

**CIQ Technology Services Specification**  
**Business Relationships**  
**Version 1.0**

Date Created: 4.29.2008  
Last Updated: 11.20.2008

<b>Business Owner:</b>	Jay Zachter, Michael Yusko
<b>Technology Owner:</b>	William Murphy (CIQ),
<b>Business Analysts</b>	Shawn West
<b>Version</b>	1.0

## CIQ Technology Services Specification: Business Relationships

---

Application Framework	3
Web Service Versioning	4
Service Changes	4
Business Relationships	5
Summary	5
Business Relationships Data Ports (Functions):	5
Appendices	7

## CIQ Technology Services Specification: Business Relationships

---

### Application Framework

The primary technology for this solution is XML Web Services (SOAP). Capital IQ hosts an API that responds to XML requests according to this API, and returns XML structured data in response. These XML requests are encrypted via the standard HTTPS protocol.

A secondary technology for this solution is the integration of CIQ DataFeeds on client database tier. This allows for reduced network traffic for common items that change infrequently.

Capital IQ hosts this data on Windows-based servers, powered by Microsoft SQL Server in an active-passive failover cluster configuration. Data is stored in multiple fully redundant EMC Storage Area Networks (SANs). The servers that run the platform are hosted at Quality Technology Services with a disaster recovery site at XO. At all levels, these environments are redundant, fault tolerant, and backed up to industry standards.

Web Services Description Language (WSDL) documents describe the detailed Services & Ports (Function Calls) available in this specification. See <http://www.w3.org/TR/wsdl> for more on WSDL.

Please note that all Web Service and WSDL URLs in this document are subject to change based on changing infrastructure requirements. CIQ will provide sufficient advanced notice to the client before changing any URL, hostname, IP address, etc. It is recommended that these URLs be configurable (via config files, etc.) on the client application so that changes can be handled with minimal user downtime. CIQ monitors activity on Production systems and may shut down improper-use processes or user accounts as required to preserve overall system health.

All Web Services requests and responses in this solution are encoded in the UTF-8 character set (<http://en.wikipedia.org/wiki/UTF-8>). Some string data in this solution is expected to only contain Windows-1252 characters (<http://en.wikipedia.org/wiki/Windows-1252>); these are labeled with "(w1252)" in this document. Other string data in this solution allows full UTF-8 characters; these are labeled with "(UTF-8)" in this document. Email addresses (labeled "(email)" in this document) and website URLs (labeled "(URL)" in this document) have more limited valid character sets. See [http://en.wikipedia.org/wiki/Email\\_address](http://en.wikipedia.org/wiki/Email_address) and <http://en.wikipedia.org/wiki/URL> for more information.

All the web services have a WSDL definition that external developers will code against and pull in data that is served from the same Capital IQ data repository as our web platform. For a full menu of our Web Services and implementation documentation, please contact your account manager.

## CIQ Technology Services Specification: Business Relationships

### Web Service Versioning

**Versioning Web Services:** Over time, Capital IQ may need to extend the tags or datasets supported by our Web services. As a result we have created a URL based versioning solution provides a scalable framework for the future. Versioning provides a way for to accommodate these enhancements in a graceful manner.

**Recommendation:** Capital IQ recommends that all users upgrade to version 1.0 if they are using legacy services, to conform to the new URL formats.

**How versioning works:** Please note in the example below `<ServiceName.asmx>` is replaced with the name of the service and is used for illustration purposes only.

- i. Web Service changes are captured as a new version of the file in a new directory.
  - a. **Version 1** - <https://api.capitaliq.com/ciqdotnet/api/1.0/<ServiceName.asmx>> - Represents the first release of the service
  - b. **Version 2** - <https://api.capitaliq.com/ciqdotnet/api/2.0/<ServiceName.asmx>> - Represents the second release and breaking change or significant enhancement.
  - c. Clients have the ability to transition to the new version of the service or stay on the original version until they can transition older code.
- ii. Latest version of the Service will be located at the following URL.  
<https://api.capitaliq.com/ciqdotnet/api/current/<ServiceName.asmx>>. Using the example in section i above <https://api.capitaliq.com/ciqdotnet/api/2.0/<ServiceName.asmx>> would be in its own directory and referenced in the current directory.

