NEC Cloud System (OSS Building Model)

OSS*-based Cloud Infrastructure Building Solution

*Open Source Software

Build a highly reliable and scalable open cloud platform in a short time. We will support you all the way, even providing operational efficiency enhancements.

Issues when building a cloud infrastructure

To build an open cloud infrastructure that can quickly respond to changes in the business environment:

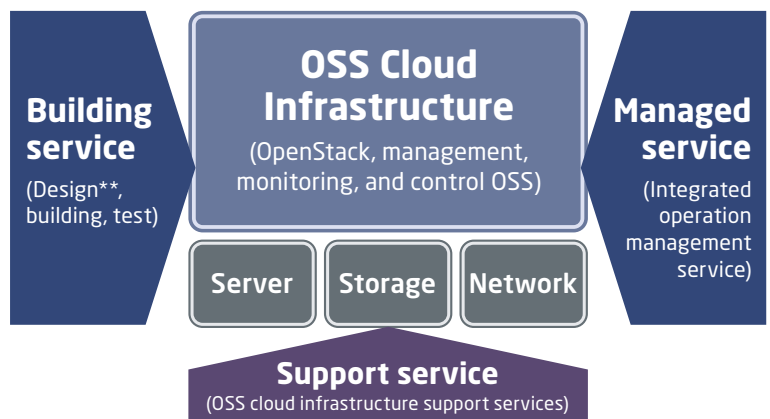|	Issues	Solved by NEC Cloud System with:
Operations department	I want to flexibly allocate our factories and stores to reflect changes in the business environment. But our inflexible infrastructure is slowing management speed down.	A pioneering OSS-based cloud infrastructure that enables speedy and flexible setup and deployment of a new system
Enterprise IT department	I want to use OSS, but how do I select the right one?	An optimal combination of pre-verified OpenStack and other OSS
	If I use OSS, what about quality and support?	Enhanced quality through evaluation and the total support of professional teams

Note: Open Source Software (OSS) is computer software with its source code made public free of charge, allowing anyone to improve and redistribute the software according to an open source concept.
Note: OpenStack is Open Source Software for building cloud infrastructure.

What our solutions look like

OSS is adopted for cost optimization and employ the latest technology. We provide total support from designing to building and operating open cloud infrastructure based on OSS including OpenStack.
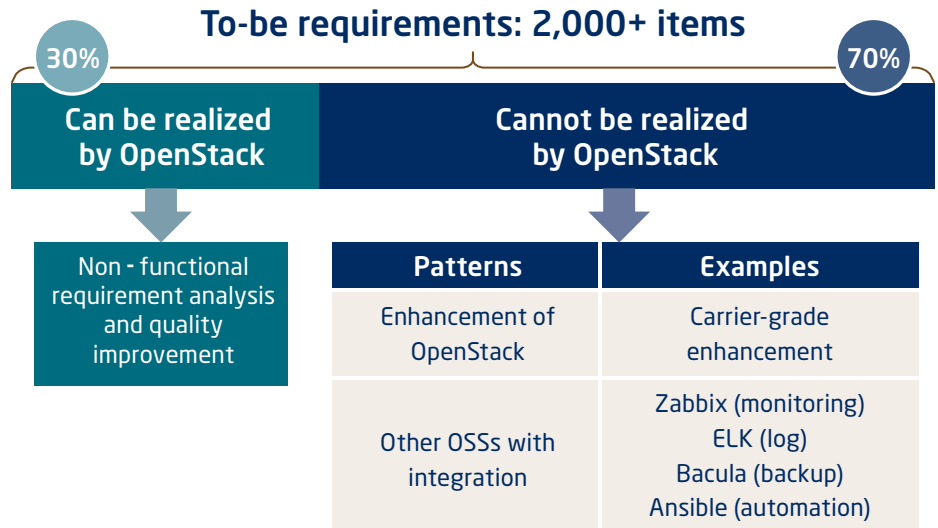
- **Swift implementation** of reliable and scalable solution realizes **business flexibility**
- A high degree of **customization by using OSS**
- **Integrated management of multiple data centers**
- **Reduced management workload** via automated operation
- Thorough technical verification and 24/365 support by OSS specialists

Building service
(Design**, building, test)

OSS Cloud Infrastructure
(OpenStack, management, monitoring, and control OSS)

Server **Storage** **Network**

Managed service
(Integrated operation management service)

Support service
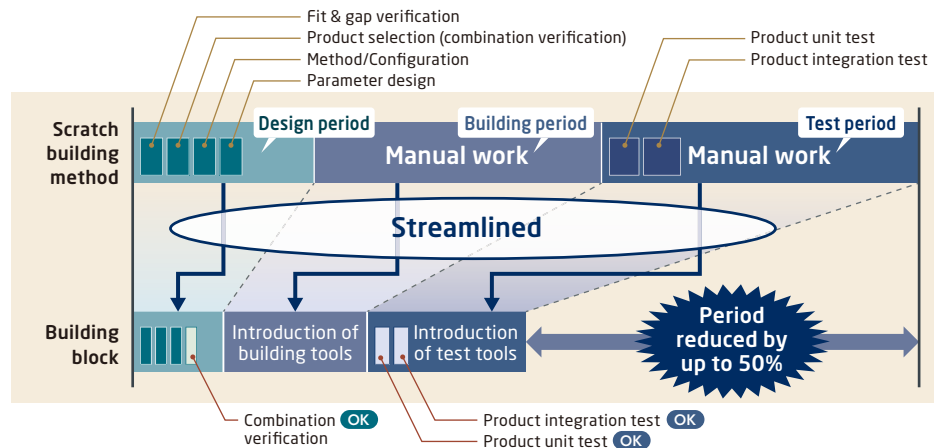(OSS cloud infrastructure support services)

** Including operation design

A fully open cloud infrastructure

NEC listed up the functional requirements for cloud infrastructure based on customer requests and vast experience in building and operating NEC's OpenStack-based infrastructure services "NEC Cloud IaaS". While maintaining infrastructure's openness, NEC satisfies the requirements that OpenStack alone cannot fulfill by modifying OpenStack or integrating other OSS. OpenStack is analyzed and enhanced before the building phase in terms of non-functional requirements (i.e. availability, performance, operability, scalability, etc.). The openness of the cloud infrastructure is assured by providing the source code for every new customization and newly developed function to the open-source community.

To-be requirements: 2,000+ items

30% — **Can be realized by OpenStack** → Non-functional requirement analysis and quality improvement

70% — **Cannot be realized by OpenStack**

Patterns	Examples
Enhancement of OpenStack	Carrier-grade enhancement
Other OSSs with integration	Zabbix (monitoring) ELK (log) Bacula (backup) Ansible (automation)

Highly reliable cloud environments built in a short time

We make standardized models of functions and requirements for cloud environments and pre-verify combinations of products based on the models. This building block method allows customers to select combinations depending on their size and system requirements while shortening the building period by up to 50% compared to conventional scratch building methods.

The use of automated system building tools can reduce human errors. Our system realizes highly reliable cloud environments in a short period of time.

OpenStack quality enhancement and total support structure

NEC formed special teams of OpenStack specialists to carry out thorough evaluation and prepare effective solutions of problems or work around.

NEC also provides one-stop support for all OSS products integrated in our cloud infrastructure solutions. Our available high-level SLA support service provides 24/365 support and emergency work around in the event of failure. During the operation phase, everyday tasks can be automated to relieve the workload of managers. We also provide operation services on behalf of our customers.

URL : http://www.nec.com/en/global/solutions/cloud/oss/index.html