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Case Study: Ultimate Software Reinvents Its Development Shop To Stay On Its Game

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EXECUTIVE SUMMARY

Ultimate Software finds itself in a highly competitive market: It is a relatively small player compared with industry giants such as Oracle and SAP. Given Ultimate's smaller size, it can't simply throw more resources into projects; it needs to work *smarter*. Six years ago, Ultimate Software Chief Technology Officer (CTO) Adam Rogers decided to transform his software development organization into a Partner Player shop: one focused on creating high-performance software teams that create a competitive advantage for the company. Ultimate started with Lean Software processes and then retooled its talent acquisition and retention processes to attract and keep creative, intrinsically motivated development professionals. Six years later, Ultimate's bets have paid off: It has filled its shop with highly creative, autonomous, Agile feature teams and runs it using a very flat management structure. Ultimate's employees regard Ultimate as a great place to work — and its customers see the results of Ultimate Software's focus on quality.

SITUATION: ULTIMATE SOFTWARE NEEDED TO "PUNCH ABOVE ITS WEIGHT"

Ultimate Software is David in a market of Goliaths. It sells software systems to automate human resource (HR) processes including payroll, benefits, and talent management. Ultimate competes with companies such as Oracle and SAP — companies that can literally throw five times the number of Ultimate's approximately 225 development professionals into producing products for HR professionals. Faced with this challenge, Ultimate CTO Adam Rogers recognized the need to structure his development shop as a Partner Player organization — one critically focused on creating business value. He knew that if Ultimate couldn't match its opponents' resources punch for punch, it had to be nimble, stay ahead of its competitors, and hit them in their weak spots.

But there was a problem facing Mr. Rogers in 2004: Ultimate's culture didn't encourage the formation of high-performance teams. To make matters worse, Ultimate's headquarters isn't located in a traditional development hot spot, such as Silicon Valley or Boston's Route 128 corridor. It's in Florida, where a smaller pool of local development talent made it more challenging to find the intrinsically motivated "10x" developers Mr. Rogers knew he needed.¹ Nonetheless, he plunged ahead to transform Ultimate's development shop into a Partner Player organization.²

BEST PRACTICE: ULTIMATE SOFTWARE STARTED WITH LEAN DEVELOPMENT PRACTICES

Ultimate started by changing its development processes to focus on quality and encourage the formation of high-performance teams. It took its first steps by:



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- **Realigning development teams with business functions.** The CTO's first goal was to bring back the entrepreneurial spirit his development shop had when it was a smaller organization. To do this, he separated development professionals into approximately 16 teams and organized them along business lines. By doing so, Ultimate implemented an IT-to-BT transformation that turned developers into business owners and increased their level of engagement with the business.
- **Introducing Agile processes.** To run these self-contained, business-aligned teams effectively, Ultimate implemented a modified version of Scrum. Each team benefits from having a Scrum Master and a product owner (known as a lead process engineer). Over time, Ultimate also introduced Kanban as a way to prioritize and pull customer demand into each Scrum product development sprint.³
- **Flattening management and shifting focus.** Shifting management's focus to provide context instead of control allowed Ultimate to dramatically flatten its organizational structure and get more people doing — not directing. Today, only two directors manage all of Ultimate's feature teams. Their primary focus is to ensure that each team's dynamics are healthy. Ultimate's directors also practice "management by exception." They get involved to remove roadblocks and correct stumbles, but (unless needed) they let the teams run themselves.
- **Putting the primary focus on quality.** It's an old maxim: You get what you measure. Ultimate's leaders wanted a high-quality customer experience to differentiate Ultimate's software from its competitors' offerings. Therefore, Mr. Rogers puts a big emphasis on quality-based metrics. Ultimate's directors measure development teams on the ratio of customer-reported defects to internally reported defects — the lower the better. Because this is a lagging-quality indicator, Ultimate supplements it with additional metrics — for example, code and test coverage ratios, automated test durations, and the ratio of resolved defects versus defects created.

BEST PRACTICE: ULTIMATE HIRED AND KEEPS ITS HIGH-PERFORMANCE PLAYERS

Mr. Rogers' introduction of Lean processes and increased accountability was not without its challenges. In 2004, Ultimate's development shop wasn't stocked with "Type I" development professionals.⁴ Ultimate has changed this slowly but surely with adjustments to its hiring and firing practices; it:

- **Began using objective measures that made it hard for shirkers to hide.** As Ultimate's new, Lean development processes began to take hold, it became apparent that some were not able to make the right adjustments. It's easy to hide in a development shop if you're not responsible for the consequences of your own decisions. It's more difficult to do so when you're part of a team that shares collective responsibility for a feature. After a few sprints, team members see who's pulling their weight — and who isn't. This transparency was a mixed blessing. The bad news?

Ultimate saw a 20%-plus employee turnover in its development shop in the first two years of this transformation. But after that, the turnover slowed to single digits, and the upside was that this turnover presented Ultimate with opportunities to fill open positions with creative professionals who could accelerate the organization's Partner Player transformation.

- **Adjusted base compensation to attract talent.** Ultimate adjusted compensation policies to offer base salaries above market rates. It also reduced variable compensation, recognizing that after a certain level of pay, additional financial incentives yielded diminished additional return. Ultimate did keep some variable compensation in the form of team-based bonuses. Teams get these bonuses based on the entire team's performance in meeting their quality metrics.
- **Redesigned workspaces to focus on teams.** Ultimate redesigned its workspaces to create pods to colocate individual feature teams. These hubs not only provide functional space; they also give teams a space to gel (see Figure 1). Ultimate also provides nice extras such as large monitors that teams use to display status. (They also work well for videos and gaming.) Teams can also customize their individual spaces (as the team in Figure 1 did by hanging a dartboard on the wall).

