Market Insight: Grow DevOps Services Into Continuous Product-Centric Services



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Analyst(s): Neil Barton

Widespread adoption of agile and DevOps is changing the IT services market. Product managers at consulting, implementation, and managed service providers must repackage existing capabilities and diversify beyond functional outsourcing to offer multidisciplinary ideate-build-run teams.



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This research is reviewed periodically for accuracy. Last reviewed on 10 February 2021.

Key Findings

- For many years, IT services have been purchased in functional silos (such as design, development, testing and operations) that obstruct the successful adoption of DevOps.
- Service providers and consulting practices that specialize purely in functional outsourcing services are finding their growth threatened as market adoption of DevOps rises above 50%.

Recommendations

Service line managers who are introducing and packaging consulting, implementation, and managed services for DevOps should:

- Construct new service offerings by repackaging existing development and infrastructure management capabilities into continuous product-centric services.
- Diversify from functional specializations, such as testing services or implementing DevOps toolchains, into providing long-term multidisciplinary teams that use agile and DevOps principles to build, deploy, and support software.

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Analysis

Customers Are Embracing DevOps

The DevOps movement is 10 years old in 2019. Since the first DevOps days in 2009, DevOps adoption among organizations surveyed by Gartner has grown from 20% in 2015 to 50% in 2019, according to the 2019 Gartner Agile in the Enterprise Survey.

Conventional Outsourcing Contracts Are an Obstacle to DevOps

A fundamental principle of DevOps is to eliminate delay and waste. This means close collaboration or even blending of the development and operations roles. Often, DevOps initiatives build teams that span the traditional waterfall-based divide between application developers and IT operations.

However, for many years, IT services have been purchased in functional silos that enforce the "dev" and "ops" divide. Customers have typically awarded contracts to one vendor for IT operations, and

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to other vendors for application development and application management. The contracts document rigid roles and responsibilities in RACI matrices to enforce supplier accountability, with financial penalties for suppliers that do not carry out their assigned tasks properly. These contracts often have three- or even five-year terms, locking both customer and supplier into a pattern of behaviors that obstructs or even prevents successful adoption of DevOps.

Customers Are Changing the Way They Buy IT Services

The IT services market has traditionally been segmented into categories based on waterfall development. Implementation services are delivered until a system goes live, and managed services are offered afterward, as shown on the right side of Figure 1.

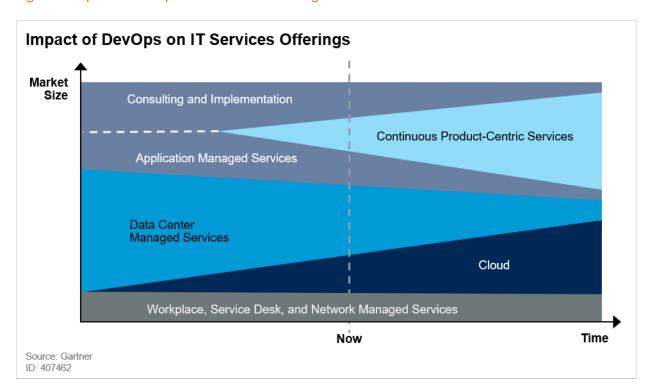


Figure 1. Impact of DevOps on IT Services Offerings

However, the adoption of DevOps is changing this market. In Gartner's 2019 survey of organizations using DevOps, 65% said that their DevOps initiative relies to some extent on outsourced services. More recently, interest in product-centric development (see "Mastering the Role of Products in the Digital Era") means customers are looking for service providers that can provide them with all the skills they need under one contract, whether "dev" or "ops." This is shown as continuous product-centric services on the right side of Figure 1.

