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For: Sourcing & Vendor Management Professionals

The Forrester Wave™: Software Product Development Services, Q1 2014

by Charles Green, March 31, 2014

KEY TAKEAWAYS

The Nature Of Product Development Is Changing As Software Becomes Critical

Software capabilities are no longer a nice-to-have; they're an essential asset to every brand and must be a strategic priority. Every product and service now needs to use software to interact with customers. This environment is forcing organizations to look to partners with the requisite software expertise.

Non-Tech Companies Are Driving Software PDS Market Growth

The software product development services (PDS) market is growing because more organizations -- including increasing numbers of non-technology companies -- require the software development expertise of PDS providers. Clients are demanding, and providers are increasingly able to offer, more mature services offerings, which we call PDS 2.0.

Leaders Have A Clear Vision For Software PDS Articulated In Business Metrics

As the engine of growth of the software PDS market shifts to serving non-tech companies, customers will increasingly use key business metrics such as innovation and lower time-to-market when evaluating providers.

The Forrester Wave™: Software Product Development Services, Q1 2014

In A Shifting Software PDS Market, HCL And EPAM Systems Emerge As Leaders

by Charles Green
with John C. McCarthy, Chris Andrews, and David Murphy

WHY READ THIS REPORT

In Forrester's 14-criteria emerging market evaluation of software product development services (PDS) vendors, we identified the 11 most significant providers — EPAM Systems, GlobalLogic, HCL, Infosys, Mindtree, Ness Technologies, Pactera, Persistent Systems, Symphony Teleca, TCS, and Wipro — and researched, analyzed, and scored them. This report details our findings about how well each vendor fulfills our criteria and where they stand in relation to each other to help sourcing and vendor management professionals select the right partner for their software product development initiatives.

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Notes & Resources

Forrester conducted service evaluations in September and October 2013 and interviewed 11 vendor and 33 user companies. The vendors were: EPAM Systems, GlobalLogic, HCL, Infosys, Mindtree, Ness Technologies, Pactera, Persistent Systems, Symphony Teleca, TCS, and Wipro.

Related Research Documents

Software Must Enrich Your Brand
January 23, 2014

Non-Tech Companies Become The New Market For Software Product Development Services
August 6, 2013

The Shift To Product Development Services 2.0 Is On
May 4, 2012

IN A WORLD WHERE SOFTWARE ENRICHES THE BRAND, COMPANIES NEED HELP

In 2011, the venture capitalist and software engineer Marc Andreessen claimed that "Software is eating the world."[1] As this provocative claim comes to fruition, the focus of software PDS providers will fundamentally change; they will no longer solely develop and maintain software products for independent software vendors (ISVs). Rather, as the nature of product development changes and the importance of software rises, these providers now intricately support clients in developing and maintaining products in almost every industry (see Figure 1). This is occurring because:

- **Every company is becoming an ISV, and software is becoming the brand.** Software — and in particular users' interaction with that software — significantly influences the perception of your company.[2] As industries including retail, media, travel, entertainment, information services, and financial services change, an ever greater proportion of the value of the product or service comes from software. Forrester refers to this emerging segment as "software is the brand" companies, and believes that these buyers, rather than the traditional ISV client base, will drive growth in the software PDS market.[3]

- **Developing software-enabled products presents a new set of challenges.** Organizations as diverse as McKesson and Wolters Kluwer have set up internal software operations separate from IT. Why? Because they recognize that the software projects that will transform them into digital enterprises that deliver delightful customer experiences require a different type of engagement — one that demands a much more product-centric skill set and mindset compared with traditional IT projects. Such organizations will increasingly look to software PDS providers, which have natural strengths in these high-end, bespoke Agile projects.

- **The next generation of product development is forcing companies to acquire new skill sets.** The complexity of high-end engagements such as developing a next-generation omnichannel eCommerce platform simply demands a broader portfolio of skills, such as user experience design (UXD) and Agile capabilities. Software PDS providers differentiate themselves on their expertise and strengths in these areas. As companies require more sophisticated talent to meet these new technology demands, some will even acquire tech companies, although they will be more likely to engage more deeply with a broader range of suppliers to find these skills. Already in 2012, 38% of the business budget decision-makers who indicated that improving their firm's ability to innovate was a top priority expressed an increasing willingness to partner with other firms to address their innovation challenges.[4] This shift to more open innovation models presents opportunities to software PDS providers, because next-generation digital engagements will be strikingly different from your father's IT projects.

