

**AS/400e**



# **AS/400 Works Magic for Application Service Providers (ASP)**

**Tim Schuetz, AS/400 ASP Marketing Executive**  
**Dick Kiscaden, AS/400 ASP Prime Solution Manager**



*IBM AS/400e @ business servers. Technology. Innovation. Magic.*

---

*"I just want to say one word to you...  
just one word....*

**ASP "**

-- with apologies to Buck Henry,  
"The Graduate" (1967)

# *Agenda*

---

- Defining ASP
- ASP Market
- AS/400 Advantages
- AS/400 Brand Support
- An ISV's Perspective

# ***ASP definition***

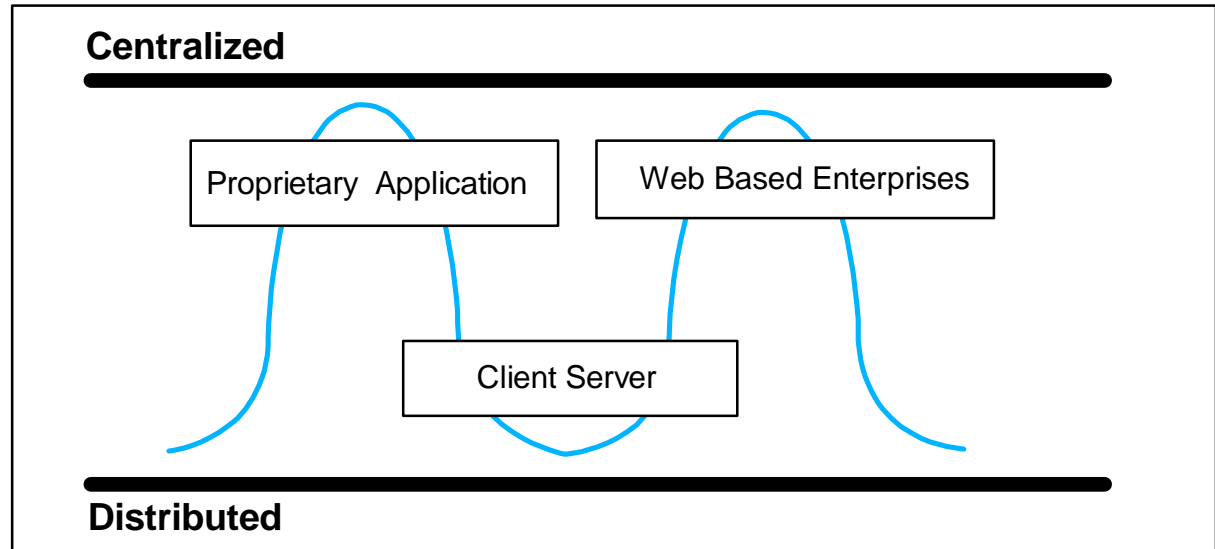
---

**Hosts and delivers applications and related value-added services to customers over public and semipublic networks**

- Responsibilities of the ASP:
- Deploying or arranging for application execution environment
- Developing or licensing applications
- Installing, configuring and monitoring applications
- Providing or arranging for customer to apps network connectivity
- Provisioning customers: enrollment, plan selection, payment/billing arrangements, login/security/access, customizing applications, etc...
- Usage collection, capacity planning, customer reporting, SLA documentation, billing
- Training, problem determination, customer care
- Be cost effective: lower touch, shared infrastructure, lower TCO

# Evolution of Computing

Today, businesses are increasingly looking for Internet-based solution providers to host and manage enterprise applications which perform critical business functions and reduce total costs of ownership.



70's - 80's: In-house proprietary applications deployed on mainframes provide companies with costly solutions reserved for large enterprises.

80's- 90's: Client/Server package solutions offer best practice processes to a wider audience, but require extended deployment periods and increased implementation and maintenance costs.

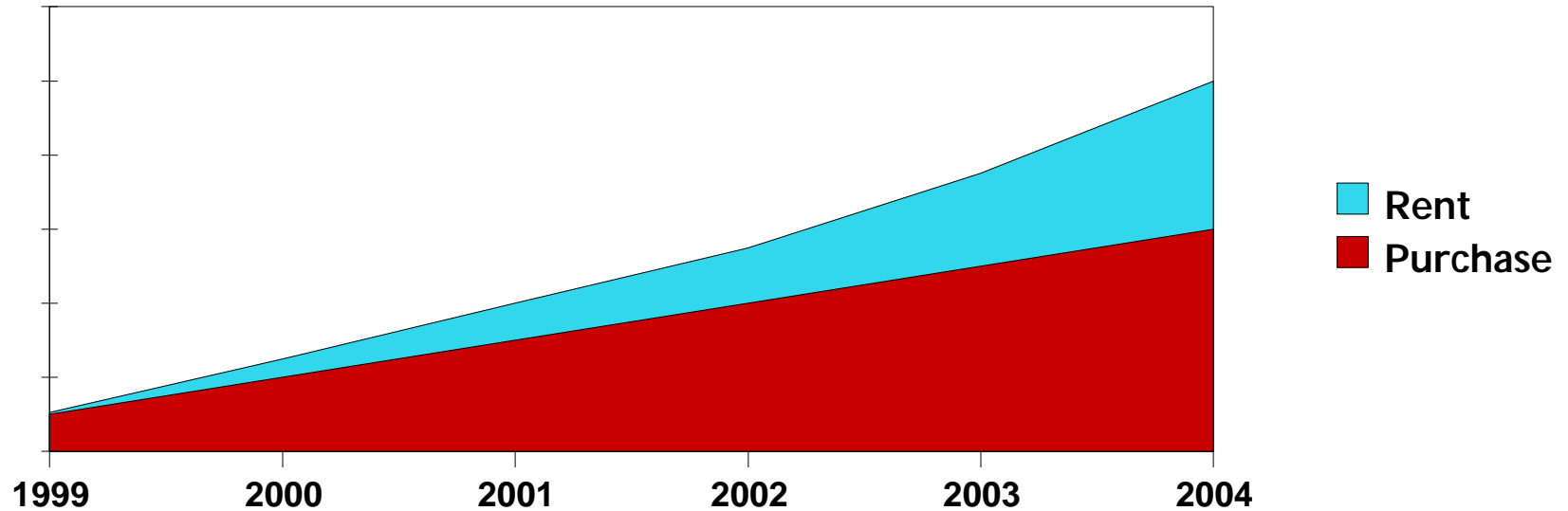
2000 . . . : Outsourced Internet-based package solutions provide lower capital costs and predictable total costs of ownership...

