

**IMS Connect Benchmark
On
IBM System z10 Enterprise Class**

October 2008

**IBM
IMS Product Development
Silicon Valley Laboratory
San Jose, California**

IMS Connect Benchmark on IBM System z10 Enterprise Class

Introduction

IMS Connect provides high performance communications for IMS between one or more TCP/IP or local OS/390 or zOS clients and one or more IMS systems. This paper documents the performance characteristics of IMS Connect with emphasis on total transaction rate achieved within IMS V10, IMS Connect with the performance APAR PK57574, and IBM system z10 Enterprise Class model E56 with zOS 1.9 environment.

Environment

Hardware and Software Environment	
Processor:	IBM System z10 Enterprise Class Model E56
DASD:	IBM System Storage DS8000 Turbo (2107-F21, 8100 Model) IBM TotalStorage Enterprise Storage Server (ESS) 2105 Model 800 36GB 15K RPM disk drives, 4 FICON channels, 8 LSS, 16 Ranks, Volume config = 3390-9 , 7 PAVs per real volume
Operating Systems/Software:	z/OS V1R9, IMS V10R1, TPNS V3R5

Testing Scenarios:

IMS V10 and IMS Connect, executed on a LPAR of IBM System z10 Enterprise Class Model E56, providing processing capability for transactions from TPNS networks. The Networks executed on a separate LPAR of IBM System z10 Enterprise Class Model E56.

- LPAR 1
 - SingleIMS system
 - OTMA
 - 56 IFP regions
 - SingleIMS Connect
- LPAR 2
 - TPNS
 - TPNS simulated the network
 - The network comprises 10,000 IMS Connect clients

Results

With this configuration, IMS V10 and IMS Connect were able to achieve the high transaction rate of 14,200 transactions per second - ***Currently the highest transaction rate achieved in IMS V10 and IMS Connect Environment.***

During the benchmark study the following information was obtained:

- Transaction Rate - 14,200 transactions per second
- DASD I/O Rate - 19,728 I/Os per second
- CPU Utilization Percentage - 66.3 percent of five dedicated processors.
- IMS Connect CPU Utilization - 3.0 service unit

per transaction

Summary

IMS Connect demonstrated the performance improvement over the previous benchmark:

- ▲ 25 percent higher in the transaction rate
- ▲ 16 percent reduction in the CPU utilization per transaction

The improvements were attributed to IMS V10 performance APAR PK57574 and IBM System z10 Enterprise Class with zOS 1.9.