

**CIQ Technology Services Specification
Company Resolution (Lookup)
Version 1.0**

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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 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.

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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 that 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.

1. 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.
2. 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

Company Resolution

Service	Version	Comments
URL	Current	https://api.capitaliq.com/ciqdotnet/api/Current/CompanyResolution.asmx?WSDL
URL	1.0	https://api.capitaliq.com/CIQDotNet/api/1.0/CompanyResolution.asmx?WSDL
URL	Legacy	https://api.capitaliq.com/CIQDotNet/Company/CompanyResolution.asmx?WSDL

Release	Version	Comments
9/2008	1.0/Current	Updated to conform to Capital IQ new versioning criteria

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Company Resolution & Information

Company Resolution & Information Summary

This below described set of functions allows the client application to look up Capital IQ ("CIQ") CompanyIDs based on attributes, such as names or symbols. In addition, basic company information such as name, description, etc. is returned by these functions.

Capital IQ provides access to text-file-based DataFeeds that contain much of this information. Depending on the implementation, much of this data can be stored locally in a database and looked up on the fly, rather than depending solely on the data returned in this API. Since the DataFeeds are updated daily, it is recommended that this Web Service be used where up-to-the-minute data is required.

Company Resolution & Information Ports (Functions):

```
SearchCompanyInfo() SearchCompanies(SearchCompanyCriterion(), Integer searchTypeID);
```

Comments:

This function searches for companies and returns basic company information for each hit, for use in a full-featured interactive search where basic company data is not cached locally.

Data is returned using a sorting algorithm that is intended to bring the most relevant results to the top. Results are ordered by `searchCompanyResultTypeID` (see the Results section for more info), then `companyName`.

Client Note: This logic is subject to change by CIQ.

Parameters:

1. `Integer searchTypeID` – Limits the universe of Companies being searched. This list may be expanded in the future to include additional complex filtering criteria. Possible values:

ID	searchTypeName	Description
16	All Companies	No limiting, all companies are searched.
17	PublicCompanies	Only companies with Company Type = Public Company are searched.
18	PrivateCompaniesWithPublicDebt	Only companies with Company Type = Private Company and that are Issuers of Public Debt are searched.
19	PublicCompaniesAndPrivateCompaniesWithPublicDebt	This is the union of the two previous types.
3	HasPrimaryTradingItem	Only companies with a primary trading item assigned are searched. Companies without trading items, such as private companies, will not be returned.
6	HasStandardizedFinancials	Only companies that have Standardized Financial Data are searched.
20	PublicInvestmentFirms	Only companies with Company Type = Public Investment Firm are searched.
21	PrivateCompanies	Only companies with Company Type = Private Company are searched.

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Parameters: Item Continued

2. Integer `searchTypeID` – Limits the universe of Companies being searched. This list may be expanded in the future to include additional complex filtering criteria. Possible values:

22	PrivateInvestmentFirms	Only companies with Company Type = Private Investment Firm are searched.
23	CorporateVCs	Only companies with Company Type = Corporate VC are searched.
25	Educational Institutions	Only Companies with Company Type = Educational Institution are searched
24	FinancialServicesVCs	Only companies with Company Type = Financial Services VC are searched.
41	Research Companies	Only companies with Company Type = Research Company are searched
42	PublicCompaniesAndPublicInvestmentFirmsAndPublicFunds	This is a union of Public Companies, Public Investment Firms, and Public Funds
43	IPO Companies	Only companies with Company Type = IPO Company are searched.
44	IPOCompaniesAndPublicCompaniesAndPublicInvestmentFirmsAndPublicFunds	This is a union of IPO Companies, Public Companies, Public Investment Firms, and Public Funds

3. `SearchCompanyCriterion()`, an Array of `SearchCompanyCriterion` Objects – a collection of complex searches. Use this parameter for searches where type of each string is known and/or there are multiple search strings (i.e. from a “ticker search”, a “delimited company name search” or a “delimited security identifier search”).

