CASE STUDY
Intel® Atom™ Processor C2750
Data Center Efficiency
Server Performance
Communications/Media



1&1 and Intel create a winning formula in the dedicated server market segment

One of the world's leading hosting providers creates a best-selling server package with the Intel® Atom™ processor C2750





"The Intel® Atom™ processor C2750 gives our customers the performance and reliability of a true server processor at a much more competitive price point."

Hans Nijholt, Head of Product Management, Servers 1&1 1&1 has become a leading provider of Web hosting and dedicated servers by investing in the latest technology and ensuring its services remain in line with customer demand. Its recent service offering – a dedicated server package based on the Intel® Atom™ processor C2750 – has become an instant best-seller in its market segment, hitting customers' sweet spot for price and performance while enabling 1&1 to increase server density and reduce data center power consumption.

Challenges

- Market segment positioning. Maintaining a world-leading position in the Web hosting and dedicated server market segments
- Customer service. Ensuring their portfolio of products and services continues to meet the demands of a diverse customer base
- Performance and price. Guaranteeing performance at a lower price point for small to medium-sized businesses
- Cost efficiency. Controlling costs and maximizing output across data centers worldwide

Solutions

- New technology. Dedicated server package powered by the Intel Atom processor C2750
- Powerful performance. Eight-core system on a chip that offers an attractive price-performance ratio
- Innovation in data centers. Translating performance, price and power consumption of tablet processors to the world of dedicated servers
- Targeted solution. Enables development of dedicated server customer packages for smaller businesses without compromising performance

Technology Results

- Power consumption. Internal tests show reduced power consumption from a typical 100W per processor to a maximum of 30W per server
- Predictability and planning. More predictable power consumption to aid improved capacity and cooling planning
- Lower latency. System on a chip (SoC) offers direct access to peripheral components
- Highly scalable. True eight-core processors in an entry-level dedicated server

Business Value

- Server density. Greater server density made possible to maximize available data center capacity
- Market share. Potential to significantly grow customer base as well as converting existing clients
- Customer satisfaction. Delivering the right price-performance ratio for a diverse range of clients



A complete family of processors for a complete portfolio of dedicated servers and Web hosting solutions

A world-beating leader in Web hosting and dedicated servers

In little more than 12 years, 1&1 has achieved an enviable position in Web hosting. The company's vital statistics paint an impressive picture: more than 13 million customers; 19 million registered Web domains; 2.7 million websites hosted; 9.5 million emails sent; 6,480 people, including 1,900 developers, employed.

The company attributes its success to two critical strategies. The first is its focus on flexible and affordable flat-rate solutions for small offices, home-based users, ambitious entrepreneurs and small to medium-sized companies. The second is to commit the company to investing in the development of new technologies and products. These twin pillars have ensured that 1&1 remains at the forefront of a very demanding industry.

Data center consolidation, consumption and cooling

1&1 has demonstrated its commitment to the cutting edge with its recent decision to offer customers a dedicated server package based on the Intel Atom processor C2750. The A8i* package from 1&1 is targeted at small to medium-sized businesses. It allows customers to rent dedicated servers and router and domain access to use for standard applications.

As Hans Nijholt, head of product management, servers, at 1&1, explains, the move was part of the company's natural evolution. "We are continually reviewing our portfolio of services to ensure we remain in sync with the latest CPU developments. We want to ensure our customers always receive the best products for their needs, based on secure, strong and reliable servers – and the latest proven technology. The Intel Atom processor C2750 is aligned with current trends in Web hosting. It meets changing demands from customers and delivers customer satisfaction. Adopting it was a logical step for us."

for the embedded market segment, where performance-per-watt and size of CPU are the most critical factors. Bringing that technology to the server market segment offers similar advantages. The Intel Atom processor C2750 has extremely low power consumption, both at load and at rest. Internal tests at 1&1 showed previous processors operating at approximately 100 watts compared to the Intel Atom processor C2750, which uses a maximum of 30 watts.

The Intel Atom processor was initially developed

In addition, the Intel Atom processor C2750 offers highly predictable power consumption. Not only does it make capacity and cooling planning much easier for 1&1, it also allows the company to operate its data centers – in both Karlsruhe and Kansas – with a much higher server density. The result is an extremely cost-effective and highly reliable service that appeals to price-sensitive customers.

Intel Atom processor family and the power of server performance

What 1&1 customers are really interested in is performance. The Intel Atom processor C2750 is an eight-core system on a chip that offers a very attractive price-performance ratio. Server packages based on the Intel Atom processor C2750 have less connectivity delays than traditional build servers.

Nijholt says: "Getting the right CPU for the right server package is an essential part of our business. Traditional server processors have the flexibility to handle a wide range of workloads and peak demands. But not everybody wants or needs that extensive capability. In fact, certain workloads – such as basic dedicated hosting, entry-level static Web serving and simple content delivery – can be hosted more efficiently on larger numbers of smaller servers built for extreme power efficiency.

"That's where the Intel Atom processor C2750 comes in," he continues. "It gives our customers the 24/7 performance and reliability of a true server processor at a price point that is right for our smaller customers."

Collaboration for long-term success

The decision to deploy the Intel Atom processor C2750 is the latest step in a long-term relationship between 1&1 and Intel. 1&1's developers collaborate with Intel's and receive both hardware and software support. 1&1 sees the advantage of working with Intel not just in the development of its technology, but also in its reputation as a business.

Lessons Learned

The Intel® Atom™ processor C2750 enables 1&1 to offer small to medium-sized businesses a cost-effective, dedicated server package with the advanced performance and reliability of an enterprise server. Since its launch two months ago, the A8i* dedicated server package has become an instant bestseller in its market segment, where it is now one of 1&1's most popular dedicated server packages.

Nijholt explains: "We provide what is often a business-critical service to very smart and very aware clients. They aren't prepared to compromise and want to know they can rely on our service. The Intel name and reputation carries a great deal of weight. Many of our clients are reassured by knowing that our dedicated server package is powered by Intel® processors. It's certainly a positive aspect in our business development strategy."

Continuing the relationship with Intel, 1&1 has recently launched a new dedicated server package for more advanced applications. The X4i* package is based on the latest-generation Intel® Xeon® processor E3-1270 v3 product family together with two Intel® Solid-State Drives DC S3500 series, selected for their advanced reliability and superior data protection capabilities. 1&1 has developed the X4i* package to offer its customers superior performance that is substantially faster than a standard hard disk.

"The X4i package is a great opportunity for our customers to get superior performance that is substantially faster than a standard hard disk. We have very high hopes for it," says Nijholt. "Together with the A8i dedicated server package, we have an exciting portfolio of offerings to take to market this year. A8i has already helped us increase our share of the market segment, with many of our clients adopting it in two months. We expect the X4i package to strengthen our position even further."

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