**Application  
Service  
Provider**

**AS/400e**

# A products-to-services transition

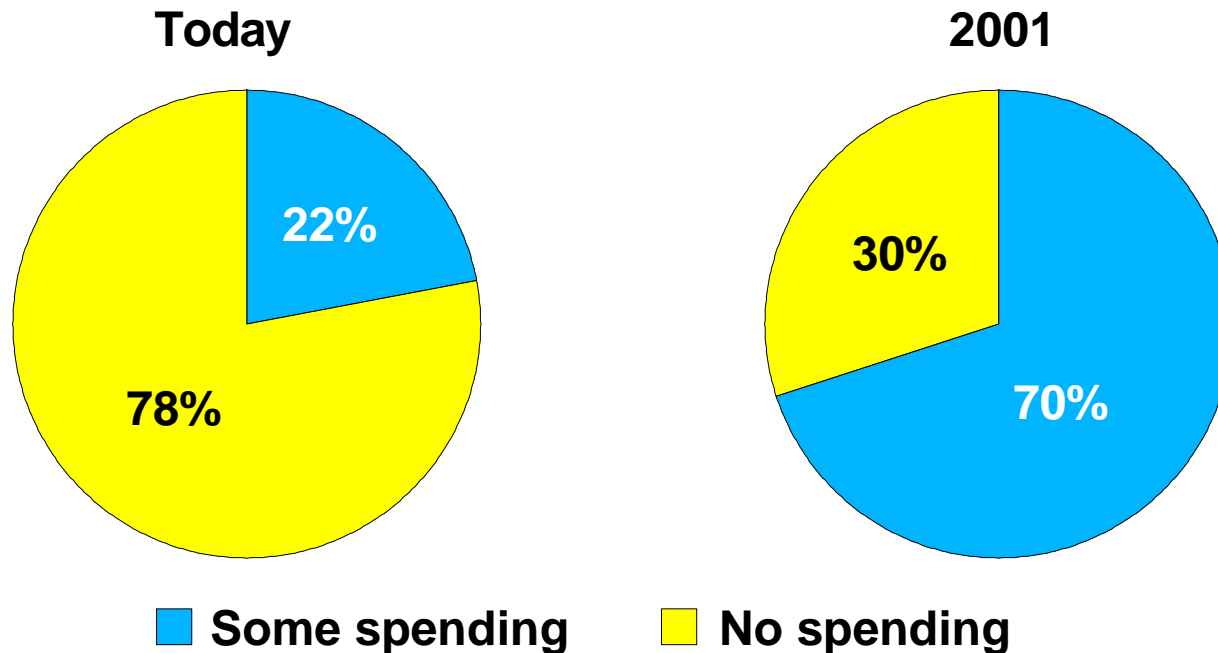
"Rented applications" will become a significant share of total revenue



There will be significant growth in use of MIPS, and thus revenue, from the "rentable application" market. This portends a general shift in the market from a buy to lease financial model for the entire solution delivery value chain.

# Growing ASP market

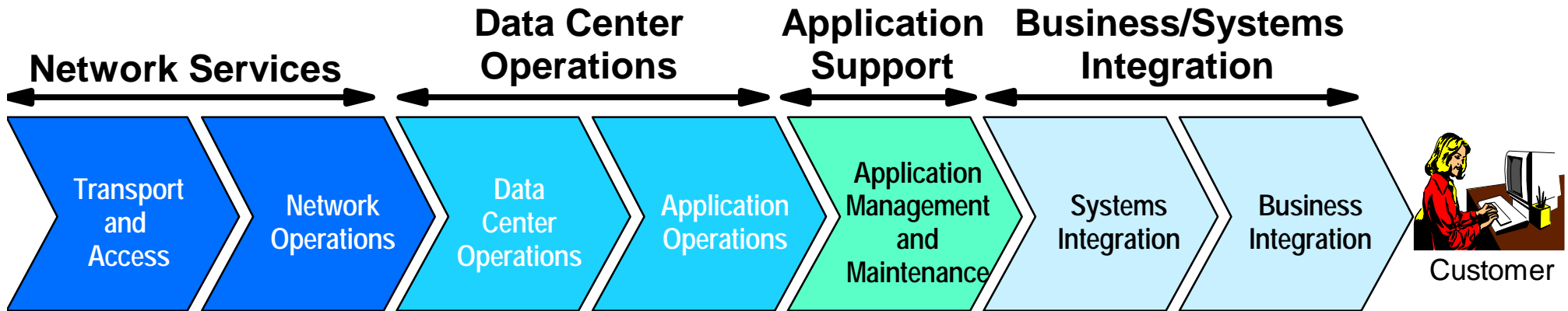
## Spending as a percent of IT budgets on rentable apps



Source: Gartner Group 1999

*Giga Information Group estimates by 2004, **10%** of all business process-related applications used by large companies will be hosted by ASPs while the **SMB market may obtain 75%** of their applications that way*

# ASP Value Chain



## The Challenge for the ISV....

is to bring together the partnership resources required for a seamless, reliable e-solution for customers

**... and deliver the ASP computing model to the Customer!**



# The ASP value chain

ASPs should be viewed as logical entities, with one or several companies cooperating in providing a total solution



Customer

## Network Service Provider:

Internet backbone or ISDN/Frame Relay leased line to the Service Providers and customers. Examples are Sprint, BBN, MCI.

## Wholesale Service Provider:

Provides the datacenter service with server mgmt, redundant network access, and uninterruptable power, to the ASP.

