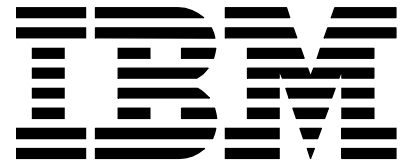

Maximizing the Return on Investment of your SAP solution



*Extending SAP Solutions with
IBM Complementary Software,
e-business and Technology Offerings*

*An Overview of IBM and third party
Complementary SAP™ offerings*

13th Edition
September 2000

Extending SAP

with IBM Complementary Software, e-business & Technology Offerings

While there are many ways to interconnect systems, accomplishing comprehensive, seamless integration requires expertise in a variety of technologies and techniques, including groupware, reliable and secure network communications, interfaces with existing applications, systems management and network infrastructure. IBM can provide the products and services necessary to extend SAP solutions to the entire enterprise.

This document was designed to provide you with basic, summary information on some IBM and IBM-supported third party SAP Complementary Software products. The document is divided into three sections:

- † Industry Solutions
- † e-business and Network Computing
- † Technology Solutions

With few exceptions, there is one page per item. It was not designed to list every detail, specification, or prerequisite for the product. However, a contact name and/or sources of additional information are provided wherever possible. Each product page also contains a summary "Benefit" box to give you product highlights at a glance. There is a Table of Contents to help you locate items of interest quickly and a Product Contact table located at the end of the document which lists all the contact people and/or web sites for each product.

Please address comments/suggestions regarding this document to:

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Industry Solutions

- † **IBM's Supply Chain
Integration Enabler (SCIE)**
- † **Product Lifecycle
Management (PLM) and
ENOVIA**
- † **IBM Data Acquisition
SubSystem Connect
(DASSCO)**
- † **IBM Computer Integrated
Process and Refinery
Operations System (CIPROS)**
- † **IBM Retail Interchange**
- † **Telecommunications
Industry: Integrated Customer
Management System (ICMS)**

IBM's Supply Chain Integration Enabler (SCIE)

An IBM Global Services offering for horizontal & vertical integration of production operations with SAP/ERP systems.

Extending the enterprise, integrating supply chain, and implementing Enterprise Resource Planning (ERP) systems has been one of the fastest growing trends over the last few years. In many cases, however, a significant amount of the financial benefits, originally expected with these ERP implementations, has not been realized. Until these ERP business planning applications are tightly linked with the production operations environment and planning and scheduling optimization systems these potential benefits will continue to go unrealized. In fact, some studies have indicated that as much as 50%-60% of the benefits may not be achieved without this linkage.

IBM's Supply Chain Integration Enabler (SCIE) architecture and services offering provides the linkage to bring these two very different environments together in a fully integrated closed loop solution. SCIE provides a truly unique industry offering that ensures real-time plant information is quickly transformed into meaningful management information to help drive increased revenue and profits, facilitate improved asset management and superior customer service. SCIE, with XML MQ messaging, can also provide the architectural foundation/infrastructure for advanced E-Business applications i.e. ATP, customer service or CRM.

One of the major inhibitors in the past, which prevented this integration of operations and business systems, is the complexity and coordination of the many different applications, architectures, and product supplier to all work together in a synchronized fashion. IBM has addressed this challenge by integrating a few best of breed products, built upon the industry's leading edge messaging architecture (MQ/Series), which allows IBM Global Services to deliver a completely integrated solution. IBM's SCIE provides a totally integrated, comprehensive solution from planning & design consulting, through integration/implementation, with maintenance, training, and on-going IBM support. SCIE reduces the complexity of these traditionally complicated integration projects by providing a one-stop shopping type of offering with IBM responsibility and significantly reduced risk to the SCIE customer.

The IBM SCIE offering is made up of a few key product solutions. The foundation of the architecture is IBM's MQ Series publish and subscribe messaging product to ensure guaranteed delivery and recoverability of all message exchange in this critical 7 X 24 type plant operations environment. The MQ Series publish & subscribe model provides a unique integration approach which enables data to be easily shared across multiple applications in an "any to any" environment. The SCIE publish/subscribe model reduces integration costs and complexity by minimizing the number of integration points. An application only needs to be connected to the message bus once, thus allowing this application data to be shared wherever needed throughout the enterprise. IBM's Solution Center brings several years experience and solution templates based upon multiple plant integration implementations. These templates (SAP PP-PI, QM, PM, etc.) and consulting workshop offerings, can facilitate faster implementations by leveraging intellectual capital and pre-configured solution assets. NEON's SAP R/3 adapter provides the gateway into SAP integration by coupling the MQ architecture with any of the necessary SAP applications via RFC, BAPI, or IDOC protocol. Computerized Processes Unlimited (CPU), provides years of process plant application experience and SCIE adapter technology to link event-based plant applications, i.e. LIMS, PIMS, etc. to the MQ messaging foundation. IBM's CIPROS application can also be part of the integration to add data modeling and calculation / aggregation engine capability as appropriate.

Most importantly, SCIE is a truly integrated complete solution offering that is implemented, maintained, and supported by IBM Global Services. The IBM Global Services SCIE solution contract provides the customer with a single point of contact: IBM's worldwide Global Services organization. The IBM Global Services SCIE offering can be tailored to individual customer requirements and includes consulting, project management, integration/implementation services, solution delivery, support, training, and on-going maintenance under one IBM Global Services agreement.

For additional information

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Benefits of IBM SCIE Supply Chain Offering

- † Complete Solution Services offering to enable synchronized communication and horizontal - vertical integration across multi-plant operations from / to SAP business applications
- † Helps reduce costs through improved planning & scheduling, lowers conversion costs, increased production on-spec throughput, and timely integrated quality information
- † Enables the SCIE customer to respond to changing customer and market demand, as well as production capability based upon reliable, real-time information
- † Improves customer service while increasing inventory turns by producing the right products at the right time for the right customers
- † Creates an available to promise / capable to deliver E Business (XML Message) information infrastructure to enable differentiation from the competition
- † Provides a standardized messaging architecture that can be leveraged across the business, plant, and Information Systems environment enabling a totally integrated enterprise and true supply chain optimization

Product Lifecycle Management (PLM) and ENOVIA

Seamless management of information from design through production.

If your company competes in today's advanced manufacturing world, you have a substantial need for integrated information management. Getting engineering change orders from product engineering to the factory floor, for example, can take precious time you can't spare. And if your organization has manufacturing plants in multiple time zones and countries, that only compounds the problem.

For all of these reasons, you should rely on IBM Product Lifecycle Management (PLM) solutions, underpinned by software from ENOVIA Corp. PLM combines ENOVIA product data management capabilities with SAP R/3 business management applications. These systems can work together seamlessly to streamline the entire product production lifecycle in your company.

ENOVIA provides an integrated suite of object-oriented applications designed to control product and process data in manufacturing organizations of all sizes. This software provides a single, secure repository of data to support the business processes involved in new product introduction, engineering change management and the release and distribution of data across a multi-plant enterprise. This data can be shared by multiple systems and users throughout organizations.

In addition, the system implements an "electronic file folder" concept to logically group records for serial or parallel distribution. This allows the ENOVIA applications to tailor work rules and routing procedures implemented in systems such as R/3. With access through standard web browsers, users, irrespective of location or hardware platform, can participate in enterprise processes, with access to enterprise data, no matter where it resides.

ENOVIA solutions are designed for worldwide implementation, available with date, time, currency format, screen prompts, help messages and documentation in multiple languages, including: French, Canadian French, Spanish, Italian, German, Dutch, U.S. English and Japanese.

The Benefits of Integrating ENOVIA with SAP R/3

ENOVIA provides tight engineering change and distribution control of product data across multiple ERP sites and incorporates bi-directional synchronous integration with ERP systems. For example, item data, bills of material, documents and vendor information in ERP systems can be modified from ENOVIA, and selected product planning and plant floor information can be fed back to ENOVIA. A change to a ENOVIA record will automatically be reflected in R/3 applications. This integration ensures that your data will always be up-to-date, system-to-system, plant-to-plant, enterprise-wide.

IBM offers a range of proven PLM consulting services to help you quickly implement SAP R/3 client/server applications in conjunction with ENOVIA applications.

For More Information:

To learn more about how ENOVIA can benefit your business, contact your local IBM representative or visit the IBM Engineering Solutions website at www.ibm.com/solutions/engineering:

- or in North America, call 1 800 395-3399 or email: cadcam@us.ibm.com
- or in EMEA, contact Siegfried Mössinger, s_moessinger@de.ibm.com
+49-711-785-5781

Certified by SAP

Benefits of integrating IBM ENOVIA with SAP applications include:

- † Reduced time-to-market
- † Faster, more accurate information acquisition
- † Replacement of paper-intensive processes
- † Elimination of duplicate data input
- † Elimination of inventory scrap and rework
- † Multi-plant support with multiple manufacturing views
- † Increased engineering responsiveness to changing market conditions
- † Support for ISO/9000 certification through documented repeatable processes and audit trails
- † A secure, single point of control for vital product data
- † Total lifecycle support for your products
- † User-level integration for maximum ease of use
- † Improved communication with partners and subcontractors

IBM Data Acquisition SubSystem Connect (DASSCO)

Solutions for time and attendance and access control for SAP R/2 and R/3.

IBM's Data Acquisition SubSystem Connect (DASSCO) service offering provides solutions for time and attendance, and access control using IBM's data collection terminals and SAP R/2 and R/3. DASSCO provides for the automatic collection of data from data collection terminals and badges so that information can be collected quickly, once, without error, and used throughout the enterprise. DASSCO is an SAP-certified solution.

DASSCO is an object-oriented data collection solution that can be customized by IBM plant floor services teams to integrate the operation of plant floor data collection with a company's SAP enterprise resource planning system. State-of-the-art object-oriented technology simplifies customization for a particular company. DASSCO is currently available in English and German. Other languages can be accommodated as part of the services engagement.

DASSCO is made up of two main modules: Time and attendance and Access Control.

Time & Attendance

The DASSCO Time and Attendance module includes a set of standard time and attendance transactions which work with SAP modules including Human Resources, Project Planning, and Project Scheduling. Some transaction types include: clock in, clock out, start/end break, Job/Operation on/off.

Information such as personnel number, validity period date(s), and employee name can be read from the electronically readable employee badge. Collected data is automatically transferred to SAP R/2 or R/3.

The DASSCO Access Control module interfaces to the SAP Human Resources component. This module:

- Controls access to various areas, buildings, or zones
- Provides the capability to restrict access to specific times of the day based on employee authorization
- Manages the employee profiles
- Contains a visual control monitor for the observation of all terminals, doors, fire alarms, and so on
- Issues alerts based on specific events in the system,
- Opens/closes doors or restricted areas at prescribed times of day
- Provides lists of controlled resources such as doors, areas or zones
- Provides a window into the database so that a history of access to a controlled room, area or zone can be viewed.

