

# NEWS/4 YOU

AS/400 & S/3X MAGAZINE

AUSTRALASIA

July 1999 Volume 6 Issue 2

\$A 4.50 \$NZ 5.00 (excl GST)



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#### SUNDAY, 18th July, 1999

Start	Session ID	Title		
10:00 am	KEY11	<b>Opening - Business Pressures in the Networked World</b>		
11:15 am	CAH12	AO Trends & Directions		
11:15 am	CCI12	Introduction to TCP/IP		
11:15 am	CCJ12	Building ERP Solutions with NT		
11:15 am	CPK12	Taking Advantage of ILE in Existing RPG IV Applications		
11:15 am	CSG12	Domino I		
11:15 am	GML12	Persistence & Resistance: The Art of the Possible		
12:15 pm	GX11	<b>Speakers &amp; Chairpersons Training</b>		
1:30 pm	CAH13	What's Happening in AS/400 Application Development		
1:30 pm	CAJ13	Australian Customer Web Sites (AS/400)		
1:30 pm	CCI13	Integrated Security: IBM Secureway Firstsecure		
1:30 pm	CPK13	Printing Through Your Network Printers		
1:30 pm	CSG13	ClientAccess Express		
1:30 pm	GML13	Contingency Planning - Year 2000		
2:45 pm	CAH14	The Future of RPG IV and VisualAge RPG		
2:45 pm	CCI14	Networking Terminology for Dummies		
2:45 pm	CPK14	Implementing OOT Concepts in RPG - Part I		
2:45 pm	CSG14	Operations Navigator		
2:45 pm	CSJ14	Domino 2		
2:45 pm	GML14	The Art of Procrastination		
4:15 pm	CAJ15	Knowledge Management with Domino R5		
4:15 pm	CPK15	Implementing OOT Concepts in RPG - Part II		
4:15 pm	CSG15	AS/400 Windows File/Print Serving		
4:15 pm	CSH15	Advanced Features of DB2/400		
4:15 pm	CSI15	Domino 3		
4:15 pm	GML15	Achieving Competitive Edge Through IT Investment		
5:30 pm	GCB16	An Introduction to Netfinity 101		
5:30 pm	CCI16	NT Blueprint -> x-Architecture		
1:30 pm	GML24	Knowledge Management - What's the Big Idea?		
2:45 pm	CAJ25	Data Warehousing - How Do I Get There?		
2:45 pm	CCD25	Y2K in the Intel Space		
2:45 pm	CCI25	Please Explain Virtual Private Networks		
2:45 pm	CPK25	OOT Advanced Concepts with JAVA Examples - Part I		
2:45 pm	CSG25	AS/400 Universal Database		
2:45 pm	CSH25	New Developments in AS/400 High Availability		
2:45 pm	GML25	Success through Creativity		
4:15 pm	CAJ26	e-Business and the Road to Java		
4:15 pm	CCI26	VPN - Technology and Solutions		
4:15 pm	CPK26	OOT Advanced Concepts with JAVA Examples - Part II		
4:15 pm	CSG26	Windows NT on AS/400 Integrated Netfinity Server		
4:15 pm	CSH26	Domino 4		
4:15 pm	GML26	Upgrading Systems - The Devil's Contract		

#### TUESDAY, 20th July, 1999

8:30 am	CAJ31	Accessing Data Warehouse Through the Web		
8:30 am	CCI31	Voice Concepts in a Data World		
8:30 am	CPK31	RPG IV Course		
8:30 am	CSG31	PC 5250 Display Emulation		
8:30 am	CSH31	A Real Programmer's Guide to Command Definition		
8:30 am	GML31	Managing Change in the new Millennium		
10:00 am	CAJ32	AS/400 Applications for Multiple Countries		
10:00 am	CCE32	IP V6 - The Next Generation		
10:00 am	CCI32	e-Business Networks in an AS/400 Environment		
10:00 am	CPK32	RPG IV Course		
10:00 am	CSG32	PC 5250 Print Emulation		
10:00 am	CSH32	ITD for AS/400		
10:00 am	GML32	Turn Change into Dollars		
11:15 am	CAJ33	Accessing Web Information Within AS/400 Programs		
11:15 am	CCI33	Voice Over IP Technologies		
11:15 am	CPK33	RPG IV Course		
11:15 am	CSG33	Application Design Considerations for ILE		
11:15 am	CSH33	Data Warehousing Solutions from IBM		
11:15 am	GML33	Lowering the Cost of IT		
1:30 pm	CAJ34	A Practical Approach to Data Warehousing		
1:30 pm	CCH34	Understanding Intel/NT Benchmarking		
1:30 pm	CCI34	AS/400 TCP/IP DHCP		
1:30 pm	CPK34	RPG IV Course		
1:30 pm	CSG34	Introduction to AS/400 Logical Partitioning and Clustering		
1:30 pm	GML34	Software Quality & Free Source		
2:45 pm	CAJ35	Data Warehousing - Case Study Business Advantage		
2:45 pm	CC135	CORBA (ORBIX)		
2:45 pm	CCH35	Thin Client Computing Using NT		
2:45 pm	CPK35	RPG IV Course		
2:45 pm	CSG35	ClientAccess Data Transfer		
2:45 pm	GML35	Presentations - The Do's & Don'ts		
4:15 pm	GML36	Serious Business of Humour		
4:15 pm	CAJ36	Year 2000 Enablement: Project Experiences		
4:15 pm	CCH36	8-way Processing & Scalability		
4:15 pm	CPK36	RPG IV Course		
4:15 pm	CSG36	Summary of AS/400 V4R4 Announcements		

For more information, contact COMMON at [common@common.org.au](mailto:common@common.org.au)

COMMON Australasia Tel +61 2 9975 6133 Fax +61 2 9975 6356 [www.common.org.au](http://www.common.org.au)



# NEWS/4 YOU

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**NON-TECHNICAL**

**MODERATE**

**TECHNICAL**

# Leverage what you know



**David Russell**  
**Manager, Business Servers**  
**IBM Australia and New Zealand**

*This article is an excellent resource for anyone contemplating e-business and what it means to their organisation. Domino for AS/400 provides an enabling base from which an organisation can build messaging and collaborative function to their business processes, and it also provides much more.*

*When an organisation chooses to implement a more encompassing e-business solution, Domino for AS/400 can provide the base on which to build a fully integrated e-business solution. With Domino and AS/400 organisations can leverage corporate information now and build a foundation for additional e-business capability for the future.*

## Leverage what you know

Businesses are discovering that in the Internet Age, value has shifted dramatically from the bricks-and-mortar, physical assets of the Industrial Age to the digital and intellectual assets that flow across our networks. These assets

*“Domino for AS/400 provides an enabling base from which an organisation can build in messaging and collaborative function to their business processes”*

aren't collected in warehouses; they are embedded in business processes, operational databases and in the minds and experiences of employees and partners. More and more, these intellectual assets will become the principal source of competitive advantage.

It is vital, therefore, that every organisation is able to make maximum use of these intellectual and data assets. This is what IBM means by “leveraging what we know.”

Consider some of the global market trends that are creating new challenges – and new opportunities – for every business and every industry in the world.

- This is an age that enables every business, no matter how small, to compete globally.
- This is an age that compels every business to move faster and faster.
- e-business is the key underlying technology that has given rise to this new economic era.
- This new era is driving organisations to search for new business models and strategies that will not only ensure their survival, but also potentially lead to even greater profitability in the networked age.

The impact of this new age will transcend individual businesses, even individual industries. Each participant in an industry will be on an Internet adoption path leading to the transformation of that industry – a process that will ultimately

automate and integrate relationships among industries until the entire economy is transformed into a Web of commerce.

As this transition proceeds, the ability of a company to capitalise on its data and experience, to make the most of its digital and intellectual assets, will determine who succeeds and who fails.

If a company is to make rapid use of information and experience, then the collection, access, sharing and analysis of data and experiences must be part of the process and the culture. That includes all kinds of information: data on markets and customers, financial data, information in presentations, strategies and the experiences of people as noted in reports and other business documentation. The goal is an agile, effective organisation with a competitive advantage. To get there, companies must focus on:

**Productivity** – doing things multiple times in multiple places by multiple employees.

**Competency** – by making experience and knowledge transfer an easier, more consistent way of doing business rather than a hit-or-miss process.

