

[MS-PPSRS]: PerformancePoint Services RenderingService Protocol Specification

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Revision Summary

Date	Revision History	Revision Class	Comments
07/13/2009	0.1	Major	Initial Availability
08/28/2009	0.2	Editorial	Revised and edited the technical content

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1 Introduction

This document specifies the PerformancePoint Rendering Services Protocol, which is a Web service protocol that is used to read from and perform basic business intelligence operations hosted on a protocol server.

Of particular note, the operations in this SOAP-based protocol are deprecated. In PerformancePoint Services in Microsoft SharePoint Server 2010 Technical Preview Technical Preview, the protocol is supported, but versions released after the Technical Preview will not support the protocol.

1.1 Glossary

The following terms are defined in [\[MS-GLOS\]](#):

Secure Sockets Layer (SSL)

The following terms are defined in [\[MS-OFSGLOS\]](#):

CDATA section

cell

cube

data source

dimension

expand

filter

hierarchy

JavaScript Object Notation (JSON)

key performance indicator (KPI)

list item

member

regional settings

scorecard

SOAP (Simple Object Access Protocol)

SOAP action

SOAP body

SOAP fault

target

URL (Uniform Resource Locator)

URL encode

Web Part

WSDL operation

XML namespace

XML Schema

The following terms are specific to this document:

Web control: A server-side component that encapsulates user interface and related functionality.

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as described in [\[RFC2119\]](#). All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 References

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information. Please check the archive site, <http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624>, as an additional source.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, <http://www.ietf.org/rfc/rfc2119.txt>

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, <http://www.ietf.org/rfc/rfc2616.txt>

[RFC2818] Rescorla, E., "HTTP Over TLS", RFC 2818, May 2000, <http://www.ietf.org/rfc/rfc2818.txt>

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., Layman, A., Mendelsohn, N., Nielsen, H. F., Thatté, S., and Winer, D., "Simple Object Access Protocol (SOAP) 1.1", May 2000, <http://www.w3.org/TR/2000/NOTE-SOAP-20000508/>

[SOAP1.2/1] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 1: Messaging Framework", W3C Recommendation, June 2003, <http://www.w3.org/TR/2003/REC-soap12-part1-20030624>.

[SOAP1.2/2] Gudgin, M., Hadley, M., Mendelsohn, N., Moreau, J., and Nielsen, H.F., "SOAP Version 1.2 Part 2: Adjuncts", W3C Recommendation, June 2003, <http://www.w3.org/TR/2003/REC-soap12-part2-20030624>.

[WSDL] Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S., "Web Services Description Language (WSDL) 1.1", W3C Note, March 2001, <http://www.w3.org/TR/2001/NOTE-wsdl-20010315>

[XMLNS] World Wide Web Consortium, "Namespaces in XML 1.0 (Second Edition)", August 2006, <http://www.w3.org/TR/REC-xml-names/>

[XMLSCHEMA1] Thompson, H.S., Ed., Beech, D., Ed., Maloney, M., Ed., and Mendelsohn, N., Ed., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/>

[XMLSCHEMA2] Biron, P.V., Ed. and Malhotra, A., Ed., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/>

1.2.2 Informative References

[MS-GLOS] Microsoft Corporation, "[Windows Protocols Master Glossary](#)", March 2007.

[MS-OFSGLOS] Microsoft Corporation, "[Microsoft Office Server Master Glossary](#)", June 2008.

1.3 Protocol Overview (Synopsis)

This protocol enables a protocol client to receive dynamic HTML and JavaScript content generated by the protocol server.

This protocol also enables a protocol client to create and read annotations on select content.

A typical use of this protocol is an application that allows users to view business performance data within a web browser without full page refresh, and make annotations within the web browser without full page refresh.

1.4 Relationship to Other Protocols

The PPS RenderingService Protocol uses the SOAP messaging protocol for formatting requests and responses as specified either in [\[SOAP1.1\]](#) or in [\[SOAP1.2/1\]](#) and [\[SOAP1.2/2\]](#). It transmits these messages using the HTTP protocol as specified in [\[RFC2616\]](#) or the HTTPS protocol as specified in [\[RFC2818\]](#).

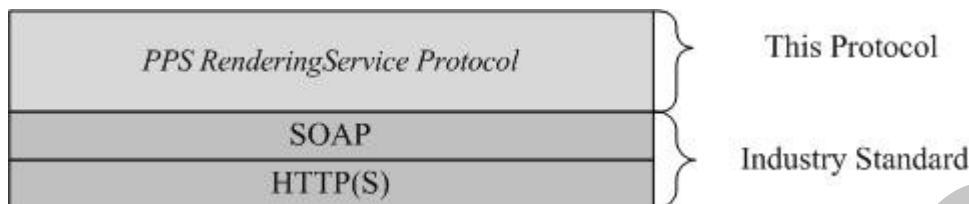


Figure 1: The PPS RenderingService Protocol in relationship to other protocols

1.5 Prerequisites/Preconditions

This protocol operates against a site that is identified by a URL that is known by protocol clients. The protocol server endpoint is formed by appending “_vti_bin/PPS/BIMonitoringRenderingService.asmx” to the URL or the site, as in http://www.contoso.com/_vti_bin/PPS/BIMonitoringRenderingService.asmx, for example.

This protocol assumes that authentication has been performed by the underlying protocols.

1.6 Applicability Statement

This protocol can be used anytime interactivity with analytic views and **scorecards** is needed. It is appropriate to use this as a public facing interface to analytic reports and scorecards hosted on a server.

1.7 Versioning and Capability Negotiation

This document specifies versioning issues in the following areas:

- **Supported Transports:** This protocol uses multiple transports with SOAP as specified in section Transport (see section [2.1](#))
- **Security and Authentication Methods:** The security and authentication methods supported by this protocol are specified in section Security (see section [5](#)).

1.8 Vendor-Extensible Fields

None.

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

Protocol servers MUST support JSON over HTTP.

Protocol messages sent using JSON MUST be formatted using the JSON format. Protocol messages sent using SOAP MUST be formatted as specified in [\[SOAP1.1\]](#). Protocol server faults from requests sent using JSON MUST be returned either using HTTP Status Codes as specified in [\[RFC2616\]](#), Section 10. Protocol server faults from requests sent using SOAP MUST be returned either using HTTP Status Codes as specified in [\[RFC2616\]](#), Section 10 or using **SOAP faults** as specified either in [\[SOAP1.1\]](#), Section 4.4 or in [\[SOAP1.2/1\]](#), Section 5.4.

2.2 Common Message Syntax

This section contains common structures used by this protocol. The syntax of the structures uses XML Schema, as specified in [\[XMLSCHEMA1\]](#) and [\[XMLSCHEMA2\]](#), and Web Services Description Language, as specified in [\[WSDL\]](#).

2.2.1 Namespaces

This specification defines and references various **XML namespaces** using the mechanisms specified in [\[XMLNS\]](#). Although this specification associates a specific XML namespace prefix for each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and not significant for interoperability.

Prefix	Namespace URI	Reference
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
xs	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
soap12	http://schemas.xmlsoap.org/wsdl/soap12/	[SOAP1.2/1] [SOAP1.2/2]

2.2.2 Messages

None.

2.2.3 Elements

None.

2.2.4 Complex Types

The following table summarizes the set of common **XML Schema** complex type definitions defined by this specification. XML Schema complex type definitions that are specific to a particular operation are described with the operation.

Complex Type	Description
AjaxRenderResultRecord	This is the result record that is returned to the protocol client from an Ajax render request. This contains the information on how to render the Web Part . The data in Html, ErrorHtml, Script, ConsumerInputs and ViewStateJson are returned within CDATA sections , eliminating the need for character translations and escaping of strings.
ArrayOfMemberTransform	An array of scorecard transforms that have been performed since the initial rendering of the scorecard.
ArrayOfScorecardCommentRecord	An array of comment records.
ArrayOfStatusFilter	An array of KPI target indicator status filters .
ClientViewState	The Web Part provided generic client view state data store organized as a data dictionary. This provides a mechanism for the protocol client and protocol server to maintain the state of the client view.
ClientViewStateItem	A single data store key-value entry.
MemberTransform	A scorecard transform applied to a hierarchy member .
msf	The scorecard non-visible page filter member set that constrains the scorecard cell data.
msfs	The scorecard non-visible page filter member set that constrains the scorecard cell data.
ScorecardClientViewState	The scorecard ClientViewState view state properties used to render the scorecard and define the current behaviors. The following table defines all scorecard control properties. All properties are optional.
ScorecardCommentRecord	Defines a scorecard cell comment.
StatusFilter	Defines whether a KPI can be filtered by this target indicator status.

2.2.4.1 AjaxRenderResultRecord

This is the result record that is returned to the protocol client from an Ajax render request. This contains the information on how to render the Web Part. The data in Html, ErrorHtml, Script, ConsumerInputs and ViewStateJson are returned within CDATA sections, eliminating the need for character translations and escaping of strings.

```

<xs:complexType name="AjaxRenderResultRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="HtmlDomElementId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ErrorHtml">
      <xs:complexType mixed="true">
        <xs:sequence>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="0" maxOccurs="1" name="Html">
      <xs:complexType mixed="true">
        <xs:sequence>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>

```

```

    </xs:complexType>
  </xs:element>
  <xs:element minOccurs="0" maxOccurs="1" name="Script">
    <xs:complexType mixed="true">
      <xs:sequence>
        <xs:any/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element minOccurs="0" maxOccurs="1" name="ConsumerInputs">
    <xs:complexType mixed="true">
      <xs:sequence>
        <xs:any/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element minOccurs="0" maxOccurs="1" name="ViewStateJson">
    <xs:complexType mixed="true">
      <xs:sequence>
        <xs:any/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:sequence>
</xs:complexType>

```

HtmlDomElementId: The DOM element ID of the DIV element where the result html will be rendered.

- If the value is null or empty, the client gets the DOM element of the current WebPart control associated with it.
- If the DOM element does not exist, the client gets the DOM element of the current WebPart control associated with it.

ErrorHtml: Contains the html error message when rendering error occurs. This is enclosed within CDATA. This SHOULD be set to null or empty if there are no rendering errors, otherwise the ErrorHtml value will be applied. If the ErrorHtml element is not null, parameters, Html, Script, ConsumerInputs, and ViewStateJson element content will be ignored, the parameters Html, Script, ConsumerInputs and ViewStateJson will be ignored.

Html: The resulting html message that will be applied to the specified HtmlDomElementId. This is enclosed within CDATA. If the value is null or empty, the client will ignore it and will not be applied to the targeted DOM Element.

Script: The JavaScript message that will be executed using the eval function. This is enclosed within CDATA. If the value is empty or null, the client will ignore it and will not be executed.

ConsumerInputs: A server-generated string passed to the consumer that contains consumer session-state information to be used by the server in later calls. The string content is server-implementation specific.

ViewStateJson: Contains a data dictionary of the view state object structured on a JSON format. This is enclosed within CDATA. If the value is null or empty, the client's view state object will not be updated and will be left unchanged.

2.2.4.2 ArrayOfMemberTransform

An array of scorecard transforms that have been performed since the initial rendering of the scorecard.

```
<xs:complexType name="ArrayOfMemberTransform">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="MemberTransform" nillable="true"
      type="tns:MemberTransform"/>
  </xs:sequence>
</xs:complexType>
```

MemberTransform: The applied [MemberTransform](#) scorecard transforms.

2.2.4.3 ArrayOfScorecardCommentRecord

An array of comment records.

```
<xs:complexType name="ArrayOfScorecardCommentRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="ScorecardCommentRecord"
      nillable="true" type="tns:ScorecardCommentRecord"/>
  </xs:sequence>
</xs:complexType>
```

ScorecardCommentRecord: The [ScorecardCommentRecord](#) comment records.

2.2.4.4 ArrayOfStatusFilter

An array of KPI target indicator status filters.

```
<xs:complexType name="ArrayOfStatusFilter">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="StatusFilter" nillable="true"
      type="tns:StatusFilter"/>
  </xs:sequence>
</xs:complexType>
```

StatusFilter: The [StatusFilter](#) KPI target indicator status filter.

2.2.4.5 ClientViewState

The Web Part provided generic client view state data store organized as a data dictionary. This provides a mechanism for the protocol client and protocol server to maintain the state of the client view.

```
<xs:complexType name="ClientViewState">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="item"
      type="tns:ClientViewStateItem"/>
  </xs:sequence>
</xs:complexType>
```

item: The unique set of [ClientViewStateItem](#) data dictionary entries. Each item is a key-value definition where all keys MUST be unique.

2.2.4.6 ClientViewStateItem

A single data store key-value entry.

```
<xs:complexType name="ClientViewStateItem">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="key" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="value" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

key: Uniquely identifies a data dictionary entry.

value: The value for a data dictionary entry. The contents of this value are internal to the protocol server.

2.2.4.7 MemberTransform

A scorecard transform applied to a hierarchy member.

```
<xs:complexType name="MemberTransform">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="CellPath" type="tns:CellPath"/>
    <xs:element minOccurs="1" maxOccurs="1" name="GroupId" type="xs:int"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Type" type="tns:MemberTransformType"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Operation"
      type="tns:MemberTransformOperation"/>
  </xs:sequence>
</xs:complexType>
```

CellPath: The visible context signature of a scorecard cell as a [CellPath](#).

GroupId: The scorecard transform hierarchy. The identifier is unique to each scorecard.

Type: The [MemberTransformType](#) type defines whether the row or column is transformed.

Operation: The [MemberTransformOperation](#) transform operation, like **expand** or drilldown.

2.2.4.8 msf

Defines an individual member in the [msfs](#) filter member set.

```
<xs:complexType name="msf">
  <xs:attribute name="DisplayName" type="xs:string"/>
  <xs:attribute name="DimensionName" type="xs:string"/>
  <xs:attribute name="MemberType" type="tns:MemberType"/>
  <xs:attribute name="UniqueName" type="xs:string" use="required"/>
</xs:complexType>
```

DisplayName: The caption as displayed to the user.

DimensionName: The unique identifier for the **dimension** this member belongs to.

MemberType: The [MemberType](#) of the member.

UniqueName: The member unique identifier.

2.2.4.9 msfs

The scorecard non-visible page filter member set that constrains the scorecard cell data.

```
<xs:complexType name="msfs">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="msf" nillable="true"
type="tns:msf"/>
  </xs:sequence>
</xs:complexType>
```

msf: An [msf](#) member set array.

2.2.4.10 ScorecardClientViewState

The scorecard [ClientViewState](#) view state properties used to render the scorecard and define the current behaviors. The following table defines all scorecard control properties. All properties are optional.

Properties	Description
AccessibilityMode	Is the client accessibility feature activated? The value MUST be "true" or "false".
AllowFilter	Can the user define and filter scorecard data? The value MUST be "true" or "false".
AllowSort	Can the scorecard be sorted by column? The value MUST be "true" or "false".
AllowStatusFilter	Can the scorecard be filtered by KPI target status? The value MUST be "true" or "false".
CommentsUrl	The ScorecardAjaxCommentsUpdate web service method URL.
ConfiguredViewId	The scorecard view configuration identifier.
ExpandedColumns	Defines which columns are expanded. The string MUST contain a list of column names separated by a colon. For example, "1:2" indicates columns one and two are expanded.
ExpandedRows	Defines which rows are expanded. The string MUST contain a list of row names separated by a colon. For example, "1:2" indicates rows one and two are expanded.
ExpandDrillTransforms	A JSON serialized ArrayOfMemberTransform that lists all performed expand and/or drilldown operations.
PageFilters	The URL encoded and XML serialized msfs member set that filters scorecard data.
RollupType	Defines how the scorecard calculates its KPI rollup. The value MUST be

Properties	Description
	a RollupType .
ScorecardId	Uniquely identifies the scorecard Web Part. The protocol server generates the identifier.
SelectedCell	Defines which scorecard cell is currently selected. The value MUST contain a row and column intersection separated by the colon character. For example, "4:2" means the scorecard cell at the fourth row and second column.
ServiceUrl	The RenderScorecardAjaxControl scorecard web service method URL.
ShowAnnotations	Can the scorecard create and retrieve cell comments? The value MUST be "true" or "false".
ShowDetails	Can the scorecard display additional cell details? The value MUST be "true" or "false".
SortFilterType	The sort and filter control's assembly strong name.
StatusFilters	A JSON serialized ArrayOfStatusFilter target indicators that define whether a KPI should be filtered out of the displayed scorecard.
TimeIntelligenceCurrentTime	The time used for time intelligence calculations. The string format MUST use the Windows InvariantCulture culture.
TimeIntelligenceFormula	The current time intelligence formula. The scorecard KPIs can use it in their data calculations.
TableId	The image toolbar's HTML DOM element ID.
ToolBarId	The scorecard image toolbar HTML DOM element ID.
ToolBarType	The toolbar control assembly strong name.
ViewTableType	The scorecard grid view control assembly strong name.

```

<xs:complexType name="ScorecardClientViewState">
  <xs:complexContent mixed="false">
    <xs:extension base="tns:ClientViewState"/>
  </xs:complexContent>
</xs:complexType>

```

2.2.4.11 ScorecardCommentRecord

Defines a scorecard cell comment.

```

<xs:complexType name="ScorecardCommentRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Title" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CreatedBy" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CreatedDate" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Comment" type="xs:string"/>
  </xs:sequence>
</xs:complexType>

```

Title: The title of the comment as entered by the author. MUST be no more than 1000 characters in length.

CreatedBy: The user name of the person creating the comment. MUST be no more than 1000 characters in length.

CreatedDate: The create date-time for the comment. The date-time format is culture specific and uses the configured web site or user's **regional setting**.

Comment: The main text of the comment. MUST be no more than 4000 characters in length.

2.2.4.12 StatusFilter

Defines whether a KPI can be filtered by this target indicator status.

```
<xs:complexType name="StatusFilter">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="DisplayName" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="GroupId" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="IsSelected" type="xs:boolean"/>
  </xs:sequence>
</xs:complexType>
```

DisplayName: The caption as displayed to the user.

GroupId: Uniquely identifies KPI target indicator.

IsSelected: If "true", a KPI with this target indicator MUST be displayed. If "false", the target indicator MUST be filtered.

2.2.5 Simple Types

The following table summarizes the set of common XML Schema simple type definitions defined by this specification. XML Schema simple type definitions that are specific to a particular operation are described with the operation.

Complex Type	Description
CellPath	A URL encoded scorecard cell visible context signature that uniquely identifies a KPI, row, and column members. The row and column member portion MUST contain the member unique name. The KPI portion MUST contain its list item identifier. The complete cell path MUST be a concatenation of row, column, and KPI portions with no separators between them.
ConsumerInputs	A server-generated string that defines the connection input data values used to render a Web Part. The string content is server-implementation specific.
MemberTransformOperation	Defines how a member operation affects a hierarchy member selection. Operations can be classified as either adding to or replacing the existing hierarchy member selections.
MemberTransformType	Defines whether the row or column should be transformed.
MemberType	The data source member type.

Complex Type	Description
RollupTypes	Defines how the scorecard cell rollup is calculated.
ScorecardCommentUpdateMethod	The type of ScorecardAjaxCommentsUpdate comment operation.

2.2.5.1 CellPath

A URL encoded scorecard cell visible context signature that uniquely identifies a KPI, row, and column members. The row and column member portion MUST contain the member unique name. The KPI portion MUST contain its list item identifier. The complete cell path MUST be a concatenation of row, column, and KPI portions with no separators between them.

```
<xs:simpleType name="CellPath">
  <xs:restriction base="xs:string"/>
</xs:simpleType>
```

2.2.5.2 ConsumerInputs

A server-generated string that defines the connection input data values used to render a Web Part. The string content is server-implementation specific.

```
<xs:simpleType name="ConsumerInputs">
  <xs:restriction base="xs:string"/>
</xs:simpleType>
```

2.2.5.3 MemberTransformOperation

Defines how a member operation affects a hierarchy member selection. Operations can be classified as either adding to or replacing the existing hierarchy member selections.

```
<xs:simpleType name="MemberTransformOperation">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Replace"/>
    <xs:enumeration value="DrillUp"/>
    <xs:enumeration value="DrillDown"/>
    <xs:enumeration value="Expand"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for MemberTransformOperation:

Value	Meaning
Replace	Replace a hierarchy member selection set.
DrillUp	Replace the existing hierarchy selection with the parent and siblings of a member.
DrillDown	Replace the existing hierarchy selection with the children of a member.
Expand	Add the children of a member to a hierarchy selection.

2.2.5.4 MemberTransformType

Defines whether the row or column should be transformed.

```
<xs:simpleType name="MemberTransformType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Row"/>
    <xs:enumeration value="Column"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for MemberTransformType:

Value	Meaning
Row	Row transform.
Column	Column transform.

2.2.5.5 MemberType

The data source member type.

```
<xs:simpleType name="MemberType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Regular"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for MemberType:

Value	Meaning
Regular	A non-calculated data source member.

2.2.5.6 RollupTypes

Defines how the scorecard cell rollup is calculated.

```
<xs:simpleType name="RollupTypes">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="AverageWeighted"/>
    <xs:enumeration value="WorstChild"/>
    <xs:enumeration value="IndicatorCount"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for RollupTypes:

Value	Meaning
None	No rollup is performed.
AverageWeighted	A weighted average of the child status values is used to calculate the parent status.
WorstChild	The worst status of any child is the value of the parent status.
IndicatorCount	A count of descendant status indicators is used as the parent status.

2.2.5.7 ScorecardCommentUpdateMethod

The type of [ScorecardAjaxCommentsUpdate](#) comment operation.

```
<xs:simpleType name="ScorecardCommentUpdateMethod">
  <xs:restriction base="xs:string">
    <xs:enumeration value="GET"/>
    <xs:enumeration value="UPDATE"/>
  </xs:restriction>
</xs:simpleType>
```

The following table specifies the allowable values for ScorecardCommentUpdateMethod:

Value	Meaning
GET	Retrieve all comments.
UPDATE	Create a new comment.

2.2.6 Attributes

2.2.7 Groups

2.2.8 Attribute Groups

2.3 Directory Service Schema Elements

3 Protocol Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

Except where specified, protocol clients SHOULD interpret HTTP status codes returned by the protocol server as specified in [RFC2616](#) (Section 10, Status Code Definitions).

This protocol allows protocol servers to notify protocol clients of application-level faults using SOAP faults. Except where specified, these SOAP faults are not significant for interoperability, and protocol clients can interpret them in an implementation-specific manner.

This protocol allows protocol servers to perform implementation-specific authorization checks and notify protocol clients of authorization faults either using HTTP status codes or using SOAP faults as specified previously in this section.

3.1 Server Details

The *RenderingService* interface can be divided into two areas: interacting with scorecards and interacting with analytic reports. Each operation in the interface is stateless, so it can be called without any other operation being called before it.

Interacting with Scorecards

The following WSDL operations are associated with scorecards:

RenderWebPartContent

RenderScorecardAjaxControl

ScorecardAjaxCommentsUpdate

The *RenderWebPartContent* operation is used to get the rendered results for a first class element in the form of HTML. The content returned depends on the type of the first class element. If the first class element is a scorecard, the rendered scorecard content will be returned. After the client has received the response, it can request other scorecards based on the scorecard first class element by using the *RenderScorecardAjaxControl* operation. If the client wants to add or retrieve comments related to cells in the scorecard, it can use the *ScorecardAjaxCommentsUpdate* operation.

Interacting with Analytic Reports

RenderWebPartContent

CreateReportHtml

CreateNavigationMetadata

The *RenderWebPartContent* operation is used to get the rendered results for a first class element in the form of HTML. The content returned depends on the type of the first class element. If the first class element is an analytic report, the rendered analytic report content will be returned. After the client has received the response, it can request other analytic reports based on the analytic report first class element by using the *CreateReportHtml* operation. If the client wants to retrieve metadata for the data source associated with the first class element, it can use the *CreateNavigationMetadata* operation.

3.1.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.

The protocol server maintains a collection of first class elements indexed by unique repository locations. The first class elements are related as follows:

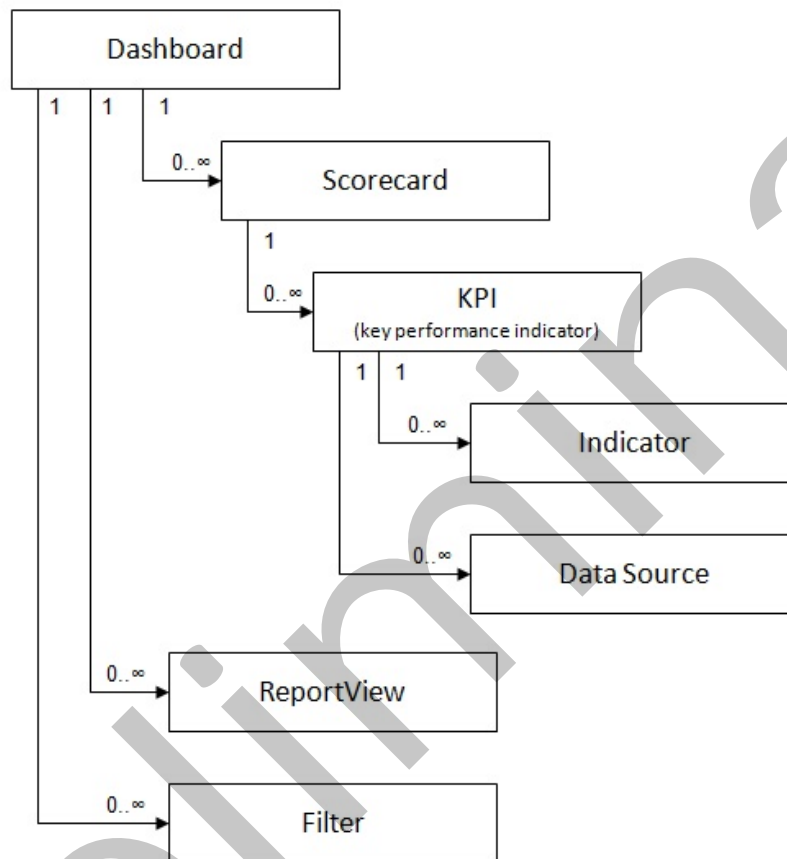


Figure 2: - Overview of first class elements

Dashboard: A customizable landing page for a business application or workspace that uses Web Parts to display selected information. It can provide a comprehensive look at the information inside

the application or workspace by consolidating lists, libraries, text, images and other data into a dynamic, customizable information portal.

Scorecard: A report type that depicts organizational performance by displaying a collection of key performance indicators (KPIs) together with performance targets for those KPIs. A scorecard can be organized hierarchically.

ReportView: A visual display of data in a dashboard that can be coordinated with other report views by using filters.

Filter: A feature that enables users to modify dashboard views by changing the subset of data that is displayed in reports or scorecards.

KPI (key performance indicator): A predefined measure that is used to track performance of a strategic goal, objective, plan, initiative, or business process. A KPI is evaluated against a target. An explicit and measurable value taken directly from a data source.

Indicator: A set of graphics, text, and colors for defining different levels of performance when comparing an actual value and a target value within a KPI.

DataSource: A reference to a disk, file, document, or other collection of information from which data is taken or moved.

The protocol server also maintains a collection of annotations.

Annotation: A note or comment attached to some part of a document to provide related information.

3.1.2 Timers

The protocol server MAY time out requests. When a request times out, the protocol server MUST return the HTTP Status Code 408, based on [RFC2616](#) (Section 10, Status Code Definitions).

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

This section specifies the PerformancePoint Services in Microsoft SharePoint Server 2010 Technical Preview operations.

This specification includes the following **WSDL operations**:

WSDL Operation	Description
CreateNavigationMetadata	This operation is used to generate a JavaScript representation of hierarchical cube metadata for a given report data source. This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services 2010 Technical Preview Technical Preview supports this SOAP-based protocol but will not support it in the shipped version.
CreateReportHtml	This operation is used to generate an HTML fragment and associated JavaScript for a given list item. This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services 2010 Technical Preview Technical

WSDL Operation	Description
	Preview supports this SOAP-based protocol but will not support it in the shipped version.
RenderScorecardAjaxControl	This operation generates scorecard Web control HTML markup for a specific list item stored on the protocol server. The client specifies which list item is to be rendered, which Web Part should be used to render it, and other parameters that affect the result's HTML content. This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services 2010 Technical Preview Technical Preview supports this SOAP-based protocol but will not support it in the shipped version.
RenderWebPartContent	This operation generates HTML markup for a specific list item stored on the protocol server. The client specifies which list item is to be rendered, which Web Part should be used to render it, and other parameters that affect the result's HTML content. This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services 2010 Technical Preview Technical Preview supports this SOAP-based protocol but will not support it in the shipped version.
ScorecardAjaxCommentsUpdate	Provides the ability to create or retrieve comments in the context of a scorecard cell. A cell can have multiple comments, each also including a title, author, and create date and time. This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services 2010 Technical Preview Technical Preview supports this SOAP-based protocol but will not support it in the shipped version.

3.1.4.1 CreateNavigationMetadata

This operation is used to generate a JavaScript representation of hierarchical cube metadata for a given report data source.

This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services in Microsoft SharePoint Server 2010 Technical Preview Technical Preview supports this SOAP-based protocol but will not support it in the shipped version.