For More Information

Experienced IBM plant floor services teams are available worldwide to work with companies to implement a time and attendance or access control solution.

For more information, contact:

- Dietmar Meixner, D1MEIX@DE.IBM.COM
phone +49-211-476-2318.

Certified by SAP

Benefits of DASSCO include:

- † Modifications or extensions to the base function can be done without traditional programming.
- † Provides real-time updates of the SAP database, enabling informed decisions using the latest information available.
- † Data, which otherwise would be entered in batch mode, may now be entered at the source, on the plant floor or in the warehouse, as the activity occurs, thus improving the timeliness and accuracy of the data.

IBM Computer Integrated Process and Refinery Operations System (CIPROS)

A dynamic plant management platform.

Many of today's refineries are facing the same challenges: pressure to lower operating costs, increase product yields and optimize delivery schedules to deliver quality products on time, every time. Another challenge, however, is to accomplish all this when you have various applications and disparate systems that aren't integrated. Successful refineries have learned to leverage their Information Technology by integrating their systems with coherent connections among all the applications in an Integrated Refinery Information System (IRIS).

IBM offers a dynamic plant management decision support system called Computer Integrated Process and Refinery Operation System (CIPROS). This system facilitates the aggregation of data from various plant level applications for performance monitoring and decision support at the plant level. CIPROS is the integration component that connects your business and operation management applications and functions so your plant operations team can access the same data and models for decision making. It makes current, consistent and critical information available to all areas of your business so you can make more informed decisions that can increase your efficiency and profitability.

CIPROS automatically captures critical raw and reconciled plant data, then analyzes it and adds integrity and value to it. It also enables deriving key performance indices to measure operations performance. It pulls real-time, detailed data from various plant application - planning and scheduling, simulation, process and performance monitoring, lab accounting, inventory, sales and distribution - which is then loaded into the CIPROS model. CIPROS then summarizes and analyses the data for incisive management and performance reports. It also allows the derivation of key performance indicators to measure and improve plant performance. The availability of information provided by CIPROS leads to:

- Real-time and historical views of the process, inventory and quality data
- Availability and integration of information on a timely and more consistent basis
- Better decisions about how to optimize feedstock selection, operations and product mix, while yielding more consistent finished products and minimizing production costs
- More time for "what if" analysis for business opportunity evaluations
- Open availability of information for decentralized decision making
- Decisions made by people who know the most about an issues

Linking to ERP Systems

IBM has adopted its Supply Chain Integration Enabler (SCIE) architecture for integrating CIPROS with plant level applications and the transaction-based environment like SAP R/2. This enables the full integration of data from all data sources, including CIPROS and SAP, to provide a complete customer decision support system.

CIPROS Benefits:

- † Integrates production, quality and utilities data
- † Improves the consistency and accuracy of information
- † Improves the accessibility of data and transfer information
- † Compares actual operating results to schedules and planning targets
- † Performs "what if" opportunity analysis for improved asset utilization and margins
- † Improves the quality of reporting and management of processes and operations
- † Improves current versus historical decision making
- † Dramatically reduces time to integrate plant systems to SAP R/3 through use of IBM's Supply Chain Integration Enabler (SCIE) architecture

For more information:

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IBM Retail Interchange

A Retail connectivity solution.

IBM's Retail Interchange provides a flexible, portable, scalable, and user-friendly solution for SAP Retail connectivity for small, medium, or large retail chains. With the Retail Interchange package, data can flow along limitless paths between diverse point-of sale terminals (IBM and non-IBM), store controllers, in-store processors, SAP Retail application servers, and legacy applications.

Retail Interchange can be used as the R/3 interface for any third party software which can be linked to R/3 via the IDOC interface. Retail Interchange integrates with existing polling packages and takes advantage of the latest data mapping technologies. Its data routing capabilities allow for:

- x Assured data delivery through IBM MQSeries
- x Logical grouping of files
- x Configurable data routing and prioritization
- x Data compression
- x Workload and speed balancing

The Retail Interchange core is a reusable class library written entirely in Java, offering platform independence and the power to add specialized functionality. The pure Java API provides:

- x Rapid application development
- x Focus on business logic, and
- x Maximized portability

The Retail Interchange features a user-friendly graphical user interface (GUI), which allows for ease of:

- x Configuration
- x Viewing status and statistics
- x Managing tasks
- x Viewing errors and events
- x Web integration and browsing

For SAP R/3, Retail Interchange has been certified by SAP for Retail. Additionally, the data mapping component has been certified by SAP for data conversion.

For more information:

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Certified by SAP

Retail Interchange highlights include:

- † SAP-certified data conversion
- † Data Routing
 - † Assured data delivery through IBM MQSeries
 - † Logical grouping of files
 - † Configurable routing and prioritization
 - † Time-independent delivery
 - † Workload and speed balancing
- † Scalable for small, medium, or large chains
- † Functions in heterogeneous POS and Distribution Center environments
- † Pure Java API for rapid application development and maximized portability
- † Extendible to other types of application environments
- † User-friendly graphical interface

Telecommunications Industry: Integrated Customer Management System (ICMS)

IBM's leading customer care and billing solution.

To survive in the modern communications market, optimizing the use of the enterprise wide business support systems has become vital.

IBM's Integrated Customer Management System (ICMS) is a total, integrated customer care and billing solution for telecommunications service providers. ICMS has been designed and built through partnerships with a number of leading telecommunications and cable companies to enable them to thrive in some of the world's most fiercely competitive and deregulated markets.

ICMS satisfies these telecommunications operator requirements:

- x Customer Account Management
- x Customer Care
- x Billing & Collections
- x Provisioning
- x Usage Processing
- x Inventory
- x Location Management
- x System Management
- x Product Management
- x Plant

ICMS offers customers the choice of a multi-service (wireline, wireless, cable television) or a single line of business system. Additional services such as Internet or data services can also be configured. ICMS allows telecommunications and cable television companies to provision single or multiple services, while providing customers with a single invoice.

ICMS is flexible and user oriented. The product uses standardized table-driven software to minimize data entry and maximize data integrity. This means that changes to the way the system operates are made by changing the parameters, rather than reprogramming. These changes can be reflected immediately throughout the system - or at a predetermined date. This flexibility allows a Telco to respond quickly to market-driven competitive initiatives through the system's ability to rapidly introduce new products and services.

SAP Connectivity: ICMS provides general ledger information which can be used to feed information to R/3 systems for financial analysis. This information is based on financial transactions that pass through ICMS, including calls (tolls, USP and other), service and equipment items, call plans, other discounts (such as MOA-corporate concessions), taxation, external transactions (through external/generic feeds), journal adjustments, payments and bad debt write-off. These transactions are created during a billing run or through posting.

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or visit our website: www.ibm.com/industries/telecom/ccb

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EMEA: Stephen Matthews, stephen_matthews@uk.ibm.com

Asia Pacific: Don Cochran, xd2dbco@us.ibm.com

Benefits of ICMS:

- † Reduce time-to-market through rapid introduction of new services
- † Reduce operating costs through higher productivity and lower computing costs
- † Efficient provisioning - supports easy ordering of multiple services
- † Total customer service support - system continuity supports single point of contact
- † High level of system flexibility through unique layering architecture
- † Ability to customize billing information
- † Proven solution for performance and implementation
- † Supports multi-service billing and provisioning on a single application
- † Leading customer care and billing solution for scalability
- † Fully customizable menus

e-business and Network Computing

- † **Business Intelligence Consulting and Services for SAP R/3**
- † **IBM Communication Management for SAP R/3**
- † **IBM R/3 Service Agent for Tivoli Workload Scheduler**
- † **Tivoli Management Solution for R/3**
- † **Lotus SmartSuite Integration and SAP R/3**
- † **Lotus Notes, Lotus Domino and SAP R/3**
- † **MQSeries Link for R/3**
- † **MQSeries Adapter Offering**
- † **MQSeries Integrator**
- † **IBM Content Manager CommonStore for SAP**
- † **IBM FaxPlus/Open**
- † **SAP Status Tracking with IBM DataInterchange**
- † **Tivoli Storage Manager & Tivoli Data Protection for R/3**

Business Intelligence Consulting and Services for SAP R/3

Bridging the gap between SAP data and information.

SAP R/3 systems contain a wealth of data about client business processes. But to succeed in an increasingly competitive marketplace, customers need to transform that data into information that can be manipulated and analyzed to enable rapid, incisive decisions that add value to a business. To address this issue, IBM Business Intelligence Consulting and Services provides the expertise to help clients build a sophisticated business intelligence solution that accommodates individual client needs and integrates into existing client environments. By transforming SAP data into business insight, SAP Customers can add value to their existing R/3 investment.

Business Intelligence Consulting and Services for SAP can deliver:

- ✓ strategic analysis capability to enable the flexibility and performance required to help clients make informed business decisions quickly
- ✓ integration of SAP data with other legacy systems
- ✓ online analytical processing (OLAP) tools for sophisticated data analysis
- ✓ rapid data warehouse development to store, integrate and consolidate a company's data efficiently and in a usable format.

Data warehousing is the process of extracting, transforming, merging and organizing raw data from a variety of sources into an easily accessible format for the end-user. Data sources may include SAP R/3, SAP bolt-on applications, active or retired legacy systems or external data.

Business Intelligence Consulting and Services for SAP R/3 helps combine the data from these various systems to create a consolidated view of company activities, giving business insight that helps increase productivity, efficiency and overall performance of an organization. We help clients go beyond daily operational concerns by providing tactical information about sales, customers and products. We also help enhance long-term strategic decision-making using information derived from historical data from several different sources.

The Business Intelligence Consulting and Services for SAP consultants apply a staged approach that starts with strategy and solution evaluation consulting to identify information and analysis needs, and then selects and customizes the optimal business solution. We also provide early feedback throughout the project to help ensure that each step meets business requirements, adds value and delivers anticipated return on investment.

IBM works closely with each client to select the most appropriate data warehouse solution. In our extensive experience with SAP implementations and business intelligence projects, we have identified several solutions that cover a broad range of customers' wants and needs. These are SAP's Business Information Warehouse, SAS' Intelligent Warehouse for SAP R/3, IBM's DecisionEdge for SAP, or customized solutions designed specifically for individual client needs.

The people of IBM Global Services deliver integrated, end-to-end solutions that will help achieve real business results. IBM is the world's largest IT services provider and a recognized leader in the business intelligence marketplace. Our clients can count on us to deliver value added business intelligence solutions that extract key information from SAP systems and deliver it to decision-makers who use it to improve business performance.

