

# Meiden Customer Center

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## Abstract

**Meiden Customer Center is a “customer support base” of Meiden Group, and our staff is available 24 hours a day to reply to product inquiries, receive failure information, and provide remote monitoring service to support the operation of customer equipment. In addition, we have built a mechanism for sharing customer requests, evaluations, and failure information within its related Group firms, and serve as an “information base” for improving product quality and services.**

**This Center cooperates with related Business Units (BUs) not only in the after-sales service field, but also in all related BUs involving manufacturing, in providing support for better Customer Satisfaction (CS) for the Group’s products and services.**

## 1 Preface

We are working on company-wide activities to improve Customer Satisfaction (CS) and quality. As all Meiden information sharing platforms, Meiden Customer Center uses both a “Customer Needs Collection System (CNCS)” supporting CS improvement activities and a “Failure Information Management System” supporting quality improvement activities. Since FY 2020, these systems were made available to Meiden Group firms at home and abroad and we are also promoting overall Meiden Group’s CS and quality improvement activities. Fig. 1 shows the promotion system. This paper introduces these information sharing mechanisms to support the CS and quality improvement activities.

## 2 Data Sharing of Our Customer’s Needs

The purposes of our CS improvement activities are to (1) share the authentic customer requests, expectations, and evaluations of our customers with our related Business Units (BUs), including the needs of the times and evolving market needs and (2) lead the development and quality of new products and improvement of services. Fig. 2 shows the concept of CS improvement activities.

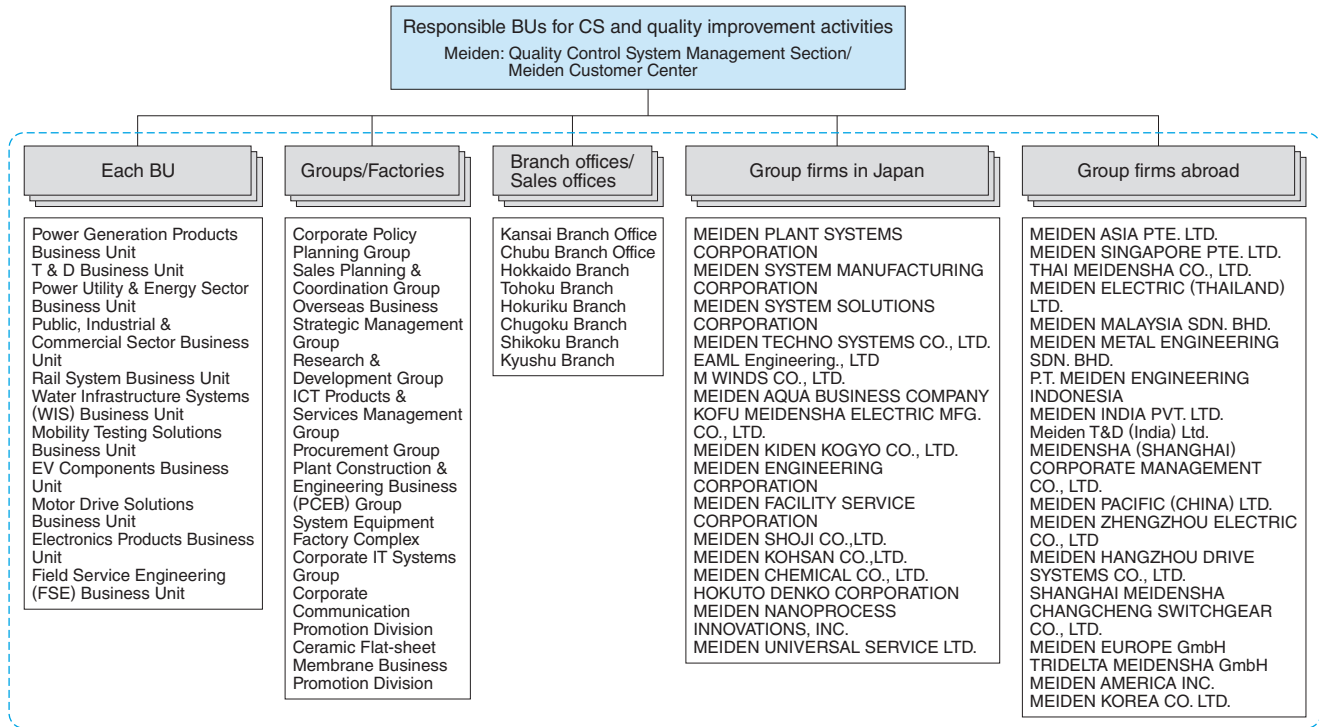
Our company-wide CS improvement activities began in 1994. Initially, the activity focused on erad-