**Responsiveness** – by being able to quickly bring the right people together to deal with issues, knowing who is available and who has the right experience and making it possible for them to work as a team despite distance (either geographic or organisational).

**Aim** – by making use of the information companies have in their databases, customer files, historical documents, etc., with techniques and processes to gather intelligence that supports marketing, supplier or financial decisions.

**Innovation** – by bringing people together and using the sum of experiences and resources.

Passing on experiences, techniques and results to colleagues and partners is the best way of ensuring continuous improvement in the way an organisation functions.

Collaboration in a small, geographically compact organisation is largely a matter of management example and directive. But when organisations are large, far-flung or multicultural, technology is needed. Today, technology has the bandwidth (both literally and figuratively) to support real collaboration.

The base must be messaging capability; between co-workers but also with others such as suppliers and industry sources who are in a position to help a project along. Messaging is basic – a sort of “batch mode” collaboration. Real collaboration goes further. It involves organising documents for access by the involved parties; ability to know where the resources are and what they are doing; and providing databases that can be accessed, commented on and contributed to by a project team.

True value is realised when all these are combined to be brought to bear on projects, products, services – in general, on corporate decisions – making them more targeted, more knowledgeable.

The most basic requirement is a single infrastructure: one that can begin at the beginning (i.e., messaging) and can grow to support all of the other collaborative functions.

What is important is that the foundation be laid that can support all the other aspects of collaboration, from database sharing and document handling to process definition and

management, to the things that no one has thought of at this point. Having an enabling base on which the organisation can grow is the real issue. It will provide the real value over time.

### **Lotus Domino for AS/400**

There are two aspects of that enabling base: the client or the facility the individual uses and the server that supports the various aspects of a collaborative environment.

Domino provides full service messaging as a beginning, but also as a rapid development environment for supporting the whole enterprise with the wide variety of collaborative applications.

Domino provides a means by which the organisation can better leverage information that resides on its AS/400 through the ability to directly access AS/400 databases and integrate with online transaction programs. Meanwhile, AS/400, with its integrated file system, “invisible” storage management, built-in security, and built-in backup and recovery, provides an ideal underlying architecture to support the collaboration that Domino enables.

Domino provides individuals and teams with a repository to capture and store unstructured or semi-structured information, such as forms, reports, discussions, work items, designs and presentations. Flexible views of all this information, together with full-text search capabilities, allow users to quickly find the information they need to do their work.

Being more productive implies communicating more effectively with your community of colleagues and associates. With Domino there are multiple ways: a chat tool for informal discussions, audio/video conferencing for meetings, instant messaging, online presentations and telephony facilities – all designed to move work and projects forward, minimising delays caused by travel, schedule conflicts and out-of-touch situations.

The promise of e-business (global access, global markets, a more even competitive field) is truly revolutionary. The ability to leverage collaborative computing will determine how well an organisation will fare in this and subsequent phases of global e-business adoption. ■



# Editor's Column



Welcome to the second edition of NEWS/4 YOU for 1999.

We all hear a lot about e-business and e-commerce. Everyone acknowledges the advantages and importance of doing business over the 'Net'. But how can you articulate the value of e-business to management, who may not be fully aware of the depth and breadth of e-business solutions available today – from Domino, with its email and collaborative computing functionality, through to fully integrated e-commerce solutions.

In his article "Leverage what you know", David Russell examines e-business from a business perspective. More and more, organisations are looking at their intellectual assets to become a principal source of competitive advantage. And when you consider that many companies use less than one-tenth of their data productively, you can appreciate the value that a solution such as Domino for AS/400 can bring to organisations. The value of Domino is realised when company intelligence is brought to bear on projects, products and services, making them more targeted and knowledgeable.

This issue also includes an article on securing your AS/400 for e-business, as well as an update about Net.Commerce. We also focus on the latest solutions and customer wins from IBM Business Partners, as well as the latest announcements from other IBM offerings.

We have enjoyed putting this issue together for you and hope that you find value in the articles included. To help us continue to provide value, please complete the survey enclosed and send it back to us. You may even win some AS/400 merchandise by doing so!

Christine Prince

AS/400 Marketing, Australia and New Zealand  
princec@au.ibm.com

## AS/400 Business Partners collect top IBM awards

IBM recently presented awards to its top Business Partners for excellent performance across Australia and New Zealand and to recognise outstanding achievements in 1998.

Our congratulations go to Aspect Computing Pty Limited who won the National Solution Provider of the Year award in Australia. Congratulations also go to Intenia Australia Pty Limited who won National AS/400 Solution Provider of the Year in Australia and New Zealand. Intenia was also awarded AS/400 Solution Provider for Australia and New Zealand by IBM Asia Pacific.

### ASPECT

Aspect is a leading global provider of Information Technology (IT) services and products. Aspect delivers "end-to-end" solutions and services covering Systems Integration, Applications Development, Outsourcing, e-commerce, Multimedia, the Internet, Intranets, Education and Training, Information Technology Consulting, Networking & Desktop

Services, Help Desk Support Service, Software Research & Development, and IBM AS/400 & RS/6000 Value Added Reselling. An Australian-owned operation with computer-related revenue in excess of \$175 million, Aspect has more than 1,100 employees worldwide, servicing over 6,500 customers in 68 countries from 16 offices throughout Australia, Europe, Asia and North America.

### intenia

Intenia is one of the world's leading suppliers of Enterprise Applications. Its business concept is to develop and make business processes more effective by combining software and know-how. Its Enterprise Application, Movex, is one of the most advanced on the market and is available in a number of industry applications to meet the unique requirements of different industry sectors. Movex is also one of the cornerstones of Intenia Solution: a unique set of tools, methods and functionality for configuring and implementing Enterprise Applications. Intenia has more than 3,000 employees in 40 countries around the world.

**Congratulations also to these AS/400 Business Partners who received awards for outstanding performance during 1998.**

#### Australia

- Change Management Pty Limited
- Data #3 Business Systems
- Datec
- Datec Northern Region
- Focal Systems Pty Limited
- JD Edwards Australia Pty Limited
- KAZ Computer Services Pty Limited
- Qtech Business Systems Pty Limited
- SSA Pacific Pty Limited
- Synergy Software Pty Limited
- Tardis Services Pty Limited

#### New Zealand

- Computer Systems Implementation Limited
- Madison Integration Services Limited
- Pegasus Systems limited

# IBM announces Net.Commerce V3 for AS/400

Net.Commerce for AS/400, makes it easier than ever for small and medium-sized businesses to create, run and manage electronic storefronts on a secure and reliable server.

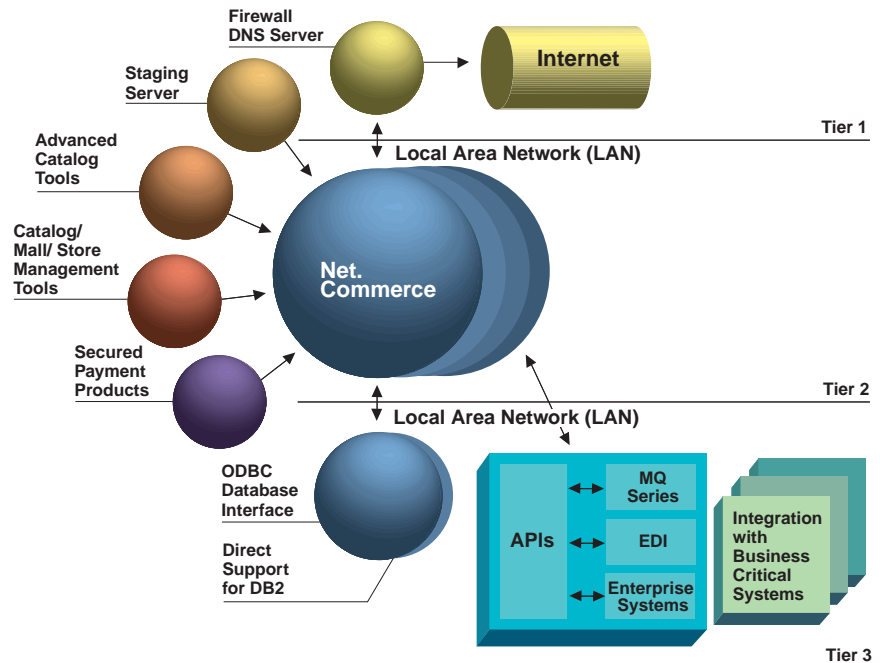
Millions of people are Web users and the number increases every day. This growth comes from people changing their purchasing behaviour. It's easy to buy known products from a well designed Web site. If a buyer examines a product description at a site and decides to buy, it's more convenient to order immediately than to call a reseller or make a shopping trip. To benefit from these changes, sellers need to use Web commerce technologies that provide security and flexibility to build on existing business and workflow processes.