Benefits of Business Intelligence Consulting and Services for SAP include:

- † Increased competitive advantage with consolidated SAP data
- † Reliable, actionable information delivered to end users in a flexible format
- † Assistance in obtaining a better understanding of consumers and their buying behavior
- † Information to improve cost control and increase profitability
- † Experience implementing BI solutions using SAP BW, IBM DecisionEdge for SAP, and other custom data warehouses that include SAP transactional data
- † Expertise to help implement a world-class solutions and build a framework for future growth.

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IBM Communication Management for SAP R/3

An extension of the R/3 internal scheduling system.

The IBM Communication Management add-on is an extension of the R/3 internal scheduling system - written completely in the ABAP/4 language. It is used to implement and control batch interfaces between SAP R/3 and other systems (mainframes, UNIX-systems, AS/400 or PCs). It uses additional functions to support remote execution of programs, file transfer, messaging and event handling between R/3 and external systems.

IBM Communication Management for SAP R/3 doesn't include any operating system specific functions, and can be installed in all R/3 environments. Communication with external systems is carried out by TCP/IP or SNA. The tool doesn't use any undocumented internal functions, so the implementation doesn't depend on the SAP release level. The installation is carried out with the R/3 transport system and the import can be done without stopping the R/3 system. No modifications of standard SAP-objects are necessary.

Interfaces implemented with IBM Communication Management for SAP R/3 are well structured, more flexible and easier to maintain than standard interfaces. They have more functionality for error handling and the time used to implement these interfaces can be reduced significantly. The tool is an integrated service offering installed by an experienced SAP R/3 BC consultant. The installation includes some customizing activities, training and the implementation of one customer specific communication at the customers site. This takes an average 5 to 8 days.

The SAP R/3 Scheduling System implements all scheduling services inside SAP R/3 and supports the scheduling of jobs for a fixed start time, based on R/3 events and a preceding job. A job may consist of several steps - but if one of these steps terminates with an error message, the remaining steps are skipped. Batch jobs inside R/3 cannot be monitored by external tools. In general, these conditions are not flexible enough.

The IBM Communication Management for R/3 tool fills these gaps with:

- Support of complex job nets including reports, function modules and remote function calls.
- Successive step depends on return code of the step before it, with a retry option to restart a step with an error - better chance of success.
- Functions for file transfer or remote execution on non-R/3 systems.
- Interface jobs can be scheduled in the event of arriving data files.
- Job can start with a variable parameter like dataset name, and variables can be set and passed between job steps.
- Errors and messages can be sent directly to a responsible person instead of writing only to the joblog
- Control functions for batch input sessions and asynch update tasks.

Link Options for OPC/ESA and MQSeries

The optional CM/OPClink module allows the integration of R/3 systems with IBM Communication Management into an enterprise scheduling system (OPC/ESA). The optional CM/MQlink module supports the asynchronous data transfer between R/3 and other systems through MQSeries messages (including error messages). This replaces the FTP support implemented in the CM base module.

**CURRENTLY
AVAILABLE FOR
SAP R/3**

IBM Communication Mgt. for SAP R/3 benefits include:

- † Enhancement of R/3 scheduling system
- † Complex job nets
- † Sophisticated control functions for batch input and update tasks
- † Integrated data transfer functions
- † File Watcher (also on remote systems)
- † More functionality for error handling
- † Integration in heterogeneous scheduling systems (OPC/ESA)
- † Can be installed in all R/3 environments

For more information:

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IBM R/3 Service Agent for Tivoli Workload Scheduler

An extension of Tivoli's Extended Agent Technology for SAP R/3 .

The IBM R/3 Service Agent for Tivoli Workload Scheduler formerly called Maestro is an extension of Tivoli's Extended Agent Technology. It is designed as a wrapper around Tivoli Workload Scheduler's Extended Agent for SAP R/3 to implement features adding functionality to the existing TWS R/3 Link.

The R/3 Service Agent is available for UNIX and Windows NT Platforms. The tool uses standard RFC Communication toward the R/3 System. The tool doesn't use any undocumented internal functions, so the implementation doesn't depend on the SAP release level. The installation is carried out with the R/3 transport system and the import can be done without stopping the R/3 system. No modifications of standard SAP-objects are necessary.

The tool is an integrated service offering installed by an experienced SAP R/3 BC consultant. The installation includes some customizing activities, training and the implementation of one customer specific scheduling needs at the customers site. This takes an average 3 to 5 days. Prerequisite is the installation of TWS and Tivoli's Extended Agent for SAP R/3.

The idea of a single point of control for distributed platforms gets undermined by the fact, that R/3 has a scheduling mechanism of its own and possibilities for users to schedule jobs without being under control of TWS. The service agent approach is to create definitions of a R/3 job in TWS and let TWS control the submit.

The TWS Extended Agent for SAP R/3 implements the basic scheduling mechanism needed to start and track R/3 jobs. The job status and joblog is made available to the TWS.

The IBM R/3 Service Agent for Tivoli Workload enhancements are:

- Dynamic job creation of SAP R/3 jobs
- Dynamic creation of SAP R/3 Job
- Control over the printing environment within each step.
- Extended tracking of batch input session
- Tracking of child jobs created.
- Evaluation of Job log and spool for determining the final status of the job.
- Reflecting and controlling user created jobs within R/3 into TWS
- Reflecting and controlling ad-hoc jobs within R/3 into TWS

**CURRENTLY
AVAILABLE FOR
SAP R/3**

IBM R/3 Service Agent for TWS:

- † Enhancement of R/3 link between TWS and SAP R/3
- † Dynamic job creation
- † Tracking of BI sessions and child jobs
- † Evaluation of joblog and spool
- † Reflect user created R/3 jobs into TWS
- † Reflect R/3 ad-hoc jobs into TWS

For more information:

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Tivoli Management Solution for R/3

State-of-the-art Enterprise I/T Management.

The Tivoli Management Solution for R/3 provides a broad integrated Information Technology management capability for the entire R/3 environment.

Companies that implement SAP™ R/3 rarely depend entirely on a single production R/3 system for their entire information technology (I/T) infrastructure; instead a combination of R/3 and non-R/3 components are linked together to form an "R/3 environment" that supports the company's business systems. To effectively support these business systems you must manage all of these components in an integrated manner. Tivoli provides this integrated management that lets you run I/T as a business.

The Management Solution for R/3 helps you get the most out of your R/3 system by:

- **Insuring end-user productivity**
- **Accommodating change**
- **Increasing staff effectiveness while managing costs**

Insuring End User Productivity

Tivoli's Management Solution for R/3 insures the productivity of your end users in several different ways. First, Tivoli has comprehensive support for the availability of not only the R/3 application, but for all the components of the R/3 environment including the servers, databases, networks and other applications. Secondly, the productivity of your customers is insured by a large and growing number of tools that help you safeguard the performance of the entire R/3 environment. Finally, Tivoli provides end-user service management through an integrated service desk that facilitates your customer's ability to deal effectively with problems and usage issues.

Accommodating Change

Change is a fundamental aspect of any R/3 environment. One of the key reasons for implementing R/3 is to change the way that your company does business to make it more effective. These changes come in many different forms, such as the need to manage additional users, servers, or R/3 systems, changes and upgrades as well as organization changes. These fundamental changes to strategic business initiatives, technology and user processes cascade to the data center and to every desktop. Tivoli allows you to effectively accommodate these changes by providing a scalable management infrastructure that can grow and change to meet the demands of this dynamic environment.

Increasing Staff effectiveness

Staffing is a crucial issue associated with managing an R/3 environment. Administrators with R/3 skills are in high demand and staff retention is key to the success of the R/3 implementation. Tivoli's integrated management environment maximizes your staff productivity by reducing training costs, reducing repetitive work, eliminating the delays and errors associated with manual operations and allowing your staff to manage more resources with the same amount of work.

Tivoli has a comprehensive range of management solutions for your entire I/T environment, including R/3. To find out more about Tivoli Enterprise Management Solution for R/3 visit: http://www.tivoli.com/products/documents/datasheets/mgr_r3.html

Benefits of Tivoli Management Solution for R/3

- † Run I/T as a business
- † Eases R/3 Implementation and deployment
- † Maximizes I/T availability, end user productivity
- † Reduces overall R/3 support costs
- † Quicker problem resolution and problem avoidance
- † Maximizes effectiveness of IT staff
- † Accommodates change

For more information

Visit Tivoli's home site at:
<http://www.tivoli.com>

Lotus SmartSuite Integration and SAP R/3

*Maximizing the volume and value of your R/3 information using Lotus products:
Giving everyone in your organization a better way to communicate and collaborate.*

Now you can combine the transactional and business-process power of SAP R/3 applications with the flexibility of Lotus desktop and communication products, maximizing the volume and value of your R/3 information with the *Lotus Connection for SAP R/3*. This product allows end users to analyze, enhance, present, query, report, and manage and distribute critical R/3 data using Lotus SmartSuite® and/or Notes and Domino, without investing time or money in applications development. The Lotus Connection for SAP R/3 program is available free of charge on the SAP R/3 CD's beginning with version 2.2H or 3.0C.

Millions of people are already familiar with Lotus desktop products - which makes it easy to get up and running with Lotus Connection. For example, working with an R/3 worksheet is the same as working with any other 1-2-3 worksheet. With the Lotus Connection for R/3, you can generate reports using standard R/3 facilities, then load the data directly into the friendly environment of Lotus 1-2-3, Word Pro or Ami Pro, Approach, Freelance Graphics or Notes.

Via R/3's standard XXL data export facilities, users can generate reports and select the Lotus application into which SAP R/3 will load the data and contextual information. Data can be imported into Notes in a number of ways. It can be imported directly into a document, attached to a document or the result can be mapped to the documents and fields of a database, populating the database with the result of your query.

Use **Lotus 1-2-3's** drag-and-drop dynamic viewing to organize R/3 data. Point-and-click to zoom in on 1-2-3 data or outline data for analysis. And create professional looking charts with a single step. Even produce worksheet templates to give regular reports a standard look and feel, then easily keep them up-to-date with the latest R/3 data.

AcceleratedSAP Integration with SmartSuite: Lotus SmartSuite is already helping customers analyze, report, and publish information from R/3. Now harness SmartSuite in the deployment and implementation of R/3. Available now from SAP, ASAP is enabled for use with Lotus SmartSuite. This best practice implementation tool will be enhanced to support Lotus Word Pro and Lotus 1-2-3 as seamless components of the ASAP methodology.

R/3 Desktop Office Integration: A revolutionary product of the R/3 basis development team, the R/3 Desktop Office Integration interface seamlessly integrates SmartSuite with R/3. Documents, sheets, and charts may be enabled for 'in-place' editing and creation. Available starting in R/3 4.5A, the Desktop Office Integration interface will dramatically enhance SmartSuite integration with R/3.