```
<wsdl:operation name="CreateNavigationMetadata">
  <wsdl:input message="tns:CreateNavigationMetadataSoapIn"/>
  <wsdl:output message="tns:CreateNavigationMetadataSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **CreateNavigationMetadataSoapIn** request message and the protocol server responds with a **CreateNavigationMetadataSoapOut** response message.

If there was an application error on the protocol server during the operation, the protocol server MUST return a SOAP FAULT response, which MAY contain any subcode. The exception might be one well known types, but MAY be anything else. If [requestRecord](#) is NULL the protocol server MUST return subcode ArgumentException.

3.1.4.1.1 Messages

3.1.4.1.1.1 CreateNavigationMetadataSoapIn

The requested WSDL message for a **CreateNavigationMetadata** WSDL operation.

The **SOAP action** value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateNavigationMetadata
```

The **SOAP body** contains a **CreateNavigationMetadata** element.

3.1.4.1.1.2 CreateNavigationMetadataSoapOut

The response WSDL message for a **CreateNavigationMetadata** method.

The SOAP action value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateNavigationMetadata
```

The SOAP body contains a **CreateNavigationMetadataResponse** element.

3.1.4.1.2 Elements

3.1.4.1.2.1 CreateNavigationMetadata

The input data for a **CreateNavigationMetadata** WSDL operation.

```
<xs:element name="CreateNavigationMetadata">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="requestRecord"
type="tns:AjaxOlapMetadataRequestRecord"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

requestRecord: An [AjaxOlapMetadataRequestRecord](#) value, as follows:

1. TargetControlType: SHOULD be "OlapMetadata", MUST NOT be NULL and MUST NOT be empty, but MAY be anything else.
2. ReportLocation: MUST be a report list item location, for example "/PerformancePoint/Lists/Dashboard Content/2_.000".
3. MetadataAction: SHOULD be **<Action type="GetCubeMetadata"></Action>**, but MAY be anything else.
4. TargetControlId, OlapContextId, and MetadataContextId: MAY be any value.

3.1.4.1.2.2 CreateNavigationMetadataResponse

The result data for a **CreateNavigationMetadata** WSDL operation.

```

<xs:element name="CreateNavigationMetadataResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateNavigationMetadataResult"
type="tns:AjaxRenderResultRecord"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

CreateNavigationMetadataResult: An [AjaxRenderResultRecord](#) value, as follows:

1. Script MUST contain a JavaScript string to be executed using the JavaScript eval function.
2. HtmlDomElementId, ErrorHtml, Html, and ConsumerInputs MUST be empty.

3.1.4.1.3 Complex Types

3.1.4.1.3.1 AjaxOlapMetadataRequestRecord

The protocol client sends an **AjaxOlapMetadataRequestRecord** in a **CreateNavigationMetadata** web service call.

```

<xs:complexType name="AjaxOlapMetadataRequestRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="TargetControlId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="TargetControlType" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="OlapContextId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="MetadataContextId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ReportLocation" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="MetadataAction" type="xs:string"/>
  </xs:sequence>
</xs:complexType>

```

TargetControlId: A String value.

TargetControlType: A String value.

OlapContextId: A String value.

MetadataContextId: A String value.

ReportLocation: A String value.

MetadataAction: A String value.

3.1.4.2 CreateReportHtml

This operation is used to generate an HTML fragment and associated JavaScript for a given list item.

This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services in Microsoft SharePoint Server 2010 Technical Preview Technical Preview supports this SOAP-based protocol but will not support it in the shipped version.

```

<wsdl:operation name="CreateReportHtml">
  <wsdl:input message="tns:CreateReportHtmlSoapIn"/>

```

```
<wsdl:output message="tns:CreateReportHtmlSoapOut"/>
</wsdl:operation>
```

The protocol client sends a **CreateReportHtmlSoapIn** request message and the protocol server responds with a **CreateReportHtmlSoapOut** response message.

If there was an application error on the protocol server during the operation, the protocol server MUST return a SOAP fault response, which MAY contain any subcode. The exception MAY be one well known type, but MAY be anything else. If [requestRecord](#) is NULL the protocol server MUST return subcode `ArgumentNullException`.

3.1.4.2.1 Messages

3.1.4.2.1.1 CreateReportHtmlSoapIn

The requested WSDL message for a **CreateReportHtml** WSDL operation.

The SOAP action value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateReportHtml
```

The SOAP body contains a **CreateReportHtml** element.

3.1.4.2.1.2 CreateReportHtmlSoapOut

The response WSDL message for a **CreateReportHtml** method.

The SOAP action value is:

```
http://www.microsoft.com/performancepoint/scorecards/CreateReportHtml
```

The SOAP body contains a **CreateReportHtmlResponse** element.

3.1.4.2.2 Elements

3.1.4.2.2.1 CreateReportHtml

The input data for a **CreateReportHtml** WSDL operation.

```
<xs:element name="CreateReportHtml">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="requestRecord"
type="tns:AjaxOlapRenderRequestRecord"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

requestRecord: An [AjaxOlapRenderRequestRecord](#) value, as follows:

1. TargetControlType SHOULD be "AnalyticChart" or "OLAPGrid", MUST NOT be NULL and MUST NOT be empty, but MAY be anything else.

2. ReportLocation MUST be a report list item location, for example:
"/PerformancePoint/Lists/Dashboard Content/2_.000".
3. TargetControlId, OlapContextId, Height, Width, Inputs, NavigationAction, and ViewProperties MAY be any value.

3.1.4.2.2 CreateReportHtmlResponse

The result data for a **CreateReportHtml** WSDL operation.

```
<xs:element name="CreateReportHtmlResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="CreateReportHtmlResult"
type="tns:AjaxRenderResultRecord"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

CreateReportHtmlResult: An [AjaxRenderResultRecord](#) value, as follows:

1. Html SHOULD contain an HTML fragment when no errors have occurred while retrieving the list item, otherwise MUST be empty.
2. Script MUST contain a JavaScript string to be executed using the JavaScript eval function.
3. ErrorHtml MAY contain an HTML fragment containing details of any potential errors in retrieving the list item, but otherwise MUST be empty.
4. HtmlDomElementId, ErrorHtml, and ConsumerInputs MAY be any value.

3.1.4.2.3 Complex Types

3.1.4.2.3.1 AjaxOlapRenderRequestRecord

The protocol client sends an **AjaxOlapRenderRequestRecord** in a **CreateReportHtml** web service call.

```
<xs:complexType name="AjaxOlapRenderRequestRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="TargetControlId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="TargetControlType" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="OlapContextId" type="xs:string"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Height" type="xs:int"/>
    <xs:element minOccurs="1" maxOccurs="1" name="Width" type="xs:int"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ReportLocation" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Inputs" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="NavigationAction" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ViewProperties" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

TargetControlId: A String value.

TargetControlType: A String value.

OlapContextId: A String value.

Height: An Integer value.

Width: An Integer value.

ReportLocation: A String value.

Inputs: A String value.

NavigationAction: A String value.

ViewProperties: A String value.

3.1.4.3 RenderScorecardAjaxControl

This operation generates scorecard Web control HTML markup for a specific list item stored on the protocol server. The client specifies which list item is to be rendered, which Web Part should be used to render it, and other parameters that affect the result's HTML content.

This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services in Microsoft SharePoint Server 2010 Technical Preview Technical Preview supports this SOAP-based protocol but will not support it in the shipped version.

```
<wsdl:operation name="RenderScorecardAjaxControl">
  <wsdl:input message="tns:RenderScorecardAjaxControlSoapIn"/>
  <wsdl:output message="tns:RenderScorecardAjaxControlSoapOut"/>
</wsdl:operation>
```

The protocol client MUST send a **RenderScorecardAjaxControlSoapIn** request message and the protocol server MUST respond with a **RenderScorecardAjaxControlSoapOut** message containing the HTML markup for the list item.

If there was an application error on the protocol server during the operation, the protocol server MUST return a **SOAP** fault response, which MAY contain any subcode. The exception MAY be one well known type, but MAY be anything else. If [request](#) is NULL the protocol server MUST return subcode ArgumentException.

3.1.4.3.1 Messages

3.1.4.3.1.1 RenderScorecardAjaxControlSoapIn

The requested WSDL message for a **RenderScorecardAjaxControl** WSDL operation.

The SOAP action value is:

```
http://www.microsoft.com/performancepoint/scorecards/RenderScorecardAjaxControl
```

The SOAP body contains a **RenderScorecardAjaxControl** element.

3.1.4.3.1.2 RenderScorecardAjaxControlSoapOut

The response WSDL message for a **RenderScorecardAjaxControl** method.

The SOAP action value is:

<http://www.microsoft.com/performancepoint/scorecards/RenderScorecardAjaxControl>

The SOAP body contains a **RenderScorecardAjaxControlResponse** element.

3.1.4.3.2 Elements

3.1.4.3.2.1 RenderScorecardAjaxControl

The input data for a **RenderScorecardAjaxControl** WSDL operation.

```
<xs:element name="RenderScorecardAjaxControl">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="request"
type="tns:ScorecardAjaxRenderRequest"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

request: Provides the data context needed to render the scorecard as DHTML.

3.1.4.3.2.2 RenderScorecardAjaxControlResponse

The result data for a **RenderScorecardAjaxControl** WSDL operation.

```
<xs:element name="RenderScorecardAjaxControlResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="RenderScorecardAjaxControlResult"
type="tns:ScorecardAjaxRenderResult"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

RenderScorecardAjaxControlResult: The DHTML rendered scorecard.

3.1.4.3.3 Complex Types

3.1.4.3.3.1 ScorecardAjaxRenderRequest

This request includes control identification, input connection data, and current state information.

```
<xs:complexType name="ScorecardAjaxRenderRequest">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ScorecardLocation" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="RenderTargetId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ResourcePath" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ScorecardControlId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ScorecardControlType" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="InboundParameters" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ClientViewState">
      <xs:complexType>
        <xs:sequence>
```

```

        <xs:element ref="xs:schema"/>
        <xs:any/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:sequence>
</xs:complexType>

```

ScorecardLocation: The list item identifier used to retrieve the scorecard definition.

RenderTargetId: The HTML element container where the rendered scorecard markup is written.

ResourcePath: The URL where scorecard rendering items are located.

ScorecardControlId: The unique identifier assigned to the scorecard Web Part.

ScorecardControlType: The assembly strong name of the Web Part control implementation. This is used to create a new web control instance.

InboundParameters: The [ConsumerInputs](#) Web Part connection input data.

ClientViewState: The [ScorecardClientViewState](#) set of scorecard name-value properties.

3.1.4.3.3.2 ScorecardAjaxRenderResult

The scorecard Ajax render result includes both data context and DHTML rendering for the requested scorecard.

```

<xs:complexType name="ScorecardAjaxRenderResult">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="RenderTargetId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ScorecardControlId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Html">
      <xs:complexType mixed="true">
        <xs:sequence>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="0" maxOccurs="1" name="ClientViewState">
      <xs:complexType mixed="true">
        <xs:sequence>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="0" maxOccurs="1" name="ScorecardLocation">
      <xs:complexType mixed="true">
        <xs:sequence>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>

```

RenderTargetId: The HTML element container where the rendered scorecard markup is written.

ScorecardControlId: The unique identifier assigned to the scorecard Web Part.

Html: The scorecard rendered HTML markup.

ClientViewState: The [ScorecardClientViewState](#) set of scorecard name-value properties.

ScorecardLocation: The list item identifier used to retrieve the scorecard definition.

3.1.4.4 RenderWebPartContent

This operation generates HTML markup for a specific list item stored on the protocol server. The client specifies which list item is to be rendered, which Web Part should be used to render it, and other parameters that affect the result's HTML content.

This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services in Microsoft SharePoint Server 2010 Technical Preview Technical Preview supports this SOAP-based protocol but will not support it in the shipped version.

```
<wsdl:operation name="RenderWebPartContent">
  <wsdl:input message="tns:RenderWebPartContentSoapIn"/>
  <wsdl:output message="tns:RenderWebPartContentSoapOut"/>
</wsdl:operation>
```

The protocol client MUST send a **RenderWebPartContentSoapIn** request message and the protocol server MUST respond with a **RenderWebPartContentSoapOut** message containing the HTML markup for the list item.

If there was an application error on the protocol server during the operation, the protocol server MUST return a SOAP fault response, which MAY contain any subcode. The exception MAY be one well known type, but MAY be anything else. If [renderRequestRecord](#) is NULL the protocol server MUST return subcode ArgumentException.

3.1.4.4.1 Messages

3.1.4.4.1.1 RenderWebPartContentSoapIn

The requested WSDL message for a **RenderWebPartContent** WSDL operation.

The SOAP action value is:

```
http://www.microsoft.com/performancepoint/scorecards/RenderWebPartContent
```

The SOAP body contains a **RenderWebPartContent** element.

3.1.4.4.1.2 RenderWebPartContentSoapOut

The response WSDL message for a **RenderWebPartContent** method.

The SOAP action value is:

```
http://www.microsoft.com/performancepoint/scorecards/RenderWebPartContent
```

The SOAP body contains a **RenderWebPartContentResponse** element.

3.1.4.4.2 Elements

3.1.4.4.2.1 RenderWebPartContent

The input data for a **RenderWebPartContent** WSDL operation.

```
<xs:element name="RenderWebPartContent">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="renderRequestRecord"
type="tns:AjaxRenderRequestRecord"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

renderRequestRecord: An **AjaxRenderRequestRecord** value.

3.1.4.4.2.2 RenderWebPartContentResponse

The result data for a **RenderWebPartContent** WSDL operation.

```
<xs:element name="RenderWebPartContentResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="RenderWebPartContentResult"
type="tns:AjaxRenderResultRecord"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

RenderWebPartContentResult: An **AjaxRenderResultRecord** value.

3.1.4.4.3 Complex Types

3.1.4.4.3.1 AjaxRenderRequestRecord

An **AjaxRenderRequestRecord** record is sent to the protocol server as part of the [RenderWebPartContent](#) WSDL operation. It contains information needed to render the Web Parts on the protocol client. This record includes all consumer and provider Web Part connection information.

```
<xs:complexType name="AjaxRenderRequestRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ConnectionRecords"
type="tns:ArrayOfClientConnectionRecord"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ConsumerRecord"
type="tns:ClientConsumerRecord"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ParameterRecords"
type="tns:ArrayOfClientParameterRecord"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ProviderRecords"
type="tns:ArrayOfClientProviderRecord"/>
    <xs:element minOccurs="0" maxOccurs="1" name="TransformerRecords"
type="tns:ArrayOfClientTransformerRecord"/>
    <xs:element minOccurs="1" maxOccurs="1" name="SaveUserFilterChoices" type="xs:boolean"/>
  </xs:sequence>
</xs:complexType>
```

```

    </xs:sequence>
  </xs:complexType>

```

ConnectionRecords: Contains an [ArrayOfClientConnectionRecord](#).

ConsumerRecord: Contains the [ClientConsumerRecord](#).

ParameterRecords: Contains an [ArrayOfClientParameterRecord](#).

ProviderRecords: Contains an [ArrayOfClientProviderRecord](#).

TransformerRecords: Contains an [ArrayOfClientTransformerRecord](#).

SaveUserFilterChoices: This type is deprecated from the protocol and SHOULD NOT [<1>](#) be used.

3.1.4.4.3.2 ArrayOfClientConnectionRecord

The ArrayOfClientConnectionRecord complex type specifies an array of [ClientConnectionRecord](#).

```

<xs:complexType name="ArrayOfClientConnectionRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="ClientConnectionRecord"
      nillable="true" type="tns:ClientConnectionRecord"/>
  </xs:sequence>
</xs:complexType>

```

ClientConnectionRecord: A ClientConnectionRecord value.

3.1.4.4.3.3 ClientConnectionRecord

Contains the connection information of the consumer-provider relationship between connectible Web Parts.

```

<xs:complexType name="ClientConnectionRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ProviderId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ProviderParameterName" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ConsumerId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ProviderConnectionPointId"
      type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ConsumerConnectionPointId"
      type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="TransformerId" type="xs:string"/>
  </xs:sequence>
</xs:complexType>

```

ProviderId: The unique identifier of the provider Web Part.

ProviderParameterName: The reference name of the provider Web Part.

ConsumerId: The unique identifier of the consumer Web Part.

ProviderConnectionPointId: The unique identifier of the provider connection point.

ConsumerConnectionPointId: The unique identifier of the consumer connection point.

TransformerId: The unique identifier of the Web Part transformer.

3.1.4.4.3.4 ClientConsumerRecord

Contains the consumer Web Part information, including its associated parameter providers and their selected values.

```
<xs:complexType name="ClientConsumerRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Id" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ClientId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Configuration"/>
    <xs:element minOccurs="0" maxOccurs="1" name="AssemblyQualifiedName" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ConsumerInputs" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ViewState">
      <xs:complexType>
        <xs:sequence>
          <xs:element ref="xs:schema"/>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="0" maxOccurs="1" name="ProviderSelections">
      <xs:complexType>
        <xs:sequence>
          <xs:element ref="xs:schema"/>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="0" maxOccurs="1" name="InUseProviderParameterNames"
type="tns:ArrayOfString"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Width" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Height" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

Id: The unique identifier of the consumer Web Part.

ClientId: The DOM element ID where the AJAX-rendering was requested.

Configuration: Contains the location of the consumer content definition.

AssemblyQualifiedName: The full assembly name including version, culture, and public token of the consumer control implementation.

ConsumerInputs: A server-generated blob of string passed to the consumer that contains consumer session-state information to be used by the server in later calls. The string content is server-implementation specific.

ViewState: Contains a data dictionary of the view-state object structured on a JSON format. If the value is empty, the consumer view state object will not be updated and will be left unchanged.

ProviderSelections: Contains the selected values for each of the listed parameter providers. Each of the parameter providers and their corresponding selected values will be listed as a name-value pair in JSON format. The values for each parameter provider are listed in an [ArrayOfString](#).

InUseProviderParameterNames: Contains the names of the providers that will be used as parameters for the consumer Web Part. The parameter provider names are listed in an `ArrayOfString`.

Width: Contains the width of the Web Part in pixels.

Height: Contains the height of the Web Part in pixels.

3.1.4.4.3.5 `ArrayOfString`

```
<xs:complexType name="ArrayOfString">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="string" nillable="true"
type="xs:string"/>
  </xs:sequence>
</xs:complexType>
```

string:

3.1.4.4.3.6 `ArrayOfClientParameterRecord`

The `ArrayOfClientParameterRecord` complex type specifies an array of [ClientParameterRecord](#).

```
<xs:complexType name="ArrayOfClientParameterRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="ClientParameterRecord"
nillable="true" type="tns:ClientParameterRecord"/>
  </xs:sequence>
</xs:complexType>
```

ClientParameterRecord: A `ClientParameterRecord` value.

3.1.4.4.3.7 `ClientParameterRecord`

Defines the provider parameter information, including the currently selected values.

```
<xs:complexType name="ClientParameterRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ProviderId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Name" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Selections" type="tns:ArrayOfString"/>
    <xs:element minOccurs="1" maxOccurs="1" name="UpdateAction"
type="tns:ClientParameterUpdateAction"/>
  </xs:sequence>
</xs:complexType>
```

ProviderId: The unique identifier of the provider Web Part.

Name: Contains the reference name of the provider parameter Web Part.

Selections: An [ArrayOfString](#) that contains all the selected values.

UpdateAction: Contains the [ClientParameterUpdateAction](#) value.

3.1.4.4.3.8 ArrayOfClientProviderRecord

The ArrayOfClientProviderRecord complex type specifies an array of [ClientProviderRecord](#).

```
<xs:complexType name="ArrayOfClientProviderRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="ClientProviderRecord"
      nillable="true" type="tns:ClientProviderRecord"/>
  </xs:sequence>
</xs:complexType>
```

ClientProviderRecord: A ClientProviderRecord value.

3.1.4.4.3.9 ClientProviderRecord

Contains provider information. The provider acts as a parameter input to the consumer.

```
<xs:complexType name="ClientProviderRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Id" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ClientId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Configuration"/>
    <xs:element minOccurs="0" maxOccurs="1" name="AssemblyQualifiedName" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ConsumerInputs" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ViewState">
      <xs:complexType>
        <xs:sequence>
          <xs:element ref="xs:schema"/>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

Id: The unique identifier of the provider Web Part.

ClientId: The DOM element ID where the Ajax rendering was requested.

Configuration: The location of the provider list item definition.

AssemblyQualifiedName: The assembly strong name of the Web Part control implementation.

ConsumerInputs: A server generated string passed to the consumer that contains the consumer session-state information to be used by the server in later calls. The string content is server-implementation specific.

ViewState: Contains the data dictionary of the provider Web Part's view state information. This is structured on a JSON format.

3.1.4.4.3.10 ArrayOfClientTransformerRecord

The ArrayOfClientTransformerRecord complex type specifies an array of [ClientTransformerRecord](#).

```
<xs:complexType name="ArrayOfClientTransformerRecord">
```

```

<xs:sequence>
  <xs:element minOccurs="0" maxOccurs="unbounded" name="ClientTransformerRecord"
nillable="true" type="tns:ClientTransformerRecord"/>
</xs:sequence>
</xs:complexType>

```

ClientTransformerRecord: A ClientTransformerRecord value.

3.1.4.4.3.11 ClientTransformerRecord

Contains the Web Part transformer information that is used to translate the data between the provider and the consumer. A Web Part transformer accepts the data of the type supported by the provider and then converts the data into the type supported by the consumer.

```

<xs:complexType name="ClientTransformerRecord">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Id" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Configuration" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="AssemblyQualifiedName" type="xs:string"/>
  </xs:sequence>
</xs:complexType>

```

Id: The unique identifier of the Web Part transformer .

Configuration: This contains the data dictionary that stores the provider-consumer transformation records which defines how the transformation can be applied to the provider's output data, and passed the transformed data to the consumer. This contains mapping information on how the transformer would access the data for the consumer Web Part. The content of the configuration string is used by the Web Part transformer and is server specific.

AssemblyQualifiedName: Contains the assembly strong name of the Web Part transformer

3.1.4.4.4 Simple Types

3.1.4.4.4.1 ClientParameterUpdateAction

Defines the action taken when a parameter is updated on the provider Web Part.

```

<xs:simpleType name="ClientParameterUpdateAction">
  <xs:restriction base="xs:string">
    <xs:enumeration value="None"/>
    <xs:enumeration value="PostBackRender"/>
    <xs:enumeration value="AjaxRender"/>
  </xs:restriction>
</xs:simpleType>

```

The following table specifies the allowable values for ClientParameterUpdateAction:

Value	Meaning
None	No action will be taken.
PostBackRender	A postback type rendering will be executed when the parameter is updated.

Value	Meaning
AjaxRender	Client-side Ajax render updates will be executed when the parameter is updated.

3.1.4.5 ScorecardAjaxCommentsUpdate

Provides the ability to create or retrieve comments in the context of a scorecard cell. A cell can have multiple comments, each also including a title, author, and create date and time.

