Global Help Desk
– A Starting Point for Global Companies to Improve the Quality and Efficiency of the IT Environment –
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1. Introduction

NEC is offering NEC Global Services® as a service to build and operate an optimal IT environment for companies expanding globally, whether it is a Japanese company launching into overseas markets or a U.S. or European company launching operations in Asian countries including China and Japan.

With NEC Global Services®, NEC acts as your partner, not only through the procurement, design, build, and operation of IT and network platforms, but also with the challenges presented by security, IT governance, and IT service management. What’s more, NEC has adopted standard service processes based on global standards like ITIL®, PMBOK, and COBIT to provide our customers around the globe with a homogeneous service at optimum cost.

NEC Global Services® offers a host of services, according to our service solution Framework shown in Figure 1. Among them, our Global Help Desk Service is exemplary. Designed to handle inquiries from IT users, this service offers a single point of contact (SPOC) capable of overcoming country, regional, and linguistic barriers. In doing so, it aids the swift return to a normal state of operation following any incidents.

A core capability of the Global Help Desk Service is the Global Help Desk itself. This paper introduces the features and role of the global help desk and presents the effectiveness of implementing Global Help Desk Services.

Figure 1: Service Solution Framework of NEC Global Services®
2. What is the Global Help Desk?

The Global Help Desk Service is an outsourcing service designed to serve as a single point of contact for service requests and to take responsibility for handling daily incidents encountered by overseas IT users.

To provide the Global Help Desk Service, a variety of processes, functions, and roles must be defined. The role of the Global Help Desk is to address incidents and handle service requests from users, a key objective of the Global Help Desk Service.

The Global Help Desk Center is a facility that works to efficiently deliver functions of the Global Help Desk and ensure high quality Global Help Desk Services. This is accomplished by coordinating multiple help desks located around the globe (see Figure 2).

3. Issues Faced by and Solutions for the Global Company

3.1 Issues

Based on our experience with numerous customers and consulting opportunities, NEC believes a global company’s IT environment faces the following issues:

- Inadequate IT support organization for small-scale overseas sites
- Lack of control of overseas sites
- Inadequate security measures at overseas sites
- Inadequate management of licensing and copyright
- Reoccurrence of incidents, and such

On the other hand, for U.S. or European companies expanding operations to Japan, the Japan site may suffer from the following issues because the help desk used by Japan users is specified by the parent company.

- Poor ability by the help desk to offer support in Japanese
- Compared to native Japan support, the overseas help desk may have a terse manner, and such

Especially for Japanese global companies with small-scale overseas operations, the effect of distance and barriers like language and culture can make it difficult for Japanese IT staff to manage daily issues. But when issues are left entirely to the local overseas staff, an issue may become a huge problem by the time it is noticed by the Japan team.

As a concrete example of this, let us consider the case of a Japanese company establishing a new company or office overseas. It is likely to encounter the following problems:

![Figure 2: Global Help Desk](image-url)
[Problems Encountered by the Overseas Office]

- Unable to assign an IT member to address the issue, the user does not receive timely support and his/her work is impacted. In some cases, this may lead to a lost business opportunity.
- Even if an IT member is available, his/her work is interrupted each time the same issue is encountered by an end user. To make matters worse, this happens at each individual site.

[Japan]

- Even if a member of the Japanese IT group tries to support local operations, it doesn’t go well due to language and cultural barriers with the overseas site.
- In the end, local IT groups are left to their own devices following launch and the Japanese staff lose visibility to issues, licensing, and IT equipment.
- As a result, by the time the Japanese parent organization has noticed problems, critical security issues or license infringements have occurred.

IT departments coping with these issues become so involved in dealing with daily incidents or solving complaints that they find it difficult to find precious time to plan IT investments critical to business growth. Consequently, the company’s performance is thus impacted.

Additionally, when a company attempts to build out an entire organization at an overseas site from scratch, it may find itself on a long road paved with difficulties, from establishing infrastructure consisting of talent and tools to expending significant effort at creating processes and procedures. The time and cost to see this through to the end can be enormous.

### 3.2 NEC’s Proposed Solution

To solve the issues described above that are often encountered by global companies, and as a means to support from an IT perspective our customers’ global operations, NEC is offering the Global Help Desk Service with the following features. This service can enable your IT department to build a global IT organization with speed and devote itself to the planning and management needed to expand your core business.