R/3 IMG Word Pro Integration: The Word Pro IMG Notes Editor enables robust editing within the R/3 environment. Connect Word Pro to R/3 in order to edit IMG comment notes using a powerful, fully functional, word processing package. In addition, enable Word Pro with **IBM's ViaVoice** to quickly and easily dictate your comments into R/3.

Get A World Of Support Both Lotus and SAP are fully committed to seamlessly connecting Lotus products with R/3 everywhere in the world. So you have a single source of support whether you're using the Lotus Connection for SAP R/3 in English, Japanese, Chinese, French Italian, German or Spanish. Discover the power of integration with the Lotus Connection for SAP R/3.

Lotus Connection for SAP R/3 Features:

- † Analyze, enhance, present, query, report, and manage and distribute critical R/3 data using familiar Lotus desktop products, without investing time or money in applications development
- † Millions of people are already familiar with Lotus desktop products
- † Users can share R/3 information with everyone in the organization
- † R/3 data can be included directly in a Notes document as either an embedded table or an attached file
- † Mobile workers can access up-to-the-minute R/3 information via Notes replication

For more information

Lotus SAP Competence Center
at +49(0)6227-74-8494

SmartSuite_Enterprise@
Lotus.Com

www.Lotus.Com/ssenterprise

Lotus Notes, Lotus Domino and SAP R/3

Complementary solutions working together.

Lotus Domino enables organizations to extend the reach of R/3 data to users beyond the traditional R/3 boundaries. IBM views Domino Servers and Notes and web clients as the cornerstone of enterprise integration. It is the connection point between your business, transaction data, end users and the Internet. Lotus Notes features including document management, security, replication, messaging, workflow, applications development and systems management make it the ideal tool to manage the content side of the network computing equation. Business data is easily transformed into usable documents within Notes that can be more easily accessed, shared and published among end users throughout an enterprise.

The Internet serving capabilities of Domino Server now open up the power of these collaborative applications to the Internet and further facilitate the growth of "Virtual Organizations" throughout an extended enterprise. Notes/Domino lets you link Internet applications, business applications and e-mail to the relational and transactional systems that run your business. Linking Notes to R/3 opens up access to data and transactions to users without having to train them to use R/3 screens. The powerful features and front end allows end users to literally "live" within the Notes environment and use its communications capabilities to connect to other systems as well. Notes can be the single, least common denominator access point to all corporate information.

Lotus enterprise connectivity tools provide the "plumbing" to allow development of integrated applications. This includes several options to link with SAP R/3. In addition to standard interfaces such as OLE Automation, SAP Automation server, ABAP/4 OLE2 automation interface, and remote function calls, Lotus has also made extensions available to the LotusScript language to access new SAP business processes and data through either RFC or BAPI interfaces. The Lotus Domino Connector for SAP is an exciting new tool with great possibilities to simplify access to R/3.

Lotus Domino Connector for SAP Release 1.5

The Lotus Domino Connector for SAP R/3 enables connections to be established between the Domino and R/3 application server data. The Connector handles secure server to server authentication, and data exchange between applications. The Lotus Domino Connector for SAP R/3 works with Release R/3 2.2H and greater, and interfaces with all SAP R/3 Remote Function Call and Business API interfaces. It may also be used with DECS 4.65a or 5.01 or greater server releases, and with the Lotus Connector LSX classes.

The Lotus Domino Connector for R/3 is designed to work with a number of Lotus Enterprise Integration tools: a) Domino Enterprise Connection Services (DECS) 4.65a or 5.01 or greater server releases, b) Lotus Enterprise Integrator (LEI) 3.0 and Higher c) the Domino Connector LSX and d) the Domino Connector Java Classes.

Bi-directional integration between LEI Domino Connector supported sources and SAP R/3 applications may be easily accomplished via completion of Notes forms (called data transfer Activities), and via programmatic integration, using LotusScript and/or Java Class support. Data Transfer Activities supported include: RealTime Notes, Direct Transfer, Polling, Archive (R/3 as Destination only), Command, Java and Scripted (LotusScript).

Key Benefits: The Lotus Domino Connector for SAP R/3 technology greatly reduces the amount of programming required to exchange data between SAP R/3 and Domino applications through completion of forms-based activity documents, which control server transfer operations and schedules. Realtime access and update, event-driven and scheduled data transfer activities are supported. It gives customers the ability to integrate their structured business processes in R/3 with the more ad hoc workflow and interactive capabilities of Notes and Domino.

Supported Platforms: Domino Connector Release 1.5 will operate on NT, Sun Solaris, AIX, AS/400, and later S/390 platforms, and is available for download at www.lotus.com/dominoei.

Supports SAP R/3 Release 2.2H and greater.

Lotus and SAP: Working Together

There are many scenarios where the power of Notes and SAP together can bring enhanced levels of productivity to your organization. Some of the areas where companies are realizing the benefits of integration include:

- † Creating business Web sites
- † Remote Sales force automation
- † Employee access to HR information
- † Customer service and support
- † Distribution of reports and data
- † Field site data consolidation
- † Integrating quality management processes
- † Expense reporting and tracking
- † Budget analysis and approval process

For more information:

- † www.lotus.com/dominoei
- † Call the Lotus SAP Competence Center at +49(0)6227-74-8494

Lotus Notes, Lotus Domino and SAP R/3 (continued)

Complementary solutions working together.

LotusScript Extensions for SAP R/3 2.0

Using the SAP LotusScript Extension for Domino, developers can access modules of R/3 functionality that then become extensions (LSX's) within the Notes integrated development environment. This "plug in", is the earliest integration tool provided by Lotus and SAP, and makes SAP RFC's and BAPI's extensions to this Basic-Compatible, object oriented development language and enhance the developers ability to manipulate R/3 business objects.

Lotus Enterprise Integrator™

Lotus Enterprise Integrator 3.0 allows you to exchange data between R/3 and Domino applications on a high volume, realtime, or event driven basis without programming. Using the Lotus Domino Connector for SAP R/3, Lotus Enterprise Integrator enables system administrators to schedule integration or updates between Domino applications and R/3 application data, accessing R/3 Server RFC, Transaction and BAPI interfaces. Lotus Enterprise Integrator also supports data exchange between additional Domino Connectors, including RDBMS, Transaction System and ERP sources. This will allow you to quickly synchronize your Notes application data with the transaction data stored in the R/3 database.

Using one or more of these capabilities in combination allows the development of extremely sophisticated workflow, web, and collaboration applications which leverage the complementary strengths of both Notes/Domino and R/3.

Domino Integration with SAP Business Workflow

This product enables Domino Mail users to receive and update R/3 Worklist item data directly in Domino Mail, eliminating the requirement to log in to R/3 and query for specific work item data. R/3 worklist items appear as individual mail messages for Domino mail users. From Domino mail, users can interactively work with the R/3 data, utilizing actions such as lock worklist item, edit, and approve. This Domino mail product automatically launches appropriate R/3 client screens for interactive worklist item data management.

Domino Message Transfer Agent (MTA) for R/3

This product enables exchange of SAPOffice and Domino Mail. Two Domino Server Add-in tasks are supplied for receiving and sending e-mail generated by Domino and R/3 users and applications. This gateway manages fidelity of attachment formats transferred between applications.

Just say the word and it's done. With **IBM ViaVoice for Word Pro**, you can dictate directly and continuously into documents at up to 140 words per minute. In addition to scores of Web-savvy features, enhanced publishing functions and tight integration with Lotus Notes, Word Pro now lets you select the menu you'd like to use -- whether it's Word Pro, Word Pro Lite, Ami Pro, Microsoft Word, or WordPerfect.®

For more information:

† www.lotus.com/dominoei

† Call the Lotus SAP Competence Center at +49(0)6227-74-8494

MQSeries Link for R/3

The leader for commercial messaging.

Communicating across networks requires an added level of integrity to ensure accurate and secure delivery of critical business information. IBM MQSeries link for R/3 messaging software underpins network communications with reliable information transfer, high throughput, full data recovery and no loss or duplication. MQSeries also provides an enhanced link from R/3 to R3, R3 to R2 and from R/3 to applications on any of the 35 plus IBM and non-IBM platforms supported, including legacy data located in customer IMS and CICS applications.

Working with SAP, IBM developed the MQSeries link for R/3. It uses the published, enhanced IDOC interface announced by SAP in March 1996.

MQSeries uses messages to carry information. It provides the communication carrier to R/3's ALE layer, using the same MQSeries Message Queue Interface (MQI), whatever the platform. The MQI means you can move an application from one environment to another and reduce development time on new applications.

MQSeries link for R/3 is fully integrated with the Application Link Enabling (ALE) layer, which is the SAP solution for distributed R/3 systems. Using the link is transparent to R/3 and ABAP/4 application, as well as to the SAP application programmer. It gives you the flexibility to use different protocols for different applications, and change them if required. Now you can enhance the mix and match of applications to meet your changing business requirements, minimize duplication of data, and increase the power and scope of your SAP applications.

You don't have to rewrite applications you already have running. You don't have to redesign databases. When developing a new application, you're not constrained by the design of any existing system. Using ALE with the MQSeries link gives you the freedom to design your new application to do what you want it to do, on whatever platform is appropriate.

MQSeries asynchronous "store and forward" passing of messages allows systems to communicate worldwide, regardless of whether all the systems are up and running at the time, assures delivery, and delivers once and once only so your applications don't need to verify message delivery.

Your applications can run concurrently or time-independently. You can link them one at a time or all at once to suit your business needs.

Add MQSeries to your network and you can integrate R/3 applications with your other business applications as well as your enterprise data.

The MQSeries link for R/3 is already available on the major R/3 platforms. Using this link you have access to MQSeries on a multitude of platforms providing you with a single, robust, asynchronous, communication carrier.

For more information:

■ Internet: <http://www.software.ibm.com/ts/mqseries/platforms/r3/>

■ *All Geographies:* Peter G. Houghton,
Tel: 44-0 1962-815146, Fax: 44-0-1962-818338
Email: pgh@uk.ibm.com

MQSeries Link for R/3

Benefits:

- † ***Available for Integration of R/3 with R/3, with R/2 and with other applications***
- † ***Certified for SAP R/3 for both V3 and V4***
- † Cross application - ALE Message Handling System certified
- † Reliable information transfer
- † High throughput
- † Full data recovery and no loss or duplication
- † Integration of R/3 with applications on any of the 35+ platforms supported
- † Provides an enhanced link from SAP to legacy data located in customer IMS and CICS applications
- † Increase the power and scope of your SAP applications

MQSeries Adapter Offering

The leader for commercial messaging.

