Market Guide for Application Portfolio Management Tools

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Initiatives: Applications and Software Engineering Leaders

Application portfolio management tools provide broad coverage for the APM discipline but differ in approach and specific features. Application and software engineering leaders can use this Market Guide to select and evaluate APM tools’ functions and features that support their use cases.

Overview

Key Findings

- Application portfolio management can support many different use cases, like application rationalization, business strategy alignment and cloud migration. Each use case encompasses other IT disciplines and can require different data and analysis techniques.

- The majority of the vendors provide APM capability as part of a suite that focuses on another IT discipline like enterprise architecture (EA) or project and portfolio management (PPM). This impacts how easily particular inventory data can be captured and maintained, and what use cases are best supported out of the box.

- All selected vendors report broad coverage for the most important APM tools features, but there are differences in particular innovative areas like code analysis and use of artificial intelligence (AI) for recommendations.

- APM is an ongoing discipline, and many organizations report data quality issues after the initial data capture. Good data maintenance capabilities are key as stale data severely impacts the credibility and value of the APM initiative.

Recommendations

Application and software engineering leaders planning to buy APM tools should:
Market Definition

Application portfolio management (APM) tools support the people, processes and information of the APM IT discipline to discover, monitor, analyze and visualize the fitness of the application portfolio and provide recommendations for improvement.

Market Description

APM tools help business and IT stakeholders to understand the strengths and weaknesses of their application portfolio. They typically evaluate the business fitness, technical fitness and cost fitness of business applications to enable collaborative, objective and transparent decisions to tolerate, invest, migrate or eliminate applications (see Note 3).

APM tools are seldom stand-alone implementations since the APM discipline sits in the middle of other IT portfolio disciplines (see Figure 1). This is because:

- APM requires information from other IT disciplines to evaluate the business, technical and cost fitness of an application.
- Other portfolio disciplines have an interest in the health of the application portfolio and the recommended improvements.
- The “business application” is often the connecting element between the other portfolio disciplines.
This connecting middle position of the APM discipline is also reflected in the APM tools market. There are few stand-alone APM tools. Most APM tools are part of the larger IT tool suite or are an extension of a tool in one of the other disciplines (most notably, EA and PPM tools).

Many tool vendors claim they offer an application portfolio management capability. However, they provide only an application inventory that lacks support for the “management” part of APM, like health monitoring, analysis, visualization, recommendations and planning. This Market Guide presents a selection of vendors that provide broad APM support.

**Market Direction**

The most notable trends in the APM tools market are (see also Figure 2):
Suites: The APM tools market is not well-defined/delineated. Due to the connecting middle position of the APM discipline, the APM capability is often blended into a tool that focuses on another IT discipline, such as an EA tool with an APM capability. Seventy-eight percent of the vendors included in this Market Guide provide APM capability as part of a tool suite. ¹

More vendors entering this market: We see tool vendors that traditionally focused on one particular discipline like PPM, EA or IT service management (ITSM) entering this market by extending the coverage of their tools. A typical example in recent years is ServiceNow.

Code analysis: Other vendors are entering the marketplace that take a bottom-up approach and create an application inventory by analyzing source code. The analysis gives instant insight into the technical fitness and technical debt of software components, including all dependencies.

Mergers and acquisitions (M&As): Vendor mergers and acquisitions are occurring in the tools market of adjacent IT disciplines that also impact the APM tool market.

Support other artifacts: Vendors are extending their inventories to support artifacts other than applications. Inventories support objects such as digital products, APIs, SaaS applications and platforms.

Expected growth: We expect this market to grow as we see more organizations appreciate the value of APM. Organizations are moving away from one-off APM initiatives to continuous APM. They abandon their spreadsheet-based application inventories moving to APM tools that provide better support, especially in the area of data maintenance.

For more details on the vendors in this Market Guide, refer to the Representative Vendors section.
Market Analysis

In the following sections, we look at several key characteristics and trends in the application portfolio management tools market. The comments, charts and tables are based on self-reported survey data provided by representative vendors in this market. The context and categories for each table were selected by Gartner and are not meant to be an exhaustive exploration of vendor capabilities. We encourage application and software engineering leaders to assess vendors further, based on their own needs.

Coverage of APM Tools Features

Generally, the selected vendors report high coverage of the APM tools features (see Note 3). Coverage levels for each of the feature categories are:

- **Data capture and maintenance**: Most vendors provide low coverage for the features “automated application discovery” and “source code analysis.” Other features in this category are well-covered.

