Version 2 Release 2

IBM i2 Enterprise Insight Analysis
Understanding the Deployment Patterns

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Note

Before using this information and the product it supports, read the information in “Notices” on page 9.

This edition applies to version 2, release 2, modification 1 of IBM® i2® Enterprise Insight Analysis (product number 5725-G22) and to all subsequent releases and modifications until otherwise indicated in new editions. Ensure that you are reading the appropriate document for the version of the product that you are using. To find a specific version of this document, access the Understanding section of the IBM Knowledge Center, and ensure that you select the correct version.

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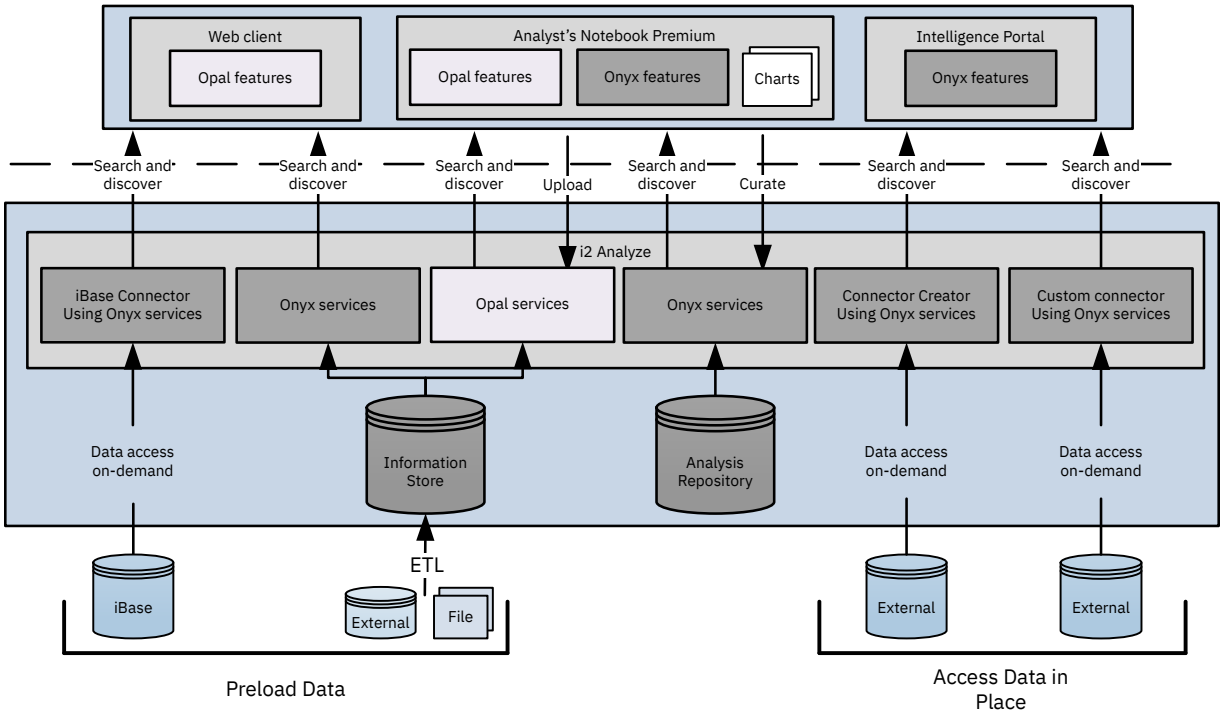
Deployment patterns overview

The components of IBM i2 Enterprise Insight Analysis can be deployed in a number of patterns. The pattern that you use to deploy Enterprise Insight Analysis depends on the analysis, type and location of your data.

Figure 1 on page 1 shows the components that make up Enterprise Insight Analysis. Use the following component descriptions to decide which feature set that you need, and which components you need to include in your deployment.

The feature sets and components can be split into deployment patterns. After you decide on the feature set that you require, use the pattern specific information to understand which deployment pattern can contain the required components. Each deployment pattern consists of mandatory components, to which you can add other compatible components that provide extra capabilities to match your requirements.



