### Factsheet

# optimize and grow with Escala entry servers

## Innovation, driving up performance and bringing down TCO

Escala reduces TCO through leading performance, highest level reliability, superior security isolation and virtualization efficiency. Escala POWER8-based entry servers deliver unprecedented performance and the flexibility that enables business customers to consolidate AIX and Linux workloads in a virtualized environment while achieving lower total cost of ownership (TCO) with reduced footprint, power and software licenses.

Moreover, Escala entry servers provide, in a compact format, built-in mainframe-level RAS (reliability, availability and serviceability) and security characteristics that are crucial for business critical applicationst.

#### Performance and scalability

Power has earned a reputation for being the most powerful and scalable server architecture. Today Power8 provides highly efficient SMT threading (8 threads per core) as well as best in class IO and memory bandwidth – which makes it the ideal choice as a database platform.

With scalability up to 48 cores and 2x per core performance advantage over competing architectures, the Escala Power8 generation remains the industry benchmark for scale-up and scale-out performance.

#### On-demand, when you need it!

The Escala E5-800 provides ground-breaking high-end features in an entry-level package. It ships with "dark" CPUs and memory, available for immediate activation when the customer situation requires, thus providing true "ondemand" resources.

#### **Better TCO with Escala**

A key differentiator of Escala is its far superior CPU core performance. This can massively impact the software TCO for 'per core' based ISV licenses, such as Oracle, Jboss and many other ISV software solutions.

## AIX and Linux on the same platform

As an additional way to optimize the TCO, AIX and Linux can be run side-by-side on the same server.

#### **Market leading uptimes**

Escala provides the market's most sophisticated RAS features which are deeply integrated into HW, firmware, virtualization and the service processor. The 'real-life' impact of sophisticated RAS is for a customer often difficult to quantify, however the measured uptime figures collected from our Escala customer base speaks for itself: today on statistical average, Escala servers provide a MTBF well above 50 years in standalone configurations.

#### **Your benefits**

- Better customer satisfaction due to faster response times and availability
- Improved operational efficiency
- Flexibility in responding to changing business requirements
- Highly secure architecture
- Reduced energy consumption
- Lower TCA/TCO for applications
- Open innovation for new capabilities

## Leading VM isolation and security

Due to the deep hardware and firmware integration of the virtualization architecture, PowerVM today provides an industry leading track record for security. Despite being on the market for more than 10 years and used by thousands of customers in mission-critical environments, no security vulnerabilities have been reported to date. In addition, the risk of becoming a victim of a worm and virus attack on AIX is extremely low.



## We make the solutions to meet your requirements

#### Why Atos?

Atos is the Number 1 European provider (Number 3 worldwide) of managed infrastructure services. Atos is rated by analysts as the 'Leader in the Data Center outsourcing services' for the 3rd year in a row. We develop and deliver the most cost-effective and suitable solutions leveraging market-leading providers to manage, optimize and data centers and infrastructures We have early insight on new technologies, enabling us to develop new and innovative technical solutions.

Our strong global footprint, and industry heritage gives us the understanding and the flexibility to easily adapt to our clients' culture whatever industry they work in and wherever they are in the world.

## Why are Atos and IBM perfect together?

For more than 20 years, Atos and IBM have built a unique relationship, based on an OEM partnership and a close, highly productive technological cooperation. This solid R&D collaboration has fundamentally strengthened the AIX® ecosystem, by regularly generating innovative functionality, in areas such as scalability, RAS, virtualization and cloud enablement.

Atos

OUR OFFERS	ESCALA E2-800	ESCALA E3-800	ESCALA E4-800	ESCALA E5-800
System package	4U, 19" rack	2U, 19" rack	4U, 19" rack	4U, 19" rack
# of sockets	1	1 or 2	1 or 2	2, 3 or 4
POWER8 processor options GHz - # of cores	3.02 GHz - 4 3.02 GHz - 6 3.72 GHz - 8	3.89 GHz - 6 or 12 3.42 GHz - 10 or 20	3.89 GHz - 6 or 12 4.15 GHz - 8 or 16 3.52 GHz - 24	3.02 GHz - 24, 36 or 48 3.35 GHz - 20, 30 or 40 3.72 GHz - 16, 24 or 32 min 16, 20 or 24 cores active (50% of max)
Min – Max memory (1600 MHz DIMMs)	4-core: 16 - 64 GB 6/8-core: 16 - 1024 GB	1-socket: 16 – 512 GB 2-socket: 32 – 1024 GB	1-socket: 32 - 1024 GB 2-socket: 32 GB - 2 TB	128 GB min & active 2 TB max (50% active) max 4 TB in the future (SOD)
PCIe Gen3 slots <sup>1,2</sup>	7	6 (1-socket) 9 (2-sockets)	7 (1-socket) 11 (2-socket)	Up to 11: 3x8 slots & up to 8x16 slots
Max PCIe Gen3 slots with exp drawer(s)	17	17	31	51
System unit disk/SSD bays with standard or split backplane	4-core: 10 or 5+5 SFF-3 6/8-core 12 or 6+6 SFF-3	12 SFF-3, or 6+6 SFF-3	12 SFF-3, or 6+6 SFF-3	8 SFF + 4 SSD, or 4+4 SFF + 4 SSD
Max EXP24S storage drawers	1 4-core: N/A 6/8-core: 28	28	28	64
Max total system unit + EXP24S disk/SSD	4-core: N/A 6/8-core: 672	672	672	1540
Max total system TB with 1.8TB drives <sup>2</sup>	4-core: 3.0 TB 6/8-core: 1,245 TB	1,231 TB	1,231 TB	2,779 TB
AIX® rPerf Range	66.9 - 143.9	12.08 - 346.7	1208.8 - 421.9	593.8 - 746.9
Power on Demand	N/A	N/A	N/A	PoS, Elastic, Utility, Trial POD for proc. & memory
AIX level	6.1, 7.1*	6.1, 7.1*	6.1, 7.1*	6.1, 7.1*
Linux support	RHEL 7.1 (BE, LE), 6.6 (BE)* SLES 11 (BE), SLES 12 (LE) Ubuntu 15.04 (LE)*	RHEL 7.1 (BE, LE), 6.6 (BE)* SLES 11 (BE), SLES 12 (LE) Ubuntu 15.04 (LE)*	RHEL 7.1 (BE, LE), 6.6 (BE)* SLES 11 (BE), SLES 12 (LE) Ubuntu 15.04 (LE)*	RHEL 7.1 (BE, LE), 6.6 (BE)* SLES 11 (BE), SLES 12 (LE) Ubuntu 15.04 (LE)*
PowerVM	SE or EE in option			
Integrated Facility for Linux (IFL)	N/A	N/A	N/A	optional

1. One x8 PCIe slot must contain a 4-port 1Gb Ethernet LAN available for client use,

2. Use of expanded function storage backplane uses one PCle slot,

\* Or later

#### For more information: atos.net/escala

atos.net

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