



Amplifying AppDev

How to Extend Your Application Development Team in an Era of Skill Scarcity

IT leaders have been told for years that their investments in innovation are simply insufficient. They've been criticized for devoting an enormous percentage of their budgets to mere upkeep and maintenance. This has sometimes been referred to as "dead money."

The issue? Large investments were being made in activities that delivered no competitive differentiation. How could companies hope to continue driving profitable growth if they weren't investing actively in the future?

In recent years, the story has started to shift. Now, there's an extraordinary amount of attention placed on the innovative activities IT is leading. Particular interest now revolves around the concept of "AppDev" or application development.

Companies are now committing a great deal of their IT resources to application development projects and initiatives. They are focused on turning IT into a force for competitive differentiation.

The question now is whether they can obtain the skills and capabilities they need to pull off these grand projects. Or will IT skill scarcity undermine the latest efforts of IT leaders like you to embrace innovation and drive growth?

Key Trends and Market Drivers: Seeking Differentiation Amidst Digitalization

According to new research, IT leaders are now embracing AppDev projects that revolve around mobile, social, cloud computing, and other factors.

They are intent on turning their AppDev organizations into catalysts for business innovation as opposed to mere cost centers. Indeed, IT leaders are under severe pressure to produce innovations at an accelerated pace.

That is naturally tempting them to rely on the offerings of packaged software vendors and professional service firms. However, the research firm warns that such outsiders threaten to take away the proprietary elements needed to achieve a competitive advantage.

"Enterprises pursuing the digitalization of their business often find that application development is a competitive differentiator too valuable to outsource," according to research firm Gartner. "Digitalization almost always requires new, unique applications. The applications and the staff that build them can become valuable competitive assets and valuable intellectual property that are best protected in-house."ⁱ

And while Gartner emphatically argues that companies must build their own proprietary and differentiated offerings as part of the AppDev enterprise, it recognizes the limitations that today's IT leaders must struggle to address.

Companies are now committing significant IT resources to AppDev projects and initiatives.



"Nearly every significant enterprise innovation requires innovative software. However, most AD organizations cannot deliver innovative software fast enough to meet the business need," it states.ⁱⁱ The research firm goes farther to predict that demand for Java/JavaScript skills will explode as the movement toward mobile and the cloud continues. It also sees a skills scarcity challenge emerging in terms of mature agile development capabilities. Specific predictions:

- By 2016, more than 50% of agile transitions will be substantially challenged due to a shortage of experienced agile practitioners.
- By 2017, over 70% of mobile development spending will be outsourced.
- By 2017, JavaScript will be the most in-demand language skill in application development.ⁱⁱⁱ

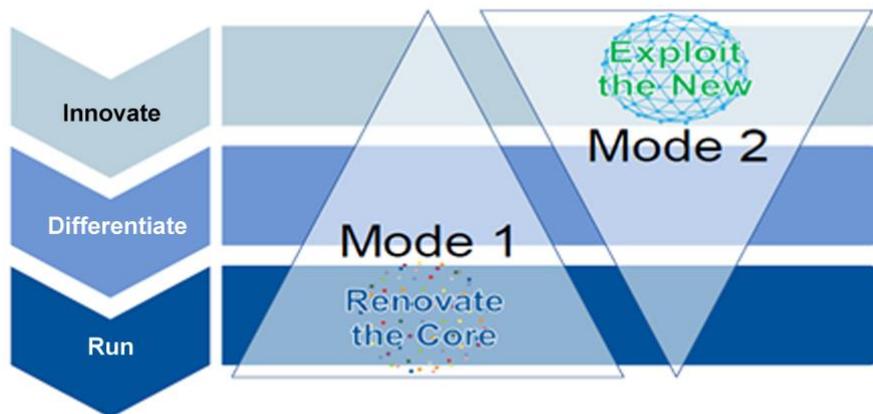
The pace of business is surging beyond what IT leaders can deliver on their own. In fact, IT organizations threaten to become an impediment to progress if they are not assertive and adaptive. "This is apparent in our predictions that look at both the delays in agile transitions due to the lack of agile practitioners and the disparity between internal versus external mobile application development expertise,"^{iv} states Gartner.

"Both of these factors will put growing pressure on application leaders to supplement their teams with third-party resources," it adds "The success of application managers will increasingly be contingent on their sourcing skills along with their technical and product management skills."^v

With limited budgets, skills, and technology expertise in a rapidly changing environment, it's inevitable that AppDev leaders would look to outside parties to help them meet their objectives. It's a question of balance.

A Bimodal Approach – How Onshore Delivery Aligns to Adaptive Sourcing Imperatives

With limited budgets, skills, and technology expertise in a rapidly changing environment, AppDev leaders are looking to outside parties for support.



