

The background of the slide is a dark navy blue. It features a series of approximately 15-20 thin, wavy lines that flow from the left side towards the right. These lines are colored in a gradient, starting with light green and yellow on the left, transitioning through blue and purple in the middle, and ending with red and orange on the right. The lines are closely spaced and follow a similar undulating path, creating a sense of movement and depth.

The Java Heroes

40+ Modern Cloud Enterprises Achieving World-Class Results with Java





azul

The Java Heroes

40+ Modern Cloud Enterprises Achieving World-Class Results with Java

It's no understatement to say that the world has changed. We live in an era of constant uncertainty, challenge and disruption. But with all of that change also comes enormous opportunity and the chance for innovation, transformation and improvement for those who seize the moment and forge ahead.

The Java world, our world, has also changed. The world's most adopted programming language has become an open source initiative of constant innovation; and a platform enabling organizations to take advantage of the many benefits offered by the cloud.


Azul unlocks more from the Java you love. We want our customers to demand more, expect more and get more from Java. [The Java Heroes](#) is our way of paying homage to the true pioneers of Java, who embrace the future of Java. A future with Azul. We hope you're as inspired as us.

Let's make history together one application at a time.

Sincerely,



Scott Sellers
President & CEO
Azul





The customers represented in this book are doing amazing things. We're proud to be part of their stories—each of them and all of them. We hope you enjoy the journey.



Big Data

“The Azul Platform performance is so superior that we're now doing things with our big data system that cannot be done without Azul.”

Ariel Pisetzky
Vice President of IT, Taboola

e-Commerce

“As the leading food delivery platform in China, Ele.me experiences peak load periods during lunch and dinner every day. With Azul, we reduced hardware use by 50% and decreased the number of Java instances by 75%.”

Xuefeng Zhang
CTO, Ele.me

Payments

“Mastercard needs to identify fraud real-time and decline a transaction before any exposure takes place. Oh, and by the way, this work is measured in milliseconds and occurs tens of thousands of times per second.”

Ted Boehm,
Senior Technical Consultant,
Mastercard Worldwide

Cloud Applications

“We needed a robust option from a trusted vendor that fit our software development lifecycle. In talking with Azul, the trust came quickly, and was continually reinforced by the excellent support we received.”

Travis Spencer
CEO, Curity

Fraud & Identity

“Real-time processing of transactions at Mastercard is not a nice to have, it is a must. And with credit card fraud running rampant, we have to be smarter and faster than the fraudster to protect our cardholders.”

Ted Boehm
Senior Technical Consultant,
Mastercard Worldwide



SaaS Applications

“Improved service levels for responsiveness and reliability; reduced operational tickets by 95+%; reduced total pause time from 40k sec per week to 14 sec (for a single JVM per week); reduced latency and delivered more predictable response times; improved vertical scale by 10x.”

Vivek Bhatia
Sr. Manager of OMS Platform and
Performance Engineering,
Workday

Digital Transformation

“We have thousands of customers all over the world. They make tens of billions of requests per month to us, which translates to tens of thousands of requests per second. Using the Azul Platform has allowed us to provide them with significantly better response times and performance which, in this day and age, is extremely important to our customers.”

Cody Bayer
DevOps Engineer, Bazaarvoice



IoT & Embedded

“By adopting the Azul Platform and teaming with Azul, we can ensure that our customers always have access to secure, certified, and tested builds of Java that have been fully integrated into our Ignition platform.”

Carl Gould
Co-Director, Software Engineering,
Inductive Automation

Trading & Risk

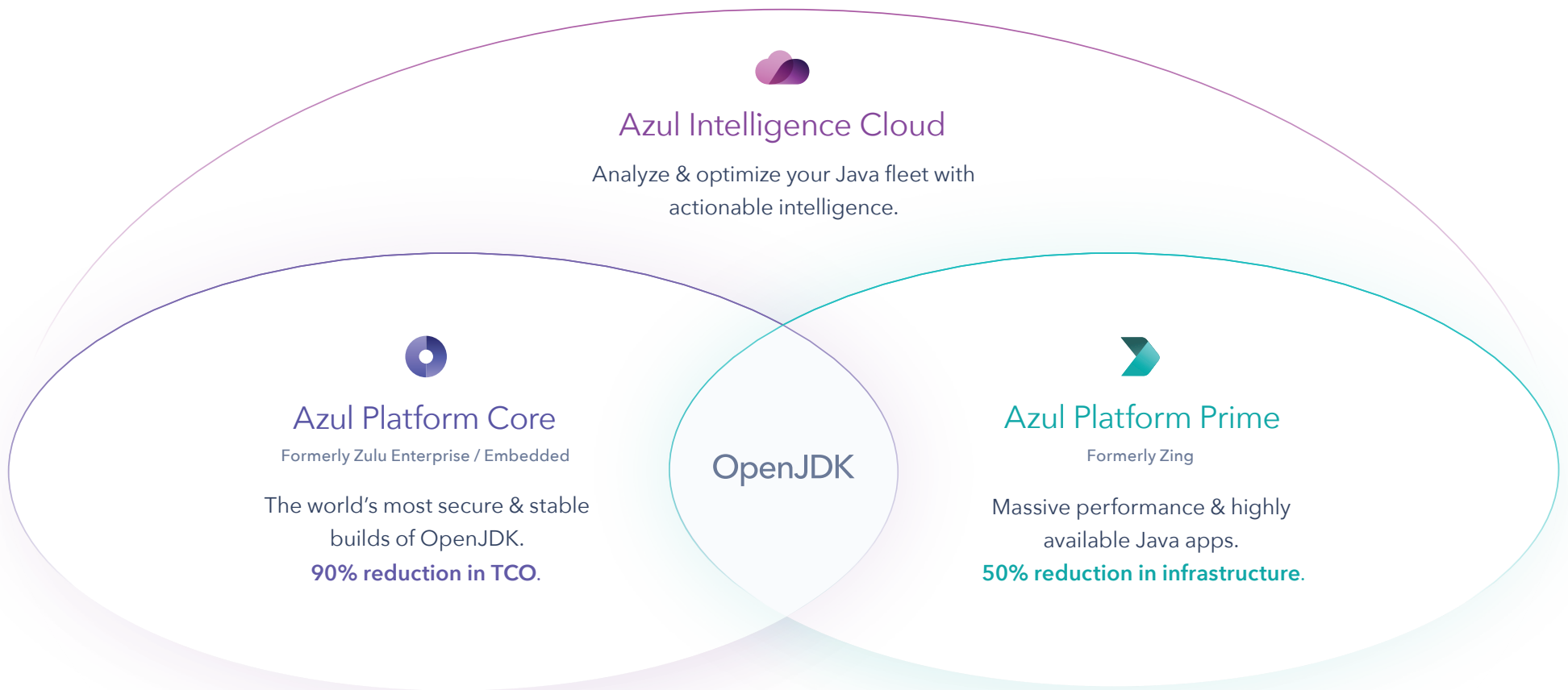
“In the world of High-Frequency Trading, automated applications process hundreds of millions of market signals every day and send back thousands of orders on various exchanges around the globe. In order to remain competitive, the reaction time must consistently remain in microseconds, especially during unusual peaks such as a 'black swan' event.”

Jad Sarmo
Head of Technology, Dsquare Trading Ltd.

The Azul Platform

One platform. Unlimited possibilities.

Powering the most progressive Java applications and deployments with the certainty of performance, security, value and success.



The Java Heroes – Volume 1

BY INDUSTRY

FINANCIAL SERVICES

BIDS Trading	6
C24 Technologies	8
Celer Technologies	10
DLT Capital	12
Dsquare Trading	14
Feedzai	16
Itiviti	18
LMAX Global	20
Mastercard	22
MEMX	24
Pontus Networks	26
Rapid Addition	28
Redline Trading	30
Solarflare	32
Spotex	34
Traiana	36
White Clarke Group	38

MEDIA, TRAVEL & ENTERTAINMENT

Chess.com	40
Priceline	42
Taboola	44
Ventusproxy	46
Viking Line	48

RETAIL & E-COMMERCE

Bazaarvoice	50
Ele.me	52
iPinYou	54
Puma	56
Saks Fifth Avenue	58
SLI Systems	60

SOFTWARE & TECHNOLOGY

Curity	62
Heirloom Computing	64
NetDocuments	66
Payara Services Ltd	68
SEEBURGER	70
Workday	72

ELECTRONICS

Busch-Jaeger	74
Eurotech	76
Kyocera	78
openHAB	80
V2COM	82
VIVAVIS	84

MANUFACTURING

Inductive Automation	86
----------------------	----

BY ALPHABETICAL ORDER

● Bazaarvoice	50	● NetDocuments	66
● BIDS Trading	6	● openHAB	80
● Busch-Jaeger	74	● Payara Services Ltd	68
● C24 Technologies	8	● Pontus Networks	26
● Celer Technologies	10	● Priceline	42
● Chess.com	40	● Puma	56
● Curity	62	● Rapid Addition	28
● DLT Capital	12	● Redline Trading	30
● Dsquare Trading	14	● Saks Fifth Avenue	58
● Ele.me	52	● SEEBURGER	70
● Eurotech	76	● SLI Systems	60
● Feedzai	16	● Solarflare	32
● Heirloom Computing	64	● Spotex	34
● Inductive Automation	86	● Taboola	44
● iPinYou	54	● Traiana	36
● Itiviti	18	● V2COM	82
● Kyocera	78	● Ventusproxy	46
● LMAX Global	20	● Viking Line	48
● Mastercard	22	● VIVAVIS	84
● MEMX	24	● White Clarke Group	38
		● Workday	72

Best Performance in Block Trades

Engineers now spend less than 1% of their time on performance tuning.

Challenge

- Sub-millisecond performance is crucial in trading. BIDS Trading's trading platform performance, which is rigorously publicized by third parties and scrutinized by potential customers, was not where it needed to be due to pauses for Java garbage collection (GC).

Solution

- Azul Platform Prime.

Results

- The BIDS Trading engineering team dramatically improved performance while reducing the effort they spend on GC tuning and workarounds by 95%.