- **Application inventory**: All vendors provide high coverage with no differentiation.

- **Integration**: Most vendors provide high coverage.

- **Business and cost fitness**: All vendors provide high coverage with no differentiation.

- **Technical fitness**: All vendors provide high coverage with no differentiation.
More details on coverage of individual features within feature categories are illustrated in Figure 3.

**Figure 3: Level of Current and Future Support for Different Feature Categories**
Legend for Figure 3:

- **Feature categories and subcategories**: The gray boxes represent the main feature categories. The white boxes and those in different shades of blue represent subcategories for each main feature. For more details on specific functionality that relates to each subcategory, see Note 4.

- **Common and differentiating features**: The size of the boxes represents the number of products in our survey that support each feature category. Larger boxes represent common features, while smaller boxes represent differentiating features.

- **Features in development**: The blue shading in each box represents the number of vendors that have that feature on their roadmap. Darker blue boxes represent features of more intensive product development. White boxes represent features that no vendor is reporting further plans to develop.

Application and software engineering leaders should use the coverage analysis to identify the areas in which there are functional differences between available products. Depending on requirements and priorities, they should delve more deeply into how each vendor supports specific feature categories. More details on the support of each feature category in each product are available in the companion Toolkit (see Note 5).

**Use Cases for APM Tools**

We asked the vendors what they see as the top-five use cases for their APM tool. The normalized and aggregated results are illustrated in Figure 4. As expected, application rationalization and modernization is No. 1. It is interesting that business strategy alignment is the No. 2 use case. This shows the strategic value and role of the APM discipline in business-IT alignment.
Figure 4: Reported Use Cases for APM Tools

Reported Use Cases for APM Tools
Percentage of Respondents

- Application Rationalization and Modernization: 21%
- Business Strategy Alignment: 15%
- Application Portfolio Fitness Monitoring: 12%
- Application Risk, Compliance, Security and Privacy: 11%
- IT Cost Optimization: 9%
- Cloud Migration Readiness and Planning: 7%
- Business Capability Mapping and Analysis: 6%
- Application Strategy Alignment: 6%
- Application Life Cycle Management and Roadmaps: 5%
- Enterprise Architecture Support: 4%
- Digital Product Portfolio Management: 4%

Source: Based on vendor-supplied data collected in June 2021

Stand-Alone and Suite Tools

The majority of the APM tools (14 out of 18) are part of a larger suite that supports one or more other disciplines as well (see Figure 5). This is reflecting the connective position of the APM discipline and also that interest for APM is often born in other disciplines. Application and software engineering leaders looking for an APM tool should check if any of the tools they already own and use within other disciplines can be used or extended for APM. Begin by looking at the enterprise architecture discipline, as the need for APM is often driven from an EA perspective, and most APM tools are part of a suite that focuses on EA. Using an existing tool is probably easier and more cost-effective than acquiring a new one. It also saves integration with the tool for that discipline.
Figure 5: Reported Packaging Options and Tool Suite Type

Licensing and Pricing

The majority of the vendors license and price their product on a per-user basis (eight), a module or deployment basis (two), or both (four). CAST and LeanIX provide licensing and pricing based on the number of applications that are managed (see Figure 6).

The majority of the vendors have a subscription-based pricing model (11) or provide a choice between perpetual and subscription (five). One vendor (InQuisient) provides perpetual pricing only.
Most Deployments Are Hosted, but Not All Vendors Provide a Choice

Most deployments (77%) are hosted by a vendor or a third party, with 23% of the deployments being on-premises (see Figure 7). Not all vendors provide a choice:

- Four vendors reported no on-premises deployment: LeanIX, Mavim, Triskell Software, ValueBlue.
- One vendor reported 100% on-premises deployment: UNICOM Global.

Whether or not a vendor offers on-premises deployment options is still a consideration for many organizations. For a minority with special data sovereignty concerns, the lack of on-premises options can be problematic. See Note 5 on the accompanying Toolkit, which has more details on each product and vendor.
Small and Large Players

The selected vendors include small and large players in this market, with broad ranges in different dimensions:

- The number of full-time equivalents (FTEs) dedicated to this market ranges from seven to 470.
- The number of paid deployments ranges from six to 3,500.
- The size of deployments ranges from less to 100 users to more than 10,000 users.