This operation is deprecated from the protocol and SHOULD NOT be called. PerformancePoint Services in Microsoft SharePoint Server 2010 Technical Preview Technical Preview supports this SOAP-based protocol but will not support it in the shipped version.

```
<wsdl:operation name="ScorecardAjaxCommentsUpdate">
  <wsdl:input message="tns:ScorecardAjaxCommentsUpdateSoapIn"/>
  <wsdl:output message="tns:ScorecardAjaxCommentsUpdateSoapOut"/>
</wsdl:operation>
```

Comments are defined in the context of a scorecard cell whose unique signature includes the intersection of visual and filter axis – row, column, and filter slice. The cell context signature MUST be defined for all comment operations. The "GET" method returns a list of comments. The "UPDATE" method creates a single comment.

3.1.4.5.1 Messages

3.1.4.5.1.1 ScorecardAjaxCommentsUpdateSoapIn

The requested WSDL message for a **ScorecardAjaxCommentsUpdate** WSDL operation.

The SOAP action value is:

```
http://www.microsoft.com/performancepoint/scorecards/ScorecardAjaxCommentsUpdate
```

The SOAP body contains a **ScorecardAjaxCommentsUpdate** element.

3.1.4.5.1.2 ScorecardAjaxCommentsUpdateSoapOut

The response WSDL message for a **ScorecardAjaxCommentsUpdate** method.

The SOAP action value is:

```
http://www.microsoft.com/performancepoint/scorecards/ScorecardAjaxCommentsUpdate
```

The SOAP body contains a **ScorecardAjaxCommentsUpdateResponse** element.

3.1.4.5.2 Elements

3.1.4.5.2.1 ScorecardAjaxCommentsUpdate

The input data for a **ScorecardAjaxCommentsUpdate** WSDL operation.

```

<xs:element name="ScorecardAjaxCommentsUpdate">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="request"
type="tns:ScorecardAjaxCommentRequest"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

request: Provides the ability to create or retrieve scorecard cell comments.

3.1.4.5.2.2 ScorecardAjaxCommentsUpdateResponse

The result data for a **ScorecardAjaxCommentsUpdate** WSDL operation.

```

<xs:element name="ScorecardAjaxCommentsUpdateResponse">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" maxOccurs="1" name="ScorecardAjaxCommentsUpdateResult"
type="tns:ScorecardAjaxCommentResult"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

ScorecardAjaxCommentsUpdateResult: The comment update [ScorecardAjaxCommentResult](#) response is different when comments are created or retrieved.

3.1.4.5.3 Complex Types

3.1.4.5.3.1 ScorecardAjaxCommentRequest

Defines the information needed to create or retrieve a comment on a scorecard cell. The scorecard cell is identified by the protocol server as a combination of the **PageFilters** and **CellPath** properties, also known as the context signature.

```

<xs:complexType name="ScorecardAjaxCommentRequest">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="ScorecardLocation" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="PageFilters" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="CellPath" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="ConfiguredViewId" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Method" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Comment"
type="tns:ScorecardCommentRecord"/>
  </xs:sequence>
</xs:complexType>

```

ScorecardLocation: The list item identifier used to retrieve the scorecard definition. This MUST be URL encoded.

PageFilters: The non-visible context signature of the scorecard cell. This MUST be a **URL** encoded XML serialized [msfs](#) member set.

CellPath: The visible context signature of the scorecard cell. This MUST be a URL encoded [CellPath](#).

ConfiguredViewId: The scorecard view configuration identifier. This MUST be defined when creating a comment. This MUST be undefined when retrieving comments.

Method: The type of request. This MUST be a [ScorecardCommentUpdateMethod](#) value.

Comment: The [ScorecardCommentRecord](#) comment details. This MUST be defined when creating a comment. This MUST be undefined when retrieving comments.

3.1.4.5.3.2 ScorecardAjaxCommentResult

The returned properties depend on whether the [ScorecardAjaxCommentRequest](#) creates a new comment or retrieving existing comments.

```
<xs:complexType name="ScorecardAjaxCommentResult">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="1" name="Method" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="UserName" type="xs:string"/>
    <xs:element minOccurs="0" maxOccurs="1" name="Comments">
      <xs:complexType mixed="true">
        <xs:sequence>
          <xs:any/>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

Method: The type of request. This MUST be a [ScorecardCommentUpdateMethod](#) value.

UserName: The comment author's user name. This MUST be undefined when retrieving comments.

Comments: A JSON serialized [ArrayOfScorecardCommentRecord](#). This MUST be undefined when retrieving comments.

3.1.5 Timer Events

No timer events are required on the protocol server beyond those required by the underlying RPC transport.

3.1.6 Other Local Events

There are no local events used on the protocol server in addition to the events maintained in the underlying RPC transport.

3.2 Client Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

3.2.1 Abstract Data Model

None.

3.2.2 Timers

None.

3.2.3 Initialization

None.

3.2.4 Message Processing Events and Sequencing Rules

None.

3.2.5 Timer Events

None.

3.2.6 Other Local Events

None.

4 Protocol Examples

4.1 Example 1: Rendering a scorecard

In this example, the protocol client requests rendered scorecard content, then requests the rendered scorecard sorted by a column defined in the results.

The protocol client constructs the following **RenderWebPartContent** JSON request:

```
{
  "renderRequestRecord":
  {
    "ConnectionRecords": [],
    "ConsumerRecord":
    {
      "Id": "pps_1c5daaad96134367895fa451668d1d99",
      "ClientId": "ctl00_m_pps_1c5daaad96134367895fa451668d1d99",
      "Configuration": "/Lists/Dashboard Content/46_000",
      "AssemblyQualifiedName": "Microsoft.PerformancePoint.Scorecards.WebControls.ScorecardWebPart, Microsoft.PerformancePoint.Scorecards.WebControls, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce11e9429c",
      "ConsumerInputs": "abh+JufQoXoul5A5VbHEqGTM6pxF32RXoo8qbR3pmN0JyJ/yXoYJBkolVXq/tgFgUSC8RZvO2SyB96X6HlctElEsoy25d6AGYGagkxMwi4QYjJGLk4mLsFEeAwNrrExhc/wD9S5mBMbVMGNqzKOVeXBCP8sH1tMfHkc239RwnhLFGNhVDGuV3GyVTH3vp+Vlm/whrOxhi84log3EezCH52MtW45p5AtZcLR/kgw2sbu0v6d+YsUShPOrwc+7lkYvLm1KLYj81UVMjwFm19N8E9C4Z98YpcyoMkjLJmMcJIOFtbsUTAFWxUN0cdluEDx8DvWgEwx0REkP7fMKBU+sJmD2Yc/zjNLxZBY/hYsKF+IWFkngNnTKUJOWcqC1Zi6Pe8rX6HT/ppWnqYpUITrsqPpvGPeBmvTLoO+ST6JzAwWpAjI+a56otYa0cV/JLxfBUnHMR16vBPvOENxDRTfJy2ssZUaZuC/rh+uxnQYu2SpdPY/xCMYQbJ3wDaDY9fV2hgxBUop/acdlI6h7Kbd4Ut/KBxLQYt1QeWovng/lxm3DLVVr/HT7TTG8XKqtXrK5EDWMMFXqONaiqsVMA+jomrvczoijRTRFoiIOBLpxp2AGpUYpVzqobZJ9Xr6oJwUzo/Ng7GQw3q+Oik1ZiMjeWcc2hR74xIf+f/Lg3bz1ai2O/YC/rtThJ0jHbW9p/zN6Q4NrXrsIQJIW8jtZa5+/6S+9iXdoILQeIElJjVdUwdYmugc/+jyBBLM9j19+7/7w41TSJtuevvuYydWiWgdLCJ2QC339PaihncOX/tqInp4p7AGnH4BRZX/9EdcfmHx3wVMfxDRltnJFrgCK3PTc9aW8W8G1dpy0x6+9onVxtoOI3CmZKXGmWjSZUS6Y0fm6+L65hCt7gBDnKNyR6lYlZCInxRzESdmbVTvsJiyfdDuVUWlp+y5Xebcj1Buc2r057T6M6WU7a5sX+I1459oqXP0sIaDqS/Al7cpfjQFf50osRBfInRq3xSrmfJyYhhS/2EwiUoo/pSGGmDnGN+CCpJLQFdsIcaVBQzO0Des8YYa6CUA1sQ27edqS+bK9ZA2u4V9Y1cMsIquHs75oLgYr9Pc2uzD9jNHTfOp2XNHIuZr4JPLNFBVYZSIrYZ9T/e44P474kOeolItxrbDVR0umCn8K5EV0W7T3Ddb/ltmx+npBjGAJbvdvAsK7fopAd21AQN7nCywx1VNFbMjGGVpZKskRvo7qNX6xMVJQLPNnsnFlk9MCKr1UDZ8fKXbJYr8Vu/to53oVwGj1iW7J1aeI1hqGHiulbPqs8LkMBjVcmfCen7g0xwqpWCKqEdmldNev1SAISjYnhrtic8TbTiACODSQQ4oqyhhjsC2XhTWQxA+mpTPw4x6+o9Be0kx1VTP1j8L3/OE02FRrXThRnpA0Vh8RpkhOzgTCXz1+Vlnbz/FmPwke3rVAo2xk7wZ2dI6hbV5fohA4RcCXnLiP9xfBDDegJzT1Kr0aCgD08CLyZ1SsXsm3msylxnRPedSEY4MSEic0sj5eMB17W0Ub8Oplyul+QWYNWtZDUxXvXVcvjOdQuK9SdCPZMZtr0L2Hx1ynYh/j8FSGwmGXY25N/gGalxU7za3Iuz2Cvr+XclfUbbW/90MC+VX3VV0ikWkWiR8FVoBbsCXiQfVfSCA7VDOZKjbcYqRXzG8WvwHEK4Ey77XTIShnhVUWNm6QKxNHRaRQe0bV6bIzW4R+0qn1Dr1Ki/o7U1HpWcx0sGvZWi2Bxmdw15+9tWd8k7xYwgYFKHzSd6Z74LuKw5cc/6N9Y3V1lhVT4ssasR76xDHzuwQ64un08Yza/p+1xAm7DetvhseJmzP+OQOdCDwkkGjGzTz/s7gYqMHvgUoC3ReexYkaPHBBvuYcNugAppAVDnY08hSqcm2hFYiJtvMpxpEnddEJxd54hFN6HDZQa1SwMUzeBVF0giRLUvklGAQvX0CaOME/Ysy48dIlpcLBcZ7bXBLH9HmizCxCxGWRwRFLGL522JLsxzxadilZBd8x977n/qQ/AtSVW+7bfDWjsbInYp7dTSUha0bd+5z+TCJa/cNHCrc+6xMYBbOaQ3TVQSXHKXNRRtOwaZHvYRqdtbywzCi72U0HB9h7TNKSsFNmoPyYGrwrwECM2Dq0FA9uBsAG5O11GpFYriNXTNHOMulteVEKfKwx2otmYzXH4QwknfeSslcgPl3dgVdfGb/xf8HL7Igh51Je0uFFJOMe7xhab371GED1K2Kaf5EUb+djCaT+htt000oosgUdbvaDRxy31LDD8/JfgQ1L4R+VYntrWSgGyPgQhptTAMLiXiawQ/U3oNgYqfBCLM70RnabbbW5fWMAig459xGCKNfr1+BePAOR2waikLcs99iWxKLQ52sKob0zK/dJCvHY7GU8bnunQr9d8VphXL6DS0g+tgjY0zrBul2A5R+QfOniYEJjsJnuJsdt9Q2bGqeNhlfrvmcd2b13+7vuxxyTt/HLGf3WqBcq8OsnRhL0awIFI2uh9vqZJRNNEtts48FsfwKmgXA0Nkuv4+hdg04qjAAO3L3LMMnGYRnua1ZVHuJoUW9ndLyG1J5I8vlibRXY/s/RED9mgfZgPTj7eaDA9/aFQ9FuZsoReP6aCUy75VQxhxs931HSXxgcI0/vomuIT5M9I371jXDUgcrJ3qM4xjWI2pnAUlyh/qRcc7BrdtBIFdfSieG0TgiSKax3oYxxxqLzhJsuIr+nwuUgt6T4beXENshoSRBjalfZ+YmlkAs2CUdOPiQxlCK0Uubvm2DE/jhUVzvitJEEJB2JJB800EGWWSgOf5z8SrwYWhzwhw+pcWI93d2QBIKv30tCvG3demMnXZ038y4seWhWGIUyb1F8eASAcZqo+pwiyPjn/m+f6LL6mqamIYX2LuKJfD09adq26r+ff1oHNFPHupxSaT6+mNzjIGTNL84k5MFdmx12HnWpHkBR2hxxPnUsDCEdtGTQ9aOP7w8BkCFMo7WmyHz0tWECZgt60gXvEEbqr4tr4ba/jJHulnbnmqM9vUHPHYNh4D5z3kC9x0+NXOtDG8hgF12h8e/mWBMMHGbvH2oTvffjTQra5x7h4WrUaQohkOefCiFkH/VWgorzNwpvEz80tnsX6ydt90+YH+aGWgi08sSkQttnZwBnzHVuk9iK6WlCAZeJQGaOZLZbmPyVBzQUfh2cJToMvKEaybgYeqH2FxGWS8DleZw0UgV78IqzQQKBBAo6HSXBLWGpVuo0/mRNAqDenlYq4AiCStsF84DmwHQ9XypbkCSlZCTPpFd1EC5f1iHz92TDWGuRuQjJmu0LEtoWeQqa3exfvLabPzRfbpTrjopHEZLh8zPngv14350049rCT0YhA7dLj9wHTS29hIT5Sffte/p7/QZIEC/7RpdC/SQLoesd7aKQWewwpAW5XOK81tFuIFxCFKleZtDe9td3/PoHy7Gte+/7gvSbs2E0B07h+SgR/2xPu2boY2OmJKjd7h9/F0fxA+5LbT8uzGHZsgHLLWj/5zRyLo9TST2rYZ4kRz/buhMFE18MC9UWqfbr82KGJOLtIrZSyYkBRsRwsJGsx9h7F9a2pHAqAo0kYTTuQgahYg/FHo4v39gvLdMstpO+aOXyPMahWNdIAOdLQSnIE+NjeszbwTF/4gucr2stqAlLpPN86a/hT3/NywbWs1xekqa2GNpVUSvTGXnEmkN8jyDmtjeB2Mccs7jZ+mgqIQUKBgdrzBNtXmk+9q26/QWblrVYN
```

```

Kc4RVKuqyRaFBi5PvqTsaGU5DJ5BwlsdGm1N6PrLOSeT2mC1wrz1s1L34VR7CiVrS65yLrf6zH1LhLhwakalFcOR/VLMZi
lqjn2OioK3Xiq4E9Q+6RYWCnJgBzlvQySY1l9+ymzgi2QfTQcIWsz8CY2eAw3ktds8Ck0j2PyXgwqJc5Rv/t0mku6eZ8
cmPfSiD61rLUhH26vlfjCkCEc2yc//r9rvLWG2wkLIUNXVG1wLpirQ9TbFunXF5knC9tJhwcPHi6hXLsJPcXH1LR8L4Q+
/EsfJEFrtWovbjsLJPEIjgQW",
    "ViewState": {},
    "Height": "auto",
    "Width": "auto",
    "InUseProviderParameterNames": [],
    "ProviderSelections": {}
  },
  "ParameterRecords": [],
  "ProviderRecords": [],
  "TransformerRecords": [],
  "SaveUserFilterChoices": false
}
}

```

The protocol server responds with the following XML content:

```

<?xml version="1.0" encoding="utf-8"?>
<AjaxRenderResultRecord xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <HtmlDomElementId>ctl100_m_pps_1c5daaad96134367895fa451668d1d99</HtmlDomElementId>
  <ErrorHtml><![CDATA[]]></ErrorHtml>
  <Html><![CDATA[<div id="scctrlctl100_m_pps_1c5daaad96134367895fa451668d1d99"
name="scctrlctl100_m_pps_1c5daaad96134367895fa451668d1d99"
style="display:table;overflow:auto;"><div
id="scctrlctl100_m_pps_1c5daaad96134367895fa451668d1d99_tv"
name="scctrlctl100_m_pps_1c5daaad96134367895fa451668d1d99stv" style="display:table-row;"><a
name="ctl100_m_pps_1c5daaad96134367895fa451668d1d99begin" tabindex="0"></a><table
id="scctrlctl100_m_pps_1c5daaad96134367895fa451668d1d99_tv_sctbl" cellspacing="0"
cellpadding="0" rules="all" class="bsm-sctbl"
onkeyup="javascript:scm_ctl100_m_pps_1c5daaad96134367895fa451668d1d99.handleTableViewKeyboardN
avigation(event);"
onclick="javascript:scm_ctl100_m_pps_1c5daaad96134367895fa451668d1d99.selectScorecardCell(even
t);"
onmousedown="javascript:scm_ctl100_m_pps_1c5daaad96134367895fa451668d1d99.get_menuHandler().cr
eateContextMenu(event);" summary="Scorecard" border="1" style="border-color:#D0D8E5;border-
width:1px;border-style:solid;border-collapse:collapse;"><tr rId="ch-0"><th class="pulpit"
align="center" tabindex="0" SortFilterColumn="RowHeaderText" ColumnType="System.String"
rowspan="2" scope="column" style="background-color:#EBF3FF;border-color:#D0D8E5;vertical-
align:bottom;text-align:left;"></th><th align="left"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d" isDrillEnabled="true"
class="chc" tabindex="0" isDrillUpEnabled="true" groupId="3" isCellExpansionEnabled="true"
cellId="1" cellType="Column" headerType="Member" isDrillDownEnabled="true" colspan="2"
rowspan="1" scope="column" style="color:#000000;background-color:#EBF3FF;border-
color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-align:middle;text-align:left;white-
space:nowrap;"><span> CY 2001 </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th><th align="left"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2002%5d" isDrillEnabled="true"
class="chc" tabindex="0" isDrillUpEnabled="true" groupId="3" isCellExpansionEnabled="true"
cellId="3" cellType="Column" headerType="Member" isDrillDownEnabled="true" colspan="2"
rowspan="1" scope="column" style="color:#000000;background-color:#EBF3FF;border-
color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-align:middle;text-align:left;white-
space:nowrap;"><span> CY 2002 </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th><th align="left"

```

```

cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d" isDrillEnabled="true"
class="chc" tabindex="0" isDrillUpEnabled="true" groupId="3" isCellExpansionEnabled="true"
cellId="5" cellType="Column" headerType="Member" isDrillDownEnabled="true" colspan="2"
rowspan="1" scope="column" style="color:#000000;background-color:#EBF3FF;border-
color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-align:middle;text-align:left;white-
space:nowrap;"><span> CY 2003 </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th></tr><tr rId="ch-1"><th align="center"
ColumnType="System.Decimal" isDrillEnabled="false" class="chc" SortFilterColumn="Actual2"
tabindex="0" isDrillUpEnabled="true" groupId="-4" isCellExpansionEnabled="false" cellId="1"
cellType="Column" headerType="KpiActual" isDrillDownEnabled="true" colspan="1" rowspan="1"
scope="column" style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-
family:Tahoma;font-size:8pt;vertical-align:middle;text-align:center;white-
space:nowrap;"><span> Actual </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th><th align="center" ColumnType="System.Decimal"
isDrillEnabled="false" class="chc" SortFilterColumn="Target3" tabindex="0"
ColumnType2="System.Decimal" isDrillUpEnabled="true" ShowSecondValue="True" groupId="-5"
isCellExpansionEnabled="false" cellId="2" cellType="Column" TargetElements="Target|Variance"
headerType="KpiTarget" isDrillDownEnabled="true" colspan="1" rowspan="1" scope="column"
style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:center;white-space:nowrap;"><span> Target </span><a
class="bsm-Link" val="bsmval" style="color:#000000;cursor:pointer;"></a></th><th
align="center" ColumnType="System.Decimal" isDrillEnabled="false" class="chc"
SortFilterColumn="Target5" tabindex="0" ColumnType2="System.Decimal" isDrillUpEnabled="true"
ShowSecondValue="True" groupId="-5" isCellExpansionEnabled="false" cellId="4"
cellType="Column" TargetElements="Target|Variance" headerType="KpiTarget"
isDrillDownEnabled="true" colspan="1" rowspan="1" scope="column"
style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:center;white-space:nowrap;"><span> Target </span><a
class="bsm-Link" val="bsmval" style="color:#000000;cursor:pointer;"></a></th><th
align="center" ColumnType="System.Decimal" isDrillEnabled="false" class="chc"
SortFilterColumn="Actual4" tabindex="0" isDrillUpEnabled="true" groupId="-4"
isCellExpansionEnabled="false" cellId="3" cellType="Column" headerType="KpiActual"
isDrillDownEnabled="true" colspan="1" rowspan="1" scope="column"
style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:center;white-space:nowrap;"><span> Actual </span><a
class="bsm-Link" val="bsmval" style="color:#000000;cursor:pointer;"></a></th><th
align="center" ColumnType="System.Decimal" isDrillEnabled="false" class="chc"
SortFilterColumn="Target6" tabindex="0" ColumnType2="System.Decimal" isDrillUpEnabled="true"
ShowSecondValue="True" groupId="-5" isCellExpansionEnabled="false" cellId="6"
cellType="Column" TargetElements="Target|Variance" headerType="KpiTarget"
isDrillDownEnabled="true" colspan="1" rowspan="1" scope="column"
style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:center;white-space:nowrap;"><span> Target </span><a
class="bsm-Link" val="bsmval" style="color:#000000;cursor:pointer;"></a></th><th
align="center" ColumnType="System.Decimal" isDrillEnabled="false" class="chc"
SortFilterColumn="Actual6" tabindex="0" isDrillUpEnabled="true" groupId="-4"
isCellExpansionEnabled="false" cellId="5" cellType="Column" headerType="KpiActual"
isDrillDownEnabled="true" colspan="1" rowspan="1" scope="column"
style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:center;white-space:nowrap;"><span> Actual </span><a
class="bsm-Link" val="bsmval" style="color:#000000;cursor:pointer;"></a></th><tr><tr
id="scctlr1ctl00_m_pps_1c5daaad96134367895fa451668d1d99_tv_1" class="r-1" rId="1" pId="0"
groupId="-1" isCollapsed="false" isCellExpansionEnabled="false"
isHiddenBasedOnFilterStatus="false" isDynamicallyExpandedHeader="false"><th class="rhc"
align="left" isDrillEnabled="false" isDrillUpEnabled="true" tabindex="0" groupId="-1"
cellId="0" cellType="Row" headerType="Kpi" isDrillDownEnabled="true" scope="row"
style="color:#000000;background-color:#FCFCFC;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:left;white-space:nowrap;"><span> Internet Sales
Amount </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th><td class="bsm-ustitle" align="left"
tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Con
tent%2f44_.000Actual" cellId="1" annotated="False" isCollapsed="false" decompenabled="False"

```

```

ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $1,309,047.20 </span></div></td><td class="bsm-ustitle" align="left"
tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Con
tent%2f44 .000Target" cellId="2" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $1,309,047.20 </span><span style="vertical-align:middle;"
class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2002%5d%2fLists%2fDashboard+Con
tent%2f44 .000Actual" cellId="3" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $2,154,284.88 </span></div></td><td class="bsm-ustitle" align="left"
tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2002%5d%2fLists%2fDashboard+Con
tent%2f44 .000Target" cellId="4" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $2,154,284.88 </span><span style="vertical-align:middle;"
class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d%2fLists%2fDashboard+Con
tent%2f44 .000Actual" cellId="5" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $3,033,784.21 </span></div></td><td class="bsm-ustitle" align="left"
tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d%2fLists%2fDashboard+Con
tent%2f44 .000Target" cellId="6" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $3,033,784.21 </span><span style="vertical-align:middle;"
class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td></tr><tr
id="scctrlct100_m_pps_lc5daaad96134367895fa451668d1d99_tv_2" class="r-1" rId="2" pId="0"
groupId="-2" isCollapsed="false" isCellExpansionEnabled="false"
isHiddenBasedOnFilterStatus="false" isDynamicallyExpandedHeader="false"><th class="rhc"
align="left" isDrillEnabled="false" isDrillUpEnabled="true" tabindex="0" groupId="-2"
cellId="0" cellType="Row" headerType="Kpi" isDrillDownEnabled="true" scope="row"
style="color:#000000;background-color:#FCFCFC;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:left;white-space:nowrap;"><span> Internet Order
Quantity </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th><td class="bsm-ustitle" align="left"

```

```

tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Con
tent%2f45_.000Actual" cellId="1" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 394 </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Con
tent%2f45_.000Target" cellId="2" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 394 </span><span style="vertical-align:middle;" class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2002%5d%2fLists%2fDashboard+Con
tent%2f45_.000Actual" cellId="3" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 859 </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2002%5d%2fLists%2fDashboard+Con
tent%2f45_.000Target" cellId="4" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 859 </span><span style="vertical-align:middle;" class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d%2fLists%2fDashboard+Con
tent%2f45_.000Actual" cellId="5" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 5,335 </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d%2fLists%2fDashboard+Con
tent%2f45_.000Target" cellId="6" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;_dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 5,335 </span><span style="vertical-align:middle;" class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td></tr></table><a
name="ctl100_m_pps_1c5daaad96134367895fa451668d1d99end"
tabindex="0"></a></div></div></td></tr></table>
<Script><![CDATA[var target =
document.getElementById('ctl100_m_pps_1c5daaad96134367895fa451668d1d99'); if (null != target)
{
PPSMA.ClientConnectionManager.get_instance().updateParameters([{"ClientId":"ctl100_m_pps_1c5da
aad96134367895fa451668d1d99","Name":"0e4e0071-dca7-4d91-8321-
5527b934ca90","Selections":[]},{ "ClientId":"ctl100_m_pps_1c5daaad96134367895fa451668d1d99","Na
me":"f2c9c9d0-75b1-4785-86db-

```