Figure 1 Companies Need Help As Software Becomes Critical
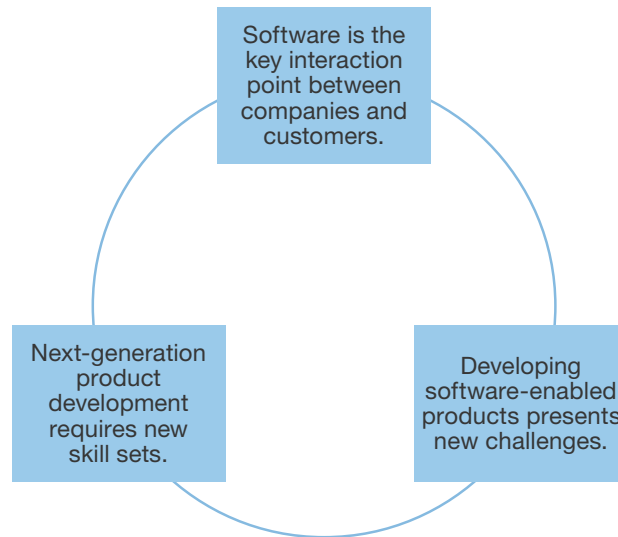
SOFTWARE PRODUCT DEVELOPMENT SERVICES EVALUATION OVERVIEW

As digital experiences become intrinsic to companies' interactions with their customers, they will increasingly look to suppliers to provide the necessary skills and expertise. To help clients determine which vendor to select, Forrester evaluated the strengths and weaknesses of the top 11 software PDS providers.[5] We evaluated the providers across 14 criteria, grouped into three high-level buckets:

- **Current offering.** We evaluated the scope and sophistication of providers' service offerings.[6] In addition, we examined their delivery, Agile, and UXD capabilities; industry expertise; and value-added (consulting) services. We also included the overall client reference score and the ability of the provider to generate innovation in engagements in the assessment.

- **Strategy.** We assessed providers on the articulation of their vision for software PDS as well as the ability to achieve that vision. In addition, we reviewed the key technology investments that they have made in the past 18 months and their strategic marketing capabilities.

- **Market presence.** We evaluated both the overall size of providers and their rate of growth using three criteria: software PDS revenues; the growth of $1 million-plus and $5 million-plus accounts in the past two years; and average account size.

Vendor Selection Criteria

Forrester included 11 vendors in the assessment: EPAM Systems, GlobalLogic, HCL, Infosys, Mindtree, Ness Technologies, Pactera, Persistent Systems, Symphony Teleca, TCS, and Wipro. Each of these vendors has (see Figure 2):

- **Significant scale.** To help narrow down a competitive field with a large number of small providers, we focused the evaluation on large providers with more than $100 million in software PDS revenues.

- **Services capabilities with a concentration on software PDS.** The broader PDS market spans the spectrum from engineering services to embedded software product services to software product development services.[7] To be included in this evaluation, providers needed to get 25% or more of their PDS revenues from software PDS.

Figure 2 Evaluated Vendors: Vendor Selection Criteria

Vendor selection criteria

More than $100 million in software PDS revenues.
More than 25% of PDS revenues derive from software PDS.
Software PDS is a strategic service line.
A sufficient level of interest from Forrester clients.

Source: Forrester Research, Inc.

As The Software PDS Market Bifurcates, Providers Must Focus On Business Metrics

Software PDS is bifurcating between a fading ISV market and a high-growth, software-enabled business market. The race is on to successfully pivot to serve these new buyers; this requires suppliers to develop new capabilities, such as Agile and design skills, and hire highly experienced people with multidimensional skill sets who understand the intersections of technologies. These are the kinds of investments that firms need to make to adapt to a PDS 2.0 world.[8] Providers need to demonstrate their value to buyers in the high-growth software-is-the-brand segment, which means achieving — and being measured on — business outcomes. Clients particularly value a provider's ability to:

- **Improve time-to-market.** The speed of business and technology change and ever-shorter product life cycles are forcing organizations to put a premium on getting products to market as quickly as possible. Providers help clients achieve this in various ways — from rapidly ramping up development teams to bringing prebuilt assets to engagements to cut development times.

