



FC

Б

0

Hitachi, Ltd. Software Division

0 -80 5 D H < - -0

D

Contents

History	History of the division, evolution of our business, major products, and topics		
Overview	List of products that meet customers' needs	05	
Product	Providing a wide lineup of products from system software to middleware	07	
Service & Solution	One-stop services and solutions throughout a system life cycle	09	
Background	Quality Assurance (QA) and environmental awareness	11	
Relationship	Business locations and community involvement	12	

Our mission at Hitachi, Ltd. Software Division is to contribute to IT society by creating valuable software and services for our customers.

The era of ubiquitous computing, in which anyone can use information anywhere at anytime, has arrived. As our contribution, Hitachi, Ltd. Software Division provides one-stop services for various products and platform systems related to the information that has become an essential lifeline in our society. As we further expand our global operations, we will continue to provide value to our customers and contribute to our community.





Since starting our computer business in 1962, Hitachi has been developing advanced technology and products in the software field. Hitachi's customers and society in general have appreciated our products.

History

1960s

1970s

Hitachi develops their original

1980s

►

Evolution of Business

There is a rapid increase in large-scale

Business expands and foundations are

and online bank systems.

laid

orders such as seat reservation systems

specifications for DOS and EDOS/MSO operating systems. Business increases with the development of M series software.

Mainframe centered systems penetrate all companies. The VOS series lineup is strengthened

and database and data communication products are sequentially shipped out.

In addition to the increase in communications among companies brought on by the development and expansion of digital communication networks, the online demand of normal companies increases. The M series software is strengthened and software development for small machines starts.

To maximize the efficiency of office activities, OA-related system software is developed. Development environments such as development assistance systems for end users and application software are strengthened.

Business alliances with our partner companies are actively promoted to expand the market for Hitachi Open Middleware

1990s

In addition to the system software for Hitachi's hardware with high performance and high reliability, the Hitachi Open Middleware series for open environments is developed.

Main Software Developed

1974: OS7 1976: VOS1 1977: VOS3, TMS-4V

1970: EDOS

1984: VOS3 RDB1 1986: HI-UX, XDM/SD 1988: VOSK, XDM E2 1989: XDM/RD

1990: VOS3/AS

1994: Integrated systems management -Job Management Partner 1 (JP1), Distributed transaction management OpenTP1, Highly scalable relational database HiRDB, Business application development environment COBOL85

1995: Workflow/Groupware Groupmax 1996: VOS3/FS, VOSK/FS

1997: Electronic Commerce

- 1998: Network Objectplaza
- 1999: E-business integration platform Cosminexus, The framework for enterprise document management



Topics

- 1994: Received the international product guality assurance certification ISO9001
- Hitachi receives the Nikkei Information Technology Systems Prize (OpenTP1).
- 1995: Hitachi receives the Nikkei Technology Grand Prize (HiRDB). First company outside Great Britain to obtain the 1995 TickIT Prize
- 1996: Software Product of the Year '96 Prize (Mediachef).
- 1997: OMG™ Excellence Prize (application developed on ObjectIQ). **1998:** Science and Technology Agency 57th Remarkable Developments Selection Prize (DATAFRONT patent).
- 1999: Received the environmental ISO14001 certification and implemented an environmental management system according to international standard regulations.
- Job Management Partner 1 receives the Good Design Award. 2001: Nikkei BP ad award (Job Management Partner 1 and COBOL).
- 2002: Minister of Economy, Trade and Industry Prize awarded for
- Hitachi's COBOL standardization activity. Nikkei BP ad award (HiRDB). Joint research between Dr. Kanada's team at the University of Tokyo and Hitachi using SR8000/MPP sets the world record for calculating the approximation of pi.
- 2003: Started the HiRDB Academic Assistance Program.
- 2004: Job Management Partner 1 receives seven overseas awards. Hitachi partners with Yahoo Japan Corporation for the development and sales of Cosminexus-related solutions The Hitachi group uses Groupmax to build an integrated collaboration environment, serving as a world-class internal

communication infrastructure supporting 200,000 users. Nikkei BP ad award (COBOL). Joint research between Dr. Kanada at the University of Tokyo and Hitachi wins the 36th

annual Ichimura Award. 2005: Received the Good Design Award (Groupmax Collaboration). Job Management Partner 1 receives eight awards overseas, including the 2005 China Excellent Middleware Award, from the China Center for Information Industry

Development (CCID)

2006: JP1/HiCommand* receives the Good Design Award. Job Management Partner 1 receives four awards overseas, including the Chinese government business information-oriented excellent solution award.

