OS/390 Version 2 Release 4 Availability and Release 5

Overview

OS/390® has fulfilled its initial objectives of transforming MVS®. We are expanding the original goals, going beyond the limits with a renewed vision and enriched set of objectives with the releases of Version 2 of OS/390. The availability of OS/390 Version 2 Release 4, the first release of Version 2, and the announcement of function and value of Release 5, mark S/390’s first delivery against these new objectives previously announced on June 9, 1997. Refer to Marketing Announcement letter ZA97-0182 dated June 09, 1997. ServerPac for OS/390 and the significantly reorganized installation documentation for Version 2 Release 4, maintain an improved and easier release-to-release transition.

OS/390 Version 2 Release 4 is the ideal e-business network application server. Domino™ Go Webserver for OS/390, along with key e-business Enterprise Connectors, such as Net.Data™ for OS/390, provide Web access to DB2®, IMS™, and CICS® data. S/390 Parallel Sysplex® and OS/390 with Workload Manager (WLM) deliver e-business mandatory availability, scalability, and security. UNIX® branded and ITAA-certified-Year-2000-ready, OS/390 has become a platform of choice for protecting user investments in existing applications and for deploying new applications. The OS/390 Partners in Development program now exceeds 1,200 Independent Software Vendors (ISVs). Hot industry applications such as Lotus® Domino, SAP R/3, PeopleSoft, JD Edward’s OneWorld, and many many more are delivering and exploiting OS/390 technology as a result of this program.

With OS/390 Version 2 Release 5, IBM will deliver the beta level of its strategic object-oriented application development environment on S/390. Component Broker for OS/390 provides the ability to develop and deploy mission-critical business applications using the latest technology and leveraging the traditional strengths of the S/390® platform.

OS/390 Version 2 Release 4 delivers enhanced technology, function, and performance to integrate multiple LAN, UNIX, and multimedia servers. Server integration may help reduce the rising system and operating costs of these platforms, while improving management control, enterprise security, availability, and access to centralized corporate data.

Intended Customers

OS/390 Version 2 should be considered by all existing OS/390 and MVS customers. Current OS/390 installations will find substantial value in Version 2 Release 4, with the migration equivalent to a release upgrade. MVS customers can migrate directly to this new version. VSE and VM customers who have a need to grow their transaction processing or deploy a wide selection of UNIX applications have OS/390 Version 2 as a logical growth path.

Installations wanting to Web-enable their I/T or deploy UNIX applications on a scalable and secure platform, while helping to reduce growing enterprise management costs, should consider OS/390 Version 2 releases.

Planned Availability Dates

- September 26, 1997, Version 2 Release 4

At a Glance

Version 2 responds to the industry trends of network computing, application enablement, server integration, and business intelligence.

New OS/390 Version 2 Release 4 elements and features include:

- Domino Go Webserver 4.6, including a robust search engine
- ICSF/MVS — Integrated Cryptographic Services Facility/MVS
- DCE AS — Distributed Computing Environment Application Support
- Encina Toolkit for transactional Remote Procedure Calls
- BookManager® BookServer enabling users to provide documentation on WWW
- Hardware Configuration Manager (HCM) as an optional feature
- Significant enhancements included to: eNetwork Communications Server, UNIX services, Language Environment® (LE), C/C++, Work Load Manager (WLM) base and batch, DFSMS/MVS®, JES3, Security Server, RMF™, and more.

Enhancements in OS/390 Version 2 Release 5 will include:

- Domino Go Webserver 4.6.1
- eNetwork Communications Server improvements
- Integrated Firewall Technologies
- Component Broker for OS/390 (Beta level)
- DCE base and Distributed File Service enhancements
- Improvements for systems management and security
Introduction

Version 2’s family of releases inherits all the value that Version 1 offered and builds on that value to respond to the industry trends of network computing, application enablement, server integration, business intelligence, with technology leadership. System integration testing, ServerPac delivery and installation, and over 70 elements and features define the essence of OS/390 Version 2 — a comprehensive network application server operating system for the entire range of IBM S/390 customers. Release 4 is the initial release in OS/390 Version 2. The availability of OS/390 Version 2 Release 4 and the function and value of Release 5, mark S/390’s first delivery against the new objectives announced this past June. Refer to Marketing Announcement letter ZA97-0182 dated June 09, 1997.

