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Magic Quadrant for Field Service Management

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Vendors' positions in this Magic Quadrant reflect clients' new expectations in areas such as collaboration, safety, business models, and Al-driven decision support for parts and labor planning. When assessing vendors, look for packaging of multiple technologies, alliances and proven results.

Strategic Planning Assumptions

By 2025, over 50% of field service management deployments will include mobile augmented-reality collaboration and knowledge-sharing tools, up from less than 10% in 2019.

By 2025, over 50% of equipment manufacturers will offer outcome-based service contracts that rely on access to digital twin data, up from less than 20% in 2019.

By 2025, algorithms and bots will schedule over two-thirds of field service work for field service providers dependent on automated schedule optimization, up from less than 25% in 2019.

Market Definition/Description

Field service management (FSM) is a discrete market within the broader customer service and support software market. Field service providers (FSPs) typically dispatch technicians to remote locations to provide installation, repair or maintenance services for equipment or systems. They may manage, maintain and monitor these assets under a predefined service or maintenance contract.

FSM applications provide capabilities to:

- Manage demand: They handle the receipt of work requests from external sources, such as customers (through multiple channels), Internet of Things (IoT) connections and service-brokering networks. They also import work requests from internal systems such as ticketing, maintenance, repair and operations (MRO), product life cycle management, long-cycle project management and enterprise asset management systems.
- Plan work: They offer skills-based workload balancing, forecasting of shift requirements, schedule optimization and routing for short- and long-cycle work requests. They also offer SLAs and cost prioritization, parts demand planning and purchasing, contracted or contingent third-party service provider management, customer approval coordination and GIS-based planning.

■ Inform and enable technicians: They do this via apps on mobile and wearable devices for GPS tracking, telematics, equipment work history, service collaboration, customer communication, knowledge management integration and work instruction management, inspections, safety forms, parts sourcing and customer quoting. Organizations provide remote expert guidance for technicians and customers in the field through multiexperience service support channels such as remote video and AR-based communications systems, IoT visualizations and chatbots (see "Transcend Omnichannel Thinking and Embrace Multiexperience for Improved CX").

- **Debrief work orders**: They enable online or offline mobile collection of time and parts used, tasks completed, updates to equipment records, site evidence, customer recommendations, signoffs, approvals for additional work and satisfaction surveys.
- Perform analysis and support integration: They do this using field service performance management reports and dashboards, predictive analytics, alerts and notifications, and APIs and connectors for ERP, CRM and GIS application integration.

In organizations that handle complex service use cases for mission-critical equipment, provide both on-site and in-depot service, or have FSM-driven pricing, end-to-end FSM applications also need functionality to:

• Manage additional operations: They should handle installed equipment management, maintenance agreement management, maintenance plans, warranty and claims management, reverse logistics, depot repair, equipment supersession, engineering change requests, customer pricing management and pro forma invoice preparation.

FSM products operate across multiple communication channels: websites, supply chain solutions, third-party service-brokering solutions and analytics. FSM applications draw on software in various markets: CRM, ERP, EAM, asset performance management, IoT, workforce management, vendor management, product life cycle management and supply chain markets (specific supply chain examples being transportation management and fleet management).

Functionality emphasis for 2020:

- Multiexperience support channels, such as:
 - Chatbots and virtual personal assistants
 - Collaboration enablement, augmented reality (AR) and live-guidance tools
 - IoT data orchestration
- Technician pretrip preparation and safety
- FSM-specific knowledge artifact curation and delivery

- Mobile platform and app extensibility
- Performance management (dashboards and reports)
- Subcontractor enablement and management
- Customer engagement and workforce engagement
- Emerging maintenance models (for example, usage-based, outcome-based service, equipment as a service)
- Schedule optimization capabilities that utilize artificial intelligence (AI) and machine learning (ML)
- Al-driven parts planning and sourcing, tool management, vehicle capacity
- Long-term workforce forecasting and planning

Magic Quadrant

Figure 1. Magic Quadrant for Field Service Management





Source: Gartner (June 2020)

Vendor Strengths and Cautions

Accruent

Accruent is a Niche Player, as it was in the previous Magic Quadrant. Its FSM capabilities are broad, and deep in several areas, but it lacks strong sales execution and innovation.

Accruent provides end-to-end FSM capabilities through its vx Field and optional vx Maintain (planned maintenance management), vx Observe (IoT products) and vx Field Contractor (third-party technicians).

Accruent focuses on schedule optimization for blended workforces (a mix of employees and subcontractors) and IoT-connected equipment monitoring. It recently added best-practice mobile functionality and improved its customer experience (CX) portal. Most of its revenue and over 70,000 users are split between North America and EMEA in utilities, telecom and retail industries.

Strengths

- Product functionality: Accruent's vx Observe IoT solution is installed at the equipment's location and natively connects to sensors from several manufacturers to feed telemetry to Accruent's reliability monitoring portal and Al-informed blended workforce scheduling. Its mobile app is feature-rich, with supervisor functionality (for example, subcontractor dispatch and paid time off [PTO] requests), inventory stock count, refrigerant records, forms and links to external apps.
- End-user training: Reference customers for Accruent scored its end-user training higher than that of any other vendor in this Magic Quadrant.
- Pricing: Accruent's average license prices are among the lowest of the vendors evaluated in this Magic Quadrant. This makes its products more accessible to midmarket organizations.

- **Growth**: A combination of shortcomings in sales execution and below-average customer satisfaction has resulted in relatively flat growth in Accruent's recurring revenue. Clients should verify whether Accruent's current or near-future direction and product roadmap will meet their business needs, and seek additional partners to fill any gaps in the meantime.
- Implementation cost: Accruent implementations are long in duration, and its implementation to-license cost ratios are the highest of vendors in this Magic Quadrant.
- Product innovation: Most of Accruent's new functionality is not unique in the market, and Accruent scored among the lowest for product innovation.

FieldAware

FieldAware is a Niche Player, as it was in the previous Magic Quadrant. It has been responsive to the market and has improved its product breadth, but its industry strategy and user-base growth have been limited.

FieldAware's product focuses on offering an API, extensibility and packaged ERP integrations, while also offering native technician enablement, schedule optimization and analytics. It recently replaced its OEM with native scheduling and strengthened its front-end scalability.

Most of FieldAware's 12,000 users are small and midsize facilities/property managers, manufacturers and service providers in North America. It also targets clients in EMEA and Asia/Pacific, and in the construction, medical device, and oil and gas industries.

Strengths

- Implementation, deployment and support cost: FieldAware's reference customers scored it among the best in this regard. Implementation durations were among the shortest reported for vendors in this Magic Quadrant.
- Market responsiveness: FieldAware has made several enhancements to its core products, particularly with its latest scheduling optimization module that offers scalability, supports simulations and accounts for site access hours. It has improved collaboration capabilities both natively and through an AR partnership.
- Packaged integration: FieldAware has improved its platform scalability and APIs, which help it integrate with ERP systems such as those of SAP (SAP Business One) and CentralBOS, and CRM systems such as those of Salesforce and Oracle (NetSuite). It is now a NetSuite Gold Partner for its FieldAware for NetSuite ERP offering.

Cautions

- Viability: For the second year in a row, FieldAware's growth was flat (through 3Q19) and churn, though improving, was higher than average. But it has fortified its leadership, made several enhancements to eliminate key deficiencies and rationalized its strategic ISV alliances; additionally, feedback from its reference customers has improved.
- Industry and geographical strategy: FieldAware does not provide configuration templates, industry-specific functionality or industry-specific compensation for its sales teams. Most of its customers are in North America.
- Product breadth: FieldAware lacks subcontractor enablement capabilities, such as specific mobile functionality, visualizations, invoicing and onboarding. It also relies on partners for functionality often included in core products, such as custom forms, customer communications and analytics.

FieldPower

FieldPower enters this Magic Quadrant as a Niche Player. This status reflects its good market understanding and its product's affordability, which are offset by a lack of both strong marketing execution and a strong ecosystem of independent software vendors (ISVs) to extend its capabilities.