2007: Job Management Partner 1 holds the top market share for eleventh consecutive year**. 2008: For the second consecutive year, Job Management Partner 1 ranks first in consumer satisfaction*** and in partner satisfaction**** Cosminexus ranks first in consumer satisfaction***** , and for the second consecutive

year, first in partner satisfaction******

Job Management Partner 1 receives six awards overseas, including the China Financial Science and Technology User Trusted Product Award from the China Computer Users Association.

*The product name was changed to Hitachi Storage Command Suite in May 2008.

- **1997 to 2007 (based on research by the Fuji Chimera Research Institute and others) ***13th Annual Consumer Satisfaction Survey - Integrated Operation Management Tool Division (from the 8/15/2008 issue of Nikkei Computer)
- ****11th Annual Partner Satisfaction Survey Network and System Operation Management Software Division (from the 2/15/2009 issue of Nikkei Solution Business)
- *****13th Annual Consumer Satisfaction Survey Web Application Server Division (from the 8/15/2008 issue of Nikkei Computer)
- ""11th Annual Partner Satisfaction Survey Application Server Division (from the 2/15/2009 issue of Nikkei Solution Business)

na. home of Software Divisio



2000s >>>

Development of foundation middleware and storage-related software in collaboration with hardware divisions is started

Business development for the embedded software product Entier is started in Japan and North America.

- DocumentBroker Version 2

2000:	Web Application dot com solutions
2002:	VOS3/LS, HiCommand® for the
	Lightning 9900™ V Series &
	Thunder 9500™ V Series
2004:	Collaborative software Groupmax
	Version 7, System management

- BladeSymphony Manage Suite **2005:** Integrated the technology
- developed as a result of the Ministry of Economy, Trade and Industry's Business Grid Computing Project, into Cosminexus and Job Management Partner 1.
- 2006: Integrated systems management -Job Management Partner 1 Version 8, Universal application platform Cosminexus Version 7, Highly scalable relational database HiRDB Version 8, COBOL2002 for EM64T 64-bit
- 2007: Launch of the MyEclipse subscription portal, VOS3/LS V6
- 2008: VOS3/US, SOA platform Cosminexus Version 8

Providing products based on cutting-edge IT technology to promptly realize systems required by customers and society

Overview

Open Middleware

We have a wide lineup of powerful middleware products to support a new IT infrastructure that implements your business innovations and improvement of service quality. Our middleware products cover integrated systems management, Web services, database management, and transaction control.

Open and de facto environment for developing and executing business systems

We provide an environment that enables you to use common skills to construct a business system without concern about complex system configurations and differences in platforms from the hardware and operating systems point of view.

High-performance and highly reliable business system platforms

With our mission-critical and high-reliability technologies fostered through many years of experience in developing system software, we support the construction of mission-critical business systems in an open environment.

System and Platform Software

We provide system software (development environments, DB/DC, and network/communication software) and platform software (open platforms and enterprise server platforms). The system software is highly reliable and high-performance for supporting enterprise mission-critical systems, such as production management, inventory management, and customer management systems, and social-infrastructure systems, such as bank account transaction and seat reservation systems. The platform software, including business packages for ERP* and CRM*, support open and standard enterprise business systems.

We provide a wide lineup of products to flexibly meet customers' various needs. We have a wide array of products that enable us to meet our customers' evolving needs with flexibility. These include the VOS3 system, for large-scale enterprise mission-critical systems, the VOS1 and VOS K systems, for mediumscale enterprise mission-critical systems, and open-platform software for UNIX[®], Linux, and Windows[®], enabling you to create enterprise information systems such as Web-based business applications. *ERP: Enterprise Resource Planning *CRM: Customer Relationship Management