Net.Commerce V3 for AS/400 provides an e-commerce solution, from catalogue and site creation, to payment processing and order fulfilment.

Net.Commerce V3 supports business-to-business and business-to-consumer e-commerce environments.

Net.Commerce enhances the AS/400's capability by allowing customers to create, run and manage electronic storefronts on a secure and reliable server. Web sites created with Net.Commerce can link to merchant server software, back-end systems, corporate data, Lotus Domino and ERP solutions, all on a single AS/400e server. This allows customers to integrate their on-line stores with their entire business operations, adding e-mail, discussion groups and bulletin board capability to the site. Net.Commerce is customisable to meet individual customer needs.

IBM Net.Commerce, powered by DB2/400 Universal Database, is part of the WebSphere family, a commerce



**IBM Net.Commerce Architecture**

server product that breaks new ground by making it easier for merchants to establish on-line storefronts with industry-leading security, intelligent catalogue tools and the most extensive database access in the industry.

Net.Commerce V3 for AS/400 provides the tool for creating a total e-commerce solution. Features include:

**Store Creation Wizard** – enables businesses to easily create commerce sites by using the three pre-defined starter storefront templates; sets up the appearance, navigation, shopping/buying flow, browsing, registration, check out, method of shipment, sales tax calculation and method of payment.

**IBM Payment Server** – allows merchants to accept a variety of electronic payments including the SET protocol.

**Lotus Domino Integration** – provides configurable connectivity to the collaboration functions in Domino (e.g. e-mail) for order fulfilment.

**Advanced Catalogue Tools** – create shopping advisors and intelligent search methods to assist customers through the product selection and purchasing process. The tools combine knowledge

engineering with search capabilities to provide customised, guided buying assistance.

**Back-End Integration Tools** – facilitate easy integration into existing legacy software such as Lotus Domino or SAP R/3.

**Staging Server** – provides a test environment for development.

Summing up the enhanced capabilities of Net.Commerce V3 for AS/400, Brod Brennan, IBM E-Commerce Segment Manager, A/NZ, commented, "IBM has built enhancements into Net.Commerce V3 that make it much easier for customers to migrate traditional sales functions to the Web. When you consider developments such as the Store Creation Wizard, with its pre-defined storefront templates, customers should now find it much easier to get started in e-commerce." ■

#### FOR MORE INFORMATION

For further information please visit  
[www.as400.ibm.com/developer/ebiz/netcommerce](http://www.as400.ibm.com/developer/ebiz/netcommerce)

# Taking a stand with AS/400 security



BY CAROL WOODBURY

## AS/400 security delivers powerful protection

AS/400 core values, such as security, reliability, scalability and ease-of-use, are critically important to IT organisations, and with the growth of the Internet organisations are realising the potential impacts of an unsecured system.

You may have seen the ads: AS/400e Security = Web Security. But what are the features of AS/400 that let IBM make that claim? Why can the AS/400 make this claim more strongly than any other midrange business computer?

Security breaches can usually be attributed to three basic issues: problems in the system's architecture, programming bugs in the operating system software, and system administrator configuration errors. The AS/400 has been accused of being old and tired and the architecture that IBM uses to provide security and integrity has been around a while. But rather than being a detriment, this stability means that AS/400 security has been tried and tested – it's solid! IBM would never claim that OS/400 is bug-free, but few code fixes are security- or integrity-related.

## Rock-solid, integrated security

Security is integrated throughout every AS/400 architectural layer. Some of the security integrity features are integrated into the AS/400 hardware – something that isn't done for most UNIX and PC hardware implementations. Other security functions are part of the System Licensed Internal Code (SLIC). For example, a process must have appropriate authority to the objects being accessed; authority to objects is checked and enforced by SLIC. Unlike

some operating systems where the interfaces into the kernel are published and interfaces that can bypass the security parts of the kernel are easily written, interfaces into the AS/400-equivalent of a kernel – SLIC – aren't published nor are they available to user-written programs. This means that AS/400 authority checking cannot be bypassed.

exposures for the AS/400, and we examine these exposures and provide solutions before we add new functions to the system.

Many people view the Internet as a critical security exposure. On the AS/400, we're incorporating Internet security technologies as soon as they become industry standards. This ensures that as you begin Web-enabling your

*“The AS/400 has greater claim to security than any other midrange business computer”*

## Virus resistance

A lot of damage has been caused by viruses running rampant throughout the data or operating system of a PC. Your first protection against viruses on the AS/400 is that a PC virus cannot wipe out the AS/400 because the AS/400 doesn't use PC instructions. Also, the AS/400 architecture prohibits a pointer from being “manufactured” – a common entry point for viruses. With AS/400 the rules concerning pointers are enforced through a hardware feature which makes them nearly impossible to bypass. This isn't to say that a virus cannot be written specifically for the AS/400. But it would have to be tailored for each different object type. (As of V4R3, there are more than 85 object types.) Even if somebody went to the effort to write an AS/400-specific, object type-specific virus, many aspects of AS/400 security would still be enforced.

## Adapting to new technology

IBM realises that new technologies, such as TCP/IP, change the security

applications, you'll have the necessary security tools to protect your system and your customers' transactions. Recent additions to OS/400 include IBM Firewall for the AS/400, including Network Address Translation (NAT) and Virtual Private Networking (VPN) capabilities, and native support for IP packet filtering and NAT.

Another important example of Internet security technology is Secure Sockets Layer (SSL) support, which has been integrated into OS/400 and enabled through the IBM HTTP Server for AS/400 since V4R1. SSL provides the technology to encrypt data transmissions. This is vital when your Web application passes confidential data such as credit card or account numbers.

IBM HTTP Server for AS/400 is an integrated part of the operating system. In addition to supporting SSL, it offers numerous configuration options to let you write secure Web applications. For example, protection directives within the HTTP Server configuration file let you serve information to everyone or limit



distribution to a subset of users.

Users can either be "real" AS/400 users – that is, they have a user profile object and can sign on to your system – or they can have "Internet user IDs" and be known only to a particular Web application. Such an Internet user cannot sign on to the AS/400, own objects, or have a job started under his or her user ID because there is no user profile object associated with the ID. The AS/400 gives you the flexibility to require either a real user profile (for your intranet applications) or Internet user IDs (for your Internet applications).

Another key component for many Internet technologies is a digital certificate, which is a digital representation of a user's identification – much like a driver's licence only in electronic form. Digital certificates are used to identify and authenticate

users to systems, for SSL authentication, and to digitally "sign" documents. Support for creating and managing digital certificates is integrated into the AS/400 – no third-party software packages are required.

### Industry standards

The new technologies you see integrated with the AS/400 are industry standards, not proprietary solutions that let only AS/400s interoperate with other AS/400s. Most companies have multiple operating systems. So IBM is making sure the AS/400 uses, or will use, industry standards such as LDAP, PKIX and CDSA so the AS/400 can interoperate with other operating systems that follow industry security standards.

Even the interfaces to older security functions have been modernised; you can administer your users and groups, authority to objects,



and security-related system values using the Operations Navigator graphical user interface.

### Security you can count on

Integrated. Solid. Virus-resistant. An industry standard. Complete documentation. Help when you need it. These characteristics let IBM claim AS/400e Security = Web Security and provide you with one of the most securable systems available – the AS/400.

