HASTLAYER

be the hardware

BUSINESS DESCRIPTION

Lombiq Technologies is a software development company democratizing high performance computing and hardware acceleration for open Microsoft technologies.

Our mission is to make app development for satellites a widely approachable field by helping nanosat manufacturers reach a wider market, creating satellite platforms accessible to millions of .NET developers.

COMPANY BACKGROUND

Hastlayer is being developed by Lombiq Technologies, founded in 2013, which is a software, training, and services company focusing on web development with open Microsoft technologies.

Hastlayer's first proof of concept dates back all the way to 2012. Since then we have exhibited it at over 50 conferences worldwide, tested it with scientific computations with the Wigner Research Centre for Physics, and launched a beta for academic applications.

Now we're available for commercial applications in the cloud, in AWS and Azure, as well as embedded systems for satellites, drones, and robots to help give our partners a competitive edge.

MANAGEMENT

Our team consists of 11 highly experienced individuals with mixed backgrounds:

Zoltán Lehóczky
Co-Founder and Managing Director
of Lombiq Technologies, Software Developer,
Originator of Hastlayer

Benedek Farkas
Co-Founder and Managing Director
of Lombiq Technologies, Software Developer,
Co-Founder of Hastlayer

Márk Bartha
Software Engineer

Gábor Domonkos
Software Engineer

Milán Keszthelyi
Software Engineer

Álmos Szabó
Software Engineer

Dávid El-Saig
Software Engineer

István Germán
Office Manager

Paris Noble
Business Development
& Brand strategy

Zoltán Horváth
Graphic Designer

VALUE PROPOSITION

Hastlayer adds value to satellite platforms by offering a safe and convenient software environment that is usable by ordinary .NET developers, translating into a faster time and lower cost to market than any other lower-level approaches available.

PRODUCTS / SERVICES

In a nutshell, Hastlayer converts software into native hardware, boosting performance and reducing operating costs to a tenth.

Using compute accelerators for High-Performance Computing (HPC) tasks in satellites are extremely complicated for .NET developers. In order to fulfill HPC requirements they need to leverage other technologies or completely abandon .NET, which is a huge setback for Microsoft technology-based users.

Hastlayer solves these issues by giving easy access to .NET developers to work on satellites by providing a lower barrier of entry than any other comparable solution available on the market.

MARKET

According to research the small satellite market was valued at $3,632.4 million in 2018, and is expected to reach $15,686.3 million by 2026, registering a CAGR of 20.1% from 2018 to 2026. Small Satellites are satellites with masses lower than 500 kg.*

DISTRIBUTION CHANNELS

Due to the characteristics of our market niche, we use direct salesforce to distribute our product.

PRICING

Hastlayer operates through a monthly subscription fee.
For custom pricing please get in touch.

*Research source: Small Satellite Market by Type, Application, and End-User: Global Opportunity Analysis and Industry Forecast, 2019–2026, report by Allied Market Research

TECHNOLOGIES / SPECIAL KNOW-HOW

Writing software for nanosatellites currently requires highly-expensive specialist knowledge, especially if hardware acceleration is necessary to make the satellite smarter. With Hastlayer millions of .NET developers can create „apps for sats", automatically hardware-accelerated for the harsh conditions of space reducing costs to a tenth.

Hastlayer is part of the normal .NET development workflow, so hardware acceleration, i.e. utilizing the FPGA of Zynq-based satellite OBCs (on board computers), can also be done without special knowledge. With the lean .NET Core Runtime and its ahead of time compilation capabilities the .NET of today is not just cross-platform but is perfectly suitable for resource-constrained environments such as satellites too.

While Hastlayer is production-ready in its cloud version for datacenter acceleration, it also has a fully functional MVP for embedded systems running on the Zynq family of devices, which are frequently used in satellite platforms.

COMPETITION

It is hard to find direct competitors for Hastlayer, but here are the closest ones:

click on the company name to open the link

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lombiq