You could compare MQSeries to a national highway network, which are integrated and connected, but currently have a limited number of on- and off-ramps. Today we have a number of bridges and links, including CICS, IMS, Lotus Notes and R/3. To be a useful infrastructure the national network of highways needs on- and off-ramps to connect major towns and cities. In the same way an enterprise needs adapters to connect applications into the integration infrastructure. The MQSeries Adapter Offering addresses the need for adapters.

The MQSeries Adapter Offering (MQAO) will give applications the equivalent of their own common language, so they can talk easily to each other creating standard MQSeries messages to send around your network.

MQSeries adapters reduce the risk, complexity and cost of managing point-to-point application integration. They provide a safe and predictable migration path, starting with a few connections.

The MQAO will be a set of products, including MQSeries Adapter Builder and MQSeries Kernel. Optionally available are associated services designed to make application integration even easier.

MQSeries Adapter Kernel

MQSeries Adapter Kernels are specific to a platform. They provide common runtime services. The Kernel supports unlimited adapters, and multiple Kernels can be installed on one machine

MQSeries Adapter Builder tool

The productive Adapter toolkit will mean you can have any adapter you want, when you want it. You, or independent suppliers, can use the tool to build new messaging interfaces for applications.

IBM also has professional services offerings based on these products for a number of popular packaged applications.

The MQSeries Adapter Builder tool really will mean you can have all the adapters you'll ever need.

MQSeries also provides integration of applications on any of the 35 plus IBM and non-IBM platforms supported, including legacy data located in customer IMS and CICS applications.

For more information:

■ Internet: <http://www.software.ibm.com/ts/mqseries>

■ *All Geographies:* Peter G. Houghton,
Tel: 44-0 1962-815146, Fax: 44-0-1962-818338, Email: pgh@uk.ibm.com

MQSeries Adapter Offering Benefits:

- † ***Available for Integration of any SAP application with any other application be it SAP or non SAP***
- † Allows you to build adapters for any SAP application
- † Helps you create fully customised adapters
- † Full data recovery and no loss or duplication
- † Integration with applications on any of the 35+ platforms supported
- † Increase the power and scope of your SAP applications

MQSeries Integrator

ERP Differentiated and Extended by Integration

Best of breed ERP applications can provide competitive edge with all the features and functions needed, right out of the box. But, to maximize the return on investment (ROI) from ERP, these applications must be integrated into the enterprise, with legacy applications, internally developed applications, with other packages and of course increasingly with other ERP applications.

But integration typically costs \$9 for every \$1 spent on software - a time consuming and expensive process. And so many ERP implementations are overrunning both schedule and budget, damaging the reputation and threatening the growth of the ERP market. The ERP market is therefore moving towards Extended Solutions and demanding simplified integration. This is where MQSeries Integrator can really benefit ERP implementations.

What MQSeries Integrator Does

MQSeries Integrator includes the functionality for messaging, queuing, rules, formatting, and application libraries.

MQSeries simplifies the transmission of messages from one platform, operating system or application language to another. MQSeries has the widest heterogeneous platform support in the market. MQSeries also guarantees the delivery of each message, so that it is received once and once only.

The Rules Engine can turn messages into computer commands and carry out actions based on the results. For a given message, Rules defines who, or what, is supposed to receive the message, where it should go, and what the appropriate format of the message should be.

Through the Formatter, MQSeries Integrator can translate messages from different protocols, programming languages, applications and hardware platforms. The Formatter can parse and reformat messages at different points in the communications process.

The Application Integration Libraries provide a seamless, flexible solution for integrating with ERP applications. Application Libraries are available for SAP, PeopleSoft, EDI, Gold, SWIFT, FIX, Fax, and Telex, with libraries for other ERP systems under development.

As an example, the SAP Integration Libraries extend the concept of Application Link Enabling (ALE) integration out to the enterprise. The SAP Integration Libraries facilitate data conversion, data validation, and data enrichment. MQSeries Integrator handles business-oriented, rule-based control of how and when data flows between legacy, third party, or other ERP applications and SAP R/3. By externalizing these control flows into a business rule repository, you can develop, audit, and maintain a clear integration policy. The SAP Integration Libraries automatically load Intermediate Documents (IDoc) definitions into the formatter repository by analyzing the on-line SAP R/3 IDoc metadata. The SAP libraries also automatically import all site customized IDocs, saving implementation time and preserving customization.

Using MQSeries Integrator companies can effectively route the information from SAP to any other application from defined rules. This interface removes the headache of re-coding non-SAP applications to understand the SAP message protocol, thereby reducing the task of integration.

For More Information: www.software.ibm.com/ts/mqseries

MQSeries Integrator

Benefits:

- † **Reduced implementation times**
- † **Reduced risk**
- † **Significantly enhances the ERP ROI**
- † Standardized ERP application interfaces
- † Framework for further application or ERP integration
- † Based on MQSeries - the de-facto industry standard
- † In conjunction with the MQSeries Link for /R3 - provides integration of R/3 with R/3, with R/2 and with other applications
- † Based on proven and industry leading technology

For more information:

www.software.ibm.com/ts/mqseries

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IBM Content Manager CommonStore for SAP

IBM's Enterprise Solution for SAP Content Management.

IBM Content Manager CommonStore for SAP is a **certified** e-business solution for **data and document archiving** with SAP R/3. Business documents can be archived, managed and distributed throughout the enterprise in electronic form and can be retrieved immediately via SAP, the Content Manager client or a web browser.

- Wouldn't you like to trim the size of your R/3 system's database by moving old inactive data from the operational SAP system to an external archive? This is an absolute must if you have to convert your system to the Euro soon.
- Would you like to avoid the time consuming search for business documents in file cabinets, microfiche and paper archives?
- Are you interested in a solution that will work with SAP R/3 to securely and efficiently archive and retrieve business documents? With a unique scalability that allows you to start with a small but powerful SAP data archive and then gradually extend the system even to a universal enterprise solution?

If you answered yes to any of these questions, CommonStore for SAP is the perfect solution for you! And it's available to you whether your organization uses SAP R/3 as a rule or in connection with other business applications.

CommonStore for SAP combines the powerful functions of leading IBM archive and document management systems with the strengths of SAP R/3. It has been certified by SAP AG as a complementary software product for R/3 and is being used by SAP customers all over the world.

Using the defined **SAP ArchiveLink™** interface, IBM Content Manager CommonStore for SAP is seamlessly integrated with R/3's financial, logistics and human resources applications like FI, CO, MM, SD, HR and so on. It allows you to store your company's mission critical information assets in electronic archives and to make them accessible for the users at the click of a button.

Thus CommonStore for SAP meets the challenge of today's marketplace by

- x lowering operational costs
- x improving workforce productivity
- x enhancing customer service and
- x sharpening your organization's responsiveness

To best fit your company's individual needs, CommonStore for SAP supports **industry leading archiving systems** that are in use at thousands of customers worldwide:

- x IBM Content Manager (formerly VisualInfo and Digital Library) and IBM Content Manager OnDemand
- x Tivoli Storage Manager (formerly ADSM)

In connection with IBM Content Manager archives, CommonStore for SAP combines the functions of a certified SAP data and document archive with those of a universal document management system. This provides SAP users with a unique enterprise solution that supports both SAP data as well as any other types of business documents within a single, common archive system. With the help of CommonStore for Lotus Domino, another component of Content Manager, you can even off load attachments and documents from your Notes databases and store them in this common archive system.

For more information:

- Worldwide CommonStore Competency Center (Vienna, Austria)
E-mail comstore@at.ibm.com or visit ibm.com/software/data/commonstore

Solution Benefits

- † Reduces size of the SAP database by archiving old data
- † Improves SAP R/3 system performance
- † Makes your SAP system ready for the Euro
- † Seamlessly integrates business documents into SAP applications
- † Supports incoming and outgoing documents, print lists, and PC files
- † Manages SAP and non-SAP data in a single archive system
- † For SAP users: Access via R/3 (front-end = SAPGUI)
- † For non-SAP users: Access via user friendly Content Manager clients
- † For Internet and Intranet users: Access via web browser
- † Supports SAP Business Workflow
- † Supports external forms management systems
- † Allows external documents to be linked to SAP business objects
- † Connects to any SAP platform via standard R/3 interface
- † Centralized and/or decentralized archiving of documents
- † Unique storage management
- † Best-of-breed document management (using Content Manager)
- † Native AIX, Windows NT and OS/400 versions available
- † Supports archives on several system platforms (from PC to S/390 enterprise servers)
- † Unique scalability
- † Optional component available for SAP R/2 data migration
- † Allows enterprise-wide document management with one product
- † Support for numerous storage devices including optical jukeboxes and tape libraries
- † Securely manages millions of documents on a single storage medium
- † Extendable with CommonStore for Lotus Domino for mail and Notes document archiving
- † Certified for SAP R/3 Version 3.0, 3.1 (4.0) and 4.5 (4.6)

IBM FaxPlus/Open

Efficient management for your organization's entire fax traffic.

FaxPlus/Open provides efficient management for your organization's entire fax traffic. Customers with mission critical fax requirements, high fax volumes, or needing the ability to integrate with core applications like SAP consider FaxPlus/Open the solution of choice. The integration with SAP has been made seamless through the use of the SAPconnect interface. FaxPlus/Open has been an SAP certified product since 1997.

Enterprise customers view faxing similar to printing and messaging - every application needs it. FaxPlus/Open can be used to fax enable almost any application in your enterprise. FaxPlus/Open can handle inbound, outbound and the archiving of fax documents. In addition to SAP, pre-configured application modules are available for Lotus Domino/Notes, Advanced Function Printing, MQSeries, Content Manager and Content Manager OnDemand.

FaxPlus/Open is available on S/390, AIX and Windows NT, across analog, T1/E1 and ISDN networks. FaxPlus/Open's modular components architecture permits cross-platform installation possibilities within a single domain, according to the customer's environment, to better adapt to each customer's current infrastructure. FaxPlus/Open, developed by Intercope, an IBM Independent Software Vendor, has been installed by over 250 customers worldwide.

Why Customers Buy FaxPlus/Open

Competitive Business Advantage

- Accelerating the business cycle by using fax instead of snail mail
- Least common denominator for reaching customers and partners

Streamline Business Operations

- Bulk faxing from mainframe printing systems
- Fax Server consolidation provides the ability to significantly reduce labor costs, administrative expenses which includes fewer fax machines, reduced supply cost, maintenance and fewer fax lines
- Least Cost Routing and Load Balancing can be a major cost saver
- Fax enable core business applications
 - x Customer Relationship Management
 - x Enterprise Resource Planning
 - x Line of Business Applications

Performance and Accountability

- Very high uptime, can run automatically 24 hours without operator intervention
- Audit and control provides the ability to track document cost, in the event accounting and charge back are required.