Almost all of the 33 customer references stated that their service provider helped them reduce time-to-market; providers scored an average of 4.2 out of 5 here.[9] GlobalLogic and Persistent Systems scored the highest of all providers on this criterion.

> "There was no way we could have gone from idea to market in nine months had we built the product ourselves. While it took time for GlobalLogic to realize that it could be more creative and exercise its judgment to push back on us, it was a strong partner during ideation and development." (Customer reference, high-tech)

- **Innovate.** Clients expect, and increasingly demand, that suppliers act as strategic partners, proactively bringing business and technological innovation to engagements. A common theme among the customer references was that providers performed strongly when the requirements were clear but often lacked ingenuity and creativity. Indeed, while some providers, such as EPAM, Ness, and TCS scored highly, several others did not live up to expectations. Providers scored an average of 3.1.

> "Our provider is very task-oriented and lacks creativity. Unfortunately, it seems unable to think outside of the box, so we retain ownership of the product strategy." (Customer reference, high-tech)

- **Bring new technology capabilities to engagements.** Customers expect their provider to stay one step ahead of the latest developments in technology. Indeed, some providers intentionally aim to work with innovative technology startups to ensure that they're on the cutting edge of technology trends. Similar to the innovation criterion, some customers gave their providers high scores, while other providers' customers indicated that this was an area for improvement. Providers scored an average of 3.5, with TCS and Infosys receiving the highest marks.

> "Our provider is extremely technically capable. We wanted specific technical expertise, particularly around HTML5, that we did not have in-house. In the proof of concept, TCS emerged top of class." (Customer reference, financial services)

HCL And EPAM Systems Emerge As Leaders In The Overall Evaluation

The overall Forrester Wave evaluation uncovered a market in which (see Figure 3):[10]

- **HCL and EPAM Systems emerged as Leaders.** Rapid changes in technology and business environments mean that organizations have different expectations of suppliers than they did just a few years ago. HCL and EPAM recognize this and have a depth and clarity of vision, backed up by specific investments, that set them apart from the other vendors in this evaluation. EPAM scored the highest of all providers on driving innovation and helping to create innovative new products.

- **There was little differentiation between TCS, Wipro, and Infosys.** All three of these vendors have significant scale in software PDS.[11] However, the lack of a dedicated PDS group and a dedicated sales force that can articulate the unique value of software PDS ultimately hinders their ability to meet the needs of the emerging software-is-the-brand segment. Developing software products is a very different type of engagement; the client stakeholders and requirements are distinct from those in traditional IT engagements. To move away from just being all-purpose IT players and emerge as top-tier providers, all three need to rapidly create a separate software PDS group and improve the clarity with which they articulate their service offerings. It is worth noting, though, that TCS and Infosys rated the highest in terms of driving new technologies in engagements.

- **GlobalLogic, Ness Technologies, Persistent Systems, and Symphony Teleca are emerging.** Each of these pure-play providers has at one time or another been labeled as leading the software PDS market and all continue to offer strong choices to buyers. However, in the past few years each has struggled with its own issues, from management changes to shifting strategic directions. While the private equity takeovers of Ness and GlobalLogic do concern some customers, we expect that, given the right investments, these two firms are the most likely in this group to break into the Leader category in the next 12 to 18 months. While the two providers are quite different, each has specific strengths; for example, Ness is strong in media and publishing, which will position it well in the emerging software-is-the brand segment. And customers rated GlobalLogic highly in helping to reduce time-to-market.

- **Mindtree needs to focus to break out of the middle tier of Indian providers.** While Mindtree articulated a vision that understood the shift to PDS 2.0, Forrester believes that the vendor needs to target its investments on improving delivery capabilities and the overall quality of execution to move to the next level. Mindtree's customer references also highlighted both of these areas.