icating external defects and later it became the activities of digging up the customer’s requests involving our sales and engineering BUs. In FY 2019, we collected more than 4000 requests per year. Fig. 3 shows changes in the number of customer’s needs collection cases.

The CNCS is the data base of valuable information for R & D, sales, engineering and factories, and service BUs. Various related BUs use this information. Sales, service and construction BUs are keeping constant contact with the customers. By using the CNCS, they can share the actual voices of customers in the company in a timely manner. Even people working mainly for in-house works such as the design and manufacturing BUs and back-office BUs (GA & HR, accounting, and planning BUs), they can be familiar with the customer’s voices on the products and services of the Group by the CNCS. By facing the customer’s complaints and dissatisfactions faithfully, it can not only prevent the recurrence of a problem, but can also increase employee motivation by receiving a positive review with appreciation.

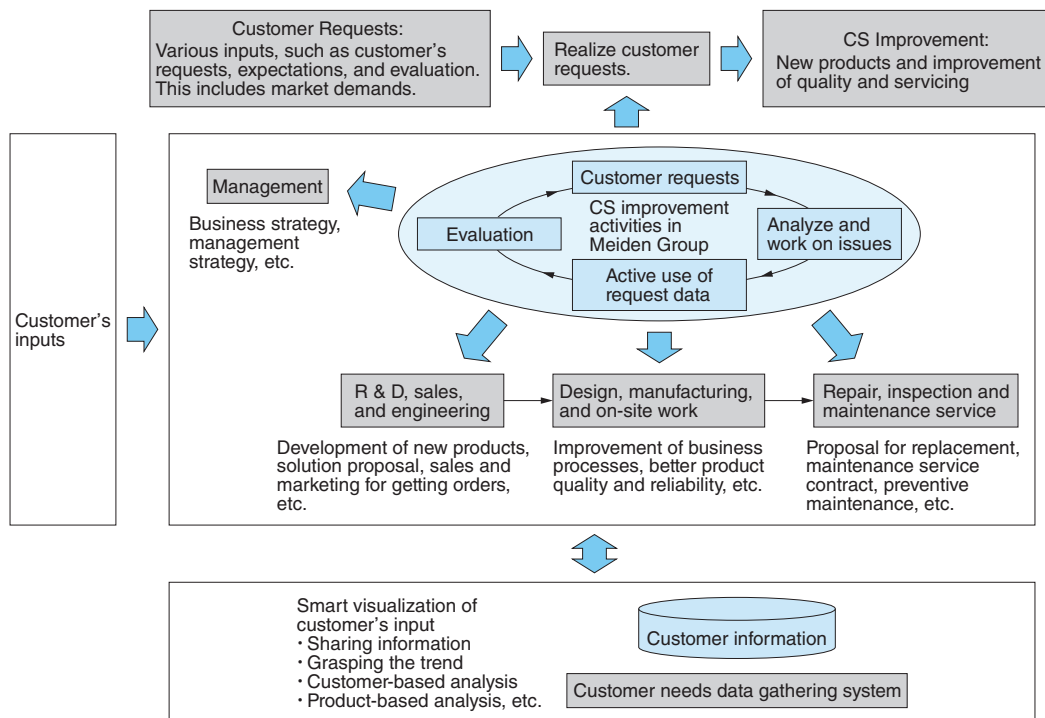
### 2.1 CNCS

The CNCS is provided for the Group firms. It is a tool that supports CS improvement activities. The main functions are: (1) send customer’s requests to related BUs of our Group via the Web for the circular review and discussion and (2) analyze the accumu-



**Fig. 1 Promotion System for CS and Quality Improvement Activities**

Since FY 2020, the range of our activities has expanded for the Group firms at home and abroad.



