INCREDIBUILD

Qwilt

Compilation time reduced from 60 minutes to 20 minutes

Industry

| Computer Software

Process

| C++

Results

| Compilation time reduced from 60 mins to 20 mins

With the rise in demand for high-quality streaming of AR, VR and 4K video, there's never been more need for a solution to facilitate next-gen content consumption. That's where Qwilt comes in. The company's technology utilizes the edge cloud, which unlike the deep cloud most of us depend on today to deliver content, relies on a massively distributed common computer environment that is close to the application.

Qwilt's R&D team is comprised of ~30 engineers who are using Linux servers to develop in C++ and Python, with the Ninja and Scons build systems.

The Challenge

Before Incredibuild, Qwilt's developers had to endure long periods of "downtime" after servers became almost non-responsive when users initiated 3-4 builds in parallel. The load balancing on the servers caused the build, which was repeated several times a day, to reach one hour.

Making the best use of Qwilt's existing cores was also an issue that had to be tackled. "It takes about one hour to build the project on six cores," tells us Qwilt's Ofir Hermesh," and we do not allow a single user to use more cores than this as there are several users per server."

When it became apparent a distributed computing solution could help, the team tried to find other solutions to no avail before picking Incredibuild. According to Hermesh, "other products were not good enough. They required exactly identical environment on all development serves, which we do not always maintain, and they don't have a strong load balancing mechanism."

How Incredibuild Crunched It

Incredibuild's distributed computing solution was just what the doctor ordered for Qwilt's resource challenges. "Incredibuild allows us to utilize all of our resources on a single pool, and we rely on its load balancing technology which makes the server works much better than before." Says Hermesh. "We now allow up to 40 cores per build and users can build the project in ~20 minutes. Build time is much shorter, and there are no utilization-peaks at the servers which cause un-responsiveness"

When asked about how he advises other companies to use Incredibuild, he told us "Incredibuild knows how to move the load to other servers in scenarios like ours. I think people should know about this contribution."

Finally, Incredibuild for Linux supports a heterogeneous environment, so the developers at Qwilt can now mix different flavors and environments and still enjoy development acceleration.

"Other Products were not good enough"

Ofir Hermesh
Qwilt

Compilation Time

Without Incredibuild — With Incredibuild

60 min — 20 min