Gartner defines continuous product-centric services as an external service provider with a *long-term contract* to supply a *multidisciplinary team* that *builds, deploys and supports* software using agile and DevOps approaches. To be precise:

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- "Long-term contracts" are those that do not end when a project phase is completed, but can continue for multiple years, ending only when the product is retired or the contract term expires.
- A "multidisciplinary" team could include business analysts, architects, user experience/ customer experience (UX/CX) designers, Scrum Masters, developers, testers, infosec engineers and Site Reliability Engineers.
- A continuous product-centric services team takes requirements from the backlog created by the customer's product owner. The team then develops software, as well as automating the test suite, deploying to production, and resolving Level 2/Level 3 (L2/L3) support requests for incident resolution, defect correction, and software enhancement.

Service Line Managers Must Repackage Offerings or Diversify

Most IT consulting, implementation and managed service providers have lean, agile or DevOps practices. These practices are managed by service line managers who carry out a role similar to product management. They are responsible for service line strategy; investments in delivery people, processes, methodologies and reusable assets; as well as marketing and sales support.

Service line managers at IT services providers must learn to package their offerings for continuous product-centric services instead of functional silos. Many existing multiyear outsourcing contracts must be renegotiated to get the best out of DevOps. Providers of pure-play functional services must diversify to offer multidisciplinary teams that address a specific business process or issue.

Background and Context

One of the underlying principles of DevOps is to eliminate delays and waste. However, functional outsourcing creates delays in the handoff of tasks such as provisioning, releases to production and incident escalation, as shown in Figure 2.

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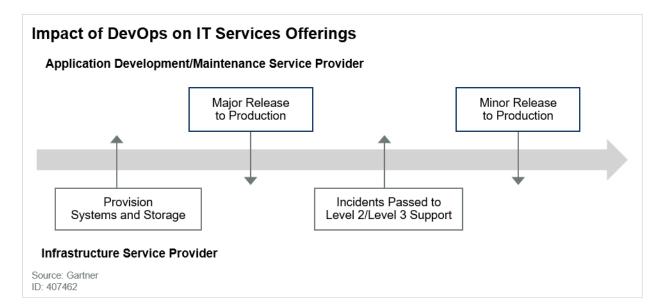


Figure 2. How Functional Outsourcing Obstructs DevOps

Gartner is often asked whether it is necessary to reorganize in order to be successful with DevOps. For example, DevOps consultant Mathew Skelton has identified nine different DevOps topologies, as well as six DevOps "anti-patterns" that he advises against. These topologies are also very relevant to consulting, outsourcing and system integration contracts.

In 2018, some of the thought leaders behind DevOps published a "State Of DevOps" report which said:

"Outsourcing by function is rarely adopted by elite performers and hurts performance. While outsourcing can save money and provide a flexible labor pool, low-performing teams are almost 4 times as likely to outsource whole functions such as testing or operations than their highest-performing counterparts." (Page 4.)

Some have interpreted this to suggest that using external service providers is incompatible with DevOps. That is not the case, as was clarified by one of the authors of the report:

"In our 2018 research with DORA we point this out: functional outsourcing is a bad idea. Outsourcing that integrates with your

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teams' delivery cadences and helps you do good work is good!"

The DevOps concept of a multidisciplinary team is also favored by the 85% of IT organizations that are adopting product-centric models (see "Survey Analysis: IT Is Moving Quickly From Projects to Products"). The writer Martin Fowler describes product-centric teams as "durable, ideate-build-run teams working on a persistent business issue." In "Mastering the Role of Products in the Digital Era," Gartner recommends:

- Continuous funding with checkpoints on resources at least every three months.
- Continuous timelines (no firm end dates)
- Multidisciplinary teams, breaking down the silos of functional specialization.
- Business-centric metrics based on customer satisfaction, profit and market share rather than "on time/on budget."

The Impact

The impact of continuous product-centric services will depend on a company's position in the market. There will be winners and losers.

