

Working with Optional Elements

LightWave Server has several mechanisms to indicate the presence of optional elements. These mechanisms use a schema attribute to indicate the presence or absence of the element.

- [Using the hideIfEmpty Attribute](#)
- [Using the isSet Attribute](#)
- [Using the minOccurs Attribute](#)

Using the hideIfEmpty Attribute

The `hideIfEmpty="1"` attribute may be set on any element to indicate that if the source element is *empty*, it should not be included in the request payload. An element is considered empty when it is completely filled with the element's string padding character. Note that the string padding may be explicitly set on the element using the `stringPadding` attribute, or inherited from its parent. In the following example, if element `optionalIfSpaces` is filled with spaces, or `optionalIfZeros` is filled with zeros, the elements will not be included in the request payload.

```
<type name="SampleType">
  <element name="optionalIfSpaces" type="string" size="32" hideIfEmpty="1" stringPadding="spaces" />
  <element name="optionalIfZeros" type="aStructureType" hideIfEmpty="1" stringPadding="zeros" />
</type>
```

Using the isSet Attribute

The `isSet` attribute may be set on any element, and references a target integer element which is used to indicate the presence or absence of the source element. In the following example, if the value of the element `isAddressSet` is non-zero, then the `theAddress` is included in the request. In this example, the `hide` attribute is set on the `isAddressSet` element to indicate that it is never included in the request payload. Note that when a response is received, the `isSet` target element will be set to zero if the source element is not present in the response, or non-zero if it is present.

```
<type name="SampleType">
  <element name="isAddressSet" type="int" size="4" hide="1" />
  <element name="theAddress" type="AddressType" isSet="isAddressSet" />
</type>
```

Using the minOccurs Attribute



Using the `minOccurs` attribute has a mechanism to hide string elements is deprecated. New definitions should use `hideIfEmpty`.

The `minOccurs="0"` attribute may be set on elements with `type="string"` to indicate that if the source element is filled with the string padding character, it should not be included in the request payload. In the following example, if element `optionalIfSpaces` is filled with spaces, or `optionalIfZeros` is filled with zeros, the elements will not be included in the request payload.

```
<type name="SampleType">
  <element name="optionalIfSpaces" type="string" size="32" minOccurs="0" stringPadding="spaces" />
  <element name="optionalIfZeros" type="string" size="32" minOccurs="0" stringPadding="zeros" />
</type>
```