Use Case

Big Data, Trading & Risk

Technology

APIs, Custom Applications

Role

CTO, Developer, Trader

Region

AMER

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“

Now, our engineering team is able to ignore performance and spend all their time building features. Yet we're a thousand times faster than your typical payment transaction or website. Azul Platform Prime is a big part of that.”

Brett Vasconcellos

CIO, BIDS Trading



C24 Technologies + Azul = Best In-Memory Storage

Azul helps cut costs 5x & boost performance 3x for OTC derivatives data storage.

Challenge

- C24 Technologies is a software company specializing in Financial Services messaging and integration solutions. For the company's clients, one of the biggest concerns about using Java over hardware or lower-level languages like C and C++ is JVM memory management, which can be unpredictable, causing jitter and 'stop-the-world' garbage collection pauses.

Solution

- C24 Integration Objects (C24-iO) SDO message compaction technology combined with Azul Platform Prime compacts traditional complex XML messages down and wraps them with an ultra-efficient Java API, in most cases reducing the memory footprint for stored data by well over 10 times, enabling Financial Services institutions to dramatically reduce hardware requirements for storing OTC derivative data.

Results

- Accessing FpML data in memory is simplified with Azul Platform Prime which supports massive heaps in a single instance, allowing in-memory data grids which host FpML data to scale with fewer, larger nodes, simplifying configuration and management.
- Because Azul Prime has a pauseless garbage collector, response time consistency is guaranteed, no matter how much in-memory data is used.
- Organizations can serve far more users, handle more transactions, and deliver real-time responses on their existing hardware and software stack without changing any code.

Use Case

Trading & Risk

Technology

APIs, Custom Applications

Role

CIO/IT, Developer, Risk Manager, Trader

Region

AMER

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[Discover Big Data & In-Memory Use Cases](#)



“

The applications and solutions built on this technology run in Java and the only way to make that work with the sort of SLAs our clients need is with a JVM like Azul Platform Prime.”

John Davies

CTO and Co-Founder, C24

Next-Gen Java-Based Trading

Powered by Azul Platform Prime for consistent low latency and high throughput.

Challenge

- Trading firms are often frustrated by inflexible systems that aren't freely customizable to meet changing business and market requirements.

Solution

- By integrating Azul Platform Prime, Celer's platform delivers consistent low latency for all their trading modules, from trade implementation to execution, from clearing to client reporting, and from risk management to compliance monitoring.

Results

- Together, Celer Technologies and Azul Platform Prime deliver a competitive advantage to trading firms, giving them the ability to analyze large amounts of data in real time to find the best opportunities.

Use Case

Big Data, Trading & Risk

Technology

APIs, Custom Applications, Elasticsearch, Hbase, Kafka

Role

Architect, CEO, Trader

Region

EMEA

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“

Azul Platform Prime gives clients an advantage by allowing them to customize the solution and respond to ever-changing client and market needs with complete confidence in the system's performance and trade execution.”

Ben Cuthbert

Chief Executive Officer, Celer Technologies

Leader in Java-based Blockchain

Needing to boost latency-sensitive code in the most critical parts of its distributed ledger system, DLT Capital turned to Azul Platform Prime.

Challenge

DLT Capital Ireland provides low-latency information services for market makers on the world's largest cryptocurrency exchanges, combining high-speed infrastructure and cutting-edge machine learning. Java, given the size and maturity of its development community and its speed, extensibility, and ease-of-maintenance, is a prime language used for developing application interfaces. But it also brings with it the challenges of pauses, hiccups, stalls, warm-up and jitter caused by garbage collection issues, which doesn't compute in a world of microseconds.

Solution

- DLT Capital implemented Azul Platform Prime in the critical parts of its systems.

Results

- Improved response times ten-fold in the most latency-sensitive code.

Use Case

Big Data, Trading & Risk

Technology

APIs, Custom Applications

Role

Architect, Developer, Trader

Region

EMEA

Related Content

[Read About Azul's Momentum in Financial Services](#)

The background of the slide is a composite image. The top half is a solid green rounded rectangle containing a quote. Below this, the background features a blurred image of a stack of gold coins on the right side. Overlaid on this are various financial charts: a white line graph in the upper left, a candlestick chart with red and green bars in the lower left, and several green curved lines and circles across the bottom. The overall color scheme is dominated by blue, green, and gold.

“

Azul Platform Prime allowed us to greatly reduce runtime in the most latency-sensitive code. Keeping the code warm with ReadyNow! Technology improved response times over ten-fold in infrequently-run but very critical parts of our systems.”

Marius Skoczen

CTO, DLT Capital

Masters High-frequency Trading

It is still possible to achieve high performance and low latency while enjoying the simplicity and business-oriented nature of Java.

Challenge

- In the world of High-Frequency Trading, automated applications process hundreds of millions of market signals every day and send back thousands of orders on various exchanges around the globe. To be competitive, the reaction time must consistently remain in microseconds.

Solution

- Dsquare Trading uses Azul Platform Prime's ReadyNow, Garbage Collector, and Falcon Compiler to achieve high performance and low latency. Azul Platform Prime is a powerful replacement of the standard Oracle Hotspot JVM and addresses both the garbage collection-pause and JIT-compilation issues.

Results

- With Azul Platform Prime, Dsquare Trading quickly was able to achieve very high throughputs with negligible pauses. This is because Azul uses a unique collector called C4 (Continuously Concurrent Compacting Collector) that allows pauseless garbage collection regardless of the Java heap size. This is achieved by concurrently mapping and compacting the memory while the application is still running.

Use Case

Big Data, Trading & Risk

Technology

APIs, Custom Applications, Kafka, Spark

Role

Architect, Developer, Trader

Region

EMEA

Related Content

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“

Azul Platform Prime does not require any code change and both latency and speed improvements are visible out of the box without the need for a lengthy configuration. Java programmers can enjoy the best of both worlds, the simplicity of Java (no need to be paranoid about creating new objects) and the underlying performance of Azul, allowing highly predictable latencies across the system.”

Jad Sarmo

Head of Technology, Dsquare Trading Ltd.

State-of-the-Art Financial Crime Solutions

Azul enables faster processing of massive datasets to drive real-time fraud analysis and protection.

Challenge

- Feedzai Fraud Prevention That Learns™ software fuses big data and machine learning to allow analysts to predict and prevent electronic payment loss in real time based on behavioral analysis. Ultra low latencies are of paramount importance to many of Feedzai's customers, but almost impossible to achieve if they use a standard JVM.

Solution

- Azul Platform Prime is designed for enterprise applications and workloads that require any combination of large memory, high transaction rates, low latency, consistent response times, and high sustained throughput. It is the only JVM that eliminates Java garbage collection pauses and is used by many of the world's largest Financial Services institutions.

Results

- Azul Platform Prime provides consistent low-latency with high throughput and supports large in-memory datasets without performance penalties. It eliminates the operational interruptions and response time outliers often experienced by Java-based trading, risk and compliance applications in financial markets.

Use Case

Big Data, SaaS Applications, Payments, Trading & Risk

Technology

Cassandra, Hadoop

Role

Architect, CEO, CTO, Fraud Analyst, Risk Manager

Region

AMER

Related Content

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“

Azul powers the largest banks in the world and with peak load demands of up to 50,000 transactions per second, Azul Platform Prime will help ensure that we can deliver the best that artificially intelligent machines can offer.”

Nuno Sebastiao

Chief Executive Officer, Feedzai

Trading & Market Access Solutions

Enabling smarter high-performance trading with Azul.

Challenge

- Itiviti (formerly the Orc Group) leads the market because of Orc Liquidator's unique ability to act on a large number of opportunities across a broad set of markets and asset classes. Over time, firms seek to scale their business by implementing ever-more sophisticated strategies that require real-time analysis across very large datasets. The highest throughput and lowest latency is required.

Solution

- Together, Orc Liquidator and Azul Platform Prime deliver competitive advantage to firms through faster and more consistent trade execution, greater capacity to pursue new opportunities, and improved flexibility to deploy highly sophisticated automated trading strategies.

Results

- Consistently low-latency with high throughput.
- Large in-memory datasets supported without performance penalty.
- Java "warm-up" problem solved.

Use Case

Trading & Risk

Technology

APIs, Custom Applications

Role

Architect, Product Manager, Trader

Region

EMEA

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“

Azul Platform Prime allows firms to gain an advantage by deploying even more sophisticated strategies built in Java with confidence in high performance and consistent trade execution.”

Martin Nilsson

Co-founder and Senior Analyst, Itiviti



Low-Latency FX Trading

The first FCA-regulated Multilateral Trading Facility (MTF) for FX trading uses Azul Platform Prime as its technology foundation.

Challenge

- All of LMAX Exchange's latency-sensitive and throughput-critical systems were experiencing the typical performance issues associated with Java's garbage collection operations.

Solution

- LMAX Exchange moved all of its Java-based applications to Azul Platform Prime, incrementing from most critical to less critical over a two-year period.

Results

- Low latency trade execution is ensured.
- Engineer time is freed up; no more battling garbage collection in code; less performance tuning.
- Scalability has improved to support LMAX's rapid growth.
- No changes were needed to LMAX's unique software architecture or development approach.

Use Case

Big Data, Trading & Risk

Technology

APIs, Custom Applications

Role

CTO, CIO/IT, Developer, DevOps, Trader

Region

EMEA

Related Content

[See More Capital Markets Resources](#)

“

We have enjoyed a very successful partnership with Azul over the past seven years, and value the innovations it continues to bring as a strong independent Java provider.”

Sam Adams

Head of Software, LMAX Group





Real-time Fraud Detection with Azul

Azul helps power the systems that identify fraud in microseconds at high volumes.

Challenge

- Real-time processing of transactions at Mastercard is not a “nice to have”, it is a must. And with credit card fraud running rampant, Mastercard has to be smarter and faster than the fraudster to protect its cardholders. Accomplishing this was no small feat, however, with enormous volumes of transactions and Java garbage collection causing long pauses in Mastercard’s systems.

Solution

- Azul Platform Prime enables Mastercard to handle its transaction volumes with a high rate of success. Having a product that the company’s developers don’t have to constantly adjust and tune to try to improve performance is a game-changer.