SearchCompanyCriterion

Attributes:

- a. Integer `searchIdentifierTypeID` – Indicates what type of identifier is being used. Possible values:

ID	searchIdentifierTypeName
1	Any Company or Security Identifier
2	Company Name or Alternate Company Name
3	Ticker or Exchange:Ticker
4	CUSIP
5	ISIN
6	SEDOL

- b. String `searchText` – Search string used to identify a company using the corresponding `searchIdentifierTypeID`. (W1252) Specifics:
 - i. Min Length = 1 alphanumeric character
 - ii. Max Length = 100 characters
 - iii. If the `searchIdentifierTypeID` = 3 (“Ticker or Exchange:Ticker”), additional formatting of the `searchText` can be used to achieve more precise results. Specifics:
 1. Exchange:Ticker -- Exchanges can be limited using the format “ExchangeSymbol:TickerSymbol”. The exchange symbols follow normal industry standards but are customized by CIQ to ensure uniqueness.
 2. ExchangeGroup:Ticker – Exchanges can be limited using a symbol that corresponds to a logical grouping of Exchanges. Possible values:

exchangeGroup	exchangeGroupName
US	United States
CD	Canada
EU	Europe
LAC	Latin America & Caribbean
AP	Asia
MEA	Africa / Middle East
MM	Major Markets
USCD	United States & Canada

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SearchCompanyCriterion

Attributes:

3. ExchangeGroup: Ticker – Exchanges can be limited using a symbol that corresponds to a logical grouping of Exchanges. Possible values:

exchangeGroup	exchangeGroupName
AM	AsiaMajor
AUSNZ	Australia & New Zealand
AUS	Australia
EUM	EuroMajor
AF	Africa
EUL	EuroLand
JP	Japan
LA	Latin America
MES	Middle East
NA	North America
UK	United Kingdom
GLNUS	GlobalNonUS

- c. Boolean partialMatchFlag – Results for companies are returned where the searchText matches only the beginning characters of the identifier are returned. Specifics:
 - a. If searchText contains fewer than 3 alphanumeric characters, partialMatchFlag is ignored and always treated as an exact match (for performance reasons).



Search Profiles

Search For:

Go

Total Company/Other Profile Matches: 1000 [\[Create New Company\]](#) [\[Help\]](#)

- AT&T Inc. (Public Company - NYSE:T)
- TELUS Corp. (Public Company - TSX:T)
- Food, Beverage and Tobacco (Industry Profile)
- Information Technology (Industry Profile)
- Technology Hardware and Equipment (Industry Profile)
- Telecommunication Services (Industry Profile)
- Telecommunication Services (Industry Profile)
- Transportation (Industry Profile)

Go

Figure 1 Search for "t" returns a hit for AT&T (NYSE:T)

Returns:

1. An Array of SearchCompanyInfo Objects – Each contains basic search result data about a Company.

SearchCompanyInfo

Attributes:

- a. Integer searchCompanyCriterionIndex – Indicates which element in the SearchCompanyCriterion() array this search hit relates to. This is a 0-based index; matches for the first item of the given SearchCompanyCriterion() array have searchCompanyCriterionIndex = 0.

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- b. Integer `searchCompanyResultTypeID` – Indicates how this `SearchCompanyInfo` relates to the search text that was entered by the user. `SearchCompanyInfo` elements are sorted first on this field, then `companyName`. Possible values:

ID	Search Company Result Type
1	Companies where the primary ticker symbol exactly matches the searchText (e.g. "MSFT")
2	Companies where the primary exchange symbol + primary ticker symbol exactly matches the searchText (e.g. "NYSE:MSFT")
3	Companies where the searchText matches the beginning of the primary ticker symbol (e.g. "MSF")
4	Companies where a secondary ticker symbol exactly matches the searchText (e.g. "MSF")
5	Public Companies where the searchText matches the beginning of the company name (e.g. "Microsoft")
6	Companies where the searchText matches the beginning of an alternate company name (which is either a former company name, or an "otherwise known as" alias)
7	Non-Public Companies where the searchText matches the beginning of the company name
8	ISIN, CUSIP, SEDOL hits
9	Other matches