Custom Application Software Development Companies

For custom application software development companies, continuous product-centric services are an easy growth opportunity. Service line managers of development services should encourage the expansion of their offering into grooming backlogs, setting up automated continuous integration/continuous delivery (CI/CD) toolchains, and configuring cloud-native technical architectures. Continuous product-centric services are already the default mode for many digital agencies building new cloud-hosted customer-facing systems. Public cloud providers such as Amazon Web Services (AWS), Microsoft Azure and Google Cloud Platform (GCP) enable developers to self-provision compute and storage capacity without the involvement of a traditional IT operations team. However, the cloud providers operate a shared responsibility model (see "Cloud MSP Product Marketers Must Exploit the Public Cloud laaS Shared Responsibility Model in Their Value Proposition") and do not provide services to manage the release to production, application operations or L2/L3 application incident resolution. The providers of software development services are well placed to step up and take on these responsibilities.

For example, American broadcaster PBS used the digital product development company 3Pillar to develop content management systems, digital apps and APIs using cross-functional product teams that continuously deploy, owning the full idea of an operations cycle. Gone are the days of one team builds and another deploys.

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Another example is ParkMobile, a BMW Group/Daimler joint venture whose product is the world's largest parking application. ParkMobile engaged Rural Sourcing Inc. (RSI) to help develop software and accelerate its migration from a legacy codebase to a cloud-first environment. Over the course of the engagement, RSI took on multidisciplinary responsibilities, including design, development, data benchmarking and analysis, as well as quality engineering.

IT Managed Service Providers With Multiyear Customer Contracts

IT managed service providers with multiyear customer contracts must evolve their customer relationships. Existing contracts are likely to be structured in functional silos, as shown on the left side of Figure 3. To get the best from DevOps, service line managers should encourage contract changes to add new continuous product-centric services. Over time, consumption of functional outsourcing services can be scaled down, while consumption of continuous product-centric services is ramped up. Only the service desk service will remain unchanged, because in both cases it is needed to receive and route tickets at Level 1. There is some indication that application managed service contracts (see "Market Share Analysis: Application Managed Services, Worldwide, 2018") are evolving in this direction (see "Revitalize Application Management Services With Kanban").

It might seem quicker and easier to expand infrastructure managed services into a DevOps-style automated hosted CI/CD toolchain. However, this is unlikely to generate revenue growth. Highly automated services are vulnerable to cost competition, and services of this type risk losing influence on the client's technical architecture. For example, many software developers are now adopting a new cloud architecture: serverless (see "An I&O Leader's Guide to Serverless Computing"). In serverless computing, choices about provisioning, scaling and reliability are made by cloud providers, eliminating much of the work done today by infrastructure managed service providers.

For a European financial services group, HCL Technologies is one of a panel of vendors that is delivering strategic technology-led transformation programs with complete multidisciplinary feature teams that are responsible for everything including grooming the backlog, development, testing, deployment, and L2/L3 support.

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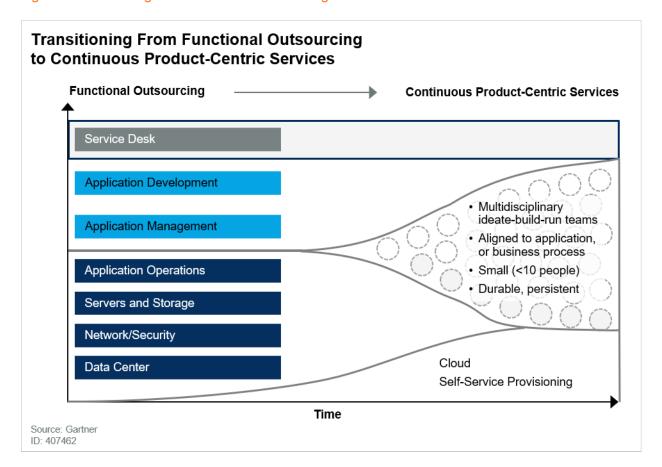


Figure 3. Transitioning From Functional Outsourcing to Continuous Product-Centric Services