- Multilingual help desk
- A shared service capable of supporting small-scale sites
- High quality service in accordance with ITIL-compliant processes
- Collaboration with secondary support (resolution team, on-site)
- Support organization including sites both in Japan and overseas
- For foreign companies, collaboration on global governance of Japan sites

**Challenges of Overseas Expansion**

<table>
<thead>
<tr>
<th>Overseas Sites</th>
<th>Features of Global Help Desk Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can't assign dedicated IT staff</td>
<td>Support in English, Chinese, and Japanese</td>
</tr>
<tr>
<td>Timely support difficult to obtain</td>
<td>Incident Management</td>
</tr>
<tr>
<td>Same inquiry from multiple end users</td>
<td>Second-level Support Collaboration (resolution team, on-site)</td>
</tr>
<tr>
<td>Japan</td>
<td>Visibility improved through reports</td>
</tr>
<tr>
<td>Language barrier thwarts support effort</td>
<td></td>
</tr>
<tr>
<td>Reliance on locals impedes visibility to issues</td>
<td></td>
</tr>
</tbody>
</table>

![Figure 3: Correspondence of the Features of Global Help Desk Service and the Challenges of Overseas Expansion](image-url)
4. Global Help Desk Overview

4.1 Position of the Global Help Desk within IT Operations

For the IT user, a help desk function that takes inquiries like service requests (e.g., issue a new ID for a business system) or day-to-day incidents (e.g., unable to send/receive e-mail) and follows each issue to closure is crucial. More often than not, users find themselves unable to figure out whom to contact since it varies by topic or they may have to chase IT staff around, seemingly never able to gain resolution to an incident. As a result, the user’s work suffers or the company’s performance is negatively impacted.

An important role of the IT department is to establish a Global Help Desk that serves as a single point of contact for responding to these incidents and service requests, thereby supporting its users through resolution. At NEC, the single point of contact for both domestic and overseas users is called the Global Help Desk and is a core service of NEC Global Services®.

4.2 Role and Function of the Global Help Desk

The role and function of a Global Help Desk in the context of IT services are as follows:

- **Gather and Record Incidents and Service Requests**
  Incidents and service requests are received from users via telephone and e-mail. Multiple languages are supported—English and Chinese in addition to Japanese. The nature and details of the request are recorded in a management tool and then responsibly managed until resolved. For support in other languages, please consult with us.

- **First-Level Resolution of Incidents**
  The help desk operator attempts to resolve an issue by first searching for known resolutions stored in a knowledge database before escalating it to others. If the issue can be resolved at the first level, the help desk operator works to resolve the issue with the user via telephone or e-mail.

- **Incident Escalation**
  If an incident or service request cannot be handled by the first level, the help desk escalates the issue to second-level support personnel like on-site support, NEC technical staff, or device manufacturers or the customer’s IT department. Additional information related to the escalation is recorded in the management tool, where its state is then tracked.

  (Example of Escalation)
  
  The hardware on a PC has failed ⇒ Request on-site repair from the PC vendor’s support desk.

- **Confirming Incident Resolution and Closure**
  Once an incident is resolved through first-level support or escalation, the help desk contacts the user to confirm and then report resolution. After the user agrees that the incident has been resolved, the status of the incident is set to Closed in the incident management tool. The measures to resolve the incident (whether permanent or temporary) are then recorded in the incident management tool and stored in the knowledge database to be used when the same incident is encountered again. By accumulating this information, the ability of the help desk’s first-level support is enhanced and it promotes continuous improvement of the quality of response.

- **Periodic Reporting**
  The help desk creates monthly reports on how many incidents have occurred and their resolution status and submits them to the customer’s IT department. NEC Global Services® uses these monthly reports during regular meetings between the customer’s IT department and NEC’s Service Delivery Manager (SDM) to maintain and improve quality of services. Note that these reports can be created in a language (like Japanese or English) and submitted to the organization (Japan headquarters or local site) of your choosing.

- **Support through Remote Access of User Terminals (Optional)**
  As an optional service, NEC second-level support personnel or help desk operators can connect to the user’s equipment using a special tool to directly resolve incidents or conduct investigations.
4.3 Tools Used by the Global Help Desk

The Global Help Desk uses the following tools to standardize tasks and increase efficiency.