For more information

- Visit INTERCOPE at <http://www.intercope.com> for more details.
- North America: rsholla@us.ibm.com
- Other geographies: tim_robertson@uk.ibm.com.

Solution Benefits

- † **SAP certified for R/2 and R/3**
- † Easy implementation, pre-configured packages can usually be installed in 2-3 days
- † Seamless Integration with existing SAP infrastructure.
- † Cost savings through least cost routing and load balancing
- † Use of the SAP address book
- † No need for additional training
- † Can be managed and controlled by any SNMP tools (i.e. Tivoli)
- † Enterprise license agreement available
- † OS/390, AIX, and Windows NT versions available

SAP Status Tracking with IBM DataInterchange

A versatile data translation and transaction management solution for your EDI requirements.

IBM DataInterchange/MVS and IBM DataInterchange MVS-CICS provide a versatile host-based data translation and transaction management solution that can grow with your electronic data interchange (EDI) requirements. These two powerful, yet flexible licensed programs take advantage of the power and speed of your mainframe computer and allow maximum flexibility for integration with your applications. DataInterchange's high performance architecture and unique SAP R/3 mainframe interface provide superior transaction throughput for your EDI subsystem and SAP R/3 system integration.

The SAP R/3 system provides an interface which allows the EDI subsystem to report status information for the EDI process. Using the SAP Intermediate Document (IDOC) layout, SAP R/3 generates application data in files which are then sent to the EDI subsystem or translator using a file transfer product (such as FTP or TCP/IP) to mainframe operations. The EDI subsystem tracks the status of the SAP document through the EDI processing steps and generates SAP status records to be sent back to the SAP system to make appropriate updates.

IBM DataInterchange products provide the capability to capture the SAP status information during different phases and various key points of the EDI process. The status information is stored in a database allowing the SAP status to be reported based on user specification. Tools, featuring selection criteria, are provided to allow you to extract and delete the SAP status records from the DataInterchange database. The records are written in the SAP EDIDS record format to a sequential file for transfer to the SAP system.

IBM DataInterchange/MVS features comprehensive standards support, including multiple releases of major domestic and international standards. Its easy-to-use administrative tools speed EDI implementation. The host administrative tools are menu-driven and provide on-line help. The client/server administrative tools provide a friendly graphical user interface (GUI).

These products also supply an innovative send-and-receive interface that can support communications in economical batch or true application-to-application mode. In addition, IBM DataInterchange/MVS-CICS, with Expedite/CICS, offers control mechanisms, storage facilities and communications capabilities to provide truly event driven EDI function in support of just-in-time or quick-response efforts. DataInterchange/MVS-CICS is a superset of DataInterchange/MVS. DataInterchange/MVS systems may be upgraded to DataInterchange/MVS-CICS with no 'conversion' issues, as both products share all system and transaction files.

For more information:

- Visit the DataInterchange Website at:
<http://edi.services.ibm.com/edi>
- Contact: Dave Schwartz
dschwart@us.ibm.com
01-818-539-3506

IBM DataInterchange Product Benefits

- † **Certified for SAP R/3**
- † Superior transaction throughput with unique mainframe SAP interface
- † Captures SAP status information during different phases and various key points of the EDI process
- † Tools provided to extract and delete status records based on selection criteria
- † Status is in the SAP EDIDS record format
- † Comprehensive standards support, including multiple releases of major domestic and international standards
- † Easy-to-use, menu-driven and Client/Server (GUI) administrative tools speed EDI implementation
- † Innovative send-and-receive interface supports communications in batch or application mode
- † Truly event driven EDI function in support of just-in-time or quick-response efforts

Tivoli Storage Manager & Tivoli Data Protection for R/3

(formerly IBM ADSM & BACKINT/ADSM)

An integrated backup/restore solution for your entire SAP R/3 system.

Whether you are using SAP R/3 for a single business process or as the foundation for a global, enterprise-wide client/server system, availability and protection of mission-critical data can be crucial to your success. Even with the high reliability of today's IT systems, failures can occur and operator errors do happen. To protect your data, you need a professional, reliable backup/restore solution tailored to your environment.

Tivoli Data Protection for R/3 is an integrated backup/restore solution for your entire SAP R/3 system, providing reliable and repeatable operational procedures. **Tivoli Storage Manager** together with a broad range of high performance, highly reliable storage devices, performs fully automated, policy driven storage management and administration tasks.

This comprehensive storage management solution:

- performs efficient and reliable management of large volumes of data
- ensures reproducibility of backup operations through high degree of automation
- minimizes downtime for recovery and shortens the backup window to reduce impact on your operation
- supports a broad range of platforms and provides flexibility to adapt to a variety of backup/restore requirements
- relieves system administrators from repetitive tasks, thus allowing them to focus on end user support

Tivoli Data Protection for R/3 has been specifically optimized for the R/3 environment to seamlessly integrate the data base administration functions of SAP DBA with the storage management functions of Tivoli Storage Manager and to provide the production functionality necessary for this environment.

Tivoli Data Protection for R/3 is designed for maximum throughput -minimizing the window required for backup **and** restore. Multiple backup paths improve the bandwidth and availability of the communication network between R/3 DB and backup server. Alternate backup servers can improve the availability of backup services or are used in disaster recovery scenarios.

Tivoli Data Protection for R/3 supports a variety of R/3 - ORACLE platforms AIX, HP-UX, LINUX, SOLARIS, True64 UNIX, WINDOWS NT and 2000.

Tivoli Storage Manager backup and restore functions are also available for SAP R/3 systems utilizing Informix, SAP DB (formerly ADABAS) and SQL Server databases, as well as other key enterprise applications, e.g. Lotus Notes and Exchange.

More information on Tivoli Storage Manager and Tivoli Data Protection:

- Tivoli Storage Manager and Tivoli Data Protection for R/3
<http://www.tivoli.com>
- Tivoli Data Protection for R/3 <http://www.de.ibm.com/entwicklung/esd/>
- For general presales questions contact the Tivoli Data Protection for R/3 Hotline (backint@de.ibm.com) or the Tivoli Center of Excellence at SAP (ticoes@tivoli.com).

Tivoli Storage Manager offers:

- † **Certified by SAP** to the BC-BRI interface and seamless integration with SAP DBA: backups full/partial online/offline, archived redo log files
- † Incremental backup for all non database R/3 files
- † High backup/restore data rate through parallelism & adaptive file sequencing
- † Production functionality like automatic password generation, multiple log file copies, alternate backup paths/ servers, backup version control, and many more
- † Reliable storage and tape library management minimizes labor intensive tasks
- † Automated backup and media management for operatorless and reproducible processes
- † Disaster recovery
- † **New:**
- † Administration Assistant for administrator productivity
- † DB2 UDB support
- † Incremental backup (RMAN-ORACLE8)
- † Bulk data transfer via SAN

Technology Solutions

- † **DB2 Universal Database**
- † **IBM SAP Capacity Planning**
- † **IGS International Networking
Center for Technology Integration**
- † **Networking Hardware Products**
- † **RS/6000 High Availability
Solution**
- † **Content Manager OnDemand:
The Print Alternative**
- † **Infoprint Manager**
- † **IBM Network Station and SAP R/3**

DB2 Universal Database

IBM's premier database offering for the entire enterprise.

DB2 is IBM's award-winning family of open, scalable, Internet-ready relational database products. With over one million DB2 licenses installed worldwide, more than 70 percent of the world's major companies rely on DB2 to manage their mission-critical business applications.

Available on IBM and non-IBM platforms, DB2 Universal Database (DB2 UDB) scales from Intel to UNIX to large systems platforms and from uniprocessor to SMP and MPP environments. Wherever you need reliable, robust, high performance database support, there is a DB2 product capable of doing the job.

DB2 Universal Database is engineered to deliver high performance for both On-Line Transaction Processing (OLTP) and complex query applications as well as high levels of availability, integrity and security that are demanded by today's mission-critical applications. DB2 has been selected by SAP as the strategic database of choice for OS/390, OS/400, Unix and Linux implementations. With DB2 support currently available on OS/390, AIX, Solaris, Linux, OS/400, WindowsNT and Windows2000, IBM offers SAP customers the widest choices in the industry for deploying enterprise solutions. HP-UX support for mySAP.com solutions is planned for the 4th quarter 2000.

DB2 family for SAP

- DB2 for S/390 - Mainframe:
Best scalability/availability; Exploits parallel sysplex; ERP coexistence and migration; Leverage installed investment
- DB2 UDB for UNIX Platforms - AIX, Solaris, Linux, (HP-UX Q4 2000)
Fast performance; Low cost of operation
- DB2 UDB for OS/400
Integrated with OS/400; Exclusive offering
- DB2 UDB for Windows NT - Low to Mid-range - Newly available for the Windows2000 environment

Optimized for SAP

- Scalability/robustness of the DB2 family provides strong capability for supporting very large databases & high numbers of concurrent users.
- Only parallel database certified for SAP Business Information Warehouse
- For the SAP environment, jointly staffed DB2 Integration & Support Centers (Santa Teresa and Toronto) focused on worldwide time zone support, performance, benchmarks, acceptance tests & knowledge transfer
- Primary SAP development platform on IBM, SUN and Linux
- Reuse DB2 skills to implement SAP with DB2 on any IBM platform due to wide acceptance of DB2 in corporate world.
- Integrated with IBM's other SAP offerings:
 - x Tivoli Storage Manager - Backup and recovery systems
 - x Lotus - Interfaces to multiple products
 - x Tivoli - Network Management
 - x MQSeries - Messaging and Connectivity
 - x Others: Multiple industry and system products.

DB2 Universal Database Family:

- † Web-ready and universally accessible
- † Universal scalability
- † Maximum availability
- † Low cost of ownership
- † Unrivalled performance for decision support, VLDBs
- † Easy and fast installation
- † Easy management with Control Center and utilities
- † Integrated tools
- † Universal extensibility with multimedia object support
- † DB2 for OS/390 exploits Parallel Sysplex
- † DB2 UDB for OS/400 integrated into Base
- † DB2 defect rates several times lower than industry average
- † Reuse DB2 skills between platforms

For more information:

SAP: www.software.ibm.com/db2sap

or

djmarsh@us.ibm.com

IBM SAP Capacity Planning

Planning for the future.

IBM now has the ability to help customers better plan for the future of their SAP R/3 environment. This service offering provides skilled SAP R/3 consultants to analyze the customer's current system as well as experienced Capacity Planning specialists to build a performance model that represents future requirements for all of the capacity elements involved in this client server application.

This offering is based on a customer's system, their customization, their configuration, their network. This offering concludes with a workshop where various "what if" scenarios are modeled and the results analyzed. Put simply, any quantifiable change to the existing environment can be modeled and the resulting impact can be studied.