- **Pactera could emerge to challenge better-known providers.** While Pactera is often perceived as a vendor largely focused on its significant scale in testing and localization work for the Chinese and Asia Pacific markets, it articulated a strong vision during this evaluation. If it continues to make the right investments — particularly in developing a more local presence with its customers and becoming a more global company — Pactera could emerge to challenge some of the better-known providers.

Figure 3 Forrester Wave™: Software Product Development Services, Q1 '14
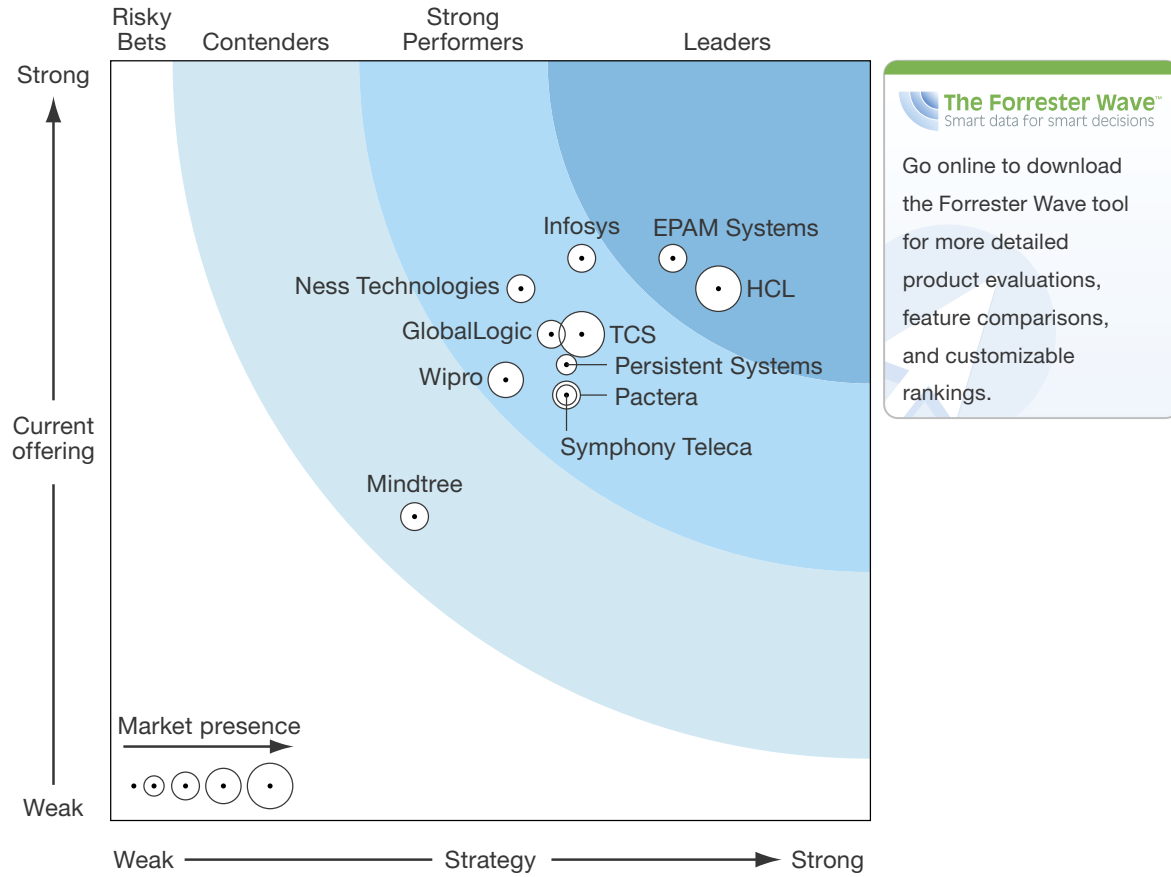
Figure 3 Forrester Wave™: Software Product Development Services, Q1 '14 (Cont.)

