Infor XA on IBM POWER7+ and IBM i 7.1

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Introduction

This paper describes testing that was done with Infor XA 9.5 on the IBM® POWER7+ 720™ and the IBM i 7.1™ operating system. This report highlights the benefits of the latest IBM POWER7+® technology and shows how runtime performance on the new POWER7+ has improved over a similarly configured POWER7® system.

Overall the results show an average of 36% improvement with the latest POWER7+ processor over a comparable POWER7 model. Thus a significant improvement can be seen when moving to the latest IBM POWER hardware.

Benchmark Methodology

The IBM test team used the Infor XA Benchmark kit for all results in this report. The benchmark kit uses a load generation tool to simulate a number of virtual users, or vusers, running a set of common transactions at a reasonable rate though Infor XA System Link.

The benchmark scenario consisted of 8 separate scripts each script running a specific transaction. This was done to simulate a mix of common Infor XA transactions running on the system. Vusers were distributed equally among the different scripts. The transactions that were simulated were as follows:
1. Customer Order Maintenance
2. Customer Order Maintenance 3
3. Purchase Order Maintenance
4. Manufacturing Order Details
5. Customer Order Details
6. Item Revision List Panel
7. Customer Order List Panel
8. Item Revision Details

In addition the vusers were configured to wait an average of 20 second between each iteration to try and simulate a reasonable customer like think time. However, this value may not be representative of all customer environments since think times can vary greatly.

IBM POWER7 Results

System Configuration:
POWER7 750:
Model: IBM POWER7 750, Edition Feature: 8334
Number of Processors: 2, Chip Speed: 3.0 GHz
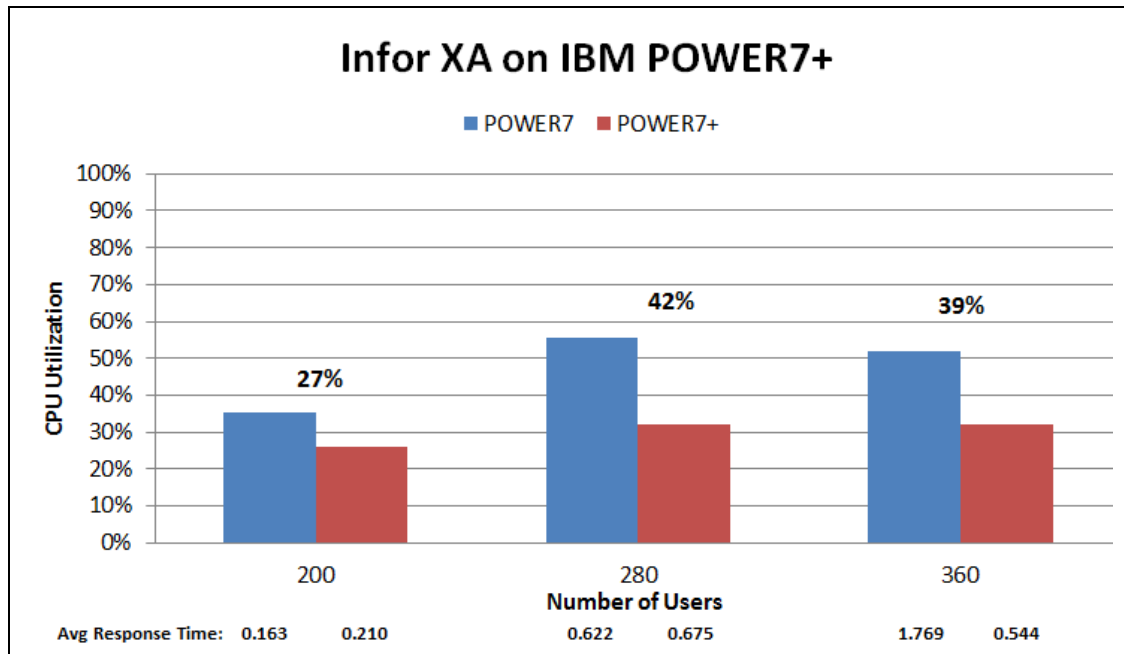CPW rating: ~ 11,400 (approximate)
Memory: 32 GB
Disks: 36 arms(type 198B), 15k rpm, 70GB capacity, single ASP with device parity protection
Disk IOP: Disks spread across four dual 574E IOAs (380 MB write cache)
Network: 1Gbps Ethernet, full duplex

POWER7+ 720:
Model: IBM POWER7+ 720, Edition Feature: EPCM
Number of Processors: 2, Chip Speed: 3.612 GHz,
CPW rating: ~ 14,350 (approximate)
Memory: 32 GB
Disk: 8 arms (type 19A1), 15k rpm, 283GB capacity, single ASP with device parity protection
Disk IOA: Disks spread across a 57CB and 2B4C IOA (175 MB write cache)
Network: 1Gbps Ethernet, full duplex

Results:

The chart below shows the results for the new IBM POWER7+ system versus a similarly configured IBM POWER7 system. As the chart shows an average of a 36% less CPU is used on the new IBM POWER7+ system for same number of users that was run on POWER7 In addition when comparing the CPW difference between the POWER7 and POWER7+ systems that would indicate an expected 26% difference. Hence the 36% improvement shown in the result below is better than what CPW projects.

Note: Average response times were sub second for all POWER7+ runs.

Version: January 3, 2013
www.ibm.com/support/techdocs
Infor XA on IBM POWER7+ and IBM i 7.1   Page 5 of 7

Summary

As the results in this paper have shown, Infor XA 9.5 sees significant performance benefit when moving to the latest IBM POWER hardware.

Overall the results show an average of 36% improvement with the latest IBM POWER7+ system model over a comparable IBM POWER7 system. Thus a significant improvement can be seen when moving to the latest IBM POWER hardware.
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