See vendor profiles and the accompanying Tool: Vendor Identification for Application Portfolio Management Tools for more information.

Social Media Trending Topics

In addition to the analysis of the vendor-supplied data discussed in the previous sections, Gartner’s Social Media Analytics Service carried out a social listening analysis. ²
Changes in social media trending topics in relation to this market since 2019 (see Figure 8) include:

- **Cost optimization**: Conversations mentioned about increasing focus on cost optimization to implement IT transformation in a leaner and more efficient manner.

- **Enterprise architecture**: Discussions mentioned the role of enterprise architects in application portfolio management. There is a need to elevate the responsibility of enterprise architects on strategic APM.

- **Cloud migration**: Discussions mentioned the shift of the application landscape from traditional legacy to cloud-native systems in order to respond to changing business scenarios more efficiently and quickly. Conversations also focused on the challenges of cloud where it was highlighted that there has been an increase in complexity and security gaps as a result of management of multiple cloud-native systems.

- **Application rationalization**: Due to cost pressure as a result of the COVID-19 pandemic, conversations indicated that the focus of CIOs has increased on initiatives associated with application rationalization such as ROI assessment, retiring of legacy applications, investment reduction in certain categories and cloud migration.

- **Application risk management**: Discussions mentioned securing the entire application portfolio by providing consolidated risk reporting and facilitating prioritized remediation efforts. Discussions were also focused on integration of APM with governance, risk management and compliance (GRC) to help identify risks on business applications.
Figure 8: Social Media Trending Topics Relating to Application Portfolio Management

<table>
<thead>
<tr>
<th>Top Drivers of Social Media Conversations</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<tbody>
<tr>
<td>1 Application Rationalization</td>
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<tr>
<td>2 Application Modernization</td>
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<tr>
<td>3 Cost Optimization</td>
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<td>4 Cloud Migration</td>
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<td>5 Enterprise Architecture</td>
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<td>6 Life Cycle Management</td>
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<td>🔻</td>
</tr>
<tr>
<td>7 Application Risk Management</td>
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</tr>
</tbody>
</table>

n = 4,567

Source: Gartner Social Media Analytics Team (January 2019 through June 2021)

Representative Vendors

*The vendors listed in this Market Guide do not imply an exhaustive list. This section is intended to provide more understanding of the market and its offerings.*

Market Introduction

We consider the vendors listed below to be representative of the market because their products are marketed and sold specifically for this purpose (see Notes 1 and 2). The listed vendors have achieved some degree of visibility and traction in the APM tools market.

*We have summarized the data provided by the vendors in the table below. Further information about each vendor can be found in the Vendor Profiles section.*
### Vendor Profiles

The short profiles that follow offer more detailed information about the included vendors.

**Ardoq**

**Web address:** [Ardoq](#)

**Headquarters:** Oslo, Norway

**Product name:** Ardoq

**Package options:** Stand-alone product
Suite type: N/A

Technology and service partners: Digital Innovation, Knowit and Slalom

Notable customers: Carlsberg, SYNLAB, Omers

Customer case studies: Real Customer Stories

Pricing guidance: SaaS licensing model, priced based on plan and additional modules. Unlimited data and nonadministrator users. List price from $40,000 to $205,000.

License basis: Modules

License type: Subscription

Free trial: Free for limited period/users

Typical use cases:

- Application portfolio management
- Business capability modeling and analysis
- Cloud and infrastructure modeling
- Business process modeling

Avoolution

Web address: Avoolution

Headquarters: Sydney, Australia

Product name: ABACUS

Package options: Stand-alone product

Suite type: N/A

Technology and service partners: Accenture, EY, CGI; many partners wish to remain anonymous.
Notable customers: Reliance, Sophos, Man Group, Barclays, Jackson National Life Insurance, KLP

Customer case studies: Enterprise Architecture Case Studies

Pricing guidance: SaaS or perpetual; all prices are confidential.