FieldPower's FSM product focuses on connected field service (with an IoT gateway and over 450 plug-and-play sensor integrations), automation for proactive maintenance, and schedule optimization. It has improved its customer portals, parts management and subcontractor enablement.

Most of FieldPower's approximately 70,000 users are in midsize and large telcos, service providers, and manufacturers in EMEA and North America. It also targets real estate owned (REO) service providers.

Strengths

- Product breadth: FieldPower's IoT gateway and customer and vendor engagement portals help support current strategic initiatives, such as equipment as a service and customer and vendor engagement.
- Industry strategy: FieldPower ties its sales compensation to industry performance and depth, and provides configuration and training templates specific to its focus industries. This helps it achieve among the shortest implementation durations, while still having robust functionality. Also, the functionality needs of REO services and property preservation providers are not supported sufficiently by most other vendors.
- Market understanding: FieldPower's product offers capabilities, particularly in the back-office area, that are often overlooked by other vendors. Examples are returns management, robotic process automation (RPA) used for interfacing with shipping software and ERP systems and a new equipment approval workflow connected to FieldPower's customer portal.

- Business model: All of FieldPower's sales partners are regional and primarily based in the Middle East, Africa and the Far East. FieldPower performs almost all of its implementations itself. Also, without a strong ecosystem of ISVs, customers may struggle to cover gaps in functionality and technology.
- Marketing execution: FieldPower has a blend of very large and very small clients, but no concise strategy for marketing to and managing the different needs within its customer base. It receives little recognition in the press, compared with other vendors in this Magic Quadrant.
- Product depth: FieldPower does not offer video or AR as a way for experts to provide multiexperience service support for technicians and customers. Scheduling capabilities needed by large organizations, such as scheduling crews, travel time and work duration prediction, are new and unproven.

GEOCONCEPT Group

GEOCONCEPT Group is a Niche Player, as it was in the previous Magic Quadrant. This status reflects its deep product functionality, particularly in the areas of scheduling, forecasting and GIS-based functionality, which is offset by a narrow addressable market and limited year-over-year growth.

GEOCONCEPT's Opti-Time product helps companies efficiently deliver both services and products by optimizing geographical aspects of delivery, such as in-day and long-term scheduling. It has a new capability to negotiate subcontractors' service areas by simply drawing a polygon on an aerial map (which then informs the scheduling engine).

Most of the Opti-Time customer base of over 155,000 users is in energy and utilities and retail sectors in Europe.

Strengths

- Product depth: GEOCONCEPT's Opti-Time supports over 100 business rules in technician schedule optimization. These include automatically managing returns to the depot based on when a truck is expected to be full or empty, proposing hotel stay locations for extended "tours" (long-cycle/multiday work), work duration prediction and managing recurring visits.
- Training: Reference customers for GEOCONCEPT scored Opti-Time's end-user training highly. The browser application now has an embedded user guide built using technology from WalkMe.
- Sales alliances: GEOCONCEPT has product partnerships with organizations that use its scheduling and forecasting functionality. These include Quantum Asia (in China), Comedata (in Italy) and Geograph (in Brazil).

Cautions

- Industry strategy: GEOCONCEPT does not have specialized marketing, configuration templates
 or sales programs for any particular field service industry, but instead positions its product for
 all industries.
- Growth and addressable market: Although GEOCONCEPT is profitable, its year-over-year revenue growth was among the lowest of the vendors we reviewed (through 3Q19), and its customer satisfaction scores were below the average for those vendors. GEOCONCEPT has only a small presence outside EMEA.
- **Product breadth**: GEOCONCEPT lacks capabilities that are important for complex or assetcentric service use cases. These include a configurable workflow for purchasing and quoting in the mobile app, integrated AR and a strong capability to capture the voice of the employee.

GMS Development

GMS Development enters this Magic Quadrant as a Niche Player. This status reflects its innovative deployment of technologies for FSM use cases, which is offset by limited product breadth, alliances and process scalability for global operations.

The GMS Service1 product is focused on schedule optimization, complex contracts and industry-specific implementation. Recent enhancements include mobile parts replenishment capability and improvements to Newton Speech (part of its AI capability).

Most of GMS's 30,000 users are in EMEA and Asia/Pacific, but there are also a small number in North America and Latin America. Manufacturers, service providers and medical device suppliers are well represented, but GMS also markets to retail and vending-machine customers.

Strengths

- Innovation: GMS has made significant progress in applying AI technology to field service needs, such as for work order duration prediction, parts and knowledge artifact suggestions (for technicians using mobile devices) and schedule optimization. Its maintenance planning, IoT connectivity and depot repair/logistics capabilities provide key support for complex service organizations.
- Market understanding: GMS focuses on the capabilities it can provide as a best-of-breed player, such as how to tailor generally available AI, IoT and AR technologies to industry-specific requirements. It is also working to democratize its intellectual property for specific industries.
- Market responsiveness: Reference customers' scores put GMS in the top third of vendors in this Magic Quadrant for overall product capabilities and for upgrade and enhancement processes.

Cautions

- **Growth in new customers**: Although GMS has attracted large customers and its revenue grew significantly year over year (through 3Q19), those companies were few in number. This lack of diversification can be risky.
- Implementation and integration: GMS leads most implementations itself, but the durations of its reference customers' implementations were among the longest reported for vendors in this Magic Quadrant. Reference customers also gave it among the lowest scores for packaged integration.
- Alliances and partnerships: Although GMS has some global partnerships with SAP,
 Salesforce and Device Insight (for an IoT platform) its ecosystem is well behind those of its peers in this Magic Quadrant.

IFS

IFS is a Leader, as it was in the previous Magic Quadrant. This status reflects its industry strategy, broad and deep FSM functionality, large customer base and low churn.

IFS focus in this market is on end-to-end FSM for selected industries. It has recently enhanced its labor requirements forecasting and its partnerships with PTC (for parts planning) and Help Lightning (for IFS Remote Assistance [AR]).

IFS has continued its acquisition of FSM players — it had acquired WorkWave and mplsystems in 2017 — with the acquisition, in 2019, of Astea International, a Niche Player in the previous Magic Quadrant. IFS's 370,000 FSM users are primarily in the technology, telecom, manufacturing, medical device, and aerospace and defense industries. Most are in EMEA, but many are in North America and some are in Asia/Pacific and Latin America.

Strengths

- Product breadth and depth: IFS has strong schedule optimization capabilities, which are important for use cases in which technicians perform a high number of work orders per day and have volatile schedules. It also has strong equipment, contract and collaboration management capabilities, which are important for complex service use cases.
- **Growth**: IFS grew substantially in all categories, including recurring revenue and user base. Its overall field service revenue is among the highest of vendors in this Magic Quadrant.
- Market understanding: IFS's ability to capture user needs stems from a focus on relatively few industries, the industry experience of its teams, and its consistent collaboration with customers through its advisory boards, events and research to bolster its thought leadership.

Cautions

- Multitenant deployments: Although IFS emphasizes its multitenant option over its singletenant hosted or on-premises deployment modes, IFS has the lowest adoption of any vendor in this Magic Quadrant.
- Upgrades and training: Reference customer scores and feedback from Gartner clients indicates that IFS's product is difficult to learn and that upgrades can be large undertakings.
- Market visibility: Despite its strengths, IFS seldom appears in Gartner clients' initial shortlists. This indicates a relatively low level of investment in brand awareness, which results in a general lack of recognition, which, in turn, limits the sales opportunities that ultimately fuel its budget for product enhancements.

Microsoft

Microsoft is a Leader, a status reflecting, in part, its strong customer references and sales execution. It was a Visionary in the previous Magic Quadrant. Although horizontally focused, it emphasizes how it can help FSPs improve equipment reliability outcomes — and charge a premium.

Microsoft Dynamics 365 Field Service supports this emphasis with Remote Assist for HoloLens and integration with Azure IoT Central and Teams. Microsoft also recently added mobile

knowledge guidance via a bot.

Gartner estimates that more than half of Microsoft's 400,000 FSM users — for whom implementations were performed almost entirely through Microsoft partners — are from North America, with the rest distributed globally, predominantly in EMEA. Customers tend to be in the energy, public, insurance and manufacturing sectors.

