

The Power of S/390 Server Solutions from *IntelliWare*



Open for VSe-business™

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Agenda

- Who is IntelliWare?
- What is our focus?
- How do we complete the picture?
- S/390 Server Solutions from *IntelliWare*




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WAVV00-2




WAVV '00
Colorado Springs, CO



Who is *IntelliWare*?

- Comprehensive provider of hardware, software, services and education
- Unique approach allows for innovative, turn-key offerings
- Focused on VSE/VM marketplace



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Our Key is our Focus

“IntelliWare is focused on the needs of the worldwide VM/VSE customer base. We continue to expand our partnerships, products and services to provide a single point of contact for all of our VM/VSE clients’ needs. Our unique focus makes the difference.”



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Our Key is our Focus. . .

- We focus on our VM and VSE customers, not any particular hardware, software or service
- We create wherever we can, and we partner to bring the best solutions
- We are focused on "completing the picture" for VM and VSE, so there's one place to turn for everything you need
- We remain independent in our choices



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Our Key is our Focus...

- Our focus has been rewarded by your business
- ISI recognized as one of the "Fastest Growing Private Companies in the U.S." by Inc. Magazine
- In our 10th year of being the exclusive nationwide provider of VM/VSE hardware, software, services and education
- Achieved IBM Premier Business Partner Status in 1999 – Top 3% of all Business Partners



Entering our 10th year as the leader in VSE Technology




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IntelliWare at WAVV '00

- WAVV represents a chance for us to continue to give back to the community
- Chance to meet, learn and contribute
 - IBM and ISI co-sponsored 2 pre-conference education classes
 - 3 day, TCP/IP class, 1 day CICS TS class
 - IntelliWare responsible for 8 sessions
 - Special VSEForum Live event discussing Linux for S/390
- We consider ourselves your co-hosts, count on us to help you in any way we can




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IntelliWare at WAVV '00

- Largest non-IBM Exhibit Area at WAVV
- Showcasing the components to a successful e-business
 - VSe-hardWare™
 - VSe-softWare™
 - VSe-serviceWare™
- Test drive software, hardware
- Talk with services staff, educators




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Announcements made at WAVV

- New **z/WEB-host™** e-business software
Access Applications from Anywhere™
 - Announced in support of IBM's 10/3/2000 announcement of **@server** family
- Partnership to be the first distributor for Linux for S/390 to the VM/VSE marketplace
 - ISI certified technical staff will provide planning, installation, education and technical support
 - Turnkey offerings of hardware, software and services



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Our Focus is on *Your* needs

- Focused on delivering total e-business solutions for the VSE/ESA environment
- Native, 2-tier environment for best functionality, manageability, and reliability

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<http://www.vsebusiness.com>



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To be Open for VSe-business, you need


VSe-softWare

- And only ISI has the options
 - z/Web-Host
 - Web/VSE-Console
 - EnterWeb
 - TCP/IP for VSE, NFS, GPS
 - CA Software products – services and education
- And the qualifications
 - The only consistent provider of interface software for over 7 years



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To be Open for VSe-business, you need


VSe-serviceWare

- And only ISI has the options
 - 11 years of providing services to customers
 - Diverse range of services, expanding as you show us you need it
 - 24 hour, 7 day a week support for anything period
- And the qualifications
 - 400+ years of collective technical experience
 - 100+ years of collective account management experience



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The Best Class of Services Anywhere

- Turn-key, integrated services
 - *IntelliMOVE™* - Hardware and software installations and migrations
 - *IntelliBUILD™* - Off-site system build and staging
 - *IntelliTUNE™* - Performance analysis and tuning
 - *IntelliPLAN™* - System capacity planning
 - *IntelliCONNECT™* - Complete TCP/IP and SNA network design and implementation
 - *IntelliASSIST™* - CA and other third party product installation and education
 - *IntelliHELP™* - Remote system support via network access
 - *IntelliCALL™* - Telephone based support




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The Best Class of Services Anywhere...