	Forrester's Weighting	EPAM Systems	GlobalLogic	HCL	Infosys	Mindtree	Ness Technologies	Pactera	Persistent Systems	Symphony Teleca	TCS	Wipro
CURRENT OFFERING	50%	3.70	3.20	3.50	3.70	2.00	3.50	2.80	3.00	2.80	3.20	2.90
Customer satisfaction	20%	4.00	4.00	4.00	4.00	3.00	3.00	4.00	3.00	4.00	4.00	3.00
Scope and sophistication	10%	4.00	4.00	4.00	4.00	3.00	4.00	3.00	4.00	3.00	4.00	4.00
Permanent onshore presence	10%	3.00	1.00	3.00	5.00	1.00	5.00	3.00	3.00	3.00	1.00	1.00
Agile and advanced delivery capabilities	10%	4.00	4.00	3.00	3.00	3.00	5.00	1.00	4.00	3.00	3.00	4.00
User experience design capabilities	10%	5.00	5.00	3.00	3.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00
Vertical focus and domain expertise	10%	2.00	2.00	4.00	4.00	1.00	3.00	3.00	4.00	3.00	3.00	4.00
Value-added services	10%	3.00	2.00	4.00	4.00	1.00	3.00	1.00	2.00	1.00	4.00	3.00
Innovation	20%	4.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	2.00	3.00	2.00
STRATEGY	50%	3.70	2.90	4.00	3.10	2.00	2.70	3.00	3.00	3.00	3.10	2.60
Management vision and execution	30%	4.00	3.00	4.00	3.00	2.00	3.00	3.00	3.00	4.00	3.00	3.00
Core next-generation technology investments	40%	4.00	2.00	4.00	4.00	2.00	3.00	3.00	3.00	3.00	4.00	2.00
Strategic marketing and thought leadership	30%	3.00	4.00	4.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00	3.00
MARKET PRESENCE	0%	2.35	2.35	4.70	2.35	2.05	2.35	2.70	1.35	1.30	4.70	3.30
Software product development services revenue	30%	2.00	2.00	4.00	2.00	1.00	2.00	2.00	1.00	2.00	4.00	4.00
Growth in existing accounts	35%	3.00	4.00	5.00	1.00	2.00	1.00	5.00	2.00	1.00	5.00	5.00
Average account size	35%	2.00	1.00	5.00	4.00	3.00	4.00	1.00	1.00	1.00	5.00	1.00

All scores are based on a scale of 0 (weak) to 5 (strong).

Source: Forrester Research, Inc.

VENDOR PROFILES

Leaders

■ **EPAM Systems.** EPAM, which has a strong talent pool in Central and Eastern Europe, emerged as a Leader in this evaluation on the strength of its customer references — although there is a downside. As one customer put it, "EPAM's technical expertise is unparalleled, but the question I have to ask myself is: Do I actually always need such excellence?" Indeed, EPAM's greatest

strength is its greatest weakness, as its engineering excellence sometimes overshadows its marketing and account management. EPAM has made significant investments in developing assets such as its portfolio of industry-specific solution accelerators; it also acquired Empathy Lab to improve its UXD capabilities.

■ **HCL.** HCL's Engineering and R&D Services division has formulated a clear and articulate vision of the software PDS 2.0 market. This vision is reflected in HCL's investments in its "service line unit" (SLU) initiative. The initiative stands out from the crowd of provider investments not just because of its customer focus, but also because of the sophistication of the process that HCL used to develop it. HCL actively investigated the white spaces between key client concerns and focus areas and now offers a range of SLUs to customers.[12] Meanwhile, HCL's strong industry and domain expertise is reflected in the fact that 33% of its software PDS employees have more than 10 years of industry expertise.

Strong Performers

■ **GlobalLogic.** GlobalLogic's vision is that innovation occurs where technologies intersect, and the vendor has structured itself around five horizontal practices: mobile, cloud, embedded software, analytics, and content services. GlobalLogic's strategy differs from many of the providers in this evaluation in that it does not focus on specific industries, but uses a horizontal orientation. The firm aims to draw out innovation at interesting technology intersections across industries and rely less on industry depth and focus to woo new accounts. As part of this shift, GlobalLogic moved away from developing reusable IP assets, as there was not enough commonality between engagements to justify this. Recognizing early on that UXD capabilities would be a key component of software PDS, the vendor acquired Method in 2011; Method provides GlobalLogic with design skills but remains a separate brand and business unit. Management changes over the past few years have raised some questions about the company's strategic direction; GlobalLogic was recently sold to ODSA Topco, a company backed by funds advised by the private equity firm Apax Partners. Forrester will continue to monitor how these changes affect future investments.