License basis: Modules and users

License type: Perpetual or subscription

Free trial: Free for limited period/users

Typical use cases:
- Application rationalization and transformation
- Risk modeling and resilience roadmapping
- Collaborative data management
- Cloud migration

BiZZdesign

Web address: BiZZdesign

Headquarters: Enschede, Netherlands

Product name: HoriZZon

Package options: Stand-alone product

Suite type: N/A

Technology and service partners: Aquion, Centus, JODAYN

Notable customers: Maersk, Schaeffler Group, RBS Group, TATA, MS Amlin, Auckland Transport, Novozymes, Swisscard, Alliander

Customer case studies: Customer Stories
Pricing guidance: Credit-based system (exchangeable credits); SaaS annual fees: $40 to $90 per credit

Named seats: Design (50 credits); Contribute (10 credits); Consume-bundles (25 to 300 credits)

License basis: User

License type: Subscription

Free trial: A free trial version can be requested, e.g., as part of a proof of concept.

Typical use cases:
- Future-state design: connecting strategy to change roadmaps
- Capability-based planning and change
- Improving business operating models
- Optimizing IT landscape for change

Broadcom
Web address: Broadcom

Headquarters: San Jose, California, U.S.

Product name: Clarity

Package options: Stand-alone and part of a suite

Suite type: PPM

Technology and service partners: Rego, itdesign, Ignite

Notable customers: Al-Rajhi Bank, Chipotle Mexican Grill, Boeing

Customer case studies: Customer Successes
Pricing guidance: On-premises and SaaS models are available; both are subscription models based on user count. Perpetual on-premises licenses are also available if absolutely necessary.

License basis: User

License type: Perpetual or subscription

Free trial: Free for limited period/users

Typical use cases:

- Project portfolio management
- Application portfolio management
- Product portfolio management
- Business transformation

CAST

Web address: CAST

Headquarters: Paris, France, and New York, U.S.

Product name: CAST Highlight

Package options: Stand-alone and part of a suite

Suite type: ECA

Technology and service partners: IBM, Microsoft, Boston Consulting Group


Customer case studies: Case studies

Pricing guidance: Annual subscription based on size of portfolio (number of apps) to be analyzed and segmented by different size tiers. Full pricing details can be found here.
License basis: Portfolio size

License type: Subscription

Free trial: Free for limited period/users

Typical use cases:

- Cloud migration readiness and planning
- Technical due diligence (e.g., pre/post-M&A)
- Software composition analysis for open-source risk
- Application portfolio rationalization for cost optimization and annual budgeting

**Enterprise Architecture Solutions**

Web address: [Enterprise Architecture Solutions](#)

Headquarters: Milton Keynes, U.K.

Product name: Essential Project

Package Options: Part of a suite

Suite type: EA

Technology and service partners: Not provided

Notable customers: DIRECTV, IWG, Landsec

Customer case studies: Not provided

Pricing guidance: Annual subscription for unlimited users and EA data. An advanced APM pack can be purchased for an additional annual subscription. Base platform is $17,000 per annum, and advanced APM pack is $13,000 per annum.
Typical use cases:

- Application rationalization
- Application strategy alignment
- Application to business capability mapping
- Application contract and license management

EOS Software

Web address: EOS Software

Headquarters: Cupertino, California, U.S.

Product name: EOS ITPM

Package Options: Stand-alone and part of a suite

Suite type: IIPA

Technology and service partners: Partner-agnostic, and has worked with several partners

Notable customers: Clients are large global Fortune 500 companies.

Customer case studies: Resources

Pricing guidance: Licensing model is based on number of users (read versus read/write), number of modules, dedicated versus shared VPC. Pricing varies based on these parameters.

License basis: Modules and users

License type: Perpetual or subscription

Free trial: Free for limited period/users

Typical use cases:
InQuisient

Web address: [InQuisient](#)

Headquarters: Warrenton, Virginia, U.S.

Product name: InQuisient Platform

Package options: Stand-alone and part of a suite

Suite type: PPM

Technology and service partners: Parsons

Notable customers: Cannot publicly disclose

Customer case studies: [Case Studies](#)

Pricing guidance: $10,000 per user, concurrent user pricing

License basis: User

License type: Perpetual

Free trial: No

Typical use cases:

- Enterprise strategic planning
- Enterprise architecture
- Portfolio and product management
LeanIX

Web address: LeanIX

Headquarters: Bonn, Germany

Product name: LeanIX Enterprise Architecture Suite

Package options: Stand-alone and part of a suite

Suite type: EA

Technology and service partners: Accenture, Cognizant, Deloitte

Notable customers: adidas, Atlassian, DHL, Dropbox, Merck, Volkswagen Group

Customer case studies: Customer Success Stories

Pricing guidance: Pricing based on number of applications managed.