I. OS/390 Version 2 Release 4 Overview

II. OS/390 Version 2 Release 5 Overview

III. Supplemental Information — Additional Product Information

A. OS/390 Version 2 Release 4 Function Description
   1. Network Computing
   2. Application Enablement Initiative
   3. Server Integration Initiative
   4. Business Intelligence Initiative
   5. Technology Leadership Initiative
   6. Additional Information
   7. OS/390 Version 2 Release 4 Product Content

B. OS/390 Version 2 Release 5 Function Description
   1. Network Computing Initiative
   2. Application Enablement Initiative
   3. Server Integration Initiative

C. S/390 Network Computing Programs Report

D. OS/390 Transaction Processing Services Progress Report

OS/390 Version 2 Release 4 Overview

Network Computing Initiative

This initiative’s goal is to continue the evolution of S/390 as the platform of choice for highly available, scalable, and secure e-business. This evolution, for OS/390 Version 2 Release 4, includes:

- Domino Go Webserver 4.6 for OS/390, integrated into OS/390 Version 2 Release 4
  - Includes NetQuestion, a robust text search engine
  - Includes Internet Connection Secure Server
- eNetwork Communications Server Improvement
  - Improved multiprotocol performance
  - New Domain Name Server (DNS) enabled for parallel sysplex technology (available in a kit)
  - Host on Demand for S/390
  - TCP/IP performance improvements for OS/390 UNIX System Services (formerly called OpenEdition®)
- Integrated Cryptographic Services Facility/MVS (ICSF/MVS) is integrated as a new OS/390 Version 2 Release 4 base element
  - Trusted Key Entry (TKE)
  - Commercial Data Masking Facility (CDMF)
  - Public Key API (PKA support)
- IBM BookManager BookServer for World Wide Web for MVS/ESA™ is integrated as a new OS/390 Version 2 Release 4 base element

Application Enablement Initiative

The primary goal of this initiative is to enhance customer use of the S/390 by fostering the movement of attractive new applications to this platform while expanding the platform’s support for the growth required by existing applications. Application Enablement upgrades include:

- OS/390 UNIX Services enhancements
- Language Environment performance and RAS enhancements
- C/C++ performance enhancements, new options, and new GUI debugging capability
- Runtime Library Services (RTLS)

Server Integration Initiative

The goal of this initiative is to assist S/390 customers to realize better and have easier access and control of their enterprise computer resources. S/390 and OS/390 continue to provide new improvements so that customers have capabilities to consolidate workloads to S/390 while having better systems management, security, availability, scalability, and overall control of critical business data. Upgrades to OS/390 Version 2 Release 4 in support of this initiative’s goals include:

Consolidation

- DCE base services enhancements
- New DCE Application Support (DCE AS) functions for OS/390
- New LDAP Client Support

Systems Management and Security

- Security Server enhancements for:
  - DB2 support
  - Digital certificates
  - Program control by system ID
  - RACF™ administration
  - Password history and Default OMVS segments
  - DCE Security Server DB2 based-registry
- HCM — new optional feature of OS/390
  - Support for Import and Export of configuration data
- RMF enhancements for:
  - WLM
  - Overall reporting (for example, dataset level and cache enhancements)
  - Performance monitoring
  - Support for TCP/IP and Network Computing
- SDSF support for WLM Batch Management
Business Process Automation and Distributed Transaction Processing

- Transaction processing extensions to OS/390
- Encina Toolkit Executive ported to OS/390

**Business Intelligence Initiative**

The goal of this initiative is to have S/390 deliver end-to-end solutions that include the business applications, required tools and utilities, and the database server. Along with these entities, IBM will provide the services to help customers implement their solution quickly and successfully. OS/390 Version 2 Release 4, in support of this initiative, delivers:

- Enhancements to WLM to support data mining in a sysplex
- OS/390 UNIX System Services Parallel Edition, a new component which includes:
  - A Message Passing Interface (MPI)
  - A Parallel Operating Environment (POE)

With this component, parallel applications on OS/390, such as Intelligent Miner™ for parallel data mining, can now invoke these new UNIX services for inter-process communication. This inter-process communication is achieved by using High Performance Data Transfer protocol (HPDT) for User Datagram Protocol (UDP).

**Technology Leadership Initiative**

This initiative’s goal is to deliver open, cost-effective enterprise servers. IBM continues to enhance S/390 and OS/390 architectures to better support Network Computing, new application workloads including improved support for UNIX applications, improved performance with reduced total cost to S/390 customers. OS/390 Version 2 Release 4 upgrades in support of this initiative’s goals include:

- BCP Base enhancements to Dynamic Link Library, DASD Logger, and Standalone Dump performance
- WLM Base enhancements
  - Less disruptive policy activation
  - Control of system service classes
  - Adaptive resource management enhancements
- WLM Batch Management enhancements (fourth quarter 1997)
  - JES2 initiator address space management
  - JES2 resource affinity scheduling
- TSO/E enhancements for the Parallel Sysplex environment
- New DFSMS/MVS V1.4 functions for OS/390 including Program Management enhancements
- JES3 enhancements
  - 64K job number support
  - Configuration improvement
  - Dynamic update support
  - HOTSTART with REFRESH
  - Faster restart
- New Softcopy Print support for DBCS languages

**OS/390 Version 2 Release 5 Overview**

**Network Computing Initiative**

Upgrades in OS/390 Version 2 Release 5 in support of the Network Computing initiative will include:

- Domino Go Webserver 4.6.1
- New enterprise-class TCP/IP service for OS/390 applications
- A new Telnet server will provide “TN3270E” and more
- DNS with WLM capability fully integrated into CS OS/390
- Full Dynamic IP support automates registration of clients to DNS
- Native ATM support for TCP/IP