■ **Infosys.** Infosys' engineering services is currently one of its fastest-growing and most profitable service lines; software PDS, with 9,130 delivery resources, is a key engine of growth within the broader engineering services portfolio. In addition to its focus on the traditional ISV sector, Infosys has identified five further key industries for software PDS: retail, consumer packaged goods, medical equipment, insurance, and healthcare. Infosys customers highlighted the vendor's strengths in execution, particularly engineering rigor and transparency, and its ability to drive the use of new technologies within products. These customers also indicated that, while Infosys was an effective partner when there was a clear set of requirements, it needs to be more proactive to drive innovation within engagements. The fact that Infosys recently laid off its entire onshore marketing staff raises questions about how effective the firm will be at driving a business metric-based conversation in software-is-the-brand accounts.

- **Ness Technologies.** Ness was one of the earliest providers to recognize the shift away from the traditional ISV market and toward non-technology companies. So while it continues to serve ISVs, Ness is also well positioned in the education, publishing, media, financial services, and insurance sectors. Ness has strong delivery capabilities, particularly with regard to Agile, and sophisticated delivery frameworks such as its NessSMART process optimization platform; it received the highest overall rating on delivery excellence. While several providers' customer references voiced concern over vendor staff attrition, Ness is more vulnerable in this area; its 3,250 software PDS resources make it one of the smaller vendors in this evaluation. There is also concern regarding its recent takeover by the hedge fund The Rohatyn Group and the impact this may have on the investments required to take Ness to the next level. Finally, Ness' executive management has undergone significant changes in recent years.

- **Pactera.** Pactera, formed in 2012 by the merger of HiSoft and VanceInfo Technologies, is the leading China-based software PDS provider. With 8,000 resources focused on software PDS, Pactera has scale; it also has a large, basic localization practice focused on the Asia Pacific and Chinese markets. Customer references highlighted Pactera's proactivity, particularly regarding continuous improvement, as a particular strength. While the vendor has a good vision of the future of the PDS market, customers indicated that it needs to be a better partner and work more closely with their businesses. In order for Pactera to move to the next level and achieve its vision, it will need to invest in delivery, enhance its Agile capabilities, and gain a presence in Europe.

- **Persistent Systems.** Persistent Systems' strategy of "four industries, four technologies, and four business models" centers on the high-tech, telecommunications, life sciences and healthcare verticals. The company articulated its focus on four technologies (social, mobility, analytics, and cloud) long before those technologies gained a foothold higher up on the CIO or CTO's agenda. Persistent's technology focus manifests itself in projects like rearchitecting applications for ISVs' as-a-service models, but also indicates that the firm has yet to fully pivot to the emerging software-is-the-brand segment. Persistent's average account size of $470,000 — one of the lowest in this evaluation — reflects the long tail of small startups in its customer base. Customer references highlighted Persistent's transparency and clear communication (particularly in giving proactive feedback) as strengths. However, attrition is a concern, in particular around Persistent's ability to hold onto top-performing staff that is critical to the firm's PDS engagements.

- **Symphony Teleca.** Symphony Services and Teleca merged in 2012; the combined entity, Symphony Teleca, has 4,800 resources in software PDS and has enhanced mobile device capabilities. Nokia does not comprise as significant a proportion of Symphony Teleca's revenues as it did in the past, although it remains a key client. The vendor has created customer advisory boards led by its CEO to ensure that it is meeting client demands; the success of this initiative is reflected in Symphony Teleca achieving the second highest overall customer reference score. Symphony Teleca has made substantial investments in its Six Studios design agency — a move that stands in contrast to other providers' inorganic approach to acquiring design

skills. Symphony Teleca's customers highlighted its willingness and flexibility to try different commercial models, such as risk/reward, but also indicated that the firm can struggle at times to attract individuals with top-class skill sets.