```

9d2456d085d7","Selections":[]},{ "ClientId":"ctl00_m_pps_1c5daaad96134367895fa451668d1d99","Name":
"45ed598e-2e08-487f-a9c4-37ecfdd98987","Selections":[]},{ "ClientId":"ctl00_m_pps_1c5daaad96134367895fa451668d1d99","Name":
"55eb5cd7-58e5-437a-b0ec-174973270e56","Selections":[]}}];
scm_ctl00_m_pps_1c5daaad96134367895fa451668d1d99.initializeManager(); } ]></Script>
<ConsumerInputs><![CDATA[]]></ConsumerInputs>
<ViewStateJson><![CDATA[{"StatusFilters":[{"DisplayNames":{"On
Target","GroupID":"c7648a29-9ad7-dd4f-70d8-a19655c6deb8.3"},"IsSelected":false}, {"DisplayNames":{"Slightly Off
Target","GroupID":"c7648a29-9ad7-dd4f-70d8-a19655c6deb8.2"},"IsSelected":false}, {"DisplayNames":{"Off
Target","GroupID":"c7648a29-9ad7-dd4f-70d8-a19655c6deb8.1"},"IsSelected":false}],"ExpandedColumns":"1:2:3:4:5:6","ExpandedRows":"1:2"
,"ScorecardId":"5e07912ade76f5a848245bed87d6e8ea","ConfiguredViewId":"2e90b537142c4c708e15304
a98cb0a20","ShowAnnotations":"true","ShowDetails":"true","PageFilters":"%3c%3fxmll+version%3d%
221.0%22+encoding%3d%22utf-16%22%3f%3e%0d%0a%3cmsfs%3e%0d%0a%3cmsf+UniqueName%3d%22%5bCustomer%5d.%5bCountry%5d.%26amp%3
b%5bAustralia%5d%22+DisplayName%3d%22Australia%22+DimensionName%3d%22%22+DimensionUniqueName%
3d%22%5bCustomer%5d.%5bCountry%5d%22+MemberType%3d%22Regular%22+%2f%3e%0d%0a%3c%2fmsfs%3e","T
imeIntelligenceCurrentTime":"","TimeIntelligenceFormula":"","ServiceUrl":"/_vti_bin/PPS/BIMon
itoringRenderingService.aspx/RenderScorecardAjaxControl","CommentsUrl":"/_vti_bin/PPS/BIMonit
oringRenderingService.aspx/ScorecardAjaxCommentsUpdate","ToolBarId":"scctrlctl00_m_pps_1c5daa
ad96134367895fa451668d1d99_scorecardtoolbar","ToolBarType":"Microsoft.PerformancePoint.Scorec
ards.ServerRendering.Internal.ToolbarCtrl,
Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0, Culture=neutral,
PublicKeyToken=71e9bce11e9429c","TableId":"scctrlctl00_m_pps_1c5daaad96134367895fa451668d1d9
9_tv","ViewTableType":"Microsoft.PerformancePoint.Scorecards.ServerRendering.Internal.ViewTab
leCtrl, Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0,
Culture=neutral,
PublicKeyToken=71e9bce11e9429c","SortFilterType":"Microsoft.PerformancePoint.Scorecards.Serv
erRendering.Internal.SortAndFilterTableCtrl,
Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0, Culture=neutral,
PublicKeyToken=71e9bce11e9429c","AccessibilityMode":"false","AllowFilter":"true","AllowSort"
:"true","AllowStatusFilter":"true","RollupType":"None"}]]></ViewStateJson>
</AjaxRenderResultRecord>

```

The protocol client displays this data for the user.

The protocol client constructs a **RenderScorecardAjaxControl** JSON request to sort the scorecard column.

The client uses the values from the previous request in this request as defined below:

ConsumerRecord/ClientId maps to *RenderTargetId*

ConsumerRecord/ConsumerInputs maps to *InboundParameters*

ConsumerRecord/Configuration maps to *ScorecardLocation*

The **RenderScorecardAjaxControl** JSON request is defined as follows:

```

{
  "request":
  {
    "ScorecardLocation": "%2FLists%2FDashboard%20Content%2F46.000",
    "RenderTargetId": "ctl00_m_pps_1c5daaad96134367895fa451668d1d99",
    "ResourcePath": "/_layouts/PPSWebParts/",
    "ScorecardControlId": "scctrlctl00_m_pps_1c5daaad96134367895fa451668d1d99_tv",
    "ScorecardControlType": "Microsoft.PerformancePoint.Scorecards.ServerRendering.Internal.Sort
AndFilterTableCtrl, Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0,
Culture=neutral, PublicKeyToken=71e9bce11e9429c",

```

"InboundParameters": "abh+JufQoXoul5A5VbHEqGTM6pxF32RXoo8qbR3pmN0JyJ/yXoYJBkolVXq/tgFgUSC8RZ
vO2SyB96X6H1tcElEsyo25d6AGYGagkxMwi4QYjJgLk4mLsFEeAwNrrcXhc/wD9S5mBMBVMGNqzKOVeCXBCP8sH1tMfH
kc239RwnhLFGNHDGuV3GyVTH3vp+Vlm/whrOxhi84log3EezCH52MtW45p5AtZcLR/kgw2sbu0v6d+YsUSHPOrcw+7lk
YvLm1KLj81UVJfWfml9N8E9C4Z98YpcyoMkjLJmMcJioFTbSUTAFwXuN0cdluEDx8DvvgEwxOREkP7fMKBU+sJmD2Yc/
zjNLxZBY/hYsKF+IWFkngNnTKUJOWCqC1Zi6Pe8rX6HT/ppWnqYpUITrsqPvpGPeBmvTLoO+ST6JzAwWpAjI+a56otYa
0cV/JLxfBUHMMR16vBPvOENxDRtFjy2ssZUaZuC/rh+uxnQYU2SpdPY/xCMYQbJ3wDaDY9fV2hqxBUop/acdl16h7Kbd4
Ut/KBxLQYt1QeWovng/lxm3DLVvr/HT7TTG8XKqtXrK5EDWMMFXqONaiqsVMA+jomrvczoiJRTRFoiIOBLpxp2AGpUYpV
zqobZJ9xr6oJwUzo/Ng7GQw3q+OIkl2iMjeWccX2hR74I+f/Lg3bz1ai20/YC/rtTHj0jHbW9p/zN6Q4NrxsIQJIW8
jtZa5+/6S+9iXdoiLqQIElJVDUwdYmugc/+jyBBLM9j19+7/7w41TStuevvuYydWiWgdLCJ2QC339PaihnCOX/tqInp
4p7AGnH4BRZX/9EdcfmHXb3wVMfxDRltnJFrGCK3PTc9aW8W8G1dpy0x6+9onVxt0OI3CmZKXGmWjSZUS6Y0fm6+L65hC
t7gBDnKNyR6lYIzCInxRzESdmbVTvsJiyfdDuVUWlp+y5Xebcj1Buc2r057T6M6WU7a5sX+I1459oqXP0sIaDqS/Al7cp
fjQFf50osRBfInRq3xSrmFJyYhS/2EwiUoo/pSGGmDnGn+cCpJLQFhSvIcaVBQz00Des8Y6aCUA1sQ27edqS+bK9Za2
u4V9Y1cMsIquHIs75oLgYr9Pc2uzD9jNHTfOp2XNHlUzr4JPLNFBVYZSIIrYZ9T/e44P474kOeo1ItxrbDVR0umCn8K5
EV0W7T3Ddb/1tmx+npbGJAJbdcvAsK7fopAd21AQN7nCywx1VNFbMjGGVpZKskRvo7qNX6xMVJQLPNnsnFlk9MCKr1UDZ8
fKXbJYr8Vu/to53oVwGj1iw7Jlae1lhqGHiulbPqs8LTKMBjVcmfCen7g0xwqpWCKqEDmldNev1SAISjYnhrtic8TbTiAC
ODSgQ4oqyhJsC2XhTQwXA+mpTPw4x6+o9Be0Kx1Vt8L3/OE2FFRrXThRnpA0Vh8RpkhOzgTCXZz/1lnbZ/FmPwkE3
rVAo2xk7wZ2di6hbV5fohA4RcCXnLiP9xfBDDegJzT1Kr0aCgD08CLyZlSsXsm3msylxnRPedSEY4MSEicOSj5eMB17WO
Ub8Op1yul+QWYnWtZDUxXvXVcvjOdQuK9SdCPZMZtroL2HxlynYh/j8FSGwmGXY25N/gGa1xU7za3Iuz2Cvr+XclfUbhw
/90MC+VX3VV0ikWkWir8FVoBbsCXiQfVfSCA7VDOZkjbcYqRzG8WvwHEK4Ey77XTISnhhVUWNm6QKXNHRaHrQe0bV6bI
zW4G9oqn1Dr1Ki/o7U1HpwCk0sGvZWi2Bxmd15+9tWd8k7xYwgyfKHZsd6274LuKw5cC/6N9Y3V1lhVT4ssasR76xDHz
uwQb4un08YzA/p+1xAm7DetvhseJmzP+OQOdCDwkkGjGzTz/s7gYqMHvgUoC3ReexYkaPHBBvuYcNugApPAVDnY08hSqc
M2hFYiJtvMpxpEnddEJxd54hFN6HDZQalSWMUzeBVF0gJRLUvk1GAQvX0CaOME/Ysy48d1lpcLbCz7bXBLH9HmizCxGWR
wRFLGL522JLsxxadilZbd8x977n/qQ/AtSVW+7bfDWjsbInYp7dTSUha0bd+5z+TCJa/cNHCrc+6xMYB0aQ3TVQXSXHK
NXhRRtOaZhvYRqdtbYwzCi72U0HB9h7TNKSsFNmoPyYGrwrwECM2Dq0FA9uBsAG5011GpFYriNXTNH0MulTeVEKfKwx2
otmYzXH4QwnkfeSsLcgPl3dgVDFgb/xf8HL7Igh5lJe0uFFJOMe7xhab371GED1K2Kaf5EUb+djCaT+hht00oosgUdbv
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AO3L3LMMnGYRnualZVHuJoUW9ndLyGlJ5I8v1libRXY/s/RED9mgFZgPTj7eaDA9/aFQ9FuZsoReP6aCUy75VQxhxs931h
SXxgCio/vomuIT5M9I371jXDUGcrJ3qM4xjWI2pnAulYh/qRcc7BrdbtBIFdfSieG0TgisKax3oYxxqLzhJSuIr+nwuUgt
6T4beXENshoOSrBjalfZ+YmlkAs2CUdOPiQx1CK0Uubvm2DE/jhUVzviTJEEjB2JJB800EGWWSgOf5z8SrwYWhzwhw+pcW
I93d2QBIKv30tCvG3demMnXZ038y4seWhWGIUyb1F8eASAEcaZcg+pwYpjm/m+f6L6mqamIYX2LuKJFd09adq26r+ff
1oHNFPHupxSat6+mNzjIGTNL84k5MFdmx12HnWpHkBR2hxxPnUsDCEdtGTQ9aOP7w8BkCFMo7WmyHz0tWEcZgt60gXvEE
bqR4tR4ba/jJHulnbmqM9vUHPhYNh4D5z3kC9x0+NXOtDG8hgF12h8e/mWBMMHGbyh2oTvffjTQra5x7h4WrUaQohkOefC
iFKH/VWgorzNwpvEz80tNsX6ydT90+YH+aGwgi08sSkQttnZwBnzHVuk9iK6W1CAZeJQGaOZLZbmPyVBzQUfh2cjtOMV
EaybqYeqH2FxFGWS8Dle7w0UgV78IqzQQKBA06HSXBLWGPvUo0/mRNAqDenlYq4AiCstsF84DmwHQ9XypbkCSLzCTPpFd
1EC5f1iH292TDWGuRuQjJmu0LEtoWeQqa3exfvLabPzRfbtpTjopHEZLh8zPnqv14350049rCT0YhA7dLj9wHTSsz9hIT5
SfFte/p7/QZIEC/7RpCd/SQLoesd7aKQWewwPAW5XOK8lTfUifiXcFkLeZcTDe9td3/PoHy7Gte+/7gvSbs2E0B07h+Sg
R/2xPu2boY2OmKjd7h9/F0fxA+5LbT8uzGHZsgHLWj/5zRyLo9TST2rYz4kRz/buhMFE18MC9UWqfbr82KGJOLtIrZS
yYkBRsRwsJGsxhT7F9a2pHAQa0kYTTuQgahYg/FHo4v39gvLdMstpO+aOxYPmahWNdIAOdLQSNie+NjeszbwTF/4guc
2stqAlLPn86a/hT3/NywbWslxekqa2GNpVUSvTGXNEmkN8jYDmtjeB2Mccs7jZ+mgqIQUKBgdrzBNTXmk+9q26/QWbl
VYNKc4RVKuqyRaFBi5PvqTsaGU5DJ5BWlsgMlN6PrLoSeT2mClwrz1s1L34VR7CiVrS65yLrf6zH1HLhwakalFcOR/VL
MZIlqjn2oiOK3X1q4E9Q+6RYWCnJgBzlvQsY119+ymzgi2QfTQCfIWSzz8CY2eAw3ktds8Ck0j2PyXgqwJc5Rv/tOmku6
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4Q+/EsFjEFRTWovbjsLJPEIjgQW",

"ClientViewState":
{
 "StatusFilters": "[{\"Display Name\":\"On Target\", \"Group ID\":\"c7648a29-9ad7-dd4f-70d8-a19655c6deb8.3\", \"Is Selected\":false}, {\"Display Name\":\"Slightly Off Target\", \"Group ID\":\"c7648a29-9ad7-dd4f-70d8-a19655c6deb8.2\", \"Is Selected\":false}, {\"Display Name\":\"Off Target\", \"Group ID\":\"c7648a29-9ad7-dd4f-70d8-a19655c6deb8.1\", \"Is Selected\":false}]",
 "ExpandedColumns": "1:2:3:4:5:6",
 "ExpandedRows": "1:2",
 "ScorecardId": "5e07912ade76f5a848245bed87d6e8ea",
 "ConfiguredViewId": "2e90b537142c4c708e15304a98cb0a20",
 "ShowAnnotations": "true",
 "ShowDetails": "true",
 "PageFilters": "%3c%3fxml+version%3d%221.0%22+encoding%3d%22utf-16%22%3f%3e%0d%0a%3cmsfs%3e%0d%0a%3cmsf+UniqueName%3d%22%5bCustomer%5d.%5bCountry%5d.%26amp%3b%5bAustralia%5d%22+DisplayName%3d%22Australia%22+DimensionName%3d%22%22+DimensionUniqueName%3d%22%5bCustomer%5d.%5bCountry%5d%22+MemberType%3d%22Regular%22+%2f%3e%0d%0a%3c%2fmsfs%3e",
 "TimeIntelligenceCurrentTime": "",
 "TimeIntelligenceFormula": "",

The protocol server responds with the following XML content:

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```

style="color:#000000;cursor:pointer;"></a></th><th align="left"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d" isDrillEnabled="true"
class="chc" tabindex="0" isDrillUpEnabled="true" groupId="3" isCellExpansionEnabled="true"
cellId="5" cellType="Column" headerType="Member" isDrillDownEnabled="true" colspan="2"
rowspan="1" scope="column" style="color:#000000;background-color:#EBF3FF;border-
color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-align:middle;text-align:left;white-
space:nowrap;"><span> CY 2003 </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th></tr><tr rId="ch-1"><th align="center"
ColumnType="System.Decimal" isDrillEnabled="false" class="chc" SortFilterColumn="Actual2"
tabindex="0" isDrillUpEnabled="true" groupId="-4" isCellExpansionEnabled="false" cellId="1"
cellType="Column" headerType="KpiActual" isDrillDownEnabled="true" colspan="1" rowspan="1"
scope="column" style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-
family:Tahoma;font-size:8pt;vertical-align:middle;text-align:center;white-
space:nowrap;"><span> Actual </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th><th align="center"
ColumnType="System.Decimal" isDrillEnabled="false" class="chc" SortFilterColumn="Target3"
tabindex="0" ColumnType2="System.Decimal" isDrillUpEnabled="true" ShowSecondValue="True"
groupId="-5" isCellExpansionEnabled="false" cellId="2" cellType="Column"
TargetElements="Target|Variance" headerType="KpiTarget" isDrillDownEnabled="true" colspan="1"
rowspan="1" scope="column" style="color:#000000;background-color:#EBF3FF;border-
color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-align:middle;text-align:center;white-
space:nowrap;"><span> Target </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th><th align="center" ColumnType="System.Decimal"
isDrillEnabled="false" class="chc" SortFilterColumn="Actual4" tabindex="0"
isDrillUpEnabled="true" groupId="-4" isCellExpansionEnabled="false" cellId="3"
cellType="Column" headerType="KpiActual" isDrillDownEnabled="true" colspan="1" rowspan="1"
scope="column" style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-
family:Tahoma;font-size:8pt;vertical-align:middle;text-align:center;white-
space:nowrap;"><span> Actual </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th><th align="center" ColumnType="System.Decimal"
isDrillEnabled="false" class="chc" SortFilterColumn="Target5" tabindex="0"
ColumnType2="System.Decimal" isDrillUpEnabled="true" ShowSecondValue="True" groupId="-5"
isCellExpansionEnabled="false" cellId="4" cellType="Column" TargetElements="Target|Variance"
headerType="KpiTarget" isDrillDownEnabled="true" colspan="1" rowspan="1" scope="column"
style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:center;white-space:nowrap;"><span> Target </span><a
class="bsm-Link" val="bsmval" style="color:#000000;cursor:pointer;"></a></th><th
align="center" ColumnType="System.Decimal" isDrillEnabled="false" class="chc"
SortFilterColumn="Actual6" tabindex="0" isDrillUpEnabled="true" groupId="-4"
isCellExpansionEnabled="false" cellId="5" cellType="Column" headerType="KpiActual"
isDrillDownEnabled="true" colspan="1" rowspan="1" scope="column"
style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:center;white-space:nowrap;"><span> Actual </span><a
class="bsm-Link" val="bsmval" style="color:#000000;cursor:pointer;"></a></th><th
align="center" ColumnType="System.Decimal" isDrillEnabled="false" class="chc"
SortFilterColumn="Target7" tabindex="0" ColumnType2="System.Decimal" isDrillUpEnabled="true"
ShowSecondValue="True" groupId="-5" isCellExpansionEnabled="false" cellId="6"
cellType="Column" TargetElements="Target|Variance" headerType="KpiTarget"
isDrillDownEnabled="true" colspan="1" rowspan="1" scope="column"
style="color:#000000;background-color:#EBF3FF;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:center;white-space:nowrap;"><span> Target </span><a
class="bsm-Link" val="bsmval" style="color:#000000;cursor:pointer;"></a></th></tr><tr
id="scctr1ctl00_m_pps_1c5daaad96134367895fa451668d1d99_tv_1" class="r-1" rId="1" pId="0"
groupId="-1" isCollapsed="false" isCellExpansionEnabled="false"
isHiddenBasedOnFilterStatus="false" isDynamicallyExpandedHeader="false"><th class="rhc"
align="left" isDrillEnabled="false" isDrillUpEnabled="true" tabindex="0" groupId="-1"
cellId="0" cellType="Row" headerType="Kpi" isDrillDownEnabled="true" scope="row"
style="color:#000000;background-color:#FCFCFC;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:left;white-space:nowrap;"><span> Internet Sales
Amount </span><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a></th><td class="bsm-ustitle" align="left"
tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Con

```

```

tent%2f44_.000Actual" cellId="1" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $1,309,047.20 </span></div><td class="bsm-ustitle" align="left"
tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Con
tent%2f44_.000Target" cellId="2" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $1,309,047.20 </span><span style="vertical-align:middle;"
class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2002%5d%2fLists%2fDashboard+Con
tent%2f44_.000Actual" cellId="3" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $2,154,284.88 </span></div><td class="bsm-ustitle" align="left"
tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2002%5d%2fLists%2fDashboard+Con
tent%2f44_.000Target" cellId="4" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $2,154,284.88 </span><span style="vertical-align:middle;"
class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d%2fLists%2fDashboard+Con
tent%2f44_.000Actual" cellId="5" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $3,033,784.21 </span></div><td class="bsm-ustitle" align="left"
tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d%2fLists%2fDashboard+Con
tent%2f44_.000Target" cellId="6" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> $3,033,784.21 </span><span style="vertical-align:middle;"
class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td></tr><tr>
id="scctrl1ctl100_m_pps_1c5daaad96134367895fa451668d1d99_tv_2" class="r-1" rId="2" pId="0"
groupId="-2" isCollapsed="false" isCellExpansionEnabled="false"
isHiddenBasedOnFilterStatus="false" isDynamicallyExpandedHeader="false"><th class="rhc"
align="left" isDrillEnabled="false" isDrillUpEnabled="true" tabindex="0" groupId="-2"
cellId="0" cellType="Row" headerType="Kpi" isDrillDownEnabled="true" scope="row"
style="color:#000000;background-color:#FCFCFC;border-color:#D0D8E5;font-family:Tahoma;font-
size:8pt;vertical-align:middle;text-align:left;white-space:nowrap;"><span> Internet Order
Quantity </span><a class="bsm-Link" val="bsmval"

```

```

style="color:#000000;cursor:pointer;"></a></th><td class="bsm-ustitle" align="left"
tabindex="0" antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Con
tent%2f45_.000Actual" cellId="1" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 394 </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Con
tent%2f45_.000Target" cellId="2" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 394 </span><span style="vertical-align:middle;" class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2002%5d%2fLists%2fDashboard+Con
tent%2f45_.000Actual" cellId="3" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 859 </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2002%5d%2fLists%2fDashboard+Con
tent%2f45_.000Target" cellId="4" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 859 </span><span style="vertical-align:middle;" class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d%2fLists%2fDashboard+Con
tent%2f45_.000Actual" cellId="5" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 5,335 </span></div></td><td class="bsm-ustitle" align="left" tabindex="0"
antaction="" ddenabled="False"
cellpath="%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2003%5d%2fLists%2fDashboard+Con
tent%2f45_.000Target" cellId="6" annotated="False" isCollapsed="false" decompenabled="False"
ddTupleXml="&lt;dd /&gt;" colspan="1" style="color:#000000;background-
color:#FFFFFF;border-color:#D0D8E5;font-family:Tahoma;font-size:8pt;vertical-
align:middle;text-align:left;white-space:nowrap;"><a class="bsm-Link" val="bsmval"
style="color:#000000;cursor:pointer;"></a><div class="ContainerCell"><span val="true"
class="ItemCell"> 5,335 </span><span style="vertical-align:middle;" class="ItemCell"></span><span val="true"
class="ItemCell"> 0% </span></div></td></tr></table><a
name="ctl00_m_pps_1c5daaad96134367895fa451668d1d99end" tabindex="0"></a>]]</Html>
<ClientViewState><![CDATA[{"StatusFilters":[{"\DisplayNames\":"On
Target","\GroupIds\":"c7648a29-9ad7-dd4f-70d8-
a19655c6deb8.3","\IsSelected\":false},{"\DisplayNames\":"Slightly Off
Target","\GroupIds\":"c7648a29-9ad7-dd4f-70d8-
a19655c6deb8.2","\IsSelected\":false},{"\DisplayNames\":"Off
Target","\GroupIds\":"c7648a29-9ad7-dd4f-70d8-
a19655c6deb8.1","\IsSelected\":false}],"ExpandedColumns":"1:2:3:4:5:6","ExpandedRows":"1:2"

```

```
, "ScorecardId": "5e07912ade76f5a848245bed87d6e8ea", "ConfiguredViewId": "2e90b537142c4c708e15304a98cb0a20", "ShowAnnotations": "true", "ShowDetails": "true", "PageFilters": "%3c%3fxml+version%3d%221.0%22+encoding%3d%22utf-16%22%3f%3e%0d%0a%3cmsfs%3e%0d%0a%3cmsf+UniqueName%3d%22%5bCustomer%5d.%5bCountry%5d.%26amp%3b%5bAustralia%5d%22+DisplayName%3d%22Australia%22+DimensionName%3d%22%22+DimensionUniqueName%3d%22%5bCustomer%5d.%5bCountry%5d%22+MemberType%3d%22Regular%22+%2f%3e%0d%0a%3c%2fmsfs%3e", "TimeIntelligenceCurrentTime": "", "TimeIntelligenceFormula": "", "ServiceUrl": "/_vti_bin/PPS/BIMonitoringRenderingService.asmx/RenderScorecardAjaxControl", "CommentsUrl": "/_vti_bin/PPS/BIMonitoringRenderingService.asmx/ScorecardAjaxCommentsUpdate", "ToolBarId": "scctrlctl00_m_pps_1c5daaad96134367895fa451668d1d99_scorecardToolBar", "ToolBarType": "Microsoft.PerformancePoint.Scorecards.ServerRendering.Internal.ToolbarCtrl, Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce11e9429c", "TableId": "scctrlctl00_m_pps_1c5daaad96134367895fa451668d1d99_tv", "ViewTableType": "Microsoft.PerformancePoint.Scorecards.ServerRendering.Internal.ViewTableCtrl, Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce11e9429c", "SortFilterType": "Microsoft.PerformancePoint.Scorecards.ServerRendering.Internal.SortAndFilterTableCtrl, Microsoft.PerformancePoint.Scorecards.ServerRendering, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce11e9429c", "AccessibilityMode": "false", "AllowFilter": "true", "AllowSort": "true", "AllowStatusFilter": "true", "RollupType": "None", "SelectedCell": "ch-1:1", "SortAndFilters": "{ \"Actual2\": { \"ValueFilter\": [null, null], \"ColumnName\": \"Actual2\", \"ColumnType\": \"System.Decimal\", \"SortValue\": \"DESC\" } }\", \"FilterMode\": \"true\" } ] ] > /ClientViewState>
<ScorecardLocation><![CDATA[{"ItemUrl":"/Lists/DashboardContent/46_.000", "ItemType":0, "ItemGuid":"00000000-0000-0000-0000-000000000000", "SPSiteCollectionId":"00000000-0000-0000-0000-000000000000", "SPSiteId":"00000000-0000-0000-0000-000000000000", "SPListId":"00000000-0000-0000-0000-000000000000", "TempFcoGuid":"00000000-0000-0000-0000-000000000000", "HashGuid":"5e07912a-de76-f5a8-4824-5bed87d6e8ea"}]]> </ScorecardLocation>
</ScorecardAjaxRenderResult>
```

The protocol client displays this data for the user.