## Application Service Provider:

Sales, support, billing of the business solution and associated IT support to the customer. Examples are ISVs, ISP's, System integrators



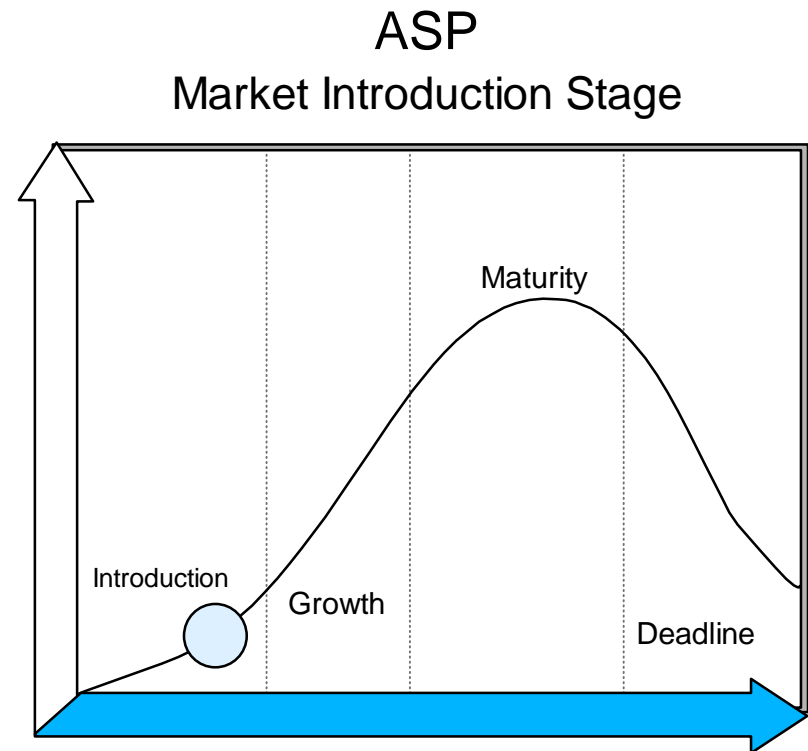
# ASP Market Today

- Market Introduction Stage

- Proliferation of competitors
- No dominant players
- Low customer penetration
- Supply-driven vs demand-driven

- Application Service Provider

- Applications for rent
- Rental or subscription models
- Limited solution customization
- Vertical: industry, ERP, SFA/CRM
- Horizontal: collaboration, e-mail
- Basic: HR, accounting, payroll



# ***Who is becoming an ASP?***

---

- ISVs enabling existing applications for ASP
  - Packaged applications
  - Cross-industry solutions
  - Vertical industry solutions
- NetGen ISVs building new solutions for the ASP model
  - Web Applications
  - Web Services
- VARs and Systems Integrators extending customer solutions with ASP offerings
  - Consulting
  - Services and Integration
  - Fulfillment
- Existing Service Providers adding ASP offerings