- **TCS.** TCS has an engineering and product heritage and a strong portfolio of software PDS offerings; its 10,500 resources in software PDS give it significant scale. In 2011, TCS restructured its product engineering business and made its engineering and industrial unit — within which software PDS resides — part of its components engineering group. This move helped TCS register and bring its intellectual property to one location, and the firm now has the largest portfolio of reusable assets of all of the providers in this evaluation. TCS' customers highlighted its strength in driving new technologies in engagements. However, the firm lacks a dedicated sales or marketing team for software PDS and as a result struggles to articulate its unique value proposition. In addition, while TCS' software PDS division is able to utilize its global UXD center of excellence, the company should look to invest further in UXD capabilities and become more of a one-stop shop for digital design.

- **Wipro.** With approximately 9,000 resources, Wipro has significant scale in software PDS and has a long history in the space. However, it's clear that Wipro is still in the process of pivoting to serve newer software-is-the-brand buyers. The firm needs to develop a broader range of skills, such as UXD capabilities, to effectively make this shift. Wipro is moving in the right direction; for example, it focuses on Agile training, and more than 70% of its software PDS resources are now trained on Agile. Wipro's customer references noted that the firm's complex organizational structure, consisting of a mixture of horizontals and verticals, is a challenge to navigate. And while Wipro has a number of prebuilt assets that it can bring to bear, customers indicated that it could be more proactive in bringing them into engagements.

Contenders

- **Mindtree.** Mindtree has approximately 3,000 people responsible for software PDS — about 25% of its total resources — and focuses on the high-tech (ISV) and communications and consumer product sectors. Mindtree has actively sought to exit its small accounts and focus on a smaller number of high-yield clients. This strategy has already increased the firm's average account size from $1.15 million per client to $1.65 million. However, Mindtree's key initiatives and investments tend to be more tactical in nature, for example around improving account development plans. It has not proactively invested in, for example, UXD capabilities to the same degree as some of the other providers in this evaluation. Mindtree customers highlighted the vendor's short lines of communication and overall culture — particularly in terms of how the company recognizes high-performing individuals — as particular strengths.

VENDORS NOT IN THIS EVALUATION PROVIDE ADDITIONAL ALTERNATIVES

Beyond the companies mentioned in this Forrester Wave evaluation, there exists a range of smaller, more specialized providers that can offer strong options, depending on your specific needs. Given that the average deal size in software PDS remains relatively small compared with typical IT deals, the overall scale of the provider is not as critical a factor in vendor selection. Clients should be open to working with smaller, innovative providers. Key alternative vendors in the software PDS market include:

- **A range of smaller onshore-centric product development specialists.** Providers such as 3Pillar Global, Alliance Global Services, and Object-Frontier Software in many cases outdo larger competitors with the clarity and articulation of their service offerings.

- **Latin America provides another geographic option.** Companies such as Brazil's CI&T and Argentina's Globant have a strong roster of top clients and a focus on front-end, creative-led engagements. CI&T in particular has an excellent reputation for its Agile competencies.[13] Meanwhile, smaller providers like Belatrix Software and Tiempo Development also seek to differentiate via their Agile expertise.

- **Smaller vendors based in Eastern Europe provide additional choice.** Luxoft offers particularly strong choices in its key focus industries of financial services, travel, high-tech, automotive, transport, and telecom; it announced its IPO in mid-2013. SoftServe, based in Ukraine, has approximately 3,000 professionals offering product and application development services. Smaller Russian providers such as Auriga and Reksoft can also provide these services, but lack the broader vision and proactive investments that distinguish the providers in this evaluation. Tieto, one of the largest Western European PDS providers, gets approximately one-third of its overall revenues from product development, although this largely focuses on the engineering and embedded segments of the PDS market rather than software PDS.