Note: You can deploy the Information Store with either the Opal services or the Onyx services, but not both concurrently.

Figure 1: The possible components that can be deployed in a deployment of Enterprise Insight Analysis.

Where you store data, and how that data is accessed as part of Enterprise Insight Analysis is important for choosing a deployment pattern. The following categories identify how the data in a store is used:

- Preload Intelligence Data into Enterprise Insight Analysis: Large scales of intelligence data can be ingested into Enterprise Insight Analysis before analysts search and discover information.
- Analysis Data in Enterprise Insight Analysis:

  - Analysts can share information with other analysts by uploading new, or edited, data to the Information Store.
  - The results of analysis can be stored in an Analysis Repository, which is a read/write store that contains shared, human curated intelligence data.
- External Intelligence Data: Access data in place without ingesting that data into the Enterprise Insight Analysis system.

Each category contains different stores that can be used as part of Enterprise Insight Analysis.

Data stores for preloaded data

The following data stores can be deployed as part of Enterprise Insight Analysis:

Information Store

The Information Store is designed to contain high volume, shared, previously acquired data, which is ingested into the Information Store database. The Information Store is designed for large amounts of data.

Updates can be made to data that was previously ingested in to the Information Store by ingesting the up to date data.

Depending on your requirements, the Information Store can be deployed with different services. You can deploy the Information Store with either the Opal services or the Onyx services, but not both concurrently:

- When the Opal services are deployed, analysts can use IBM Analyst's Notebook Premium to search for information. Analysts can use search capabilities on data that is stored in the Information Store that include:
  - Quick search, which is text search that can include wildcard characters and logical operators.
  - Results filtering, which is used to filter results based on item and property types.
  - Visual query, which is used to search for items that form a specific structure in the data. Visual query results can be filtered based on item type.
  - Expand, which is used to explore an item's relationships with other items.
- When the Onyx services are deployed, analysts can use either the Intelligence Portal or Analyst's Notebook Premium to search for information. Analysts can use search capabilities on data that is stored in the Information Store that include:
  - Geospatial visual query. If your organization uses Esri ArcGIS to host geographic information system (GIS) resources, you can set geospatial constraints with IBM i2 Analyst's Notebook® Connector for Esri for a visual query.
  - Temporal expand, which is used to filter the items that are returned from expand by the link date range.
  - Find path, which is used to find the connections and intermediaries between items of interest, discover what is linked to a specific entity, and find groups of interlinked entities.
  - IBM Cognos reports, which enable users to search large data sets, refining the results to produce a manageable subset for further analysis.

iBase

iBase contains shared, previously acquired data. Analysts can use Analyst's Notebook Premium or the Intelligence Portal to search and discover data in iBase.

Analysts can use search capabilities on data that is stored in iBase that include:

- Search 360, which is used for text search, that includes exact and fuzzy match searching.

- Property based search, which is used to specify which property contains the information that is known about an item.
- Visual query, which is used to search for items that form a specific structure in the data.
- Results filtering, which is used to filter results based on item type.
- Expand, which is used to explore an item's relationships with other items.
- Browse, which is used to display all the items in the data source and categorizes them according to their type.

You can connect to iBase by using the iBase Connector. In Enterprise Insight Analysis, you can connect to an existing iBase deployment so that you do not need to migrate your data.

Stores for analysis data

The following stores can be deployed as part of Enterprise Insight Analysis:

Information Store

When the Opal services are deployed, analysts can use Analyst's Notebook Premium to upload data to the Information Store. Analysts can upload new data, or make edits to previously uploaded data, and share this data with other analysts.

Analysts can use search capabilities on data that is stored in the Information Store that include:

- Quick search, which is text search that can include wildcard characters and logical operators.
- Results filtering, which is used to filter results based on item and property types.
- Visual query, which is used to search for items that form a specific structure in the data. Visual query results can be filtered based on item type.
- Expand, which is used to explore an item's relationships with other items.

