CLAIMS

1. A method comprising:

receiving, at a data service of a server device comprising a processor, a client request for an identified data item from a client device;

returning, by the data service, the identified data item from the data service to the client device in response to the client request; and

determining, by the data service, an expanded data item set based upon the identified data item, wherein the expanded data item set comprises one or more other data items that are not part of the identified data item;

determining, by the data service based on a statistical analysis of a plurality of other client requests for the identified data item and subsequent client requests for one or more additional data items associated with the other client requests, whether returning the expanded data item set to the client device corresponds to an overall reduced consumption of at least one resource of the server device when responding to client requests for the identified data item;

in response to determining, based on the statistical analysis, that returning the expanded data item set to the client device corresponds to the overall reduced consumption of at least one resource of the server device when responding to the client requests for the identified data item, returning, by the data service, the expanded data item set to the client device; and

in response to determining, based on the statistical analysis, that returning the expanded data item set to the client device does not correspond to the overall reduced consumption of at least one resource of the server device when responding to the client requests for the identified data item, not returning, by the data service, the expanded data item set to the client device.

2. The method of claim 1, further comprising expanding, by the data service, the client request for the identified data item to include a request for the expanded data item set.

3. The method of claim 1, wherein the receiving the client request for the identified data item comprises receiving a request for a provider node of a client graph.

4. The method of claim 1, wherein the determining the expanded data item set further comprises determining a type of the identified data item.

5. The method of claim 4, wherein the determining the type of the data item comprises processing an identifier of the identified data item into a regular expression, and matching the regular expression against an array of regular expressions, including a first regular expression corresponding to the type of the data item.

6. The method of claim 1, wherein the at least one resource is at least one of a processing resource, a storage resource, or a network bandwidth resource.

7. The method of claim 1, wherein the determining the expanded data item set further comprises accessing an expansion rule based upon an identifier of the identified data item and a device type of the client device, and wherein accessing the expansion rule comprises accessing an expansion rule file, including using information based upon the identifier of the identified data item as a file name, and using information based upon the device type to determine a set of one or more file system folders for locating the expansion rule file.

8. The method of claim 1, wherein the determining the expanded data item set further comprises accessing an expansion rule based upon at least one of an identifier of the identified data item, a device type of the client device, or a software version of client platform software that is requesting the identified data item.

9. The method of claim 1, wherein the determining the expanded data item set further comprises accessing an expansion rule based upon an identifier of the identified data item, a device type of the client device, and a software version of client platform software that is requesting the identified data item, and wherein accessing the expansion rule comprises accessing an expansion rule file, including using information based upon the identifier of the identified data item as a file name and using information based upon the software version and the device type to determine a set of one or more file system folders for locating the expansion rule file.

10. The method of claim 1, wherein a data item from the data service to the client device is returned in the expanded data item set, and further comprising, returning, by the data service, another data item from the data service to the client device, in which the other data item is based upon an expansion of the data item.

11. The method of claim 1, wherein the expanded data item set is returned from the data service to the client device, and further comprising, at the client device, caching each data item in the expanded data item set in an unparsed state.

12. A system comprising:

request handling logic of a data service, the request handling logic configured to receive client requests for data items and to return responses to the client requests, including to receive a client request for an identified data item;

expansion rule logic coupled to the request handling logic, the expansion rule logic configured to locate information in an expansion rule set corresponding to the identified data item, and based upon the information in the expansion rule set, to determine that the identified data item corresponds to a request for an expanded data item set comprising at least one other data item that is not part of the identified data item; and

the request handling logic configured to:

obtain the identified data item and each expanded data item of the expanded data item set and to return the identified data item in response to the client request,

determine, based on a statistical analysis of a plurality of the client requests for the identified data item and subsequent client requests for one or more additional data items associated with plurality of the client requests, whether returning the expanded data item set to the client device corresponds to an overall reduced consumption of at least one resource of the server device when responding to the client requests for the identified data item,

in response to a determination, based on the statistical analysis, that returning at least one expanded data item of the expanded data item set corresponds to the overall reduced consumption of at least one resource of the server device when responding to the

client requests for the identified data item, return the at least one expanded data item in response to the client request; and

in response to a determination, based on the statistical analysis, that returning at least one expanded data item of the expanded data item set does not correspond to the overall reduced consumption of at least one resource of the server device when responding to the client requests for the identified data item, not return the at least one expanded data item in response to the client request.

13. The system of claim 12, further comprising a data service cache set comprising one or more data service caches, and wherein the request handling logic attempts to obtain the identified data item and each data item of the expanded data item set from a cache of the data service cache set, and for in response to one or more data items not being obtained from the data service cache set, obtains the one or more data items from one or more backing data sources.

14. The system of claim 12, wherein the client request for the identified data item comprises a request for a data provider corresponding to a node of a client graph, and wherein the client request for the identified data item is part of a batch request for a plurality of providers.

15. The system of claim 12, wherein the expansion rule logic locates the information in the expansion rule set from an expansion rule file that is selected based in part upon the identified data item, and in part upon client-specific information, the client-specific information comprising a client device type or a client platform software version or both a client device type and a client platform software version.

16. The system of claim 12, wherein the at least one resource is at least one of a processing resource, a storage resource, or a network bandwidth resource.

17. A non-transitory computer-readable medium having instructions stored thereon that, in response to execution, cause a server device including a processor to perform operations comprising:

receiving a request for an identified data item from a client device;

locating a rule set corresponding to the identified data item;

determining from the rule set that an expanded request for one or more expanded data items is to be made, wherein the one or more expanded data items are not part of the identified data item;

obtaining the identified data item and the one or more expanded data items;

determining, based on a statistical analysis of a plurality of other requests for the identified data item and subsequent requests for one or more additional data items associated with the plurality of other requests, whether returning the one or more expanded data items to the client device corresponds to an overall reduced consumption of at least one resource of the server device when responding to requests for the identified data item; and

returning a response set to the client device, including the identified data item, and wherein the returning comprises:

in response to determining, based on the statistical analysis, that returning the one or more expanded data items to the client device corresponds to the overall reduced consumption of at least one resource of the server device when responding to the requests for the identified data item, including the one or more expanded data items in the response set, and

in response to determining, based on the statistical analysis, that returning the one or more expanded data items to the client device does not correspond to the overall reduced consumption of at least one resource of the server device when responding to the requests for the identified data item, not including the one or more expanded data items in the response set.

18. The non-transitory computer-readable medium of claim 17, wherein the locating the rule set corresponding to the identified data item comprises generating a regular expression from an identifier of the identified data item, accessing a set of regular expressions to match the regular expression to a rule name, determining a folder path lookup set based upon client-specific information, and obtaining a file corresponding to the rule name within the folder path lookup set.

19. The non-transitory computer-readable medium of claim 17, the operations further comprising adding an expanded data item to an expanded request set, expanding that expanded data item into at least one other expanded data item, and adding the at least one other expanded data item to the expanded request set.

20. The non-transitory computer-readable medium of claim 19, wherein the at least one resource is at least one of a processing resource, a storage resource, or a network bandwidth resource.