- **A wide range of tier two India-centric providers have strengths in specific segments.** Providers in this category include Aricent Group, CSS, Defiance Technologies, Geometric, Hexaware Technologies, iGate, Infotech, Larsen & Toubro, Sasken Communication Technologies, Sonata Software, and Tech Mahindra. While most of these vendors focus on IT services, they also offer a basic level of software PDS. Many of them have developed deep specializations in specific subsegments (such as Sonata Software in multichannel commerce) to help differentiate themselves.

SUPPLEMENTAL MATERIAL

Online Resource

The online version of Figure 3 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

Data Sources Used In This Forrester Wave

Forrester used a combination of two data sources to assess the strengths and weaknesses of each solution:

- **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.

- **Customer reference calls.** To validate product and vendor qualifications, Forrester also conducted reference calls with three of each vendor's current customers.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave document — and then score the vendors based on a clearly defined scale. These default weightings are intended only as a starting point, and we encourage readers to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve. For more information on the methodology that every Forrester Wave follows, go to http://www.forrester.com/marketing/policies/forrester-wave-methodology.html.

Integrity Policy

All of Forrester's research, including Waves, is conducted according to our Integrity Policy. For more information, go to http://www.forrester.com/marketing/policies/integrity-policy.html.

ENDNOTES

[1] Source: Marc Andreessen, "Why Software Is Eating The World," The Wall Street Journal, August 20, 2011 (http://online.wsj.com/news/articles/SB10001424053111903480904576512250915629460).

[2] Customers increasingly interact with products and service directly through the software they touch: mobile apps, connected products, websites, and digital experiences. If the software fails — or fails to delight — the brand suffers. Even physical products, from automobiles to thermostats, are increasingly enhanced by software. See the January 23, 2014, "Software Must Enrich Your Brand" report.

[3] The ISV portion of the software PDS market is in decline due to four key factors: consolidation of the midmarket of ISVs, large ISVs suffering from "not invented here" prejudice, account portfolios comprising of a large number of small startups, and sustenance work being challenging to acquire. Meanwhile, "software-is-the-brand" companies have become a key market for software PDS. See the August 6, 2013, "Non-Tech Companies Become The New Market For Software Product Development Services" report.

[4] Source: Forrsights Business Decision-Makers Survey, Q4 2012.

[5] Forrester defines software PDS as "the development and/or maintenance of software products or services that are independent of hardware." As such, we included engagements where the end user would interact with the software — for example, in infotainment systems — in the evaluation, but excluded product life-cycle management services.

[6] Note that we did not assess the providers' solution accelerators. Most of the providers in this evaluation have reusable assets that can provide significant benefits, such as shortening development life cycles. However, these are highly dependent on specific client needs and should be evaluated on a case-by-case basis.

[7] For more details and definitions of the different segments of the product development services market, see the February 27, 2013, "Market Taxonomy: Product Development Services, Q1 2013" report.

[8] Product development services 2.0 are defined as proactive, solution-based, domain-led offerings based on a portfolio of internally and externally developed assets and aimed at improving the client's ability to innovate and cut time-to-market. Forrester has outlined the key investments that providers will need to make to pivot to PDS 2.0. See the May 4, 2012, "The Shift To Product Development Services 2.0 Is On" report.

[9] We provided customer references with a series of statements about how well their provider helps them achieve specific outcomes. Customers rated these statements on a scale of 1 to 5; 1 represented strong disagreement with the statement and 5 represented strong agreement.

[10] This evaluation of the software PDS market is intended to be a starting point only. We encourage clients to view the detailed evaluations and adapt criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool.

[11] The large Indian providers have significant portfolios of application development engagements. A small but rising proportion of these are bleeding into high-end engineering engagements. As a result, many of the

software PDS revenues stated in this report are higher than what the companies have publicly stated in their investor relations materials.

[12] For more details on HCL's SLU initiative, see Forrester's blog post: "HCL Injects Innovation Into The Next Generation Of Product Development Services," Charles Green's Blog, July 8, 2013 (http://blogs.forrester. com/charles_green/13-07-08-hcl_injects_innovation_into_the_next_generation_of_product_development_ services).

[13] CI&T has also demonstrated the success of offshore distributed Agile teams. See the November 12, 2013, "Offshore Agile Comes Of Age" report.

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