Figure 1 A Typical Team Pod At Ultimate



Source: Ultimate Software Team Pod, April 28, 2010

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Source: Forrester Research, Inc.

Next Steps: Ultimate Is Sharpening The Saw And Looking For New Tactics

The “10x” development professionals Ultimate hires always look for ways to get better at their craft — as does the organization they work for. The Ultimate team still sees potential opportunities for improvement; it knows that:

- **There’s opportunity for even more creativity.** At this point in Ultimate’s transition, its CTO estimates that about 40% of the organization consists of highly talented, intrinsically motivated development professionals. That’s way above where the company started, but Ultimate’s leaders know there’s always room for improvement; they constantly evaluate tactics that peer companies use — such as “self-directed research time” and “streamlined organizational policies” — and assess how they can add these “next practices” to their existing development culture.
- **Variable compensation policies are still in flux.** When Ultimate originally started its transition to a Partner Player organization, it based variable compensation on individual performance as assessed by management. Ultimate first modified variable compensation policies to base an individual’s bonus on peer reviews. This was unsuccessful: It created dysfunctional behavior among employees who felt they were competing for the same pot of money. Ultimate quickly shifted its bonus pool to the 100% team-based award that it currently uses to drive quality. This works better than the former model — but can still create tension between teams. Ultimate’s leaders are continuing to research refinements to this model for use in future planning cycles.

BEST PRACTICE RESULTS: ULTIMATE HAS BECOME A MAGNET FOR CREATIVE DEVELOPERS

Ultimate is now six years into its transition from Trusted Supplier to Partner Player. Its development teams’ talent levels are way up, and the difference is noticeable:

- **Development has a renewed entrepreneurial spirit.** Development pros on individual feature teams are clearly more engaged in their work. They care about the business implications of the design decisions they make, and they feel empowered to make decisions about new features or defects’ priorities. There’s also a high level of cohesion within each team. It’s best described in the following way by Ultimate’s CTO: “We now have teams where the developers and testers are so ‘in sync’ that they practically finish each other’s sentences.” It’s hard to find a better example of gestalt in progress.
- **Ultimate is a great place to work.** The renewed corporate culture has paid off in other ways as well: Employees want to work at Ultimate. In June 2009, Ultimate Software was ranked the No. 1 best medium-size company to work for in America for the second consecutive year by The Great Place to Work Institute, the same research and management consultancy that produces *Fortune Magazine’s* “100 Best Companies to Work For” list.

- **Customers like Ultimate Software products.** In the end, what really matters is how well the improved development efforts translate to the bottom line. Awards aside, Ultimate boasts a 97% annual renewal rate for its products — well above industry averages. Ultimate's products have also performed well in Forrester Wave™ evaluations in the HR product space.⁵

RECOMMENDATIONS

HOW TO APPLY ULTIMATE'S BEST PRACTICES

Ultimate Software's experience proves that you don't have to be a Silicon Valley insider to find and attract great talent and create a high-performance Partner Player culture. Even if you're not overjoyed with your current development culture, you can change it if you have executive buy-in and prepare for a sustained effort. To leverage Ultimate's efforts:

- **Start with your existing team.** Ultimate didn't start by getting rid of its existing development team. Rather, it changed its processes first and then kept those employees who were prepared to engage and adapt.
- **Know that talent comes from surprising places.** One of Ultimate's two development directors was originally lost in the depths of its testing group. As the organization emphasized Agile practices — test-driven development — it saw this individual step up to help lead the organization forward. In a traditional organization, this employee might never have had the chance to demonstrate his talents. Creating an empowered organization that allows individuals to engage can make a big difference.
- **Don't be afraid to get it wrong.** Ultimate didn't do everything right. It made mistakes tuning its compensation model and had to react to high initial employee turnover rates. But these setbacks didn't minimize the impact of improvements in culture and employee morale. Often, the failure to make mistakes means you're not pushing hard enough. By admitting them quickly and recovering rapidly, you can continue to make improvements.

ENDNOTES

- ¹ For a great history of the 10x developer and the studies that show that development productivity varies widely, see Steve McConnell's post. Source: "10x Software Development," *Construx Conversations* (<http://forums.construx.com/blogs/stevemcc/archive/2008/03/27/productivity-variations-among-software-developers-and-teams-the-origin-of-quot-10x-quot.aspx>).
- ² Research shows that development shops tend to fit into one of three archetypes: Solid Utility, Trusted Supplier, or Partner Player. See the November 2, 2010, "[Software Development Archetypes — What's Your Sign?](#)" report.
- ³ For a good article about how Kanban works in an Agile context, see Jeff Patton's description. Source: Jeff Patton, "Kanban Development Oversimplified," *AgileProductDesign.com*, April, 20, 2009 (http://www.agileproductdesign.com/blog/2009/kanban_over_simplified.html).

- ⁴ “Type I” developers are intrinsically motivated and develop inside and outside their work environment with a creative passion based on their own drive. See Figure 2 in the Best Practices report associated with this case study. See the November 3, 2010, “Best Practices: Building High-Performance Application Development Teams” report.
- ⁵ To identify other customers and see how they stack up against Ultimate Software’s offerings in the human resource managements systems landscape, see the October 28, 2008, “The Forrester Wave™: Human Resource Management Systems, Q4 2008” report.