**Fig. 2 Concept of CS Improvement Activities**

Customer request data are utilized within the Group firms in various forms.

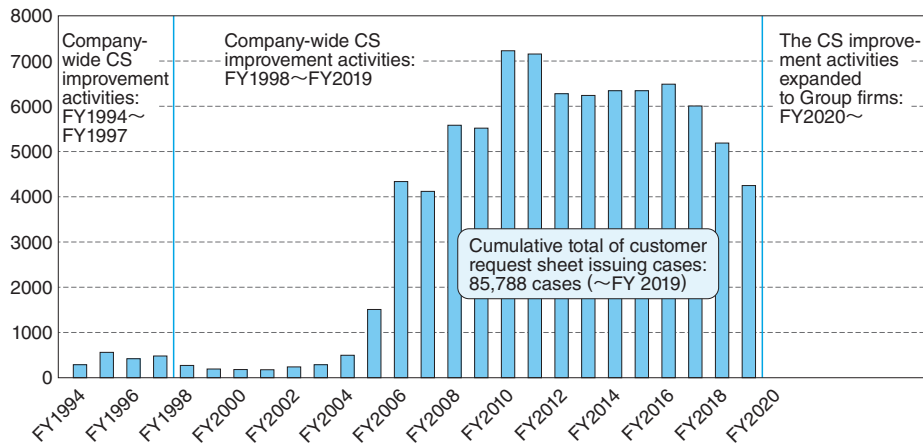
lated information from various viewpoints.

Users can access the Group's intranet and Virtual Private Network (VPN) environment. Fig. 4 shows the major screen configuration of the CNCS.

### 2.1.1 Main Functions

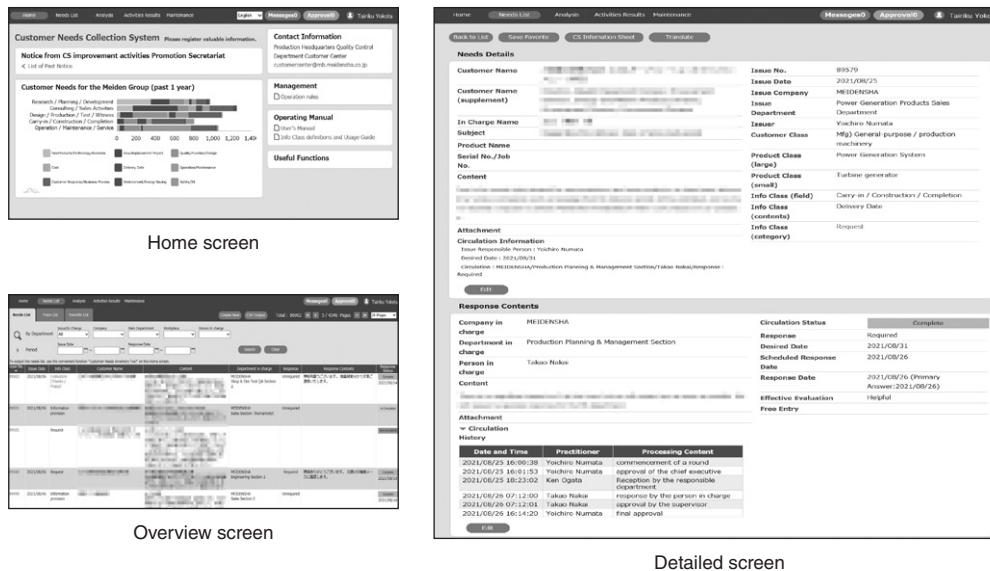
#### (1) Web circular discussion

This is the workflow mechanism of a circular discussion where the customer's request is



**Fig. 3** Changes in the Number of Customer's Needs Collection Cases

Company-wide CS improvement activities have more than 20 years of history and track records.