Functional Practices and Pure-Play Service Providers

For service line managers of specialized functional practices and pure-play service providers that offer only functionally siloed services, DevOps and product centricity are threats to growth. Customers who embrace product centricity will value multidisciplinary teams far more than functional centers of expertise. At the same time, customers value service providers that demonstrate accountability. The easiest way to do this is to supply the complete team; that way, roles, responsibilities and risks are kept within the service provider's control as much as possible. Therefore, functionally specialized service providers are finding growth much harder; according to "Forecast: IT Services, Worldwide, 2017-2023, 2Q19 Update," data center managed services will have grown at only 0.7% in 2019, compared with 5.8% for IT services as a whole. Examples of functionally siloed services that are threatened include testing and narrowly scoped infrastructure managed services (for example, support up to the OS level only).

To respond to this threat, Mindtree in 2017 reorganized its agile, DevOps and testing practices into a single "Integrated Services" organization. As a result, Mindtree was engaged by a global consumer packaged goods brand as the digital anchor partner for an omnichannel digital marketing initiative, bringing together 600 digital properties and 20 agencies in 180 countries. In 2019, Accenture

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announced the integration of its application services and infrastructure outsourcing service lines, according to its fiscal 1Q19 earning transcript.

Specialist DevOps Consultancies

Specialist DevOps consultancies face a different challenge. DevOps strategy and DevOps implementation services have grown rapidly since 2010. While opportunities will remain for the next few years, a saturation point is in sight. In the 2019 Gartner DevOps Survey, 83% of organizations with at least five DevOps teams say that they use or expect to use site reliability engineering by the end of 2020. Some specialist DevOps consultancies have diversified into managed DevOps services, which provides a recurring revenue stream. For example, the consultancy DevOpsGroup also offers platform support and platform operation services. However, managed DevOps services are becoming hard to distinguish from public cloud managed services (see "Magic Quadrant for Public Cloud Infrastructure Professional and Managed Services, Worldwide"). Therefore, specialist DevOps consultants must as well diversify into more continuous product-centric services.

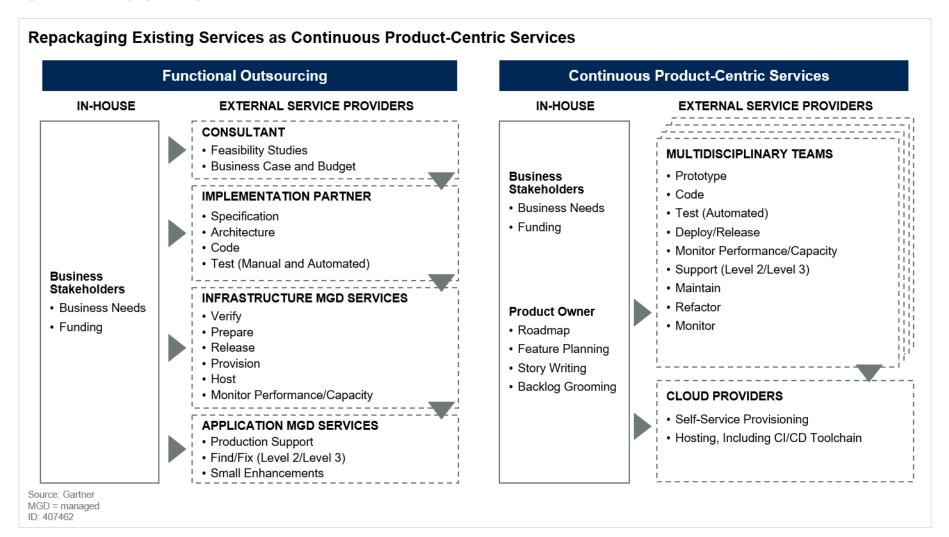
Conclusion

Repackaging Service Lines

Service line managers at consulting, outsourcing and system integration providers should repackage existing capabilities as continuous product-centric services. (See Figure 4.)