License basis: Portfolio size

License type: Subscription

Free trial: Yes

Typical use cases:

- Application 360° view and mapping to business capabilities and processes
- Application rationalization
- Roadmap and scenario planning, and projection of architecture impacts
- Technology risk and obsolescence management

Mavim

Web address: Mavim
Headquarters: Noordwijk, Netherlands

Product name: Mavim Intelligent Transformation Platform

Package options: Part of a suite

Suite type: BPM

Technology and service partners: No

Notable customers: Dutch Government, Schiphol

Customer case studies: Customer Profile Dutch Federal Government

Pricing guidance: Named-user pricing for the Mavim Manager and the Mavim Collaboration Portal. Price varies depending on the role and associated functional requirements. A standard configuration for APM costs approximately $50,000. This includes five manager licenses for expert users and 1,000 portal licenses for contributors.

License basis: User

License type: Subscription

Free trial: No

Typical use cases:

- ERP transformation/implementation
- Strategy execution management/SPM
- IT portfolio rationalization and harmonization
- Reduce the cost of compliance

MEGA International

Web address: MEGA International

Headquarters: Paris, France
Product name: HOPEX

Package options: Stand-alone and part of a suite

Suite type: EA

Technology and service partners: Bizcon, Fits, Proya

Notable customers: Edison International, AIG, Ford

Customer case studies: Customer Success Stories

Pricing guidance: Based on users and editions (Basic and Advanced). Basic main user license $7,500 perpetual and $4,688 subscription. Contributor user: Approx. 1/10 main user viewer: Free up to 100.

License basis: User

License type: Perpetual or subscription

Free trial: Free for limited period/users

Typical use cases:

- Application rationalization
- Technology risk management
- IT strategic planning
- Cloud migration

Planview

Web address: Planview

Headquarters: Austin, Texas, U.S.

Product name: Planview Enterprise One

Package options: Stand-alone and part of a suite
Suite type: PPM

Technology and service partners: Flexera, KPMG, Deloitte

Notable customers: World Bank Group, Vanderbilt University Medical Center, BCBS Kansas City, MassMutual

Customer case studies: Planview Resource Center

Pricing guidance: Subscription SaaS model. Role-based pricing includes FLEX licensing (with access to Kanban and collaborative workspaces).

License basis: User

License type: Subscription

Free trial: No

Typical use cases:

- App cost, health, redundancy, GRC&S and agility
- Investment prioritization and impacts of change
- Strategy business alignment, usage and allocation
- Rationalization, optimization, roadmap and planning

QualiWare

Web address: QualiWare

Headquarters: Farum, Denmark

Product name: QualiWare X

Package options: Part of a suite

Suite type: EA

Technology and service partners: CloseReach, Arribatec and KIPS Consulting
Notable customers: Department of National Defense Canada, Equinor and OMV

Customer case studies: Not provided

Pricing guidance: QualiWare X licenses are available as perpetual, subscription, or a mix of the two.

License basis: Unknown

License type: Perpetual or subscription

Free trial: No

Typical use cases:
- Capture, structure, analyze and present data and models
- Support the business in transformation and optimization
- Assess and manage an evolving IT portfolio
- Compliance management across the entire enterprise, both IT and business

ServiceNow

Web address: ServiceNow

Headquarters: Santa Clara, California, U.S.

Product name: ServiceNow IT Business Management-Application Portfolio Management

Package options: Stand-alone product

Suite type: N/A

Technology and service partners: Accenture, Deloitte, KPMG

Notable customers: Cox Automotive, Providence, Assurant and Novo Nordisk

Customer case studies: UNC Health
Pricing guidance: The license model is based on users.

License basis: User

License type: Subscription

Free trial: ServiceNow customers can try any ServiceNow product in a nonproduction instance prior to purchasing IT Business Management-Application Portfolio Management.