- **ACD (Automatic Call Distributor):** Telephone calls received by the global help desk are automatically routed to a suitable operator based on the content of the inquiry and the call load to achieve efficient call management.

- **CTI (Computer Telephony Integration):** Customer calls are managed by a computer system. By viewing the customer’s profile and past support history, the operator is better able to smoothly handle the inquiry.

- **Global Configuration Management Database (G-CMDB):** With a Configuration Management Database (CMDB) to centrally manage IT resources such as PCs and servers, this tool was developed specifically to globally manage tickets for the ITIL-compliant incident management, problem management, and change management. This makes it possible to standardize the Global Help Desk and achieve consistent work processes.

- **Knowledge Database (KDB):** This database stores the causes and resolutions to incidents and problems that have occurred. When a similar incident occurs, the help desk operator can quickly find how the incident has been resolved before. This raises the level of satisfaction among users and promotes continuous improvement in the quality of Global Help Desk.

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**Figure 4: Role and Function of the Global Help Desk**
4.4 Structure and Arrangement of the Global Help Desk Center

The help desk center is the facility that achieves the help desk function. Help desk centers can be arranged in a multitude of ways and the best method varies by organization and business format. As a practical matter, there are several combinations, typically following one of the three arrangements presented below.

- **Local Help Desk Center:** The help desk is located on the same site as the user or physically nearby. With no differences in language or time zone, the help desk operators are well-acquainted with the user’s situation.

![Local Help Desk Center Diagram](image)

- **Central Help Desk Center:** The help desk center is located in a single location but serves multiple regions. The merits of this approach include greater efficiency and better cost performance.

![Central Help Desk Center Diagram](image)

- **Virtual Help Desk Center:** The virtual help desk center uses Internet technologies and tools to give the appearance of a single central help desk center even though multiple help desks are spread across different regions. This allows the help desk to provide 24 hour service without regard to time differences.

![Virtual Help Desk Center Diagram](image)

For example, currently NEC’s Global Help Desk Service has help desk centers in Japan and Singapore to handle the Asia region in a central help desk center arrangement. The Japan center is responsible for East Asia (Japan, China, etc.) while the Singapore center is responsible for Southeast Asia (Singapore, Malaysia, etc.). These two help desk centers provide the Global Help Desk Service to customers expanding global operations centered on Asia.

NEC has introduced service delivery processes and has adopted shared tools between these two help desk centers. With this structure, services can continue uninterrupted even if one of the two help desk centers experience a natural disaster or other interruption that makes provision of services difficult.

NEC’s Global Help Desk Service normally provides service to each country from 9 a.m. to 6 p.m. on weekdays, but is able to provide service 24 hours/day, 365 days/year, if needed.
5. The Benefits and Risks of Implementation

The following direct and indirect benefits can be expected from implementing global help desk services.

**Best Methods**
- By establishing a single point of contact globally to deal with a variety of incidents that hinder business when they occur on IT equipment, the best method to deal with the problem can be quickly discovered.

**Cost Performance**
- You can begin IT support at lower start-up and operational costs than if you were to employ or contract dedicated IT staff.

**Global Centralized Service**
- The Global Help Desk supports your effort to promote policies at overseas sites in accordance with global IT governance and policies drafted by Japan headquarters. For example, the same service content and quality can be provided for Asian factories and sales offices across countries and regions as that for the Japan headquarters while incidents and service requests can be centrally managed. By doing so, greater visibility to issues with IT equipment across the organization is achieved.

**Multiple Languages**
- The Global Help Desk Supports Japanese, Chinese, and English for your culturally diverse employees.
- Support becomes seamless for overseas personnel traveling on business to Japan or vice-versa.

**A Foothold to Integrated IT Service Management Conforming to ITIL Best Practices**
- The content of inquiries, bug status, and resolution status are all captured by the help desk and managed as incidents so this knowledge can be applied to later inquiries of a similar nature. As experience and knowledge are accumulated in the knowledge base, efficiency improves.

- If you should expand the domain of IT service management in the future, and help desk and incident management have already been implemented, the incidents within the IT domain will be clear thereby easing the implementation of an integrated IT service management.