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Figure 4. Repackaging Existing Services as Continuous Product-Centric Services



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As shown in Figure 4, this does not require new capabilities. Consultants still analyze business needs. Developers still write code. Tests and releases are still automated — this is extremely important. Incidents are still resolved and defects corrected. However, by repackaging these into a single service offering, a service line manager avoids the siloed functional outsourcing that has proved to be an obstacle to DevOps environments. Teams are no longer dependent on another silo, and therefore can move at their own speed. This helps the customer to accelerate their time to market.

To repackage existing capabilities as continuous product-centric services, service line managers should:

- Rewrite service descriptions, replacing functional services with multidisciplinary teams that can analyze business needs, develop code, test, deploy, and carry out ongoing management and maintenance.
- Provide sales teams with templates for product-centric proposals that offer persistent and durable teams instead of time-bound project teams.
- Encourage sales teams to offer customers a fair and balanced share of delivery risk and accountability, instead of time-and-materials and managed capacity commercial models in which almost all risk resides with the customer.
- Provide sales teams with materials to educate customers on the importance of funding permanent product-centric teams in order to keep their business growing and improving.

Diversify

Service line managers of pure-play consultancies or practices that are functionally siloed must diversify into multidisciplinary services. For example:

- Pure-play test service providers could use their experience of writing test specifications and scripts to help customers implement behavior-driven development (see "Increase Collaboration and Drive Agility With Behavior-Driven Development"), in which acceptance tests are defined as an integral part of adding user stories to the product backlog.
- Infrastructure managed service providers should develop site reliability engineering services, which will resonate better than traditional infrastructure and operations services in the fastgrowing market for digital business projects.
- Infrastructure managed service providers can develop new offerings such as infosec, cybersecurity, or managing digital touchpoints (see "Market Insight: Product Managers of Infrastructure MSPs Must Seize Growth Opportunities Through Digital Touchpoint Services").
- Infrastructure managed service providers can form alliances with or even acquire software development providers to offer true multidisciplinary teams.

Some specialist companies find this an uncomfortable prospect. They feel "we have always been about operations, not development." However, in a DevOps-everywhere world, dev is the tip of the spear. Development occurs first — before testing or infrastructure services are engaged. The service

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providers that are involved in the earliest phases are best positioned to satisfy customer demand for accountable multidisciplinary teams and grow DevOps services into continuous product-centric services.

Acronym Key and Glossary Terms

RACI

responsible, accountable, consulted and informed

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"Strategic Roadmap for Becoming a Digital Product Delivery Organization"

"Case Study: The Estée Lauder Companies Is Transforming Its IT Services Sourcing for Digital Delivery"

"Toolkit: Move the Funding Model From Project to Product Starting Today"

"Expert Insight Video: Product Managers for IT Services Must Support a DevOps Organizational Approach"

"Shift Your Mindset to Change From a Project- to Product-Centric Service Organization"

"Product-Centric Organizations Must Repackage Outsourcing Deals to Incorporate Agile and DevOps Services"

Evidence

The 2019 Gartner Agile in the Enterprise Survey was conducted via an online survey from 3 June through 25 June 2019 with 130 Gartner Research Circle Members, a Gartner-managed panel composed of IT and IT-business professionals.

Qualified participants included business end users with either an IT or IT-business focus as a primary role. Eighty-seven percent of participants use agile for at least some of their application development.

The survey was developed collaboratively by a team of Gartner analysts, and was reviewed, tested, and administered by Gartner's Research Data and Analytics team.

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GARTNER HEADQUARTERS

Corporate Headquarters

56 Top Gallant Road Stamford, CT 06902-7700 USA +1 203 964 0096

Regional Headquarters AUSTRALIA BRAZIL JAPAN UNITED KINGDOM

For a complete list of worldwide locations, visit http://www.gartner.com/technology/about.jsp

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