



International Technical Support Organization

IBM System z9 Workshop



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IBM System z9 - Positioning

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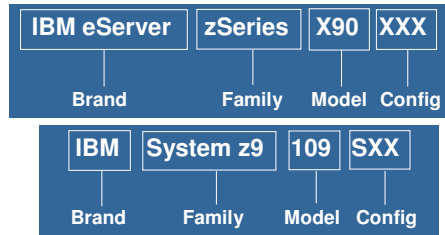
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Agenda



IBM System z9 109 – Naming Guidelines

Quick Reference: Before & After



Naming Summary

- Brand Name: **IBM**
- Product Class: **IBM mainframe**
- Family Name: **IBM System z9**
- Family Short Name: **System z9**
- Model Name: **IBM System z9 109**
- Model Short Name: **z9-109**
- Config Models: **S08, S18, S28, S38, S54**



Positioning

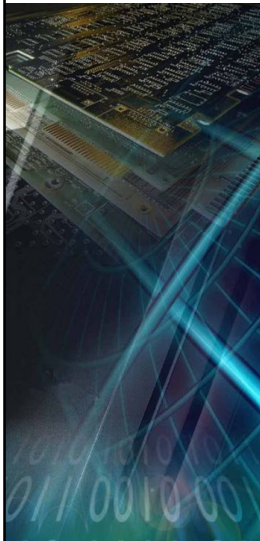
Reasons for the new Server



Benefits to the Customer

Reasons for the IBM System z9

Leadership in Systems Innovation



- **New innovations in business resiliency help to keep your business secure and provide peace of mind**
 - Helping to keep your applications protected against planned and unplanned outages
 - New security options help to tighten system security
- **IBM System z9 advanced virtualization and intelligent workload management help you maximize resources**
 - Z9-109 offers improved scalability, increased logical partitions and management of specialty engines
- **The IBM System z9 environment provides the ability to integrate applications and data**
 - Specialty engines can provide price/performance improvements
 - Upgradeability options to z9-109 help provide investment protection

Announcing the IBM System z9

Delivered via a holistic approach to systems design

- **Built on IBM's industry-leading mainframe technologies**

- Virtualization of key resources
- Resiliency and security
- Intelligent workload management
- Data, transaction and application integration



- **Holistic systems design featuring**
- **Delivered through IBM's new systems approach**

- An all-new server designed to be more:
 - Secure
 - Available
 - Scalable
- Announcing new software designed to further:
 - Integrate applications and information
 - Enable resiliency across the enterprise
 - Manage the breadth of the infrastructure
 - Simplify IT operations
- Working with networking and storage to help deliver:
 - Improved responsiveness
 - Lower costs
 - Higher availability
 - Better recoverability

Introducing the IBM System z9

The Center of your on demand enterprise



IBM System z9 109 (z9-109) delivers excellence in large scale enterprise computing and is designed and optimized as the hub of the on demand enterprise

- Built on more than 40 years of industry-acknowledged leadership and taking that leadership to new levels
 - Scalability
 - Availability
 - Security
- Breaking new ground
 - Reducing outages to help your business stay always on
 - Greater scalability and performance to grow with your business
 - Flexibility to efficiently respond to your business needs

IBM raises the standard – again !