Results

- Mastercard went from nearly 10,000 full garbage collection pauses a day to virtually all of the garbage collection pauses eliminated, enabling much flatter, more consistent performance. Ensures Mastercard can make go/no go decisions based upon real-time risk analytics, giving them a substantial advantage.

Use Case

Big Data, Fraud & Identity, Payments

Technology

Hadoop, Kafka, Spark

Role

Architect, Big Data Engineer, CTO

Region

AMER

Related Content

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[Watch the Customer Webinar](#)

“

It's been surprisingly amazing working with Azul. They're always very responsive when I do need some help, and one of the great things is that the support team has helped me find bugs in other people's software.”

Ted Boehm

Chief Platform Architect, Mastercard



Best Cost, Performance, and Support across MEMX's Java Estate

MEMX achieves microsecond performance for critical processes.

Challenge

MEMX needed to create a simpler trading platform that would benefit both retail and institutional investors, including:

- Promoting simple and transparent orders and interactions
- Investing in the best and latest technology to deliver fast and efficient execution
- Reducing pricing on market data, connectivity, and transaction fees

Solution

- To de-risk the technology build and allow MEMX's team to focus on developing business logic, MEMX got their Java signed, sealed, and delivered from the Java experts, Azul.
- For developer Java-based workflows, MEMX chose Azul Platform Core, an Oracle-equivalent Java product, to ensure easy transition and ready Java production deployment. For mission-critical deployments, MEMX chose Azul Platform Prime to eliminate pauses/delays in application performance, and ensure rapid application warm up.
- From inception to deployment, the integral platform took less than a year to build.

Results

- With Azul underpinning the Java platform, MEMX could keep their singular focus on creating the best exchange.
- MEMX's key application delivered microsecond performance for critical processes, with P99.9 response times improving to be 80-times more performant.

Use Case

Trading & Risk

Technology

APIs, Custom Applications

Role

CEO, CTO, Trader, Architect

Region

AMER

Related Content

[Read the Case Study](#)

“

We have many products that are part of our platform, but the Azul Platform has delivered exceptional value out of the box. It enables us to focus resources directly on growing our business.”

Tom Fay

Chief Operating Officer , MEMX



Pontus Networks Reduces FX Market Arbitrage Risk

Thread Manager plus Azul improves pricing system performance 20X.

Challenge

- Both buy- and sell-side organizations require predictable behavior in their systems. If a sell-side market maker has a predictably slow system, the prices can be adjusted by applying the appropriate level of spreads to prevent the bank from being targeted because they're providing stale prices. If a pricing system has lower average latency but higher peak latencies than a predictably slow system at a competitor, the sell-side organization can easily wind up randomly sending inaccurate prices to the market and be cherry-picked by a nimble buy-side organization.

Solution

- By deploying Thread Manager with Azul Platform Prime, FX market arbitrage risk is greatly reduced through improved platform performance and the elimination of response time outliers.

Results

- Thread Manager with Azul Prime is a game changer for FX traders, increasing price predictability and reducing risk/ analytics calculation times while improving messaging and business workflow performance, and keeping arbitrage risk at bay.
- In a nutshell, Thread Manager reduces capital and operational expenditure by solving a performance problem in a minute as opposed to a month.

Use Case

Trading & Risk

Technology

APIs, Custom Applications

Role

Architect, Risk Manager, Trader

Region

EMEA

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A low-angle, upward-looking perspective of several modern skyscrapers with glass facades, reaching towards a clear blue sky. The buildings are arranged in a way that creates a sense of height and scale. Overlaid on the right side of the image are several thin, curved green lines that suggest a network or data flow, starting from the bottom right and curving upwards and outwards.

“

By offering clients an Azul-edition of our solution, we not only guarantee lower latencies, adherence to SLAs, and a twenty-fold improvement in performance, but crucially we can help eradicate the industry-wide issue of arbitrage.”

Leo Martins

Founder, Pontus Networks

High-speed Trading Engines

Meets growing demand for increased transaction rates, consistent response times, and high sustained throughput.

Challenge

- Rapid Addition is the leading provider of FIX and FAST related software solutions to financial institutions. There's been growing demand from both the buy and sell sides for increased transaction rates, consistent response times, and high sustained throughput.

Solution

- Azul Platform Prime is the performance standard for today's high-velocity, Java-based electronic markets. Optimized for ultra-low latency DMA, algo-trading, and order matching, Azul Platform Prime eliminates Java pauses and latency spikes that adversely impact trading. The joint solution provides banks and brokers with an effective, reliable, high-performance trading engine.

Results

- Given both companies' aim to eliminate the effects of garbage collection, it is impressive that the combination of Azul Platform Prime and Cheetah yields even higher performance yet. This shows how the performance of the Azul Platform can benefit even solutions that have already eliminated garbage collection and have already been tuned and optimized.

Use Case

Trading & Risk

Technology

APIs, Custom Applications

Role

Architect, CTO, Risk Manager, Trader

Region

EMEA

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“

Azul provides a perfectly complementary set of capabilities for organizations using RA-Cheetah. This venture will enable us to satisfy the requirements of current clients, in their desire to remain market-competitive, while illustrating to a wider audience the first-class results that are possible through the use of Rapid Addition's solutions.”

Kevin Houstoun

Chairman, Rapid Addition

Java-based Custom Trading

Ensuring highly consistent, low-latency execution for trading equities, options, futures and FX.

Challenge

- Increasingly, customers want to gain the benefits of Java application deployment without compromising the ultra-low latency capabilities of Redline Trading's ticker plant and order execution gateway.

Solution

- Azul Platform Prime is fully certified with the Redline Trading Solutions platform. Designed for ultra-low latency market data and order execution, the Redline Trading platform supports Azul Platform Prime for its customers who want to develop trading strategies in Java while ensuring highly consistent, low-latency execution for trading equities, options, futures, and FX.

Results

- With Azul Platform Prime, Redline is enabling its customers to build and deploy Java-based custom trading strategies that are flexible and responsive, while delivering consistent ultra-low latency performance.

Use Case

Trading & Risk

Technology

APIs, Custom Applications

Role

Architect, CTO, Risk Manager, Trader

Region

AMER

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“

For low-latency, mission-critical applications, Azul Platform Prime minimizes jitter to help ensure the best tick-to-trade latency and determinism.”

Mark Skalabrin
CEO, Redline Trading





Pioneers Low-latency Networking

Improving throughput, lowering latency, and eliminating Java jitter for Financial Services companies with Azul Platform Prime.

Challenge

- Java application latency and jitter can compromise a company's competitive edge.

Solution

- Solarflare develops network interface software and hardware to transform the way applications use networks, providing industry-leading application acceleration for the most demanding scale-out compute environments. Together, Solarflare and Azul provide an integrated runtime platform for Financial Services companies that improves throughput, lowers latency, and eliminates jitter for Java applications.

Results

- The Azul-Solarflare solution delivers the key components for application execution consistency while lowering average latency. Solarflare's OpenOnload high performance network stack reduces TCP/UDP/IP network latency and processor utilization, while increasing message rate and bandwidth. Based on company benchmarks, OpenOnload increases throughput by two to three times, and decreases latency by 50%. When coupled with Azul Platform Prime, average latencies dropped an additional 18%, and max outliers are reduced seven-fold.

Use Case

Trading & Risk

Technology

APIs, Custom Applications

Role

Risk Manager, Trader

Region

AMER

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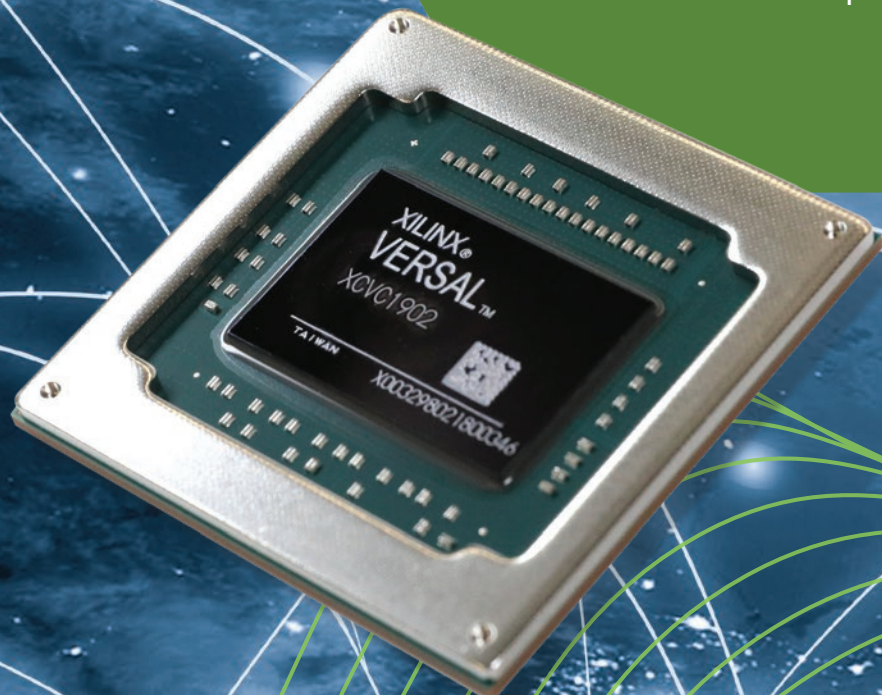
[Read the Press Release](#)

“

Azul's and Solarflare's best-of-breed products have been tested to ensure they work together seamlessly. We've taken all the necessary steps to deliver exactly what our customers require to do business in today's fast-paced business environment. And although our focus at this time is on capital markets, customers from a wide variety of industries can profit from our collaboration with Azul.”

Bruce Tolley

Vice President, Solutions Marketing, Solarflare



Boosts Trading Performance with Azul

ECN running on Azul Platform Prime delivers competitive advantage to buy- and sell-side participants.

Challenge

- Spotex, an innovative Foreign Exchange (FX) Electronic Communication Network (ECN) focused on improving FX trading for both buy and sell-side participants, was suffering from performance and scalability issues with its Java infrastructure, with garbage collection and other latencies of 30-50 milliseconds every 10 minutes.