The IBM SAP Capacity Planning Service Offering is based on the SNAP/SHOT tool. This is a discrete modeling tool with a long history of successful capacity and performance modeling. The model of the customer's environment is built using their accounting data from a production SAP R/3 system plus operating system data captured through a monitoring tool. The SNAP/SHOT tool can then simulate all parts of capacity consumption and the resulting performance, from the database server down to the desktop.

This process takes approximately one month and includes the following phases:

- **Performance Evaluation:** An IBM SAP R/3 basis consultant will review the current quality of performance of the SAP R/3 system. Quantification or implementation of any tuning improvements will then be made.
- **Customer Growth Requirements:** IBM will assist in the identification of key milestones that need to be evaluated. IBM will also assist the customer in understanding the required data elements for successful modeling of those key events, which leads to quality customer planning.
- **Data Collection:** Capture the daily operating statistics from SAP R/3 for several weeks (copy files to tape). Run an operating system collector during several peak hours of interest and copy the output to a tape. Identify the module membership of any customer written transactions. Document batch process flow and requirements.
- **Build A Model:** The IBM Capacity Planning Center in Cary, NC will then take the data provided and build a SNAP/SHOT model. This process takes several weeks. There will be a running dialogue between the Capacity Planning Center and the customer during this phase to ensure a quality model is built that truly represents the customer's environment.
- **Customer Workshop:** A one week workshop held in Cary, NC where the customer evaluates the various milestone scenarios of interest. These milestones are modeled by running representative scenarios through the SNAP/SHOT tool and analyzing the output. Modifications to assumptions, configurations, and hardware are then made and the model is rerun for further evaluation. This iterative process allows customers to further refine their capacity requirements to meet their required service levels for each milestone.

**Available for
integration with all
ERP packages.**

Benefits of the IBM ERP Capacity Planning Offering:

- † Provides the ability to help answer the question of what is really needed to meet customer performance expectations.
- † All ERP customers have the questions this offering helps answer.
- † Reduces customer uncertainty about their capacity requirements.
- † Provides performance information about future milestones.
- † Better understanding of customer hardware requirements and timing.

For additional information:

Contact the IBM SAP Competency Center at:

ibmerp@us.ibm.com or call

1-800-426-4682

IGS International Networking Center for Technology Integration

Getting the infrastructure ready for ERP solutions

IBM's staff at the IGS International Networking Center for Technology Integration has helped dozens of companies review their network infrastructure to help ensure that companies that deploy ERP applications will not run into networking issues.

ERP Workshop offerings provide you with a customized program designed to address your specific objectives. We can help you define and prioritize requirements and objectives, develop or review plans and strategies, define and evaluate alternative solutions, and develop high level designs.

The Workshop is intended to be a "technical information" planning and design session, and can be used very successfully as the first step in understanding the infrastructure requirements that need to be addressed in supporting ERP application requirements. The techniques we employ are very effective in performing initial development of "big picture" objectives and priorities, reconciling inconsistencies and conflicts between them, and gaining consensus among the session participants.

Careful preparation is the key to a successful session outcome. A Workshop Session Manager will act as your focal point throughout the Workshop process, from planning through delivery. He/she will guide you through preparation, and facilitate discussions during the Workshop.

A networking Workshop usually produces as output high level logical network designs. These may include various alternatives which were developed or evaluated, or multiple designs representing the phases involved in a migration to a strategic design.

ERP Workshops may produce diagrams mapping management processes to organization and/or tools strategies. They may also produce a "tools map" which identifies the tools and agents to be implemented for specific environments and resources.

As an option, the Workshop may include the development of a high level Action Plan. The Action Plan is not a detailed project plan to implement a design or management strategy, but rather a high level plan which describes any follow-up required to maintain momentum.

You may choose to have our Workshop team provide a documented summary of your Workshop results. A Workshop Summary Report, describing the team's findings, conclusions, and recommendations, can be produced as an option.

The Workshop is not appropriate for all situations. ERP Infrastructure Workshops do not generally address detailed physical planning, network tuning parameters, or detailed traffic analysis. Workshops do not produce detailed project plans. Other offerings are available to address most of these requirements. Our staff will assist you in identifying the right IBM program to address your needs where an alternative is more appropriate.

The Workshop is a fee-based offering.

For More Information:

Contact your IBM representative or send an e-mail to: netctr@us.ibm.com

International Networking Center:

- † ERP-specific network planning and design review
- † Customized to your specific objectives
- † Technical information planning to understand infrastructure requirements for ERP
- † Output includes high level logical network designs
- † Considers ERP and non-ERP network traffic

Networking Hardware Products

Network integration and performance for mission critical ERP rollout.

e-business is transforming the role of the network infrastructure from being viewed as cost center to a mission critical business resource that will exploit the eNetwork comprising the Internet, intranets and extranets. This will mean deployment of key technologies like virtual private networks (VPNs) that will facilitate secure and reliable internal communication within the company, external communications with the customers, and communication with suppliers and marketing / sales channels. This brave new world of network computing will require products that support the latest open standard technologies like IPSec, L2TP, NAT, Web Caching, and RLAN. Robust and reliable implementation of these new Internet technologies are critical to a successful implementation ERP processes supporting e-business.

Over 70 percent of mission critical business information still resides in SNA databases in the IBM mainframes and AS/400 computer networks. This data will have to be accessed using TCP/IP transport networks, requiring industrial-class SNA/IP integration.

IBM utilizes a family of products from leading edge providers including IBM, Cisco, Bay Networks and others, that will enable the implementation of high-speed, high-bandwidth network infrastructures. These products comprising Ethernet and Token-Ring switches, routers and network appliances will enable mission roll-out of ERP applications. They support open standard-based Internet technologies as well as IBM developed SNA/IP integration technologies that have a proven performance record in mission critical business applications.

Networking Hardware access products separate the choice of applications from the choice of protocol and platform, saving time and resources. With these products, you can design a network infrastructure that will support your current investment in SNA applications as well as a wide variety of new applications like Lotus Notes, and even connect you to the World Wide Web.

For more information

To learn more about IBM's end-to-end networking solutions, products, services and support, visit us at: www.ibm.com/networking

Related Web site:

IBM Networking home page: www.ibm.com/networking

Benefits of Networking Hardware products:

- † Support for a variety of Internet technologies for mission critical e-business networks
- † Bullet proof SNA/IP integration support
- † Wide support for high-speed technologies like ATM, Ethernet and Token-Ring in different speed configurations
- † Preserve existing skills investment
- † Reduce total cost of operations
- † Guarantee priority for your critical applications
- † Meet your future network requirements

RS/6000 High Availability Solution

A business-critical application control program designed for the RS/6000 family.

Charting new territory - Building business relationships and reaching new clients depends on the ability to respond to changing market conditions on the fly, leveraging the information you need immediately. With IBM and SAP, you have the ability to foretell change --not just react to it-- 24 hours a day, 7 days a week. Together, IBM and SAP help businesses achieve and maintain a competitive advantage with a high-availability, integrated hardware and software solution that lets you stay one step ahead of the competition.

Trusted leadership - SAP's world-class R/3 Enterprise Resource Planning software running on IBM RS/6000 High Availability Cluster Servers provides a proven suite of applications and unparalleled protection from system outages. By building your enterprise resource solution on a system you know and trust, you can reduce risk, cut costs and make more accurate decisions.

Solution - IBM and SAP have teamed to provide a synergistic solution designed to meet the needs of companies seeking to minimize risk and maximize the uptime of their mission-critical systems. The solution supports:

- SAP R/3, a comprehensive set of industry-leading enterprise resource planning (ERP) applications
- IBM RS/6000 High Availability Cluster Servers with industry-leading HACMP software
- Customized starter set of HACMP software for SAP R/3
- Database software choices including IBM DB2 Universal Database and Oracle
- Choice of optional services from IBM Global Services or certified IBM Business Partners

The engine room of business - IBM RS/6000 High Availability Cluster Server, combined with the IBM award-winning AIX operating system, is the ideal platform for SAP R/3 enterprise applications. In addition, RS/6000 high-availability clusters provide an ideal base for SAP R/3 implementations by utilizing HACMP software to detect and react to processor outages, adapter failures, and network hitches, and by taking advantage of redundant hardware to keep R/3 applications running.

Optimize performance - SAP R/3 and its components are unmatched at integrating and improving business practices. At R/3's core are powerful programs for accounting and controlling, production and materials management, quality management and plant maintenance, sales and distribution, human resources management, and project management. Information and early warning systems are also available.

But R/3 does more than open up completely new IT solutions within your company. Its applications also link your business processes with those of customers and suppliers to create complete logistical chains covering the entire route from supply to delivery. For businesses of every size and industry, R/3 products offer an unbeatable combination of functionality, flexibility and technology, enabling companies to respond quickly to change. Faster response means more time to concentrate on strategically growing a business.

Maximum availability - IBM's advanced technology uses built-in hardware and software redundancy throughout for a reliable foundation. These systems are designed to alert a service center for preventative maintenance, to automatically restart in the event of software or hardware failure, and, in many instances, to allow hot-swapping of disk, cooling and power components. Maintenance no longer means downtime because other servers in an RS/6000 cluster can support applications and users while maintenance occurs.

Working together - SAP R/3 running on IBM RS/6000 High Availability Cluster Servers provides the unmatched availability necessary for mission-critical ERP applications. In addition, optional services from IBM or certified Business Partners will help speed implementation to ensure optimum configuration of your environment.

HACMP Benefits:

- † Proven suite of applications and unparalleled protection from system outages
- † Provides an ideal base for SAP R/3 implementations by utilizing HACMP software to detect and react to processor outages, adapter failures and network hitches
- † IBM's advanced technology uses built-in hardware and software redundancy throughout for a reliable foundation

For more information:

To learn more about IBM high-availability solutions, IBM Global Services offerings and SAP R/3 applications:

- † Contact your IBM marketing representative or an IBM Business Partner
- † Contact SAP on the Internet:
www.sap.com/company/index.htm
- † Access
www.rs6000.ibm.com/HAScripts for information on the high-availability solutions and the SAP HACMP start-up scripts.

Content Manager OnDemand: The Print Alternative

Providing output management and archival features for your ERP environment.

"Printing less and viewing more" is on the minds of most executives. The cost of managing, distributing and printing output can be as high as 12% of a company's gross revenues. A large percentage of this tangible cost is the print itself which includes equipment, maintenance and supplies. Most of the pages users print are either read in part or not read at all. This represents a huge cost for very little value. Also, once the information is in hard copy form, the management, access, modification and distribution of this information is a manual and cumbersome process which breeds inefficiency and even more cost.

