NEC

High Availability Software

EXPRESSCLUSTER X SingleServerSafe

Business Continuity solution for single server operation, achieving No.1 market share for 5 straight years from 2009 in Asia Pacific region*.

*Source: IDC Japan, June 2014 "Japan System Software 2014-2018 Forecast and 2013 Analysis" (J14350103)
IDC AP, October 2014 "Asia/Pacific (Excluding Japan) Availability and Clustering Software Market Update 2014" (AP246216)

Benefits

Extremely cost-effective

The autonomic recovery of IT systems is possible in environments where there is no permanent SE and for internet data centers that have multiple servers.

Real-Time Health Monitoring

The operating conditions of each server can be visually checked through web browser, and EXPRESSCLUSTER X integrated manager can be used to collectively monitor the operating conditions of multiple servers.

Flexible Deployment

Flexible solution to enhance availability even in environments where traditional HA clustering is inherently more difficult to deploy such as servers in network load-balancing cluster.

Product Overview

EXPRESSCLUSTER product technology can also be effectively used for a single-server configuration.

● Stop

SingleServerSafe detects when applications or services stop abnormally. When an application is detected to unexpectedly stop, it is automatically restarted to perform recovery. Custom applications can also be monitored.
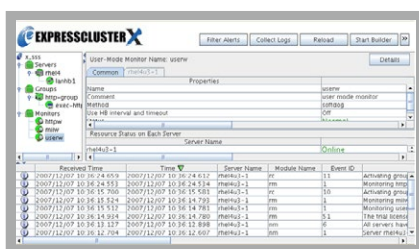
● Stall

SingleServerSafe detects when software, operating systems, or hardware access hang-up. In case of hang-up, which does not leave any evidence in the syslog or failure logs, is detected, restarting is automatically performed for recovery.
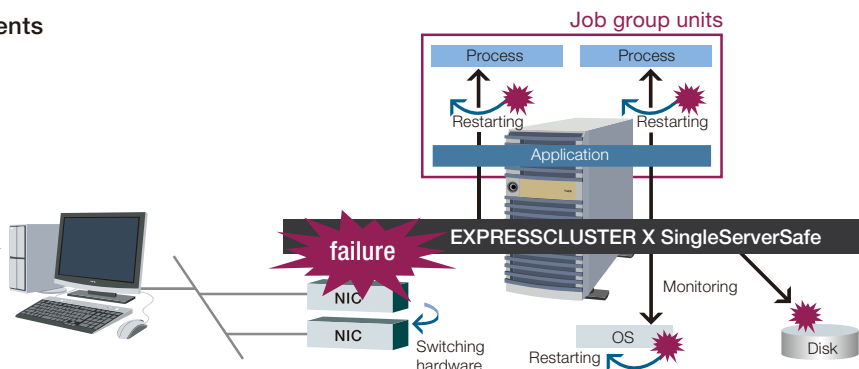
● Setup

Deployment is easy because setup information is saved in a file. Because settings are created offline, switching from test to production environment is easy, as is deploying a configuration you are already using for another system.

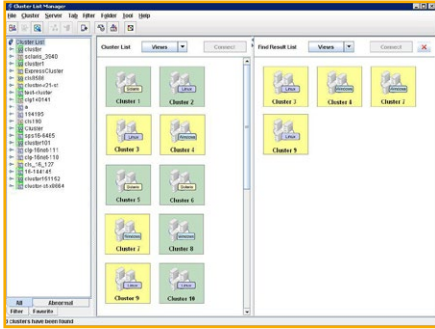## System Image

High reliability in single-server environments
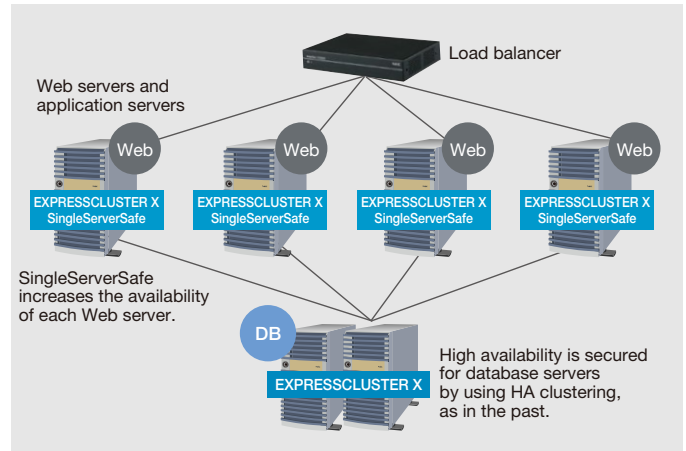

Web-Based Management GUI

EXPRESSCLUSTER X

Integrated Management

If EXPRESSCLUSTER X SingleServerSafe is installed on a single server or on a server controlled by a load balancer, integrated management and increased availability of the entire system, from its front end to its back end, are possible.
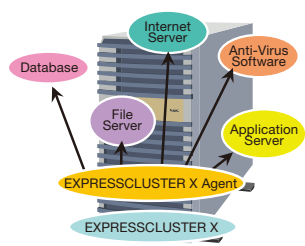
Integrated manager

A Web browser can be used to perform operations and view statuses in an integrated way.

SingleServerSafe increases the availability of each Web server.

High availability is secured for database servers by using HA clustering, as in the past.

Add-On Options

The optional products for EXPRESSCLUSTER X can also be used for EXPRESSCLUSTER X SingleServerSafe.
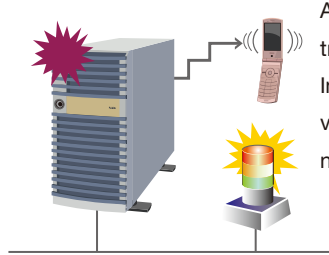
● **EXPRESSCLUSTER X Agent**

In addition to monitoring to determine whether the various applications in a cluster are alive or dead, the status of the applications including hang-up and abnormal response can be monitored. Five types of agents are available for each supported application.

* File Server Agent is only available for the Linux version, and Anti-Virus Agent is only available for the Windows version.

● **EXPRESSCLUSTER X Alert Service**

Alert email can be sent to the administrator when a failure or failover occurs. In addition, the status of servers can be visually checked anytime through network warning lights.

Support Matrix

	Windows	Linux
OS	Microsoft Windows Server 2012 R2 Microsoft Windows Server 2012 Microsoft Windows Server 2008 R2 Microsoft Windows Server 2008 Microsoft Windows Server 2003 R2 SP2 Microsoft Windows Server 2003 SP2	Red Hat Enterprise Linux Asianux Server Novell SUSE LINUX Enterprise Server Turbolinux Appliance Server Turbolinux Server Oracle Linux Oracle Enterprise Linux CentOS Ubuntu
Virtual Environment	Microsoft Hyper-V, VMware vSphere, XenServer, KVM	
Architecture	IA32, x86_64	
Verified Applications with Agents — Database Agent	DB2, ODBC, Oracle, PostgreSQL, PowerGres, SQL Server	DB2, Oracle, PostgreSQL, PowerGres, MySQL, Sybase Adapted Server Enterprise
Verified Applications with Agents — Internet Server Agent	FTP, HTTP, IMAP4, POP3, SMTP (including Microsoft Exchange)	FTP, HTTP, IMAP4, POP3, SMTP
Verified Applications with Agents — Application Server Agent	Tuxedo, WebLogic Server, WebSphere Application Server, WebOTX	Tuxedo, WebLogic Server, WebSphere Application Server, WebOTX
Verified Applications with Agents — File Server Agent	N/A	Samba, NFS