# ASP deployment considerations

---



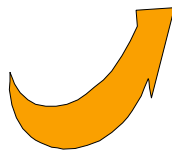
Data center cost



Availability

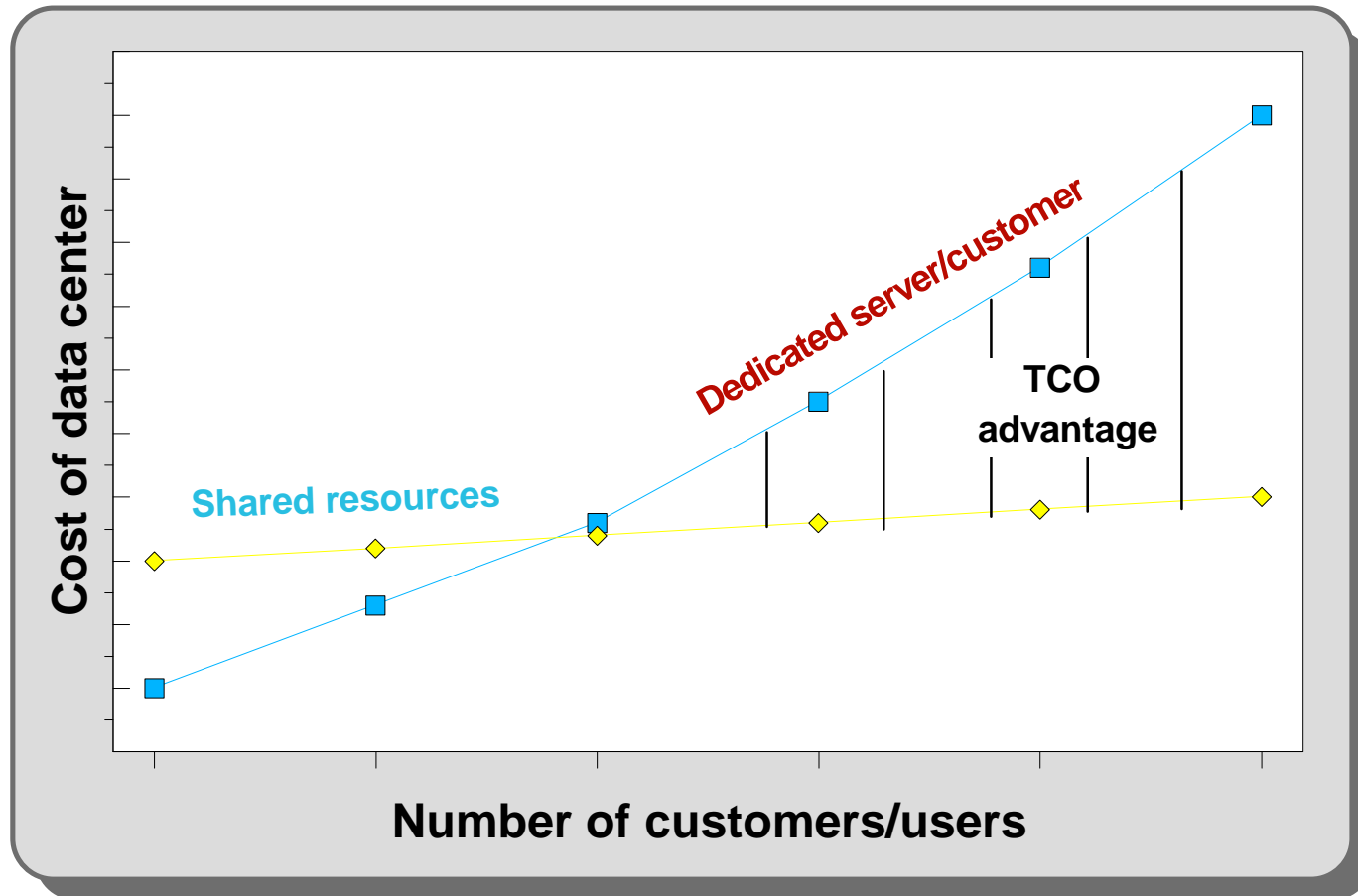


Security



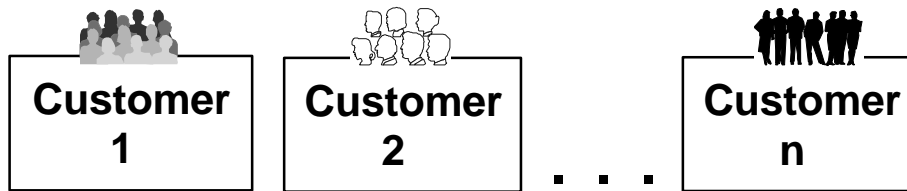
Scalability

# Dedicated vs Shared Server Option



**The shared server structure has a cost to deploy advantage as a data center scales up**

# Efficient use of shared resources



- ▶ Multiple customer accounts in one application

## Processor sharing



- ▶ LPAR
- ▶ Domino partitioning
- ▶ Application subsystems

## Memory sharing

- ▶ Single level store

## Disk sharing



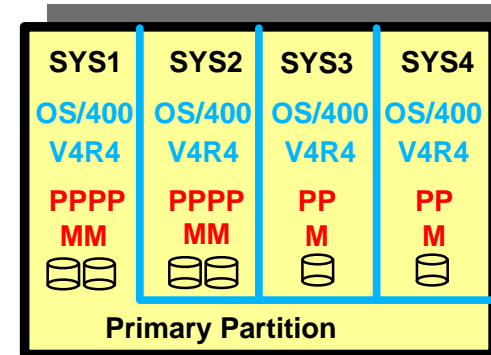
- ▶ Aux storage pools
- ▶ RAID
- ▶ Mirroring

- Reduces hardware costs
- Simplifies management procedures

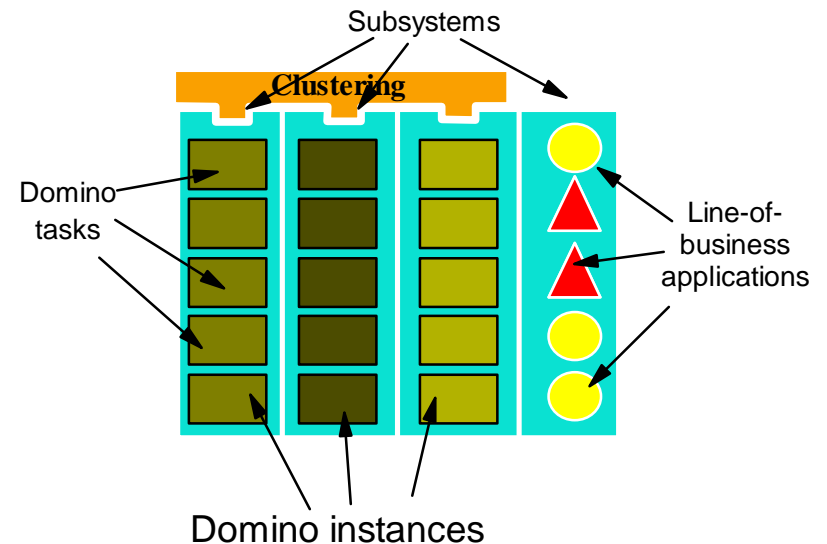
# Scalability through partitioning

- Multiple companies or customers per server
- Multiple tiers in a box
- Allocate processors by customer usage
- Dynamic load balancing of resources, by time of day or month, etc.
- High speed data replication across multi-tiered application and data servers
- Multiple versions available
- Multiple time and language domains

## Logical partitioning



## Domino partitioning



# Availability options for service levels

## Single system infrastructure

- opticonnect
- mirroring
- RAID
- battery backup
- journaling (local & remote)
- single level store isolation
- save-while-active

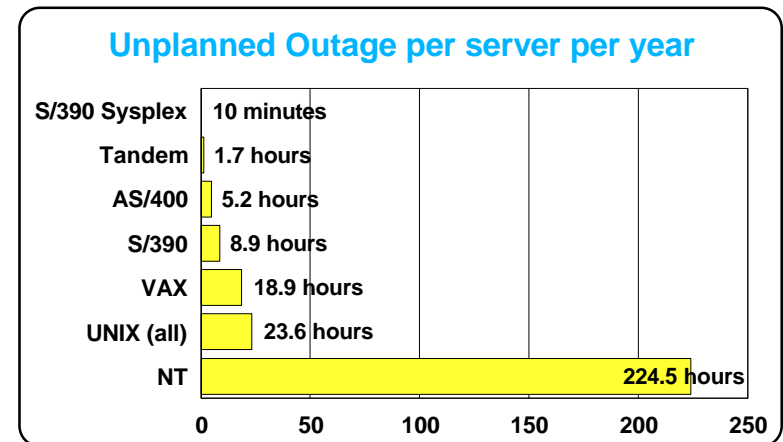
## High availability BPs

- redundancy
- recovery rollover

## Cluster resource groups

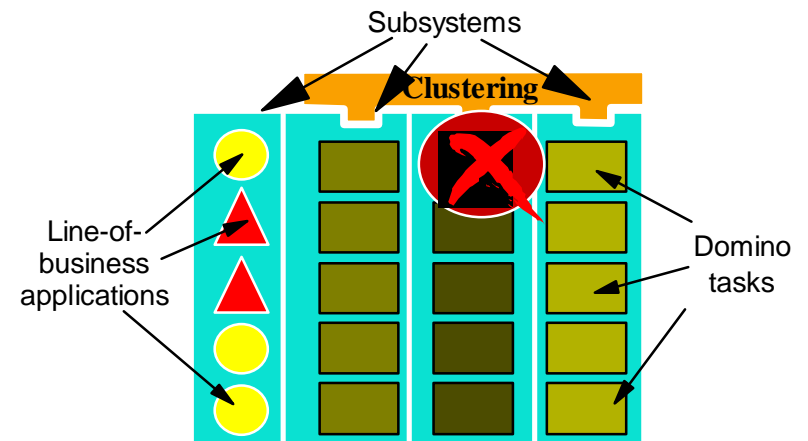
- CRG domains
- exit programs
- heartbeat monitoring
- IP takeover