Old and tired? We don't think so.

Additional information, including white papers, positioning papers and other resources designed to help make securing your system easier, is available from our Internet site. ■

**Carol Woodbury** is IBM's AS/400 security architect and a member of the OS/400 security development team. Her primary focus is the security design of new AS/400 functions.

### FOR MORE INFORMATION

For further information visit [www.as400.ibm.com/tstudio/secure1/secdex.htm](http://www.as400.ibm.com/tstudio/secure1/secdex.htm)



# Year 2000 update: approaching the new millennium



As we approach the Year 2000, some organisations may still need assistance readying their systems for the new millennium. There is an abundance of information available to all AS/400 users via the Internet and downloadable via Electronic Customer Support.

We have compiled a list of Web sites and Informational APARs which may help answer any questions you have regarding Year 2000 issues.

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#### Web sites

[www.ibm.com/year2000](http://www.ibm.com/year2000)  
[www.year2000.com](http://www.year2000.com)  
[www.as400service.ibm.com/year2000](http://www.as400service.ibm.com/year2000)  
[www.software.ibm.com/year2000](http://www.software.ibm.com/year2000)  
[www.as400.ibm.com/developer/year2000/index.html](http://www.as400.ibm.com/developer/year2000/index.html)  
[www.midrangecomputing.com/whitepapers/y2k](http://www.midrangecomputing.com/whitepapers/y2k)

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#### Informational APARs

II11534	V3R2M0 Y2K PTF Information
II11543	V3R7M0 Y2K PTF Information
II11544	V4R1M0 Y2K PTF Information
II11545	V4R2M0 Y2K PTF Information
II11546	V4R3M0 Y2K PTF Information
II11685	V4R4M0 Y2K PTF Information
II11730	Client Access Y2K Readiness Information

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These APARs can be obtained via your ECS line.

#### New Redbook: "Make your AS/400 System Year 2000 Ready"

This redbook contains a collection of information to help you determine whether your AS/400 system hardware and OS/400 operating system are Year 2000 ready. This information includes AS/400 hardware requirements, OS/400 operating system releases, licensed program products, how to move to a Year 2000 ready environment, and the vital steps involved in testing Year 2000 dates on your AS/400 system. Visit [www.redbooks.ibm.com/](http://www.redbooks.ibm.com/) and search under 'AS/400'.

There is also a lot of useful information in the Manual: "The Year 2000 and 2-digit Dates: A Guide for Planning and Implementation" – GC28-1251. ■

#### FOR MORE INFORMATION

For further information please call the IBM Year 2000 Project Office on 1800 637 713 in Australia and 0800 444 714 in New Zealand.

# Tivoli announces Extended Platform Support for AS/400

Responding to small and medium businesses' need to manage their increasingly complex IT environments, Tivoli Systems Inc. will soon ship Tivoli IT Director 2.1, its flagship IT management solution designed from the ground up for companies with hundreds of employees.

Tivoli IT Director 2.1 strengthens Tivoli's commitment to small and medium-sized organisations by delivering extended platform and database support for native AS/400 servers and clients, NetWare 5.0 clients, SQL Server 7.0 and DB2 databases. As part of its enhanced capabilities, Tivoli IT Director will also support industry standards Common Information Model (CIM) and Desktop Management Interface (DMI), leveraging the Web-Based Enterprise Management (WBEM) initiative for accessing and managing information access from PC desktops, servers and applications.

Tivoli IT Director's management server will also offer a 20 per cent lighter footprint and deliver a 50 per cent faster Java console than its previous version, lessening the impact on system resources and providing customers a more responsive interface to their entire IT environment.

Originally based on Microsoft's Windows NT operating system, Tivoli IT Director has been expanded to run natively on AS/400 servers, providing organisations the choice to use AS/400 or NT as their primary platform. Tivoli IT Director for AS/400 and NT provides customers the ability to control and proactively manage their entire IT environment, including client support for Windows 95/98, Windows NT, Novell NetWare, IBM OS/2, OS/400 platforms and SNMP devices.

"As small to medium sized businesses become more dependent on

key applications for e-business and back office ERP, they face increasingly complex IT management challenges," says Mike O'Rourke, Vice President of Packaged Solutions at Tivoli Systems Inc.

"Tivoli IT Director provides AS/400 and NT-centred customers with a solution that helps them manage desktops, AS/400 servers, NT servers and network devices from one central location, reducing the drain on management resources and increasing the overall efficiency of their IT organisation."

Tivoli IT Director will also provide small and medium businesses with new capabilities for leveraging and managing CIM and DMI standards information. This capability enables Tivoli IT Director to draw CIM and DMI information into a repository database, providing IT managers with the unique ability to weed through and manage large amounts of information from a centralised console. These added features give customers more control over their IT assets and help reduce overall total cost of ownership.

Tivoli IT Director 2.1 will be available from Tivoli IT Director distributors and resellers from August 1999.

The Tivoli IT Director product-line includes Tivoli Manager for Domino, Tivoli Manager for Exchange, Tivoli Manager for Norton 2000, Tivoli Manager for SQL Server, and Tivoli NetView, IT Director Edition. Tivoli IT Director also provides developer integration tools. The entire catalogue of Tivoli Ready solutions providers is available at [www.tivoli.com/products/smb](http://www.tivoli.com/products/smb) ■

#### FOR MORE INFORMATION

For further information please call IBM on 132 426 and ask for 'Tivoli/Info', or visit [www.tivoli.com/products/smb](http://www.tivoli.com/products/smb)

## Tivoli

### IT Director



# Financial management Independent Software Vendor extends offering to Web

Watershed Systems is an Australian-based Independent Software Vendor (ISV) specialising in software products and consulting services for financial management organisations.

Several fund management companies have doubled staff productivity with Watershed's LANSA-based F.I. solution.

F.I. is an integrated application for client, financial and investment management, now providing Web access to key client service functions. The adaptability of the AS/400 and LANSA has helped Watershed react to new market pressures and has positioned the company on the cusp of a huge new opportunity.

## The Challenge

Christopher Waters, Managing Director of Watershed, explains: "We first developed our F.I. solution for the

Religious Trusts market. While the perception of this market may be serene and peaceful, in fact Religious Trusts are very actively and often aggressively managed. Religious Trusts also have to deal with a number of problems that do not occur in the commercial investment management arena. Not the least of these is the need to be able to economically administer clients with very small sums all the way through to the clients with very large sums.

"The Religious Trusts will not decline any investment estate, even though some of these estates may have very complex conditions attached to them," continued Mr Waters.

Fund managers and financial advisers surveyed in a market research exercise

identified, without exception, the major requirement to be the capacity to do whatever their retail client wished them to do (in their business profile) and thus not lose any opportunities.

Another challenge that investment managers face today is to retain the client in an aggressive environment where all of the product vendors are competing to gain the exclusive control of the client. This pattern occurs within banks, insurance companies and fund management companies and is a crucial issue to be addressed.

As fund managers cut their expense margins, the squeeze is placed on their service delivery areas. Therefore Watershed was looking to make use of the Internet as a means of more efficient communication between the retail client and the manager/adviser organisation.



## The Solution

"In this environment we had to construct an integrated client, investment and financial management engine to achieve significant economies of scale by automating as much management functionality as possible," continues Mr Waters.

F.I. differs fundamentally from competitive products in the market. Funds management comprises three areas:

- The Retail client side (often called registry application)
- The Fund or Portfolio management side
- The Financial Reporting and management side.

F.I. provides seamless integration of these three areas, while still allowing the flexibility specific to each area.

LANSA has allowed Watershed to build significantly more sophisticated and richer functionality than they could have achieved with conventional development tools. Also LANSAs keeps evolving, allowing the exploitation of new opportunities.

"The capability of the AS/400 and LANSAs to provide Web applications is a gift from heaven, allowing all new development for F.I. to be browser based. E-commerce is a huge opportunity and LANSAs allows us to be one of the first in the industry to offer an Internet solution," said Mr Waters.

