CASE STUDY

Monolithic Environment to Microservices

CASE STUDY: CBT Nuggets and Tiempo Development
Ground breaking results with a closely aligned team.

Talent to grow the team

Expansions of the training content portfolio combined with increases in the number of subscribers prompted CBT Nuggets to update its technologies. The company began rebuilding its software infrastructure and development practice for greater flexibility. CTO Sean Sullivan explains, "We started a journey from a .NET-based, monolithic environment to a microservices architecture. This began as a low-key effort and gained in intensity, so we needed to hire more people rapidly."

The company found it challenging to find enough software engineers with the right mix of skills and cultural values at headquarters in Eugene, Oregon, and a second location in Bend. Through a client referral in the local tech community, CBT Nuggets came into contact with Tiempo Development and decided to see how Tiempo could help. "Tiempo's workstyle and expertise was a great fit with how we envisioned technological innovation," Sullivan says. "They could help us spur our development efforts and continue to move the organization forward. Tiempo took very little time to identify and recruit skilled individuals who technically and professionally were a great match for us."

Product ownership for the nearshore partner

Continuing with its Tiempo-supported transition out of a monolithic environment and move software capabilities into microservices, CBT Nuggets planned on front-end and back-end developer teams with specific tasks and goals. That team structure had already been successfully implemented in the company's development organizations in Eugene and Bend. "In one of its own development centers, Tiempo replicated the effective team configuration we chose as a model for building our future," says Sullivan. "That greatly eased our collaboration."

Having enrolled the best available talent, Tiempo created both types of teams under the oversight of a director of software delivery and supported by a SCRUM master. CBT Nuggets also boosted its internal capabilities in engaging with Tiempo. Microservices development promptly accelerated. Sullivan comments, "We had already been practicing agile development, but there was still much we could learn. The skills of our internal teams grew when they observed Tiempo's approach to agile. We were highly impressed with the level of detail in their user stories and their meticulous preparation and planning. Tiempo quickly helped us migrate our software systems into alignment with our targeted microservices architecture."
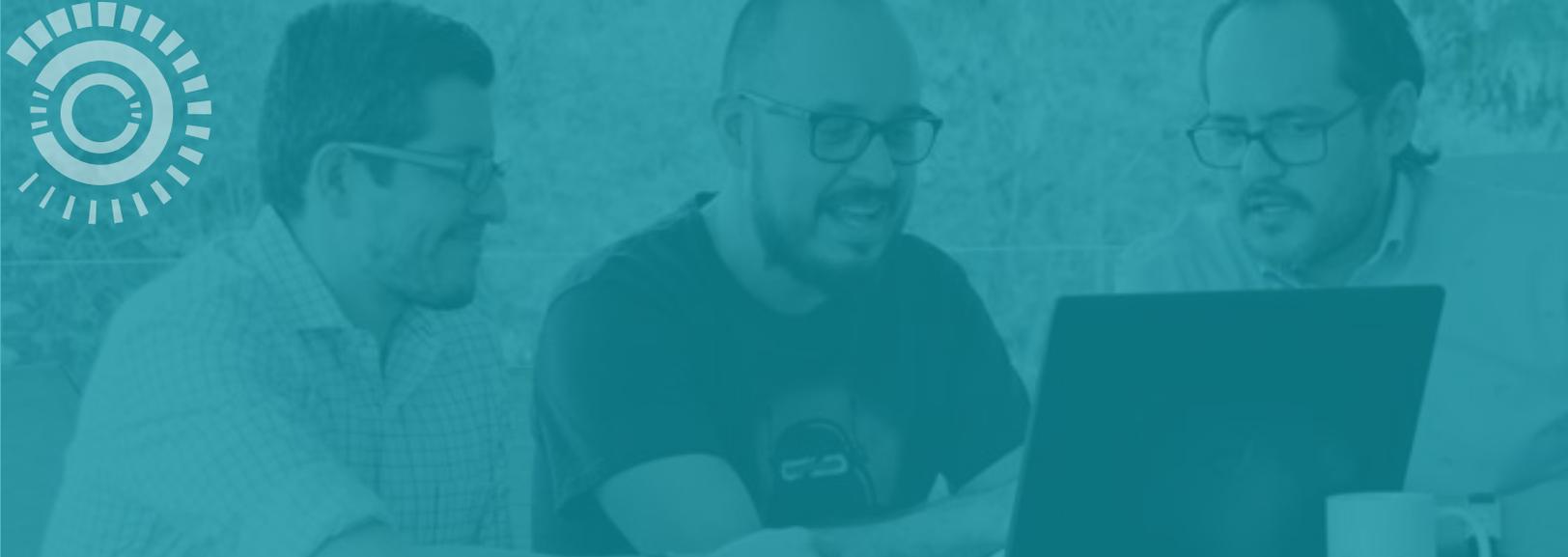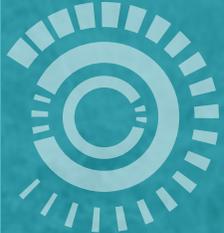
When the collaboration with Tiempo proved to be consistently productive and efficient, Sullivan and his team felt that it made sense to take it up a level. "It was a natural next step to identify additional, high-value initiatives that we wanted to deliver faster," says Sullivan. "We realized that the Tiempo teams could own and evolve some of these efforts in line with our goals instead of simply following directives."