## Leadership core system availability...



Source: Gartner Group

## ...with unique Domino recovery capabilities



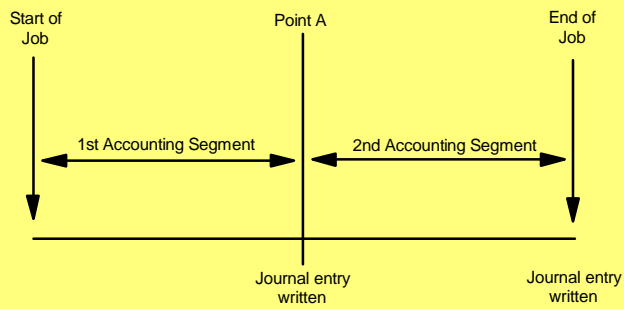
AS/400e



# Accounting for resource usage

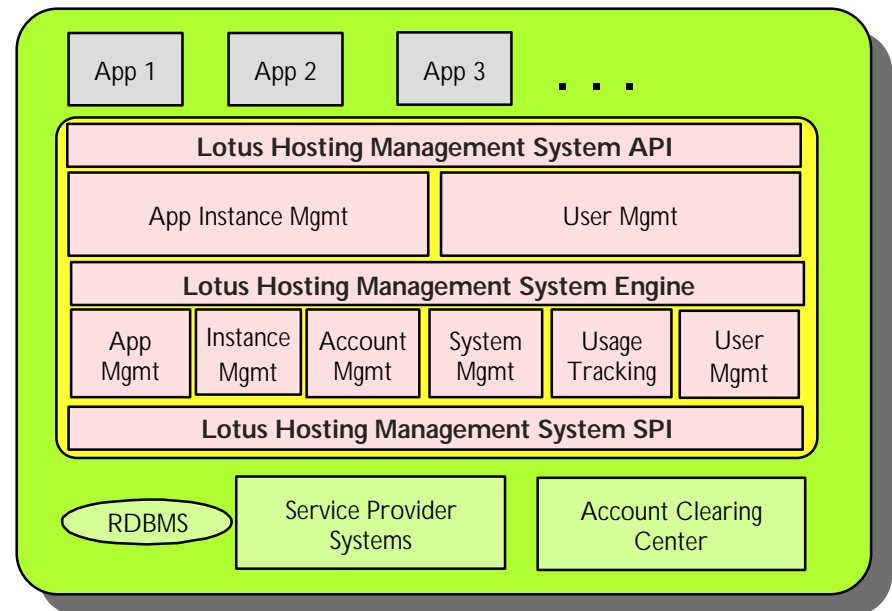
## Native job accounting APIs

- **Track resources used**
  - processing unit time
  - date/time started
  - total transaction time
  - number of database reads, writes, updates, deletes
  - more...
- **Application APIs to control checkpoints**
- **Journalized account code changes**
- **Domino billing services**



-OR-

## Lotus Hosting Management System (10/99 SOD, 2Q00 Avail)



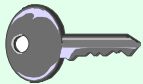
# Helping to ensure secure operations

## Network security



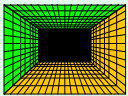
### ■ Digital certificates for authentication