## The Benefits

Monique Poole, Financial Controller for the Roman Catholic Trusts Corporation for the Archdiocese of Melbourne, had to manage a transition from in-house discrete client portfolio management to a mix of discrete portfolio management together with external fund managers. Ms Poole notes: "F.I. allowed us to create our own unitised products and to construct trading transactions to transit from discrete management to the use of external fund managers. This transition was simple and achieved with a minimum of effort".

John Walsh, Financial Controller for the Australian Aviation Underwriting Pool,

comments: "Watershed's financials have allowed us to handle the complexity and flexibility needed for the multiple pool arrangements, with many different insurers which vary year by year. It also allows us to run the pool operations for the many years that each pool needs to wind up, with total control."

Mr Waters enthuses "LANSA's speed to deliver rich function, together with F.I.'s flexibility, allows each of our customers to tailor the F.I. solution to their own needs.

"Because F.I. provides complete integration of client information, client participation in investments and investment portfolio management, our customers often achieve significantly improved staff productivity. Our integrated solution has helped to double operations efficiency of some of our customers. This way the funds manager can achieve significant savings while improving the service."

## The Future

Whereas some think only of order entry when e-business is mentioned, Fund Management is another area where e-business will make a huge contribution to freeing the flow of relevant information and improving customer service. Watershed Systems is poised to help organisations in the industry achieve these benefits, and adapt to the increasing rate of change. ■

## About Watershed Systems

Watershed Systems Pty Ltd is a software developer and computing consultancy based in Melbourne, Australia. Established in 1984, it offers tailored packages and services in systems development, systems implementation and systems use. The overriding business objective is to help clients achieve the maximum benefit from their use of computing. Clients include Colonial, National Australia Bank, The Catholic Archdiocese of Melbourne, The Catholic Education Office of Victoria, Ramset and Linfox.

# LANSA

## About LANSAs

LANSA is a family of application development tools for the AS/400, Windows 95/98, Windows NT, UNIX and the Internet.

LANSA is developed in Australia by Aspect Computing, and is easy to learn and use.

LANSA for the Web allows organisations to extend the reach of their existing DB2/400 databases onto the Internet in a true transaction-based e-business environment.

You can provide partners and customers with secure "self-service" access to enquiries and update transactions from a Web browser.

LANSA for the Web can also be deployed on intranets, for example in support of employee access to

Human Resources and Payroll data on the AS/400.

Aspect offers a LANSAs Solution Partner program to enable ISVs like Watershed Systems to extend their applications onto the Web and integrate other new technologies.

## FOR MORE INFORMATION

For further information about F.I., contact Watershed Systems on 61 3 9596 2989 or visit [www.watershed.com.au](http://www.watershed.com.au)

For further information about LANSAs, contact Aspect Computing on 61 2 9928 1188, email [lansaasia@aspect.com.au](mailto:lansaasia@aspect.com.au) or visit the LANSAs Web site at [www.lansa.com](http://www.lansa.com)

# Tubemakers Water beats Y2K deadline with Millennium Solutions

## A 10-week deployment that fixed 4.4 million lines of code

Tubemakers Water, a leading manufacturer of valves, fittings and pipes for Australian water conveyance industries, has met the Year 2000 challenge with Millennium Solutions' MS4 product. MS4, specifically designed for IBM AS/400, will enable the company to continue business critical operations and meet customer demand with ease as the Y2K deadline hits.

Tubemakers Water is a major supplier to water authorities, water boards and councils Australia-wide. It also has a broad base of smaller customers, such as pipe layers.

"Tubemakers Water recognised the need for a Y2K compliance fix in 1997," said Andrew Clinch, superintendent computer operations for Tubemakers Water. "We foresaw that Y2K interruptions could cause several serious disruptions to our business. These included order entry, manufacturing, delivery and purchasing delays, forecasting difficulties and plant maintenance disruptions."

## Quick, painless and cost-effective compliance solution

Tubemakers Water is running BPCS 5.1.01 software on its AS/400, with BPCS SPM and BPCS Plant Maintenance (Main Tracker). This one site serves twelve sites, covering order entry, distribution, billing, purchasing, accounts payable and receivable, manufacturing, plant maintenance, sales and performance management.

"We originally wanted to implement a traditional method for compliance, such as date expansion or an upgrade to client-server technology. However, these techniques proved to be too complicated

and expensive," said Clinch. "While we're looking to implement client-server technology eventually, MS4 proved to be a quick, painless and cost effective solution to move our AS/400 business systems over the Y2K boundary. This way, we don't have to rush this important step."

Tubemakers Water decided to implement MS4 in September 1998. With a deadline of 31 December 1998 set, installation began in early October. The solution took just 10 weeks to deploy and went live in mid-December.

"MS4 has enabled us to quickly address the Y2K problem with minimal impact on users," said Clinch. "It took just ten weeks to implement including user testing. We went live on schedule without any significant problems. In all, roughly 4.4 million lines of code were fixed by MS4."

## Unique 'encapsulation' process leaves code intact

MS4 makes no changes to existing software. It is a unique solution that allows existing applications and code to remain completely intact. This means that there are no database layout changes, no effect on software performance and minimal disruption to the working environment.

## Minimal implementation resources required

"Installing MS4 only involved the commitment of two people with basic programming skills," said Clinch. "I'd even recommend employing the skills of the local Millennium Solutions team to fast-track the process further. They have a great understanding of both AS/400 systems and common applications.

"I would recommend MS4 to companies who are finding software



**Andrew Clinch**  
Superintendent  
Computer Operations  
Tubemakers Water

conversion both time and labour intensive, as well as to those that are running behind schedule for Y2K compliance."

"MS4 is one of the most effective ways to make AS/400 software Year 2000 ready," said Stephen O'Sullivan, Asia Pacific Relationship Manager for Millennium Solutions. "The time saving achieved by installing MS4 allows companies to free up scarce IT resources and reduce IT consultancy costs. It provides a simple solution to the Y2K problem."

MS4 has been developed for any customised AS/400 application written in RPG and CL, and application packages such as BPCS, JBA, JD Edwards, PRMS, MAPICS and PRISM. MS4 is a Y2K solution with over 600 sites installed worldwide. ■



## About Millennium Solutions

Millennium Solutions is a leading supplier of Year 2000 software engineering tools for IBM AS/400 systems. Founded in 1996 and with annual sales of A\$12 million in 1998, Millennium Solutions employs 40 people throughout its offices in Dublin, Chicago, Rotterdam and Sydney. Clients include Procter & Gamble, Waterford Crystal and Tubemakers Water.

Millennium Solutions is an IBM Partner in Development.

## FOR MORE INFORMATION

For further information visit [www.ms400.com](http://www.ms400.com), email [info@ms400.com](mailto:info@ms400.com) or call 61 2 9931 7800 or 353 1 403 5400.

# Acacia Technologies, IBM and Tardis partner to deliver "last chance" for Australian manufacturers and distributors

NON-TECHNI

## First Aid not Band Aid

Estimates consistently claim that 15 per cent of all Australian manufacturers will not be Y2K ready before the year-end – and a higher percentage among smaller enterprises. Given the interdependent relationships that have developed in the industry in recent years, that is going to have significant ramifications for trading partners up and down the supply chain, on 1 January 2000.

However, in an Australian initiative, supply chain management software vendor Acacia Technologies has teamed with AS/400 distributor Tardis and IBM's Global Finance Group to provide small to medium manufacturers and distributors with an affordable and future-proof solution for their Enterprise Resource Planning (ERP) Y2K problems.

The "PRMS Inventory + Millennium Bundle" comprises hardware, software, implementation services and financing, and can be installed in just 20 consulting days for less than AUD420 per user, per month (conditions apply). This offer is only available in Australia and is based on a five year licence with a minimum of 20 users. It will help a company to confidently perform all its key business functions come the Year 2000, such as:

- sell goods
- raise invoices
- collect and manage debtors
- order goods
- pay suppliers.

This bundle may be suitable for organisations that are not yet Y2K ready from an ERP perspective. As well as the AS/400 user base, the bundle is also suited for existing Systems 36 users, and UNIX and NT users.

But it is more than a Y2K solution. PRMS Inventory + is also a robust system in its own right, already used by giants such as Ansell International, Coca-Cola Amatil, Pacific Dunlop and Simplot.