Strengths

- Platform: Microsoft's Azure IoT (Hub and Central), Power Platform (Power BI, Power Apps, Power Automate, Flow and Common Data Service) and mixed-reality (Remote Assist, which includes guidance authoring, sensor visualization and collaboration) offerings have been tailored to FSM use cases. They can, for example, push diagnostic commands to customers' equipment, suggest work durations and enable collaboration with subcontractors.
- Sales execution: We estimate that Microsoft generated one of the largest numbers of user license additions of the vendors in this Magic Quadrant. This was partly due to customers who use other Microsoft products having success in areas such as integration and code reuse across those products.
- **Deployment modes**: Microsoft offers a high degree of choice in terms of deployment.

 Customers can decide which services will reside in private, public and government clouds.

Cautions

- Industry strategy: The core Microsoft Dynamics 365 Field Service product is designed to be horizontal, so customers must rely on Microsoft's partners for industry expertise, strategy and best-practice templates.
- Product depth: Organizations with complex functionality requirements should assess Microsoft partners' capabilities and their own internal capabilities to close gaps using the platform. Although it is broad, customers may find that it lacks capabilities in areas such as parts planning, subcontractor enablement and native customer portals.
- Thought leadership: In the FSM market, Microsoft's thought-leading content and press coverage are limited, given the company's size. Also, Microsoft tends to focus on capabilities of the platform rather than on how its FSM could help a client differentiate itself. Clients should seek partners that can provide process guidance and improvement, and that have passed the appropriate health checks with Microsoft to help ensure success.

Oracle

Oracle is a Leader, as it was in the previous Magic Quadrant. This status reflects, in part, its product depth and scalability, as well as the size and geographical breadth of its deployments.

Oracle Field Service Cloud (OFSC) focuses on schedule optimization, forecasting and mobile capabilities, and harmonizes with Knowledge Advanced, IoT Cloud Service and Oracle's new

Service Logistics Cloud. The digital assistant can now suggest diagnostic steps and check warranty coverage for a technician. Additionally, OFSC has an AR-based animated guidance authoring tool.

Oracle's customer base of over 300,000 OFSC users is geographically distributed, and includes less-penetrated regions such as Latin America and parts of Asia/Pacific. The technology, telecom, manufacturing and utilities sectors are well represented.

Strengths

- Scalability: Of the products from vendors reviewed for this Magic Quadrant, OFSC supports some of the highest user counts in single-instance FSM deployments (over 50,000 technicians). It is also one of the first Oracle products to run on Oracle's newest cloud and database. The ability to scale is especially important when scheduling intensive use cases with complexities such as crews, nonhuman resources and long-cycle work.
- Product depth: Oracle received the highest reference customer scores of any vendor in this Magic Quadrant for work planning and scheduling overall, and it offers usage-based packaging and scheduling recommendations for use by its customers' subcontractors. It has also expanded its technician digital assistant and AR collaboration capabilities.
- Geographical presence: With OFSC, Oracle has the most evenly distributed customer base of the vendors we reviewed. It includes significant presence in Latin America and Asia/Pacific, which are regions underserved by other vendors. Local presence is important for organizations subject to data residency requirements. OFSC is available in 23 languages and deployed in over 55 countries.

- Implementation guidance: For Oracle, the average of scores from reference customers was lower than for other vendors in this Magic Quadrant for its ability to understand their organization's needs, evaluation and enhancement processes, quality of technical support, community and time to achieve ROI. Oracle does not preconfigure by industry. Clients should ensure access to reference customers that can provide advice and collaboration on best practices and work with Oracle to identify skilled system integrators.
- Product breadth: Reference customers indicated that Oracle's mobile app was lacking in areas such as offline support, extensibility and built-in technician support enablement. Also, overall support for complex pricing and managing service provider networks received below-average scores. Clients should ensure that Oracle's roadmap is aligned with organizational goals.
- Independent software vendors: Although part of its strategy, Oracle does not yet have a large ecosystem of vendors for OFSC that expand its functional capabilities in areas such as equipment-centric and parts-driven use cases where its capabilities are less robust. Also, Gartner clients and Oracle reference customers identified difficulties with integration. Clients

should determine whether in-house or third-party development resources are needed and available to develop any extensions.

OverIT

OverIT is a Visionary, as it was in the previous Magic Quadrant. This status reflects, in part, its product innovation and market understanding, which are offset by a limited ecosystem and limited sales channels.

OverIT's Geocall FSM focuses on both appointment- and equipment-centric use cases and linear assets with rule-based scheduling optimization, a mobile app, contracts, warranty management and analytics. Its SPACE1 product provides AR-augmented task guidance and geodata visualizations. It has added Al-driven knowledge tagging and voice-driven work order debrief capabilities.

Most of OverIT's customer base of 93,000 active users are in EMEA and Latin America. Energy and utilities, oil and gas, and manufacturing sectors are heavily represented, but it also has a significant presence in rail transportation and service providers.

Strengths

- Industry expertise and retention: OverIT has developed templates and integrations for each of the industries it serves, based on its experience with large customers in those industries. OverIT achieved zero churn in customers during the 12 months ending 30 September 2019.
- Pricing: OverIT offers very competitive pricing, especially in the user count bands above 1,000 users.
- Innovation: OverIT is product-centric and has a track record of innovation. Recent examples include its subcontractor enablement and mobile app, and its prepackaged integration connectors, which reference customers scored very highly. It has also released Geocall safety monitoring for wearables and smartwatches.

- Ecosystem: OverIT has a couple of large global partnerships, but most of its relationships are regional or local. Also, it does not have an ecosystem of ISVs that extend its functionality. Clients should ensure they have enough internal resources or sufficient access to outsourced development to fill any gaps.
- **Growth in bookings**: OverIT's new sales year over year (as a percentage) were healthy, but below the average for vendors in this Magic Quadrant, many of which grew substantially. A relatively small sales partner community has made it difficult for OverIT to keep pace.
- **Geographical distribution**: Although it has large customers in Latin America, OverIT has little traction elsewhere outside its home region of EMEA. Clients seeking multiregion rollouts need to understand the service and implementation partners available in each region.

Praxedo

Praxedo is a Niche Player, as it was in the previous Magic Quadrant. This status reflects, in part, its coverage of subcontractor-intensive use cases and implementation efficiency — positives that are offset by its relatively small size and narrow geographical focus.

Praxedo's FSM solution supports a mobile app, built-in analytics and rule-based schedule optimization. Its packaged connectors help when integration and extension are important, but budget is limited. Recent enhancements include better rescheduling capabilities, a new service contract module and a connector for Salesforce.

The vast majority of the approximately 33,000 users in Praxedo's customer base are in EMEA, with a small number in North America. The telecom, service provision, energy and utilities, and retail industries are well-represented.

Strengths

- Implementation: Praxedo has the best ratio of license cost to professional services cost of any vendor we reviewed. Also, despite below-average scores from reference customers for enduser training materials, Praxedo received some of the highest scores for integration and deployment overall.
- Field service provider/subcontractor ecosystems: Praxedo offers a model whereby its product is deployed to a large organization and its subcontractors as part of the same project. It then uses its Praxedo2Praxedo integration to optimize communications. It has replicated this with large French telecom companies, as well as utility and retail organizations in EMEA. Capabilities such as its job marketplace and on-site check-ins have helped drive adoption.
- Industry strategy: Praxedo has historically focused its marketing expenditure on relatively few industries, with the aim of developing and proving repeatable implementation processes at scale before diversifying into another industry. Clients should consider Praxedo particularly if they are in one of its target industries.

- Geographical breadth and scalability: Praxedo is primarily visible in French, English, German and Spanish-speaking countries of Europe, but does also have some small implementations in North America. Customers outside these areas must be equipped to self-lead parts of their digitalization journey.
- Marketing strategy and capacity: Praxedo has chosen to self-fund all its growth, which will make it difficult to keep pace with new entrants that are penetrating regions where its existing customers are. It plans to expand significantly, but this will depend on financing.
- Product depth: Praxedo does not have robust product capabilities for supporting collaboration between experts and technicians (AR, knowledge management, conversational AI and NLP capabilities, for example). Also its IoT capabilities are too limited for outcome-based contracts

— where the FSP bears sole responsibility for its customers' equipment reliability, for example. Customers will need to find willing stand-alone vendors and integrate them.