- Education so good even IBM is offering the classes
 - VSE/ESA Under the Covers
 - TCP/IP Under the Covers
 - CICS Transaction Server for VSE/ESA Under the Covers
 - CICS Transaction Server for VSE/ESA Migration
 - CICS Transaction Server for VSE/ESA Tuning and Problem Determination



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To be *Open for VSe-business*, you need


VSe-hardWare

- And only ISI has the options
 - IBM Netfinity based *iFrame* S/390 capable servers
 - IBM's Multiprise 3000 S/390 Enterprise Servers
 - IBM's 9672 Parallel Enterprise Servers
 - New *ic.y.a.* Network Security Appliance
 - IBM's Shark ESS Storage Systems
 - IBM Printing Systems
- And the qualifications
 - IBM Premier Business Partner
 - Top 3% of all IBM Business Partners
 - Named top S/390 reseller in 1998, 1999 and 2000 by SupportNet



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The Changing Landscape. . .

- PCs and Mainframe coming together
- Complementary Metal Oxide Semiconductor (CMOS) manufacturing is the same technique as Intel microprocessors
- Intel Processing environment
 - IBM's P/390 and Integrated Server
 - *IntelliWare's* new *iFrame* Netfinity based servers
 - Linux on S/390! (on Intel)




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P/390 & Integrated Server

- No longer marketed by IBM
- Few new I.S. machines may be available
- Some used market activity




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*i*frame™ S/390 Capable Server

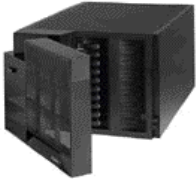
- * Created by *IntelliWare* specifically to fulfill the requirements of our VSE and VM customers
- * Pre-tested, standard configurations using IBM NetFinity servers and parts with S/390 components.
- * Integration and support you expect from *IntelliWare* and IBM
 - * Full “turn-key” packaged solutions, including on-site set-up and services

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IntelliWare's iFrame™ Server... (1)

- * A line of integrated S/390 capable servers created by *IntelliWare* for the small and mid-range S/390 users
 - * Utilizes *FLEX-ES* technology
- * Five models provide 8 to 40+ MIPS and over 200 GB of internal disk (RAID 5)




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IntelliWare's iFrame™ Server... (2)

- * Some significant features/capabilities:
 - * Up to 4GB S/390 memory
 - * *i8* model can use ESL licensed software
 - * Multiple High performance S/390 parallel channels
 - * Supports Shared DASD, even over a LAN environment
 - * Multiple Image capabilities (similar to LPAR)





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IntelliWare's *i*frame™ Server... (3)

- ✧ A complete integrated package:
 - ✧ Turnkey solutions... ready to run
 - ✧ Standardized components: IBM Netfinity, S/390 Software, and SCO UNIX. And *FLEX-ES*
 - ✧ Most important, *IntelliWare* support and services
- ✧ At affordable prices




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Recent *i*frame™ Customer Success


- Berrien Co. (Mich.) School district
 - Replaced P/390 with *iFrame i8*
 - 512 MB for S/390, 150GB of available Disk
 - Two VSE Images:
 - Standard Production (CICS, batch, etc)
 - e-business development and delivery
 - Dramatic performance improvements
 - Compile from 2.5 minutes to 20-30 seconds
 - VSAM Backup from 2+ hours to 14 minutes

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Recent *i*frame™ Customer Success


- Teamster's Funds (Philly)
 - Replaced 9221-130 with *iFrame i8*
 - 384 MB for S/390, 78GB of available Disk
 - One VSE Image (initially)
 - Very quick/smooth install
 - Less than one day
 - No 'Benchmarks" yet (using to migrate from 2.2. to 2.4), but
 - "System seems much quicker"


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Multiprise 3000 (1)

- ✧ A family of S/390 Mid-Range Servers
 - ✧ Three models: H30, H50, H70 (approx 60, 120, 210 MIPS)
 - ✧ 1GB, 2GB, or 4GB memory
 - ✧ Same 'frame' as S/390 Integrated Server, but many differences
- ✧ New Software License: **G**rowth **O**pportunity **L**icense **C**harge
 - ✧ MLC; not Group based, specific per model




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Multiprise 3000 (2)