Typical use cases:

- Define application inventory and access application health
- Plan application roadmaps and investments, and track execution
- Rationalize application portfolios
- Manage the end-to-end application life cycle

**Software AG**

Web address: [Software AG](http://softwareag.com)

Headquarters: Darmstadt, Germany

Product name: Alfabet

Package options: Stand-alone and part of a suite

Suite type: SPM

Technology and service partners: Capgemini, Cognizant and Wipro

Notable customers: MetroBank, Credit Suisse, Airbus Defense & Space

Customer case studies: [Customer Success Stories and Case Studies](http://softwareag.com/customer-success-stories) (see tab “IT Transformation”)

Pricing guidance: Typical entry pricing for the preconfigured Alfabet FastLane product ranges from $30,000 per year with 15 users to $76,000 per year with 70 users.
License basis: Modules and users

License type: Subscription

Free trial: Free for limited period/users

Typical use cases:

- Application consolidation and cost reduction
- Application simplification and cloud migration
- Transformation planning and roadmapping
- SLA alignment and contract optimization

**Triskell Software**

Web address: [Triskell Software](Triskell Software)

Headquarters: Paris, France

Product name: Triskell Software

Package options: Stand-alone and part of a suite

Suite type: PPM

Technology and service partners: AWS, Azure and Orange Business Services

Notable customers: Orange, Crédit Agricole CIB, Renault Group

Customer case studies: [They Trust Us](They Trust Us)

Pricing guidance: Subscription-based per deployment and per user (simple or advanced)

License basis: Modules and users

License type: Subscription

Free trial: No
Typical use cases:

- IT portfolio of applications demands
- Portfolio of applications and products

**UNICOM Global**

Web address: [UNICOM Global](#)

Headquarters: Mission Hills, California, U.S.

Product name: UNICOM Focal Point

Package options: Stand-alone and part of a suite

Suite type: IIPA

Technology and service partners: No

Notable customers: Nationwide, Shell, U.S. Department of Veterans Affairs (VA)

Customer case studies:

- [Focal Point information and examples](#)
- [Chubb Insurance Gains Greater Control of Risk Management](#)
- [Laminar Medica Cuts Product Development Time and Costs by 25 Percent](#)
- [UNICOM Focal Point](#)

Pricing guidance: Licenses: authorized/named user (for individuals), and floating (any number of users); three types (Full, Stakeholder, Team); Focal Point license based on functionality; price $1,058 to $16,095 per license.

License basis: User

License type: Unknown

Free trial: Yes, with senior management approval and customer review
Typical use cases:

- Application portfolio management or rationalization: which to invest in, maintain, sunset
- Scaled agile development with teams using Kanban and tracking sprints in the tool
- Project portfolio management: track projects, deliverables, timelines, resources
- Product management: track feature releases, rank most important features with pairwise comparison

ValueBlue

Web address: ValueBlue

Headquarters: Utrecht, Netherlands

Product name: BlueDolphin

Package options: Part of a suite

Suite type: EA

Technology and service partners: Delta Capita, CGI, Atos

Notable customers: City of Amsterdam, NIBC Bank, Wakefern Food, Wyndham Hotels and Resorts, Kramp Group

Customer case studies: Success Stories

Pricing guidance: Module-based (based on three modules) for smaller organizations start at $10,000 per year; user-based for midmarket and enterprise organizations start at $25,000 per year with 10 users. Viewers and app owners are free.

License basis: Modules and users

License type: Subscription

Free trial: Free for limited period/users
Typical use cases:

- Application overlap analysis/rationalization — mergers and acquisitions
- Application risk analysis — technical, security and privacy
- Functional application fit analysis with business process management
- Application portfolio alignment with business transformation strategy

**Market Recommendations**

Application and software engineering leaders must first select the use cases they see for their APM discipline. Each use case will encompass other IT disciplines and can require different data and analysis techniques. Prioritize APM tool functions and features that can be matched against selected use cases with clear objectives, expected outcomes and deliverables.

Check if tools from any of the vendors are already present in adjacent IT disciplines like EA and PPM. This will allow a running start by extending their usage to APM.

All selected vendors report broad coverage for the most important APM tools features, but there are differences in particular innovative areas like code analysis and the use of artificial intelligence for recommendations. Check your current and future use cases if these differentiating features are relevant and can help to further narrow the vendor selection.

APM is an ongoing IT discipline, and the data quality of the application inventory is a key success factor. As a consequence, data maintenance, data integration and data quality become important functions and features and should weigh high in vendor selection.

**Evidence**

1 In June 2021, Gartner conducted a survey among the representative vendors that are profiled in this Market Guide. Unless otherwise stated, the charts and tables in this report are based on the self-reported survey data provided by these vendors. As required by Gartner’s research methodology, vendors received a copy of the information for factual review prior to publication.
Gartner also conducted social listening analysis leveraging bidirectional-party data tools to complement or supplement the other fact bases presented in this document. Due to its qualitative and organic nature, the results should not be used separately from the rest of this research. No conclusions should be drawn from this data alone. Social media data in reference is from 3 January 2019 through 30 June 2021 in all geographies (except China) and recognized languages.