Users across the enterprise need the ability to manage output online, view output in full fidelity on their work station and route all or portions of the documents to a variety of output choices. IBM's Content Manager OnDemand solution provides this capability. Content Manager OnDemand is an output management and archival product which provides the robust functions SAP customers are looking for to view, manage, and distribute documents and data formats generated from SAP R/3. The user interface is rich in function and easy to use.

With Content Manager OnDemand, users can:

- view reports and other mission critical documents online,
- search for objects and text within the document,
- reuse sections or parts of the document,
- selectively print, fax, CD-ROM master, or store/archive all or part of the document for subsequent retrieval.

The Content Manager OnDemand solution is superior to other competitive solutions in that it can manage a wider variety of documents from across the entire enterprise. Document indexing is very robust which allows for quick access to very large documents or files.

The Content Manager OnDemand solution can also handle many complex data formats which allow the product to be used for a variety of applications throughout the enterprise. Content Manager OnDemand has been used in the past to replace microfiche/microfilm, provide customer service personnel with access to customer documents such as statements, letters, etc., archive hard copy documents through the scanning process, provide document library functions for product and marketing materials, and deliver general archival function as a COLD system. Content Manager OnDemand is also part of IBM's Content Manager so Lotus Notes, MQSeries Workflow and Visual Info integration has been developed.

IBM's Content Manager OnDemand is a client/server system supporting IBM AIX and RS/6000, and Microsoft® NT® servers. Clients include CICS/ESA, OS/2, all Microsoft® Windows® operating systems, the Apple® Macintosh® environment, Sun and HP. Thin client support is available for both Netscape and Microsoft® Explorer so that documents can be managed through the Internet or corporate Intranets.

Content Manager OnDemand for R/3 Benefits:

- † Certified for R/3
- † Reduces cost of output distribution and production
- † Quick and easy access to key information
- † Robust document indexing
- † Provides print alternatives such as partial print, fax, CD-ROM master, store/archive
- † Powerful online information management tools
- † Hierarchical storage management
- † Handles many complex data formats
- † Thick and thin client support for managing documents through the Internet or corporate Intranets
- † Scalable
- † Lotus integration

For More Information:

www.ibm.com/software

Infoprint Manager

Managing your network printing environment.

The ability to provide robust systems administration and management of output in a heterogeneous network environment is almost nonexistent today. Help desk personnel and network administrators often play a guessing game when it comes to problem resolution of output related issues. Users face an unstructured and unfriendly environment where user notification of events and systems distributed print management is poor at best. This condition largely exists because there are a variety of systems from multiple vendors creating an incompatible environment. Network protocols, system architectures, output file languages, and a variety of output devices make compatibility a difficult task. Customer satisfaction, user productivity, support costs, and capital equipment costs are negatively impacted.

The need for centrally-managed printing in a heterogeneous print environment has been recognized in the print industry for some time. Helpdesk and network administration personnel want an output management system that not only handles errors and provides online tools that facilitate problem resolution, but one that can also correct or prevent problems as well.

Infoprint Manager provides centralized or distributed management of your network print environment - which includes SAP R/3 systems. *Infoprint Manager/AIX* is certified to the SAP BC-XOM Callback and Operations Support interfaces in SAP R/3 Release 4.0. System administrators can monitor and configure printers, servers, queues, and print jobs from any administrative client in the network. Job validation ensures that the jobs get sent to the correct printers and that the characteristics of the output file and the output device match. Losing jobs is a thing of the past since *Infoprint Manager* keeps track of the job from submission through the end of printing, even keeping a log of finished print jobs. SAP R/3 specific transforms and linkages enable a smooth integration. Device level online installation and management is also provided. *Infoprint Manager* also integrates well with Tivoli.

Other output areas such as the data center, reprographics, and corporate publishing systems can also be managed, which enables one system to manage all output in the enterprise. Additional functions include the ability to enhance output by using electronic forms, images, graphics, bar codes and reformatting options all outside of the application that generated the file. Data transforms are used when there is a mismatch between the output file format and the capability of the output device.

Infoprint Manager runs under AIX on an RS/6000, as well as Windows NT and Windows 2000. It can accept print from all hosts on the network and manage almost every printer type in existence today. The product is based on two key open industry standards (ISO DPA 10175-1 and IEEE POSIX P1387.4) and conforms to IBM's Open Blueprint architecture, providing an open, distributed, client-server print management solution for heterogeneous environments. Administrative GUI's are available for AIX and Windows®. Advanced user clients run under Windows® and OS/2.

For more information:

- Visit the IBM Printing Systems Web site at www.ibm.com/printers and check out the software solutions section
- Contact Dan Wann 01-303-924-8051
e-mail: dwann@us.ibm.com



**Certified for
SAP R/3**

Infoprint Manager Benefits:

- † Reduces support costs
- † Reduces output costs
- † Improves network efficiency
- † Improves customer satisfaction
- † Increases user efficiency and productivity
- † Provides output file and device compatibility
- † Can accept print from all hosts on the network
- † Can manage almost every printer type in existence today, as well as fax and e-mail destinations
- † Allows for the setting of corporate standards
- † SAP R/3 data transforms and user notification
- † Can enhance output via electronic forms, images, graphics, bar codes and reformatting options
- † Integrates with Tivoli
- † Based on key open industry standards and conforms to IBM's Open Blueprint architecture, providing an open, distributed, client-server print management solution for heterogeneous environments

IBM Network Station and SAP R/3

The new and improved desktop for SAP users.

Until now there have been two computing alternatives available at the desktop: a terminal connected to a multi-user computer or a personal computer. Now there is an attractive new choice - the IBM Network Station, IBM's first network computer, which combines the simplicity and low cost of terminals with leading-edge application technologies.

The IBM Network Station can be configured for use in many alternative networking schemes. It can display distributed Win32 applications, run Java programs natively, connect to the Internet and corporate Intranets and provide access to application servers using native terminal emulators. It is flexible enough to fit into most network architectures productively. The IBM Network Station is clearly aimed at the future of computing with emphasis on Java, the Internet, browser interfaces and thin client architectures while at the same time providing access to your existing applications and data.

The IBM Network Station is an outstanding alternative for any customer implementing SAP R/3. SAP customers are always looking for ways to reduce the cost of implementing and supporting their R/3 solution and the Network Station is the perfect answer. Both network administrators and end users in a SAP R/3 implementation can benefit from its simplicity and access capabilities.

By running the SAPGUI software on servers instead of individual PCs, deployment and management of the SAPGUI code is made significantly easier. Where the user's only application is R/3, the NWS eliminates the need to provide a full functioned PC to that user, saving money on equipment, access and support. NWS functionality can also eliminate the requirements for a full functioned PC for users that require access to advanced applications. Simplicity of access and interface will require fewer support calls to the help desk. Consistency of SAPGUI levels and fixes is much easier to maintain since it no longer needs to be deployed to every desktop, only to the servers.

Environments, such as plant floor operations or order entry desks, where multiple users access the same terminal will especially benefit. Security issues with storing data and access profiles on a PC are eliminated. Access to multiple different systems by these users is also simplified with the NWS. When a user signs onto the NWS, their customized desktop is automatically downloaded through the IBM Network Station Manager Software. No other applications or systems are accessible. If another user signs on, they can be allowed access to an entirely different set of applications and systems. Since data is also stored on servers, backing up individual PC data and profiles is eliminated.

The IBM Network Station provides SAP R/3 customers with a new desktop alternative that is both cost effective and powerful. Its strength is its simplicity. The NWS simplifies network implementation and management as well as end user interaction with R/3 as well as other host systems. It provides the "Least Common Denominator" access point to all network applications. Ultimately, as JAVA applications become more prevalent, the NWS will become the common access point to any system in any network on any platform.

For more information:

Visit our Web site at: <http://www.ibm.com/NC>

IBM Network Station Benefits

- † Provides a new alternative for the business desktop
- † Reduces complexity and costs
- † Simplifies network implementation and management by applying upgrades to the server rather than to each individual workstation
- † Device independent, universal access to new and existing applications on multiple servers and networks
- † Secure desktop environment
- † Supports leading edge application technologies such as Java and the Internet
- † Multiple users can securely access same terminal via access profiles and customized desktops, allowing access to specific designated applications and systems

More Information

IBM/SAP International Competency Center, Walldorf, Germany (ISICC)+49-6227-7-41298

Lotus/SAP Competence Center, Walldorf, Germany..... +49-6227-7-48494

Web Sites:

| | |
|--|---|
| IBM/SAP Alliance Home Page | http://www.ibm.com/erp/sap |
| SAP Home Page | http://www.sap-ag.de |
| AS/400 | http://www.as400.ibm.com/ |
| CommonStore | http://www.ibm.com/software/data/commonstore |
| DataInterchange | http://edi.services.ibm.com/edi |
| DB2 Home Page | http://www.software.ibm.com/data/db2/ |
| DB2 SAP Partner Page | http://www.software.ibm.com/db2sap |
| FaxPlus/Open | http://www.intercope.com |
| IBM Networking Home page | http://www.ibm.com/networking |
| IBM Network Station | http://www.ibm.com/NC |
| IBM Pervasive Computing | http://www.ibm.com/PvC |
| IBM Servers | http://www.ibm.com/servers |
| IBM Software | http://www.ibm.com/software |
| IBM Storage Solutions (RAID, etc.) | http://www.storage.ibm.com or http://www.storage.ibm.com./hardsoft/diskdrls.htm |
| Infoprint Manager | http://www.ibm.com/printers |
| Lotus | http://www.lotus.com |
| Lotus Notes Domino | http://www.lotus.com/dominoei |
| Lotus SmartSuite Integration | http://www.Lotus.com/ssenterprise |
| MQSeries Integrator | http://www.software.ibm.com/ts/mqseries |
| MQSeries Link for R/3 | http://www.software.ibm.com/ts/mqseries/platforms/r3/ |
| Netfinity | http://www.pc.ibm.com/us/netfinity/ |
| Network Storage Manager Home page: | http://www.storage.ibm.com/nsm |
| NUMA-Q | http://www.sequent.com/ |
| OnDemand | http://www.ibm.com/software |
| Product Lifecycle Management and ENOVIA | http://www.ibm.com/solutions/engineering |
| RS/6000 | http://www.rs6000.ibm.com |
| RS/6000 High Availability Solution | http://www.rs6000.ibm.com/HAscripts/ |
| S/390 info | http://www.s390.ibm.com/ |
| Telecommunications Industry | http://www.ibm.com/industries/telecom/ccb |
| Tivoli Home Page | http://www.tivoli.com |
| Tivoli Management Solution for R/3 | http://www.tivoli.com/products/documents/datasheets/mgr_r3.html |
| Tivoli Storage Manager and Tivoli Data Protection for R/3 | http://www.de.ibm.com/entwicklung/esd/ |

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