Salesforce

Salesforce is a Leader in this Magic Quadrant; it was a Challenger in the previous Magic Quadrant. This change reflects, in part, Salesforce's strong alliances, sales and understanding of the market, which are offset by shortcomings in feedback about its implementation.

Salesforce focuses on scheduling and a mobile app with Field Service Lightning (FSL), and has improved its maintenance planning. It has acquired a longtime FSL development partner, ClickSoftware, and its leading Click Field Service Edge product, which will be retired.

We estimate that most of its users (including ClickSoftware users), which number over 1 million, are in North America and EMEA. They have appointment-centric use cases, such as professional services, home healthcare and communications. Some have more complexity, such as is found in manufacturing and service providers.

Strengths

- Innovation: Salesforce Einstein (AI) makes warranty, safety and parts recommendations during scheduling. FSL includes preconfigured bots for appointment booking via messaging.
- Market share growth: FSL's market share has grown substantially, even without considering the addition of customers of the acquired vendors ClickSoftware and MapAnything. Its average deal size has grown as well. According to Salesforce, FSL remains its fastest-growing product ever. This helps justify continued investment.
- Platform and alliances: The Salesforce FSL platform has attracted significantly more ISV solutions and even field service alternatives than any other offering from vendors in this Magic Quadrant. This enables more breadth of capability, so Salesforce can work on the platform's depth and extension.

- Implementation and licensing costs: Salesforce's licensing costs are the highest of the vendors we reviewed. Salesforce received the lowest scores from reference customers for satisfaction with implementation costs and time to achieve an ROI. Sentiments shared with Gartner through the client inquiry process have confirmed these challenges. Clients should prepare for a large initial investment, use Salesforce's "guided setup" and "health check" to align with what best practices exist, and stay vigilant until an ROI is achieved.
- Product maturity/depth: Several product areas (such as equipment-centric service, mobile debrief, invoicing and analytics) are unproven, too simplistic or missing built-in best practices. Clients should prepare to draw heavily from reference customers, peers, Salesforce partners and ISVs in multiple industries to identify and develop best-practice configurations, extensions and user acceptance testing procedures.

■ Expectation management and support: Gartner consistently hears from clients that Salesforce did not provide the guidance needed to plan for or avoid heavy implementation, development, integration or time investments before beginning their projects. Clients should check what is available "out of the box," as opposed to what has been customized using the platform during demonstrations, and be prescriptive when defining requirements.

SAP

SAP is a Visionary, as it was in the previous Magic Quadrant for FSM. This status reflects, in part, its broad set of FSM and adjacent-market functionality, which is offset by a lack of market responsiveness in some areas.

SAP's FSM solution is composed of multiple products, including SAP FSM (a multitenant solution acquired from Coresystems in 2018), SAP Service Core, Intelligent Asset Management and SAP Analytics Cloud. Recent enhancements include IoT-based meter value visualizations in a mobile app and its Crowd Marketplace for subcontractor upskilling and job matching.

We estimate SAP's FSM customer base to number over 275,000 users, distributed across all geographies, but with a large presence in Central and Eastern Europe. The industrial manufacturing, technology and telecom, and utilities sectors are well-represented.

Strengths

- Sales execution: We estimate that SAP achieved among the highest revenue growth of vendors in this Magic Quadrant, in both currency amount and percentage terms.
- Product portfolio integration: SAP has the broadest overall FSM product portfolio of the vendors we reviewed. Customers using other SAP products can benefit from increasing numbers of deep, prebuilt integrations and harmonized, intuitive UIs, especially with SAP Service Core.
- Industry expertise: Although SAP primarily addresses the part of the market that uses other SAP products, this helps SAP naturally aim its FSM solution at specific industries. Although the benefit has been primarily felt in sales thus far, we expect that its industry expertise will improve implementation in upcoming releases through better packaging of solutions and configurations.

- Cost and ROI: SAP's reference customers gave it low or even the lowest scores in several costrelated areas, including overall ROI, evaluation and contract negotiation, and internal support costs. Clients should work with advisory services when setting up contracts to ensure a solid ROI can be achieved and be clear about expectations for out-of-the-box requirements.
- Support and responsiveness: Based on the number of products newly integrated, we believe that SAP has focused a significant portion of its FSM spending on integration. This is not an uncommon activity after an acquisition, but some of its customers say it lacks focus and is

unresponsive to their needs. Clients should be prepared to overcome functionality gaps temporarily without relying on SAP.

■ Product depth: SAP's progress in the area of schedule optimization lags behind the market as a whole, and SAP no longer resells partner alternatives. Also, in areas such as remote collaboration and Al-augmented guidance, SAP does not have depth out of the box. Clients may need to augment SAP's functionality by finding vendors that will help integrate their products with SAP's.

ServiceMax

ServiceMax is a Leader, as it was in the previous Magic Quadrant. This status reflects, in part, its product vision and product depth. Since being acquired by Silver Lake in 2019, it has restructured itself to align by industry and to target not only large enterprises but also midsize organizations.

ServiceMax focuses on equipment-centric service providers with usage-based contracts, complex jobs and long-cycle work. Recent enhancements include real-time, "hotline" service support through its 2019 acquisition of Zinc.

The ServiceMax customer base of over 400,000 users is primarily in North America and EMEA, with a small presence in Asia/Pacific. Medical device, manufacturing, technology and energy companies are well-represented.

ServiceMax received \$80 million in a 2020 funding round led by Salesforce and Silver Lake.

Strengths

- Customer retention: ServiceMax has one of the highest rates of customer retention in this Magic Quadrant. Once customers "go live" with their first region, they tend to continue with ServiceMax and to expand into additional regions and involve further business units.
- Thought leadership: ServiceMax's "Field Service Digital" blog was accessed by over 34,000 people in 3Q19. ServiceMax has also published two books and maintains a regular cadence of speaking engagements, workshops and assessments that keep customers moving forward.
- Implementation customer experience: ServiceMax's FSM offering is designed for complex service requirements, which often require heavier investments of time and resources. Nevertheless, reference customers' scores put it in the top third for overall integration and deployment, an area in which ServiceMax has traditionally received low scores. ServiceMax reported that average deployment duration had been reduced by 15% through improved processes.

Cautions

■ Sales and marketing execution: We estimate that although ServiceMax experienced healthy growth in the number of users on its platform, its revenue growth through 3Q19 was in the lower third of vendors we reviewed. Also, it appeared on fewer customer shortlists. Clients

should assess whether this is because of its industry focus or simply channel confusion due to it being on the Salesforce platform and Salesforce having an FSM product of its own.

- Training: Reference customers' scores put ServiceMax in the lower third for quality of training. Sometimes this was due to inexperienced partners, but most implementations are not supported by partner organizations. Clients should be clear about the responsibility for development training materials and should potentially budget for extra cost.
- Breadth of technology innovation: ServiceMax has not yet introduced significant innovations in areas that depend on emerging field service technologies such as AI, chatbots and wearables. Customers should familiarize themselves with ServiceMax's ecosystem of ISV partners and plan to engage others if these technology areas are important to them.

ServicePower

ServicePower is a Visionary, as it was in the previous Magic Quadrant. This status reflects its unique industry- and functionality-related approach to underserved areas such as B2C and blended workforces, offset by a lack of depth in certain B2B use cases, and a geographical footprint limited to North America and Europe.

ServicePower's FSM suite focuses on connected homes and businesses, with support for scheduling, mobile, warranty claims, contractor management and customer engagement (through its customer portal). Recently, it has added Al-driven parts-needed prediction capability and inventory stock planning.

Most of ServicePower's 80,000 users are in discrete manufacturing, service provider, construction, and retail sectors.

