NEWS RELEASE

EngFlow and tipi.build Reveal CMake Remote Build Execution Solution for C and C++ Community

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New CMake remote build execution delivers blazing fast builds, next-generation capabilities and improved software security and stability for teams

AURORA, Colo.--(BUSINESS WIRE)-- CPPCON -- **EngFlow**, the leading build acceleration company created by Bazel engineers and funded by Andreessen Horowitz, firstminute capital and Tiger Global, and **tipi.build**, the pioneer in advanced build and dependency caching for CMake and native cross-platform development, today jointly announced their new CMake remote build execution service.

CMake RE, powered by EngFlow and tipi.build, is being released in Beta today and uses automatic caching and cloud-based, distributed build execution to dramatically reduce C and C++ build times to mere minutes and help ensure the integrity of the software security supply chain.

Engineers from the two companies will detail the new product and capabilities at a **dedicated session tomorrow at this week's CPPCon** in Aurora, Colorado. It will include a live demo of a remote build using a challenging open source code repository showing a fast and reproducible build.

"We're really amazed by what EngFlow and **tipi.build** have accomplished with this Beta, and as it matures, it has the promise of dramatically improving the productivity of teams building C and C++ code," said Hursh Agrawal, co-founder of The Browser Company of New York, the maker of the forward-looking **Arc browser**. "CMake is a build system with a large community of millions of developers, and remote execution with CMake is an important step to making these teams as productive as those using existing, world-class remote execution-based build systems."

C and C++ are among the most popular programming languages in the world, used by millions of developers and some of the most innovative teams and products. CMake, the open source software for build automation, testing, packaging and installation, is an incredibly important tool for the C and C++ ecosystem, one that cannot easily be replaced. Decades of ensuring backward compatibility have introduced challenges in creating new features and improvements for the platform, though. With the rise of the Development Experience (DevEx) practice, the focus is shifting to delivering a more modern and interactive experience, sensible dependency management and a dependable provenance mechanism like Software Bill of Materials (SBOMs).

“CMake has massive adoption but it currently lacks critical features like software security and remote execution,” said Antonio Di Stefano, Software Engineer, EngFlow. “Engineers at EngFlow and tipi.build came together to bring modern remote build execution to the deeply rooted and vibrant C and C++ community. This solution promises to address key pain points for software engineering teams that are dependent on highest-in-class performance.”

Software updates across Artificial Intelligence (AI), phones, cars, autonomous systems, financial services and more – and in fact all companies who depend on keeping a technological edge and developing new features rapidly and regularly – depend on the speed and reliability of build systems. As software code bases become bigger, more complex and targets for security attacks, a dramatically new approach that can allow hundreds or thousands of engineers to collaborate and rapidly release software is required.

The open source project **Bazel** has emerged in recent years as one of the best build systems for today’s highly complex, polyglot codebases and is inherently designed to overcome the issues being experienced by the C and C++ community, and with remote execution offers the leading build system performance for large development teams – build times can be reduced by of 10x or more. But companies that have not migrated to Bazel and use CMake have not had the opportunity to leverage the power and advantages of remote execution.

The new solution comprises Tipi’s front-end source code parsing and caching solution with automated dependency analysis that seamlessly communicates with EngFlow’s leading remote execution service. The solution provides two layers of smart caching in addition to parallelizing build actions on optimized and scalable computing resources to produce hermetic, reproducible, optimized, stable and blazing fast builds - taking builds from hours or days to mere minutes.

“EngFlow was a natural partner for building CMake RE, because they are the company pushing the envelope with Bazel and remote build execution technologies,” said Damien Buhl, CEO and co-founder, tipi.build. “By leveraging EngFlow’s deep expertise and technical knowledge of remote execution and complex codebases and our expertise in the CMake space, we were able to release our CMake RE Beta with confidence that it will grow to revolutionize the way leading C and C++ teams build software.”

The relationship between EngFlow and Tipi began in 2022. EngFlow led Tipi's seed investment round and, as part of the investment, the companies agreed to partner on developing a new solution together and spent the better part of a year working in stealth to develop the Beta. The companies tested the solution with a select group of initial customers on a confidential basis during the development period.

"EngFlow sees this investment and partnership as an important step in creating an ecosystem of developer experience tools and platforms that work together to meet customers where they are and advance towards a more seamless experience for software development," said Helen Altshuler, co-founder and CEO, EngFlow.

Robert Khedouri, Chief of Strategy and Operations, EngFlow, who led the partnership and investment effort for EngFlow, added "Both EngFlow and Tipi recognized the huge potential that can come from working together on a solution which can deeply impact the entire industry. We are thrilled we were able to structure a relationship that would allow us to work together so effectively and bring a new technology to market in such a short period of time."

Development teams interested in joining the Beta or learning more can reach out via either the EngFlow or tipi.build Websites: **https://engflow.com/cmake-re** or **https://tipi.build/cmake-re**.

About EngFlow

EngFlow is the build and test acceleration company created by core Bazel engineers and funded by Andreessen Horowitz, Tiger Global and firstminute capital. EngFlow's secure (audited: SOC 2, type 2) remote execution, caching, and observability platform scales from 1 to 100,000+ cores and reduces build time by 5-10x and cloud costs by 20-50%. The platform is compatible with a variety of build systems, including Bazel, Buck v2, CMake, AOSP and Chromium. EngFlow products are used by engineers from startups to Fortune 500 companies to accelerate developer productivity and positively impact engineering culture. Whether deployed on your cloud or on EngFlow's, EngFlow's global Bazel and developer productivity experts provide 24x7 coverage and support small and large teams with no hidden costs, SSO included. For more information, visit: **https://www.engflow.com/**.

About tipi.build

tipi.build provides fast remote C++ and Rust builds with cutting-edge caching technology based on CMake and Git. Tipi empowers developers to test and build cross-platform instantly, and seamlessly add cloud CPU cores when needed, bringing continuous integration to developers' fingertips. Based in Zürich, Switzerland, Tipi was founded by CMake experts and C++ developers who want to increase developer flexibility without sacrificing performance or safety. Tipi products are used to develop critical software for the IoT, financial trading, medical devices, automotive sectors and more. For more information, visit: **https://tipi.build/**.

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