**Indirect Contributions to the Business**
- By providing the best method to deal with the problem in a timely fashion, business opportunities lost because of IT equipment trouble can be minimized. For example, if a salesperson experiences trouble on his PC while he’s creating a proposal for an important business discussion, his level of preparation could be harmed. By contacting the help desk, he can get speedy resolution to his problem.

By contrast, outsourcing the help desk function to an outside IT vendor entails a number of risks. To overcome such risks in our Global Help Desk Service, NEC takes the following measures.

**Risk Management (1): Information Leakage**
- While providing IT support to customer employees, the help desk deals directly with those employees. In some cases, an employee may divulge information that should not be disclosed. In addition to observing each customer’s information security policy, NEC’s Global Help Desk employs information security measures that follow the ISMS conformity assessment system in accordance with the international standard ISO/IEC 27001. Help desk operators are subject to strict control of entry to and exit from the room and what can be taken out. Additionally, operators take periodic training on security.

**Risk Management (2): Inadequate Knowledge of Customer’s Business**
- When the help desk is shared instead of being dedicated to a single customer, some may think that a danger exists for inadequate understanding of the
particulars of the customer’s environment (for example, the configuration of the IT equipment). However, NEC’s Global Help Desk maintains a centrally managed database to track configuration of IT equipment subject to support. The Global Help Desk shares information across multiple global help desk centers when operating as one. By making the information instantly available, relevant information can be understood without delay to the customer’s inquiry. Additionally, by managing the incident response and status collectively, information is converted to experience. By sharing this information, help desk operators can swiftly respond even in a shared structure.

6. Service Example

This section introduces an example of utilizing NEC’s Global Help Desk Service.

[Global Help Desk Service for Asian Sites of a U.S. Manufacturer]

The customer in this example is a manufacturer headquartered in the U.S. that is expanding operations around the world. NEC provides outsourcing services for IT operations in Asian sites that do not have dedicated IT staff.

[Service Content]

- Regions of support: Singapore, Malaysia, China, Japan
- Number of users (Asia): 140 persons
- Languages: English, Chinese, Japanese
- Target Hardware and Software:
  - PC
  - MS Windows OS
  - Customer’s standard software: MS Office, antivirus software, document management tool
- Servers located in the office
- Network equipment
- Printers, scanners
- Method of contact: Telephone or e-mail
- Help desk center location: Japan, Singapore (non-Japan support)
- Hours of service: Weekdays 9:00 a.m. – 6:00 p.m.

[Benefits of Implementation]

- Best Methods
  Employees at each site contact NEC’s global help desk center when they encounter IT-related trouble or have inquiries. The best method to address the problem is found from the knowledgebase by first-level responders or is escalated to a suitable expert.

Since all IT-related matters are addressed by NEC’s global help desk center, each site’s employees can
focus on their primary work like general affairs or sales. The benefit of this is demonstrated by extremely high marks received from customers during a customer satisfaction survey.

**Cost Performance**
Since each site isn’t required to hire dedicated IT staff or contract the work out, the customer enjoys the same quality of IT service at a much lower cost.

**Global Centralized Service**
IT operations follow IT governance and policy established by the customer’s U.S. headquarters and Asian region headquarters (Singapore). This allows users to enjoy IT operations that are globally uniform. What’s more, since incidents occurring at each site are integrally managed, problems shared across sites are quickly discovered and the quality of response improves.

**Multilingual Support**
Support is provided in Japanese, Chinese, and English. Not only local employees at each site, but persons travelling or on assignment from the U.S. can take advantage of the services too without worrying about language issues.

7. **Conclusion**
Global Help Desk Service aims to manage and coordinates IT-related incidents and provide swift resolution to customers expanding business operations globally. With its global reach, NEC’s Global Help Desk has standard processes and optimally coordinates with the customer’s conditions to achieve their aims.

Additionally, if the scope of IT service management is expanded to include issue management, change management, configuration management, and other IT service management processes, the Global Help Desk can also serve as the IT service desk.

In this way, by using the Global Help Desk equipped with a variety of functions, customers get a head start on improved quality and greater efficiency in the IT environment, thereby contributing greatly to global expansion of their business.