Software Support Service		System Construction	Solutions	Program Product Te
Open Middleware				System Softwa
System Management		DBMS & Business Intelligen	ice	- Network & Telecom
- Automation - IT Compliance	Job Management	- DB Management System	HiRDB	- Network & Telecomin
- Monitoring	Partner 1	- Embedded Data Management	Entier	- Database & Data Co
- Storage Management	Hitachi Storage Command Suite	- OLAP Tools	HITSENSER5	- Development Environ
SOA Platform		Collaboration		- Integrated Storage N
 Front-end integration infrastructure Process integration infrastructure 	Cosminexus	- Groupware, Collaboration	Groupmax Collaboration	
 Information integration infrastructure Application infrastructure 		High Performance Computing	g	
Application Development		- FORTRAN Compiler	Optimizing FORTRAN90	
- Business Application Development Environment	COBOL2002	- Numerical Calculation Libraries	MSL2, MATRIX/W, SkylineSolver	

Platform Software					
Open Platform					Mainframe Software
HP-UX	AIX	Solaris	Windows®	Linux	VOS3/US VOS1/LS VOSK/LS



Our lineup ranges from mission-critical operating systems to multi-platform open middleware. With a wide lineup of products using advanced IT, we meet the various needs of the age and businesses.

Product

Middleware

(Hitachi Open Middleware)

.

System Management

Integrated System Management Software - the market leader in Japan

Job Management Partner 1

Job Management Partner 1 is an integrated system management software product that supports business by providing stable quality of service. With Job Management Partner 1, operations can be automated in an SOA-based open business environment or in a complex system of mainframe computers. By eliminating human error and unauthorized access, Job Management Partner 1 ensures operational quality and stability across a wide range of applications. In addition, Job Management Partner 1 enables businesses to monitor operation for correctness and strengthen internal administrative controls.

- Integrated system-wide management (total solutions)

System-wide operation information can be centrally managed from an integrated console in a shared-operation environment. Because systems can be visualized through the virtualization of IT resources in accordance with management goals, failures and other problems that arise can be handled automatically, ensuring the reliability of service performance.

- Ability to perform installation where needed (point solutions)

Products such as those in areas requiring specific problem-solutions and those in high-priority areas can be chosen from an extensive menu of management options. Accordingly, when security urgently needs to be improved, administrators can install just a product for preventing information leakage. Since products can be installed wherever first needed and then installation gradually expanded as necessary, initial investment is optimized for current system requirements.

- Optimal investment according to system scale

Investment can be based on system scale because extensibility that enables integrated management all the way from single-server systems to large-scale systems employing thousands of servers is provided. Moreover, legacy assets can be fully applied, ensuring smooth and efficient extensibility.

- Best solutions

Job Management Partner 1 provides the best solution possible across the full range of system operating needs, from consultation on planning, setup, and the operation of systems incorporating JP1, to product training and support.

Storage management software <u>- available wo</u>rldwide

Hitachi Storage Command Suite Hitachi Storage Command Suite optimizes storage operations in SAN/NAS environments and reduces the total cost of ownership.

- Storage consolidation Hitachi Storage Command Suite

simplifies storage management and supports stable storage operation by consolidating the management of storage systems through a unified interface.

Business continuity Hitachi Storage Command Suite supports assured data protection for

backup and disaster recovery system solutions.

Hitachi Storage Command Suite supports optimized storage utilization based on the value of data.

Collaboration

Collaboration portal - supporting the effective use of knowledge

Groupmax Collaboration

Groupmax Collaboration, a collaboration portal that supports the effective use of information in an enterprise or organization, can extract new ideas or knowledge and help you guide business.

- Cross-functional: Information can be effectively used across organizations.
- Ubiquitous and global: Users can use information anywhere at anytime.

- Secure: Information sharing with appropriate security measures supports safe collaboration.

Application Development

Business application development environment

COBOL2002

COBOL2002 is a COBOL application development and operation environment compliant with COBOL 2002, the fourth-generation COBOL international standard.

SOA Platform

SOA platform

Cosminexus

Cosminexus is a platform for building and operating SOA-based systems. Cosminexus provides a group of products that flexibly integrate people, processes, and information that can be used to build and operate systems incorporating many types of processing.

Cosminexus also provides mechanisms for accumulating, sharing, and applying knowledge and know-how acquired from on-site activities. These mechanisms help people execute business operations with expected stability in performance of quality and productivity even if they are not familiar with those operations. These mechanisms also accelerate value creation and business innovation by combining accumulated know-how from various business fields and applying them to other fields.

