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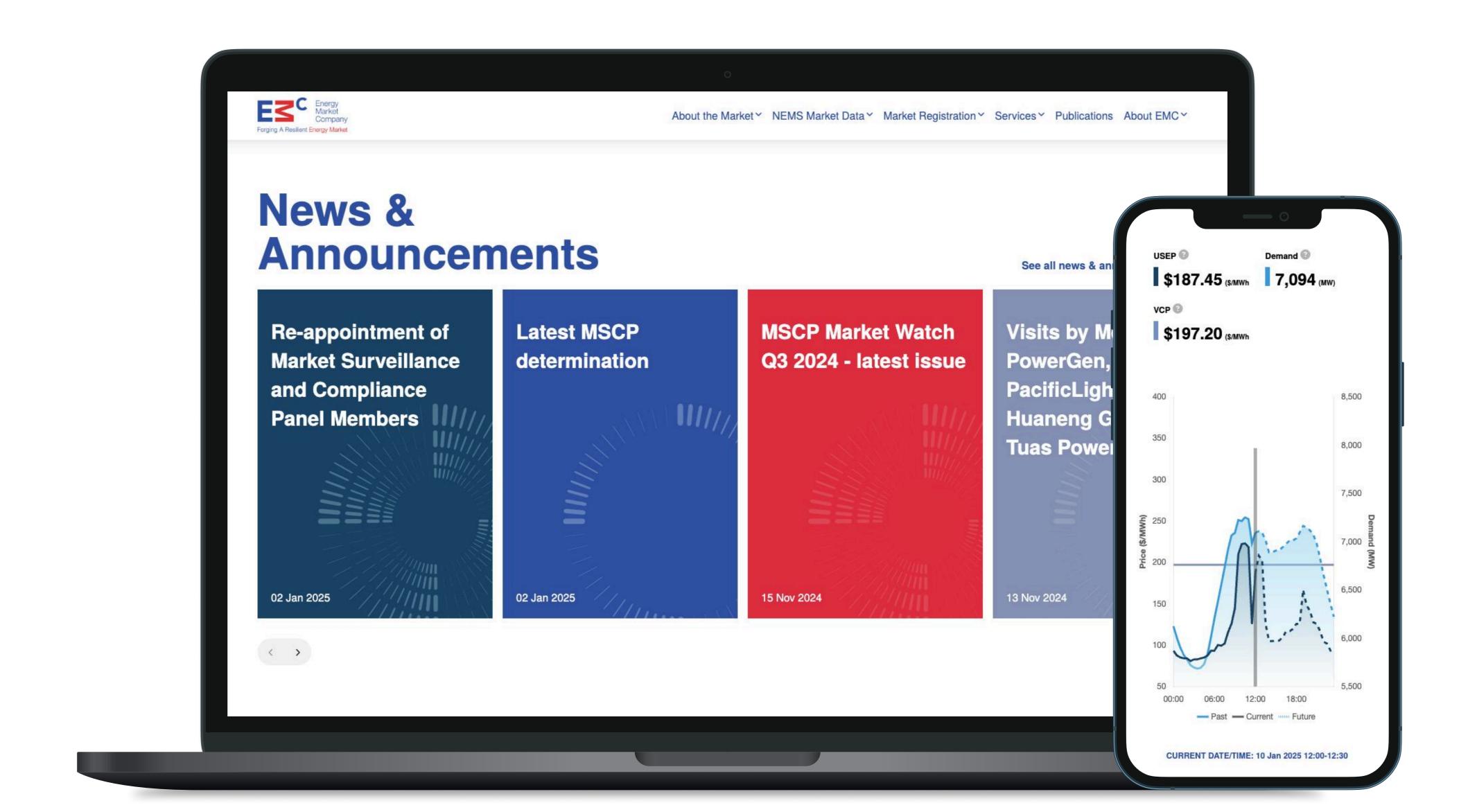
Vertis Elevates EMC's Online Presence into an Immersive Digital Experience.

Energy Market Company (EMC)

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Overview

Vertis enhanced Energy Market Company (EMC) online presence to maintain their leadership in Asia's liberalised electricity markets, integrating **real-time and historical energy data** into a user-friendly format without disrupting ongoing data flows.





