



## Success Brief

Intel® Xeon® processor  
5500 series



CONSULTING > SOLUTIONS > OUTSOURCING

“The Intel® Xeon® processor 5500 series will enable us to virtualise even more of our production environment, lowering TCO and improving application performance within the virtualised estate.”

Guy Lidbetter,  
CTO Managed Operations,  
Atos Origin UK

# Superior virtualisation performance

Intel® Xeon® processor 5500 series helps Atos Origin lower total cost of ownership of its data centre environment

### Company

Atos Origin is an international information technology services company. Its business is turning client vision into results through the application of Consulting, Systems Integration and Managed Operations. The Company's annual revenue is EUR 5.5 billion and it employs 50,000 professionals in 40 countries. Atos Origin is the Worldwide Information Technology Partner for the Olympic Games and has a client base of international blue-chip companies across all sectors.

### Challenge

Atos Origin's highly successful outsourcing operations manage core IT infrastructures for clients. To help maximise use of available data centre space and to reduce power consumption and associated costs, Atos Origin virtualises as much of its server environment as possible. At present, due to performance limitations and the need to adhere to customers' strict Service Level Agreements (SLAs) it runs, on average, four to six Virtual Machines (VMs) per physical server in its production environments. To increase this number further, and with a view to extending the virtualised environment to run more mission-critical applications, Atos Origin was keen to evaluate the advanced performance and virtualisation capabilities of the Intel® Xeon® processor 5500 series.

### Solution

Using Intel's vConsolidate benchmark and build #140815 of VMware's ESX server (still under development), Atos Origin compared the performance of the Intel Xeon processor 5500 series with four cores to that of the previous-generation Intel® Xeon® processor 5100 series with just two cores. It found, on average, 2.4x greater transaction throughput running a web server, 1.75x running a database server and 1.25x running an email server. In addition, average power consumption was up to 20 per cent lower for high loads, and it demonstrated the potential to support up to 20 VMs per server against a peak of nine for its predecessor.

### Benefits

Thanks to its superior performance, processor memory and I/O subsystem design, the tests performed indicate that Intel Xeon processor 5500 series will allow Atos Origin to more than double VM density. Together with greater energy efficiency thanks to automated energy controls, this results in a higher number of VMs per Watt, helping to lower running costs and energy consumption. Improved performance from Intel® Virtualization technology (Intel® VT-x), will also enable Atos Origin to extend virtualisation to intensive I/O applications such as email and enterprise databases. Denser virtualisation of the server estate will enable more consistency in server management and administration, realising time savings and improved availability from the pooled capacity. The Intel® Xeon® processor 5500 series can also be expected to realise software licensing benefits with the ability to run more VMs, and therefore applications, per CPU socket. Combining these benefits, Atos Origin expects to lower the total cost of ownership across its worldwide virtualised data centre environment.

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