



Business challenge

Occupying the leading edge is a high-risk strategy that can yield huge rewards. Content management specialist Elinar saw disruptive potential in AI, and needed the right tools to make it a success.

Transformation

Elinar is using the IBM® Power System S822LC platform and IBM PowerAI toolset to develop pioneering ECM solutions that integrate AI technology, delivering game-changing benefits to clients.

Business benefits:

Enables

valuable first-mover advantage over competitors, winning Elinar new clients

>2x

performance of x86 platform, slashing time-to-market for new solutions

Controls

costs by increasing productivity of developers

Elinar Oy Ltd Jumps to the front of the pack with disruptive innovation powered by AI technology

Elinar Oy Ltd helps knowledge-intensive organizations turn their data into business value, through its Elinar ARTO product family, technology services and maintenance services. An IBM Gold Business Partner, Elinar's head offices are in Pori, Finland.

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Ari Juntunen
CTO
Elinar Oy Ltd

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Preparing for the AI revolution

AI solutions will soon change the landscape of many industries, augmenting humans' ability to create, extract insights from data, and make decisions. But the potential applications for AI technology have hardly been explored, offering companies that are brave enough to lead the way an alluring opportunity.

Ari Juntunen, CTO at Elinar Oy Ltd, takes up the story: "We specialize in ECM [Enterprise Content Management] solutions, and recognized that AI could be key to tackling the huge amounts of unstructured data that companies must contend with every day. For business processes such as sales order processing, invoice automation and GDPR [European Union General Data Protection Regulation] discovery, we could teach AI solutions to replace the human element, saving time, eliminating effort and uncovering insights that are far beyond current biological and technological capabilities. By becoming one of the first in the AI space, we could seize first-mover advantage ahead of our competitors."



To succeed, Elinar needed to select the right infrastructure to support its AI innovations. Deep neural networks, which are sets of algorithms modeled on the human brain and designed to recognize patterns, are heavily compute-intensive.

"AI solutions are extremely resource-hungry—they might need to perform exceptionally complex transformations on hundreds of megabytes of data each day," comments Juntunen. "The larger and more detailed neural networks are, the more they can generalize and 'think' like humans, but at much greater speed and accuracy. To remove restrictions on development, we needed exceptional processing power from our choice of infrastructure."

Early adopters

Elinar jumped at the chance to become an early adopter of a unique new IBM offering designed to support AI solutions: the IBM PowerAI toolset, and the hardware platform built to support it, IBM Power System S822LC for High Performance Computing running Ubuntu Linux.

“As soon as IBM made the announcement, we knew that the solution was exactly what we needed, and were first in line to get our hands on it,” recalls Juntunen. “It offers a combination of hardware and software with a level of capability that other vendors cannot match, solving many pain points to make it the ideal platform to develop and run AI solutions.”

Designed to deliver extremely high performance for resource-intensive workloads, the IBM Power System S822LC for High Performance Computing is the only architecture with NVIDIA NVLink Technology creating a direct, ultra-fast connection between CPU and GPU.

“The S822LC is faster than any server we have used before,” says Juntunen. “The per-core performance is better than anything else we have seen on the market, packing major computing capacity within a small footprint. When combined with the reduced latency we get from the direct CPU to GPU link, the results are truly impressive. This hybrid solution is very good at parallel computation, giving us scope for much more sophisticated modelling.”

The IBM PowerAI toolset is a software platform that includes the most popular machine learning frameworks and their dependencies, enabling easy, rapid deployment and optimized performance.

“PowerAI includes Torch, a deep learning framework that we were already familiar with, so as soon as we had downloaded it we were able to start development right away,” remarks Juntunen. “It frequently updates itself, ensuring our developers have the best possible tools at their fingertips.”

Elinar is using the IBM platform to augment its ECM software-as-a-service solutions with AI capabilities, incorporating IBM Datacap, IBM Watson® and IBM BigInsights® software. In the future, the company will offer pre-built solutions to be deployed on-premises at its clients’ offices, most likely alongside ongoing management services.

Juntunen comments: “One example of our new solutions is around sales order processing. In the past, you needed people to look at each sales order, and type relevant information into a system, which is a slow and error-prone approach. Instead, we use IBM Datacap to capture data from sales orders. By building an AI model and using thousands of samples to train it to recognize the general output, it learns what to extract from the unstructured data.

“We are also working on a new solution that we call the Elinar GDPR AI Miner. Built on the IBM Power Systems and PowerAI platform combined with IBM BigInsights Text Analytics, it will use our unique AI capabilities to enable customers to mine huge amounts of GDPR data. Specifically, we will offer AI models for GDPR consent identification and data identification and extraction, which will help users to achieve compliance at lower cost and higher quality. These are just two of countless potential applications.”

Disruptive innovation

By taking the leap and embracing AI solutions ahead of its competitors, Elinar can deliver game-changing benefits that delight existing clients and attract new business.

“Innovation is part of Elinar’s identity, and teaming up with forward-thinking organizations such as IBM helps us retain that first-mover advantage that wins us new market share,” explains Juntunen. “Many of our clients are only interested in the results we deliver, not how we do it. With AI techniques driven by IBM technology we can take our ECM solutions to an entirely new level, unmatched by our competitors. Also, AI skills are in short supply in the market place, so establishing ourselves as experts with help from tools like PowerAI is a great opportunity.”

Elinar is equipping its developers with the tools to excel, helping to shorten time-to-value. The high processing power of the IBM platform ensures that it can manage the huge volumes of data involved in running the AI solutions, enabling rapid response times.

“The IBM Power S822LC server provides at least twice the performance of our x86 platform; everything is faster and easier: adding memory, setting up new servers and so on,” elaborates Juntunen. “As a result, we can get new solutions to market very quickly, protecting our edge over the competition. We can also be confident that the platform can cope with anything we throw at it, seamlessly handling big data and huge numbers of parallel computations.”

The IBM solutions are helping Elinar to continue removing barriers to innovation while keeping costs tightly under control.

“Compared to our x86 platform, we found much fewer limitations to modelling using the Power solution—we are not quite sure how IBM has achieved it, but it’s a huge advantage to us!” says Juntunen. “One of our biggest—but most necessary—costs is development, so by increasing the productivity of our developers the IBM solutions contribute to our profitability.”

He concludes: “We think that the combination of IBM Power S822LC and PowerAI is simply the best platform for AI developers on the market today. For AI, speed is everything, and the IBM solution far outstrips the competition—nothing else comes close in our opinion.”

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Ari Juntunen, CTO, Elinar Oy Ltd

Solution components

- IBM® BigInsights®
- IBM Datacap
- IBM Power System S822LC
- IBM PowerAI
- IBM Watson®
- Ubuntu

Take the next step

To learn more about IBM PowerAI, please contact your IBM representative or IBM Business Partner, or visit the following website: ibm.com/us-en/marketplace/deep-learning-platform

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