Analysis Repository

The Analysis Repository is a collaborative repository for verified intelligence data. Analysts can use Analyst's Notebook Premium or the Intelligence Portal to search, discover, and curate data in the Analysis Repository. Analysts can use search capabilities on data that is stored in the Analysis Repository that include:

- Property based search, which is used to specify which property contains the information that is known about an item.
- Smart match, which is used for fuzzy matching search terms to property values.
- Visual query, which is used to search for items that form a specific structure in the data.
- Results filtering, which is used to filter results based on item type.
- Expand, which is used to explore an item's relationships with other items.
- Browse, which is used to display all the items in the data source and categorizes them according to their type.

External stores

If you would like to access information that is contained in external sources without ingesting that data into the Enterprise Insight Analysis system, you can connect to external data without the need to import the data into Enterprise Insight Analysis. Depending on the type of store, and your requirements, you can either create a standard connector or create a custom connection implementation.

The search capabilities that analysts can use depends on the external store, and the connector implementation.

Clients

You can use the following clients to connect to your data stores and external data sources:

- Analyst's Notebook Premium, a rich client that is installed locally on users' workstations.
- The web client is licensed as a part of the IBM i2 Enterprise Insight Analysis Investigate Add On. The web client can be used to search the Information Store.
- The Intelligence Portal, a web-based client accessed through a web browser. The Intelligence Portal can also be used inside Analyst's Notebook Premium.

Related information:

"Opal pattern" on page 4
The Opal pattern consists of an Information Store with Opal services. The data in the Information Store is accessed by using Analyst's Notebook Premium.

"Onyx patterns" on page 5
The Onyx patterns consist of the Analysis Repository, which can be used to store the results of investigations. In addition, you can add an Information Store for storing large amounts of data and connect to external data source to analyze data in place.

"Deployment behavior" on page 6
Regardless of the overall pattern that you decide to use, be aware of the following ways in which i2 Analyze works.

Opal pattern

The Opal pattern consists of an Information Store with Opal services. The data in the Information Store is accessed by using Analyst's Notebook Premium.

Data store for preloaded data and analysis data

The Information Store with Opal services, which is a mandatory component.

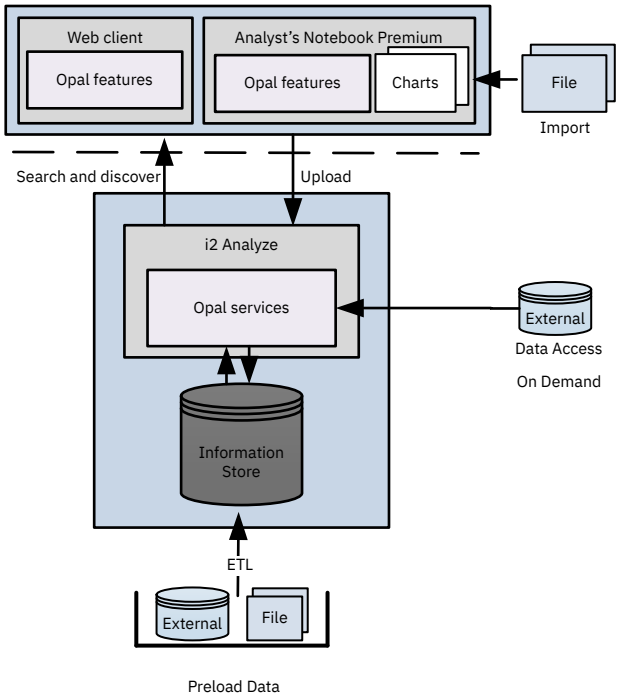
Clients

You can use the following clients to connect to the Information Store:

- The web client
- Analyst's Notebook Premium

You must install Analyst's Notebook with the Opal Connector.

The following diagram shows the components of the Opal pattern:



Onyx patterns

The Onyx patterns consist of the Analysis Repository, which can be used to store the results of investigations. In addition, you can add an Information Store for storing large amounts of data and connect to external data source to analyze data in place.