4.2 Example 2: Getting and creating scorecard comments

In this example, the protocol client has previously retrieved a scorecard from the protocol server (Example 1). It retrieves an initially blank list of comments for a scorecard cell, adds a comment, and sends the new list of comments for that cell to the protocol server.

The protocol client constructs the following **ScorecardAjaxCommentsUpdate** JSON request:

```
{
  "request": {
    {
      "ScorecardLocation": "%2FLists%2FDashboard%20Content%2F46_.000",
      "CellPath": "%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Content%2f46_.000Actual",
      "PageFilters": "%3c%3fxml+version%3d%221.0%22+encoding%3d%22utf-16%22%3f%3e%0d%0a%3cmsfs%3e%0d%0a%3cmsf+UniqueName%3d%22%5bCustomer%5d.%5bCountry%5d.%26amp%3b%5bAustralia%5d%22+DisplayName%3d%22Australia%22+DimensionName%3d%22%22+DimensionUniqueName%3d%22%5bCustomer%5d.%5bCountry%5d%22+MemberType%3d%22Regular%22+%2f%3e%0d%0a%3c%2fmsfs%3e",
      "Method": "GET",
      "ConfiguredViewId": "2e90b537142c4c708e15304a98cb0a20",
      "Comment": null
    }
  }
}
```

The protocol server responds with the following XML content:

```
<?xml version="1.0" encoding="utf-8"?>
<ScorecardAjaxCommentResult xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<Method>GET</Method>
<UserName>DOMAINA\jsmith</UserName>
<Comments><![CDATA[]]></Comments>
</ScorecardAjaxCommentResult>
```

The protocol client displays the results for the user. In this example, there were no comments to begin with.

The protocol client constructs a **ScorecardAjaxCommentsUpdate** JSON request to add a comment to this scorecard cell.

```
{
  "request":
  {
    "ScorecardLocation": "%2FLists%2FDashboard%20Content%2F46_.000",
    "CellPath": "%5bDate%5d.%5bCalendar%5d.%5bCalendar+Year%5d.%26%5b2001%5d%2fLists%2fDashboard+Content%2f44_.000Actual",
    "PageFilters": "%3c%3fxml+version%3d%221.0%22+encoding%3d%22utf-16%22%3f%3e%0d%0a%3cmsfs%3e%0d%0a%3cmsf+UniqueName%3d%22%5bCustomer%5d.%5bCountry%5d.%26amp%3b%5bAustralia%5d%22+DisplayName%3d%22Australia%22+DimensionName%3d%22%22+DimensionUniqueName%3d%22%5bCustomer%5d.%5bCountry%5d%22+MemberType%3d%22Regular%22+%2f%3e%0d%0a%3c%2fmsfs%3e",
    "Method": "UPDATE",
    "ConfiguredViewId": "2e90b537142c4c708e15304a98cb0a20",
    "Comment":
    {
      "Title": "This number is too high",
      "Comment": "The actual for 2001 should be lower",
      "CreatedDate": "5/20/2009 4:34:11 PM",
      "CreatedBy": "DOMAINA\jsmith"
    }
  }
}
```

The protocol server sends back the following XML response for that comment update request:

```
<?xml version="1.0" encoding="utf-8"?>
<ScorecardAjaxCommentResult xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"><Method>UPDATE</Method><UserName>NORTHAMERICA\tramey</UserName><Comments><![CDATA[]]></Comments></ScorecardAjaxCommentResult>
```

4.3 Example 3: Rendering an analytic grid report

In this example, the protocol client requests rendered analytic grid report, then performs a drilldown action on a member and requests the resulting analytic grid report.

The protocol client constructs the following **RenderWebPartContent** JSON request:

```
{
  "renderRequestRecord":
  {
    "ConnectionRecords": [],
    "ConsumerRecord":
  }
```

```

{
  "Id": "pps_f6afb8e170654559ac06ecc4ae492609",
  "ClientId": "ctl00_m_pps_f6afb8e170654559ac06ecc4ae492609",
  "Configuration": "/Lists/Dashboard Content/43_000",
  "AssemblyQualifiedName": "Microsoft.PerformancePoint.Scorecards.WebControls.ReportViewWebPart, Microsoft.PerformancePoint.Scorecards.WebControls, Version=14.0.0.0, Culture=neutral, PublicKeyToken=71e9bce11e9429c",
  "ConsumerInputs": "abhfJufQoXou15A5VbHEqGTM6pxF32RXoo8qbr3pmN0JyJ/yXoYJBkolVXq/tgFgUSC8RZvO2SyB96X6H1tcElEsyo25d6AGYGagkxMwi4QYjJGLk4mLsFEeAwNrrreXhc/wD9S5mBMbVMGNqzKOVeCXBp8sH1tMfHkc239RwnhLFGNhdVdGuV3GyVTH3vp+Vlm/whrOxhi84log3EezCH52MTw45p5AtZcLR/kgw2sbu0v6d+YsUshP0rwc+71kYvLm1KLjy81UVMjwFm19N8E9C4Z98YpcyoMkjLJmMcJioFTbsUTAFwXUN0cdluEDx8DvwgEwx0REkP7fMKBU+sJmD2Yc/zjNLxZBY/hYsKF+IWFkngNnTKUUhJOWCqC1Zi6Pe8rX6HT/ppWnqYpUITrsqPpvGPeBmvTL0O+ST6JzAwWpAjI+a56otYa0cV/JLxfBUnHMR16vBPvOENxDRtfJy2ssZuZuC/rh+uxnQYU2SpdPY/xCMYQbJ3wDaDY9fv2hgxBUop/acdlI6h7Kbd4Ut/KBxLQYt1QeWovng/lxm3DLVVr/HT7TTG8XKqtXrK5EDWMMFXqONaigsVMA+jomrvczoiJRTRFoiIOBLpexp2AGpUYpVzqobZJ9Xr6oJwUzo/Ng7GQw3q+Oik1ZiMjeWccX2hr74xIf+f/Lg3bz1ai20/YC/rtTHj0jHbW9p/zN6Q4NrXrsIQJIW8jtZa5+/6S+9iXdoilQqEieLJVdUwdYmugc/+jyBBLM9j19+7/7w41TSJtuevvuYydWiWgdLCJ2QC339PaihnCOX/tp1b1aPUbyBq/ejG738OIMOkEAILxP/QcyHJpGcDqYKi/XDO8IPBdBKyiWiVYWSWTkmLcv11rDDU3Al+y9E5t3jJa0m7CvLvzb+D0LpdaYn7/NXBjSTHdbSwP+ZO6lnv7JGMM6ecsEu5u46vX3cxEafycXrTMEahjdmG8OUWwE7cFmOmSLnctYBY0Mukb+CIXJcd30unmJMQm/kcZJAR5TPaRf/AQgjV0MXFBPn5yvtv9xuNJSEE08qxhREXffWFrFntAr228dXLSLisqBghM+uD+SgvDV8CxArbYEzNNaserOXIgj9G+to8HeX0mK3t5Mk6umW4rhr7SBAG28LUUynTjr+JSklbLtSCdD/X6ryE5M6+xJzFK4Ce19RSM7TiantSs5kxXyN4zszN0AH0bOaXsBL24i3LCjr035gol3ZZCvmSqmATcvyDvq1FTTHgRdKHTsebpCjhZ0oS+IyUQVf/f35ms1XoBjGumChFg7PXWqYSSmSAIXfEE6fztnB5xav9RER5nk/OBbgDls9qjFs0ZtdOhBqE7cFmOmSLnctYBY0Mukb+iKrXdfkOC0AZ2tldtVWslYwDEk3fqMhvNodxfAMj0zGrJWKQV/+vJGncUGw7fy124VWZnynKzy/zXfS1hrFEVbOcRpd53tfGtVzByaNVCqC8i0XCc8rX+OCGvQ0fvZ3CvgYBTpzSgAjT8o6xmPGnmrghRctNR4190g13xblfRVV/DJ8kLxpRBgU71Q68U2LeocRELyDSkZ2c5nP+Occ4NhkCwz9K5eYqEy4XbA/9YrrWivqI4bNJHongYJeD00CMY9WDME38HGzO2UicUBENR0/4C61YzyJnxZFRi6E+5tX4zTz/Xc2Z7mjfKwDYJB+go8RZDnizXP9umtAqb9CxH+cJfZE19Xs9AwWVCnVQy8/QbmmDN3grG/U+lW35tolwldXtrhMhYeb/G6oP4d0lkH5uA9KajwBUFGV3TWA1mncS6C22sQYIv6KEJFBVNd1LV7TCZXKqGbsuPF3CxsstHALp2eZzldhWnGBFamzxkD/ajSo3vH4z1OJRnyHcllBiet5XQ8vYoto/stIa+RRWcCfDtSMT/zbhWhAVqItX2XmHLotfJz1MTbDG2Yv9UzMQIY9jMlJdfohCwsjD5zBsIf1A8XxZodmI5pDKolTAhAydSIX2PpCFULIXas/hbulZ76qRHAJShIguMpbJgpTKpqtBeV/u9KtAGkgnR0+5cMiiVTJYVwmlkSXAw9RcgD42bhv77vu6A9gPb/XbCIPS5caz681qsSqDstQegI12NjqTl1jTCzhdC5Ci91zJ4SCo7zdgM0wUSNUxy6HnndQTfJ9VPRXxUJZou9iH52N0qdJyIL+dVasUYdwAxMIJ81CaAkoun37seOvTYWNDKIU9UfKwUSyYhENS7Kq/XnLqkCL+aNGWQM10WBPO0c2Qe+fZxZpM13SgnT50iKYAZRmHT0m3Qd5Xgen05x8til39GBQz/3Us52DEmY09uJNBOfjk/sAaf9jLkLE2Si4gtCnX2aSKUV0XvvhjoturXzw9+8sGKM71XruDhzCbH1SQ/gp+0+IcFwUQVNMZGLDMMbkSZevXOCpV2PPT56tXlyvcIb1UENtgFrbyA/bIvAzle7Geea8KvVwRzj7jKo4wAqRKcZP48iz12U2EfgHxwpuYyDm6sX2fiAgdYehz9WZ1TRdkVmrRPQdAF9OES28IU0QqDM4Y3BN1b80EnVL0gGzWarSV8QGYcppnxdm2rs9y7/Xe7W9DS3VLvAVV+BjF163Pqxi3WiMduUALm717kv4Y4j+vcJbnhGUURBG3bZLutgt28OkueZymV/WF4KBmgyTg7t9AicLJSijGKavp39swzBebaYw2gzgpg9gk0kIzPBW2QuJTzt0J+S2MsKumdCdgaUL7dNDRP1BCB8aiuBB6dcnW7BVg2dbqS1VLORkKh1WfbJHdChpxubO8RXyGdJryNayQnwdjsPK0e9GR21zkzQGwrlEBOVM2eauryb4gZhfJC4GZAARMQRXV663QcGY0ZZszbxcidLEWKjJrYjQekYw9q0925tkZDK1rRJSFOKGFRvSe309CTT3k9zcEzi6QShQf/G2LU4B9CjsKRWA5CqleXQdKMe370W05B3uFUSucleBttG11J6FpLYhJvHC7B6ssx8UYMSrgwvpmCoSaGiXGpjHJboc77KTgk13RtMs50NM2537ebPxElU12BPb2j7xwBvXAG3HH84WbhexWwaOa2k3d2VE1/75UaOpFaiViZDXK9e3UiVtt1+YgPdi5sSdp7Sr57+sgN964gK49vbOfkiIo=",
  "ViewState": {},
  "Height": "508px",
  "Width": "532px",
  "InUseProviderParameterNames": [],
  "ProviderSelections": {}
},
  "ParameterRecords": [],
  "ProviderRecords": [],
  "TransformerRecords": [],
  "SaveUserFilterChoices": false
}

```

```
}  
}
```

The protocol server replies with the following XML content:

```
<?xml version="1.0" encoding="utf-8"?>  
<AjaxRenderResultRecord xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">  
  <HtmlDomElementId>ctl00_m_pps_f6afb8e170654559ac06ecc4ae492609</HtmlDomElementId>  
  <ErrorHtml><![CDATA[]]></ErrorHtml>  
  <Html><![CDATA[<div id="OuterTag_fed80e14" style="height:100%;overflow:visible;" ><div  
    style="display:none;height:21px;background-color:#ebf3ff;position:relative;text-  
    indent:0px;font-family:Tahoma;font-size:11px;padding-top:1px;overflow:hidden;border:solid 1px  
    #d0d8e5; border-bottom:0px;" id="viewInfoId" oncontextmenu="return false;"  
    onmouseup="_ovrc('ctx_13dccc1c').hideViewInfoBarCtxMenu(event);return false;"><div  
    style="float:left; padding-top:1px; text-indent:2px"></div><div title="Measures: Internet Order Count, Customer Country: Australia"  
    style="float:left; padding-top:0px; line-height:16px; text-indent:4px">Measures: <strong><a  
    href="#" style="text-decoration:none;"  
    onmouseup="_ovrc('ctx_13dccc1c')._changeMeasure.show(_ovrc('ctx_13dccc1c')._lastCell)">Intern  
    et Order Count</a></strong>, Customer Country: <strong>Australia</strong></div><div  
    style="float:right; padding-top:1px;"  
    onclick="_ovrc('ctx_13dccc1c').toggleViewInfoBar(this)"></div></div><div id="Tag_fed80e14"  
    style="height:508px;width:532px;overflow:auto;position:relative"><table class="gt"  
    summary="Analytic Grid" tabindex="0" id="ctx_13dccc1c_ag"  
    onmousedown="_ovrc('ctx_13dccc1c').handleSingleClick(event)"  
    ondblclick="_ovrc('ctx_13dccc1c').handleDoubleClick(event)"  
    oncontextmenu="_ovrc('ctx_13dccc1c').handleContextMenu(event); return false;"  
    onkeydown="return _ovrc('ctx_13dccc1c').handleKeyEvent(event)"  
    ondeactivate="_ovrc('ctx_13dccc1c').handleDeselectCell(event)"><tr><td class="ph"  
    id="PR0C0"><a href="#" class="phLink" id="PR0C0" style="text-decoration:none;cursor:default"  
    onkeyup="_ovrc('ctx_13dccc1c').handleTabEvent(event);"   
    onmouseup="_ovrc('ctx_13dccc1c').selectLink(event);">Product Categories</a></td><td  
    class="ch" id="CR0C0"><a id="excoACR0C0" href="#" class="excoA"  
    onclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY 2001</td><td  
    class="ch" id="CR0C1"><a id="excoACR0C1" href="#" class="excoA"  
    onclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY 2002</td><td  
    class="ch" id="CR0C2"><a id="excoACR0C2" href="#" class="excoA"  
    onclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY 2003</td><td  
    class="ch" id="CR0C3"><a id="excoACR0C3" href="#" class="excoA"  
    onclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY 2004</td><td  
    class="ch" id="CR0C4"><a id="excoACR0C4" href="#" class="excoA"  
    onclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY  
    2006</td></tr><tr><td class="rh" id="RR0C0" style="padding-left: 5px"><a id="excoARR0C0"  
    href="#" class="excoA" onclick="_ovrc('ctx_13dccc1c').handleCollapseClick(event);"   
    title="Collapse"></a>All Products</td><td class="oc" id="DR0C0">394</td><td class="oc"  
    id="DR0C1">859</td><td class="oc" id="DR0C2">2,600</td><td class="oc"  
    id="DR0C3">2,865</td><td class="oc" id="DR0C4"></td></tr><tr><td class="rh" id="RR1C0"  
    style="padding-left: 17px"><a id="excoARR1C0" href="#" class="excoA"  
    onclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>Accessories</td><td  
    class="oc" id="DR1C0"></td><td class="oc" id="DR1C1"></td><td class="oc"  
    id="DR1C2">1,497</td><td class="oc" id="DR1C3">2,174</td><td class="oc"  
    id="DR1C4"></td></tr></tr><tr><td class="rh" id="RR2C0" style="padding-left: 17px"><a
```

```

id="excoARR2C0" href="#" class="excoA"
onclick=" _ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>Bikes</td><td
class="oc" id="DR2C0">394</td><td class="oc" id="DR2C1">859</td><td class="oc"
id="DR2C2">1,687</td><td class="oc" id="DR2C3">1,532</td><td class="oc"
id="DR2C4"></td></tr><tr><td class="rh" id="RR3C0" style="padding-left: 17px"><a
id="excoARR3C0" href="#" class="excoA"
onclick=" _ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>Clothing</td><td
class="oc" id="DR3C0"></td><td class="oc" id="DR3C1"></td><td class="oc"
id="DR3C2">629</td><td class="oc" id="DR3C3">925</td><td class="oc"
id="DR3C4"></td></tr><tr><td class="rh" id="RR4C0" style="padding-left: 17px"><a
id="excoARR4C0" href="#" class="excoA"
onclick=" _ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>Components</td><td
class="oc" id="DR4C0"></td><td class="oc" id="DR4C1"></td><td class="oc" id="DR4C2"></td><td
class="oc" id="DR4C3"></td><td class="oc" id="DR4C4"></td></tr></table></div></div>]]</Html>
<Script><![CDATA[var ctx_13dccc1c=new
PPSMA.OlapViewContext("/_vti_bin/PPS/BIMonitoringRenderingService.aspx/CreateReportHtml",
"/_vti_bin/PPS/BIMonitoringRenderingService.aspx/CreateNavigationMetadata", "ctx_13dccc1c",
"OuterTag_fed80e14", "ctl00_m_pps_f6afb8e170654559ac06ecc4ae492609",
"/_layouts/PPSWebParts/", "http://boi-ppsbetal/_layouts/PPSWebParts/OlapDecompTree.aspx");
var targetId = "ctl00_m_pps_f6afb8e170654559ac06ecc4ae492609";
var target = document.getElementById(targetId);
if( null != target ) {target.style.position = "static";}
var res = new PPSMA.Results(5, 5, true, false);
_ovc("ctx_13dccc1c").set_results(res);PPSMA.OlapViewContext.globalIds["ctx_13dccc1c"].set_measuresHierarchyName("[Measures]");
PPSMA.OlapViewContext.globalIds["ctx_13dccc1c"].set_formatDimHierarchyName("[Measures]");
var rm = res.createRowMembers(1);
rm[0][0] = new PPSMA.Member("RR0C0", "[Product].[Product Categories].[All Products]", "All Products", "[Product].[Product Categories].[(All)]", 0, false, true, true);
rm[1][0] = new PPSMA.Member("RR1C0", "[Product].[Product Categories].[Category].&[4]", "Accessories", "[Product].[Product Categories].[Category]", 1, true, true, false);
rm[2][0] = new PPSMA.Member("RR2C0", "[Product].[Product Categories].[Category].&[1]", "Bikes", "[Product].[Product Categories].[Category]", 1, true, true, false);
rm[3][0] = new PPSMA.Member("RR3C0", "[Product].[Product Categories].[Category].&[3]", "Clothing", "[Product].[Product Categories].[Category]", 1, true, true, false);
rm[4][0] = new PPSMA.Member("RR4C0", "[Product].[Product Categories].[Category].&[2]", "Components", "[Product].[Product Categories].[Category]", 1, true, true, false);
var rh = res.get_rowHierarchies();
rh[0] = new PPSMA.ResultHierarchy("[Product].[Product Categories]", false, 1, "[Product]");
rh[0].createMemberProperties("[Product].[Product Categories]", 0);
var cm = res.createColumnMembers(1);
cm[0][0] = new PPSMA.Member("CR0C0", "[Date].[Calendar].[Calendar Year].&[2001]", "CY 2001", "[Date].[Calendar].[Calendar Year]", 1, true, true, false);
cm[1][0] = new PPSMA.Member("CR1C0", "[Date].[Calendar].[Calendar Year].&[2002]", "CY 2002", "[Date].[Calendar].[Calendar Year]", 1, true, true, false);
cm[2][0] = new PPSMA.Member("CR2C0", "[Date].[Calendar].[Calendar Year].&[2003]", "CY 2003", "[Date].[Calendar].[Calendar Year]", 1, true, true, false);
cm[3][0] = new PPSMA.Member("CR3C0", "[Date].[Calendar].[Calendar Year].&[2004]", "CY 2004", "[Date].[Calendar].[Calendar Year]", 1, true, true, false);
cm[4][0] = new PPSMA.Member("CR4C0", "[Date].[Calendar].[Calendar Year].&[2006]", "CY 2006", "[Date].[Calendar].[Calendar Year]", 1, true, true, false);
var ch = res.get_columnHierarchies();
ch[0] = new PPSMA.ResultHierarchy("[Date].[Calendar]", false, 1, "[Date]");
res.set_sortedAxes(0);
res.set_sortTypeCol("nosort");
res.set_sortTypeRow("nosort");
res.set_sortColIndex(0);
res.set_sortRowIndex(-1);
res.set_filterEmptyAxis(0);
res.set_topFilterCol(0);

```

```

res.set_topFilterRow(0);
res.set_valueFilterCol(0);
res.set_valueFilterRow(0);
res.set_valueFilterParamsCol("0;;;0;0;");
res.set_valueFilterParamsRow("0;;;0;0;");
var fm = res.createFilterMembers(3);
fm[0] = new PPSMA.Member("F0", "[Customer].[Country].&[Australia]", "Australia",
"[Customer].[Country].[Country]", 1, true, false, false);
fm[1] = new PPSMA.Member("F1", "[Measures].[Internet Order Count]", "Internet Order Count",
"[Measures].[MeasuresLevel]", 0, false, false, false);
fm[2] = new PPSMA.Member("F2", "[Customer].[Customer Geography].[Country].&[Australia]",
"Australia", "[Customer].[Customer Geography].[Country]", 1, true, true, false);
var fh = res.get_filterHierarchies()
fh[0] = new PPSMA.ResultHierarchy("[Customer].[Country]", true, 1, "[Customer]");
fh[1] = new PPSMA.ResultHierarchy("[Measures]", true, 0, "[Measures]");
fh[2] = new PPSMA.ResultHierarchy("[Customer].[Customer Geography]", true, 1, "[Customer]");
var __gridCtx = new PPSMA.OlapGrid('_ovrc(\'ctx_13dccc1c\')', _ovc('ctx_13dccc1c'), true);
__ovc('ctx_13dccc1c').set_reportContext(__gridCtx);
__gridCtx.set_reportLayout(PPSMA.ReportLayoutEnum.CompactForm);
__gridCtx.replaceGridStyles('OlapGrid.css', 8, 'Tahoma', 'Black', 'White', '#ebf3ff', '');
__ovc('ctx_13dccc1c').setOuterTagAttribute('selectedFormatMember', '[Measures].[Internet Order
Count]');
__ovc('ctx_13dccc1c').setOuterTagAttribute('MeasureGroupName', '');
var __ctx = __ovc("ctx_13dccc1c");
__ctx.set_innerTargetId("Tag_fed80e14");
__ctx.set_targetType("OLAPGrid");
__ctx.set_reportId("%7Bd70abdd2-1c0e-25aa-2d22-512c7c0c74bb%7D");
__ctx.set_infoBarVisible(false);
__ctx.set_historyButtonsVisible(false);
__ctx.set_toolbarVisible(false);
__ctx.set_currentDataPage(1);
__ctx.set_isSingleView(false);
__ctx.set_isDesigner(false);
__ctx.renderUpdate();
var htmlObjs = document.getElementsByTagName("html");
htmlObjs[0].lastReportId = "%7Bd70abdd2-1c0e-25aa-2d22-512c7c0c74bb%7D";
htmlObjs[0].page = "1";
htmlObjs[0].reportType = "0";
var wpp = __ctx.get_webPartProxy();
if (wpp != null) {
wpp.updateViewStateEntry("F775B8BE98A540C2AB08B34D53460E4B", "ReportId:%7Bd70abdd2-1c0e-25aa-
2d22-512c7c0c74bb%7D,Page:1,ReportType:0");
wpp.updateViewStateEntry("D90A8712A3FA4649A25B7AB942FBCF20", "OLAPGrid");
}
wpp = null;
__ctx = null;
}]></Script>
<ConsumerInputs><![CDATA[]]></ConsumerInputs>
<ViewStateJson><![CDATA[]]></ViewStateJson>
</AjaxRenderResultRecord>

```

The protocol client displays this data for the user.