Solution

- Spotex integrated Azul Platform Prime into its infrastructure.

Results

- By simply replacing the legacy JVM with Azul Platform Prime, Spotex completely eliminated the problematic latency outliers and improved performance of the Spotex ECN by 28%.

Use Case

Trading & Risk

Technology

APIs, Custom Applications

Role

Architect, CEO, CTO, Trader

Region

AMER

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“

At Spotex, we have developed a leading-edge technology that is fair, efficient, and provides the highest level of integrity. Working with Azul has enabled us to deliver a robust and reliable solution for our clients.”

Ritesh Agrawal
CEO, Spotex

Trade Lifecycle Processing Runs on Azul

Azul Platform Prime drives higher scalability, reduces average latency, and eliminates inconsistent response times.

Challenge

- Traiana wanted to increase scalability for CreditLink and reduce latency in transaction execution. This real-time platform for pre- and post-trade certainty of clearing gives prime brokers the ability to monitor their clients' credit risk and trading activity across multiple ECNs and single dealer platforms in real-time. Brokers can identify limit breaches, modify credit lines, and terminate trading activity.

Solution

- Traiana integrated Azul Platform Prime into CreditLink.

Results

- Reduces average latencies by 30%, delivering high sustained throughput combined with consistent low latency.
- Supports large in-memory datasets without performance penalties and solves the Java "warm-up" problem.
- Eliminates operational interruptions and response time outliers often experienced by Java-based trading, risk and compliance applications in the Financial Services industry.

Use Case

Trading & Risk

Technology

APIs, Custom Applications

Role

CISO, Product Manager, Security, Trader

Region

AMER

Related Content

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“

Since Azul Platform Prime has been incorporated into our infrastructure we have seen significant improvements in average latencies. Our development team is particularly impressed in how Azul seamlessly provides immediate latency benefit with minimal time investment from us and zero changes to existing code.”

Nick Solinger

Head of Product Strategy, Traiana

The Smart Finance Platform

Azul Platform Prime allows White Clarke to deploy one simple, scalable architecture across its client base regardless of size.

Challenge

CALMS (Customer Acquisition and Lifecycle Management) software has become the solution of choice for leading credit providers around the world who rely on it to provide consistent service to customers across multiple channels, in spite of the garbage collection pauses and jitter which are common to Java applications.

Solution

- Azul Platform Prime is certified with CALMS2, improving its ability to scale easily and use existing hardware more efficiently.

Results:

- Leading credit providers around the world rely on CALMS software to provide consistent service to customers across multiple channels. These enterprises will see demonstrably more consistent response times when CALMS is deployed with Azul Platform Prime and be able to provide better customer service.

Use Case

Cloud Applications, SaaS Applications

Technology

JBoss

Role

Architect, CTO, Risk Manager

Region

EMEA

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“

Azul Platform Prime allows our application to scale and process more on the same amount of hardware, giving us the ability to present one simple, scalable architecture across our client base regardless of size.”

Bassam Alousi

*Technical Architect
White Clarke Group*



10 million games every day. No glitches!

World's largest online chess site enhances real-time game experience.

Challenge

- Despite extensive tuning efforts, Chess.com was suffering from Java's "Stop-The-World" garbage collection pauses, which often caused multi-second application delays.
- System-induced stalls in game flow were severely degrading the overall gaming experience for users and impacting their loyalty.

Solution

- Azul Platform Prime was implemented to ensure consistent performance and predictable latency. No changes to the application or hardware configuration were needed.

Results

- Azul Platform Prime eliminated Chess.com's application stalls, improved reliability, and enhanced players' experience.
- The solution also improved developer productivity by eliminating the need for ongoing Java platform tuning, allowing developers to focus on quality of service and new features for its millions of users.

Use Case

Big Data, Cloud Applications

Technology

Tomcat

Role

Architect, CEO, DevOps

Region

AMER

Related Content

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[Join the Thousands Playing Chess.com, Powered by Azul Prime](#)

“

I love chess. With Chess.com, my dream was to create the kind of chess platform that I wanted to use! Today we're the world's largest online chess community, with over 65 million members and more than 250k concurrent users playing more than 10 million games every day online. Because Azul Platform Prime powers our Java-based platform, we don't have to worry about application speed or infrastructure costs. We can focus on our members' experience and rest assured that Azul Platform Prime will handle thousands of moves a second with the best performance possible on the world's best chess website.”

Erik Allebest
CEO, Chess.com



Priceline Provides Fast, Accurate Data with Azul

Delivering instant hotel pricing data from thousands of properties to customers requires the power of Azul Platform Prime.

Challenge

- Travel sites must meet customer demand for accurate, timely data. The platform with the freshest, most accurate data wins. Priceline loves Java but got into a garbage collection nightmare that needed to be fixed.

Solution

- Azul Platform Prime.

Results

- Priceline's custom in-memory cache needs to handle massive amounts of data, and Azul Platform Prime makes it possible and practical.
- Garbage collection is no longer a factor for Priceline's operation, freeing up highly-skilled engineers from JVM tuning to go create new value instead.
- After going live with Azul, Priceline's director of engineering said this was the first time that software engineers had not been called in over a holiday weekend to deal with memory issues in the JVMs as conditions in the hotel market changed.

Use Case

Big Data, Digital Transformation, e-Commerce

Technology

Cassandra, Elasticsearch, Hadoop, Kafka, Solr, Spark

Role

Architect, CIO/IT, CTO

Region

AMER

Related Content

[Read about Media, Travel & Entertainment industry solutions](#)
[See More Azul Customer Success Examples](#)

“

Priceline has successfully used Azul Platform Prime for years in our large-scale Java applications where a traditional JVM could not keep up.”

Ken Kirchoff

*Sr. Director of Enterprise Architecture,
priceline.com*



Taboola Serves Content to 1.4B People Each Month

Wherever we have Java, we have Azul beneath it powering it up.

Challenge

- The server would just stop responding for 15 full minutes for garbage collection. Taboola tried different approaches to performance-tune it: reducing the heap size, increasing the heap size, changing cache strategies. Nothing worked.

Solution

- Taboola chose Azul Platform Prime for a combination of superior performance, stability, security, memory utilization, ease of use, and the transparency and ease of working with Azul.

Results

- Azul performance is so superior that “we’re now doing things with our big data system that cannot be done without Azul,” says Ariel Pisetzk, VP of IT for Taboola. That’s why Azul is “famous” across Taboola. Hundreds of developers work at Taboola, and Azul is a household name with them all because of how mission-critical it is and how well it meets that mission.

Use Case

Big Data, Cloud Applications

Technology

Cassandra, Hadoop

Role

Architect, CTO, CIO/IT, Developer, DevOps

Region

AMER

Related Content

[Read the Press Release](#)

[See How Taboola Benefits from Azul Platform Prime](#)

[Read the Case Study](#)

[Watch the Customer Webinar](#)

“

With Azul, we were able to reduce our front-end server footprint by more than 30%, which is hundreds of servers, and our database server footprint by about 50%. This translates into millions of dollars in savings.”

Ariel Pisetzky

VP of IT, Taboola



Over 2B Transactions Weekly

Amazing performance powered by Azul for “the API management platform for tourism”.

Challenge

- Ventusproxy’s advanced web services query cache platform enables customers to process high volumes of transactions across large farms of web, XML, and database servers, tripling transaction loads without adding more hardware. However, on a standard JVM the amount of information that can be stored in a query cache is limited; large memory caches require large Java heaps but consequently result in long garbage collection (GC) pauses that stall the application and cause spikes in response time.

Solution

- Ventusproxy embedded Azul Platform Prime in its web services architecture.

Results

- Maximum application-level pauses reduced from seconds to milliseconds.
- Operational efficiency improved by increasing transactional throughput and providing better runtime diagnostics.
- Web user experience of ventusproxy customers improved by caching more data via Azul Platform Prime’s support for Java heaps up to 1 TB with pauseless operation.

Use Case

Big Data

Technology

APIs, Custom Applications

Role

Architect, CIO/IT, CTO, Developer, DevOps, Search Engineer

Region

EMEA

Related Content

[Read the Press Release](#)

“

By using Azul Platform Prime, our customers can now cache all availability information without timeouts, achieve response time reductions of over 70-80%, and gain full system visibility into issues before they can detrimentally impact revenue streams.”

Frank Casellas

COO, ventusproxy



Optimizes Customer Experiences with Azul

Java-based reservation portal gets an overhaul with Azul Platform Prime.

Challenge

- The wait times and inconsistent response times for Viking Line's reservation portal were unacceptable during peak selling periods. Also, scalability issues led to too much downtime.

Solution

- Azul Platform Prime replaced Viking Line's existing JVM (Java Virtual Machine).

Results

- Response times on the reservation portal are much lower and more consistent during peak periods, and the system is much more stable, allowing developers to redirect the time they'd previously spent tuning, monitoring, and testing the JVM to develop new features to further enrich the customer experience.

Use Case

e-Commerce

Technology

Custom Applications

Role

Architect, CIO/IT, CTO

Region

EMEA

Related Content

[See more Azul Platform Prime materials and case studies](#)

“

Azul's approach to application scalability is unmatched and we have seen a tremendous improvement in application response time consistency since Azul went live.”

Jan Helin

Systems Manager, Viking Line





Bazaarvoice Connects with Shoppers

Powering cutting-edge insights that accelerate commerce.

Challenge

- Bazaarvoice provides software that allows brands and retailers to collect and display authentic user-generated content on their e-commerce websites. The company has thousands of customers all over the world making tens of billions of requests per month, which translates to tens of thousands of requests per second.

Solution

- Using Azul Platform Prime has allowed Bazaarvoice to provide customers with significantly better response times and performance.

Results

- With Azul, Bazaarvoice has significantly reduced the amount of infrastructure needed to support its applications, and has also greatly reduced response times. In addition, Azul has allowed developers to focus only on innovating the application with new features, rather than constantly performance-tuning the infrastructure.