- Physical presence assurance
- User certificate creation
- Certificate manager



### ■ SSL for privacy

- AS/400 subsystems are SSL ready
- Design applications to use SSL



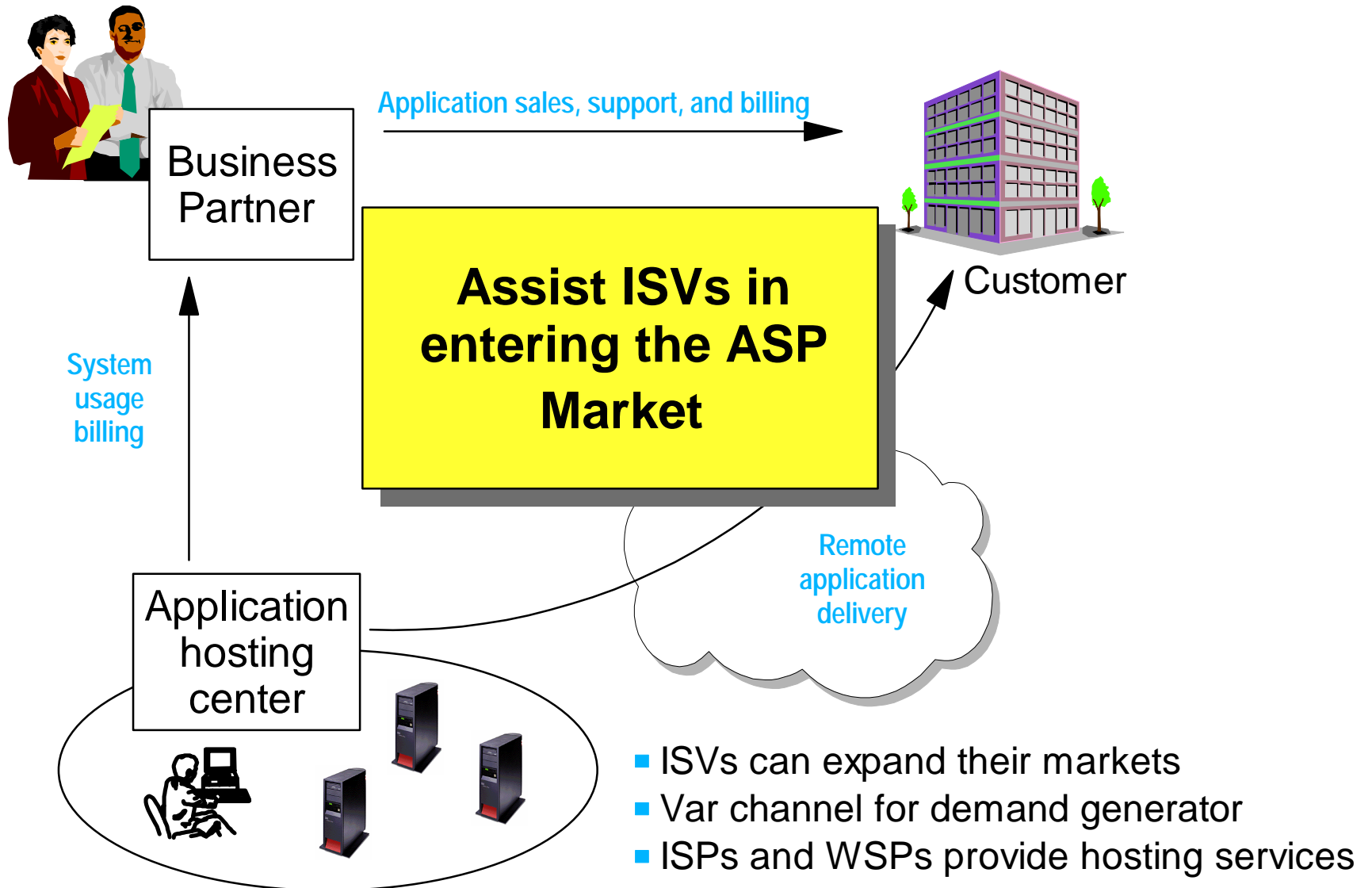
### ■ Virtual Private Networks

- Secure virtual circuit on the Internet

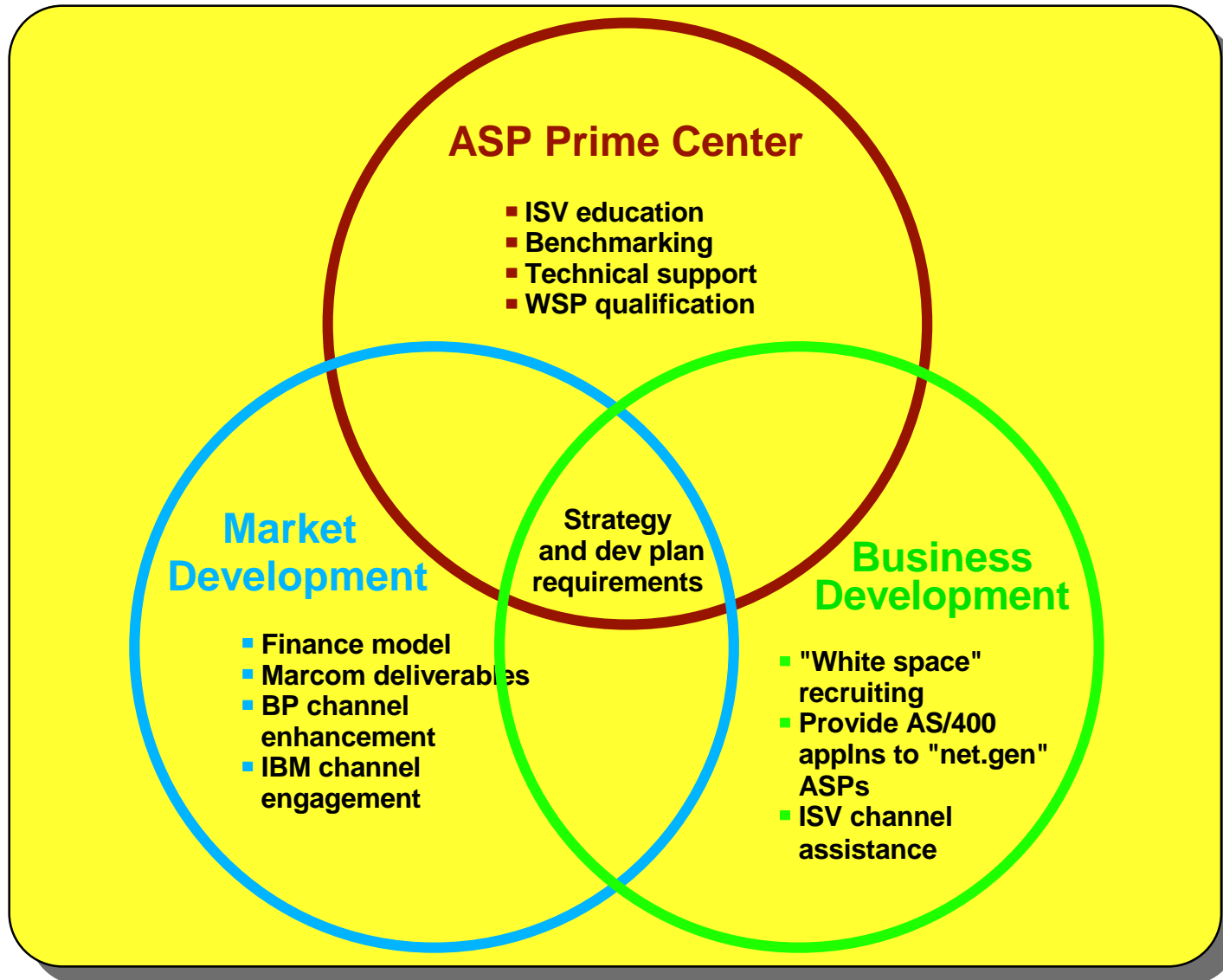
## System security

- Single level store
- Object structure
  - programs
  - files
  - users
- Integrated

# AS/400 ASP strategy

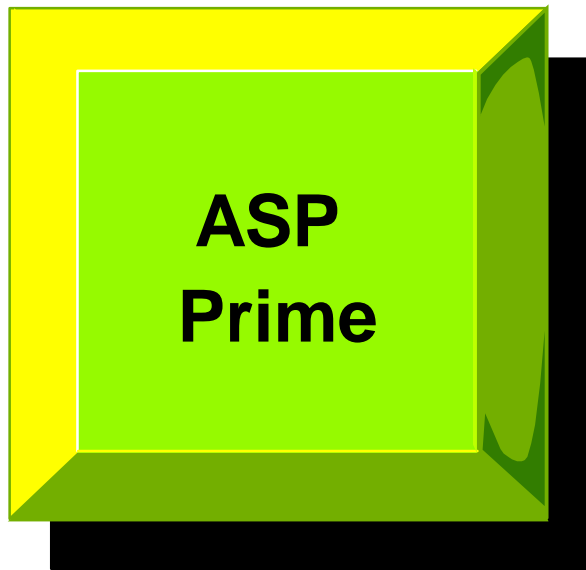


# ASP solution segment structure



# *Support for Business Partners*

---



**Enable ISV applications  
for ASP Model**



**Build customer confidence  
in network delivered  
applications**

# ASP Prime Solution Center for AS/400

## Five-Phase Program to enable ISVs for ASP



**Launch**

Joint marketing with eligible partner

**Host**

Link ISV to qualified IBM Hosting Partners or assist ISV to build own hosting

**Enable**

Enable application for ASP delivery: Billing, User Provisioning, Scalability, Benchmarking SLM, Security, Network Testing, etc