The protocol client constructs a **CreateReportHtml** JSON request to drilldown on the member `[Product].[Product Categories].[Category].&[1]`.

```

{
  "requestRecord":

```

```

{
  "TargetControlId": "OuterTag_fed80e14",
  "TargetControlType": "OLAPGrid",
  "OlapContextId": "ctx_13dccc1c",
  "Height": 508,
  "Width": 532,
  "ReportLocation": "%7Bd70abdd2-1c0e-25aa-2d22-512c7c0c74bb%7D",
  "Inputs": "",
  "NavigationAction": "<Action type=\\\"DrillDown\\\"><Member>[Product].[Product Categories].[Category].&[1]</Member><Hierarchy>[Product].[Product Categories]</Hierarchy><Page>1</Page></Action>",
  "ViewProperties": "InfoBar:false,History:false,SingleView:false,IsDesigner:false"
}

```

The protocol server responds with the following XML content:

```

<?xml version="1.0" encoding="utf-8"?>
<AjaxRenderResultRecord xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <HtmlDomElementId />
  <ErrorHtml><![CDATA[]]></ErrorHtml>
  <Html><![CDATA[<div style="display:none;height:21px;background-color:#ebf3ff;position:relative;text-indent:0px;font-family:Tahoma;font-size:11px;padding-top:1px;overflow:hidden;border:solid 1px #d0d8e5; border-bottom:0px;" id="_viewInfoId"
oncontextmenu="return false;"
onmouseup="_ovrc('ctx_13dccc1c').hideViewInfoBarCtxMenu(event);return false;"><div style="float:left; padding-top:1px; text-indent:2px"></div><div title="Measures: Internet Order Count, Customer Country: Australia" style="float:left; padding-top:0px; line-height:16px; text-indent:4px">Measures: <strong><a href="#" style="text-decoration:none;" onmouseup="_ovrc('ctx_13dccc1c')._changeMeasure.show(_ovrc('ctx_13dccc1c').lastCell)">Internet Order Count</a></strong>, Customer Country: <strong>Australia</strong></div><div style="float:right; padding-top:1px;" ononclick="_ovc('ctx_13dccc1c').toggleViewInfoBar(this)"></div></div><div id="Tag_2f631416" style="height:508px;width:532px;overflow:auto;position:relative"><table class="gt" summary="Analytic Grid" tabindex="0" id="ctx_13dccc1c_ag" onmousedown="_ovrc('ctx_13dccc1c').handleSingleClick(event)" ondblclick="_ovrc('ctx_13dccc1c').handleDoubleClick(event)" oncontextmenu="_ovrc('ctx_13dccc1c').handleContextMenu(event); return false;" onkeydown="return _ovrc('ctx_13dccc1c').handleKeyEvent(event)" ondeactivate="_ovrc('ctx_13dccc1c').handleDeselectCell(event)"><tr><td class="ph" id="PROC0"><a href="#" class="phLink" id="PROC0" style="text-decoration:none;cursor:default" onkeyup="_ovrc('ctx_13dccc1c').handleTabEvent(event);" onmouseup="_ovrc('ctx_13dccc1c').selectLink(event);">Product Categories</a></td><td class="ch" id="CR0C0"><a id="excoACR0C0" href="#" class="excoA" ononclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY 2001</td><td class="ch" id="CR0C1"><a id="excoACR0C1" href="#" class="excoA" ononclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY 2002</td><td class="ch" id="CR0C2"><a id="excoACR0C2" href="#" class="excoA" ononclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY 2003</td><td class="ch" id="CR0C3"><a id="excoACR0C3" href="#" class="excoA" ononclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY 2004</td><td class="ch" id="CR0C4"><a id="excoACR0C4" href="#" class="excoA" ononclick="_ovrc('ctx_13dccc1c').handleExpandClick(event);" title="Expand"></a>CY
2006</td></tr><tr><td class="rh" id="RR0C0" style="padding-left: 5px"><a id="excoARR0C0"
href="#" class="excoA" onclick="_ovrc('ctx_13dcccclc').handleExpandClick(event);"
title="Expand"></a>Mountain Bikes</td><td class="oc" id="DR0C0">90</td><td class="oc"
id="DR0C1">247</td><td class="oc" id="DR0C2">582</td><td class="oc" id="DR0C3">400</td><td
class="oc" id="DR0C4"></td></tr><tr><td class="rh" id="RR1C0" style="padding-left: 5px"><a
id="excoARR1C0" href="#" class="excoA"
onclick="_ovrc('ctx_13dcccclc').handleExpandClick(event);" title="Expand"></a>Road Bikes</td><td
class="oc" id="DR1C0">304</td><td class="oc" id="DR1C1">612</td><td class="oc"
id="DR1C2">911</td><td class="oc" id="DR1C3">776</td><td class="oc"
id="DR1C4"></td></tr><tr><td class="rh" id="RR2C0" style="padding-left: 5px"><a
id="excoARR2C0" href="#" class="excoA"
onclick="_ovrc('ctx_13dcccclc').handleExpandClick(event);" title="Expand"></a>Touring Bikes</td><td
class="oc" id="DR2C0"></td><td class="oc" id="DR2C1"></td><td class="oc"
id="DR2C2">194</td><td class="oc" id="DR2C3">356</td><td class="oc"
id="DR2C4"></td></tr></table></div>]]></Html>
<Script><![CDATA[var res = new PPSMA.Results(3, 5, true, false);
_ovc("ctx_13dcccclc").set_results(res);
PPSMA.OlapViewContext.globalIds["ctx_13dcccclc"].set_measureHierarchyName("[Measures]");
PPSMA.OlapViewContext.globalIds["ctx_13dcccclc"].set_formatDimHierarchyName("[Measures]");
var rm = res.createRowMembers(1);
rm[0][0] = new PPSMA.Member("RR0C0", "[Product].[Product Categories].[Subcategory].&[1]",
"Mountain Bikes", "[Product].[Product Categories].[Subcategory]", 2, true, true, false);
rm[1][0] = new PPSMA.Member("RR1C0", "[Product].[Product Categories].[Subcategory].&[2]",
"Road Bikes", "[Product].[Product Categories].[Subcategory]", 2, true, true, false);
rm[2][0] = new PPSMA.Member("RR2C0", "[Product].[Product Categories].[Subcategory].&[3]",
"Touring Bikes", "[Product].[Product Categories].[Subcategory]", 2, true, true, false);
var rh = res.get_rowHierarchies();
rh[0] = new PPSMA.ResultHierarchy("[Product].[Product Categories]", false, 2, "[Product]");
rh[0].createMemberProperties("[Product].[Product Categories]", 0);
var cm = res.createColumnMembers(1);
cm[0][0] = new PPSMA.Member("CR0C0", "[Date].[Calendar].[Calendar Year].&[2001]", "CY 2001",
"[Date].[Calendar].[Calendar Year]", 1, true, true, false);
cm[1][0] = new PPSMA.Member("CR1C0", "[Date].[Calendar].[Calendar Year].&[2002]", "CY 2002",
"[Date].[Calendar].[Calendar Year]", 1, true, true, false);
cm[2][0] = new PPSMA.Member("CR2C0", "[Date].[Calendar].[Calendar Year].&[2003]", "CY 2003",
"[Date].[Calendar].[Calendar Year]", 1, true, true, false);
cm[3][0] = new PPSMA.Member("CR3C0", "[Date].[Calendar].[Calendar Year].&[2004]", "CY 2004",
"[Date].[Calendar].[Calendar Year]", 1, true, true, false);
cm[4][0] = new PPSMA.Member("CR4C0", "[Date].[Calendar].[Calendar Year].&[2006]", "CY 2006",
"[Date].[Calendar].[Calendar Year]", 1, true, true, false);
var ch = res.get_columnHierarchies();
ch[0] = new PPSMA.ResultHierarchy("[Date].[Calendar]", false, 1, "[Date]");
res.set_sortedAxes(0);
res.set_sortTypeCol("nosort");
res.set_sortTypeRow("nosort");
res.set_sortColIndex(0);
res.set_sortRowIndex(-1);
res.set_filterEmptyAxis(0);
res.set_topFilterCol(0);
res.set_topFilterRow(0);
res.set_valueFilterCol(0);
res.set_valueFilterRow(0);
res.set_valueFilterParamsCol("0;;0;0;");
res.set_valueFilterParamsRow("0;;0;0;");
var fm = res.createFilterMembers(3);
fm[0] = new PPSMA.Member("F0", "[Customer].[Country].&[Australia]", "Australia",
"[Customer].[Country].[Country]", 1, true, false, false);

```

```

fm[1] = new PPSMA.Member("F1", "[Measures].[Internet Order Count]", "Internet Order Count",
"[Measures].[MeasuresLevel]", 0, false, false, false);
fm[2] = new PPSMA.Member("F2", "[Customer].[Customer Geography].[Country].&[Australia]",
"Australia", "[Customer].[Customer Geography].[Country]", 1, true, true, false);
var fh = res.get_filterHierarchies()
fh[0] = new PPSMA.ResultHierarchy("[Customer].[Country]", true, 1, "[Customer]");
fh[1] = new PPSMA.ResultHierarchy("[Measures]", true, 0, "[Measures]");
fh[2] = new PPSMA.ResultHierarchy("[Customer].[Customer Geography]", true, 1, "[Customer]");
var __gridCtx = new PPSMA.OlapGrid('_ovrc(\'ctx_13dccc1c\')', _ovc('ctx_13dccc1c'), true);
__ovc('ctx_13dccc1c').set_reportContext(__gridCtx);
__gridCtx.set_reportLayout(PPSMA.ReportLayoutEnum.CompactForm);
__gridCtx.replaceGridStyles('OlapGrid.css', 8, 'Tahoma', 'Black', 'White', '#ebf3ff', '');
__ovc('ctx_13dccc1c').setOuterTagAttribute('selectedFormatMember', '[Measures].[Internet Order
Count]');
__ovc('ctx_13dccc1c').setOuterTagAttribute('MeasureGroupName', '');
__gridCtx.selectOlapReportAndFocus();
var __ctx = __ovc("ctx_13dccc1c");
__ctx.set_innerTargetId("Tag_2f631416");
__ctx.set_targetType("OLAPGrid");
__ctx.set_reportId("%7B4dca89ef-8456-cdc7-5efe-7bf1c855a67e%7D");
__ctx.set_infoBarVisible(false);
__ctx.set_historyButtonsVisible(false);
__ctx.set_toolbarVisible(false);
__ctx.set_currentDataPage(1);
__ctx.set_isSingleView(false);
__ctx.set_isDesigner(false);
__ctx.renderUpdate();
var htmlObjs = document.getElementsByTagName("html");
htmlObjs[0].lastReportId = "%7B4dca89ef-8456-cdc7-5efe-7bf1c855a67e%7D";
htmlObjs[0].page = "1";
htmlObjs[0].reportType = "0";
var wpp = __ctx.get_webPartProxy();
if (wpp != null) {
wpp.updateViewStateEntry("F775B8BE98A540C2AB08B34D53460E4B", "ReportId:%7B4dca89ef-8456-cdc7-
5efe-7bf1c855a67e%7D,Page:1,ReportType:0");
wpp.updateViewStateEntry("D90A8712A3FA4649A25B7AB942FBCF20", "OLAPGrid");
}
wpp = null;
__ctx = null;
}]></Script>
<ConsumerInputs><![CDATA[]]></ConsumerInputs>
<ViewStateJson><![CDATA[]]></ViewStateJson>
</AjaxRenderResultRecord>

```

The protocol client displays this data for the user.

4.4 Example 4: Retrieve cube metadata for the data source

In this example, the protocol client has previously retrieved an analytic grid report from the protocol server (Example 3). It requests the cube metadata for the data source associated with the request from the protocol server.

The protocol client constructs the following **CreateNavigationMetadata** JSON request:

```

{
  "requestRecord":
  {

```

```

    "TargetControlId": "OuterTag_fed80e14",
    "TargetControlType": "OlapMetadata",
    "OlapContextId": "ctx_13dcce1c",
    "MetadataContextId": "_ovrc('ctx_13dcce1c')",
    "ReportLocation": "%7Bd70abdd2-1c0e-25aa-2d22-512c7c0c74bb%7D",
    "MetadataAction": "<Action type='GetCubeMetadata'></Action>"
  }
}

```

The protocol server responds with the following XML content:

```

<?xml version="1.0" encoding="utf-8"?>
<AjaxRenderResultRecord xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <HtmlDomElementId />
  <ErrorHtml><![CDATA[]]></ErrorHtml>
  <Html><![CDATA[]]></Html>
  <Script><![CDATA[
var dims = new Array(22);
var hiers, levs
dims[0] = new PPSMA.Dimension("[Account]", "Account", 3);
hiers = dims[0].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Account].[Accounts]", "Accounts", 0);
levs = hiers[0].createLevels(6);
levs[0] = new PPSMA.Level("[Account].[Accounts].[Account Level 01]", "Account Level 01", 0);
levs[1] = new PPSMA.Level("[Account].[Accounts].[Account Level 02]", "Account Level 02", 1);
levs[2] = new PPSMA.Level("[Account].[Accounts].[Account Level 03]", "Account Level 03", 2);
levs[3] = new PPSMA.Level("[Account].[Accounts].[Account Level 04]", "Account Level 04", 3);
levs[4] = new PPSMA.Level("[Account].[Accounts].[Account Level 05]", "Account Level 05", 4);
levs[5] = new PPSMA.Level("[Account].[Accounts].[Account Level 06]", "Account Level 06", 5);
hiers = dims[0].createAttributeHierarchies(2);
hiers[0] = new PPSMA.Hierarchy("[Account].[Account Number]", "Number", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Account].[Account Number].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Account].[Account Number].[Account Number]", "Account Number", 1);
hiers[1] = new PPSMA.Hierarchy("[Account].[Account Type]", "Type", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Account].[Account Type].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Account].[Account Type].[Account Type]", "Account Type", 1);
dims[1] = new PPSMA.Dimension("[Customer]", "Customer", 3);
hiers = dims[1].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Customer].[Customer Geography]", "Geography", 0);
levs = hiers[0].createLevels(6);
levs[0] = new PPSMA.Level("[Customer].[Customer Geography].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Customer Geography].[Country]", "Country", 1);
levs[2] = new PPSMA.Level("[Customer].[Customer Geography].[State-Province]", "State-Province", 2);
levs[3] = new PPSMA.Level("[Customer].[Customer Geography].[City]", "City", 3);
levs[4] = new PPSMA.Level("[Customer].[Customer Geography].[Postal Code]", "Postal Code", 4);
levs[5] = new PPSMA.Level("[Customer].[Customer Geography].[Customer]", "Customer", 5);
hiers = dims[1].createAttributeHierarchies(10);
hiers[0] = new PPSMA.Hierarchy("[Customer].[Commute Distance]", "Commute Distance", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Customer].[Commute Distance].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Commute Distance].[Commute Distance]", "Commute Distance", 1);
hiers[1] = new PPSMA.Hierarchy("[Customer].[Education]", "Education", 1);
levs = hiers[1].createLevels(2);

```

```

levs[0] = new PPSMA.Level("[Customer].[Education].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Education].[Education]", "Education", 1);
hiers[2] = new PPSMA.Hierarchy("[Customer].[Gender]", "Gender", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Customer].[Gender].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Gender].[Gender]", "Gender", 1);
hiers[3] = new PPSMA.Hierarchy("[Customer].[Home Owner]", "Home Owner", 1);
levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Customer].[Home Owner].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Home Owner].[Home Owner]", "Home Owner", 1);
hiers[4] = new PPSMA.Hierarchy("[Customer].[Marital Status]", "Marital Status", 1);
levs = hiers[4].createLevels(2);
levs[0] = new PPSMA.Level("[Customer].[Marital Status].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Marital Status].[Marital Status]", "Marital Status", 1);
hiers[5] = new PPSMA.Hierarchy("[Customer].[Number of Cars Owned]", "Number of Cars Owned", 1);
levs = hiers[5].createLevels(2);
levs[0] = new PPSMA.Level("[Customer].[Number of Cars Owned].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Number of Cars Owned].[Number of Cars Owned]", "Number of Cars Owned", 1);
hiers[6] = new PPSMA.Hierarchy("[Customer].[Number of Children At Home]", "Number of Children At Home", 1);
levs = hiers[6].createLevels(2);
levs[0] = new PPSMA.Level("[Customer].[Number of Children At Home].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Number of Children At Home].[Number of Children At Home]", "Number of Children At Home", 1);
hiers[7] = new PPSMA.Hierarchy("[Customer].[Occupation]", "Occupation", 1);
levs = hiers[7].createLevels(2);
levs[0] = new PPSMA.Level("[Customer].[Occupation].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Occupation].[Occupation]", "Occupation", 1);
hiers[8] = new PPSMA.Hierarchy("[Customer].[Total Children]", "Total Children", 1);
levs = hiers[8].createLevels(2);
levs[0] = new PPSMA.Level("[Customer].[Total Children].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Total Children].[Total Children]", "Total Children", 1);
hiers[9] = new PPSMA.Hierarchy("[Customer].[Yearly Income]", "Yearly Income", 1);
levs = hiers[9].createLevels(2);
levs[0] = new PPSMA.Level("[Customer].[Yearly Income].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Customer].[Yearly Income].[Yearly Income]", "Yearly Income", 1);
dims[2] = new PPSMA.Dimension("[Date]", "Date", 1);
hiers = dims[2].createUserDefinedHierarchies(4);
hiers[0] = new PPSMA.Hierarchy("[Date].[Calendar]", "Calendar", 0);
levs = hiers[0].createLevels(6);
levs[0] = new PPSMA.Level("[Date].[Calendar].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Calendar].[Calendar Year]", "Calendar Year", 1);
levs[2] = new PPSMA.Level("[Date].[Calendar].[Calendar Semester]", "Calendar Semester", 2);
levs[3] = new PPSMA.Level("[Date].[Calendar].[Calendar Quarter]", "Calendar Quarter", 3);
levs[4] = new PPSMA.Level("[Date].[Calendar].[Month]", "Month", 4);
levs[5] = new PPSMA.Level("[Date].[Calendar].[Date]", "Date", 5);
hiers[1] = new PPSMA.Hierarchy("[Date].[Calendar Weeks]", "Calendar Weeks", 0);
levs = hiers[1].createLevels(3);
levs[0] = new PPSMA.Level("[Date].[Calendar Weeks].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Calendar Weeks].[Calendar Year]", "Calendar Year", 1);
levs[2] = new PPSMA.Level("[Date].[Calendar Weeks].[Calendar Week]", "Calendar Week", 2);
hiers[2] = new PPSMA.Hierarchy("[Date].[Fiscal]", "Fiscal", 0);
levs = hiers[2].createLevels(6);
levs[0] = new PPSMA.Level("[Date].[Fiscal].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Fiscal].[Fiscal Year]", "Fiscal Year", 1);

```

```

levs[2] = new PPSMA.Level("[Date].[Fiscal].[Fiscal Semester]", "Fiscal Semester", 2);
levs[3] = new PPSMA.Level("[Date].[Fiscal].[Fiscal Quarter]", "Fiscal Quarter", 3);
levs[4] = new PPSMA.Level("[Date].[Fiscal].[Month]", "Month", 4);
levs[5] = new PPSMA.Level("[Date].[Fiscal].[Date]", "Date", 5);
hiers[3] = new PPSMA.Hierarchy("[Date].[Fiscal Weeks]", "Fiscal Weeks", 0);
levs = hiers[3].createLevels(3);
levs[0] = new PPSMA.Level("[Date].[Fiscal Weeks].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Fiscal Weeks].[Fiscal Year]", "Fiscal Year", 1);
levs[2] = new PPSMA.Level("[Date].[Fiscal Weeks].[Fiscal Week]", "Fiscal Week", 2);
hiers = dims[2].createAttributeHierarchies(14);
hiers[0] = new PPSMA.Hierarchy("[Date].[Calendar Quarter of Year]", "Calendar Quarter of Year", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Calendar Quarter of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Calendar Quarter of Year].[Calendar Quarter of Year]", "Calendar Quarter of Year", 1);
hiers[1] = new PPSMA.Hierarchy("[Date].[Calendar Semester of Year]", "Calendar Semester of Year", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Calendar Semester of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Calendar Semester of Year].[Calendar Semester of Year]", "Calendar Semester of Year", 1);
hiers[2] = new PPSMA.Hierarchy("[Date].[Calendar Week of Year]", "Calendar Week of Year", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Calendar Week of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Calendar Week of Year].[Calendar Week of Year]", "Calendar Week of Year", 1);
hiers[3] = new PPSMA.Hierarchy("[Date].[Calendar Year]", "Calendar Year", 1);
levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Calendar Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Calendar Year].[Calendar Year]", "Calendar Year", 1);
hiers[4] = new PPSMA.Hierarchy("[Date].[Date]", "Date", 1);
levs = hiers[4].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Date].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Date].[Date]", "Date", 1);
hiers[5] = new PPSMA.Hierarchy("[Date].[Day Name]", "Day Name", 1);
levs = hiers[5].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Day Name].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Day Name].[Day Name]", "Day Name", 1);
hiers[6] = new PPSMA.Hierarchy("[Date].[Day of Month]", "Day of Month", 1);
levs = hiers[6].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Day of Month].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Day of Month].[Day of Month]", "Day of Month", 1);
hiers[7] = new PPSMA.Hierarchy("[Date].[Day of Week]", "Day of Week", 1);
levs = hiers[7].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Day of Week].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Day of Week].[Day of Week]", "Day of Week", 1);
hiers[8] = new PPSMA.Hierarchy("[Date].[Day of Year]", "Day of Year", 1);
levs = hiers[8].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Day of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Day of Year].[Day of Year]", "Day of Year", 1);
hiers[9] = new PPSMA.Hierarchy("[Date].[Fiscal Quarter of Year]", "Fiscal Quarter of Year", 1);
levs = hiers[9].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Fiscal Quarter of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Fiscal Quarter of Year].[Fiscal Quarter of Year]", "Fiscal Quarter of Year", 1);
hiers[10] = new PPSMA.Hierarchy("[Date].[Fiscal Semester of Year]", "Fiscal Semester of Year", 1);
levs = hiers[10].createLevels(2);

```

```

levs[0] = new PPSMA.Level("[Date].[Fiscal Semester of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Fiscal Semester of Year].[Fiscal Semester of Year]",
"Fiscal Semester of Year", 1);
hiers[11] = new PPSMA.Hierarchy("[Date].[Fiscal Week of Year]", "Fiscal Week of Year", 1);
levs = hiers[11].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Fiscal Week of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Fiscal Week of Year].[Fiscal Week of Year]", "Fiscal Week
of Year", 1);
hiers[12] = new PPSMA.Hierarchy("[Date].[Fiscal Year]", "Fiscal Year", 1);
levs = hiers[12].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Fiscal Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Fiscal Year].[Fiscal Year]", "Fiscal Year", 1);
hiers[13] = new PPSMA.Hierarchy("[Date].[Month of Year]", "Month of Year", 1);
levs = hiers[13].createLevels(2);
levs[0] = new PPSMA.Level("[Date].[Month of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Date].[Month of Year].[Month of Year]", "Month of Year", 1);
dims[3] = new PPSMA.Dimension("[Delivery Date]", "Delivery Date", 1);
hiers = dims[3].createUserDefinedHierarchies(4);
hiers[0] = new PPSMA.Hierarchy("[Delivery Date].[Calendar]", "Calendar", 0);
levs = hiers[0].createLevels(6);
levs[0] = new PPSMA.Level("[Delivery Date].[Calendar].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Calendar].[Calendar Year]", "Calendar Year", 1);
levs[2] = new PPSMA.Level("[Delivery Date].[Calendar].[Calendar Semester]", "Calendar
Semester", 2);
levs[3] = new PPSMA.Level("[Delivery Date].[Calendar].[Calendar Quarter]", "Calendar
Quarter", 3);
levs[4] = new PPSMA.Level("[Delivery Date].[Calendar].[Month]", "Month", 4);
levs[5] = new PPSMA.Level("[Delivery Date].[Calendar].[Date]", "Date", 5);
hiers[1] = new PPSMA.Hierarchy("[Delivery Date].[Calendar Weeks]", "Calendar Weeks", 0);
levs = hiers[1].createLevels(3);
levs[0] = new PPSMA.Level("[Delivery Date].[Calendar Weeks].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Calendar Weeks].[Calendar Year]", "Calendar
Year", 1);
levs[2] = new PPSMA.Level("[Delivery Date].[Calendar Weeks].[Calendar Week]", "Calendar
Week", 2);
hiers[2] = new PPSMA.Hierarchy("[Delivery Date].[Fiscal]", "Fiscal", 0);
levs = hiers[2].createLevels(6);
levs[0] = new PPSMA.Level("[Delivery Date].[Fiscal].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Fiscal].[Fiscal Year]", "Fiscal Year", 1);
levs[2] = new PPSMA.Level("[Delivery Date].[Fiscal].[Fiscal Semester]", "Fiscal Semester",
2);
levs[3] = new PPSMA.Level("[Delivery Date].[Fiscal].[Fiscal Quarter]", "Fiscal Quarter", 3);
levs[4] = new PPSMA.Level("[Delivery Date].[Fiscal].[Month]", "Month", 4);
levs[5] = new PPSMA.Level("[Delivery Date].[Fiscal].[Date]", "Date", 5);
hiers[3] = new PPSMA.Hierarchy("[Delivery Date].[Fiscal Weeks]", "Fiscal Weeks", 0);
levs = hiers[3].createLevels(3);
levs[0] = new PPSMA.Level("[Delivery Date].[Fiscal Weeks].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Fiscal Weeks].[Fiscal Year]", "Fiscal Year", 1);
levs[2] = new PPSMA.Level("[Delivery Date].[Fiscal Weeks].[Fiscal Week]", "Fiscal Week", 2);
hiers = dims[3].createAttributeHierarchies(14);
hiers[0] = new PPSMA.Hierarchy("[Delivery Date].[Calendar Quarter of Year]", "Calendar
Quarter of Year", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Calendar Quarter of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Calendar Quarter of Year].[Calendar Quarter of
Year]", "Calendar Quarter of Year", 1);
hiers[1] = new PPSMA.Hierarchy("[Delivery Date].[Calendar Semester of Year]", "Calendar
Semester of Year", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Calendar Semester of Year].[(All)]", "(All)", 0);