Deepak Kushwaha and Ritesh Srivastava from the Social Media Analytics Team contributed to this research.

Note 1
Representative Vendor Selection

The vendors included in this Market Guide were selected to represent those with products as described in the Market Definition section, as well as the functionality described in Note 4. In addition, their products are marketed, sold and used as stand-alone APM products or as modules in larger suites. Finally, the listed vendors have achieved some degree of visibility and traction in this market.

Note 2: Gartner’s Initial Market Coverage

This Market Guide provides Gartner's initial coverage of the market and focuses on the market’s definition, rationale and dynamics.

Note 3: Tolerate, Invest, Migrate and Eliminate Model

Gartner’s tolerate, invest, migrate and eliminate (TIME) model enables application leaders to assess their application portfolio from a business, IT and cost perspective, then divide it into the four TIME categories to classify applications by strategy. The TIME model is an effective instrument to communicate to all stakeholders. It shows the portfolio health at a glance, and aids analysis and discussion for identifying and prioritizing opportunities for improvement (see Use TIME to Engage the Business for Application and Product Portfolio Triage).
Note 4: Product Feature Categories

Note 5: Accompanying Toolkit With Detailed Vendor and Product Data

Application leaders looking for more detailed vendor and product data should use the Tool: Vendor Identification for Application Portfolio Management Tools to match their requirements against the offerings from representative vendors in this market. This Tool contains vendor-supplied data that can help to construct vendor shortlists and RFPs to request further information from relevant vendors. For additional market analysis, see Note 6.
Note 6: Additional Market Analysis

Vendors have a strong presence in North America and Western Europe, but it is limited elsewhere. Figure 9 summarizes the regional presence of the vendors based on customer deployments within specific geographies. How well vendors cover regional markets is dependent on their size and how long they have had a solution in this market. Smaller vendors tend to focus only on specific regions.

Geographic presence, as well as the ability of the software to deal with different languages, regional regulations and standards, should be considerations for organizations with a presence in those regions. There are more details on the geographic presence of each vendor in the accompanying Tool (see Note 5).

Figure 9: Percentage of Deployments in Each Geographic Region

Source: Based on vendor-supplied data collected in June 2021

346065_G
Almost 40% of deployments are for less than 100 users. All of the vendors in this Market Guide have achieved some level of market presence. Some are more active in larger deployments and some in smaller deployments, while others are active across the board (see Figure 10). Other things being equal, new buyers should look for products and vendors with experience in deployment sizes that match their requirements.

**Figure 10: Percentage of Deployments for Different Deployment Sizes**

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<thead>
<tr>
<th>Number of Users</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>More Than 10,000</td>
<td>3%</td>
</tr>
<tr>
<td>2,000-10,000</td>
<td>9%</td>
</tr>
<tr>
<td>500-2,000</td>
<td>23%</td>
</tr>
<tr>
<td>100-500</td>
<td>27%</td>
</tr>
<tr>
<td>Less Than 100</td>
<td>38%</td>
</tr>
</tbody>
</table>

Source: Based on vendor-supplied data collected in June 2021

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**Recommended by the Authors**

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

**Tool: Vendor Identification for Application Portfolio Management Tools**

Choose the Best Application Portfolio Management Tool Based on the Top 10 Functions and Features

Managing a Portfolio of Applications Demands More Than Application Portfolio Management

How to Assess Your Application and Product Portfolio for Business and Technical Fitness
Toolkit: Application Portfolio Business and Technical Fitness Assessment

Use TIME to Engage the Business for Application and Product Portfolio Triage

Analyzing the Application Portfolio for Redundancy

Case Study: Make Technical Debt Remediation a Collective Strategic Priority (Autodesk)
Table 1: Representative Vendors in Application Portfolio Management Tools Market