**Assess**

Determine if ISV application is ready to enable for ASP model

**Educate**

What is the ASP model? What do ISVs need to know? ASP deliverables, white papers, consultant reports, AS/400 advantages

[www.as400.ibm.com/developer/asp](http://www.as400.ibm.com/developer/asp)

[www.ibm.com/solutions/isp](http://www.ibm.com/solutions/isp)

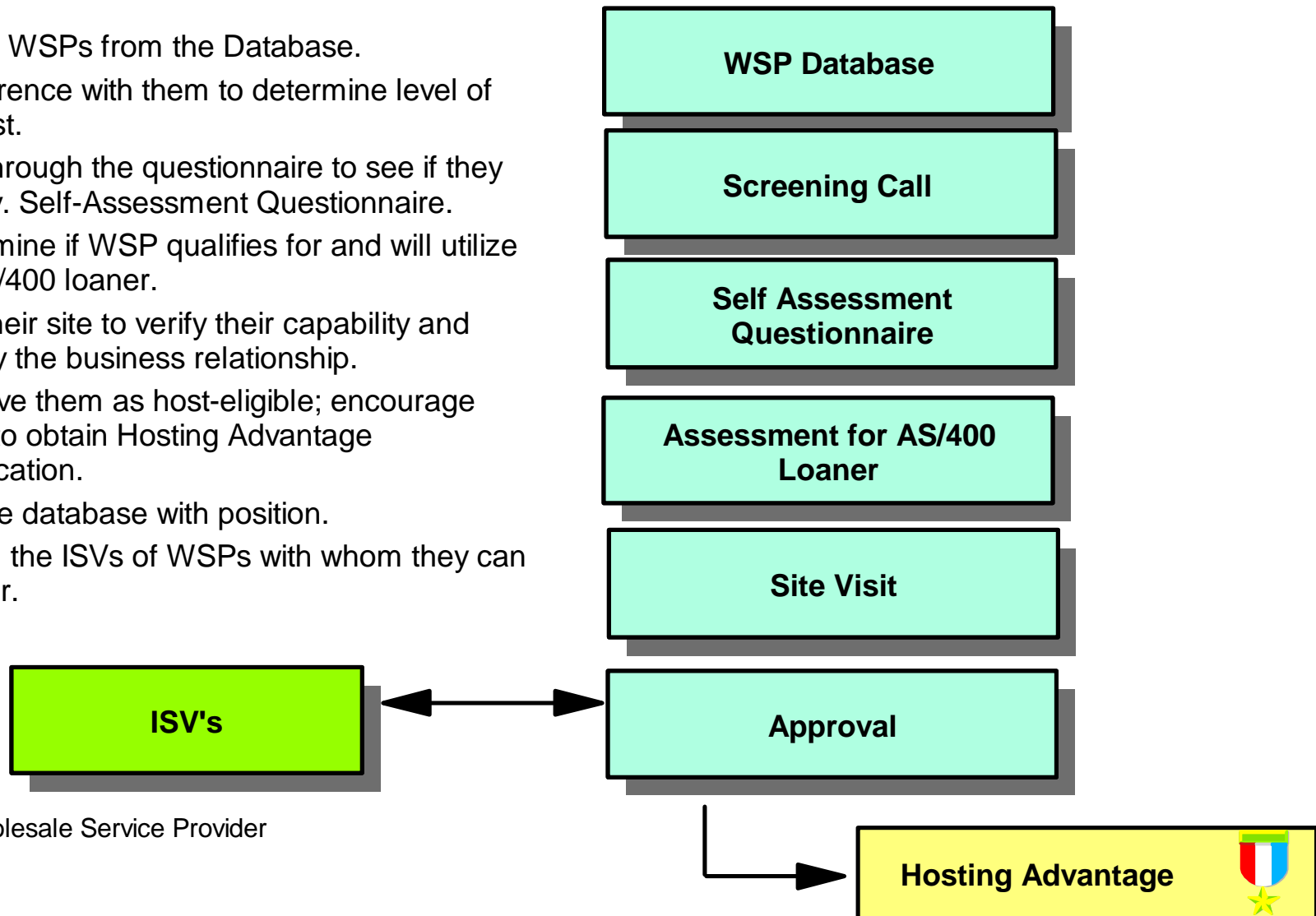
**AS/400e**

# Sample of AS/400 ASPs

Partner	Industry
Actionware	CRM
Adware	Advertising
Alltel	Wholesale Banking
American Software	SCM Discrete Mfg
Butler & Curless	Wholesale Distribution
CTI Limited	Real Estate
Data Proc Services	Wholesale Distribution
FISERV - NDP	Insurance
Infinium	ERP
INSpire	Insurance P&C
IP400	Tools/Trucking
Kingland Systems	Securities
Neller Software	HR/Payroll
PBM	Healthcare
PMSC	Insurance
SMS	Healthcare
Solution 6	Accounting
West Palm Beach Tech	e-commerce
WorldShare	e-commerce

# Qualifying the WSPs\*

- Select WSPs from the Database.
- Conference with them to determine level of interest.
- Run through the questionnaire to see if they qualify. Self-Assessment Questionnaire.
- Determine if WSP qualifies for and will utilize an AS/400 loaner.
- Visit their site to verify their capability and solidify the business relationship.
- Approve them as host-eligible; encourage them to obtain Hosting Advantage Certification.
- Update database with position.
- Inform the ISVs of WSPs with whom they can partner.



\*Wholesale Service Provider



# ASP Prime Center Services

## ASP application enablement



Servlets, JSP  
EJB  
San Francisco  
Java tools



Application development  
Configuration and maint



Globalization

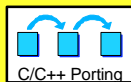
**Enterprise Integration**  
Net.Data  
MQ Series  
XML  
HTTP  
CGI  
Security  
Net.Commerce  
Payment Servers



Clustering  
High Availability  
LPAR



Security



C/C++ Porting

### Business Intelligence

Appl development  
Teraplex center



## Benchmark center testing



## Data center partnerships

**SUNGARD**

SunGard Data Systems Inc



Prominic.NET, Inc



Data Processing Services, Inc



Berbee Information Networks Corp

**DIGICA**

Digica



ACS Enterprise Solutions, Inc.