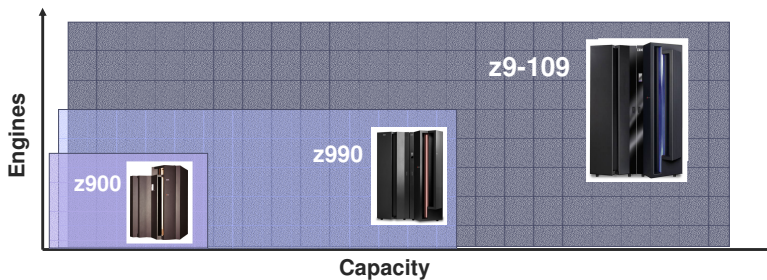
z9-109 Benefits to the Customer

■ Delivering new levels of scalability

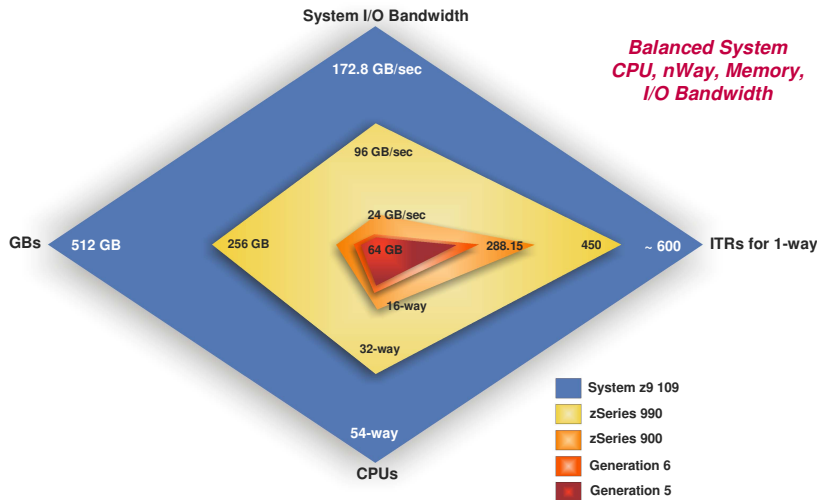
- Built on modular book design – one to four books
- Five models with one machine type
 - 1 to 38-way high performance server (four models)
 - Up to 54-way enhanced model for maximum capacity
- Two spare processor units per server for better utilization of resources
- Expanded memory – up to 512 GB per server
- Multiple Subchannel Sets (MSS) for greater addressability
- Up to 60 logical partitions (2X improvement)

■ Improved I/O Performance

- Up to 80% more bandwidth than the IBM eServer zSeries 990 (z990)
- Improved FICON performance with Modified Indirect Data Address Word (MIDAW) facility



System z9 and zSeries: Balanced System Design



z9-109 Providing new levels of Availability



- **New enhanced book availability and redundant I/O interconnect – increasing z9-109's availability by helping to avoid unplanned outages:***
 - Enhancing recovery of resources
 - Improving ability to nondisruptively add and repair memory resources
- **Improving the application of hardware driver maintenance:***
 - Potentially reducing planned outages using enhanced driver maintenance
- **Extending capability for Capacity Backup Upgrade (CBU) to include specialty engines**
- **Improving memory availability with flexible memory offering**

*Customer pre-planning is required and may require purchasing additional hardware resources

z9-109 Enhancing security



- ★ ■ **New integrated cryptography features offer more security options on z9-109**
- ★ ■ **CryptoExpress2 feature offers configurability option on z9-109 for the PCI-X adapters to be defined as either two coprocessors, two accelerators or one of each**
- **Continuing to focus on higher levels of certifications and compliance with industry standards**
- **Expanding on virtualized cryptographic capabilities for card sharing by Linux virtual servers**
- **Combining IBM technology and vendors' advanced security solutions can help to enable a cross-platform model where RACF® security capabilities may be extended to the entire enterprise**
- **IBM and vendors software may provide the capability of integrating security enforcement across the networking enterprise**

z9-109 Delivering enhanced connectivity for the system

Within the server, between servers, to the data and to the network

Within the Server

- Network in a box with HiperSockets
- Integrated console controller
- Integrated communications controller support (OSA for NCP) ★

To the Data

- Up to 336 FICON or 1024 ESCON channels ★
- Channel Virtualization for Open FCP ★
- FICON performance improvement with MIDAW facility ★

To the Network

- Performance assists for z/VM ★
- HiperSockets IPv6 support ★
- New 1000BASE-T support ★
- VLAN Mgmt - GVRP ★

For clustering

- Parallel Sysplex®
- Preview STP ★



THE END