Further, it forms the core building block of Acacia's new modular supply chain management solution, PRMS 9.0. This means that companies can use this Y2K fix as the first step towards their next generation ERP or supply chain

management solution, adding modules from e-business capabilities to workflow and advanced planning functionality, as their business needs or can afford. ■



## About Acacia Technologies

Acacia Technologies is a leading developer of enterprise resource planning (ERP) and warehouse management solutions designed to meet the evolving needs of manufacturers and distributors using AS/400.

The company is an independent business unit of Computer Associates International Inc. and has 3,500 customers worldwide with its Australasian headquarters in Sydney.

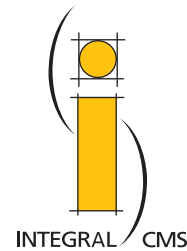
Key products include PRMS (comprehensive resource planning, operations and financial management); KBM (a sophisticated manufacturing system for custom manufacturers); Warehouse BOSS (an advanced warehouse management system); and Quick Response Engine (advanced planning and scheduling). All products are Year 2000 ready.

## FOR MORE INFORMATION

For further information, visit [www.acaciatech.com](http://www.acaciatech.com) or contact Acacia Technologies on 1800 800 237 in Australia or 0800 525 500 in New Zealand.



# Answers to the big concerns of small to medium business



Integral CMS, a Melbourne-based company, couldn't believe its luck when it became sole distributor for the ACE Business Management System in Victoria, Australia. ACE is the brainchild of Versatile Solutions (an Australian software development company) and delivers a comprehensive suite of business software that will satisfy the needs of most small to medium businesses. It recently won a major award from IBM in the global "Powered by AS/400e" program.

The product is written in VARPG and has the full-blown GUI appearance that normally only exists in software developed to run exclusively on PCs.

"I was immediately taken by the way the product was presented, with accepted business terms being used, not computing or accounting jargon," said Tony Aisbett, General Manager of Integral CMS. "ACE has the look and feel of a PC-based product, but with the power and stability of the AS/400 platform."

Integral CMS now has a complete solution to roll out to the SME (Small to Medium Enterprise) arena.



**Integral CMS: (seated left to right) Tony Aisbett, Jenny Lane; (standing left to right) Roman Graczyk, Rod Riley**

*“The pressure continues for business to update to stay competitive”*

Some key features of the ACE Business Management System are:

- Y2K ready
- Engineered for GST
- Fully Integrated Financials – accounts payable, general ledger and accounts receivable
- Inventory Management (with serial number tracking about to be released)
- Order Management (quotations through to invoicing)
- EFT (electronic funds transfer) – payments and direct debits
- Project analysis – profit/loss
- Dynamic accrual accounting
- Multi-company with cost centres
- Extremely cost effective
- Easy to install

ACE will grow with the business and help the business grow. Coupled with e-commerce, this will allow a small to medium business to move into the next millennium confident that it has the right tools to compete successfully in its chosen marketplace.

Integral CMS intends to start marketing this SME solution immediately, particularly as Y2K is still an issue to many businesses and the need for Internet access and e-mail is becoming more important to stay competitive. The ACE Business Management System is certainly ahead of many competitors, as it is not only Y2K ready but will also be GST ready.

Electronic business/commerce continues to grow and the pressure continues to increase on businesses to "update" in order to stay competitive. For

small to medium businesses, complexity can stifle growth.

Lacking the resources of larger companies, small and medium businesses require robust solutions designed for their unique conditions. Integral CMS is ready to assist these businesses, utilising the functionality and reliability of the AS/400, the intuitive ease of use of the ACE Business Management System and, of course, the knowledge and experience that Integral CMS has with e-commerce/business. ■

### About Integral CMS

Integral CMS is the result of the merger between Integral Computer Systems and Complete Midrange Services. Combined, we offer over 60 years experience in the Midrange IT industry. We provide Data Warehousing and Consulting Services for small and medium business and are the sole distributor in Victoria, Australia of the ACE Business Management System, a financial package from Versatile Solutions.

### FOR MORE INFORMATION

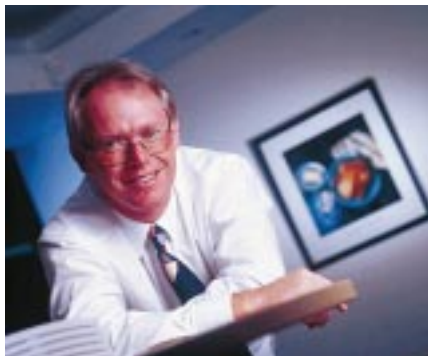
For more information, visit [www.icms.net.au](http://www.icms.net.au) or call Integral CMS on 61 3 9686 9788



# Tegel Foods invests in new ERP system – Movex

When New Zealand's largest poultry and animal feeds company, Tegel Foods Ltd, needed to bring its computer systems up to meet the challenges of a cost-driven commodity industry, it selected Movex, an ERP system from Intenia.

Part of the Heinz group, Tegel is a vertically integrated manufacturer of poultry and animal feeds products. Its activities include feedmilling, livestock operations, poultry processing, distribution and sales.



**Tony Scarborough**  
Information Systems Manager  
Tegel Foods Ltd

According to Tony Scarborough, IS Manager, "As a vertically integrated manufacturer we control the entire process from contracting the growing of the grain, to feedmilling, through to poultry product production and sales.

"We hold about 60 per cent of both the poultry market and animal feeds market in New Zealand and the poultry market is very much promotion driven. We have to compete on a daily basis and must provide the best customer service at the lowest cost."

Tegel wanted to improve customer service and reduce shortfalls by

*"Intenia is one of the world's leading suppliers of ERP systems"*

matching the production plan to customer orders in real time. In addition they wanted to reduce inventory levels and distribution costs. They required an ERP system that would handle catch weight to cover its sales of product by carton and by weight, lot traceability, and the ability to handle multiple manufacturing plants and warehouses.

"There are several features that are paramount to our type of manufacturing. For instance, we require a flexible but simple order entry facility. The ERP also has to handle the complex nature of our costing processes including yields and multiple units of measure. It has to meet our 24 hour x 6 day business where production occurs during the day and distribution happens during the night and early morning", added Mr Scarborough.

Tegel chose Movex to replace all of its core poultry business applications. Once the system is implemented they anticipate several key benefits such as the ability to better meet New Zealand's food safety requirements. Tegel was impressed with Movex's lot traceability function that will help the company to trace a product in the event of a need to recall. Although this event is rare, it is an important requirement to be able to execute efficiently.

"Movex will integrate with our scanning front-end system which will capture all of our inventory transactions and will update in Movex within 15 minutes," he continued. "Movex will be able to tell us the location and recipient

of every carton, making the recall of a specific product possible. This is something our previous system simply could not deliver."

As part of the implementation Tegel will install a new IBM AS/400 S20 2177 and a hot backup machine AS/400 model 170 for disaster recovery and software development. ■



### About Intenia

Intenia is one of the world's leading suppliers of ERP systems. Its business concept is to develop and make business processes more effective by combining software and know-how. Intenia's ERP system, Movex, is one of the most advanced on the market and is available in a number of industry applications to meet the unique requirements of different industry sectors. Movex is also one of the cornerstones of Intenia Solution: a unique set of tools, methods and functionality for configuring and implementing ERP solutions. Intenia has more than 3,000 employees in 40 countries around the world.

### FOR MORE INFORMATION

For more information call Intenia in Australia on 1800 656 575 or New Zealand on 0800 66 99 44.

# “Trust” in e-business with Synergy



Trust Company of Australia (Trust) provides a wide range of specialist corporate trust and asset management services to organisations, individuals and deceased estates. Their corporate head office is based in Carlton, Victoria, with major branches in Brisbane and Sydney and a smaller one in Townsville.

Trust and Synergy have a long-standing business relationship. In 1986 Trust developed their primary business application in RPG on a System 38, which was upgraded over time to an AS/400. Synergy is now assisting Trust to modernise the application.

Trust is now undergoing a transformation to add e-business capability to existing and new applications in funds management, superannuation and financial planning.