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Introduction and Context

Q. What were the key challenges or needs that prompted the adoption of this web development technology or solution?

EMC needed a modernised platform capable of handling their real-time market data and extensive historical information. Their existing system struggled to support uninterrupted data flows, causing operational inefficiencies. EMC aimed to maintain its leadership in Asia's liberalised electricity markets by offering robust functionality paired with a superior user experience.

Q. What was the primary goal or project for which the technology was utilised?

Vertis needed to create a Sitecore-based solution that integrated EMC's dynamic and data-intensive operations—particularly real-time financial data and charting—into a user-friendly, stable, and future-ready platform.

Q. What alternatives were considered before selecting this technology, and why was it chosen?

After evaluating multiple CMS options, Sitecore stood out for its customisation capabilities, robust automation support, and seamless handling of complex integrations. Its flexibility ensured it met EMC's unique needs without compromising performance.

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Technology Overview

Q. What is the name and purpose of the web development technology in the case study?

Vertis used **Sitecore XP 10.2** to build an optimised infrastructure capable of handling real-time data integration, secure API gateways, and custom charting components for the energy market.

Q. What are the main features or capabilities of this technology?

Real-Time Data Integration: Seamlessly connects EMC's live market data to the platform.

Custom Charting Components: Provides user-friendly visualisations of energy market data.

Secure API Gateways: Secures data exchange between EMC's systems and the public platform.

Enhanced Search Capabilities: Improves access to thousands of migrated historical documents.

Q. Were there any unique risk mitigation strategies or resource structures involved?

Team Composition

1 Solution Architect | 1 Solution Lead | 1 Project Manager | 4 Developers

Regulatory Compliance

The platform was meticulously designed to meet strict government regulations and reporting standards, ensuring seamless operational alignment with industry requirements.

Reporting Timelines

The platform adhered to strict reporting schedules, generating data every 30 minutes and comprehensive daily and monthly reports.

Advanced Security Measures

Robust security protocols were implemented, including encryption for all credentials to safeguard sensitive information.

System Availability

The system was engineered to achieve 99.9% uptime, guaranteeing reliability and uninterrupted access for users.

Two-Factor Authentication (2FA)

A mandatory two-factor authentication process was integrated to enhance access security and protect against unauthorised access.

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Vertis not only met our expectations but exceeded them, creating a robust platform that enhances our operational efficiency and user engagement.

Implementation Process

The Vertis Approach: Tech-driven Creativity

Expertise in Sitecore XP & Data Projects

Post-Line Support and Automation

Leveraged Sitecore XP to design a customised solution for EMC's complex, high-volume data needs.

The platform supported post-line operations for a data-driven website, updated daily and reliant on automation.

Tailored, Scalable, and Secure Solution

Cost-Effective Delivery

The final solution was customised to address EMC's requirements, ensuring it was sophisticated, scalable, and secure.

Azure cloud services were used to create a cost-efficient platform without compromising functionality.

Navigating Client Constraints

Optimised Cacheability

Overcame challenges, including EMC's stringent audits, to seamlessly integrate key features and workflows.

The solution was optimised for CDN cacheability, ensuring high performance, reduced latency, and enhanced reliability.

Q. How was the technology integrated into the project or organisation's workflow?

Vertis conducted meticulous project planning, user discovery sessions, phased demonstrations, and feedback loops, ensuring the new digital platform aligned with EMC's operational workflows without causing disruptions to ongoing data feeds.

Q. What were the major steps or milestones in the implementation process?

Detailed Project Planning and Analysis: Identified potential pain points for smoother execution.

Engaging User Discovery: Gathered requirements from daily users to shape functionality.

Demonstrations and Feedback Integration: Iterative progress for immediate adjustments.

Efficient Data Migration: Moved thousands of documents and enabled advanced search.

Q. Were there any significant challenges during implementation? If so, how were they resolved?

Challenges included knowledge gaps, legacy system issues, and initial performance bottlenecks. These were overcome using advanced caching strategies and leveraging Azure cloud services for scalability and cost efficiency.

Q. What resources (time, budget, expertise) were required for implementation?

Despite a typical timeline of one year for similar projects, Vertis completed the platform in just five months, thanks to efficient planning and extensive Sitecore experience. Budget constraints were addressed by optimising resource allocation.