## Application design consulting

- Running multiple companies and solution tiers on a single system
  - Logical Partitioning support (LPAR)
  - Domino Partitioning
  - Usage Accounting
- Application design for distributed computing
  - Thin client, multi-tier, threaded structure
  - Authentication and privacy for the clients
- Quality of service options
  - High availability enablers and BP solutions
  - Clustered systems certification
  - Backup and recovery systems
  - Network and application monitoring

# WSPs that support AS/400

## **SunGard Data Systems Inc**

Broad hosting experience with industry expertise in investment support systems.  
[www.sungard.com](http://www.sungard.com)

## **Prominic.NET, Inc**

AS/400 hosting experience with Domino for workgroup and e-commerce solutions  
[www.prominic.com](http://www.prominic.com)

## **Berbee Information Networks Corp**

AS/400 hosting experience, industry interests are Transportation, SMB banking, Retail, Real Estate  
[www.berbee.com](http://www.berbee.com)

## **Digica**

Extensive AS/400 outsourcing experience in the UK for many years  
[www.digica.com](http://www.digica.com)

## **eviciti corp.**

AS/400 hosting experience with Domino for e-business and electronic commerce.  
[www.evicitic.com](http://www.evicitic.com)

## **DPS**

### **Data Processing Services, Inc**

AS/400 hosting experience, with industry expertise in distribution and financial mgmt

[www.dpslink.com](http://www.dpslink.com)

## **ACS Enterprise Solutions, Inc.**

AS/400 hosting experience, with industry expertise in state and local government and healthcare  
[www.acs-enterprisesolution.com](http://www.acs-enterprisesolution.com)

## **JJ Croney & Associates**

Broad hosting experience on AS/400 in outsourcing now adding WSP services.  
[www.jjcainc.com](http://www.jjcainc.com)



# About \$3 A Day

## Isn't it time your information was accessible ANYWHERE AND ANYTIME?



- [Welcome](#)
- [Main Menu](#)
- [Connectivity](#)
- [FuelPricing](#)
- [HostFunction](#)
- [Links](#)
- [Pricing](#)
- [Technology](#)
- [Security](#)



**StoreReport** is a set of integrated computer programs, accessible via the Internet, offering convenience store operators and oil marketers an alternative to having expensive and troublesome computer equipment installed in their stores and offices.

**StoreReport** is Year 2000 compliant and based on the latest state-of-the-art technology, but **StoreReport** is not new. Our customers have been using these very same programs for many years to collect their convenience store data and run their businesses. Therefore the system has gone through 19 years of exhaustive testing at hundreds of locations and it has saved our customers thousands of hours of data entry time. For example - with the convenience store interface alone, one of our customers reduced their office processing time for 13 stores from 16 man-hours a day, to 1.5 man-hours a day. Since then, they have expanded to 22 locations and process all of their store business each day in the same 1.5 hour period with fewer employees. It really works!



With StoreReport, you will be able to log onto the Internet, enter your daily business and print financials and inventory reports on your own office printer. This is done in a totally secure environment, offering the kind of security you never dreamed possible. Your valuable information will be encased in **an impenetrable tunnel of security**, accessible only by the persons you specify. Store and office employees need not have access to your financial data and reports. They will only see what you see here. Sensitive financial information is available only on the host system through 'unique object authorities'. A different security

**WebDesign by ScotSystem Inc.**

Copyright 1999, ScotSystems Inc. All Rights Reserved



[Welcome](#)  
[Main Menu](#)  
[Connectivity](#)  
[FuelPricing](#)  
[HostFunction](#)  
[Links](#)  
[Pricing](#)  
[Technology](#)  
[Security](#)

## The host computer -



For our secure Enterprise Host, we have chosen the IBM AS/400e Server Model 720. IBM's AS/400 is the world's most popular multiuser business computer, with over 600,000 sold throughout the world. It's sold in over 120 countries, installed in 98 percent of Fortune 500 companies, and enabled in 49 national languages.

A single AS/400 can simultaneously run all the applications we need. Try that on a PC server, and you'll often get substandard performance and system crashes. We can manage everything on one easy-to-manage AS/400.

All AS/400 software is monitored by a single integrated security system that protects all critical facilities. By contrast, many servers have multiple security systems

that don't use the same rules or share information with each other. This lets hackers break through their defenses. No wonder you never see the words "computer virus" or "security breach" when you read about AS/400.

Many small and midsized businesses grow much more rapidly than their larger counterparts



# *Technical and Service Support*

---

- Leading Customer Satisfaction
- Key contributor to our extremely high customer loyalty
- Support that leads the industry in 24x7 nonstop operations
- Comprehensive electronic support
  - PM/400
  - e.Service
- Automation in problem detection and resolution
  - Service Director/Service Agent
  - Knowledge-based systems
- Education and training to meet your technical skill needs
- Large breadth of skills to implement total solution
  - AS/400 Service Provider Network (ASPN)
- Service Suite Advance
- Service Manager Program
- For further information on Technical Support: [www.as400.ibm.com/Support](http://www.as400.ibm.com/Support)

# ***AS/400 End User PC Support for ASPs***

---

- IBM Global Services will provide remote telephone support designed to support YOUR ASP PC users and PC applications.
  - Problem analysis
  - Solution coordination
  - Trend management information
- Pricing
  - By call
  - By Blocks of Problems

***Win-Win: You offer the service, IGS does the work!***

# ***AS/400 Marketing Activities***

---

- Designated VAE for ISP/ASPs
- Whitepaper by Meta Group
  - "AS/400: Opportunity for ASP's and ISV's"
- 2% leasing or Rent to Own Financing\*
- ASP AS/400 Website
- Customer Positioning Flyer
- Rochester Advocate Program

\*Currently US Only

AS/400e



**"You miss 100% of the shots  
you never take."**

**- Wayne Gretzky**



IBM AS/400e @ business servers. Technology. Innovation. Magic.