Use Case

Cloud Applications, SaaS Applications, e-Commerce

Technology

Cassandra, Elasticsearch

Role

Developer, DevOps

Region

AMER

Related Content

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[Learn about Elasticsearch Azul Solutions](#)

[See More Azul Customer Success Examples](#)

A woman with dark hair and glasses, wearing a blue button-down shirt over a black top, stands in a warehouse. She is holding a tablet in her left hand and a white pen in her right hand, looking up at high shelves filled with cardboard boxes. The background shows rows of tall metal shelving units filled with boxes, creating a sense of depth. The lighting is bright, coming from overhead industrial lights. A purple circular graphic element is on the right side of the image, containing text and a quote. The bottom of the image features several thin, wavy purple lines.

“

Azul Platform Prime allows us to free up a lot of monetary resources to invest in other aspects of the company as well as other new upcoming products.”

Cody Bayer

DevOps Engineer, Bazaarvoice

Ele.me Accelerates Chinese Food Delivery Service

Hungry now? Azul Prime helps Ele.me deliver fast.

Challenge

- As the leading Internet-based food delivery service in China, Ele.me, which roughly means “Hungry now?” in Chinese, needed to ensure stable, rapid performance at peak ordering times without need for adjustments or added resources.

Solution

- Ele.me implemented Azul Platform Prime to improve stability and throughput while also reducing costs by simplifying its corporate architecture, reducing the number of servers, and removing the need to tune JVMs.

Results

- Ele.me’s measurements show Azul Platform Prime runs smoothly and consistently even at high CPU load and with large memory.
- The company is now even more confident its platform can handle the impact of peak traffic during promotional activities, helping Ele.me to remain number one in its highly competitive market.

Use Case

Digital Transformation, e-Commerce

Technology

APIs, Custom Applications

Role

Architect, CTO

Region

APAC

Related Content

[Read the Press Release](#)

“

As the leading food delivery platform in China, Ele.me experiences peak load periods during lunch and dinner time every day. With Azul Platform Prime, we were able to reduce hardware use by 50% and decrease the number of Java instances by 75%.”

Xuefeng Zhang

CTO, Ele.me



iPinYou Improves Ad Success Rates with Azul

Azul Platform Prime: Powering 18 billion daily advertising transactions.

Challenge

- iPinYou has set its sights on being China's leading AI business solution platform through its cutting-edge big data and artificial intelligence technologies. iPinYou's big data and AI platform is currently processing 400,000 queries per second (QPS) and petabytes of data every day.

Solution

- Azul Platform Prime to power iPinYou's Java-based ad servers.

Results

- With Azul Platform Prime, iPinYou optimizes ad selection and bidding requests by storing more data in memory, improving system performance, and simplifying operational complexity.
- Azul Platform Prime eradicates iPinYou's garbage collection pauses, reducing latency and enabling iPinYou to meet its SLA for bidding requests and increase its win ratio.
- Azul Platform Prime also enables iPinYou to boost its Java heap size capacity and reduce the number of JVM instances, while simultaneously increasing the throughput of its platform by 20%.

Use Case

Big Data, Digital Transformation, e-Commerce

Technology

Custom Applications, Hadoop

Role

Architect, Big Data Engineer, CTO

Region

APAC

Related Content

[Read the Press Release](#)



“

We use industry-leading algorithms and Azul Platform Prime has helped us get maximum value out of these for our customers. We are delighted we have chosen to deploy the Azul JVM, having seen exceptional improvement in our ability to meet our strict SLAs on our ad serving infrastructure.”

Xuehua Shen

CTO and Co-founder, iPinYou



Puma Improves Operations with Azul

Improved performance, pauseless operation, epic scalability.

Challenge

- The most important systems experiencing issues were the Product Information Database (PID) and the Global Business System (GBS), a supply chain management solution. PID is the source of all article data created and maintained by the design, product management, and sourcing groups that is used by ERP, warehousing, the online store, and digital catalogs. GBS is the core backbone for orders from PUMA subsidiaries, and in turn places orders with suppliers, factories, and logistics. Purchasing agents would update thousands of orders at a time, overloading the system and triggering “stop-the-world” garbage collection pauses that caused long order processing delays and unacceptable slowdowns for Java-based applications for web presence, stores, and manufacturing operations.

Solution

- Puma migrated its supply chain, product information, and other applications to Azul Platform Prime to provide faster processing and a better user experience. Puma has now standardized on Azul Platform Prime for all of its J2EE headquarters applications.

Results

- Predictable response times
- Lower capital costs and TCO
- Greater scalability
- Eliminated garbage collection pauses
- Simple to implement with no code changes
- Increased business flexibility to add innovative web features and expand operations

Use Case

Big Data, e-Commerce

Technology

APIs

Role

Architect, CTO

Region

EMEA

Related Content

[Read about Retail & e-Commerce Industry Solutions](#)

“

Azul has been a key part of our solution stack for eight years. In all that time we have not experienced a single issue related to our Java infrastructure.

”

Christian Burger

Senior Head IT Custom Solutions,
Puma



Saks Fifth Avenue Increases Its Success with Azul

Long-time Azul customer Saks Fifth Avenue has built its business and reputation on Azul's pauseless Java technology.

Challenge

- The leading luxury retailer needed to improve its website consistency and availability.

Solution

- Azul Platform Prime enabled Saks Fifth Avenue to overcome the Java application challenges of its web portal and deliver predictable response times.

Results

- Enabled saks.com to provide customers a fast, consistent, and seamless user experience, allowing visitors to focus on products and style without disruption.

Use Case

Digital Transformation, e-Commerce

Technology

Custom Applications

Role

Architect, CIO/IT, CTO, Developer, DevOps, Product Manager, VP of Engineering

Region

AMER

Related Content

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[See More Customer Success Examples](#)

“

Azul's unique approach to application scalability is unmatched. With the Azul Java solution we saw tremendous improvements in application performance and response time consistency in our production website.”

Ron Cavallo

*Director of Infrastructure
Saks Fifth Avenue*



SLI Systems Turbocharges Online Search with Azul

Searches are twice as fast now and systems capacity has increased by 130%.

Challenge

- Recently acquired by Avolin, SLI Systems, a provider of cloud-based search tools for online retailers (SLI is an acronym for Search, Learn, and Improve), needed to improve query and response times, increase systems capacity, and reduce developer time spent tuning and working around limitations of its Java runtime platform.

Solution

- SLI Systems implemented Azul Platform Prime to improve scalability of its existing infrastructure, increase throughput, and deliver consistent response times especially during unpredictable periods such as seasonal holidays.

Results

- With Azul Platform Prime, searches are twice as fast and total systems capacity has increased by 130%. This reduces shopping cart abandonment rates, makes product recommendation and pricing engines more effective, and ultimately allows the customer to make more timely decisions.

Use Case

Big Data, Cloud Applications, Digital Transformation, e-Commerce, SaaS Applications

Technology

APIs

Role

Architect, CTO, Developer, DevOps, Search Engineer

Region

APAC

Related Content

[Read the Press Release](#)



“

Azul Platform Prime provides e-commerce shoppers with a better on-line experience by reducing query and response times. We have achieved these benefits while also increasing our total systems capacity by 130%, using much larger memory heaps without problematic garbage collection pauses and without the need to constantly tune the JVM like we had to do before deploying Azul.”

Ashley Taylor

Software Architect, SLI Systems

Making the Internet Safer

Powers its Java-based identity server with Azul Platform Prime.

Challenge

- Curity wanted to offer customers a standards-based, easy-to-implement security solution based on Java that can run on any computer, any cloud. The company also wanted to OEM Java to alleviate customers' concerns about Oracle's licensing changes, and so needed one supported, secure JDK so Curity's technology choices wouldn't become its customers' problems.

Solution

- Azul Platform Core, which Travis Spencer, CEO of Curity, described as "a robust option from a trusted vendor that fit our software development lifecycle." Trust came quickly in the relationship, and was continually reinforced by the excellent support Curity received from Azul.

Results

- Curity has opened half a dozen support cases and "gotten great help each time." The cases have been complicated ones, yet the dev team has always received great answers and help in workable timeframes.

Use Case

Cloud Applications, Fraud & Identity

Technology

APIs

Role

CEO, CISO, Developer

Region

EMEA

Related Content

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“

Azul gives us peace of mind. This helps us all focus on the more important things we're doing to make the Internet safer. This is the value we get from Azul!”

Travis Spencer
CEO, Curity



From Mainframe to Cloud Native Java

Heirloom Computing Re-platforms Mainframe Apps to Cloud Native Java

Challenge

- Many companies want to move away from having their own data center and utilize cloud-based infrastructures and software environments instead. What's holding them back is that their core business depends on a long-running mainframe application which is too valuable and too complex to move out of the centralized control and security of their on-site data center. Thus, two-thirds of the Fortune 100 continue to use mainframes, even though they may not want to.

Solution

- Heirloom automatically re-platforms and re-factors mainframe applications to run as cloud-native Java applications on Azul Platform Prime. Heirloom's compilation process preserves business logic and data integrity, seamlessly mapping all application subsystems to Java and open-systems equivalents. The resulting application is guaranteed to exactly match the business logic and functionality of the original application.

Results

- With their mainframe applications converted to Java running in the cloud, enterprises get greater application elasticity, higher availability, and dynamic, pay-for-use right-sizing of capacity for efficient resource utilization. And with Azul Platform Prime, they're assured of the best Java security, reliability, and support in the industry.

Use Case

Big Data, Cloud Applications, Digital Transformation

Technology

Custom Applications

Role

Architect, VP of Engineering, CIO/IT, Business/Management, CTO

Region

AMER, EMEA

Related Content

[Read the Case Study](#)

“

Our clients' mission-critical applications must run reliably, securely, and consistently. Azul JVMs, known as Azul Platform Prime, ensure that we have a solid bedrock with all three of these KPIs and these are the only JVMs we trust and recommend.”

Graham Cunningham

Chief Technology Officer, Heirloom Computing



SaaS Pioneer in Search

NetDocuments' document search capabilities are scalable, thanks to Azul, to serve large organizations with millions of documents and thousands of users.

Challenge

- NetDocuments' users manage over 1 billion documents across four global datacenters, leveraging the world's most feature-rich, efficient document management service on the Web and a cloud delivery model. Search speed, however, was an issue on the Java-based system.