Strengths

- Product depth: ServicePower's suite has deep subcontractor-related functions, including scheduling optimization "job brokering," which assigns jobs to employees or subcontractors based on business rules. The suite streamlines subcontractors' onboarding and enables them through its mobile app, which also streamlines approvals and allows them to manage scheduled time within a slot. The suite's popular customer portal and warranty claims management shorten interaction times for customers.
- Growth and retention: ServicePower grew its revenue and bookings substantially year over year through 3Q19. It is also among the top vendors in this Magic Quadrant for retention, measured by both contract value and numbers of customer logos, which indicates strong support from customers after their product goes live. Reference customers' scores for its peer user community, service and support were among the highest for vendors in this Magic Quadrant.
- Cost/ROI: Reference customers gave ServicePower the highest scores of any vendor in this Magic Quadrant for the time it takes to achieve an ROI.

Cautions

■ Platform: ServicePower's scheduling engine can be deployed only in a single-tenant environment, and the vendor is still in the process of consolidating its portfolio of applications into fewer platform types. Depending on the products deployed, some customers will need to be equipped to support multiple technical architectures.

- Product breadth: ServicePower lacks strong capabilities for handling customer-owned equipment and preventative maintenance contracts. Clients should investigate whether their ERP solution can provide this functionality. ServicePower offers no chatbot or Al-augmented parts prediction and many of the screens are dated. Clients should identify other vendors that can provide this functionality, or custom-build it.
- Usability: ServicePower's FSM offering comprises components that were built at different times, with different UIs and frameworks. Harmonization for usability has been slow.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor's appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

- FieldPower
- GMS Development

Dropped

- ClickSoftware (acquired by Salesforce)
- Astea International (acquired by IFS)

Inclusion and Exclusion Criteria

Inclusion criteria are used to determine which vendors are covered in the Magic Quadrant. Each vendor was required to select one product or suite from its portfolio, if it contains more than one. Each reference customer had to have been new (never before submitted).

Market Presence and Momentum

Factors that affect our evaluation are a vendor's presence in the market, and the observed momentum of its growth. A vendor with stagnant sales or an ineffectual marketing organization should concern prospective buyers.

Gartner's criteria specify that vendors identify:

■ Reference customers: Customers for the primary product suite being submitted to this Magic Quadrant (note that Gartner also asked other customers for references):

- Covering at least two regions: A minimum of five new FSM customers that first began using the product no earlier than October 2018, covering at least two of the following markets: North America, Latin America, EMEA, Asia/Pacific and Japan.
- Having midsize or large, stabilized deployments: A minimum of three new FSM customers with more than 100 technicians in production environments for between six and 24 months that use the latest major version of the software and have deployed integration with system(s) of record.
- Revenue traction: Evidence of revenue growth year-over-year and at least \$8.0 million in FSM software license, maintenance and support revenue (excluding professional services), per generally accepted accounting principles (GAAP) or International Financial Reporting Standards (IFRS), during the four fiscal quarters that ended closest to 30 September 2019. Representations had to be confirmed in writing by an appropriate finance executive within the vendor's organization (such as the CFO). The following had to be well represented and supported:
 - Large or midsize businesses (average deal size above 100 mobile technicians).
 - Two major geographical markets (out of North America, Latin America, EMEA, and Asia/Pacific and Japan).
 - Two industries (examples being utilities, telecommunications, high tech, oil and gas, manufacturing, aerospace and defense, automotive, financial services and insurance, chemicals, medical devices, healthcare).

Alternatively, revenue traction requirement could have been satisfied by providing:

- Confirmation from five customers secured since October 2018 that were live with over 1,000 technician licenses each.
- Confirmation of 20% revenue growth year-over-year.
- Functional breadth: The submitted product had to provide at least five of the following seven categories of functionality, plus integration, analytics and extensibility:
 - Demand management and customer engagement
 - Work planning and scheduling
 - Technician enablement

Multiexperience service support

- Work order debrief
- Invoicing and reporting
- Agreements, operations, contractors
- Market awareness: Recognition by the market, as evidenced by regular appearances on client shortlists, by appearances at tradeshows and by mentions as a competitor by other vendors.
- Market following: Thought leadership, adopted by customers in live operations, through webinars, market-related white papers, blog articles and user communities.

Short-Term Viability

Each vendor had to provide evidence of:

- Funded operations: Sufficient cash to fund 12 months of operations at the current burn rate.
- Onboard professional services capacity: Sufficient professional services to fulfill customer demands during the next 12 months.
- Additional professional services capacity: A practice and ecosystem with sufficient third-party consulting and integration firms to grow at a double-digit pace for two years.
- Sales pipeline: Demonstrate a pipeline of prospective customers and an adequate sales team to drive growth in new business.
- Forecast revenue: Evidence that results for the upcoming four quarters (from 1 October 2019) will exceed the previous four quarters' results.

Evaluation Criteria

Ability to Execute

Product or Service

This includes current product/service capabilities, quality, feature sets and skills defined in the market definition and detailed in the subcriteria, whether offered natively or through OEM agreements and partnerships.

Vendors that directly support a wide range of functionality or a high degree of depth of functionality and complexity have greater market potential and are assessed accordingly. This is a cross-industry Magic Quadrant. Therefore, the evaluation of a provider's offering is focused on its ability to serve several distinct industry sectors, as well as on its ability to provide intuitive, industry-specific configuration templates and integrations.

To score highly, a vendor is likely to have to offer customers a choice of deployment models, including on-premises, "private cloud" hosted and multitenant software as a service (SaaS), with SaaS receiving the highest weighting. See Table 1 for additional FSM criteria weightings.

Overall Viability (Business Unit, Financial, Strategy, Organization): Financials

Viability includes an assessment of the overall organization's financial health, and the financial and practical success of the business unit. It also reflects the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing

We assess the vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Each vendor is measured on its flexibility in supporting multiple pricing scenarios, such as inhouse licensed, hosted, SaaS and business process outsourcing.

Market Responsiveness/Record

We assess ability to respond, be nimble and achieve competitive success as opportunities develop, competitors act, requirements evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution

We assess the clarity, quality, creativity and efficacy of programs designed to deliver an organization's message in order to influence the market, promote the brand and the business, increase awareness of product, and establish a positive identification with the product/brand and organization in buyer's minds. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

Customer Experience

We assess relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways in which customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, SLAs and so on.

Operations

We assess the ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Evaluation Criteria 🔱	Weighting 🔱
Product or Service	High
Overall Viability	Medium
Sales Execution/Pricing	High
Market Responsiveness/Record	Medium
Marketing Execution	High
Customer Experience	High
Operations	Medium

Source: Gartner (June 2020)

For the product or service criterion, Gartner evaluates vendors' FSM capabilities using the following subcriteria.

Demand Management and Customer Experience

This subcriterion considers product capabilities that enhance the customer (or work requestor's) level of effort to initiate and manage work, as well as the degree of awareness of work progress and issues. The product should gather all work order demands in one place, including the parts, tools and skills that technicians will need to be successful. Work demand can come from multiple disparate channels, including customers, customer service agents, the IoT, asset performance and reliability monitoring tools and field technicians. Configurable escalation workflows help to derive an actionable and defined scope of work based on data collected from equipment or environment sensors. This subcriterion also ties demand to specific contract entitlements or preferences, which may include a preferred technician, an SLA, and warranty or maintenance coverage that may impact the set of tasks that the technician will perform.

Integration

Integration includes detailed design and implementation services that link application functionality and/or data with each other or with the established or planned IT infrastructure. In many cases, an FSM application will combine several functional components, some of which require integration with third-party vendors and customer data sources.

This is measured primarily by the number and complexity of the application's participation in business processes that are outside its own application set. Additionally, the vendor's experience

with integrating a variety of systems (including integration platforms, ERP, CRM, mobile, order management, billing, multiechelon parts distribution systems, network management, time keeping, and so on) is weighted heavily. Integrations with systems for master data, purchasing, invoicing, payroll, sales, financials, inventory usage and demand, the IoT, case and knowledge management, quoting, analytics, social, GIS, telematics and third-party service providers are rising in importance for users.