Data stores for preloaded data

The following data stores for preloaded data can be deployed in the Onyx patterns:

- Information Store with Onyx services
- iBase, with the iBase Connector

  Note: In Enterprise Insight Analysis, you can connect to an existing iBase deployment.

Store for analysis data

The Analysis Repository, which is a mandatory component.

External stores

Access external stores in the following ways:

- If the external data source is a relational database and you can preconfigure all the queries that analysts require, then you can deploy Connector Creator.

- In other cases, you can use i2 Analyze Developer Essentials to create and deploy a custom data connector.

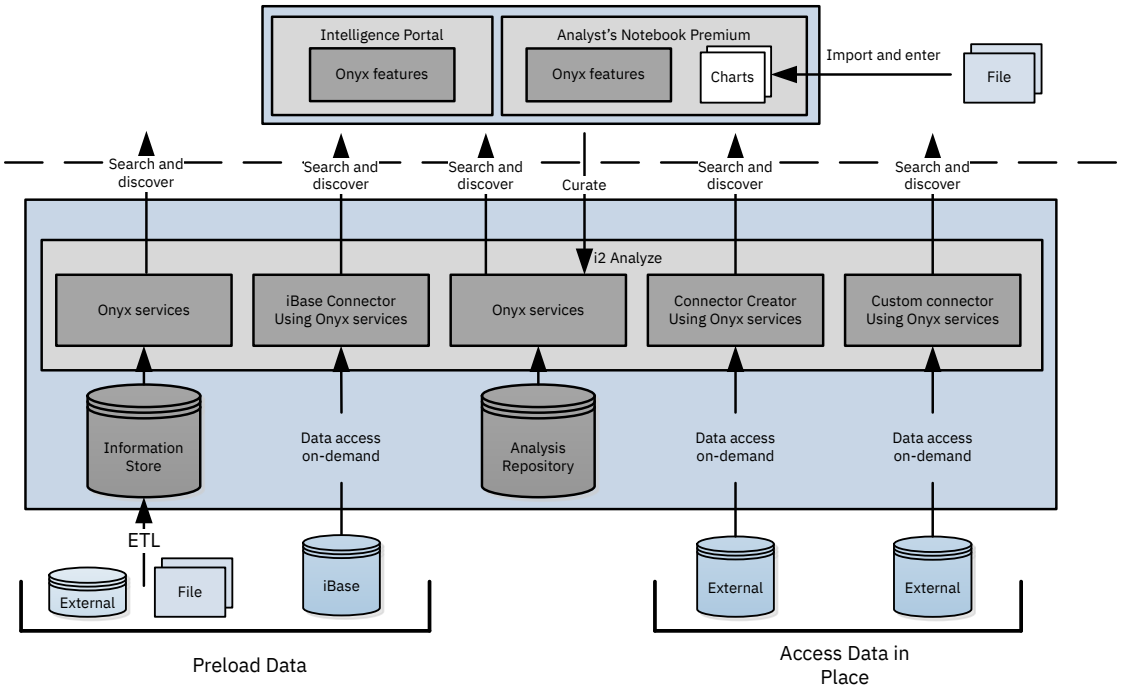
Clients

You can use the following clients to connect to your data stores and external data sources:

- Intelligence Portal
- Analyst's Notebook Premium

You must install Analyst's Notebook Premium with the Onyx Connector.

The following diagram shows the possible components for the Onyx patterns:



Deployment behavior

Regardless of the overall pattern that you decide to use, be aware of the following ways in which i2 Analyze works.

Single instances of the components

The following components cannot have more than one instance in your deployment:

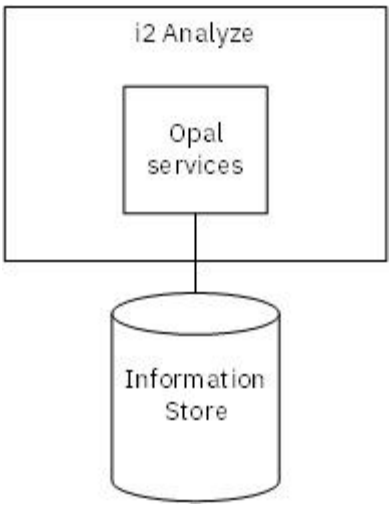
- Information Store
- Analysis Repository
- iBase connector
- A connector that is created by using the Connector Creator

Note: You can have one connector of this type, but you can configure that connector to connect to multiple external data sources.