**Fig. 4** Major Screen Configuration of CNCS

Major screen configurations of this system are shown.

reviewed and discussed among the related BUs. The Circular discussion status (issue/approval/acceptance/return to the previous step/progress status/current reviewing person) can be viewed by anyone assigned by the system at any time. Also, the people concerned may access the response work status updates by intranet portal (information sharing site in the company) at any time and can track it until the response work is completed. **Fig. 5** shows the mechanism of the Web circular discussion.

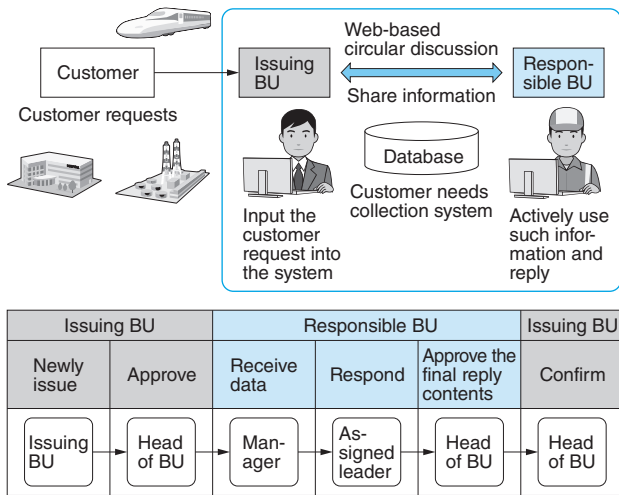
(2) Customer request analysis

This system can statistically analyze the tendency of customer's requests for products and services by classifying customer's voices by industry, product, and information category. We provide

users with a mechanism to visualize analysis results in the form of tables or graphs according to the following three classification items related to the Group's business. As a result, important contents are clarified in order to lead to marketing, quality improvement, and the information according to the business purpose can be effectively used.

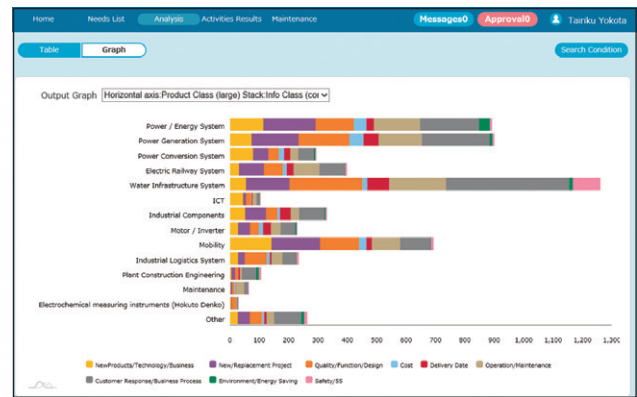
- (a) Customer classification (32 classifications by industry)
- (b) Product classification (109 classifications of 13 product groups)
- (c) Information classification (18 classifications by field/type/content)

**Fig. 6** shows an image of the analysis screen.



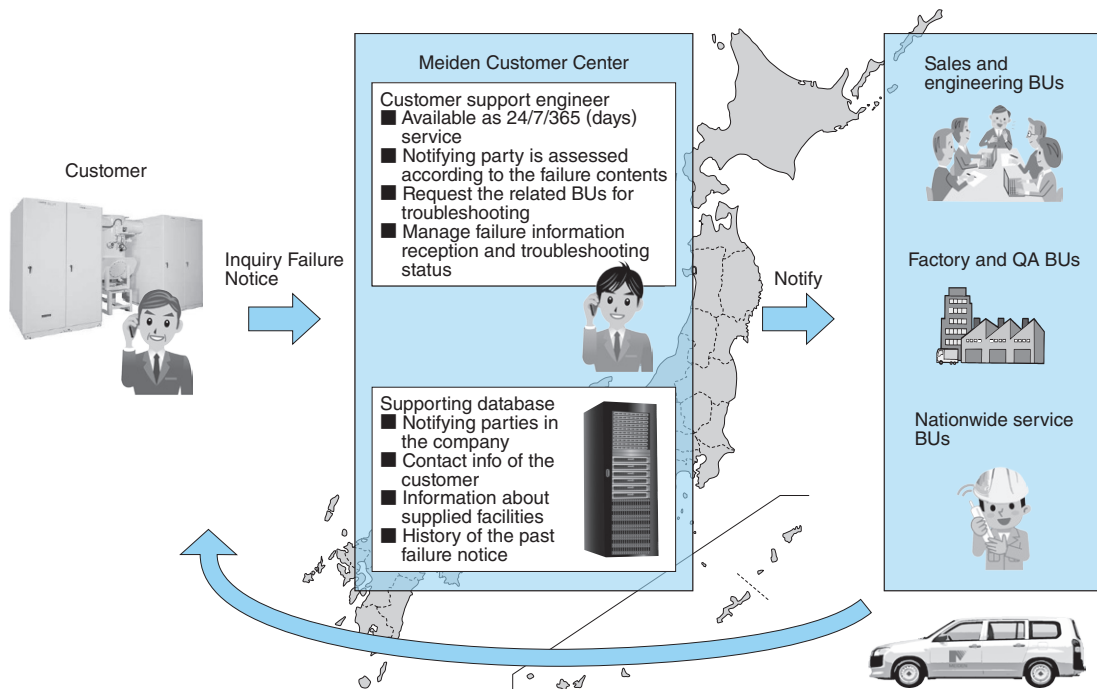
**Fig. 5 Mechanism of Web Circular Discussion**