```

```

levs[1] = new PPSMA.Level("[Delivery Date].[Calendar Semester of Year].[Calendar Semester of Year]", "Calendar Semester of Year", 1);
hiers[2] = new PPSMA.Hierarchy("[Delivery Date].[Calendar Week of Year]", "Calendar Week of Year", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Calendar Week of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Calendar Week of Year].[Calendar Week of Year]", "Calendar Week of Year", 1);
hiers[3] = new PPSMA.Hierarchy("[Delivery Date].[Calendar Year]", "Calendar Year", 1);
levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Calendar Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Calendar Year].[Calendar Year]", "Calendar Year", 1);
hiers[4] = new PPSMA.Hierarchy("[Delivery Date].[Date]", "Date", 1);
levs = hiers[4].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Date].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Date].[Date]", "Date", 1);
hiers[5] = new PPSMA.Hierarchy("[Delivery Date].[Day Name]", "Day Name", 1);
levs = hiers[5].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Day Name].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Day Name].[Day Name]", "Day Name", 1);
hiers[6] = new PPSMA.Hierarchy("[Delivery Date].[Day of Month]", "Day of Month", 1);
levs = hiers[6].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Day of Month].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Day of Month].[Day of Month]", "Day of Month", 1);
hiers[7] = new PPSMA.Hierarchy("[Delivery Date].[Day of Week]", "Day of Week", 1);
levs = hiers[7].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Day of Week].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Day of Week].[Day of Week]", "Day of Week", 1);
hiers[8] = new PPSMA.Hierarchy("[Delivery Date].[Day of Year]", "Day of Year", 1);
levs = hiers[8].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Day of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Day of Year].[Day of Year]", "Day of Year", 1);
hiers[9] = new PPSMA.Hierarchy("[Delivery Date].[Fiscal Quarter of Year]", "Fiscal Quarter of Year", 1);
levs = hiers[9].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Fiscal Quarter of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Fiscal Quarter of Year].[Fiscal Quarter of Year]", "Fiscal Quarter of Year", 1);
hiers[10] = new PPSMA.Hierarchy("[Delivery Date].[Fiscal Semester of Year]", "Fiscal Semester of Year", 1);
levs = hiers[10].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Fiscal Semester of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Fiscal Semester of Year].[Fiscal Semester of Year]", "Fiscal Semester of Year", 1);
hiers[11] = new PPSMA.Hierarchy("[Delivery Date].[Fiscal Week of Year]", "Fiscal Week of Year", 1);
levs = hiers[11].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Fiscal Week of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Fiscal Week of Year].[Fiscal Week of Year]", "Fiscal Week of Year", 1);
hiers[12] = new PPSMA.Hierarchy("[Delivery Date].[Fiscal Year]", "Fiscal Year", 1);
levs = hiers[12].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Fiscal Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Delivery Date].[Fiscal Year].[Fiscal Year]", "Fiscal Year", 1);
hiers[13] = new PPSMA.Hierarchy("[Delivery Date].[Month of Year]", "Month of Year", 1);
levs = hiers[13].createLevels(2);
levs[0] = new PPSMA.Level("[Delivery Date].[Month of Year].[(All)]", "(All)", 0);

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levs[1] = new PPSMA.Level("[Delivery Date].[Month of Year].[Month of Year]", "Month of Year",
1);
dims[4] = new PPSMA.Dimension("[Department]", "Department", 3);
hiers = dims[4].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Department].[Departments]", "Departments", 0);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Department].[Departments].[Department Level 01]", "Department
Level 01", 0);
levs[1] = new PPSMA.Level("[Department].[Departments].[Department Level 02]", "Department
Level 02", 1);
dims[5] = new PPSMA.Dimension("[Destination Currency]", "Destination Currency", 3);
hiers = dims[5].createAttributeHierarchies(2);
hiers[0] = new PPSMA.Hierarchy("[Destination Currency].[Destination Currency]", "Destination
Currency", 1);
levs = hiers[0].createLevels(1);
levs[0] = new PPSMA.Level("[Destination Currency].[Destination Currency].[Destination
Currency]", "Destination Currency", 0);
hiers[1] = new PPSMA.Hierarchy("[Destination Currency].[Destination Currency Code]", "Code",
1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Destination Currency].[Destination Currency Code].[All]",
"(All)", 0);
levs[1] = new PPSMA.Level("[Destination Currency].[Destination Currency Code].[Destination
Currency Code]", "Destination Currency Code", 1);
dims[6] = new PPSMA.Dimension("[Employee]", "Employee", 3);
hiers = dims[6].createUserDefinedHierarchies(2);
hiers[0] = new PPSMA.Hierarchy("[Employee].[Employee Department]", "Department", 0);
levs = hiers[0].createLevels(4);
levs[0] = new PPSMA.Level("[Employee].[Employee Department].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Employee Department].[Department]", "Department", 1);
levs[2] = new PPSMA.Level("[Employee].[Employee Department].[Title]", "Title", 2);
levs[3] = new PPSMA.Level("[Employee].[Employee Department].[Employee]", "Employee", 3);
hiers[1] = new PPSMA.Hierarchy("[Employee].[Employees]", "Employees", 0);
levs = hiers[1].createLevels(6);
levs[0] = new PPSMA.Level("[Employee].[Employees].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Employees].[Employee Level 02]", "Employee Level 02",
1);
levs[2] = new PPSMA.Level("[Employee].[Employees].[Employee Level 03]", "Employee Level 03",
2);
levs[3] = new PPSMA.Level("[Employee].[Employees].[Employee Level 04]", "Employee Level 04",
3);
levs[4] = new PPSMA.Level("[Employee].[Employees].[Employee Level 05]", "Employee Level 05",
4);
levs[5] = new PPSMA.Level("[Employee].[Employees].[Employee Level 06]", "Employee Level 06",
5);
hiers = dims[6].createAttributeHierarchies(15);
hiers[0] = new PPSMA.Hierarchy("[Employee].[Base Rate]", "Base Rate", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Base Rate].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Base Rate].[Base Rate]", "Base Rate", 1);
hiers[1] = new PPSMA.Hierarchy("[Employee].[Department Name]", "Department Name", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Department Name].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Department Name].[Department Name]", "Department
Name", 1);
hiers[2] = new PPSMA.Hierarchy("[Employee].[End Date]", "End Date", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[End Date].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[End Date].[End Date]", "End Date", 1);
hiers[3] = new PPSMA.Hierarchy("[Employee].[Gender]", "Gender", 1);

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levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Gender].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Gender].[Gender]", "Gender", 1);
hiers[4] = new PPSMA.Hierarchy("[Employee].[Hire Date]", "Hire Date", 1);
levs = hiers[4].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Hire Date].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Hire Date].[Hire Date]", "Hire Date", 1);
hiers[5] = new PPSMA.Hierarchy("[Employee].[Hire Year]", "Hire Year", 1);
levs = hiers[5].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Hire Year].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Hire Year].[Hire Year]", "Hire Year", 1);
hiers[6] = new PPSMA.Hierarchy("[Employee].[Marital Status]", "Marital Status", 1);
levs = hiers[6].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Marital Status].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Marital Status].[Marital Status]", "Marital Status", 1);
hiers[7] = new PPSMA.Hierarchy("[Employee].[Pay Frequency]", "Pay Frequency", 1);
levs = hiers[7].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Pay Frequency].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Pay Frequency].[Pay Frequency]", "Pay Frequency", 1);
hiers[8] = new PPSMA.Hierarchy("[Employee].[Phone]", "Phone", 1);
levs = hiers[8].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Phone].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Phone].[Phone]", "Phone", 1);
hiers[9] = new PPSMA.Hierarchy("[Employee].[Salaried Flag]", "Salaried Flag", 1);
levs = hiers[9].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Salaried Flag].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Salaried Flag].[Salaried Flag]", "Salaried Flag", 1);
hiers[10] = new PPSMA.Hierarchy("[Employee].[Sales Person Flag]", "Sales Person Flag", 1);
levs = hiers[10].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Sales Person Flag].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Sales Person Flag].[Sales Person Flag]", "Sales Person Flag", 1);
hiers[11] = new PPSMA.Hierarchy("[Employee].[Sick Leave Hours]", "Sick Leave Hours", 1);
levs = hiers[11].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Sick Leave Hours].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Sick Leave Hours].[Sick Leave Hours]", "Sick Leave Hours", 1);
hiers[12] = new PPSMA.Hierarchy("[Employee].[Start Date]", "Start Date", 1);
levs = hiers[12].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Start Date].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Start Date].[Start Date]", "Start Date", 1);
hiers[13] = new PPSMA.Hierarchy("[Employee].[Status]", "Status", 1);
levs = hiers[13].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Status].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Status].[Status]", "Status", 1);
hiers[14] = new PPSMA.Hierarchy("[Employee].[Vacation Hours]", "Vacation Hours", 1);
levs = hiers[14].createLevels(2);
levs[0] = new PPSMA.Level("[Employee].[Vacation Hours].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Employee].[Vacation Hours].[Vacation Hours]", "Vacation Hours", 1);
dims[7] = new PPSMA.Dimension("[Geography]", "Geography", 3);
hiers = dims[7].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Geography].[Geography]", "Geography", 0);
levs = hiers[0].createLevels(5);
levs[0] = new PPSMA.Level("[Geography].[Geography].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Geography].[Geography].[Country]", "Country", 1);
levs[2] = new PPSMA.Level("[Geography].[Geography].[State-Province]", "State-Province", 2);
levs[3] = new PPSMA.Level("[Geography].[Geography].[City]", "City", 3);

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levs[4] = new PPSMA.Level("[Geography].[Geography].[Postal Code]", "Postal Code", 4);
dims[8] = new PPSMA.Dimension("[Internet Sales Order Details]", "Internet Sales Order
Details", 3);
hiers = dims[8].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Internet Sales Order Details].[Internet Sales Orders]",
"Orders", 0);
levs = hiers[0].createLevels(3);
levs[0] = new PPSMA.Level("[Internet Sales Order Details].[Internet Sales Orders].[All]",
"(All)", 0);
levs[1] = new PPSMA.Level("[Internet Sales Order Details].[Internet Sales Orders].[Order
Number]", "Order Number", 1);
levs[2] = new PPSMA.Level("[Internet Sales Order Details].[Internet Sales Orders].[Order
Line]", "Order Line", 2);
hiers = dims[8].createAttributeHierarchies(2);
hiers[0] = new PPSMA.Hierarchy("[Internet Sales Order Details].[Sales Order Line]", "Sales
Order Line", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Internet Sales Order Details].[Sales Order Line].[All]",
"(All)", 0);
levs[1] = new PPSMA.Level("[Internet Sales Order Details].[Sales Order Line].[Sales Order
Line]", "Sales Order Line", 1);
hiers[1] = new PPSMA.Hierarchy("[Internet Sales Order Details].[Sales Order Number]", "Sales
Order Number", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Internet Sales Order Details].[Sales Order Number].[All]",
"(All)", 0);
levs[1] = new PPSMA.Level("[Internet Sales Order Details].[Sales Order Number].[Sales Order
Number]", "Sales Order Number", 1);
dims[9] = new PPSMA.Dimension("[Measures]", "Measures", 2);
hiers = dims[9].createAttributeHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Measures]", "Measures", 1);
levs = hiers[0].createLevels(1);
levs[0] = new PPSMA.Level("[Measures].[MeasuresLevel]", "MeasuresLevel", 0);
dims[10] = new PPSMA.Dimension("[Organization]", "Organization", 3);
hiers = dims[10].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Organization].[Organizations]", "Organizations", 0);
levs = hiers[0].createLevels(4);
levs[0] = new PPSMA.Level("[Organization].[Organizations].[Organization Level 01]",
"Organization Level 01", 0);
levs[1] = new PPSMA.Level("[Organization].[Organizations].[Organization Level 02]",
"Organization Level 02", 1);
levs[2] = new PPSMA.Level("[Organization].[Organizations].[Organization Level 03]",
"Organization Level 03", 2);
levs[3] = new PPSMA.Level("[Organization].[Organizations].[Organization Level 04]",
"Organization Level 04", 3);
hiers = dims[10].createAttributeHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Organization].[Currency Code]", "Currency Code", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Organization].[Currency Code].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Organization].[Currency Code].[Currency Code]", "Currency Code",
1);
dims[11] = new PPSMA.Dimension("[Product]", "Product", 3);
hiers = dims[11].createUserDefinedHierarchies(3);
hiers[0] = new PPSMA.Hierarchy("[Product].[Product Categories]", "Categories", 0);
levs = hiers[0].createLevels(4);
levs[0] = new PPSMA.Level("[Product].[Product Categories].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Product Categories].[Category]", "Category", 1);
levs[2] = new PPSMA.Level("[Product].[Product Categories].[Subcategory]", "Subcategory", 2);
levs[3] = new PPSMA.Level("[Product].[Product Categories].[Product]", "Product", 3);
hiers[1] = new PPSMA.Hierarchy("[Product].[Product Model Lines]", "Model Lines", 0);

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levs = hiers[1].createLevels(3);
levs[0] = new PPSMA.Level("[Product].[Product Model Lines].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Product Model Lines].[Product Line]", "Product Line", 1);
levs[2] = new PPSMA.Level("[Product].[Product Model Lines].[Model]", "Model", 2);
hiers[2] = new PPSMA.Hierarchy("[Product].[Stock Level]", "Stock Level", 0);
levs = hiers[2].createLevels(3);
levs[0] = new PPSMA.Level("[Product].[Stock Level].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Stock Level].[Safety Stock Level]", "Safety Stock Level", 1);
levs[2] = new PPSMA.Level("[Product].[Stock Level].[Product]", "Product", 2);
hiers = dims[11].createAttributeHierarchies(16);
hiers[0] = new PPSMA.Hierarchy("[Product].[Class]", "Class", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Class].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Class].[Class]", "Class", 1);
hiers[1] = new PPSMA.Hierarchy("[Product].[Color]", "Color", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Color].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Color].[Color]", "Color", 1);
hiers[2] = new PPSMA.Hierarchy("[Product].[Days to Manufacture]", "Days to Manufacture", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Days to Manufacture].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Days to Manufacture].[Days to Manufacture]", "Days to Manufacture", 1);
hiers[3] = new PPSMA.Hierarchy("[Product].[Dealer Price]", "Dealer Price", 1);
levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Dealer Price].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Dealer Price].[Dealer Price]", "Dealer Price", 1);
hiers[4] = new PPSMA.Hierarchy("[Product].[End Date]", "End Date", 1);
levs = hiers[4].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[End Date].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[End Date].[End Date]", "End Date", 1);
hiers[5] = new PPSMA.Hierarchy("[Product].[Large Photo]", "Large Photo", 1);
levs = hiers[5].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Large Photo].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Large Photo].[Large Photo]", "Large Photo", 1);
hiers[6] = new PPSMA.Hierarchy("[Product].[List Price]", "List Price", 1);
levs = hiers[6].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[List Price].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[List Price].[List Price]", "List Price", 1);
hiers[7] = new PPSMA.Hierarchy("[Product].[Model Name]", "Model Name", 1);
levs = hiers[7].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Model Name].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Model Name].[Model Name]", "Model Name", 1);
hiers[8] = new PPSMA.Hierarchy("[Product].[Reorder Point]", "Reorder Point", 1);
levs = hiers[8].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Reorder Point].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Reorder Point].[Reorder Point]", "Reorder Point", 1);
hiers[9] = new PPSMA.Hierarchy("[Product].[Size]", "Size", 1);
levs = hiers[9].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Size].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Size].[Size]", "Size", 1);
hiers[10] = new PPSMA.Hierarchy("[Product].[Size Range]", "Size Range", 1);
levs = hiers[10].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Size Range].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Size Range].[Size Range]", "Size Range", 1);
hiers[11] = new PPSMA.Hierarchy("[Product].[Standard Cost]", "Standard Cost", 1);
levs = hiers[11].createLevels(2);

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levs[0] = new PPSMA.Level("[Product].[Standard Cost].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Standard Cost].[Standard Cost]", "Standard Cost", 1);
hiers[12] = new PPSMA.Hierarchy("[Product].[Start Date]", "Start Date", 1);
levs = hiers[12].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Start Date].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Start Date].[Start Date]", "Start Date", 1);
hiers[13] = new PPSMA.Hierarchy("[Product].[Status]", "Status", 1);
levs = hiers[13].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Status].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Status].[Status]", "Status", 1);
hiers[14] = new PPSMA.Hierarchy("[Product].[Style]", "Style", 1);
levs = hiers[14].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Style].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Style].[Style]", "Style", 1);
hiers[15] = new PPSMA.Hierarchy("[Product].[Weight]", "Weight", 1);
levs = hiers[15].createLevels(2);
levs[0] = new PPSMA.Level("[Product].[Weight].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Product].[Weight].[Weight]", "Weight", 1);
dims[12] = new PPSMA.Dimension("[Promotion]", "Promotion", 3);
hiers = dims[12].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Promotion].[Promotions]", "Promotions", 0);
levs = hiers[0].createLevels(4);
levs[0] = new PPSMA.Level("[Promotion].[Promotions].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Promotion].[Promotions].[Category]", "Category", 1);
levs[2] = new PPSMA.Level("[Promotion].[Promotions].[Type]", "Type", 2);
levs[3] = new PPSMA.Level("[Promotion].[Promotions].[Promotion]", "Promotion", 3);
hiers = dims[12].createAttributeHierarchies(7);
hiers[0] = new PPSMA.Hierarchy("[Promotion].[Discount Percent]", "Discount Percent", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Promotion].[Discount Percent].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Promotion].[Discount Percent].[Discount Percent]", "Discount Percent", 1);
hiers[1] = new PPSMA.Hierarchy("[Promotion].[End Date]", "End Date", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Promotion].[End Date].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Promotion].[End Date].[End Date]", "End Date", 1);
hiers[2] = new PPSMA.Hierarchy("[Promotion].[Max Quantity]", "Max Quantity", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Promotion].[Max Quantity].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Promotion].[Max Quantity].[Max Quantity]", "Max Quantity", 1);
hiers[3] = new PPSMA.Hierarchy("[Promotion].[Min Quantity]", "Min Quantity", 1);
levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Promotion].[Min Quantity].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Promotion].[Min Quantity].[Min Quantity]", "Min Quantity", 1);
hiers[4] = new PPSMA.Hierarchy("[Promotion].[Promotion Category]", "Category", 1);
levs = hiers[4].createLevels(2);
levs[0] = new PPSMA.Level("[Promotion].[Promotion Category].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Promotion].[Promotion Category].[Promotion Category]", "Promotion Category", 1);
hiers[5] = new PPSMA.Hierarchy("[Promotion].[Promotion Type]", "Type", 1);
levs = hiers[5].createLevels(2);
levs[0] = new PPSMA.Level("[Promotion].[Promotion Type].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Promotion].[Promotion Type].[Promotion Type]", "Promotion Type", 1);
hiers[6] = new PPSMA.Hierarchy("[Promotion].[Start Date]", "Start Date", 1);
levs = hiers[6].createLevels(2);
levs[0] = new PPSMA.Level("[Promotion].[Start Date].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Promotion].[Start Date].[Start Date]", "Start Date", 1);
dims[13] = new PPSMA.Dimension("[Reseller]", "Reseller", 3);

```

```

hiers = dims[13].createUserDefinedHierarchies(4);
hiers[0] = new PPSMA.Hierarchy("[Reseller].[Reseller Bank]", "Bank", 0);
levs = hiers[0].createLevels(3);
levs[0] = new PPSMA.Level("[Reseller].[Reseller Bank].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller].[Reseller Bank].[Bank Name]", "Bank Name", 1);
levs[2] = new PPSMA.Level("[Reseller].[Reseller Bank].[Reseller]", "Reseller", 2);
hiers[1] = new PPSMA.Hierarchy("[Reseller].[Reseller Order Frequency]", "Order Frequency", 0);
levs = hiers[1].createLevels(3);
levs[0] = new PPSMA.Level("[Reseller].[Reseller Order Frequency].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller].[Reseller Order Frequency].[Order Frequency]", "Order Frequency", 1);
levs[2] = new PPSMA.Level("[Reseller].[Reseller Order Frequency].[Reseller]", "Reseller", 2);
hiers[2] = new PPSMA.Hierarchy("[Reseller].[Reseller Order Month]", "Order Month", 0);
levs = hiers[2].createLevels(3);
levs[0] = new PPSMA.Level("[Reseller].[Reseller Order Month].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller].[Reseller Order Month].[Order Month]", "Order Month", 1);
levs[2] = new PPSMA.Level("[Reseller].[Reseller Order Month].[Reseller]", "Reseller", 2);
hiers[3] = new PPSMA.Hierarchy("[Reseller].[Reseller Type]", "Type", 0);
levs = hiers[3].createLevels(3);
levs[0] = new PPSMA.Level("[Reseller].[Reseller Type].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller].[Reseller Type].[Business Type]", "Business Type", 1);
levs[2] = new PPSMA.Level("[Reseller].[Reseller Type].[Reseller]", "Reseller", 2);
hiers = dims[13].createAttributeHierarchies(4);
hiers[0] = new PPSMA.Hierarchy("[Reseller].[Annual Revenue]", "Annual Revenue", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Reseller].[Annual Revenue].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller].[Annual Revenue].[Annual Revenue]", "Annual Revenue", 1);
hiers[1] = new PPSMA.Hierarchy("[Reseller].[Annual Sales]", "Annual Sales", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Reseller].[Annual Sales].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller].[Annual Sales].[Annual Sales]", "Annual Sales", 1);
hiers[2] = new PPSMA.Hierarchy("[Reseller].[Number of Employees]", "Number of Employees", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Reseller].[Number of Employees].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller].[Number of Employees].[Number of Employees]", "Number of Employees", 1);
hiers[3] = new PPSMA.Hierarchy("[Reseller].[Product Line]", "Product Line", 1);
levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Reseller].[Product Line].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller].[Product Line].[Product Line]", "Product Line", 1);
dims[14] = new PPSMA.Dimension("[Reseller Sales Order Details]", "Reseller Sales Order Details", 3);
hiers = dims[14].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Reseller Sales Order Details].[Reseller Sales Orders]", "Orders", 0);
levs = hiers[0].createLevels(3);
levs[0] = new PPSMA.Level("[Reseller Sales Order Details].[Reseller Sales Orders].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller Sales Order Details].[Reseller Sales Orders].[Order Number]", "Order Number", 1);
levs[2] = new PPSMA.Level("[Reseller Sales Order Details].[Reseller Sales Orders].[Order Line]", "Order Line", 2);
hiers = dims[14].createAttributeHierarchies(4);
hiers[0] = new PPSMA.Hierarchy("[Reseller Sales Order Details].[Carrier Tracking Number]", "Carrier Tracking Number", 1);
levs = hiers[0].createLevels(2);

```

```

levs[0] = new PPSMA.Level("[Reseller Sales Order Details].[Carrier Tracking Number].[(All)]",
    "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller Sales Order Details].[Carrier Tracking Number].[Carrier
Tracking Number]", "Carrier Tracking Number", 1);
hiers[1] = new PPSMA.Hierarchy("[Reseller Sales Order Details].[Customer PO Number]",
    "Customer PO Number", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Reseller Sales Order Details].[Customer PO Number].[(All)]",
    "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller Sales Order Details].[Customer PO Number].[Customer PO
Number]", "Customer PO Number", 1);
hiers[2] = new PPSMA.Hierarchy("[Reseller Sales Order Details].[Sales Order Line]", "Sales
Order Line", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Reseller Sales Order Details].[Sales Order Line].[(All)]",
    "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller Sales Order Details].[Sales Order Line].[Sales Order
Line]", "Sales Order Line", 1);
hiers[3] = new PPSMA.Hierarchy("[Reseller Sales Order Details].[Sales Order Number]", "Sales
Order Number", 1);
levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Reseller Sales Order Details].[Sales Order Number].[(All)]",
    "(All)", 0);
levs[1] = new PPSMA.Level("[Reseller Sales Order Details].[Sales Order Number].[Sales Order
Number]", "Sales Order Number", 1);
dims[15] = new PPSMA.Dimension("[Sales Channel]", "Sales Channel", 3);
hiers = dims[15].createAttributeHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Sales Channel].[Sales Channel]", "Sales Channel", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Sales Channel].[Sales Channel].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Channel].[Sales Channel].[Sales Channel]", "Sales Channel",
    1);
dims[16] = new PPSMA.Dimension("[Sales Reason]", "Sales Reason", 3);
hiers = dims[16].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Sales Reason].[Sales Reasons]", "Reasons", 0);
levs = hiers[0].createLevels(3);
levs[0] = new PPSMA.Level("[Sales Reason].[Sales Reasons].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Reason].[Sales Reasons].[Reason Type]", "Reason Type", 1);
levs[2] = new PPSMA.Level("[Sales Reason].[Sales Reasons].[Sales Reason]", "Sales Reason",
    2);
hiers = dims[16].createAttributeHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Sales Reason].[Sales Reason Type]", "Type", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Sales Reason].[Sales Reason Type].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Reason].[Sales Reason Type].[Sales Reason Type]", "Sales
Reason Type", 1);
dims[17] = new PPSMA.Dimension("[Sales Summary Order Details]", "Sales Summary Order
Details", 3);
hiers = dims[17].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Sales Summary Order Details].[Sales Orders]", "Orders", 0);
levs = hiers[0].createLevels(3);
levs[0] = new PPSMA.Level("[Sales Summary Order Details].[Sales Orders].[(All)]", "(All)",
    0);
levs[1] = new PPSMA.Level("[Sales Summary Order Details].[Sales Orders].[Order Number]",
    "Order Number", 1);
levs[2] = new PPSMA.Level("[Sales Summary Order Details].[Sales Orders].[Order Line]", "Order
Line", 2);
hiers = dims[17].createAttributeHierarchies(4);
hiers[0] = new PPSMA.Hierarchy("[Sales Summary Order Details].[Carrier Tracking Number]",
    "Carrier Tracking Number", 1);
levs = hiers[0].createLevels(2);

