

# Intel and UFIDA Advance Scalability and Performance of a Large-Scale ERP Application



Record breaking performance on UFIDA ERP application with the help of Intel® Xeon® Processor 5500 Series

UFIDA is the largest management software, ERP software and financial software supplier in the Asia-Pacific and China. UFIDA's three major lines of products: ERP/enterprise management software, group enterprise and industry solutions, SMB management software and online service, cover a wide spectrum of industries, scales of enterprises and growth stages. UFIDA has the most powerful enterprise management software R&D system, the largest scale support, implementation and training service network and the most integral industrial ecological system in China and the Asia-Pacific.

## Introduction

The ongoing convergence of global business has resulted in the development of multi-entity organizations that gain competitive strength through cooperative relationships with partners, distributors and suppliers. Managers of these organizations require a central location to obtain the current business or financial status of any affiliate, on demand. In this environment, an effective management model must be unified, dynamic, and accountable and built in a group financial management mode. The information platform supporting this model must allow for centralized management and business collaboration. These form the core of NC Collaboration Suite (NC), an advanced international enterprise application suite supporting centralized data and information flow across multiple entities.

Now UFIDA and Intel® Xeon® processor-based servers bring the full power, performance, and scale of the NC Collaboration Suite to mainstream, making the benefits of this application more available and efficient than ever. This paper discusses how NC Collaboration Suite benefited from Intel® Xeon® processor 5500 series and achieved record breaking performance that translates to being able to support several thousands of users.

## Product Overview

NC Collaboration Suite is UFIDA's ERP solution for multi-entity and collaborative businesses. It promotes an advanced concept of management in which a series of localized,

industry-specific operational solutions are augmented by intuitive Business Intelligence (BI) and financial solutions. It was engineered for high scalability, dynamic configuration, and transparent integration.

## Key Features of NC

- NC Collaboration Suite was engineered for multinational use and local acceptance. It enables an enterprise to efficiently implement and productively utilize the solution in each of its markets.
- The browser-based architecture enables worldwide use without duplicating installation.
- The financial accounting subsystem supports international accounting standards as well as country-specific financial requirements, such as those in China.
- User interfaces and reports are multilingual, and can be changed on demand by users.
- Financial data can be displayed and reported in multiple currencies.
- The financial reporting system 100% satisfies the requirements of China's Ministry of Finance.

## Technical Features

- J2EE technical architecture & Advanced JAVA\* technique.
- Full deployment model & EJB configuration.
- Multi-Operating System support including Windows\*, Unix/Linux.\*
- Multi-DB support including DB2, Oracle\*, SQL Server.\*
- Cross-platform application design XML and other format data exchange support WAP, WML and mobile database technology for wireless connectivity via mobile phone, PDA, etc.

## Key Challenge

The key challenge that faced UFIDA NC Collaboration Suite is to be able to provide their customers with appropriate sizing and configuration information that included the number of users that can be supported on a given hardware configuration. Good ERP solution requires support from leading edge technologies and platforms, and being able to handle the varying loads and yet meet the response time requirements. Because of extraordinarily high user base growth rates, UFIDA needed robust and high performing systems that could scale accordingly.

UFIDA's sizing and configuration needs would be resolved with the advent of next generation Intel® Xeon® processor 5500 series based platforms.

*"NC-ERP has gained 3.3 x performance improvements on Intel® Xeon® processor 5500 series. Nehalem is the platform of choice for NC-ERP."*

-Wanjun Zhang, Director for UFIDA Telecom Business Unit

## Intel® Xeon® Processor 5500 Series

To meet “high performance” demands, the Intel® Xeon® processor 5500 series, with next-generation Intel Microarchitecture, codenamed Nehalem, maximizes performance, improves throughput, and adds new embedded technologies that give business, creative, and scientific professionals the tools to solve problems faster, process larger data sets, and meet bigger challenges.

With Intel® Intelligent Power Technology, a new high-bandwidth interconnect architecture, and greater memory capacity, platforms based on the Intel Xeon processor 5500 series will deliver the best possible performance. Servers based on the Intel® Xeon® processor 5500 series have up to 8 computation engines, 16 threads per 2-socket platform with Intel® Hyper-Threading Technology, and more bandwidth than previous generations.

“Taking advantage of Intel® Xeon® processor 5500 series, NC ERP application showed impressively great performance boost compared with previous platform. The result can fully satisfy the strict needs of NC performance for their mid or large-scale enterprise customers, thus can provide the suitable solution with higher performance/price ratio compared with main-frame solution.”

-Hans Lin, Technical Director of UFIDA ERP-NC Department

## How Intel Benefited UFIDA

Intel has been working closely with UFIDA engineers by deploying NC Collaboration suite on the Intel® Xeon® processor 5500 series. In addition, Intel helped UFIDA in defining deployment architecture, creating workloads, identifying performance bottlenecks, resolving software issues and providing UFIDA developers with suggestions to improve the product performance and meet business needs.

