IRM

# Fit For Purpose for Architects: Selecting the Right Platform

William M. Cathcart Executive I/T Architect wcathcar@us.ibm.com 860.881.3722



© Copyright IBM Corporation, 2010

# **Platform Selection Factors**

- Technical
  - Functional requirements
    - Use cases
  - Non-functional requirements
    - Performance
    - Scale
    - Availability
    - Manageability
    - Security
    - Etc.
- Non-Technical

\_

- Cost (TCA & TCO)
- ISV support
- Skills
- Standards
- Politics
- Etc.

**Platform Strengths** 

Workload Types

**Deployment Models** 

### **Platform Selection Factors**

- Technical
  - Functional requirements
    - Use cases
  - Non-functional requirements
    - Performance
    - Scale
    - Availability
    - Manageability
    - Security
    - Etc.
- Non-Technical

\_

- Cost (TCA & TCO)
- ISV support
- Skills
- Standards
- Politics
- Etc.

### **Platform Strengths**

- x86
  - Granularity
  - User interface
  - Commodity servers
- POWER7
  - Compute intensive
  - Parallel processing
  - High performance
- System z
  - Mixed workloads
  - High I/O
  - Scalability
  - Security

# Workload Types

**Deployment Models** 

### **Platform Selection Factors**

- Technical
  - Functional requirements
    - Use cases
  - Non-functional requirements
    - Performance
    - Scale
    - Availability
    - Manageability
    - Security
    - Etc.
- Non-Technical

\_

- Cost (TCA & TCO)
- ISV support
- Skills
- Standards
- Politics
- Etc.

#### **Platform Strengths**

- x86
  - Granularity
  - User interface
  - Commodity servers
- POWER7
  - Compute intensive
  - Parallel processing
  - High performance
- System z
  - Mixed workloads
  - High I/O
  - Scalability
  - Security

# Workload Types

# **Deployment Models**



Virtualized

#### **Platform Selection Factors**

- Technical
  - Functional requirements
    - Use cases
  - Non-functional requirements
    - Performance
    - Scale
    - Availability
    - Manageability
    - Security
    - Etc.
- Non-Technical
  - Cost (TCA & TCO)
  - ISV support
  - Skills
  - Standards
  - Politics
  - Etc.

#### **Platform Strengths**

- x86
  - Granularity
  - User interface
  - Commodity servers
- POWER7
  - Compute intensive
  - Parallel processing
  - High performance
- System z
  - Mixed workloads
  - High I/O
  - Scalability
  - Security

#### Workload Types

#### Transaction Processing and DBs

- High transaction rates
- Highest QOS
- Shared data
- Web and Collaboration
  - Scale out
  - High throughput
  - Highly threaded
- Business Applications
  - Scalability
  - High QOS
  - Memory intensive
- Data Warehouse and BI
  - Compute intensive
  - Memory intensive
  - Scale out

# **Deployment Models**





OS	OS	OS
UI	App	Data

Dedicated

Virtualized

#### **Platform Selection Factors**

- Technical
  - Functional requirements
    - Use cases
  - Non-functional requirements
    - Performance
    - Scale
    - Availability
    - Manageability
    - Security
    - Etc.
- Non-Technical
  - Cost (TCA & TCO)
  - ISV support
  - Skills
  - Standards
  - Politics
  - Etc.



# Platform Strengths

- x86
  - Granularity
  - User interface
  - Commodity servers
- POWER7
  - Compute intensive
  - Parallel processing
  - High performance
- System z
  - Mixed workloads
  - High I/O
  - Scalability
  - Security

#### Workload Types

- Transaction Processing and DBs
  - High transaction rates
  - Highest QOS
  - Shared data
- Web and Collaboration
  - Scale out
  - High throughput
  - Highly threaded
- Business Applications
  - Scalability
  - High QOS
  - Memory intensive
- Data Warehouse and BI
  - Compute intensive
  - Memory intensive
  - Scale out

**Deployment Models** OS OS OS OS OS OS OS UI UI App UI Data Data Data App Abr **Hypervisor** Dedicated Shared Virtualized

#### **Platform Selection Factors**

- Technical
  - Functional requirements
    - Use cases
  - Non-functional requirements
    - Performance
    - Scale
    - Availability
    - Manageability
    - Security
    - Etc.
- Non-Technical
  - Cost (TCA & TCO)
  - ISV support
  - Skills
  - Standards
  - Politics
  - Etc.

# zEnterprise System

### **Sample Application**

**Platform Strengths** 

- x86
  - Granularity
  - User interface
  - Commodity servers
- POWER7
  - Compute intensive
  - Parallel processing
  - High performance
- System z
  - Mixed workloads
  - High I/O
  - Scalability
  - Security

#### Workload Types

- Transaction Processing and DBs
  - High transaction rates
  - Highest QOS
  - Shared data
- Web and Collaboration
  - Scale out
  - High throughput
  - Highly threaded
- Business Applications
  - Scalability
  - High QOS
  - Memory intensive
- Data Warehouse and BI
  - Compute intensive
  - Memory intensive
  - Scale out