- c. Integer `companyID` – The unique identifier of this Company.
- d. String `companyName` – (1-100 characters) The name of this Company. (W1252)
- e. String `alternateCompanyName` – (0-100 characters) An alternate or former company name. This is only populated if the alternate company name matched the search, otherwise it is empty. Note that if there are multiple alternate company name matches, there will be multiple `SearchCompanyInfo` elements with the same `companyID`. (W1252)
- f. Integer `primaryTradingItemId` – The most important security issued by the company, listed on the most important exchange (see Reference Data section). This is determined by CIQ Research according to a combination of automatic rules and individual research. See `TradingItemInfo` in `GetCompanyInfo` for more.
- g. String `securitySymbol` – (0-100 characters) If the search hit was for a CUSIP, ISIN, or SEDOL, this attribute returns the full security symbol that matched the search. Note that if there are multiple security symbol matches, there will be multiple `SearchCompanyInfo` elements with the same `companyID`. (W1252)
- h. String `tickerSymbol` – Ticker symbol of the search result. If the search result matched on ticker (primary or secondary), this is the matched ticker. If the search result matched on company name or alternate company name, this is the ticker symbol of the primary trading item for this Company. If the search result matched on CUSIP, ISIN, or SEDOL, `tickerSymbol` is an empty string. Note that if there are multiple ticker symbol matches, there will be multiple `SearchCompanyInfo` elements with the same `companyID`. (W1252)
- i. Integer `exchangeID` – Exchange of the search result (see Reference Data section). If the search result matched on ticker (primary or secondary), this is the Exchange of the matched ticker. If the search result matched on company name or alternate company name, this is the Exchange of the primary trading item for this Company. If the search result matched on CUSIP, ISIN, or SEDOL, `exchangeID` is 0.
- j. Integer `primaryIndustryID` – Relates to Industry Ref Data which is equivalent to GICS.

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- k. Integer `templateTypeID` – Relates to the financial template types for a specific company. Output Types below.

ID	Name
1	Standard
2	Banks
3	Insurance
4	Utility
5	REIT
7	Financial Services
8	Brokerage

- l. Integer `ultimateParentCompanyID` – The top-level corporate parent of the Company for this search result, according to Current Subsidiary, Merged Entity, and Current Investment Arm company relationships. If the search result is for Company A, and Company A is a subsidiary of Company B, which in turn is a subsidiary of Company C, then Company A's `ultimateParentCompanyID` will be Company C.

- m. Integer `companyTypeID` – Relates to Company Type Ref Data:

ID	<code>companyTypeName</code>
1	Public Investment Firm
2	Private Investment Firm
3	Assets/Products
4	Public Company
5	Private Company
6	Corporate VC
7	Financial Service VC
8	Index
9	Private Fund
10	Investment Group
11	Fund Family
12	Currency Rate
13	Public Fund
14	Private Standalone Fund
15	Public Standalone Fund
16	Interest Rate
17	Educational Institution
18	Arts Institution
19	Labor Union
20	Government Institution
21	Religious Institution
22	Trade Association
23	Foundation/Charitable Institution
24	Industry

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n. Integer `companyStatusTypeID` – Relates to Company Status Type Ref Data:

ID	<code>companyStatusTypeName</code>
1	Operating
2	Operating Subsidiary
4	Reorganizing
5	Out of Business
6	Acquired
7	No Longer Investing
8	Launched
9	First Close
10	Secondary Close
11	Final Close
12	Fully Invested
13	Fully Liquidated
14	Withdrawn
15	Investing
16	Pre-Event Profile
17	Non-Operating Shell Company
18	Inactive Index, Exchange Rate, or Interest Rate
19	Liquidating
20	Active

Exceptions:

1. An exception will be thrown if the request cannot be authenticated via a session cookie.
2. An exception will be thrown if `searchText` is empty.
3. An exception will be thrown if more than 500 `SearchCompanyCriterion` objects are supplied.

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.

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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>