Gartner

Gartner Presentation, Made in America, Allie Young & Helen Huntley, Sep 12 2014

As industry research implies, AD leaders must determine what is core, proprietary, and belongs in-house while selectively sourcing other skills, capabilities, and services from outside partners. They are challenged to manage a portfolio of capabilities – some drawn from the outside, some carefully cultivated within. According to Gartner,



you can both "renovate the core" and "exploit the new" through your service-based, sourcing arrangements. To innovate is to realize digital business gains at an accelerated rate. To differentiate is to achieve process improvements and ongoing optimization. To run is to rely on sourcing to run the business and involves a slow evolution toward greater cost gains.^{vi}

The Current State: Why IT Can't Do AppDev Alone

It's increasingly clear that IT leaders are struggling to meet demands for rapid and compelling innovation. They are running up against a series of challenges that thwart their efforts to meet key business objectives.

IT leaders are struggling to meet demands for rapid and compelling innovation.

They experience the downside of unmet expectations in the pressures they face every day. Whether it's senior leadership demands or the frustrations of line of business owners, IT leaders are feeling the heat to drive innovation and become more responsive.

So what's standing in their way? Here are several key factors that are emerging as barriers:



Skill Scarcity. Given the rapid pace of innovation, it's simply difficult to build the skills and competencies in-house that match the demands of the market. It's about having the right expertise and experience in a whole new array of capabilities.

As Gartner explains, "Modern AD requires new skills in agile software methods; pace-layered application design; user experience design; DevOps; and mobile, social, cloud and big data development. It also requires smart decisions on platforms and languages, application development lifecycle management, and quality testing software."^{vii}

If they could meet their hiring and retention goals within the constraints of their budgets, AD leaders most likely would. Many would prefer to simply keep everything in house if that was a viable option. But it's not. Demand for critical skill-sets now far exceeds supply. It's difficult to find and keep the talent you need to stay on the leading edge of AppDev. It's particularly difficult to recruit relevant talent in a way that matches geographical arrangements. The people you seek are often located someplace you are not.



Investment Risk. When you build new capacities, skill-sets and intellectual property, you own them and must maintain them. You are betting on a payoff that justifies your investment. That's often reasonable. In many cases, it's necessary. But it carries risk. What if you bet on the wrong people and capabilities? What if many of the capabilities you build give you no competitive differential? What if resources you devote to one activity or set of people could have delivered a far greater return if they were devoted to different activities?

And what if the talent you build suddenly becomes vulnerable to poaching. You train and develop people on your own dime (and at great expense) only to see them swept up by some competitor – or some other party that values these skills. High-flying companies like Google and Facebook, for instance, have been known to poach talent en masse when they open new development facilities in new cities. What if you lost a dozen talented developers in the course of a few weeks? What would that mean for your business?

And change is a constant. Skills that are relevant today may not be relevant tomorrow. You can commit a great deal of time and resources to the development of skill-sets that can become obsolete virtually overnight. You are now stuck trying to retrain and re-motivate your people – or re-motivate the ones that are left when downsizing becomes inescapable.

The pace of innovation is accelerating. You have to run twice as fast merely to stand still.

Time to Market Demands. Yet another factor thwarting the ability of IT and AD leaders to meet expectations is the quickening pace of innovation. As the Red Queen told a beleaguered Alice, you have to run twice as fast merely to stand still.

In today's economy, new ventures are funded to disrupt established players and existing markets. This puts enormous pressure on today's incumbents. They must constantly anticipate or adapt to new innovation in their sectors. And they must get to market faster than ever. This explains the growing amount of interest in agile methods and collaborative approaches such as DevOps. There's simply no more tolerance for slow, cumbersome behavior.

But how do you keep pace – much less, set the pace – when you are heavily reliant on your own static skills and capabilities? It's clear that third parties can run much faster on a lot of key fronts. To merely maintain the pace of markets, you have to have partners.

So these are the challenges that application development leaders like you must now confront. You want to build intellectual property, maintain proprietary capabilities, and establish a competitive advantage. But you can't move at the pace of today's markets if you simply try to accomplish these objectives on your own. How can you overcome this barrier?

The Future State:

Dynamic Sourcing to Extend AppDev Teams

Just as a smart investor maintains a diversified portfolio in the financial services realm, you'll achieve superior outcomes by maintaining a diversified portfolio of AppDev capabilities. As IT leaders across the spectrum are quickly realizing, your best move is to manage a portfolio of both in-house and outsourced capabilities that draws on an optimal mix of talent and expertise.



Call it Dynamic Sourcing. By using the right talent for the right objective and making the right trade-offs, you set yourself up to optimize your time to market while maintaining your competitive advantage.