### Service Changes

#### Business Relationships

Service	Version	Comments
URL	Current	<a href="https://api.capitaliq.com/ciqdotnet/api/Current/GetBusinessRelationships.asmx?WSDL">https://api.capitaliq.com/ciqdotnet/api/Current/GetBusinessRelationships.asmx?WSDL</a>
URL	1.0	<a href="https://api.capitaliq.com/CIQDotNet/api/1.0/GetBusinessRelationships.asmx?WSDL">https://api.capitaliq.com/CIQDotNet/api/1.0/GetBusinessRelationships.asmx?WSDL</a>

  

Release	Version	Comments
06/2008	1.0/Current	Updated to conform to Capital IQ new versioning criteria

## CIQ Technology Services Specification: Business Relationships

### Business Relationships

#### Summary

The Business Relationship Web Service based on an array of CompanyId input, returns a list of Customers, Suppliers, their relationships, and Simple Industry. Clients can also retrieve Industry data based on Standard and Poor's Global Industry Classification System (GICS) and would require the client to purchase a separate license for its use.

#### Business Relationships Data Ports (Functions):

```
BusinessRelationshipDetails() GetBusinessRelationship (
    Integer CompanyId(), Integer BusinessRelationshipTypeId(),
    Boolean IncludeSubsidiariesFlag, Boolean IncludeInvestInvestmentsFlag,
    Boolean IncludePriorFlag);
```

#### Comments:

- i. **Client Note License:** Industry classifications based on S&P's proprietary Global Industry Classification Standard (GICS) is a premium service that requires an additional license. Please contact your Client Support Representative for further information. For Frequently Asked GICS Questions: [http://www2.standardandpoors.com/spf/pdf/index/faq\\_gics.pdf](http://www2.standardandpoors.com/spf/pdf/index/faq_gics.pdf).
- ii. **Client Note License:** Industry classifications based on CapitalIQ's "simple" industry does not require additional 3<sup>rd</sup> party agreements. Please contact your Client Support Representative for further information.

#### Parameters:

1. An Array of Integer **CompanyId** () – A unique identifier for a Company in the Capital IQ database. **Input** [Required], [Multiple].
2. An Array of Integer **BusinessRelationshipTypeId** () – Represents the relationship between a company and its customer. Sample Input Types listed below. **Input** [Required], [Multiple].

ID	Name
1	Customer: Customer
2	Customer: Customer (Prior)
3	Customer: Distributor
4	Customer: Distributor (Prior)
5	Customer: Franchisee
6	Customer: Franchisee (Prior)
7	Customer: Tenant
8	Customer: Tenant (Prior)
9	Customer: Licensee

3. Boolean **IncludeSubsidiariesFlag** – When set to [True] will return customer/supplier relationships for subsidiaries of the Input CompanyId. **Input** [Optional], **Default** [False]
4. Boolean **IncludeInvestmentFlag** – When set to [True] will return customer/supplier relationships for investments of the Input CompanyId. **Input** [Optional], **Default** [False]
5. Boolean **IncludePriorFlag** – Recently disclosed Customer/Supplier relationships. If [True], the result set includes all customer/suppliers. If [False], the result include only last 2 years disclosed Customer/Supplier relationship **Input** [Optional], **Default** [False]

## CIQ Technology Services Specification: Business Relationships

### Returns:

1. An Array of **BusinessRelationshipDetails()** Objects – each containing information about a single input company and its Customers and Suppliers and related industry information for that relationship.

### BusinessRelationshipDetails()

Attributes:

- b. Integer **InputCompanyId** – Input Company for the customer and supplier being requested.
  - c. String **InputCompanyName** – (1-100 characters) Text value for the input company (W1252)
  - d. Integer **CompanyId1** – The first level relationship to the Input Company. This can be the input company or first level company relationship. E.g. Investment/Subsidiary, if the flag is set to **[True]**.
  - e. String **CompanyName1** – (1-100 characters) Text value for the first level relationship to the Input Company. (W1252)
  - f. Integer **CompanyId2** – Represents the First Level Business Relationship between CompanyId1 and CompanyId2.
  - g. String **CompanyName2** – (1-100 characters) Text representation of the First Level Relationship between CompanyId1 and CompanyId2. (W1252)
  - h. Integer **BusinessRelationshipTypeId** – Represents the relationship between the CompanyId1 and CompanyId2.
  - i. String **BusinessRelationshipTypeName** – Text representation of the Relationship between the CompanyId1 and CompanyId2 (W1252).
  - j. Boolean **PriorFlag** – **[True]** If this relationship is a prior relationship. This only applies for recently disclosed relationships, within the last 2 years. Otherwise no prior relationship.
  - k. Integer **BusinessRelationshipSourceTypeId** – The source type for the relationship.
  - l. String **BusinessRelationshipSourceTypeName** (1-500 characters) – Text representation for the Relationship.
  - m. Integer **SimpleIndustryId** – Identifies the CIQ “simple” industry
  - n. String **SimpleIndustryName** – (1-500 characters) the text representation of the Simple Industry (W1252).
1. **Client Note:** Industry classifications both Simple and S&P GICS based apply to CompanyId2/CompanyName2 only.
  2. **Client Note License:** Industry classifications based on CapitalIQ’s “simple” industry does not require additional 3<sup>rd</sup> party agreements. Please contact your Client Support Representative for further information.
  3. **Client Note License:** Industry classifications based on S&P’s proprietary Global Industry Classification Standard (GICS) is a premium service that requires an additional license. Please contact your Client Support Representative for further information. For Frequently Asked GICS Questions: [http://www2.standardandpoors.com/spf/pdf/index/faq\\_gics.pdf](http://www2.standardandpoors.com/spf/pdf/index/faq_gics.pdf)
- o. Integer **SectorId** – Identifies the GICS Sector
  - p. String **SectorName** – (1-500 characters) The text representation of the GICS Sectors (W1252).
  - q. Integer **IndustryGroupId** – Identifies the GICS IndustryGroup
  - r. String **IndustryGroupName** – (1-500 characters) The text representation of the GICS IndustryGroupName (W1252).
  - s. Integer **IndustryId** – Identifies the GICS Industry
  - t. String **IndustryName** – (1-500 characters) The text representation of the GICS IndustryName (W1252)
  - u. Integer **SubIndustryId** – Identifies the GICS SubIndustry
  - v. String **SubIndustryName** – (1-500 characters) The text representation of the GICS SubIndustry (W1252)