- Combines P/390, 9672, and Multiprise technologies
 - Uses G5 processor in 1+1 and 2+1 configurations
 - Uses Multiprise Internal disk (but with SSA & RAID-5)
 - Uses I.S. SSA RAID & Emulated I/O abilities
 - Expansion units available, for up to 792GB disk and 56 channels
 - Channels are 'full' S/390 channels (ESCON & Parallel), not emulated
 - LAN & WAN connections from I.S. (no OSA)



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Multiprise 3000 Considerations

- Early problems, smoothed out now
- No OSA; restricts LAN connectivity
 - Channel connected units recommended
- High entry point (60 MIPS) (but)
- GOLC and incentives make 7060 attractive for many customers needing 30 MIPS or more
- Architectural support for "beyond 2.10"
 - But, not upgradeable to **zSeries**
- Very good I/O and general performance
 - (other than Emulated I/O)




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Multiprise 3000 Considerations

- Very powerful and flexible system, but it is unlike any system you have used previously!
- To take advantage of it you (or your business partner) need to understand its capabilities and limitations.

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Unmatched *IntelliWare* Expertise



“Multiprise 3000 – Leveraging the Extra Power at No Extra Cost”

- 14 page technical article on MP3000 features, installation tips and configuration guide
- Author: Mike Hammock
Senior Support Representative
IntelliWare Systems, Inc.

IBM VSE/ESA Software Newsletter
First/Second Quarter 2000

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IntelliWare Customer Success

IBM S/390 BULLETIN 28 August 2000

“IntelliWare’s ability to provide complete, turnkey service including a total networking implementation was a key component in our choosing to team up with the company,”

“We needed more than just hardware. We needed someone who understood our business and system needs and put all of it together. Our networking requirements demanded this, and IntelliWare came through for us.”


- Ken Cole, Adelphia Communications





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9672 S/390 Parallel Server


- For the LARGE S/390 systems
 - Based on G6 processor of approximately 170 MIPS each
 - Up to 12 Processors in a Complex
 - (>1600 MIPS)
 - Up to 32 GB of storage
 - up to 15 LPARs
 - Compression, spare CPUs, dynamic upgrades, etc.....
- 64 Bit (Freeway) support just around the corner






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9672 More Features

- Standard Cryptographic processors
- Multiple OSA-2 adapters for high performance LAN connections
- I/O Channels
 - Parallel, ESCON, FICON
 - 96 256 36 (total 256)
- Upgradeable to zSeries

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IntelliWare Customer Success


IBM S/390 BULLETIN 27 April 2000
9672-Z27 383 MIP Native VSE Installation


“ADI and IntelliWare have a long and successful history together,” said Warren Stillwell, ADI’s Vice President & CEO *“This new phase was critical for us, and expanding with someone we knew we could rely on was crucial.”*

“IntelliWare’s methodology of system migration made our upgrade work very smoothly,” commented Andrea Odnoha, Senior Director of Technical Services for ADI. *“This was our second experience teaming with them for a new S/390 CPU, so we had confidence that everything would go as successfully as before.”*

Success

ADI Envisions A Secure Future On The Strength Of e-business



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NEW!! zSeries 900

- Latest processor line from IBM -- 64-bit addressing
- New chip technology
 - Multi-Chip Module (MCM)
 - "The densest packaging technology in the w
- Scales dynamically from 1 to 16 processors
- New HiperSocket technology
 - High speed TCP/IP connectivity between ser
- Expanded processor storage and I/O abilitie
- Supported by z/OS and z/VM
- 2000 SSL transactions per second!
- New licensing and pricing options



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Enterprise Storage Server

- ESS: Better known as **Shark**
- Multi-Platform Storage Sharing
 - S/390 (VSE, VM, OS/390)
 - NT, Win 2000, Novell Netware
 - UNIX, AIX, AS400
- High capacity: up to 11.2 TB
- Highly redundant
 - Power, cooling, connections, processors




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Enterprise Storage Server

- RAID-5 for data redundancy
- Accessible via:
 - ESCON
 - SCSI
 - FICON
- Modular, expandable: add capacity as needed
- High Performance:
 - Up to 16GB of Cache
 - Choice of drives to optimize performance / capacity
 - SSA internal channels for performance / redundancy