The system in which related BUs of the Group firms share information and manage the progress.



**Fig. 6 Image of Analysis Screen**

The analysis result is visualized in tables or graphs so that we can grasp the trends of customer needs.



**Fig. 7 Concept of Troubleshooting and FIM System**

The status of troubleshooting for the customer after the failure will be shared by related BUs.

### 3 Failure Information Management (FIM)

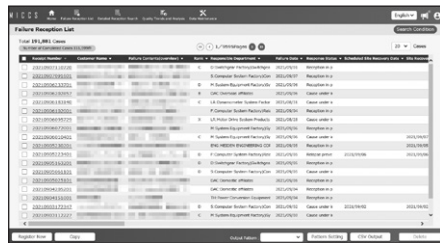
To properly maintain the equipment delivered to customers and assure stable operation, it is necessary to perform daily maintenance and inspections, and also to take prompt action in the event of a failure. Especially in the case of plant equipment, comprehensive assessment is required, and various related BUs take appropriate measures from

on-site recovery work to recurrence prevention.

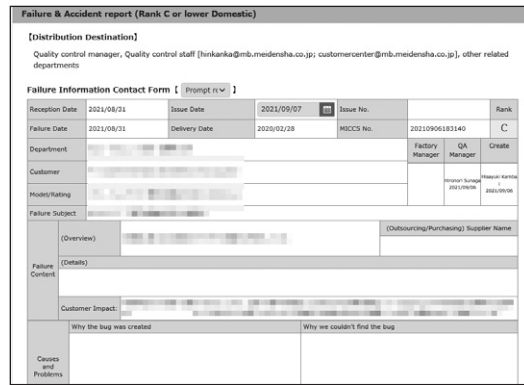
The “FIM System” receives failure information from customers and centrally manages the process from the initial handling and response to recovery work and recurrence prevention. In addition, we have implemented a function to aggregate and analyze failure information for each product and factory, which leads to recurrence prevention and quality improvement. Fig. 7 shows the concept of troubleshooting and the FIM system.



Home screen



Overview screen



Detailed screen

**Fig. 8** Screen Configurations of Failure Information Management System

Major screen configurations of the Failure Information Management System are shown.

### 3.1 FIM System

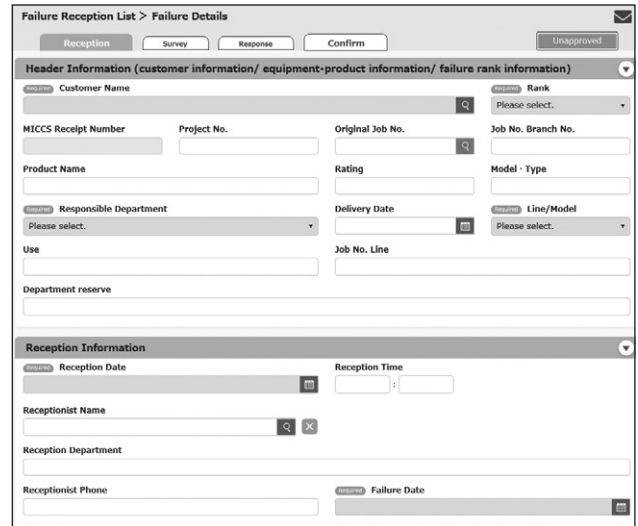
Since the Group handles a wide range of products for businesses of social infrastructure and industrial systems, it is necessary to manage failure information according to the specific product and the work of each department. It is, therefore, necessary to analyze failure information, take countermeasures, prevent recurrence, and horizontally deploy it to improve quality using a common index across the entire company.