## CIQ Technology Services Specification: Business Relationships

---

### Exceptions:

1. An exception will be thrown if the request cannot be authenticated via a session cookie.
2. An exception will be thrown if `companyId` is not provided.
3. An exception will be thrown for more than 20 `companyId` requested. Similar to Investment Criteria?
4. An exception will be thrown for client account configuration, caused by lack of capability.
5. An exception will be thrown if the given `BusinessRelTypeId` is not provided.

### Web Services Description Language (WSDL)

Notwithstanding anything to the contrary in this Agreement, Capital IQ reserves the right to change, expand or modify Web Services Definitions and corresponding Web Services Description Language files (WSDL) at any time. Any such modifications will be done in accordance with industry standards that support backwards compatibility with previous WSDL files. If possible, Clients will be notified in advance of any modifications.

**Client Note:** Login using the supplied Username and Password provided by Client Support or your Client Development representative.

## Appendices

1. **Windows-1252 A character encoding of the Latin alphabet**, used by default in the legacy components of Microsoft Windows in English and some other Western languages. The encoding is a superset of ISO 8859-1, but differs from the IANA's ISO-8859-1 by using displayable characters rather than control characters in the 0x80 to 0x9F range. It is known to Windows by the code page number 1252, and by the IANA-approved name "windows-1252". This code page also contains all the printable characters that are in ISO 8859-15 (though some are mapped to different code points).
2. **Extensible Markup Language (XML)** is a general-purpose markup language. Its primary purpose is to facilitate the sharing of data across different information systems, particularly via the Internet.
3. **dateTime [Definition:]** values may be viewed as objects with integer-valued year, month, day, hour and minute properties, a decimal-valued second property, and a Boolean timezoned property. Each such object also has one decimal-valued method or computed property, `timeOnTimeline`, whose value is always a decimal number; the values are dimensioned in seconds, the integer 0 is 0001-01-01T00:00:00 and the value of `timeOnTimeline` for other `dateTime` values is computed using the Gregorian algorithm as modified for leap-seconds. The `timeOnTimeline` values form two related "timelines", one for timezoned values and one for non-timezoned values. Each timeline is a copy of the ·value space· of `decimal`, with integers given units of seconds.

The ·value space· of `dateTime` is closely related to the dates and times described in ISO 8601. For clarity, the text above specifies a particular origin point for the timeline. It should be noted, however, that schema processors need not expose the `timeOnTimeline` value to schema users, and there is no requirement that a timeline-based implementation use the particular origin described here in its internal representation. Other interpretations of the ·value space· which lead to the same results (i.e., are isomorphic) are of course acceptable.

All timezoned times are Coordinated Universal Time (UTC, sometimes called "Greenwich Mean Time"). Other timezones indicated in lexical representations are converted to UTC during conversion of literals to values. "Local" or untimezoned times are presumed to be the time in the timezone of some unspecified locality as prescribed by the appropriate legal authority; currently there are no legally prescribed timezones which are durations whose magnitude is greater than 14 hours. The value of each numeric-valued property (other than `timeOnTimeline`) is limited to the maximum value within the interval determined by the next-higher property. For example, the day value can never be 32, and cannot even be 29 for month 02 and year 2002 (February 2002). For more details <http://www.w3.org/TR/xmlschema-2/#dateTime>