Vendors that have fostered an ecosystem of value-added application suppliers and partners will score well for this subcriterion.

Scalability and Industry

This subcriterion considers deployment modes, architecture, size and complexity of existing deployments, as well as packaged localizations, configurations and implementations by industry. Each vendor should provide templated configurations, based on best practices they have developed. These configurations may vary by industry, geography and company size, and may include specialized reports, lookups, mobile forms, integration templates, tools, training and lexicons that resonate well with customers in a given industry.

The product should scale up to support as many as 50,000 technicians with multiple technician deployment scenarios. The vendor will also be measured on its architecture's ability to support global rollouts and localized versions of international installations.

Extensibility

This subcriterion considers the ability to add smart forms, logic and workflow to a mobile app and the configurability of workflows to drive downstream activity that starts with the technician, change branding "wrapping" of homegrown applications, and the extension of back-office components.

FSM applications should offer flexibility, so that everything a technician does electronically can be integrated into a single user experience — avoiding the need for logging into more than one app.

For back-office users, such as dispatchers, supervisors, contract and invoice administrators, salespeople and executives, FSM applications must offer the ability to modify the UI, and add workflow and additional components without jeopardizing a clean and efficient user experience. All products should connect to other applications in the environment, and enable adjustments to branding and look and feel, so that administrators can create a consistent user experience for those users that utilize multiple applications.

Connected Equipment Diagnostics

This subcriterion considers tools such as IoT platforms and/or asset performance management (APM) platform integration, sensor data visualizations, advanced analytics and escalation workflow development tools. These are useful for deriving an actionable and defined scope of work based on data collected from real-time or near real-time equipment or environment sensors.

Although these elements are not generally central to FSM products, FSM products bear the responsibility of enabling efficient triage of the work demand they generate. This triage is often performed by a combination of human and systematic analysis. FSM tools should present users with visualizations of sensor trends, equipment history, similar cases and knowledge articles to help determine what next steps (if any) should be taken.

FSM applications may be integrated with case management, APM or IoT platform components, or may have embedded capabilities that help identify patterns and best actions. Tools should provide complex analysis of historical problem and resolution notes, tasks, knowledge articles or maintenance manuals.

Work Planning and Scheduling

This subcriterion considers functions such as automated technician, crew and equipment schedule optimization, routing, capacity planning, parts prediction and allocation, certification management and organization of multichannel demand.

FSM tools must help align technicians with work, while also achieving the highest number of work orders with the resources available. At the same time, they must still achieve business objectives such as cost optimization, customer experience, labor load leveling (allocating an equal number of hours of work to all technicians) and employee satisfaction.

As part of planning and scheduling, an FSM product must help users complete as much prerequisite work as possible prior to engaging a technician. This can include verifying that predicted parts are available on the primary or a nearby technician's vehicle, or initiating drop shipments to deliver parts to a site or a forward stocking location ahead of a visit. Also, automating functions such as collecting appropriate history, guidance, manuals and GIS visualizations into a work package helps to facilitate human work planning, triage, collaborative diagnosis and communication to or with a customer.

Technician Enablement

This capability aids communication via mobile devices and applications to ensure that technicians are engaged and arrive on site well prepared, with the right tools, parts, knowledge, site information and equipment information. It includes embedded GPS and GIS visualizations, intrasite directions, equipment history, customer communications, location sharing, purchase requisitioning and quoting tools for technicians. These prepare and empower a technician to deliver a positive and efficient customer experience independently. For cases when work cannot be completed properly or at all during the first visit, FSM tools should help the technician minimize surprises to the customer by helping to automate communication, escalations, and remote reviews and sign-offs.

Multiexperience Service Support

This includes remote support with video streaming, AR with collaborative annotation and contextspecific work instructions, and self-service with conversational chatbot-suggested knowledge

base artifacts. The product must enable and improve the quality of technicians' access to resources for assistance using multiple communications technologies.

FSM applications must integrate and embed technologies and create capabilities that bring the experience of the entire organization to bear in support of a technician who is working on a complex problem. This can be through knowledge solutions, group chat, human or virtual assistant interaction, text and chatbot collaboration. Additionally, AI components can help curate knowledge artifacts (such as recorded conversations) originating from the field, suggest likely resolution steps, recognize equipment or parts with computer vision, and surface other resources — human or not — that can help technicians succeed.

Work Order Debrief

Our evaluation assesses technicians' ability to record time, expenses, parts, tasks completed, approval signatures, checklists, surveys, video or pictures and recommendations digitally, with bar code readers, voice-to-text and handwriting recognition for more accurate and timely work order reporting.

FSM applications must minimize or completely eliminate any data capture that requires a technician to utilize more than a single application. Products should enable the technician to, within one app, perform a work order debrief, and also view records of customer reviews and approvals, surveys, site evidence, as well as inspection data and any site inventory reviews the technician performed. They should also enable organizations to build in proprietary forms and workflow, and enable single sign-on to proprietary apps in order to minimize the number of apps a technicians must work with.

Invoicing and Reporting

Our evaluation includes pricing and discounting for parts, labor and packaged tasks, thought-leading reports and analysis, pro forma and/or final customer invoices and credit memos. It also includes recurring billing for maintenance agreements and negotiated pricing contracts. The FSM product must fill in functionality not available in many ERP systems to calculate invoices and reports using a combination of ERP or CRM objects, plus information for which the FSM product is the only system of record. This is particularly common in negotiated "equipment as a service" pricing, where the customer is paying based on equipment output, rather than for a prescribed set of tasks to be performed or based on actual time spent.

Agreements, Operations, Contractors

Our evaluation assesses maintenance agreements and plans, installed equipment management, contract entitlements, customer warranty and warranty claims, reverse logistics, depot repair, subcontractor enablement, scheduling and payment adjudication, and third-party service provider networks. It also automates the process of creating planned work schedules and scope by utilizing preventative or predictive attributes.

FSM products should alleviate challenges in outsourced service by, for example, managing scope changes, adjudicating invoices, onboarding and certifying vendors, warranty work or other rework, employing capacity-based scheduling, advertising available work, and enabling subcontractor technician enablement and support.

Additional Subcriteria

Additional capabilities, such as those listed below, increase the breadth of market applicability and value-add and improve scores accordingly:

- Reporting and service advanced analytics
- Field parts, tools and material/parts management
- Case-based reasoning/real-time technician knowledge management and access
- Reverse logistics and depot repair
- Console to administer mobile app permissions and configure workflow and additional forms
- Service sourcing, onboarding and subcontractor enablement
- Social enablement to connect technicians, customers and back-office personnel
- Sales integration for quoting, opportunities management and offers
- Project management software
- FSM engineering change request management
- Fleet management
- Telematics capabilities, such as tracking of driver behavior

Completeness of Vision

Market Understanding

This is the ability of the vendor to understand buyers' requirements and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs and can shape or enhance them with their added vision.

The vendor should demonstrate strategic actions around partnership opportunities and trends in the market. Examples of these trends are customer experience enablement, the shift toward outcome-based contracts, multiexperience service (technician or customer) support, predictive analytics and parts planning, and third-party service partner integration. There is also a trend for new application functionality, such as AR, AI, IoT enablement, customizable workflows and forms, short- and long-term labor capacity planning tools and field knowledge management.

The vendor's strategies should address ongoing vendor market dynamics such as platform vs. best of breed, venture funding, "co-opetition," consolidation and industry requirements.

Marketing Strategy

For this criterion we look for a clear, differentiated set of messages consistently communicated throughout the organization and externalized through a website, advertising, customer programs and positioning statements.

The vendor should have a well-articulated strategy for revenue growth and a sustained opportunity for profitability. Key elements of strategy include a sales and distribution plan, internal investment priority and timing, and partner alliances. A Leader will move a market by offering users proven best practices, expected results, templates and samples by industry. Customers should continue to grow their solutions via a range of modular choices (at varying price points) that do not lock them into a platform decision.

Sales Strategy

We look for a strategy for selling products that uses a well-respected network of direct and indirect sales, marketing, service and communication affiliates that extend the scope and depth of a vendor's reach, skills, expertise, technologies, services and customer base. These should achieve success for a significant percentage of the vendor's business.

