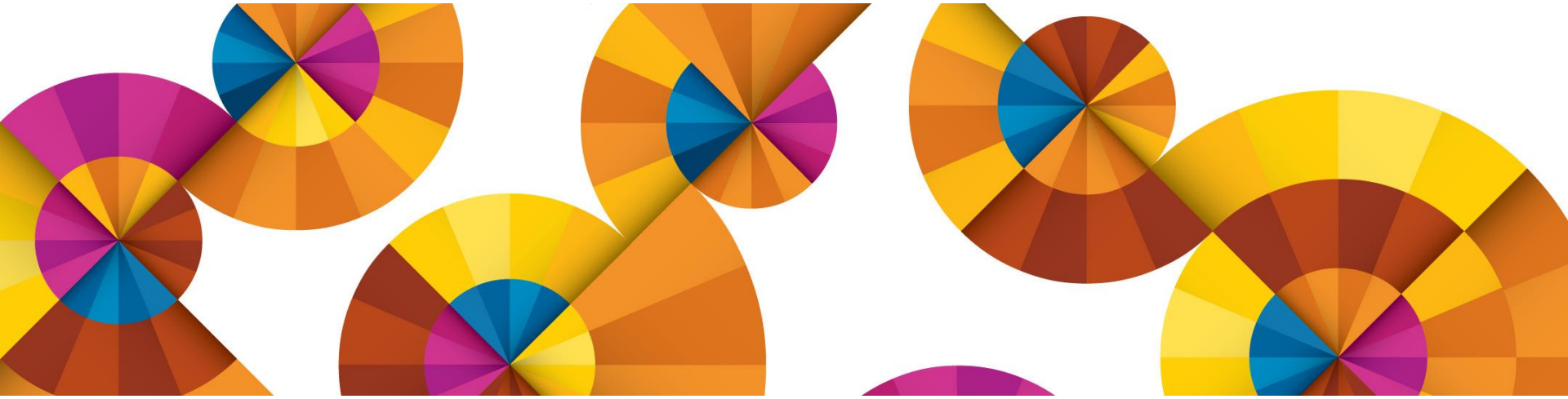
The IBM Enterprise Linux Server – A Solution to Your IT Challenges

Use Cases: Why Customers have chosen IBM's Enterprise Linux Server



Many customers are realizing the benefits of consolidating on IBM's Enterprise Linux Server

- Atos Origin
- AutoData Norg AS
- Baldor
- Banco Pastor
- Bank of New Zealand
- Bankia
- BG-Phoenics
- BSBC Minnesota
- Business Connexion
- City of Honolulu
- Colacem S.p.A.
- Computacentre
- Dundee City
- Efis EDI Finance
- El Corte Ingles
- Embasa
- Endress+Houser
- EuroControl MUAC
- gkd-el
- IBM Blue Insight
- Liberty Mutual
- Marist
- Marsh
- Miami Dade County
- National Registration Dept
- Nationwide
- NWK
- Procempa
- RCBC
- RENFE
- Salt River Project
- Shelter Mutual Insurance
- Shikoku Electric
- Sparda Datenverarbeitung eG
- Svenska Handelsbanken
- University of Bari
- University of Arkansas
- University of NC
- VietinBank

Let's look at a few of these up close…

How some businesses solved their challenges with the Enterprise Linux Server

	Challenge	After consolidation on ELS
Company A	Server sprawl meant their data center was at capacity	• Reduced data center footprint by 30%, heat output by 33% and carbon footprint by 39%
Company B	An acquisition led to multiple platforms, steep IT and admin costs, and unsatisfied customers	• Reduced IT costs by 50%, cut power costs by 40%, and reduced floor space by 6x
Company C	Existing distributed platform not scalable to handle future growth	• Reduced space and power consumption by 80%, monthly HW charges by 50% • Expected savings of $16M over first 3 years

How some businesses solved their challenges with the Enterprise Linux Server

	Challenge	
bnz	Server sprawl meant their data center was at capacity	*"Deploying [ELS] with Red Hat Enterprise Linux to address our carbon footprint and cost savings concerns was a very big deal, especially at the senior management level."* — *Lyle Johnston, Infrastructure Architect*
BALDOR	An acquisition led to multiple platforms, steep IT and admin costs, and unsatisfied customers	*"Migration of our SAP application servers to Linux on the [ELS] produced an immediate increase in performance, and has made it easier to manage and maintain our systems."* — *Mark Shackleford, Director of Information Services*
Nationwide On Your Side	Existing distributed platform not scalable to handle future growth	*"We also were able to provide a reduction in server cost of more than 50 percent to our customers. Linux on [ELS] saved significant data center floor space and power consumption."* — *Steve Womer, Senior IT Architect*