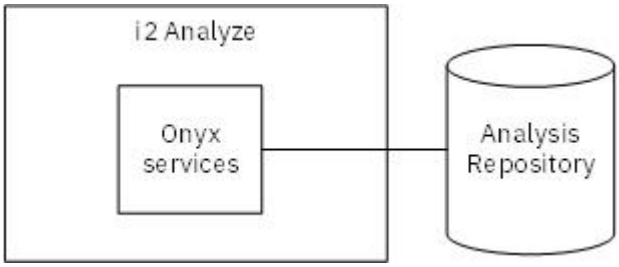
Concurrent use of the Information Store and Analysis Repository data stores

The following diagrams show the core data stores configurations that you can deploy:

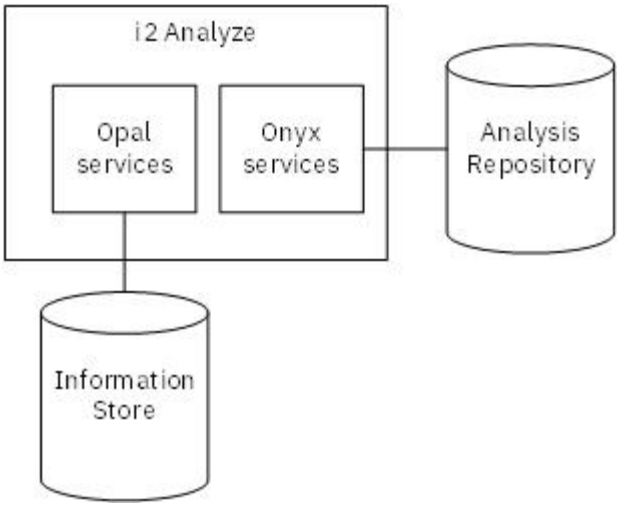
Information Store connected using the Opal services



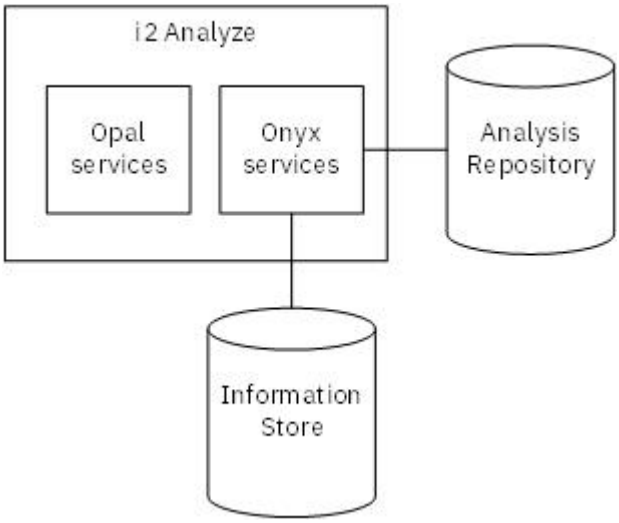
Analysis Repository connected using the Onyx services



Information Store connected using the Opal services and Analysis Repository connected using the Onyx services



Information Store and Analysis Repository connected using the Onyx services



For more information about the capabilities of each data store and deployment pattern, see “Deployment patterns overview” on page 1.

Information that is stored in the Analysis Repository

The intelligence that is stored in the Analysis Repository can be imported from a different data source. When the item is added to the Analysis Repository, it becomes a new instance of that information and can diverge from the original source.

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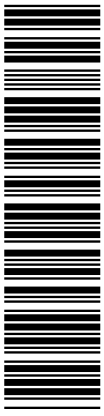

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