By carefully delineating the areas that are core, strategic and differentiated, you can begin to clarify and draw boundaries – determining what should remain proprietary and in-house. As you learn where to draw those boundaries, you free yourself to actively partner with specialized service providers and selectively source the capabilities necessary for rapid, sustained innovation. You move behind the clutter of undifferentiated capabilities you are now forced to build and maintain. And this will help you address strategic business priorities in a more responsive and effective manner.

Extending your AppDev Team

How should you draw these boundaries? It's a challenging exercise, but one you can't afford not to engage in. As Gartner explains, a structured approach should address: strategy and planning; governance; change management; execution; and measurement and improvement.

One thing you should do is pull together your brain-trust and begin building an AppDev talent and capability plan. You'll need to look for:

- High growth market opportunities that match your company's brand promise.
- IT/software development needs that can be moved from projects to products/services.
- Relevant skill-sets that are truly differentiated and close to the core of your business.
- Peripheral skill-sets that won't set you apart and/or aren't worth the investment.
- Trade-offs you may need to make to get to market faster/on-time.

Dynamic sourcing enables you to quickly draw on external parties to meet market demands.

But while the discipline of planning might seem to slow you down (when you have no time), it's possible to take more immediate steps even as you build out your plan. One area that lends itself to immediate moves is a testing of boundaries. What should be in-house? What can be outsourced to a service provider or handled by an external consulting firm?

One low risk way to begin defining these boundaries is by taking on skilled experts for short stints (or sprints). They can accompany your existing team members. When you bring them in for near-term projects, you can begin assessing whether their skill-sets are truly vital to your competitive differentiation and, if so, whether you should seek in-house talent to fill them.

But Dynamic Sourcing also enables you to swiftly draw on external expertise when you need it to meet the market demands you are facing. You have choices:

- **Onshore service providers.** Domestically available firms that bring an array of skill-sets and can be available on-demand for highly collaborative projects.



- **Offshore service providers.** Overseas firms (including nearshore providers) that specialize in highly defined and structured projects.
- **External consulting firms.** Systems integrators which provide advanced skills, but are expensive and may not be available when you need them.

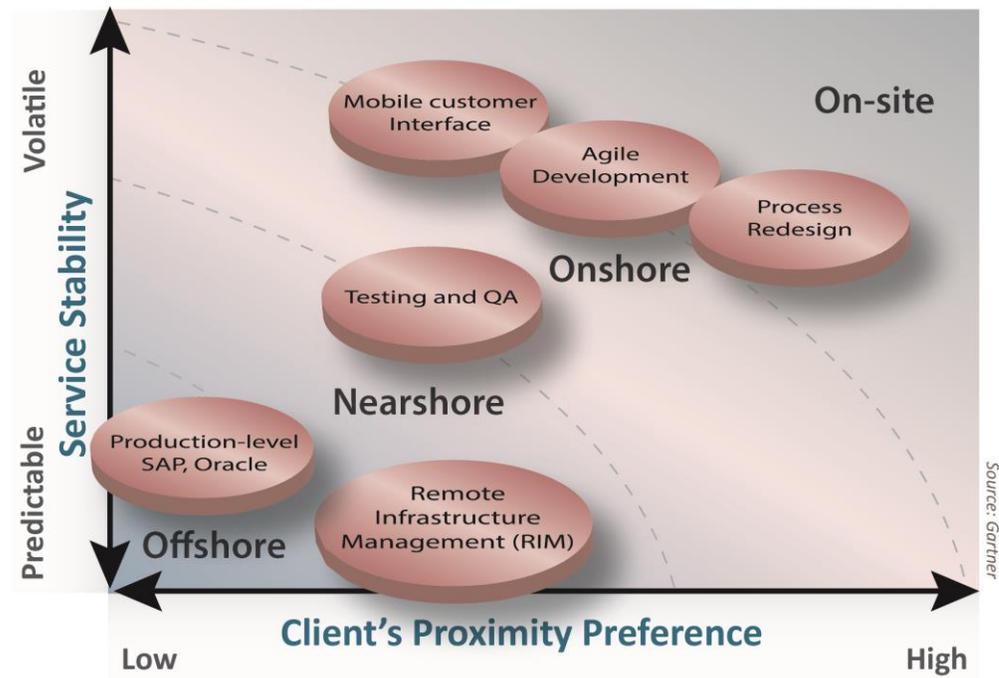
Even when you are relying on third parties, you want to think in terms of a well-balanced portfolio. How do the talents, skill-sets and proven capabilities of the parties you are evaluating correspond to your business objectives? How do costs and budget constraints play into the mix? What are your requirements in terms of collaboration, knowledge sharing/transfer, availability, and cultural fit?