University of Arizona College of Pharmacy (Tucson, Arizona)

One of the top 10 colleges of pharmacy in the US, provides professional programs aimed at acquiring the doctor of pharmacy degree

- Used an Intel-based Apple Mac Pro solution and MySQL to run and process information for more than 150,000 members

Business challenge:

- Member numbers were predicted to increase to be well over 10 million in the coming years, with claim volumes increasing to several million a year

IT challenge:

- Apple was not planning an upgrade for the Mac Pro system – hence they needed a clear roadmap for future progression

University of Arizona College of Pharmacy (Tucson, Arizona)

Solution:

Replaced their Mac servers with an Enterprise Linux Server, and replaced MySQL with DB2

- The full new environment, including the management of outcomes for a large patient population, was migrated over a weekend
  - The ELS was installed on Friday, the software was loaded and tested on Saturday, and the entire environment went live on Sunday…
  - …with no hiccups or problems!

Benefits:

- Reduced data load times by 1/3
- Improved I/O performance for better data analysis
- Batch processes run during normal business hours without disrupting operations
- Today, their system is being run by a single Linux programmer on a part-time basis

"One of the reasons we went with the [System] z114 [server] was the ability to enhance the box almost infinitely. We can add more processors, memory, and a lot more I/O without reconfiguring"

— Kevin Barber, director, data systems, UA College of Pharmacy

White Cube (London, UK)

Focused on establishing lasting relationships with artists, as well as providing a richer experience for clients, artists and the public…

- Recently expanded internationally, opening new galleries in Hong Kong and Sao Paulo

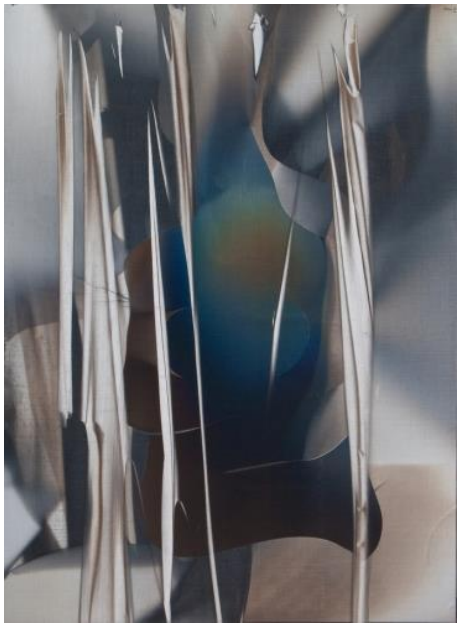
Business challenge:

- Provide real-time inventory access and continuous availability in worldwide context, with options for growth

> *"We have suddenly transformed from a U.K.-centric business to a truly global organization, operating in three different time-zones. From an IT perspective, this posed some real challenges: our existing systems landscape was never designed for 24/7 operations and having a much smaller maintenance window made it more difficult to ensure availability."*
>
> — James Meara, IT manager at White Cube

IT challenge:

- Replace the 12 aging x86-based Sun servers
  - Supporting their core systems - including file servers, warehousing and logistics system, and traditional email and back-office systems



Larry Bell
Mirage Collage and the Light Knots

16 October 2013 – 12 January 2014
North Galleries, Inside the White Cube

White Cube (London, UK)

Video

Solution:
Consolidate distributed servers onto IBM Enterprise Linux Server

- Recognized benefits of the platform
  - Proven track record in traditional industries for reliability, performance, and flexibility
  - A single backbone for their entire IT landscape
- Enabled close integration of databases, repositories and email systems with new Cognos analytics platform

Benefits:

- Noticeable improvement in response times for warehousing and logistics systems
- Scales up to meet the needs of the business – set up new VMs in 2 minutes!
- VM live guest mobility means no need to bring systems down for maintenance and upgrades
- Cognos eliminates spreadsheet-based analytics

"We wanted to find a platform that was built for high availability, that was versatile enough to handle all of our diverse workloads and that could scale up to meet new demands such as business intelligence. Running [IBM ELS] was the best solution to meet all of our requirements."

"In all honesty, managing a Linux environment on [ELS] platform is hardly any different from managing a Linux environment anywhere else. We still use the same monitoring and administration tools, and our network and storage specialists have not needed to learn any mainframe-specific skills at all."