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Enterprise Storage Server

- But, it is **not** "intuitively obvious"
- Configuration and setup requires:
 - Knowledge of ESS technology and capabilities
 - Experience with S/390 Op/Sys environment (VSE)
 - Understanding of performance implications of various options
 - Matching IOCP configurations
- Very important to use someone who knows the Shark and your VM – VSE system
- ISI is certified on Shark sub-system



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ISI's Control Your Access *Network Security Appliance*


- Complete SSL encryption in dedicated unit
- Provides SSL and TLS secure access
- Up to 168 bit, RSA approved encryption / decryption
- IP Range Blocking / IP Inclusion
- Available in ethernet or token-ring
- Audit logs / traces






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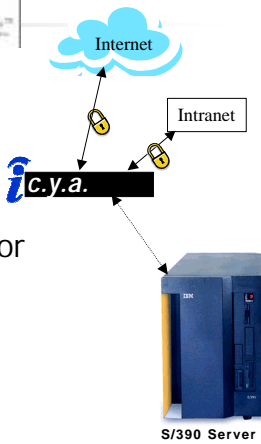
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- Offload encryption load from S/390
- Enhance network security
- Turnkey, plug-n-play security solution for S/390 users
- Secure Web traffic makes VSE/ESA ready for e-business
- Delivered completely configured for your network
- 30 day warranty – extended maintenance available









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Bustech's NetShuttle/MAN

- Channel connection:
Mainframe to LAN
- Parallel or ESCON channels
- Ideal high-performance, high-bandwidth LAN connection for Multiprise 3000
- Models for TCP/IP and/or SNA
- Built in TN3270E server for easy integration into your network
- ISI is a reseller and provides implementation



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A Formula for Success

BEST(Hardware + Software + Services)

=

IntelliWare S/390 Server Solutions

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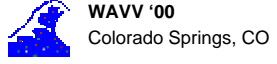
IntelliWare's Roadmap

- Focus is on extending VM/VSE customer's capabilities
- We continue to focus on new partnerships, acquisitions and internal development of skills and products
- This is expanding into other areas that your organization is heading

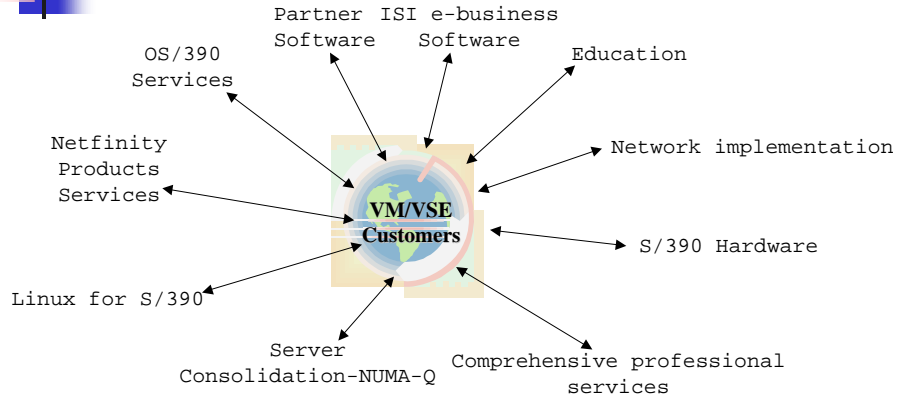


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IntelliWare's Roadmap



OS/390 Services

Partner Software

ISI e-business Software

Education

Network implementation

S/390 Hardware


Comprehensive professional services

Server Consolidation-NUMA-Q

Linux for S/390

Netfinity Products Services

VM/VSE Customers



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IntelliWare's Roadmap

- Focus is on delivering more for you
- We alter our course for your needs
- Thank You for your Business.



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More to come...

- "The Path to e-business on S/390"
 - Sunday at 11:45 – Gold Camp Room
- IntelliWare Technology Showcase
 - Hours: Sunday – 12:45-17:00, 19:00-23:00
Monday - 12:45-17:00
- <http://www.intelliware.com>
- <http://www.vseesa.com>



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