Creating and managing high-performing teams

Granting the nearshore developers greater ownership and accountability required strengthening the leadership of the Tiempo teams dedicated to CBT Nuggets. "We needed people who could be technical leads, sync development efforts with our vision, and have product ownership," Sullivan explains. "Our director of software development from Tiempo aligned the talent with what the product needed to be and then gave the team the freedom to work autonomously toward that objective."

Hiring people to join a DevOps team can become a constraint, because the required skills are in high demand and also very specialized. Tiempo effectively addressed that concern when CBT Nuggets decided to give its nearshore collaborators ownership of product capabilities. One of the outcomes was that microservices experts from Tiempo contributed to 'skunk work' projects that soon elevated the team standard for rapid innovation. "The Tiempo associates immediately embraced their expanded project portfolio and augmented roles," says Sullivan. "They're as accountable and available as our own team members are. The operational health and stability of the production systems are as important to them as they are for us. That is extremely important in our collaborative partnership."
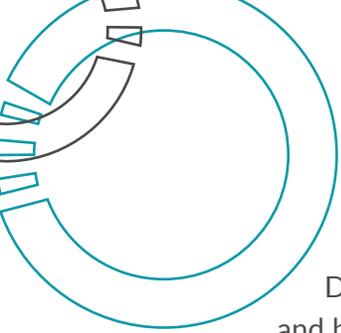
According to Angel Mario Almada Ibarra, Director of Software Delivery at Tiempo Development, the collaboration grew based on the essential values CBT Nuggets and Tiempo share. "Motivated, empowered employees can achieve the best results, and a collaborative partnership is a great way to get things done," Almada says. "CBT Nuggets and Tiempo agreed on shared values early on. That made it much easier to discuss how our experience could be of value to them and how we could organize and manage front-end and back-end SCRUM teams to perform agile development for CBT Nuggets. When it became obvious that this effort was successful, it was a natural next step for us to become more deeply involved."

During its close and expanding collaboration with Tiempo Development, CBT Nuggets never had occasion to doubt Tiempo's ability to run high-performing teams that fit the client's culture and preferences. Sullivan says, "Tiempo not only knows what tools we use and how we work today, but we also share with them our plans for the future adoption of technologies as well as product features."

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Empowerment enables great user experiences

One aspect of the complementary organizational cultures at CBT Nuggets and Tiempo Development is the principle of empowerment. This enables Tiempo contributors to thrive and become increasingly proficient in practicing the key Tiempo values of mastery, autonomy, and purpose. "The partnership between Tiempo associates and our employees is a true team collaboration," Sullivan says. "Together, we're unleashing teams of people who can accomplish amazing achievements every day."

CBT Nuggets appreciates that the Tiempo associates never forget the ultimate goal of their efforts. "Some software engineers simply like to write code and not think too much about its purpose, but Tiempo developers aren't like that," notes Sullivan. "Their focus is always on creating a software product that delivers tangible value to its users."

Asked to describe the shared working environment, Sullivan says, "The individuals who are going to be most successful at CBT Nuggets are those who can have a short conversation about a development issue or some other concern—and then they run with it. Tiempo is a great fit in this regard. We give them lots of challenging assignments, for example, planning an optimization for a database technology or using a new AWS service in a certain manner. A couple of days later they present us with a report or even an implemented solution."

Harnessing creativity and participation for best results

Planning documents and proposals from Tiempo engineers tend to delve deeply into the technical and project management details of any new software capability or service CBT Nuggets wants to deliver. "Tiempo team members frequently contribute to design documents CBT Nuggets created previously," says Sullivan. "What we receive from them is typically well-considered. They always keep the quality of the product and the resulting customer experience top-of-mind."

Matching CBT Nuggets' preferences, Tiempo's work style encourages participation and engagement from participants. "Tiempo team members join the conversations about how we should build a data model, design an interface, or create whatever innovations we're interested in," Sullivan adds. "They are highly adept at executing at a fast pace while minimizing complexities and resolving architectural challenges."