The business sought to transform its product offering and find ways to enhance business processes and improve customer service. Key objectives included:

- Redeveloping the RPG application to simplify data entry and support new business initiatives.
- Deploying infrastructure to support e-business, including email and workflow, document imaging, data warehousing and future IT projects.

Trust identified IBM's AS/400 as the crucial foundation for the project due to the AS/400's reliability and its ease of use. By investing in AS/400, Trust was also able to capitalise on its existing IT team's knowledge and skills.

“We turned to IBM and Synergy for two reasons: IBM provides fully engineered platforms while Synergy gives us a dedicated, responsive system design and implementation team”, said Mr Brad Creighton, Manager of Information Systems, Trust Company.

*“A versatile, robust and cost-effective foundation for e-business”*

Three AS/400e 170 servers were deployed across Trust's main offices in Melbourne, Brisbane and Sydney. The AS/400 located at head office in Melbourne continues to host Trust's business-critical RPG applications, in addition to Lotus Domino, which provides employees with email and collaborative computing functionality. Four Integrated PC Servers host AS/400 Firewall, file and print serving applications, and an accounting package running on SQL Server and Windows NT.

time. Nevertheless, implementation was completed in three months, and the solution was deployed on time and within budget.

Following the successful conclusion of this project, Trust now has the infrastructure in place to deploy future e-business solutions across the business. Future plans include the implementation of an e-business solution using the AS/400, and the provision of remote communications to Townsville using secure Client Access/400 over the Internet. ■



Trust and Synergy's IT experts worked together to complete the project. Synergy supplied project management and technical expertise while Trust's IT team undertook desktop deployment and application migration. Migration was complicated, the challenge being that both operating systems, OS/400 and NT, as well as the Domino application were required to be deployed at the same

### About Synergy

Synergy is IBM's National Solution Provider of the year 1997. We deliver Professional Services to users of AS/400, RS/6000 and Netfinity servers. Talk to Synergy about e-business, and the industry and solution expertise that Synergy can provide. Let us help you find ways to combine your existing systems and network infrastructure with the new possibilities powered by the Web.

### FOR MORE INFORMATION

For further information, contact Synergy on 61 3 9690 7399, e-mail at [enquiries@syn.com.au](mailto:enquiries@syn.com.au) or visit their Web site at [www.syn.com.au](http://www.syn.com.au)

# e-commerce solutions deliver real savings to manufacturers

MODERATE

Specialising in ERP solutions for the world's leading manufacturing and distribution companies, SSA understands the ever-changing needs of the industry. With increased competition, and pressure from suppliers, consumers and shareholders to reduce costs and improve response times, today's manufacturer needs to capitalise on the latest technologies that will enable them to stay in business and keep ahead of the competition.

One of the most significant trends in manufacturing is the growth in electronic business solutions, whether used for simple exchange of information, or a complete Internet catalogue and ordering system.

Some of the most tangible benefits of an integrated e-commerce solution include:

- Reduced transaction costs
- Improved customer service
- Fast response times
- More interactive transactions/communication
- Expanded market reach

## Integration a key

The key to gaining real benefits from an e-commerce solution is integration. By using its configurable Semantic Message Gateway (SMG) and Electronic Commerce Manager (ECM) architecture, SSA can integrate specialist products with eBPCS – the backbone or core system – and reduce interface programming to an absolute minimum, saving both time and money.



## SSA expands e-commerce solutions with Ironworks for eBPCS

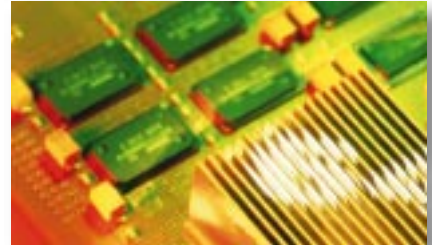
In response to market demand, SSA has recently delivered an integrated e-commerce solution – designed to enable electronic trading across the Internet – for its customers around the world. Partnering with Ironside Technologies, SSA is offering manufacturing and distribution companies a cost-effective, real-time, business-to-business solution that can be implemented quickly.

“Through this relationship, SSA customers will be able to quickly and easily deploy an e-commerce solution that will positively impact their business and results,” said Ironside CEO, Bill Lipsin. Already SSA has sold seven deals globally with three recently gone live.

## If it doesn't exist, we'll build it

Every business is different and that means every solution needs to be different. When the right product doesn't exist in the market, SSA's Professional Services team can custom build an e-business solution to give you that winning edge.

In addition, SSA is working closely with IBM to develop leading e-commerce solutions using IBM's Net.Commerce product.



## Local expertise focuses on client benefits

Led by e-commerce specialist Barry McGhie, SSA's e-commerce team is focused on ensuring industrial sector companies throughout the region achieve the maximum benefits from this new technology.

SSA Professional Services offers a full range of e-business education, consulting and implementation services throughout Australia and New Zealand. ■



## About SSA

System Software Associates is one of the world's leading providers of ERP software and services, with the largest installed base of ERP systems on the IBM AS/400 platform.

SSA provides best-of-market solutions to the pharmaceutical, consumer packaged goods, automotive supply, chemical, electronics, food & beverage and general manufacturing industries.

## FOR MORE INFORMATION

For further information about SSA's e-business solutions, call 61 2 9855 7100 in Australia or 64 9 358 0555 in New Zealand, or visit [www.ssax.com](http://www.ssax.com)

*“One of the most significant trends in manufacturing is the growth in electronic business solutions.”*

# The IBM Magstar 3590 E provides **the highest capacity, performance** and reliability of any tape subsystem

Valuable business data must be protected by backup, archive and disaster recovery processes and, as a result, there is a need for far more than just bulk storage.

Compared to earlier 3590 models, the Magstar 3590 E provides an increased data transfer rate and greater cartridge capacity. The new models protect the investment you have already made in Magstar technology by providing a convenient upgrade path from your current model. The Magstar 3590 E model preserves the investment already



*“The Magstar 3590 E provides an increased data transfer rate and greater cartridge capacity”*

made in 3590 media and doubles its native capacity to 20GB.

#### **What are the new models?**

The new models are the Magstar 3590 E1A and the Magstar 3590 E11. The 3590 E1A is for installation in a 3494 Tape Library or a 3590 C12 or C14 Silo compatible frame. The 3590 E11 is a rack-mountable model that includes a 10-cartridge automatic tape library.

#### **What design improvements have been incorporated into the new E models?**

The number of tracks that can be written on a cartridge has been increased from 128 to 256, effectively doubling the uncompressed capacity from 10GB to 20GB. This has been made possible by using a leading-edge magneto-resistive (MR) head design. This means that fewer cartridges and tape drives will be required by customers for their tape operation's needs.

#### **What performance improvements are available with the new E models?**

The new E models have a native data transfer rate of 14MB/second, which is approximately 50 per cent faster than the previous B models. The sustained data rate is up to 34MB/sec, and the maximum burst data rate is 40MB/sec, which is achieved with an Ultra SCSI interface.

#### **Can the current B models be upgraded to the new E models?**

Existing Magstar 3590 models B11 and B1A can be field upgraded to the new E models. In addition, today's Magstar 3590 cartridges are read compatible with the new E models. This means that any cartridge written by the B models can be read by the new E models. Even more important, the new models can write on the current 10GB cartridges in 256 track mode which doubles the capacity to 20GB.

IT decision-makers working in an enterprise or enterprise-class data centre would be well advised to place their investment with the technologies already proven and extensible into the future. The IBM Magstar 3590 E exemplifies this choice. The 3590 E enhancements provide a significantly faster data rate, a two-fold capacity increase, expanded compatibility, and the advantages of model upgradability, data interchange and media reuse.

The IBM Magstar 3590 E offers balanced investment protection for your organisation and is available from June 23, 1999. ■

#### **FOR MORE INFORMATION**

For more information visit  
[www.storage.ibm.com/storage](http://www.storage.ibm.com/storage)

# IBM Product Support Services – e-business Services

IBM Global Services Product Support Services (PSS) has a rich portfolio of service offerings designed to address the entire e-business life cycle.