Offering (Product) Strategy

This criterion assesses a vendor's approach to product development and delivery, with emphasis on differentiation, functionality, methodology and feature sets as they map to current and future requirements.

A vendor should communicate openly to its customers and should communicate to Gartner a "statement of direction" for its next two product releases that keeps pace with or surpasses Gartner's vision of the FSM market. The vendor should understand major technology/architecture shifts in the market and communicate a plan to capitalize on them and address customers' migration needs.

Business Model

This criterion assesses the soundness and logic of a vendor's underlying business proposition, which can determine its degree of success. Sales channel and partnership strategies for implementation, integration, training and support are important.

Vertical/Industry Strategy

This criterion assesses a vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets. A provider must ensure sufficient diversification to ensure a continuous revenue stream and drive best practices across industries, while still investing appropriate focus and expertise in strategic industries.

Innovation

This criterion assesses direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or preemptive purposes. A vendor's innovation should show synchronization with its market understanding and strategy.

Geographic Strategy

This criterion assesses a vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside its "home" or native geography, either directly or through partners, channels and subsidiaries, as appropriate for that geography and market.

The depth of a vendor's partnerships should be visible through joint implementations, integration certifications, professional certifications, pricing and deployment options, in addition to easy-to-follow written programs.

Table 2: Completeness of Vision Evaluation Criteria

Evaluation Criteria 🔱	Weighting ψ
Market Understanding	High
Marketing Strategy	Medium
Sales Strategy	Medium
Offering (Product) Strategy	High
Business Model	Medium
Vertical/Industry Strategy	Medium
Innovation	High
Geographic Strategy	Low

Source: Gartner (June 2020)

Quadrant Descriptions

Leaders

Leaders demonstrate a market-defining vision of how technology can help service professionals achieve business objectives. Leaders have the ability to fulfill their vision through products, services, ecosystems and solid business results in the form of revenue and earnings. They have

strong partner programs, which are formalized and "gamified," and they track proof of renewal every year.

Leaders have significant, successful reference customer deployments in North America, EMEA and Asia/Pacific in a wide variety of industries, with multiple proof points above 2,000 users. They have a robust native scheduling engine that is scalable to thousands of employee and third-party technicians. They also have strong and innovative technology-based service enablers (such as IoT enablement, social collaboration, Al-driven decision support and chatbots), and end-customer engagement tools for, and coverage (either directly or through certified partners) of, all six categories of FSM capability. Leaders have many successful integrations with multiple systems of record (especially ERP and CRM systems) from multiple providers; and many deployments in multitenant deployment models.

Other providers measure themselves against the Leaders and emulate their strategies and tactics. Leaders demonstrate market strength, based on installed-base depth, and they affect market trends in terms of all the criteria by which they are evaluated. Leaders' software users often consider that they are gaining a competitive advantage over others in their industry.

Challengers

Challengers are often larger than Niche Players, and demonstrate a high volume of business, especially with existing customers. Challengers have the size to compete worldwide and an existing base of customers to sell to.

Challengers understand the evolving needs of service organizations, but may lack the ability to lead customers into new functional areas with their functional vision, product breadth, innovation or enhancement velocity. Challengers tend to have a good technology vision for architecture and other IT organizational considerations, but they may not have a strong influence on the direction of the FSM market. They may lack native scheduling optimization, robust mobile apps, proven integration with multiple ERP providers, or proven coverage of both high-volume and high-complexity use cases.

Challengers often have a strong market presence in other application areas (such as parts and asset management, salesforce automation, customer engagement center support, finance and order management). But they either have not demonstrated a clear understanding of the FSM market's direction (toward end-to-end processes) or are not well-positioned to capitalize on emerging trends, due to incomplete product breadth or the nature of their delivery model.

There are no Challengers in this Magic Quadrant.

Visionaries

Visionaries lead many competitors in terms of technology, functionality or business model innovation. They influence, or have strong potential to influence, the direction of the FSM market. However, they are typically limited in terms of execution or demonstrated track record. In general, their products and market presence are not complete or established enough to challenge the Leaders.

Like Leaders, Visionaries have a robust scheduling engine that is scalable, strong and innovative; technology-based service enablers; and coverage, either directly or through certified partners, of all six categories of FSM capability. They have single-tenant and multitenant offerings with proven scalability and adoption, and are introducing new ways of utilizing cloud processing power or deeper support for underserved field service business models, such as outsourced field service and connected outcome-based field service (packaged IoT).

Although Visionaries have many of the same product capabilities as Leaders, these are not as deep or as fully proven through repeatable deployments at scale. In addition, Visionaries' reference customers or partners may point to gaps in service or functionality execution. Visionaries may not yet have the alliances and partnership maturity necessary to execute globally and to deliver the innovation and flexibility enhancements expected by the market. As they mature in execution, Visionaries could become Leaders, Challengers or Niche Players, depending on their pace of innovation and how their vision evolves.

Niche Players

Niche Players offer strong FSM products, but they may lack some functional components, may not show the ability to consistently handle deployments of more than 1,000 field technicians across multiple geographies, or may lack strong business execution.

Niche Players may offer complete portfolios for a specific industry or use case. However, they face challenges in one or more important areas in terms of supporting cross-industry requirements, such as complex forecasting and translation of SaaS's cloud computing power into functionality. They may have an inconsistent track record of implementation, inconsistent references, or lack the ability to support large-enterprise requirements.

Despite these potential shortcomings, Niche Players can often offer the best solutions for the needs of particular service organizations, given the price-to-value ratio of their solutions.

Context

FSM suites have achieved mainstream recognition among CIOs and field service leaders. However, because these products vary in functionality from broad to narrow, and because of differences in terminology and usage by industry, in organizational size, and in B2C and B2B requirements, sales cycles can be long. Vendors have focused largely on functionality without building a continuum that properly facilitates the education process in the sales cycle, which leads to a lengthened process or even a "no decision" result.

Prospective customers should first narrow their lists of potential suppliers according to the nature of the service required. At the highest level, most organizations fall into one or both of the following categories:

Organizations with a high volume of work orders per technician per day and high schedule volatility: Technicians in these organizations perform many work orders per day (more than eight) and many of the technicians' planned schedules change dramatically throughout the day, due to emergency or other unplanned work and customer cancellations (see "How to Achieve")

Scheduling Optimization in Field Service"). For these organizations, we often advise using products capable of real-time intraday schedule optimization at scale (as opposed to batch optimization), such as those of GEOCONCEPT Group, Oracle, Salesforce and ServicePower.

Organizations with complex, or both complex and high-volume, service requirements: Dispatchers in these organizations must carefully analyze each work order to identify the most appropriately skilled technician. There orders are often for special parts, tools, knowledge artifacts and helpers that must be coordinated ahead of the visit. Vendors such as Accruent, FieldPower, Microsoft, SAP and ServiceMax specialize in complex services, but also provide basic schedule optimization. There are also vendors like IFS that add capabilities such as customer management or invoicing traditionally found only in ERP applications.

Secondly, organizations should look for vendors that serve specialized needs, such as for:

- Al-informed decision support: Organizations able to train Al models should look for vendors with capabilities in areas such as prediction of necessary parts, prediction of work duration and prediction of future traffic conditions. They should also assess conversational Al embedded in chatbots and digital assistants and computer vision, which are emerging in field service use cases. GMS Development, Salesforce and ServicePower are examples of relevant vendors.
- Native GIS capabilities: Several vendors, especially those that work with gas or electrical transmission utilities have integrations with GISs. Data from a GIS is useful to enable visualization of hidden infrastructure (such as transmission pipelines beneath a street) or to determine the GPS locations of assets that do not have an address (such as cell towers and telephone poles). Vendors such as GEOCONCEPT Group and OverIT offer native capabilities, in addition to integrations.
- Use of subcontractors: Organizations that outsource field service work through brokers, talent agencies or by directly managing subcontractors or freelancers should look for software that can help align vetted vendors, onboard new vendors, and assign work to other organizations in a way that integrates with internal scheduling (see "Eight Components of Successful Outsourced Field Service Management"). Vendors such as SAP, Praxedo and ServicePower specialize in connecting external providers with the primary organization. Several others integrate with companies like Field Nation and WorkMarket to provide this functionality.
- Asset-centricity and connectivity: Organizations that manage equipment with heavy reliance on integration with IoT platforms could prosper by using almost any vendor in this Magic Quadrant. However, some vendors, such as Accruent, Microsoft, SAP and ServiceMax, have special strengths or more proof points in this area.
- Ease of implementation: For organizations looking for an easy-to-learn solution with a short implementation time and the ability to easily create new screens, checklists and forms in a mobile app, products from vendors such as FieldAware, Oracle and Praxedo are often suitable.