 Infrastructures enabling the step-by-step construction of flexible systems quickly adaptable to changes Cosminexus has all the infrastructure software necessary for building SOA-based systems, so system construction can be started immediately.

As opposed to a one-time system-wide optimization, Cosminexus permits step-by-step optimization that, for example, might start with an integration of windows or a partial adoption of SOA.

- Reliable infrastructures meeting business requirements

Hitachi's expertise, built up from years of software development experience, is distilled in products able to handle various types of processing. Cosminexus also meets technological requirements, including support for security enhancements based on a standard protocol.

Cosminexus is used in a variety of business fields, from mission-critical applications requiring reliability, such as financial and public services, to commercial applications, such as telecommunication and retail applications.

- Extensive solution linkage that substantializes a variety of system types

In addition to Web service linkage and other linkages that are based on an open standard protocol, existing resources such as mainframes can also be linked with ease.

 Applying knowledge and know-how to promote business innovation Cosminexus provides mechanisms for accumulating, sharing, and reusing the knowledge and know-how of individuals.

- Practical training service and reliable product support

Hitachi provides training services so that users can gain practical expertise at all levels, from the basics of Cosminexus to the knowledge required to build systems. In the rare event that a failure occurs, professional service technicians are available to provide quick, reliable support. We are proud of the high regard that customers have for our support services.

Business portal

uCosminexus Navigation Platform uCosminexus Navigation Platform is a new product whose flowchart and guidance functions make it possible to visualize business procedures and operational flow. uCosminexus Navigation Platform provides mechanisms that enable the knowledge and know-how accumulated by individual users throughout an organization to be shared. In addition, it makes it possible for an organization to systematize and share business and operation processes.

Business process management, enterprise service bus

uCosminexus Service Platform uCosminexus Service Platform supports functionality for BPEL-compliant business process control and flexible service integration. uCosminexus Service Platform provides a one-stop service that automatically calls services in accordance with a business flow.

Application server

uCosminexus Application Server

uCosminexus Application Server is a Web application server execution and operation environment compliant with J2EE (Java 2 Enterprise Edition). Besides its core functionality, which can run J2EETM-compliant JavaTM applications, uCosminexus Application Server provides a set of functions related to the execution and operation of Web applications that includes database connection management, Web service support, and operation management.

Stream data processing

uCosminexus Stream Data Platform

uCosminexus Stream Data Platform provides real-time collection and analysis of business data generated by such businesses as manufacturing, retail, and transportation industries. The status of a business field and any on-site problems can be obtained instantly for immediate decision-making.

TP Monitor

uCosminexus OpenTP1

uCosminexus OpenTP1 is a transaction processing monitor that performs reliable online transaction processing for distributed computing environments in open systems, including UNIX, Windows, and Linux. uCosminexus OpenTP1 holds the top share of the TP monitor market in Japan*. OpenTP1's reputation is based on a variety of options that flexibly handle the building of computing systems in an open environment, and on its reliability inherited from expertise in mainframes.

*Source: IDC Japan, August 2009 "Japan Application Deployment Software 2009-2013 Forecast and 2008 Analysis" (J9360108)

Global availability

Information in this pamphlet may contain references or crossreferences to Hitachi products and services that are not announced or available in your country. Such references do not imply that Hitachi intends to announce such products or services in your country. Please consult your local Hitachi business contact listed in Regional/Country Site on the Software Division's website (http://www.hitachi. co.jp/soft-e/) for information regarding the availability of the products and services in your country. If your country or region is not listed, please click Inquiry on the Website to consult us.



DBMS & Business Intelligence

Database management system - secure and robust

HiRDB

HiRDB is a secure, robust database management system playing the core role of an information integration infrastructure that makes SOA flexibility work. HiRDB can be used in systems of all sizes and for various cases, from quickly building small and mid-scale systems at a lower cost, to large-scale mission-critical systems.

- HiRDB enables just-in-time data utilization for quick response to the start-up of business or changes in business.
- HiRDB provides high-level security supporting enterprise compliance directives.
- HiRDB ensures non-stop operation for keeping up with business demand.

Embedded data management

Entier

Entier is a high performance, small footprint RDBMS with advanced search capabilities.