Even when relying on third parties, you want to think in terms of a well balanced portfolio.

As Gartner demonstrates, two key dimensions on which to analyze potential investments are these:

- What is the stability of the service provided (i.e. Are the projects volatile/uncertain or highly predictable/clearly defined?)
- What is your proximity preference/requirement for the work? (i.e. must it be done onsite? Or can it be outsourced? Onshore? Nearshore? Offshore?)

With Maturity, Clients are More Proficient in Their Global Delivery Strategies



When seeking to source capabilities that enhance your overall AppDev endeavor, you have to be confident you are building a solid partnership. You want to know that the investments you make in building talent, expertise, and knowledge of your situation will not be simply lost over time. You want to ensure your partner is making your people smarter. You want a partner that can move at the pace you are pressured to move – if not faster.



By relying on smart and capable partners, you can extend your AppDev team while maintaining your source of competitive advantage. You keep relevant skills in-house, while drawing on the necessary talent and expertise of others. You smartly strike a balance.

As Gartner's model of advancement through sourcing demonstrates, you think in terms of both your opportunities to "renovate the core" and "exploit the new." Different partners add value in different scenarios.^{viii}

A Bimodal Approach introduces New Considerations for Speed, Value, and Expectations

	<u>Model 1</u> Renovate the Core	<u>Model 2</u> Exploit the New
Goal	Reliability, Low Cost, Efficient	Agility, Innovation
Value	Price for Performance, IT Cost Management	Revenue, Brand, Customer Experience
Approach	Labor - based, Waterfall	IP-based, Agile, Iterative
Governance	Vendor Management	Business Outcome
Sourcing	Traditional IT Service Providers, Long-term Deals	Focused/Niche Providers, Specific Digital Skills, Short-term Deals
Talent	Good at Conventional IT Metrics, Process, Projects	Good at new and Uncertain Projects
Culture	IT - Centric, Focus on IT Alignment	Business - centric, Close to Customer

Gartner Presentation, Made in America, Allie Young & Helen Huntley, Sep 12 2014

Different partners add value in different scenarios.

Conclusion: Facing the AppDev Future

As this piece suggests, successful AppDev leaders recognize the necessity to make constant trade-offs and smartly assess their options. They think in terms of balanced and diversified portfolios. In the fast-paced era we are now entering, DIY means DOA. You have to intelligently source capabilities and engage smart, capable partners to remain agile and innovative.

The challenge ahead lies in drawing and delineating boundaries, determining what's core and what's peripheral, what sets you apart and what does not. Resources, after all, are highly constrained. Victory goes to the one that fully maximizes limited resources to realize superior returns. That's true everywhere, but it's especially true in the innovative world of AppDev.

Whatever the mix of investments you make, now is the time to build a smart portfolio of talent.

In summary, there's no short-term fix to the skills shortage you now face.

Labor markets are in flux both domestically and abroad. Looking overseas, you may even see an increasing amount of economic and political turmoil. Meanwhile, onsite consultants are expensive and often take their knowledge with them.

And, when it comes to hiring, new demands may always outstrip supply when it comes to advanced and unpredictable technology initiatives.



With such factors in mind, you may want to take a closer look at onshore delivery strategies as a means of maintaining a stable supply of talent, protecting and sustaining your differentiated expertise, and keeping your costs under control.

Whatever the mix of investments you make, now is the time to build a smart portfolio of talent. And now is the time to extend your AppDev team.

About Eagle Creek Software Services

Eagle Creek Software Services provides consulting and technical expertise to the Enterprise. The firm focuses on CRM, Information Management (BI) and Applications Development, helping clients increase quality and efficiencies while managing price and risk in software development, deployment, & support.

With over 350 consultants, Eagle Creek Software Services is the largest U.S. based onshore software services company. Eagle Creek is uniquely positioned by combining on site expertise with U.S.-based Technology Centers. The onshore delivery model allows Eagle Creek to achieve consistency, scalability and sustainability in the provisioning of technical and consulting capabilities.

Eagle Creek has expertise in a multitude of industries, and has the experience and know-how to implement, upgrade and maintain enterprise-grade front office technologies, applications and platforms.



**Putting US in
Global Sourcing**

For more information go to
www.eaglecrk.com

ⁱ *Application Development Key Initiative Overview*, Gartner, March 2014.

ⁱⁱ *Predicts 2014: Application Development*, Gartner, November 2013.

ⁱⁱⁱ Ibid.

^{iv} Ibid

^v Ibid.

^{vi} *Improving IT Agility through Adaptive Sourcing*, Gartner, February 2014.

^{vii} *Agenda Overview for Application Development, 2014*, Gartner, January 2014.

^{viii} *Improving IT Agility through Adaptive Sourcing*, Gartner, February 2014.