**Application Enablement Initiative**

Upgrades in OS/390 Version 2 Release 5 in support of the Application Enablement Initiative will include:

- Component Broker for OS/390 (Beta level)
- OS/390 Application Enabling Technology™
  - Domino Go Webserver support
  - IBM Network Station support
- High Level Assembler Toolkit enhancements
- ISPF
  - Web access to ISPF applications
    - Java™ workstation agent applet for ISPF Client/Server
    - ISPF application server
    - Customized VisualAge® workstation composition editor to create/modify ISPF panels
  - Performance improvements

**Server Integration Initiative**

Upgrades in OS/390 Version 2 Release 5 in support of the Server Integration initiative will include:

**Consolidation**

- DCE Base services enhancements
  - Kerberos Version 5 and performance improvement
- DCE Distributed File Service enhancements

**Systems Management and Security**

- DCE Security Server enhancements — Kerberos Version 5
- Firewall Technologies functions
- HCD configuration enhancements
- Numerous SMP/E enhancements

**Distributed Transaction Processing**

- Transaction processing extensions

**Year 2000**

This product is Year 2000 Ready. When used in accordance with its associated documentation, it is capable of correctly processing, providing, and/or receiving date data within and between the twentieth and twenty-first centuries, provided all other products, (for example, software, hardware, and firmware) used with the product properly exchange date data with it.
Tivoli support for S/390 will be delivered in three phases.

Network computing environments.

provides end-to-end, cross-system solution for managing

Enterprise Manager. The new version takes the next steps in delivering on the S/390 strategic initiatives of network computing, application enablement, server integration and consolidation, and business intelligence. OS/390 Version 2 provides significant new technology and exclusive function. In Release 4, this includes: Integrated Cryptographic Support Facility, Encina Toolkit Executive, DCE Application Support, NetQuestion Search Engine, IBM BookManager BookServer for World Wide Web, and Hardware Configuration Manager (HCM). Release 5 includes integrated Firewall Technologies, significant enhancements to the eNetwork Communications Server, and the beta level of Component Broker for OS/390. It is IBM's intention to ship a new release every six months, as was done with Version 1.

Statement of General Direction

Tivoli® TME 10™ Support

It is IBM's intention to extend OS/390's Enterprise Systems Management capabilities. The integration of Tivoli's TME 10 Framework with OS/390 is the base for TME™ applications to provide Enterprise Systems Management from OS/390. Tivoli TME 10 is IBM's strategic framework, systems, and application management solution and replaces SystemView®. TME 10 is based on an open, architected, object-oriented framework and provides end-to-end, cross-system solution for managing network computing environments.

Tivoli support for S/390 will be delivered in three phases. Phase 1 was the delivery of a significant new release of TME 10 Netview for OS/390 and the Management Integration Services as part of the TME 10 Global Enterprise Manager™ in March 1997. Phase 2 will provide support for OS/390 as an endpoint for several TME 10 applications such as Security Management, User Administration, and the TME 10 management modules for key applications such as SAP R/3, MQ™ Series, and Domino/Notes™. Phase 3 will offer formal support for OS/390 as the enterprise managing server for selected TME 10 applications, such as TME 10 Software Distribution, TME 10 Inventory, TME 10 User Administration, and TME 10 Security Management. Over time, many existing S/390 systems management applications will be enhanced to exploit the TME 10 framework and applications, such as the enhancements delivered in June 1997 for System Automation for OS/390 (SA OS/390) support, that enables a TME administrator to monitor and manage enterprise-wide events, including the SA OS/390 specific events, from the TME 10 Enterprise Console.

OS/390 Security Server

It is IBM's intention to expand the OS/390 Security Server in OS/390 Version 2 to provide Lightweight Directory Access Protocol (LDAP) server support. The LDAP server support will provide a new Directory Service on OS/390 based on the popular, emerging LDAP protocol, which will allow clients, including OS/390 Version 2 Release 4 LDAP clients, to be able to search, extract, add, and delete information from an LDAP server running on OS/390. By supporting the LDAP protocol, directory information stored in an LDAP server on OS/390 can be accessed throughout the enterprise. The OS/390 LDAP server will complement the recently announced DSeries LDAP Server as well as enable enterprise-wide server integration on S/390.

ServerPac Installation Enhancements

IBM will continue to enhance the OS/390 installation process in future releases. ServerPac plans include an alternative to full system replacement and continued improvements to ServerPac documentation. Customers can also expect new information to support installation planning, and a simplified post-installation process.

Novell for OS/390

IBM and Novell, Inc., are in agreement to provide the Novell Directory Services (NDS) and NetWare File and Print services on OS/390. It is IBM's intent to begin delivering NDS in OS/390 Version 2. The Netware File and Print Services will be delivered on OS/390 in the future. These functions will reduce complexity of managing networks and lower costs in businesses with multiple enterprise server and LAN systems.

The above statements represent IBM's current intended plans. IBM will continue to monitor business conditions and requirements and may make changes to these plans as required.

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Reference Information

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