- It is designed to solve the data management needs of applications running in devices with a relatively slow CPU and constrained memory footprint.
 Entier offers standard relational data access plus the ability to
- Developers choose Entier to reduce time to market, reduce
- development costs, and to provide a reliable data framework for device-level applications.

OLAP tools

HITSENSER5

HITSENSER5 is a data analysis tool supporting operations from the creation of statistical reports generated from varying tasks, such as production management and sales management, to advanced multifaceted accumulated data analysis that highlights issues.

- No programming is required so analysis is simplified.
- A variety of operations from non-regular to regular operations and data from small-scale to large-scale data are supported.
- Smooth analysis operations enable intuitive analysis.
 Detailed data can be viewed from summarized data, through mouse operations.

Report output

uCosminexus EUR

uCosminexus EUR is a tool for report management systems and provides total support for creating business reports and building and operating report systems.

uCosminexus EUR makes it easy to create reports with complex layouts without any programming. In addition to providing flexibility and extensibility, uCosminexus EUR ensures the manageability of report output.

Document management

uCosminexus DocumentBroker

As a document management software that supports internal controls, uCosminexus DocumentBroker provides functionality to prevent unauthorized activities and functionality such as electronic signatures and time stamps for ensuring legitimacy. Keyed to taking such concerns as compliance, security, safety, and scalability, uCosminexus DocumentBroker makes it possible to manage the huge number of business documents that are the foundation of a company.

From the planning phase to design, construction, operation, and maintenance phases: We provide one-stop services throughout the system life cycle. In addition, we provide a wide variety of solutions to support our customers to create new value.

Service &Solution





Background

To provide high-quality, highly reliable products and services, we reinforce QA and environmental awareness.

Building customer trust through quality assurance

Thorough quality management, from development to shipment

As high reliability is Hitachi's core competence, we continually challenge ourselves to provide the most reliable products and services in the world. Our quality management efforts to maintain high reliability start from development and continue throughout all processes, until final shipment.

Testing from the customer's point of view

Standing out from other companies, we have specialists, separate from our development specialists, who evaluate and assure the quality of our software. For this purpose, we prepare computer systems exclusively for quality testing and software evaluation, and simulate our customers' systems, such as large-scale systems and open systems, to perform quality assurance testing from the customer's point of view under all conceivable conditions.

QA backbone

We created a quality management system that conforms to the International Quality Management System Standard ISO 9001 certified in 1994, and are continually working to increase customer satisfaction.



This Certificate is valid for the following product or service ranges The design, development, implementation, maintenance and support service of software products including computer language processors, application development environments, transaction processing monitors, scaleable database servers, parallel OLAP servers and project management server for servers, workstations and personal computers

We are also taking the high reliability technology we have cultivated in the mainframe field over many years, and applying it to various IT fields, including open servers, networks, and related solutions.

Promoting environmentally sensitive business

Fully engaged in environmental activities

Under the environmental slogan of "A fertile planet tomorrow starts with individual insight today," Hitachi constantly strives to reduce global-warming, recycle resources, and conserve our environment.

Creating new environmentally compatible products

We are adopting our own standard for product assessment to reduce environmental loads in all processes from design to shipment. Furthermore, we aim to provide environmentally conscious products and services to reduce the environmental loads in the environments of our customers.

JAC

2

株式会社日立製作所 ソフトウェア事業部

-

AND COMPANY OF A

Environmental activities backbone

We created an environment management system that conforms to the international standard for environmental activities ISO14001 certified in 1999, and are engaged in ongoing environmental activities.

Activities beyond our company

Every year, we publish environmental site reports, which summarize the environmental activities of the Software Division over the past year, based on our environmental management system.

We are promoting contribution of Green IT to the environment. Green IT contributing to the environment:

Green IT products reduce global warming and help create a sustainable society.

Public relations efforts are being taken to promote the environmental activities that Hitachi engages in with the IT industry outside of Hitachi and the environmental activities engaged in by all of Hitachi's information and telecommunications businesses.

Relationship

From regional communities to the world as a whole, our field of activities is full of possibilities.

Software business offices

As the core of Hitachi's computer business, software business and development is centered in Yokohama and takes place in Tokyo, Osaka, and other locations. With overseas offices in various locations such as in the U.S., Europe, and Asia we are growing to become a major international software development group.