Other needs can also be defining factors that help identify the most suitable products — for example, support for complex or regulatory custom mobile forms, depot repairs and returns, warranties, predictive maintenance contracts, maintenance plans and workforce attributes (including experience level and knowledge of existing digital tools; see "The Future of Field Service Management"). The systems of record to be integrated and the effort required to integrate them may also greatly influence an organization's choice. In many cases, a service organization must evaluate not only a vendor's suite of product offerings, but also the ecosystem of providers that can fill any functional gaps in the main vendor's offering.

This Magic Quadrant evaluates prominent FSM vendors, but is not intended to be an exhaustive examination of all FSM vendors, solutions and products. It is intended to be a valuable tool with which to assess and compare vendors. However, readers are encouraged to develop a clear understanding of their own objectives and requirements, and to use this Magic Quadrant in conjunction with inquiries with Gartner analysts.

Vendors included in this Magic Quadrant have demonstrated an ability to provide multitenant SaaS and, in many cases, single-tenant hosted products that support FSM for midsize and large enterprises in a range of industries. Some provide narrow, but deep, field service scheduling optimization or mobile apps. Others provide broad service suites.

It is common for large enterprises to use more than one FSM application, depending on the industry, nature of service and regional makeup of their user base.

Market Overview

Gartner estimates that revenue from packaged FSM cloud subscriptions, software licenses and maintenance — not including services — amounted to \$2.65 billion during the 12 months ending in September 2019 (up approximately 28% from 2018). Among the drivers of this growth were:

- Penetration of regions such as Africa, Russia and Latin America: This was mainly led by large vendors with a presence in these regions and the ability to sell expansions to existing customers. More regions now account for some of the FSM market's growth.
- Better messaging: FSM organizations have become better at explaining the influence that FSM products can have on lead generation (for example, technicians treated as trusted advisors to customers can now perform quoting in the field) and revenue (for example, through the ability to sell outcome-based contracts).
- Interest in bringing more mobile technologies to FSM mobile apps: Technology vendors in areas such as AR, AI, materials resource planning and knowledge management have recognized the opportunity to access a newly digitalized workforce. Formerly, field service technicians were often inaccessible because they did not carry mobile devices.
- Confidence in the security of cloud-based products: Some FSM providers were early adopters of cloud computing in the early 2000s because data exchanged with field technicians had to pass beyond the corporate firewall anyway. Efforts to secure this exchange must be

undertaken in order to fully adopt mobile capabilities. Over the years, FSM providers have developed strong security, governance and scalability capabilities, and compliance with regulations has been a driver.

- Affordable mobile technology: Whereas many organizations were once forced to evaluate only expensive, "hardened" mobile devices, they now find that consumer mobile devices are more affordable, durable and easy to protect. At the same time, battery life, cellular transmission rates and coverage, and portability have improved.
- Success of competitors: Equipment operators and owners have come to expect that their service providers will use the latest technologies to provide the most efficient and highest quality service. It is increasingly difficult for analog FSPs to compete with those that use multiple digital technologies in their field service operations.

FSPs are disrupting their competitors largely by incorporating technological capabilities into aspects of their operations that previously lacked it — for example, parts-needed prediction and AR-supported collaboration between technicians and remote experts. They are predicting tasks, knowledge articles needed and outcomes using natural language processing to analyze history. Chatbot support and integrated knowledge management are also helping drive down traditional metrics such as first-time fix rate, mean time to repair and mean time between failures.

Below are some insights from our analysis of the survey responses elicited from vendors' reference customers:

- Outcome-based contracts: These can include reliability-centered maintenance, predictive maintenance, usage-based maintenance and equipment-as-a-service contracts. Of 54 respondents, one-third were already offering this model, up from 19%, and 34% indicated that they intend to offer this model within the next 12 to 24 months.
- Customer self-service: 63% of the respondents (up from 39%) indicated that they were already offering their customers a means to self-serve. This could include capabilities such as initiating work requests and, assuming these are well-scoped and prioritized, scheduling them and tracking them in real time (including Uber-like tracking of technicians' progress toward work sites on a map), registering equipment, and reviewing invoices and contracts.
- Knowledge management: Although virtually nonexistent for technicians only a short time ago, about two-thirds (64%) of 63 responding reference customers to our latest survey said that they are using or plan to use knowledge management for field service within the next 12 months.
- Technicians per dispatcher: The overall average number of technicians handled by each dispatcher was 47, compared with the 21 reported by respondents to the survey conducted for the 2019 Magic Quadrant.
- **Deployment model**: Reported on-premises deployments have declined from 41% in 2016 to 31% in 2017 to 22% in 2018 to 19%. The move has been more to dedicated instances than to

multitenant instances. Fifty-eight percent of the respondents indicated that they utilize a dedicated instance hosted by their vendor (39%) or a third party (19%). The figure for multitenant actually fell slightly from 2018, from 24% to 23%.

- ROI: The reference customers were new customers, so many were still working to achieve an ROI. But for those that had both achieved and tracked one, the mean time to achievement was 12 months, down from 13 months in 2018. The most common drivers noted were:
 - Scheduling optimization-driven results:
 - Improved dispatcher efficiency (84% of respondents)
 - Improved technician utilization (76%)
 - Reduced travel time (59%)
 - Improved SLA achievement rate (49%)
 - Improved customer satisfaction (46%)
 - Improved employee satisfaction (38%)
 - Improved time to repair (35%)
 - Improved service profitability (35%)
- Zero-touch service: In 2017, Gartner predicted that, by 2020, 10% of emergency field service work would be both triaged and scheduled by AI, up from less than 1% in 2017. Of the surveyed reference customers this year, which represent a small but often leading portion of the overall market, 23% indicated that they already schedule some work automatically.
- Growing use of consumer devices and smaller form factors:
 - Use of Apple iPhones and Google Android phones was reported by 53% of respondents, compared with 33% in the previous survey.
 - Use of consumer-grade tablets or laptop PCs was reported by 35%, compared with 40% previously.
 - Only 4% reported using ruggedized devices, compared with 22% previously, but 6% indicated their portfolio of devices was too mixed to pigeon-hole, and 2% reported use of another phone type.
- Cost breakdown: Of the total cost reported, licenses represented approximately 38%, implementation 30%, integration 17% and mobile devices 10%. Other hardware accounted for the rest.

■ Greenfield: The No. 1 reason why respondents were seeking a new FSM solution was because they did not have one (38%). The next most popular reasons were that existing solutions were lacking too much functionality (36%), and that the respondents wanted to standardize on one solution (29%).

Evidence

- At the start of the research process for this Magic Quadrant, all invited vendors were asked to supply contact details for a minimum of five to eight new reference customers that represented the requirements of the inclusion criteria (see the Inclusion and Exclusion Criteria section above). This information was used to invite the customers to complete a 30-minute online survey.
- A total of 84 reference customers from 14 vendors responded to the survey, which concluded in February 2020. A subset of these customers, plus additional vendor-identified reference customers, also participated in telephone interviews in subsequent months.
- Gartner analysts also acquired insights from several hundred clients through the Gartner inquiry process, one-on-one meetings at events and customer reviews on Gartner's Peer Insights page. These provided directional support for opinions derived from earlier data.

Evaluation Criteria Definitions

Ability to Execute

Product/Service: Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness/Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and

organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.

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