Use Case and Functionality

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Q. How does this technology compare to the organisation's previous tools or methods?

Frontend Design

Developed a user-friendly interface displaying realtime data.

Backend Development

Established a stable Sitecore XP 10.2 infrastructure with data syncing for charts and media, generating daily and monthly reports.

API Integration

Employed secure gateways to manage data exchange efficiently.

Data Migration

Advanced indexing and search functions for historical documents.

DevOps

Enabled consistent deployments with zero downtime.

Q. How does the technology support scalability, performance, and security?

Scalability: Sitecore XP 10.2 and custom architecture handle high data loads, including real-time energy data.

Performance: Optimised infrastructure ensures minimal latency with frequent updates.

Security: Sitecore XP 10.2 offers encrypted credentials and Azure data encryption for secure solutions.

Q. Were there any unique or innovative ways the technology was used in this case?

Real-time data integrations and custom charting solutions are typically complex. The seamless user experience in an energy market context is a standout feature.

Impact and Results

Q. What measurable outcomes or benefits were achieved after implementing the technology?

Enhanced Data Visualisation: Users can easily access and interpret real-time market information.

Superior User Experience: Improved site navigation and design boost user engagement.

Operational Efficiency: The stable and optimised platform supports EMC's high-volume data flow without disruptions.

Operational Stability: Uninterrupted data flows.

Q. How did the technology impact the development team's productivity and workflow?

The integration of DevOps automation streamlined deployments and minimised errors, significantly improving productivity. Two stage deployment strategies allowed the team to catch errors before production, ensuring a smooth delivery.

Q. What metrics or KPIs were used to evaluate its effectiveness, and what were the results?

User Engagement: Positive user feedback about the real-time data display and navigation.

Project Timeline: Completion sooner than anticipated, reflecting efficient execution. Additional or more specific KPIs may be provided by EMC or Vertis analytics team.



Stakeholder Feedback

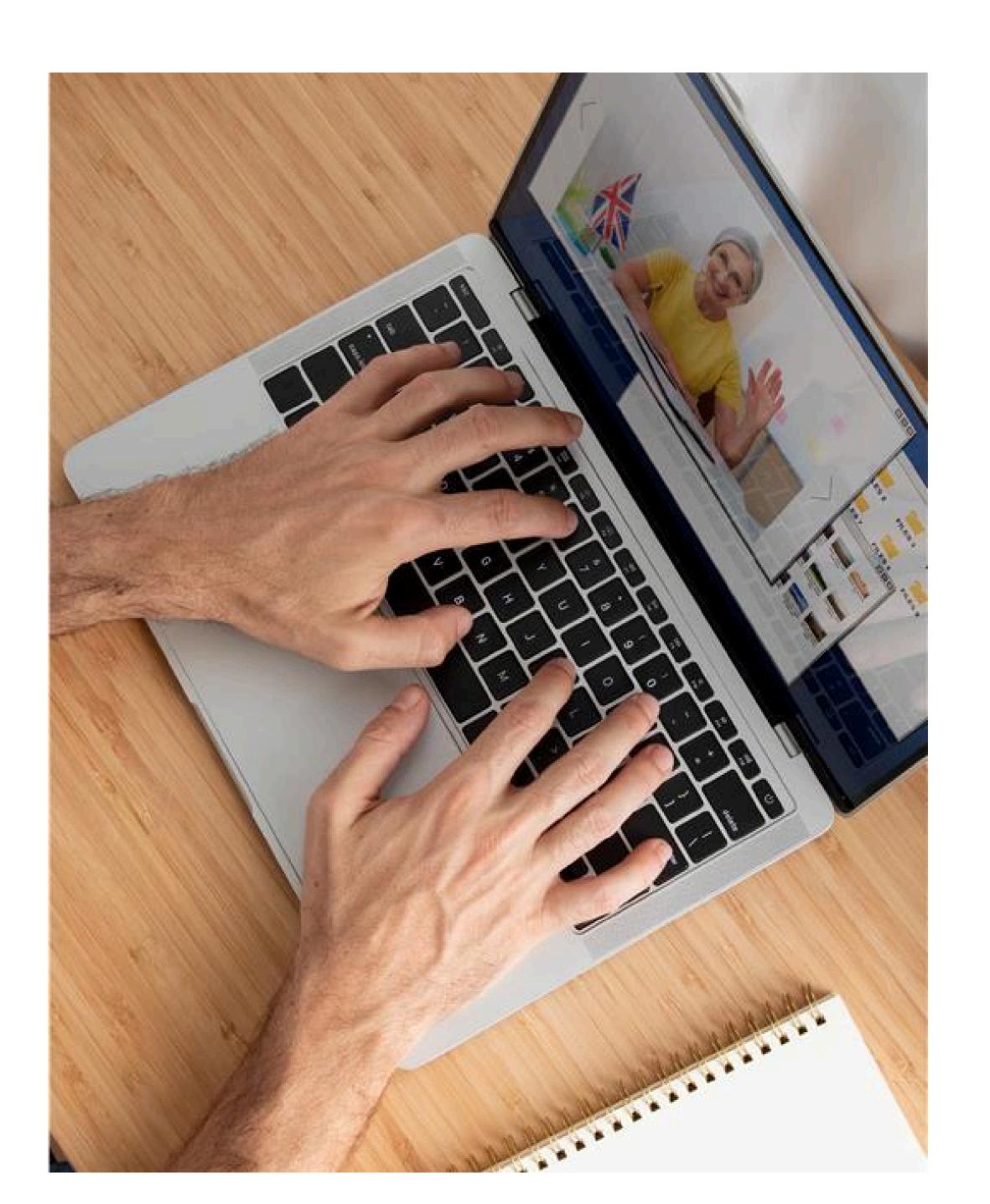
Q. Was additional training or onboarding required for the development team?