Solution

- At an Apache Solr training session, the NetDocuments team learned about a blog post about Azul Platform Prime being tested with Lucene and found to remove all pauses, even when utilizing more than 70 gigabytes in the Solr RAM Directory, which is just what NetDocuments was looking to accomplish. Within minutes after starting their Azul Prime trial, the NetDocuments developers observed the complete elimination of Java garbage collection pauses, fueling the success of their migration to Solr.

Results

- GC pauses of a minute or more were eliminated without re-coding or re-architecting.
- The need to babysit the JVM was eliminated; now engineers can focus on new features.
- The NetDocuments team found Azul Platform Prime helpful in targeting application memory leaks.

Use Case

Cloud Applications, SaaS Applications

Technology

Solr

Role

Architect, Search Engineer

Region

AMER

Related Content

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[Discover Search, with Azul](#)

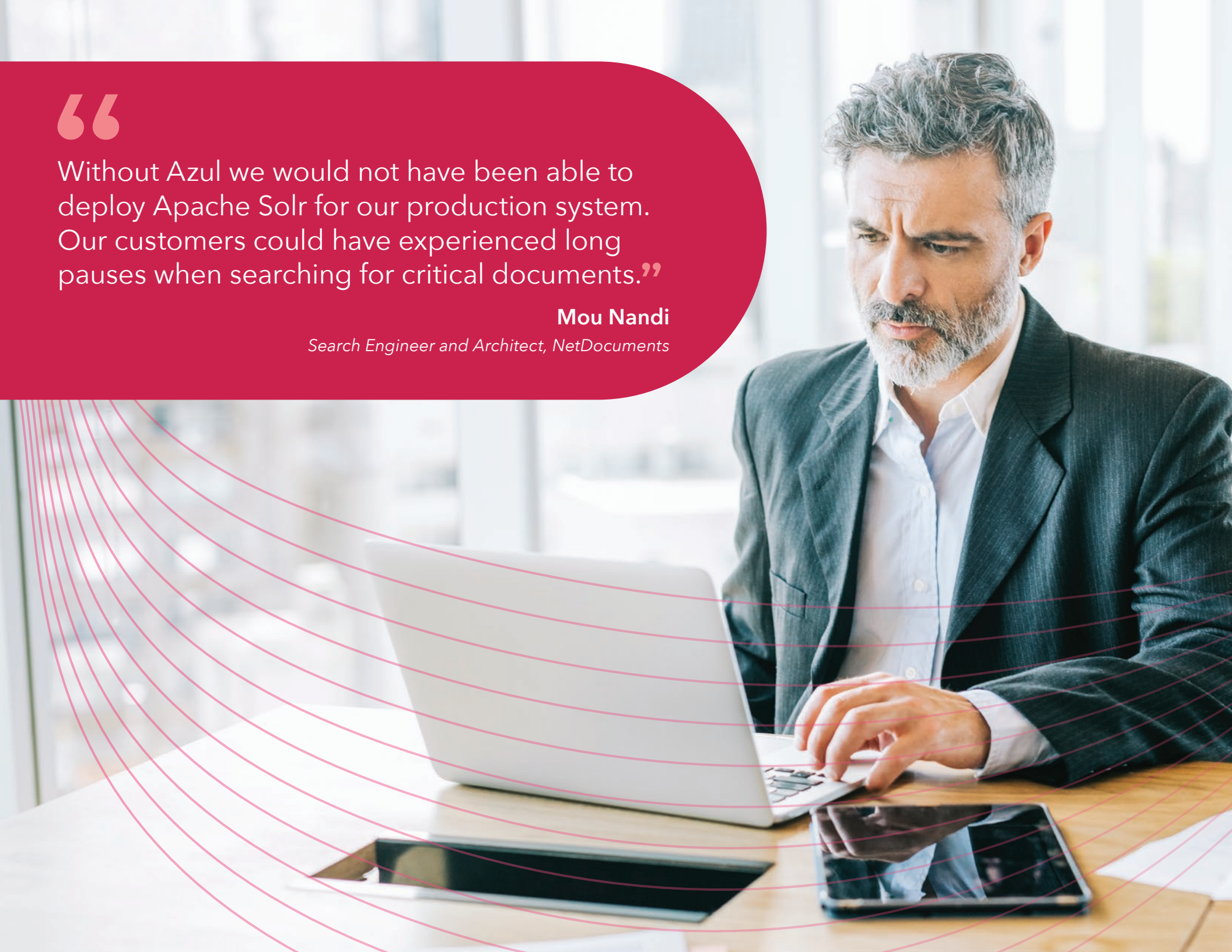
[Reduce Solr Infrastructure Costs, with Azul](#)

“

Without Azul we would not have been able to deploy Apache Solr for our production system. Our customers could have experienced long pauses when searching for critical documents.”

Mou Nandi

Search Engineer and Architect, NetDocuments





Payara Services Ltd Relies on Azul Runtimes

Improves security and stability of customers' enterprise Java deployments.

Challenge

- Needed to include builds of OpenJDK with Payara Platform Enterprise as part of included support services.
- Wanted to support clients with more versions of Java and reduce their infrastructure costs while increasing their development flexibility free of complicated license commitments to Oracle.

Solution

- Azul Platform Core ensures that Payara Enterprise includes the most secure builds of OpenJDK, Java-certified TCK-tested for Java versions 15, 13, 11, 8, and 7.
- Azul provides the broadest platform support in the industry, and the industry's best engineering support services.

Results

- Best expressed by Payara client Jan Nielsson, IT Architect at Rekryteringsmyndigheten: "Key to our decision was the promise of long-term support for both products and the guarantee of compatibility between Payara and the Azul JDK. The partnership of the two businesses is therefore beneficial to us, and will contribute to the security and stability of our Enterprise Java deployments—now and well into the future."

Use Case

Cloud Applications

Technology

Jakarta EE

Role

Developer, DevOps

Region

EMEA

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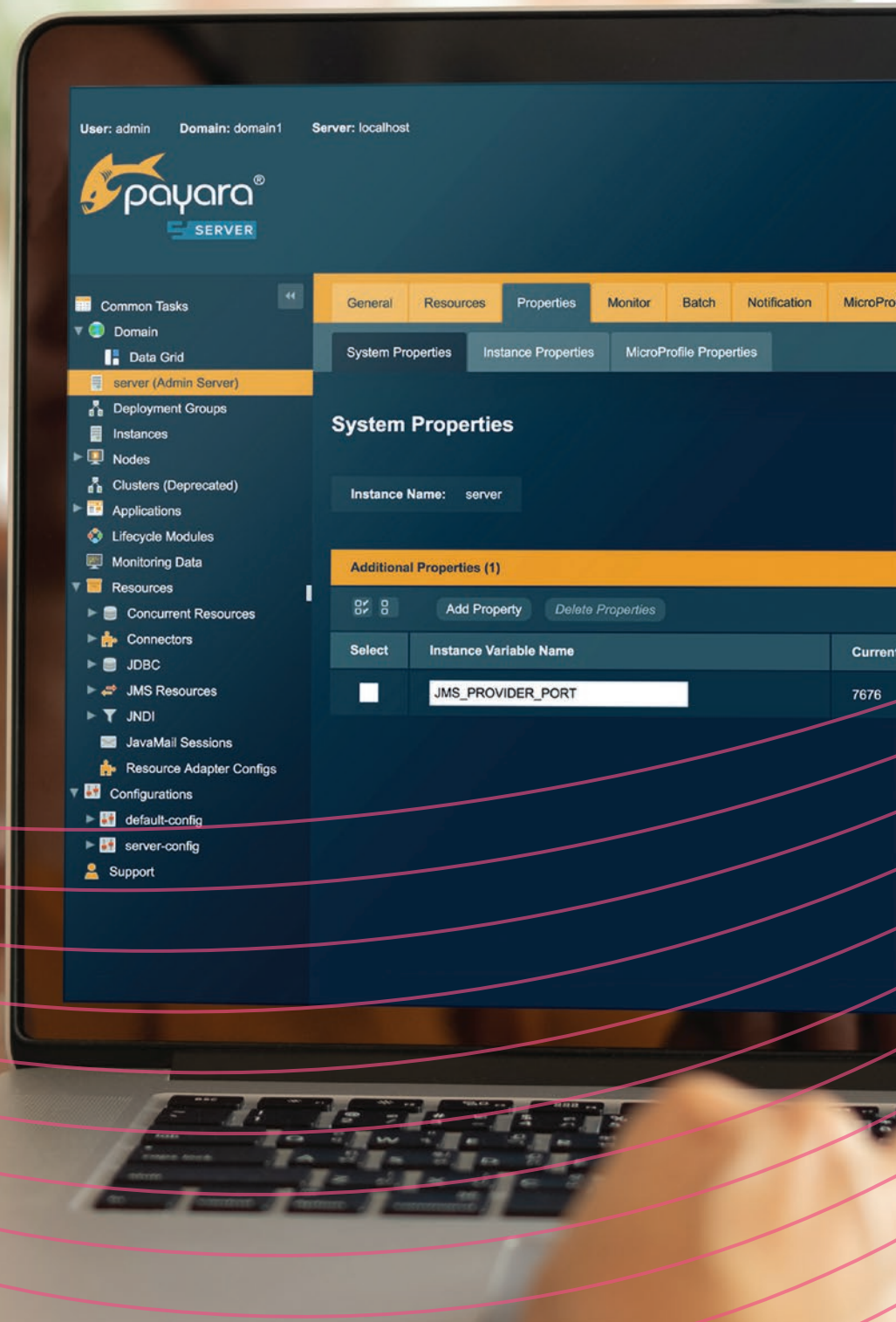
[See Other Examples of Software & Technology Customer Success](#)

“

With Azul as our partner, we deliver a fully-supported open source platform for production MicroProfile and Jakarta EE applications with Payara Enterprise, backed by Azul's award-winning support organization, enabling us to provide Enterprise customers with a secure and stable application platform from the JVM on up.”

Steve Millidge

Founder and Technical Director, Payara



Business Integration Suite Runs on Azul

Azul makes it easier, cheaper, more secure for SEEBURGER customers.

