored Interval, and when Fully Bound, the specific date, time, and duration of all intervals can be determined unambiguously. Specific performance of a Service Contract always occurs in an Anchored Sequence.,
Partially Anchored	An Interval is Partially Anchored if EITHER its Date OR its Time is Bound. A Sequence or Partition is Partially Anchored if its Designated Interval is Partially Anchored.
Unanchored	An Interval is Unanchored if NEITHER its Begin Date nor its Begin Time are known.
Bound	As in mathematical logic where a metasyntactic variable is called "bound", an Interval, Sequence, or Partition is said to be Bound when the values necessary to execute it (as a service) are completely filled in.
Partially Bound	A Partially Bound Interval is one that is still not Bound after receiving its Inheritance. A Sequences or Partitions is Partially Bound if it contains at least one Interval that is Partially Bound.
Unbound	An Unbound Interval or Sequence is not itself complete, but must still receive inheritance to be fully specified. A Sequences or Partitions is Unbound if it contains at least one Interval that is Unbound.
Fully Bound	A synonym for Bound
Constrained	An Interval is Constrained if it is not Anchored and it is bound to one or more Availability or Free/Busy elements
Scheduled	A Sequence or Partition is said to be Scheduled when it is Anchored, Fully Bound, and service performance has been requested.
Unscheduled	An Interval is Unscheduled if its neither its begin date and time nor its end date and time have been set. A Sequence or Partition is Unscheduled if none of its intervals, after when Fully Bound, is Scheduled.

Term	Definition
Designated Interval	In a Sequence the Designated Interval is either (a) (if there are no Gluons related to the Sequence) one of the Earliest Interval(s), or (b) (if there is at least one Gluon related to the Sequence) the single Interval referenced by a Gluon as Parent.
Predecessor Interval	A Predecessor Interval includes a Temporal Relation which references a Successor Interval.
Successor Interval	A Successor Interval is one referred to by a Temporal Relationship in a Predecessor Interval.
Antecedent Interval(s)	An Interval or set of Intervals that precede a given Interval within the same Sequence
Earliest Interval	The set of Intervals at the earliest time in a given Sequence
Composed Interval	A Composed Interval is the virtual Interval specified by applying inheritance through the entire lineage and into the sequence in accord with the inheritance rules. A Composed Interval may be Bound or Unbound.
Composed Sequence	A Composed Sequence is the virtual sequence specified by applying inheritance through the entire lineage and into the sequence in accord with the inheritance rules. A Composed Sequence may be Bound or Unbound.
Comparable Sequences	Two sequences are Comparable if and only if there exists a Composed version of each that defines the same schedule.