Comprehensive documentation, user manuals, and pre-launch Sitecore CMS training were provided. Weekly standups during the project and monthly updates afterward ensured ongoing support, along with 3.5 years of maintenance and enhancements.

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The expertise and dedication of Vertis Digital were instrumental in achieving a sophisticated digital solution that not only aligns with our strategic goals but also enhances our market position. Their proactive approach in planning and execution brought our project to completion sooner than anticipated, with outstanding results.

Gautam Shangari
Energy Market Company
Assistant Vice President Technology (Applications)



7 Comparative Analysis

Q. How does the cost of using this technology compare to its benefits?

The long-term benefits, including flexibility, scalability, and customisable workflows, far outweighed the initial investment.

Q. How does this technology compare to the organisation's previous tools or methods?

EMC transitioned from a more static and less user-friendly environment to a dynamic, data-intensive platform capable of real-time updates—indicating a significant technical upgrade. Automated more processes for report generation.

Q. What advantages or trade-offs were observed when using this technology?

Advantages: Real-time data handling, improved user experience, and robust integration. CMS easier to use and customisable, flexibility in layouts and page creation.

Trade-offs: Potentially higher initial cost and complexity in deploying an advanced Sitecorebased system with custom integrations.

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Challenges and Limitations

Q. What were the primary limitations or constraints encountered with the technology?

Unclear information architecture and responsibilities complicated the initial mapping process.

Q. How were these challenges addressed during the project?

A detailed mapping exercise was conducted to clarify roles and responsibilities.

Q. Are there any features or functionalities the technology lacks that would have been beneficial?

More detailed CMS email notifications could improve user efficiency.

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Lessons Learned

Q. What were the key takeaways or lessons learned from using this technology in the project?

- 1 Detailed project planning and user discovery sessions are crucial for a successful rollout.
- 2 Continuous feedback integration fosters transparency and minimises rework.
- 3 Managing real-time data requires robust infrastructure and thorough testing.
- 4 Early and continuous user engagement is essential.

Q. Are there best practices or strategies for organisations considering adopting this technology?

Engage users early and often to refine functionality. Prioritise secure, scalable architectures from the outset, especially when dealing with high-frequency data. Employ iterative demos to keep stakeholders aligned and informed.

Q. What would the team do differently in hindsight?

Scrutinising the frontend codebase early in the project would have ensured smoother Sitecore integration.

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About Vertis

Vertis is a digital agency on a mission to constantly innovate and create exceptional digital solutions, elevating clients' brands and the experiences they deliver through the power of technology-driven creativity.

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