```

```

levs[0] = new PPSMA.Level("[Sales Summary Order Details].[Carrier Tracking Number].[All]",
    "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Summary Order Details].[Carrier Tracking Number].[Carrier
Tracking Number]", "Carrier Tracking Number", 1);
hiers[1] = new PPSMA.Hierarchy("[Sales Summary Order Details].[Customer PO Number]",
    "Customer PO Number", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Sales Summary Order Details].[Customer PO Number].[All]",
    "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Summary Order Details].[Customer PO Number].[Customer PO
Number]", "Customer PO Number", 1);
hiers[2] = new PPSMA.Hierarchy("[Sales Summary Order Details].[Sales Order Line]", "Order
Line", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Sales Summary Order Details].[Sales Order Line].[All]",
    "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Summary Order Details].[Sales Order Line].[Sales Order
Line]", "Sales Order Line", 1);
hiers[3] = new PPSMA.Hierarchy("[Sales Summary Order Details].[Sales Order Number]", "Order
Number", 1);
levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Sales Summary Order Details].[Sales Order Number].[All]",
    "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Summary Order Details].[Sales Order Number].[Sales Order
Number]", "Sales Order Number", 1);
dims[18] = new PPSMA.Dimension("[Sales Territory]", "Sales Territory", 3);
hiers = dims[18].createUserDefinedHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Sales Territory].[Sales Territory]", "Sales Territory", 0);
levs = hiers[0].createLevels(4);
levs[0] = new PPSMA.Level("[Sales Territory].[Sales Territory].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Territory].[Sales Territory].[Group]", "Group", 1);
levs[2] = new PPSMA.Level("[Sales Territory].[Sales Territory].[Country]", "Country", 2);
levs[3] = new PPSMA.Level("[Sales Territory].[Sales Territory].[Region]", "Region", 3);
hiers = dims[18].createAttributeHierarchies(3);
hiers[0] = new PPSMA.Hierarchy("[Sales Territory].[Sales Territory Country]", "Country", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Sales Territory].[Sales Territory Country].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Territory].[Sales Territory Country].[Sales Territory
Country]", "Sales Territory Country", 1);
hiers[1] = new PPSMA.Hierarchy("[Sales Territory].[Sales Territory Group]", "Group", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Sales Territory].[Sales Territory Group].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Territory].[Sales Territory Group].[Sales Territory
Group]", "Sales Territory Group", 1);
hiers[2] = new PPSMA.Hierarchy("[Sales Territory].[Sales Territory Region]", "Region", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Sales Territory].[Sales Territory Region].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Sales Territory].[Sales Territory Region].[Sales Territory
Region]", "Sales Territory Region", 1);
dims[19] = new PPSMA.Dimension("[Scenario]", "Scenario", 3);
hiers = dims[19].createAttributeHierarchies(1);
hiers[0] = new PPSMA.Hierarchy("[Scenario].[Scenario]", "Scenario", 1);
levs = hiers[0].createLevels(1);
levs[0] = new PPSMA.Level("[Scenario].[Scenario].[Scenario]", "Scenario", 0);
dims[20] = new PPSMA.Dimension("[Ship Date]", "Ship Date", 1);
hiers = dims[20].createUserDefinedHierarchies(4);
hiers[0] = new PPSMA.Hierarchy("[Ship Date].[Calendar]", "Calendar", 0);
levs = hiers[0].createLevels(6);
levs[0] = new PPSMA.Level("[Ship Date].[Calendar].[All]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Calendar].[Calendar Year]", "Calendar Year", 1);

```

```

levs[2] = new PPSMA.Level("[Ship Date].[Calendar].[Calendar Semester]", "Calendar Semester",
2);
levs[3] = new PPSMA.Level("[Ship Date].[Calendar].[Calendar Quarter]", "Calendar Quarter",
3);
levs[4] = new PPSMA.Level("[Ship Date].[Calendar].[Month]", "Month", 4);
levs[5] = new PPSMA.Level("[Ship Date].[Calendar].[Date]", "Date", 5);
hiers[1] = new PPSMA.Hierarchy("[Ship Date].[Calendar Weeks]", "Calendar Weeks", 0);
levs = hiers[1].createLevels(3);
levs[0] = new PPSMA.Level("[Ship Date].[Calendar Weeks].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Calendar Weeks].[Calendar Year]", "Calendar Year",
1);
levs[2] = new PPSMA.Level("[Ship Date].[Calendar Weeks].[Calendar Week]", "Calendar Week",
2);
hiers[2] = new PPSMA.Hierarchy("[Ship Date].[Fiscal]", "Fiscal", 0);
levs = hiers[2].createLevels(6);
levs[0] = new PPSMA.Level("[Ship Date].[Fiscal].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Fiscal].[Fiscal Year]", "Fiscal Year", 1);
levs[2] = new PPSMA.Level("[Ship Date].[Fiscal].[Fiscal Semester]", "Fiscal Semester", 2);
levs[3] = new PPSMA.Level("[Ship Date].[Fiscal].[Fiscal Quarter]", "Fiscal Quarter", 3);
levs[4] = new PPSMA.Level("[Ship Date].[Fiscal].[Month]", "Month", 4);
levs[5] = new PPSMA.Level("[Ship Date].[Fiscal].[Date]", "Date", 5);
hiers[3] = new PPSMA.Hierarchy("[Ship Date].[Fiscal Weeks]", "Fiscal Weeks", 0);
levs = hiers[3].createLevels(3);
levs[0] = new PPSMA.Level("[Ship Date].[Fiscal Weeks].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Fiscal Weeks].[Fiscal Year]", "Fiscal Year", 1);
levs[2] = new PPSMA.Level("[Ship Date].[Fiscal Weeks].[Fiscal Week]", "Fiscal Week", 2);
hiers = dims[20].createAttributeHierarchies(14);
hiers[0] = new PPSMA.Hierarchy("[Ship Date].[Calendar Quarter of Year]", "Calendar Quarter of
Year", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Calendar Quarter of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Calendar Quarter of Year].[Calendar Quarter of
Year]", "Calendar Quarter of Year", 1);
hiers[1] = new PPSMA.Hierarchy("[Ship Date].[Calendar Semester of Year]", "Calendar Semester
of Year", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Calendar Semester of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Calendar Semester of Year].[Calendar Semester of
Year]", "Calendar Semester of Year", 1);
hiers[2] = new PPSMA.Hierarchy("[Ship Date].[Calendar Week of Year]", "Calendar Week of
Year", 1);
levs = hiers[2].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Calendar Week of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Calendar Week of Year].[Calendar Week of Year]",
"Calendar Week of Year", 1);
hiers[3] = new PPSMA.Hierarchy("[Ship Date].[Calendar Year]", "Calendar Year", 1);
levs = hiers[3].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Calendar Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Calendar Year].[Calendar Year]", "Calendar Year", 1);
hiers[4] = new PPSMA.Hierarchy("[Ship Date].[Date]", "Date", 1);
levs = hiers[4].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Date].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Date].[Date]", "Date", 1);
hiers[5] = new PPSMA.Hierarchy("[Ship Date].[Day Name]", "Day Name", 1);
levs = hiers[5].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Day Name].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Day Name].[Day Name]", "Day Name", 1);
hiers[6] = new PPSMA.Hierarchy("[Ship Date].[Day of Month]", "Day of Month", 1);
levs = hiers[6].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Day of Month].[(All)]", "(All)", 0);

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```

levs[1] = new PPSMA.Level("[Ship Date].[Day of Month].[Day of Month]", "Day of Month", 1);
hiers[7] = new PPSMA.Hierarchy("[Ship Date].[Day of Week]", "Day of Week", 1);
levs = hiers[7].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Day of Week].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Day of Week].[Day of Week]", "Day of Week", 1);
hiers[8] = new PPSMA.Hierarchy("[Ship Date].[Day of Year]", "Day of Year", 1);
levs = hiers[8].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Day of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Day of Year].[Day of Year]", "Day of Year", 1);
hiers[9] = new PPSMA.Hierarchy("[Ship Date].[Fiscal Quarter of Year]", "Fiscal Quarter of Year", 1);
levs = hiers[9].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Fiscal Quarter of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Fiscal Quarter of Year].[Fiscal Quarter of Year]", "Fiscal Quarter of Year", 1);
hiers[10] = new PPSMA.Hierarchy("[Ship Date].[Fiscal Semester of Year]", "Fiscal Semester of Year", 1);
levs = hiers[10].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Fiscal Semester of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Fiscal Semester of Year].[Fiscal Semester of Year]", "Fiscal Semester of Year", 1);
hiers[11] = new PPSMA.Hierarchy("[Ship Date].[Fiscal Week of Year]", "Fiscal Week of Year", 1);
levs = hiers[11].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Fiscal Week of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Fiscal Week of Year].[Fiscal Week of Year]", "Fiscal Week of Year", 1);
hiers[12] = new PPSMA.Hierarchy("[Ship Date].[Fiscal Year]", "Fiscal Year", 1);
levs = hiers[12].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Fiscal Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Fiscal Year].[Fiscal Year]", "Fiscal Year", 1);
hiers[13] = new PPSMA.Hierarchy("[Ship Date].[Month of Year]", "Month of Year", 1);
levs = hiers[13].createLevels(2);
levs[0] = new PPSMA.Level("[Ship Date].[Month of Year].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Ship Date].[Month of Year].[Month of Year]", "Month of Year", 1);
dims[21] = new PPSMA.Dimension("[Source Currency]", "Source Currency", 3);
hiers = dims[21].createAttributeHierarchies(2);
hiers[0] = new PPSMA.Hierarchy("[Source Currency].[Source Currency]", "Source Currency", 1);
levs = hiers[0].createLevels(2);
levs[0] = new PPSMA.Level("[Source Currency].[Source Currency].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Source Currency].[Source Currency].[Source Currency]", "Source Currency", 1);
hiers[1] = new PPSMA.Hierarchy("[Source Currency].[Source Currency Code]", "Code", 1);
levs = hiers[1].createLevels(2);
levs[0] = new PPSMA.Level("[Source Currency].[Source Currency Code].[(All)]", "(All)", 0);
levs[1] = new PPSMA.Level("[Source Currency].[Source Currency Code].[Source Currency Code]", "Source Currency Code", 1);
PPSMA.OlapViewContext.globalIds["ctx_13dccc1c"].set_cubeMetadata(dims);
_ovrc('ctx_13dccc1c').set_cubeMetadata(dims);
]]></Script>
<ConsumerInputs><![CDATA[]]></ConsumerInputs>
<ViewStateJson><![CDATA[]]></ViewStateJson>
</AjaxRenderResultRecord>

```

The protocol client displays the results for the user.

5 Security

5.1 Security Considerations for Implementers

Secure Sockets Layer (SSL) is required to securely implement this protocol. The protocol exposes data sources to potential tampering or data disclosure without SSL.

The security permissions required for [CreateNavigationMetadata](#), [ScorecardAjaxCommentsUpdate](#) or [CreateReportHTML](#) are inherited from the parent report or scorecard object.

Additional security considerations exist based on the SharePoint Front-End and Back-End Web Protocols.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

For ease of implementation, the full WSDL is provided below:

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://www.microsoft.com/performancepoint/scorecards"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
targetNamespace="http://www.microsoft.com/performancepoint/scorecards"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://www.microsoft.com/performancepoint/scorecards">
      <s:import namespace="http://www.w3.org/2001/XMLSchema" />
      <s:element name="RenderWebPartContent">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="renderRequestRecord"
type="tns:ArrayOfClientConnectionRecord" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:complexType name="AjaxRenderRequestRecord">
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="ConnectionRecords"
type="tns:ArrayOfClientConnectionRecord" />
          <s:element minOccurs="0" maxOccurs="1" name="ConsumerRecord"
type="tns:ClientConsumerRecord" />
          <s:element minOccurs="0" maxOccurs="1" name="ParameterRecords"
type="tns:ArrayOfClientParameterRecord" />
          <s:element minOccurs="0" maxOccurs="1" name="ProviderRecords"
type="tns:ArrayOfClientProviderRecord" />
          <s:element minOccurs="0" maxOccurs="1" name="TransformerRecords"
type="tns:ArrayOfClientTransformerRecord" />
          <s:element minOccurs="1" maxOccurs="1" name="SaveUserFilterChoices"
type="s:boolean" />
        </s:sequence>
      </s:complexType>
      <s:complexType name="ArrayOfClientConnectionRecord">
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="unbounded" name="ClientConnectionRecord"
nillable="true" type="tns:ClientConnectionRecord" />
        </s:sequence>
      </s:complexType>
      <s:complexType name="ClientConnectionRecord">
        <s:sequence>
          <s:element minOccurs="0" maxOccurs="1" name="ProviderId" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="ProviderParameterName" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="ConsumerId" type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="ProviderConnectionPointId"
type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="ConsumerConnectionPointId"
type="s:string" />
          <s:element minOccurs="0" maxOccurs="1" name="TransformerId" type="s:string" />
        </s:sequence>
      </s:complexType>
    </s:schema>
  </wsdl:types>

```

```

        </s:sequence>
    </s:complexType>
    <s:complexType name="ClientConsumerRecord">
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="Id" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="ClientId" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="Configuration" />
            <s:element minOccurs="0" maxOccurs="1" name="AssemblyQualifiedname" type="s:string" />
        </s:sequence>
    </s:complexType>
    <s:complexType name="ClientParameterRecord">
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="ConsumerInputs" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="ViewState">
                <s:complexType mixed="true">
                    <s:sequence>
                        <s:any />
                    </s:sequence>
                </s:complexType>
            </s:element>
            <s:element minOccurs="0" maxOccurs="1" name="ProviderSelections">
                <s:complexType mixed="true">
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                        <s:any />
                    </s:sequence>
                </s:complexType>
            </s:element>
            <s:element minOccurs="0" maxOccurs="1" name="InUseProviderParameterNames"
type="tns:ArrayOfString" />
            <s:element minOccurs="0" maxOccurs="1" name="Width" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="Height" type="s:string" />
        </s:sequence>
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    <s:complexType name="ArrayOfString">
        <s:sequence>
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type="s:string" />
        </s:sequence>
    </s:complexType>
    <s:complexType name="ArrayOfClientParameterRecord">
        <s:sequence>
            <s:element minOccurs="0" maxOccurs="unbounded" name="ClientParameterRecord"
nillable="true" type="tns:ClientParameterRecord" />
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    <s:complexType name="ClientParameterRecord">
        <s:sequence>
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            <s:element minOccurs="0" maxOccurs="1" name="Name" type="s:string" />
            <s:element minOccurs="0" maxOccurs="1" name="Selections" type="tns:ArrayOfString" />
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    </s:complexType>
    <s:complexType name="ClientParameterUpdateAction">
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type="tns:ClientParameterUpdateAction" />
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    </s:complexType>
    <s:simpleType name="ClientParameterUpdateAction">
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            <s:enumeration value="None" />
            <s:enumeration value="PostBackRender" />
            <s:enumeration value="AjaxRender" />
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    </s:simpleType>

```

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        <s:element minOccurs="0" maxOccurs="1" name="Configuration" />
        <s:element minOccurs="0" maxOccurs="1" name="AssemblyQualified_name" type="s:string"
/>
        <s:element minOccurs="0" maxOccurs="1" name="ConsumerInputs" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="ViewState">
          <s:complexType mixed="true">
            <s:sequence>
              <s:any />
            </s:sequence>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
    <s:complexType name="ArrayOfClientTransformerRecord">
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    </s:complexType>
    <s:complexType name="ClientTransformerRecord">
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="Id" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="Configuration" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="AssemblyQualified_name" type="s:string"
/>
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    </s:complexType>
    <s:complexType name="AjaxRenderResultRecord">
      <s:sequence>
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        <s:element minOccurs="0" maxOccurs="1" name="ErrorHtml">
          <s:complexType mixed="true">
            <s:sequence>
              <s:any />
            </s:sequence>
          </s:complexType>
        </s:element>
        <s:element minOccurs="0" maxOccurs="1" name="Html">
          <s:complexType mixed="true">
            <s:sequence>
              <s:any />
            </s:sequence>
          </s:complexType>
        </s:element>
        <s:element minOccurs="0" maxOccurs="1" name="Script">
          <s:complexType mixed="true">
            <s:sequence>
              <s:any />
            </s:sequence>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>

```

```

        </s:complexType>
      </s:element>
      <s:element minOccurs="0" maxOccurs="1" name="ConsumerInputs">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
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            <s:any />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
  <s:element name="RenderWebPartContentResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="RenderWebPartContentResult"
type="tns:AjaxRenderResultRecord" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="CreateReportHtml">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="requestRecord"
type="tns:AjaxOlapRenderRequestRecord" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:complexType name="AjaxOlapRenderRequestRecord">
    <s:sequence>
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      <s:element minOccurs="0" maxOccurs="1" name="TargetControlType" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="OlapContextId" type="s:string" />
      <s:element minOccurs="1" maxOccurs="1" name="Height" type="s:int" />
      <s:element minOccurs="1" maxOccurs="1" name="Width" type="s:int" />
      <s:element minOccurs="0" maxOccurs="1" name="ReportLocation" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="Inputs" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="NavigationAction" type="s:string" />
      <s:element minOccurs="0" maxOccurs="1" name="ViewProperties" type="s:string" />
    </s:sequence>
  </s:complexType>
  <s:element name="CreateReportHtmlResponse">
    <s:complexType>
      <s:sequence>
        <s:element minOccurs="0" maxOccurs="1" name="CreateReportHtmlResult"
type="tns:AjaxRenderResultRecord" />
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="CreateNavigationMetadata">
    <s:complexType>
      <s:sequence>

```

```

        <s:element minOccurs="0" maxOccurs="1" name="requestRecord"
type="tns:AjaxOlapMetadataRequestRecord" />
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</s:element>
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        <s:element minOccurs="0" maxOccurs="1" name="TargetControlType" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="OlapContextId" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="MetadataContextId" type="s:string" />
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type="tns:AjaxRenderResultRecord" />
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    <s:complexType>
        <s:sequence>
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type="tns:ScorecardAjaxRenderRequest" />
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</s:element>
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    <s:sequence>
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        <s:element minOccurs="0" maxOccurs="1" name="RenderTargetId" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="ResourcePath" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="ScorecardControlId" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="ScorecardControlType" type="s:string" />
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        <s:sequence>
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            <s:element minOccurs="0" maxOccurs="1" name="ClientViewState">
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                    </s:sequence>
                </s:complexType>
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    </s:complexType>
</s:element>
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        <s:element minOccurs="0" maxOccurs="1" name="ScorecardControlId" type="s:string" />
        <s:element minOccurs="0" maxOccurs="1" name="Html">
            <s:complexType mixed="true">
                <s:sequence>
                    <s:any />
                </s:sequence>
            </s:complexType>
        </s:element>
    </s:sequence>
</s:complexType>

```

```

</s:element>
<s:element minOccurs="0" maxOccurs="1" name="ClientViewState">
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      <s:any />
    </s:sequence>
  </s:complexType>
</s:element>
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    <s:sequence>
      <s:any />
    </s:sequence>
  </s:complexType>
</s:element>
</s:sequence>
</s:complexType>
<s:element name="RenderScorecardAjaxControlResponse">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="RenderScorecardAjaxControlResult"
type="tns:ScorecardAjaxRenderResult" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="ScorecardAjaxCommentsUpdate">
  <s:complexType>
    <s:sequence>
      <s:element minOccurs="0" maxOccurs="1" name="request"
type="tns:ScorecardAjaxCommentRequest" />
    </s:sequence>
  </s:complexType>
</s:element>
<s:complexType name="ScorecardAjaxCommentRequest">
  <s:sequence>
    <s:element minOccurs="0" maxOccurs="1" name="ScorecardLocation" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="PageFilters" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="CellPath" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="ConfiguredViewId" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="Method" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="Comment"
type="tns:ScorecardCommentRecord" />
  </s:sequence>
</s:complexType>
<s:complexType name="ScorecardCommentRecord">
  <s:sequence>
    <s:element minOccurs="0" maxOccurs="1" name="Title" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="CreatedBy" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="CreatedDate" type="s:string" />
    <s:element minOccurs="0" maxOccurs="1" name="Comment" type="s:string" />
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    <s:element minOccurs="0" maxOccurs="1" name="Comments">
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        <s:sequence>

```

```

        <s:any />
      </s:sequence>
    </s:complexType>
  </s:element>
</s:sequence>
</s:complexType>
<s:element name="ScorecardAjaxCommentsUpdateResponse">
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    <s:sequence>
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type="tns:ScorecardAjaxCommentResult" />
    </s:sequence>
  </s:complexType>
</s:element>
</s:schema>
</wsdl:types>
<wsdl:message name="RenderWebPartContentSoapIn">
  <wsdl:part name="parameters" element="tns:RenderWebPartContent" />
</wsdl:message>
<wsdl:message name="RenderWebPartContentSoapOut">
  <wsdl:part name="parameters" element="tns:RenderWebPartContentResponse" />
</wsdl:message>
<wsdl:message name="CreateReportHtmlSoapIn">
  <wsdl:part name="parameters" element="tns:CreateReportHtml" />
</wsdl:message>
<wsdl:message name="CreateReportHtmlSoapOut">
  <wsdl:part name="parameters" element="tns:CreateReportHtmlResponse" />
</wsdl:message>
<wsdl:message name="CreateNavigationMetadataSoapIn">
  <wsdl:part name="parameters" element="tns:CreateNavigationMetadata" />
</wsdl:message>
<wsdl:message name="CreateNavigationMetadataSoapOut">
  <wsdl:part name="parameters" element="tns:CreateNavigationMetadataResponse" />
</wsdl:message>
<wsdl:message name="RenderScorecardAjaxControlSoapIn">
  <wsdl:part name="parameters" element="tns:RenderScorecardAjaxControl" />
</wsdl:message>
<wsdl:message name="RenderScorecardAjaxControlSoapOut">
  <wsdl:part name="parameters" element="tns:RenderScorecardAjaxControlResponse" />
</wsdl:message>
<wsdl:message name="ScorecardAjaxCommentsUpdateSoapIn">
  <wsdl:part name="parameters" element="tns:ScorecardAjaxCommentsUpdate" />
</wsdl:message>
<wsdl:message name="ScorecardAjaxCommentsUpdateSoapOut">
  <wsdl:part name="parameters" element="tns:ScorecardAjaxCommentsUpdateResponse" />
</wsdl:message>
<wsdl:portType name="BIMonitoringRenderingServiceSoap">
  <wsdl:operation name="RenderWebPartContent">
    <wsdl:input message="tns:RenderWebPartContentSoapIn" />
    <wsdl:output message="tns:RenderWebPartContentSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="CreateReportHtml">
    <wsdl:input message="tns:CreateReportHtmlSoapIn" />
    <wsdl:output message="tns:CreateReportHtmlSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="CreateNavigationMetadata">
    <wsdl:input message="tns:CreateNavigationMetadataSoapIn" />
    <wsdl:output message="tns:CreateNavigationMetadataSoapOut" />
  </wsdl:operation>

```

```

<wsdl:operation name="RenderScorecardAjaxControl">
  <wsdl:input message="tns:RenderScorecardAjaxControlSoapIn" />
  <wsdl:output message="tns:RenderScorecardAjaxControlSoapOut" />
</wsdl:operation>
<wsdl:operation name="ScorecardAjaxCommentsUpdate">
  <wsdl:input message="tns:ScorecardAjaxCommentsUpdateSoapIn" />
  <wsdl:output message="tns:ScorecardAjaxCommentsUpdateSoapOut" />
</wsdl:operation>
</wsdl:portType>
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<wsdl:portType name="BIMonitoringRenderingServiceHttpPost" />
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type="tns:BIMonitoringRenderingServiceSoap">
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    <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/RenderWebPartContent"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="CreateReportHtml">
    <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateReportHtml"
style="document" />
    <wsdl:input>
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    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="CreateNavigationMetadata">
    <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateNavigationMetadata"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="RenderScorecardAjaxControl">
    <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/RenderScorecardAjaxControl"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="ScorecardAjaxCommentsUpdate">

```

```

        <soap:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ScorecardAjaxCommentsUpdate"
style="document" />
        <wsdl:input>
            <soap:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
</wsdl:binding>
<wsdl:binding name="BIMonitoringRenderingServiceSoap12"
type="tns:BIMonitoringRenderingServiceSoap">
    <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
    <wsdl:operation name="RenderWebPartContent">
        <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/RenderWebPartContent"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateReportHtml">
        <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateReportHtml"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="CreateNavigationMetadata">
        <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/CreateNavigationMetadata"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="RenderScorecardAjaxControl">
        <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/RenderScorecardAjaxControl"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
    <wsdl:operation name="ScorecardAjaxCommentsUpdate">

```

```

        <soap12:operation
soapAction="http://www.microsoft.com/performancepoint/scorecards/ScorecardAjaxCommentsUpdate"
style="document" />
        <wsdl:input>
            <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
            <soap12:body use="literal" />
        </wsdl:output>
    </wsdl:operation>
</wsdl:binding>
    <wsdl:binding name="BIMonitoringRenderingServiceHttpGet"
type="tns:BIMonitoringRenderingServiceHttpGet">
        <http:binding verb="GET" />
    </wsdl:binding>
    <wsdl:binding name="BIMonitoringRenderingServiceHttpPost"
type="tns:BIMonitoringRenderingServiceHttpPost">
        <http:binding verb="POST" />
    </wsdl:binding>
    <wsdl:service name="BIMonitoringRenderingService">
        <wsdl:port name="BIMonitoringRenderingServiceSoap"
binding="tns:BIMonitoringRenderingServiceSoap">
            <soap:address location="http://boi-
ppsbetal/_vti_bin/PPS/BIMonitoringRenderingService.asmx" />
        </wsdl:port>
        <wsdl:port name="BIMonitoringRenderingServiceSoap12"
binding="tns:BIMonitoringRenderingServiceSoap12">
            <soap12:address location="http://boi-
ppsbetal/_vti_bin/PPS/BIMonitoringRenderingService.asmx" />
        </wsdl:port>
        <wsdl:port name="BIMonitoringRenderingServiceHttpGet"
binding="tns:BIMonitoringRenderingServiceHttpGet">
            <http:address location="http://boi-
ppsbetal/_vti_bin/PPS/BIMonitoringRenderingService.asmx" />
        </wsdl:port>
        <wsdl:port name="BIMonitoringRenderingServiceHttpPost"
binding="tns:BIMonitoringRenderingServiceHttpPost">
            <http:address location="http://boi-
ppsbetal/_vti_bin/PPS/BIMonitoringRenderingService.asmx" />
        </wsdl:port>
    </wsdl:service>
</wsdl:definitions>

```

7 Appendix B: Product Behavior

The information in this specification is applicable to the following product versions. References to product versions include released service packs.

- Microsoft® Office SharePoint® Server 2007
- Microsoft SharePoint Server 2010 Enterprise Technical Preview

Exceptions, if any, are noted below. If a service pack number appears with the product version, behavior changed in that service pack. The new behavior also applies to subsequent service packs of the product unless otherwise specified.

Unless otherwise specified, any statement of optional behavior in this specification prescribed using the terms SHOULD or SHOULD NOT implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term MAY implies that product does not follow the prescription.

[<1> Section 3.1.4.4.3.1](#): In PerformancePoint Services 2010 Technical Preview in SharePoint Server 2010 Technical Preview, the attribute is used, but will not be in the shipping version.

8 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

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