Data providing service definition, concept, and use-cases
draft-ds-overview-00

Abstract

The standard defines terminologies and describes ecosystem for data providing service. In order to build unified data environment from the dispersed data, data providing service is necessary for big data service. Therefore, this standard contributes to form common data providing ecosystem.

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4.4. Role classification of data providing service

5. Use-cases of data providing service

1. Introduction

This standard proposes concept, definition, and use-case of data providing service for big data service. First, the scope and definition of data providing service are described. Second, ecosystem model and role classification are illustrated. Finally, use-cases for explaining data providing service are proposed.

2. Terminologies

2.1 Data generator
The data generator generates data, provides metadata to data broker, and provides API to the data refiner to access data.

2.2 Data broker
The data broker brokerages data between the data generator and the data customer.

2.3 Data refiner
The data refiner refines data, which is from the data generator, and delivers data to the data customer.

2.4 Data customer
The data customer uses data, which is provided by the data providing service.

3. Abbreviation
To be defined

4. Overview of data providing service

4.1. Concept of data providing service
Data is dispersed in different administration domain. For this reason, it is hard to search data in big data area, which highly needs data. This situation decreases the data availability. In order to increase the data availability, an interface is needed to brokerage data in different administration domain and to search data in single access point. For example, a user finds data which is in different administration domain, while it is still hard to use the data. That is because data type and access methods are different. A data customer uses different methods to access data, and also the data may have different type, so that a data customer does extra works, such as converting, filtering. Thus, an interface is required to refine data in various administration domain in order to provide the customized data. Above all, this standard to build unified interface for searching and requesting data is required.

4.2. Definition of data providing service
The data providing service is a service to brokerage metadata in order to search data in a unified interface and to refine data in order to provide user customized data as user’s request. For this, the data providing service brokerages metadata, which is provided by the data generator. A data customer searches data by the data providing service easily. And also, as user’s request, the data refiner refines and provides data to data customer.

4.3. Model of data providing service
This is a concept model. The concept model is described by roles
related with the data providing service, such as data generator, data broker, data refiner, data customer.

<table>
<thead>
<tr>
<th>Data Providing Service</th>
<th>Data Broker</th>
<th>data catalogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>data</td>
<td>info</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td>user</td>
<td>req- est</td>
</tr>
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<td>cust- mized</td>
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<tr>
<td></td>
<td>Data</td>
<td>data user</td>
</tr>
<tr>
<td></td>
<td>Generator</td>
<td>data request</td>
</tr>
<tr>
<td></td>
<td>Data Refiner</td>
<td>data request (by API)</td>
</tr>
</tbody>
</table>

4.4. Role classification of data providing service
To be defined

5. Use-cases of data providing service
To be defined

Appendix A. Acknowledgements

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