Challenge

- The SEEBURGER platform is built on Java, and SEEBURGER's original Java vendor was Oracle. Then Oracle announced that, starting in 2019, Java SE (Standard Edition) public updates would no longer be available for commercial use without a commercial license. SEEBURGER realized these changes would leave customers vulnerable on an unsupported version or in a situation where they might need to purchase additional licenses from Oracle.

Solution

- SEEBURGER decided to strategically invest in a commercial agreement with Azul for a fully maintained Java version to be shipped bundled with SEEBURGER software, from which all customers would benefit as part of their existing maintenance contract.

Results

- Customers no longer have to buy the JDK license. Azul ships the updates/fixes regularly every quarter, and makes sure the licensing is up-to-date, so the customer has no problems. As Bernd Eckenfels, Chief Architect for SEEBURGER AG, says: "Great service. Flat rate. Flexible. No reporting. Easily reachable and responsive. That's Azul."

Use Case

Cloud Applications, Digital Marketing, Fraud & Identity

Technology

APIs

Role

Architect, CTO, Developer, DevOps, Product Manager

Region

EMEA

Related Content

[Read the Case Study](#)

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“

The relationship with Azul benefits our customers by providing a complementary solution that enhances our offering. We are extremely pleased to extend this capability to all SEEBURGER customers, so that they can focus on providing value to their business with our Business Integration Suite, instead of having to worry about the underlying technology.”

Matthias Feßenbecker

*Chief Technology Officer,
SEEBURGER AG*



Java-based SaaS for Millions of Workers

Infrastructure transformation eliminated 95% of operational issues.

Challenge

- Workday's key customer-facing application, "as critical as the engine in a car or a heart inside a human," suffered from serious performance issues.

Solution

- Over the course of a three-year journey, Workday moved from 0% use of Azul Platform Prime as its JVM to nearly a complete transition to Azul Platform Prime throughout its core services.

Results

- Azul Platform Prime reduced total pause time per JVM from 40,000 seconds per week to 14 seconds per week.
- Improved vertical scalability from 200GB to over 2TB.
- Reduced operational issues by over 95%.
- This eliminated at least 42,000 person-hours over 1.5 years that would have been spent on performance tuning, saving many millions of dollars and freeing developers to create rather than troubleshoot.

Use Case

Cloud Applications, SaaS Applications

Technology

APIs, Custom Applications, Elasticsearch, Hadoop, Ignite, Kafka, Tomcat

Role

CIO/IT, CTO, Head of Engineering, Product Manager

Region

AMER

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“

I'm just as enthusiastic today about Azul as when I started out with the product ten years ago as a performance engineer. Azul Platform Prime removes the toil in operations.”

Attila Bukta

Sr. Director of OMS Service Reliability Engineering, Workday

Home Controllers Based on Java/OSGi

Bosch.io's gateway and backend software together with Azul's JVM make home automation robust and resilient, yet flexible and easy to use.

Challenge

- Smart home technology has to be flexible enough to adapt to new developments in a fast-changing world, yet safe and secure enough to bring peace of mind to home owners.

Solution

- Busch-Jaeger developed a smart-home control unit based on Java and OSGi. It adjusts the home's lighting, heating, and temperature—and can even control windows, blinds, and motion sensors.

Results:

- Busch-Jaeger's smart-home control unit provides a solid foundation for safe, secure, and user-friendly smart-home applications. It puts a robust system at user's fingertips that readily accommodates new applications.

Use Case

IoT & Embedded

Technology

OSGi

Role

Product Manager, VP of Engineering

Region

EMEA

Related Content

[See *bosch.io* website](#)

[See Azul IoT & Embedded Use Cases](#)



“

A reliable home automation system needs to be self-contained with complex software running on the controller. Busch-Jaeger chose Java as its implementation platform based on software supplied by Azul Systems and Bosch.io.”

Bosch.io

Powering IoT with Azul

All the building blocks required to create embedded IoT services and applications.

Challenge

- Eurotech wanted to deliver tested, certified, 100% open source builds of OpenJDK for Java developers building solutions on Eurotech's embedded boards and edge computing devices.

Solution

- Eurotech Java-based embedded devices now include Azul Builds of OpenJDK for systems based on x86 and Arm processors.

Results

- By integrating Azul, Eurotech and its customers have the advantages of tested, certified, multi-platform builds of OpenJDK, access to timely Java security updates and bug fixes, and their IP is protected by Azul's guarantees against the risk of open source patent infringement and license contamination.

Use Case

IoT & Embedded

Technology

APIs

Role

Product Manager

Region

EMEA

Related Content

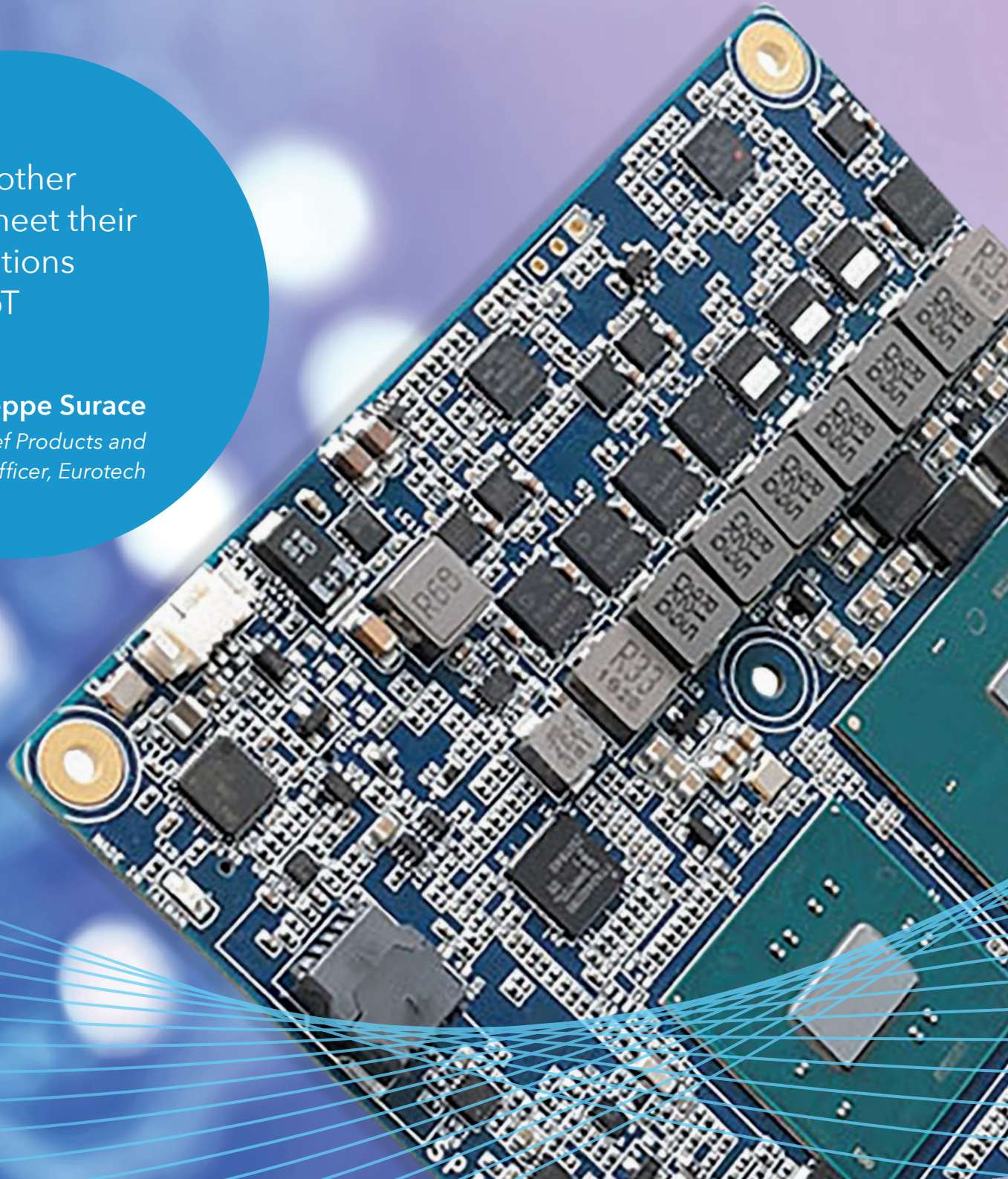
[Read the Press Release](#)

“

Azul brings to our customers another technology block that helps to meet their needs for smart embedded solutions required to create embedded IoT services and applications.”

Giuseppe Surace

*Chief Products and
Marketing Officer, Eurotech*



Document Solutions Powered by Azul

We found it very easy to do business with Azul.

Challenge

- With many millions of consumer print devices sold worldwide, Kyocera needed to implement OpenJDK on multifunctional products and printers built using both Arm and PowerPC-based microprocessors.

Solution

- Azul's certified, tested, multi-platform builds of OpenJDK for 32-bit Arm processors. Subsequent orders included Azul Platform Core builds of OpenJDK for PowerPC and 64-bit Arm processors as well.

Results

- Lower costs, and direct access to and support from Azul product and engineering teams. Kyocera likes doing business with Azul and can trust that Azul will deliver when they say they will.

Use Case

Digital Transformation, IoT & Embedded

Technology

APIs

Role

Business/Management, CIO/IT

Region

APAC

Related Content

[Read the Press Release](#)

A close-up photograph of a person's hands holding a thick stack of white papers. The person is wearing a dark blue long-sleeved shirt. The background is blurred, showing what appears to be an office or laboratory setting. On the left side of the image, there is a large blue circular graphic that serves as a background for the text. The text is white and includes a quote, the name of the speaker, and their title. The overall tone is professional and informative.

“

We found it very easy to do business with Azul. Azul's business model and terms were very flexible, and they helped to simplify our operations. Plus, they provided us with direct support by their Engineering team throughout the development and implementation of our next-generation devices.”

Michihiro Okada

*General Manager of Software R&D Division,
Kyocera Document Solutions*

openHAB Makes Open Source Smart Home Platform

Canonical, openHAB Foundation, and Azul team up to deliver a flexible, free control hub for home IoT setups.