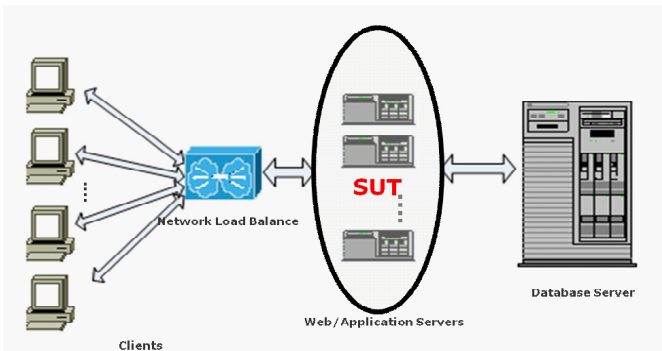


Figure 1: UFIDA NC Collaboration Suite Deployment Architecture on Intel® Xeon® processor 5500 series

Intel and UFIDA engineers were able to achieve a record breaking 3.3x<sup>1</sup> better in performance on the Intel® Xeon® processor 5500 series when compared to the Intel Xeon processor E5540 series. In addition, the Intel® Intelligent Power Technology delivered better performance with lower power consumption at all operating points, delivering as much as 3.01x<sup>2</sup> more performance in a similar power envelope. In addition, Intel engineers helped optimize the NC Collaboration Suite software stack to take advantage of Intel® Xeon® processor 5500 series features including Intel® Turbo Boost Technology, Intel® Hyper-Threading Technology and Intel® QuickPath Technology. The NC Collaboration Suite can now support 2200 concurrent users within the response time window of 30 seconds.

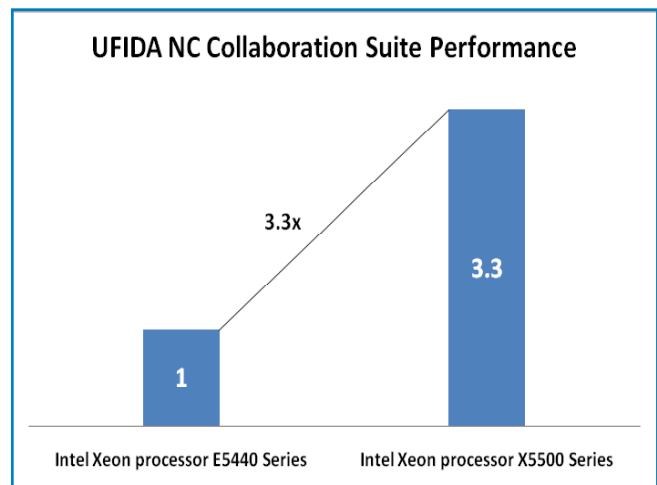


Figure 2: UFIDA NC Collaboration Suite Performance on Intel® Xeon® processor 5500 series

Source: Intel and Customer measurements

## Summary

UFIDA NC Collaboration Suite benefits from the aforementioned results in various ways. For example:

- It allows them to determine how to configure and size their application for their customers.
- Allow users to compare different platforms
- Enable Proof-of-concepts scenarios
- Provide an outlook for future performance levels (new platforms, new servers, and so on)

The primary goal of the UFIDA NC Collaboration Suite solution was to have the ability to provide business continuity under unexpected spikes in customer demand. With a record breaking performance, it helped UFIDA achieve this goal and help provide guidance to customers when deploying the NC Collaboration Suite in customer environments.

In summary, the Intel® Xeon® processor 5500 series with Intel® Intelligent Power Technology delivered exceptional efficiency and flexibility, enabling UFIDA to achieve maximum benefits from this platform.

To learn more about the Intel® Xeon® processor 5500 series, visit <http://www.intel.com/products/processor>

For more information about Intel® Microarchitecture, codenamed Nehalem, visit [www.intel.com/technology/architecture-silicon/next-gen](http://www.intel.com/technology/architecture-silicon/next-gen).

To find out more about UFIDA, visit <http://www.ufida.com>

1 Source: Intel and Customer measurements, February 2009. Intel Xeon Processor X5560, 2.8GHz; 12 GB, 6x2GB DDR3-1066 vs. Intel Xeon Processor E5440, 2.83GHz; 12GB, 6x2GB DDR2-667 FB

2 Source: Intel and Customer measurements, February 2009. Intel Xeon Processor X5560, 2.8GHz; 12 GB, 6x2GB DDR3-1066 vs. Intel Xeon Processor E5440, 2.83GHz; 12GB, 6x2GB DDR2-667 FB

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