— James Meara, IT manager at White Cube

Algar Telecom (Uberlândia, Brazil)

Provides more than 800,000 customers with mobile and fixed voice telephone and broadband, as well as corporate communications and pay-tv

- Business expansion occurring against a backdrop of rising operational costs and increasing competition

Business challenge:

- As customer base grew, concern about keeping up with increased demand for services

> *"In the past, we did not take a very strategic approach when it came to expanding our IT infrastructure, we just added new servers as demand increased… The result was an environment that was not efficient or sustainable: we suffered from poor performance, with frequent service interruptions, and the complexity and cost of maintaining everything was starting to get out of control"*
>
> — Rogério Okada, IT manager of Algar Telecom

IT challenge:

- Upgrade the IT infrastructure to a solution that offered simpler maintenance, lower cost of ownership and greater flexibility

Algar Telecom (Uberlândia, Brazil)

Solution:
Consolidated 90+ distributed servers into a 24-core Enterprise Linux Server

- Migrated core business applications, including ERP and CRM, to the new platforms
- Solution delivers top levels of performance, stability and scalability

Benefits:

- Massive simplification of IT infrastructure
  - Huge reduction in data center floor space and a 70% cut in energy and cooling expenses
- Operational risk has been reduced, including fewer single points of failure
- Systems can be recovered up to 90% faster

"The IBM technology was completely new to us, but we clearly recognized the huge value that it could bring to our operations. Even as a first time customer, we had confidence that the solution would be the right fit for our needs."

"We have completely transformed our infrastructure and the way in which we manage it... We estimate that our operational efficiency has increased by at least 30% as a result. With our core business applications running on the most reliable and secure platform in the marketplace, we can deliver better service to more customers and focus on growing a better business."

— Rogério Okada, IT manager of Algar Telecom

Sicoob

Video

Business Challenge:
Brazilian credit union system needed to ensure that it could meet members' needs for **24/7 service** and **mobile access** to information. Existing distributed infrastructure could not **scale** to provide the necessary performance and availability, or meet data consolidation requirements for analytics.

Solution:
- Virtualized its distributed servers onto 2 IBM Enterprise Linux Servers.
- Can now run more than 300 virtual servers on one platform
- Includes IBM DB2 software supporting 50 major databases, plus IBM Cognos software for business analytics.

"Compared with databases on our previous distributed landscape, DB2 running on Linux on the [ELS] platform offers more reliability and performance, and better integration with our backup, monitoring and ETL tools."

—Paulo Nassar, IT Processing and Storage Infrastructure Manager, Sicoob

SICOOB

Results:
- Enabled 600% growth in mobile solutions, and 200% growth in internet banking
- Supported 60% increase in in-branch transactions, while avoiding $1.5M a year in electricity costs
- Transformed the speed, reliability and efficiency of service delivery to members

The University of Bari

Business need:

The University of Bari is strongly committed to developing cloud-based solutions for communities and businesses in southern Italy. The University needed a platform to facilitate cost-effective, flexible application development.

Solution:

The University leveraged the IBM Enterprise Linux server to enable the development of innovative applications for the local fishing, wine-making and logistics industries, as well as the University itself.

Benefits:

- Accelerates the sale and delivery of wine, fish and other cargo to end-customers.
- Provides real-time information from RFID sensors on variables such as temperature, humidity and whether cargos have been subjected to any shocks or stresses. Integrates sensor, market and GPS data with mainframe systems at the university, private sector and government regulatory agencies.
- Virtualizes the University Laboratory for students.

"The IBM solution eliminates the trouble and expense of buying and managing new infrastructure, making the development of small-scale solutions much more viable. Moreover, as demand for a solution increases, the cloud can simply allocate more resources, so there is no problem with scalability."

- Professor Visaggio, full professor of Software Engineering at the University of Bari

IBM's own data center transformation and consolidation project has delivered results

Before	Today
~15,000 Distributed servers	**~30** Enterprise Linux Servers
155 Data centers	**7** Data centers
30 Images per admin	**100** Images per admin
<10% Average server utilization	**>60%** Average server utilization

80% less energy, 85% less floor space

~$100M total cumulative savings to date

Customers highlight the value of consolidating on the IBM Enterprise Linux Server

Data from IDC report (July 2013) surveying 6 organizations that consolidated onto Enterprise Linux Server platform:

79
Average number of servers consolidated by each organization

84
Average number of servers *avoided* purchasing

70%
Reduced infrastructure costs (hardware, software and services)

71%
Average reduction in software licensing costs

57%
Reduction in operational costs due to increased IT staff productivity

1/2
Cut in average outage time

5.3 and 501%
Average payback period (in months) and calculated ROI

Source: IDC