Challenge

- There is strong demand for smart home applications and devices, but vendor lock-in to one particular ecosystem makes it difficult to use the devices and services that users wish.

Solution

- Every smart home setup is highly individual and hence the product choices vary. openHAB has established a universal smart home integration platform which is vendor-neutral and fully open towards integration with any existing smart home devices and services out there.

Results

- openHAB is software for integrating different home automation systems and technologies into one single solution that allows over-arching automation rules and offers uniform user interfaces.
- openHAB 2 is an open-source solution based on the Eclipse SmartHome framework. It is fully written in Java and uses Apache Karaf together with Eclipse Equinox as an OSGi runtime and bundles this with Jetty as an HTTP server. Consumers are free to mix and match hardware and services from different brands.

Use Case

IoT & Embedded

Technology

OSGi

Role

Product Manager, VP of Engineering

Region

EMEA

Related Content

[Read the Press Release](#)

[See Azul IoT & Embedded Use Cases](#)



“

Our partnership with Ubuntu and Azul makes it simple to quickly set up openHAB in a secure way, without losing the ability for more technically advanced people to create and fine-tune their own applications.”

Kai Kreuzer

President, openHAB Foundation

Next-generation IoT Gateways

The flexibility of a 100% open source platform backed by Azul's superb support.

Challenge

- V2COM has achieved extraordinary results using Java across multiple generations of embedded, M2M, and IoT-focused designs. Going forward, V2COM needed a trusted Java partner to help navigate the ever-changing Java roadmap and reduce product costs.

Solution

- Azul's certified, tested, multi-platform builds of OpenJDK, supporting all major versions of Linux plus Windows, macOS, Solaris, and QNX, and offering extended product support lifetimes required for multi-year implementations.

Results

- V2COM benefits from working with an experienced team 100% focused on Java, access to the full breadth of Java SE versions with long-term support, and flexible, hassle-free business terms.

Use Case

IoT & Embedded

Technology

APIs

Role

CEO, Product Manager, VP of Engineering

Region

AMER

Related Content

[Read the Press Release](#)

“

With Azul, we gain a Java partner with deep experience in the embedded sector, IP protection for our application code, simple and affordable pricing plans, and the flexibility of a 100% open source platform backed by Azul's superb support organization.”

Guilherme Spina
CEO, V2COM



VIVAVIS Smart Grid Controllers Run on Azul Platform Core

Providing automation and telecontrol for high-performance IoT systems in utilities, energy, communications, and other industries.

Challenge

- Based in Ettlingen, Germany, VIVAVIS (formerly IDS) specializes in IT and automation solutions for smart grid and smart metering applications. Its portfolio covers all aspects of technical network operation, geographically based information management, and metering systems. Among its offerings are the ACOS 7 automation and telecontrol series. The ACOS 730 is a remote terminal unit (RTU) for small-scale telecontrol applications which can be used for intelligent control of local transformer stations, streetlighting and decentralized energy resources. The newer ACOS 750 offers a powerful RTU version to service the highest demands of transport or distribution network operators.

Solution

- VIVAVIS chose Azul Platform Core as the embedded Java platform in its ACOS 730 and 750 smart grid devices. Azul Platform Core is the only fully certified, completely customizable 100% open-source Java platform for embedded systems and IoT and IIoT edge devices.

Results

- The result for VIVAVIS is an innovative, turnkey, secure, stable solution that can easily scale as deployments expand in the future as more devices, such as solar PV installations and street-lamps, become remotely controllable and in need of Java security.

Use Case

IoT & Embedded

Technology

APIs, Custom Apps

Role

Architect, Developer

Region

EMEA (Germany)



“

We chose Azul only after evaluating a number of options including Oracle Java and Jam VM. Azul Platform Core meets our rigorous standards for supporting and updating ACOS 7 series devices, for the duration of their 10- to 20-year lifetime, including remote security to fulfil the most rigorous IT security demands.”

Michael Conrad

RTU Development Lead, VIVAVIS

Inductive Automation Powers Platform with Azul

Uses Azul Platform Core across its entire product family.

Challenge

- Inductive Automation wanted to embed builds of OpenJDK in all the products that comprise its Ignition industrial application platform.

Solution

- Inductive Automation customers receive fully-integrated builds of Azul Platform Core as part of all Ignition platform and Ignition Edge device deployments, with Java embedded in both the Ignition gateway and client launcher.

Results

- With Azul embedded in the Ignition industrial application platform, Ignition users and developers now get a fully supported, open-source Java development and runtime platform that is continuously up-to-date.

Use Case

IoT & Embedded

Technology

APIs

Role

Developer, Head of Engineering, Product Manager

Region

AMER

Related Content

[Read the Press Release](#)

[See Azul IoT & Embedded Use Cases](#)

“

By adopting Azul Platform Core, we ensure that our customers always have access to secure, certified, and tested builds of Java that have been fully integrated into our Ignition platform.”

Carl Gould

*Co-director of Software Engineering,
Inductive Automation*



Index by Use Case

Customer Name	Page #	SaaS Applications	IoT & Embedded	Big Data	e-Commerce	Payments	Trading & Risk	Fraud & Identity	Cloud Applications	Digital Transformation	Digital Marketing
Bazaarvoice	50	●			●				●		
BIDS Trading	6			●			●				
Busch-Jaeger	74		●								
C24 Technologies	8						●				
Celer Technologies	10			●			●				
Chess.com	40			●					●		
Curity	62							●	●		
DLT Capital	12			●			●				
Dsquare Trading	14			●			●				
Ele.me	52				●					●	
Eurotech	76		●								
Feedzai	16	●		●		●	●				
Heirloom Computing	64			●					●	●	
Inductive Automation	86		●								
iPinYou	54			●	●					●	
Itiviti	18						●				
Kyocera	78		●							●	
LMAX Global	20			●			●				
Mastercard	22			●		●		●			
MEMX	24						●				

Customer Name	Page #	SaaS Applications	IoT & Embedded	Big Data	e-Commerce	Payments	Trading & Risk	Fraud & Identity	Cloud Applications	Digital Transformation	Digital Marketing
NetDocuments	66	●							●		
openHAB	80		●								
Payara Services Ltd	68								●		
Pontus Networks	26						●				
Priceline	42			●	●					●	
Puma	56			●	●						
Rapid Addition	28						●				
Redline Trading	30						●				
Saks Fifth Avenue	58				●					●	
SEEBURGER	70							●	●		●
SLI Systems	60	●		●	●				●	●	
Solarflare	32						●				
Spotex	34						●				
Taboola	44			●					●		
Traiana	36						●				
V2COM	82		●								
Ventusproxy	46			●							
Viking Line	48				●						
VIVAVIS	84		●								
White Clarke Group	38	●							●		
Workday	72	●							●		

Index by Java-Based Technology

Customer Name	Page #	Cassandra	Kafka	Solr	Elastic-search	Hadoop	HBase	Spark	Ignite	Hazelcast	Tomcat	JBoss	ZooKeeper	APIs	Custom Applications	OSGi	Jakarta EE	Ignite
Bazaarvoice	50	●			●													
BIDS Trading	6													●	●			
Busch-Jaeger	74															●		
C24 Technologies	8													●	●			
Celer Technologies	10		●		●		●							●	●			
Chess.com	40										●							
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DLT Capital	12													●	●			
Dsquare Trading	14		●					●						●	●			
Ele.me	52													●	●			
Eurotech	76													●				
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Viking Line	48														●			
VIVAVIS	84													●	●			
White Clarke Group	38											●						
Workday	72		●		●	●			●		●			●	●			

Index by Role

Customer Name	Page #	Developer	DevOps	CTO	Trader	Product Manager	VP of Engineering	CIO/IT	Risk Manager	Architect	CEO	CISO	Fraud Analyst	Head of Engineering	Big Data Engineer	Business/ Management	Search Engineer	Security
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Busch-Jaeger	74					●	●											
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Saks Fifth Avenue	58	●	●	●		●	●	●		●								
SEEBURGER	70	●	●	●		●				●								
SLI Systems	60	●	●	●						●							●	
Solarflare	32				●				●									
Spotex	34			●	●					●	●							
Taboola	44	●	●	●				●		●								
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V2COM	82					●	●				●							
Ventusproxy	46	●	●	●				●		●							●	
Viking Line	48			●				●		●								
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White Clarke Group	38			●					●	●								
Workday	72			●		●		●						●				

Index by Region

Customer Name	Page #	AMER	APAC	EMEA
Bazaarvoice	50	●		
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Workday	72	●		

Index by Industry

Customer Name	Page #	FINANCIAL SERVICES	MEDIA, TRAVEL & ENTERTAINMENT	RETAIL & E-COMMERCE	SOFTWARE & TECHNOLOGY	ELECTRONICS	MANUFACTURING
Bazaarvoice	50			●			
BIDS Trading	6	●					
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VIVAVIS	84					●	
White Clarke Group	38	●					
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Why Azul?

We believe Java is key to unlocking business potential now and in the future. We are passionate about engaging with the Java community to offer insights, innovation, and solutions that bring new relevance to Java in a connected world.

Our Vision: More Java

At Azul, we believe in a Java-centric software world where developers, users, business professionals, and the community demand more, expect more, and get more. More capabilities. More performance. And ultimately more value and success for our customers who depend on us for an exceptional Java experience.

Our Strategy: More Azul

We want to make Azul the heart of every modern cloud enterprise by prioritizing our customers' success, maintaining our unwavering commitment to innovation and excellence, and advancing Java through community leadership.



Azul, provider of the Java platform for the modern cloud enterprise, is the only company 100% focused on Java. Millions of Java developers, hundreds of millions of devices, and the world's most highly regarded businesses trust Azul to power their applications with exceptional capabilities, performance, security, value, and success. Azul's customers include 27% of the Fortune 100, 50% of Forbes Top 10 World's Most Valuable Brands, all 10 of the world's Top 10 financial trading companies, and leading brands like Avaya, Bazaarvoice, BMW, Credit Suisse, Deutsche Telekom, LG, Mastercard, Mizuho, Priceline, Salesforce, Software AG, and Workday.

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