America

Hitachi Data Systems (Santa Clara in California): http://www.hds.com/ Hitachi Computer Products (America), Inc.,

Software Solution Division (HICAM/SSD)

(Waltham in Massachusetts): http://www.hitachisoftware.com/

Europe

Hitachi Europe Ltd. Information Systems Group: http://www.hitachi.eu/ Maidenhead in Berkshire (U.K.)

Asia

Hitachi Asia Ltd. (Singapore, Malaysia, Thailand, Vietnam, Philippines, Indonesia): http://www.hitachi.com.sg/ Hitachi India Trading Pvt. Ltd. (Mumbai, Chennai, Bangalore): http://www.hitachi.co.in/ Hitachi Information Systems (Shanghai) Co., Ltd. (Shanghai, Beijing, Guangzhou, Suzhou, Shenzhen): http://www.hiss.cn/ LG Hitachi Ltd. (Seoul): http://www.lghitachi.co.kr/

)

Involvement with regional communities

As a member of regional communities, the Software Division takes advantage of every opportunity to deepen exchanges with residents, by opening sports facilities and through athletic and cultural activities. Our official women's softball team competes in the 1st league of Japan. The team receives warm encouragement from community residents.





In 1998 and 2004, the brigade won awards for the fire truck and small pump at the Totsuka Firefighting Meet. In 1995, 1998, 2001 and 2006, the brigade won awards for the small pump at the Yokohama Firefighting Meet.

In 2000 and 2005, the brigade was the champion at the Kanagawa First Aid Meet, and came in second and received an honorable mention in 2004. Overall champion of Kanagawa prefecture Red Cross First Aid Competition (Triangular Bandage (Sling) event champion in 2004).



Women's Softball Team (Established in 1985) The team is playing in the 1st Division of Japan Women's Softball League. The team won the first championship of the League in 2000. Also the team got the championship of the National Athletic Meet six times totally. Many Hitachi members have played for All Japan and participated in a lot of international matches. In the Beijing Olympics in 2008, they contributed significantly to the winning of the gold medal.



Genki Club

The Genki Club day care center for children of Hitachi Group employees opened in April, 2003. The labor unions of our neighboring Hitachi Group companies work together to support the operation of Genki Club.



Wind Ensemble (Established in 1979) In addition to both in-house events and regular concerts, the ensemble has performed in volunteer concerts at several local events. In the All Japan Band Competition 2006, the ensemble represented Kanagawa prefecture and the south Kanto district.



Hitachi Yokohama Hospital

The Hitachi Yokohama Hospital is a Hitachi corporate hospital open to the public. The hospital is contributing to local health care through activities such as offering medical services to local residents and offering medical services on behalf of other local health care providers.

TRADEMARKS

- Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.
- Linux is a registered trademark of Linus Torvalds.
- OMG is a trademark of Object Management Group, Inc. in the United States.
- UNIX is a registered trademark of The Open Group in the United States and other countries.
- Windows is a registered trademark of Microsoft Corp. in the U.S. and other countries.
- Genuitec and MyEclipse are trademarks of Genuitec, LLC.
- HP-UX is a product name of Hewlett-Packard Company.
- AIX is a registered trademark of the International Business Machines Corp. in the U.S.
- Solaris is a trademark or registered trademark of Sun Microsystems, Inc. in the United States and other countries.
- ITIL® is a Registered Trade Mark, and a Registered Community Trade Mark of the Office of Government Commerce, and is Registered in the U.S. Patent and Trademark Office.
- Other product and company names mentioned in this document may be the trademarks of their respective owners. Throughout this document Hitachi has attempted to distinguish trademarks from descriptive terms by writing the name with the capitalization used by the manufacturer, or by writing the name with initial capital letters. Hitachi cannot attest to the accuracy of this information. Use of a trademark in this document should not be regarded as affecting the validity of the trademark.

Software Division's Website:

http://www.hitachi.co.jp/soft-e/

Hitachi, Ltd.

Hitachi, Ltd., Software Division 5030 Totsuka-cho, Totsuka-ku, Yokohama-shi, Kanagawa-ken, 244-8555 Japan E-mail: WWW-mdc@itg.hitachi.co.jp

September, 2009