

Claims

1. A customer-specific data cleansing system serving as a data providing system, the system comprising:

at least one service infrastructure company device;
a plurality of data provider devices; and
a plurality of data receiver devices,
wherein the service infrastructure company device

includes:

an input/output means;

a storage means; and

a control means,

the input/output means is configured to provide or receive data to or from the data provider devices and the data receiver devices,

the storage means includes a data cleansing policy master with respect to data provided by the data provider devices, and

the control means has a function of cleansing the data in accordance with a data cleansing policy of the data cleansing policy master,

wherein the control means further includes:

means configured to receive default data cleansing policies of the data receiver devices, data receiver data cleansing policies for data provided by the data provider devices, default data cleansing policies of the data provider devices, and data provider data cleansing policies for data provided by the data provider devices and to incorporate the received policies into the data cleansing policy master;

a receiving unit configured to receive data provided by the data provider devices and field attribute information of the data;

a data cleansing policy receiving unit configured to receive the data cleansing policy;

a data cleansing means configured to cleanse data provided by the data provider devices in accordance with

the data cleansing policy; and

means configured to transmit the data cleansed by the data cleansing means to the data receiver devices.

2. The customer-specific data cleansing system according to claim 1,

~~wherein the control means further includes means configured to receive default data cleansing policies of the data receiver devices, data receiver data cleansing policies for data provided by the data provider devices, default data cleansing policies of the data provider devices, and data provider data cleansing policies for data provided by the data provider devices and to incorporate the received policies into the data cleansing policy master.~~

wherein the control means further transmit the data provider data cleansing policies to the data receiver devices in response to request of the data receiver devices.

3. The customer-specific data cleansing system according to claim 2 1,

wherein the control means further includes means including a field attribute master, an invalid value master, and a processing method master and configured to generate a data cleansing policy of the service infrastructure company device from the field attribute master, the invalid value master, and the processing method master, and

the means configured to incorporate into the data cleansing policy master incorporates the data cleansing policy of the service infrastructure company device into the data cleansing policy master.

4. The customer-specific data cleansing system according to claim 1,

wherein the data cleansing policy master includes original data field names of the data provided by the data provider devices and processing methods corresponding to invalid values which may occur in field attributes of the field names, and

the invalid values include one or more of null, double-byte/single-byte inconsistency, invalid character, abnormal value, hiragana character inconsistency, katakana character inconsistency, alphabetical character inconsistency, value inconsistency, symbol inconsistency, kanji character inconsistency, phone number denormalization, zip code denormalization, denormalized postal address, and denormalized amount, and

the field attributes includes one or more of primary key, name, zip code, postal address, quantity, amount, and date, and

the processing methods includes one or more of doing nothing, deleting all records, complying with a data provider format, complying with a normalized data provider, making a null, and replacing with an average value.

5. A customer-specific data cleansing system for cleansing data shared by a plurality of companies, the system including an infrastructure company device configured to receive original data provided by a device for a data provider serving as a company and to provide the original data to a data receiver device,

wherein the infrastructure company device includes:

a data cleansing control device configured to cleanse the original data provided by the device for the data provider;

an invalid value master defining invalid values which may occur in fields of the original data; and

a data cleansing policy master including processing methods corresponding to the invalid values which may occur in the fields of the original data,

the device for the data provider includes means configured to, when a value in the original data is an invalid value, determine to which of items in the invalid value master the invalid value corresponds,

5 the data receiver device includes means configured to set a processing policy corresponding to invalid values with respect to field attributes comprehensively prepared for the original data, and

the data cleansing control device includes:

10 a reading means configured to read the processing policy set by the data receiver device from the data cleansing policy master with respect to field attribute information of the original data set by the device for the data provider; and

15 a control means configured to cleanse the original data in accordance with the read data cleansing policy.

6. A customer-specific data cleansing method, the method being performed by a data providing system comprising:

20 at least one service infrastructure company device;

a plurality of data provider devices; and

a plurality of data receiver devices,

the service infrastructure company device including:

an input/output means;

25 a storage means; and

a control means,

the input/output means being configured to provide or receive data to or from the data provider devices and the data receiver devices,

30 the storage means including a data cleansing policy master with respect to data provided by the data provider devices,

the control means having a function of cleansing the data in accordance with a data cleansing policy of the data cleansing policy master, and

35 the control means further including means configured

to receive default data cleansing policies of the data receiver devices, data receiver data cleansing policies for data provided by the data provider devices, default data cleansing policies of the data provider devices, and data provider data cleansing policies for data provided by the data provider devices and to incorporate the received policies into the data cleansing policy master;

the method comprising the steps of:

receiving data provided by the data provider devices and field attribute information of the data;

receiving a data cleansing policy of the data cleansing policy master;

cleansing data provided by the data provider devices in accordance with the data cleansing policy; and

transmitting the data cleansed ~~by the data cleansing means~~ to the data receiver devices.

7. The customer-specific data cleansing method according to claim 6, further comprising the steps of:

~~receiving, by the control means, default data cleansing policies of the data receiver devices, data receiver data cleansing policies for data provided by the data provider devices, default data cleansing policies of the data provider devices, and data provider data cleansing policies for data provided by the data provider devices and incorporating the received policies into the data cleansing policy master~~

transmitting, by the control means, the data provider data cleansing policies to the data receiver devices in response to request of the data receiver devices.

8. The customer-specific data cleansing system according to claim 76,

wherein the control means includes a field attribute master, an invalid value master, and a processing method master,

the method further comprising:

generating, by the control means, a data cleansing policy of the service infrastructure company device from the field attribute master, the invalid value master, and
5 the processing method master, and

incorporating, by the means configured to incorporate into the data cleansing policy master, the data cleansing policy of the service infrastructure company device into the data cleansing policy master.

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9. The customer-specific data cleansing method according to claim 6,

15 wherein the data cleansing policy master includes original data field names of the data provided by the data provider devices, field attributes corresponding to invalid values which may occur in field attributes of the field names, and processing methods corresponding to invalid
20 values which may occur in field attributes of the field names, and

the invalid values include one or more of null, double-byte/single-byte inconsistency, invalid character, abnormal value, hiragana character inconsistency, katakana
25 character inconsistency, alphabetical character inconsistency, value inconsistency, symbol inconsistency, kanji character inconsistency, phone number denormalization, zip code denormalization, denormalized postal address, and denormalized amount, and

30 the field attributes include one or more of primary key, name, zip code, postal address, quantity, amount, and date, and

the processing methods include one or more of doing nothing, deleting all records, complying with a data
35 provider format, complying with a normalized data provider, making a null, and replacing with an average value.