This system implements a mechanism to manage all failure information related to the Group's products and a function to analyze the failure information. Users can access the Group's intranet and VPN environment. Fig. 8 shows the screen configuration of failure information management system.

#### 3.1.1 Main Functions

##### (1) Mechanism for managing failure information

In the FIM system, the detailed contents of the failure such as failure occurrence status, cause, remedy, and completion of the recovery work are recorded. In order to supplement such information, it has the following functions: to attach study materials and investigation reports created by various application software, sending e-mail to deliver the initial response result to the related BUs, create a report of failure information, and have a mechanism to trace the progress until failure recovery or troubleshooting completion. The related BUs can, therefore, make appropriate and timely responses to our customers without delay. Fig. 9 shows the image of an input screen.

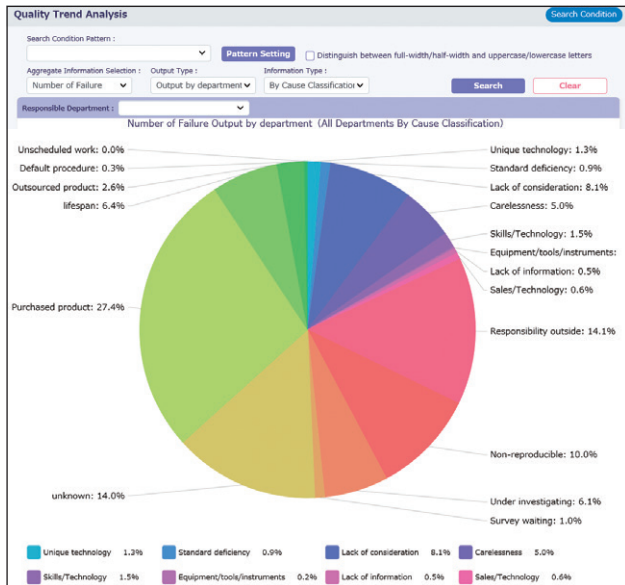


**Fig. 9** Image of Input Screen

This shows the layout with management items for each product and each failure level.

##### (2) Failure analysis

This system reveals the causes of a failure and is equipped with an analysis function to prevent recurrence in each business process. Analysis is a mechanism for visualizing failure statistics and failure factors using the following five common indicators of the group's classification items. By utilizing these classification items, it is possible to perform failure analysis that probes the factors behind aging deterioration and product defects, as well as the underlying factors related to human error such as lack of experience and erroneous operation.



**Fig. 10** Image of Failure Analysis Screen

The failure factors are analyzed using various indicators and fed back to the business processes.

- (a) Responsible BUs (14 items)
- (b) Cause classification (18 items)
- (c) Occurrence time (11 items)

- (d) 3H (hajimete “first time”, henkou “change”, hisashiburi “long interval”) factors
- (e) Human factors (direct causes, action results, background factors)

Fig. 10 shows the image of failure analysis screen.

## 4 Postscript

Our company and nearly total 40 Group firms (Japan and overseas firms combined) use the “Customer Needs Collection System (CNCS)” and “Failure Information Management System”. These two systems were introduced.

Meiden Customer Center is available 24 hours a day for customer support services of our installed products. To provide high quality products and services that meet the needs of our customers, we will promote the CS improvement activities of the Group and support the quality improvement activities. In doing so, we aim to achieve higher customer satisfaction.

- All product and company names mentioned in this paper are the trademarks and/or service marks of their respective owners.