So whether your e-business is 'small and growing' or a mission-critical application, IBM Global Services can help you rapidly develop your solution, keeping it current and operational.

## IBM Hardware and Software Support Services

IBM SmoothStart Services are pre-packaged and tested installation services designed to accelerate the implementation of a new solution.

### IBM SmoothStart Services for Lotus Domino on AS/400

This service provides installation, configuration and customisation of your Lotus Domino Server on the AS/400.

### IBM SmoothStart Services for Firewall

Protect your company's vital systems, records and network from unwanted outside intrusion.

Other IBM Hardware and Software Support Services to support your e-business needs, include maintenance, planning, design, installation, migration, integration and operational support services.

## IBM Systems Management and Networking Services

### IBM Performance Management and Capacity Planning Services

IBM's performance analysis, recommendations and tools can help improve the execution of your IT systems and assist you in capacity planning.

### IBM Testing Services

IBM Global Services assists in the planning, development, execution, and analysis of the tests for complete client/server and host based applications and systems.

### IBM Asset Services

A complete inventory audit can provide the information required to understand your IT environment, and plan for e-business.



IBM Systems Management and Networking Services include Systems Management and Networking Consulting, Tivoli Professional Services, HelpDesk Integration Services, Networking Design Services and LAN and Desktop Implementation Services.

### IBM Site and Connectivity Services

IBM Site and Connectivity Services offer expertise in IT facility construction and renovation, equipment relocation, and Burn-In and Rollout in support of

your e-business projects.

Services include Site Services, Relocation Services, Power Protection Services and Connectivity Services.

### IBM Business Recovery Service

The benefits of using the Internet for you and your customers are at risk if your e-business systems are rendered unusable by an unplanned outage or a disaster.

### IBM Risk Management Services – Internet Emergency Response Service

Internet Emergency Response Service (IERS) provides companies with an array of security services and consulting methodologies.

### IBM Recovery Support Services for e-business

This service provides a solution for protection of critical e-business applications against unplanned outages.

IBM Business Recovery Centres are located in secure office buildings with modern amenities designed to create an effective business environment.

The service components that comprise the IBM e-business Recovery profile are Business Recovery Consulting, Risk Management Services, Recovery Support Services and Recovery Planning and Implementation Services. ■

#### FOR MORE INFORMATION

For further information call IBM on  
132 426 in Australia or  
0800 426 376 in New Zealand  
and ask for 'PSS/Info'.



# AS/400 Education Schedule

Here is a sample of some of the many AS/400 courses available during July - September in Australia. Many additional courses are available in Australia and New Zealand. For further information, or to enrol, please call IBM Education and Training on 1800 801 088 in Australia and 0800 801 800 in New Zealand.

AS/400 Operations							
Course	Course Title	Dur.	Vch.	Fee	Jul.	Aug.	Sep.
OL29Y	AS/400 System Operators Workshop	3.0	30	\$1,500	6 Mel 20 Syd	17 Mel 31 Syd	28 Mel
OL41Y	AS/400 Advanced System Operators Workshop	3.0	30	\$1,500	5 Mel	3 Syd	1 Mel
OL19Y	AS/400 System Administration and Control	4.5	45	\$2,250	5 Syd	9 Mel	27 Syd
AS/400 Programming							
Course	Course Title	Dur.	Vch.	Fee	Jul.	Aug.	Sep.
OL49Y	AS/400 Concepts and Programming Facilities	4.0	40	\$2,000			20 Syd
UA709Y	AS/400 Introduction to CL Programming	1.0	10	\$500		20 Syd	
OL62Y	DB2/400 Relational Database	2.0	20	\$1,000		31 Syd	30 Mel
OL86Y	AS/400 RPG IV Programming	5.0	50	\$2,500		9 Syd 23 Mel	
OE41Y	Introduction to Integrated Language Environment	1.0	10	\$500		30 Syd	
OL24Y	Java for AS/400 for Programmers	5.0	60	\$3,000		2 Syd	20 Mel
AS/400 Networking and Internet							
Course	Course Title	Dur.	Vch.	Fee	Jul.	Aug.	Sep.
OL05Y	Windows NT on the Integrated Netfinity Server	2.0	20	\$1,000			23 Syd
OL11Y	IBM Firewall for the AS/400	3.0	33	\$1,650		9 Syd	
OL13Y	Internet Connection Server for the AS/400	2.0	22	\$1,100		30 Mel	
OL92Y	AS/400 TCP/IP V4 Internet Access	5.0	50	\$2,500			6 Syd
AS/400 Year 2000							
Course	Course Title	Dur.	Vch.	Fee	Jul.	Aug.	Sep.
OL07Y	Bypass/2000 for the AS/400	2.0	22	\$1,100		26 Syd	
ASFPWY	AS/400 Programmers FastPath (comprising OL49, OL20, UA705, OE41 and OL86)	170	170	\$8,500		23 Syd	
AS/400 Lotus Notes							
Course	Course Title	Dur.	Vch.	Fee	Jul.	Aug.	Sep.
OL04Y	Lotus Domino for AS/400 Administration	2.0	20	\$1,000		16 Mel	13 Syd
OL04AY	Lotus Domino for AS/400 Technical	2.0	22	\$1,100		18 Mel	15 Syd

Please note that IBM Education and Training in New Zealand have moved. New locations are:

- IBM Centre, 5 Wyndham Street, Auckland City
- IBM Centre, 171 Featherston Street, Wellington

email: nzlearn@nz1.ibm.com

# IBM Networking protects AS/400 customers' investment in Twinax

5500 Express IP control unit enables migration to IP, improves throughput up to 400 per cent

Organisations that have relied heavily on Twinax connectivity over the years can now implement e-business strategies while protecting their investments in existing network configurations. The new 5500 Express IP Control Unit is an addition to IBM's Express family of products and is designed to bring e-business, Web access and other IP networking capabilities to Twinax devices in remote and/or local environments without the need for rewiring and reconfiguration.

By connecting twinax devices to the Internet either through local or remote

AS/400 hosts, or through a service provider, the 5500 offers a cost-effective alternative to a total network conversion to an Ethernet or Token Ring LAN. The 5500 is easy to install and administer, and together with IBM's 5250 Express technology, can improve twinax throughput up to 400 per cent.

Many AS/400 installations have invested heavily in twinax devices and cabling due to the wire's ability to resist interference and the long cable lengths that can be installed without the need for repeaters. The 5500 is an ideal solution for customers who want to transform these environments to e-business networks today, without the time and expense of replacing the existing wiring. When used together, IBM's Express product family can increase throughput for twinax-based networks by as much as 800 per cent.

Twinax still has some advantages over newer methods of network connectivity, according to Buz Stepanek, Product Line Manager for AS/400 connectivity products in IBM's Networking Hardware Division. "Depending upon how you have your network laid out and whether you're using switches, if you have many Ethernet devices that are sharing the same piece of wire, the more devices you add the slower the performance," he says. "With the 5500 controller, the number of devices you add is irrelevant. The AS/400 initiates communication with every Twinax-connected device, versus Ethernet, where all devices are trying to get on the same wire at the same time."

Pricing for the 5500 Express IP Control Unit starts at A\$8,160 ex tax, NZ\$8,967. The product has been available since February 12, 1999.



## IBM 7299 Express Multiplexer maximises throughput to AS/400 twinaxial devices

The 7299 Hub connects 5250-type devices to AS/400 and System/36 hosts using shielded or unshielded category 5 cabling. As a member of the 5250 Express Family of products the IBM 7299 Express Hub, when attached to an AS/400, maximises throughput of IBM 5250 Express Adapters and supports legacy 5250-type devices. The 7299 Express Product Line now includes both the 7299 Express Hubs announced last year and the new 7299 Express Multiplexer which is used to connect 5250 devices up to 2000 metres away. ■

### FOR MORE INFORMATION

For more information contact IBM Direct on 132 426 (Australia), or 0800 426 111 (New Zealand) and ask for Networking/Info, or visit our Web site: [www.ibm.com.au/networking](http://www.ibm.com.au/networking)



"We needed  
a server that  
could take off  
as fast as we did."



## AS/400e = Rapid Deployment

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 e-business tools