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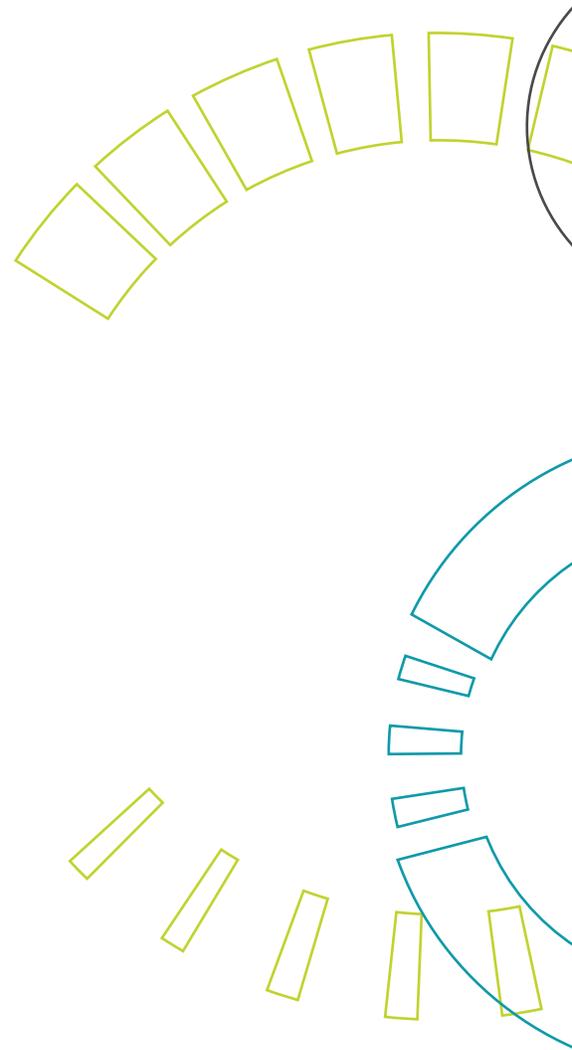
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The nearshore collaboration allows time and attention for creativity even while the outcomes of fast-moving projects are the prime concern. "We are both aligned with and positively challenged by Tiempo," Sullivan says. "We have great conversations when they suggest that we consider different approaches or recommend other tools and services to accomplish what we're pursuing."

Partnership built on trust and shared values

Tiempo's COO and other execs frequently visit Sullivan and his colleagues in Eugene and Bend. In turn, CBT Nuggets stakeholders meet from time to time with Tiempo contributors at the development center in Guadalajara, Mexico. Long-lasting relationships and many incremental successes have deepened the level of trust among the collaborators. It helps that CBT Nuggets and Tiempo organize developer teams with identical roles and have found a healthy equilibrium for maintaining accountability across organizational boundaries. "Our own developer teams and Tiempo product teams usually include such key roles as designers, developers, and product managers," Sullivan explains. "We maintain leadership on our side through the product owner role and by determining the architecture we want to follow."

Ibarra points out that the continuous improvement practice of CBT Nuggets includes all software engineering and DevOps roles. He comments, "CBT Nuggets gave us more and more insight into their preferred process of bringing decisions and requests from the business groups to the developer teams. That helped us align our product owners and other roles. We then optimized processes to eliminate needless constraints and dependencies in the team environment. In converting the project-based backlog to a product backlog for development, it's also extremely helpful that CBT Nuggets keeps us appraised not only of its near-term goals for several months from now, but also of where it wants to be in a year or two."

Summarizing his experience with Tiempo, Sullivan says, "In working with Tiempo, we accomplished more than offloading certain development assignments and shipping more software, more rapidly. What's most critical about the Tiempo engagement for CBT Nuggets is that it enables ground-breaking results within a closely aligned partnership. That allowed us to achieve both a major technical migration and continuous innovation of our product."

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CBT Nuggets provides on-demand IT training for IT pros and teams around the globe. Technology will continue to change and the info you need can be found in every nook and cranny of the internet, but taking it all in and knowing who you can trust takes time.There's nothing more important than your time, which is why CBT Nuggets obsesses over ensuring their clients learn the right things, the right way. Whether you're one IT pro or an entire team, invest your time with CBT Nuggets and you'll gain the skills and expertise to keep pace with the speed of tech.

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ABOUT TIEMPO DEVELOPMENT

Tiempo is widely recognized as one of the leading software engineering companies in the US. Putting to work nearshore engineering resources and high-performance teams with a relentless focus on client outcomes, Tiempo designs, builds, and deploys software that makes lives better.

Tiempo is headquartered in Tempe, Arizona, with four world-class software development facilities in Mexico.   Tiempo has been recognized annually by Inc. Magazine as one of the Fastest-Growing Private Companies in America.

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