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Product name</th>
<th>FTEs (Total)</th>
<th>FTEs (This Market)</th>
<th>Active Paid Deployments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ardoq</td>
<td>Ardoq</td>
<td>116</td>
<td>116</td>
<td>176</td>
</tr>
<tr>
<td>Avolution</td>
<td>ABACUS</td>
<td>100</td>
<td>100</td>
<td>3,500</td>
</tr>
<tr>
<td>BiZZdesign</td>
<td>HoriZZon</td>
<td>102</td>
<td>102</td>
<td>350</td>
</tr>
<tr>
<td>Broadcom</td>
<td>Clarity</td>
<td>21,000</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>CAST</td>
<td>CAST Highlight</td>
<td>350</td>
<td>30</td>
<td>217</td>
</tr>
<tr>
<td>Enterprise Architecture</td>
<td>Essential Project</td>
<td>16</td>
<td>16</td>
<td>75</td>
</tr>
<tr>
<td>Solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EOS Software</td>
<td>EOS ITPM</td>
<td>NP</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>InQuisient</td>
<td>InQuisient Platform</td>
<td>10</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>LeanIX</td>
<td>LeanIX Enterprise Architecture Suite</td>
<td>364</td>
<td>216</td>
<td>437</td>
</tr>
<tr>
<td>Mavim</td>
<td>Mavim Intelligent Transformation</td>
<td>82</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>Mavim Intelligent Transformation Platform</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEGA International</td>
<td>HOPEX</td>
<td>333</td>
<td>94</td>
<td>824</td>
</tr>
<tr>
<td>Planview</td>
<td>Planview Enterprise One</td>
<td>1,030</td>
<td>470</td>
<td>450</td>
</tr>
<tr>
<td>QualiWare</td>
<td>QualiWare X</td>
<td>60</td>
<td>15</td>
<td>125</td>
</tr>
<tr>
<td>Source</td>
<td>Vendor</td>
<td>FTE</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------</td>
<td>------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>ServiceNow</td>
<td>ServiceNow IT Business</td>
<td>14,000</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td></td>
<td>Management-APM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software AG</td>
<td>Alfabet</td>
<td>4,700</td>
<td>150</td>
<td>NP</td>
</tr>
<tr>
<td>Triskell Software</td>
<td>Triskell Software</td>
<td>45</td>
<td>15</td>
<td>200</td>
</tr>
<tr>
<td>UNICOM Global</td>
<td>UNICOM Focal Point</td>
<td>970</td>
<td>100</td>
<td>550</td>
</tr>
<tr>
<td>ValueBlue</td>
<td>BlueDolphin</td>
<td>54</td>
<td>40</td>
<td>156</td>
</tr>
</tbody>
</table>

FTE = full-time equivalent (employees)
NP = not provided

Source: Based on vendor-supplied data collected in June 2021
<table>
<thead>
<tr>
<th>Feature Category</th>
<th>Feature</th>
<th>Feature Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Capture &amp; Maintenance</td>
<td>Automated application discovery</td>
<td>Supports automated application discovery via static code analysis or runtime analysis.</td>
</tr>
<tr>
<td>Data Capture &amp; Maintenance</td>
<td>Data capture</td>
<td>Multiple stakeholders can add and maintain data attributes with access controls for data segregation.</td>
</tr>
<tr>
<td>Data Capture &amp; Maintenance</td>
<td>Data quality</td>
<td>Auditing and data quality checks are available and can be configured. Auditing can be restricted to certain predefined objects and attributes. Auditing and data quality issues are reported and can be routed to data owners.</td>
</tr>
<tr>
<td>Data Capture &amp; Maintenance</td>
<td>Historical data</td>
<td>Supports historical data and an audit trail using a versioning mechanism.</td>
</tr>
<tr>
<td>Data Capture &amp; Maintenance</td>
<td>Periodic maintenance</td>
<td>Supports requests to the appropriate stakeholder to update information.</td>
</tr>
<tr>
<td>Data Capture &amp; Maintenance</td>
<td>Questionnaire</td>
<td>A standard list of questions is provided to capture data for application characteristics and fitness indicators, with the ability to add or customize questions.</td>
</tr>
<tr>
<td>Data Capture &amp; Maintenance</td>
<td>Source code analysis</td>
<td>The tool can analyze source code to derive application characteristics and quality metrics.</td>
</tr>
<tr>
<td>Data Capture &amp; Maintenance</td>
<td>Stakeholder surveys</td>
<td>Surveys gather application information from</td>
</tr>
<tr>
<td>Application Inventory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Inventory items</td>
<td>Captures individual items and their characteristics. Items can include applications, application components, digital products, APIs and others that are relevant to APM. Supports application hierarchies like an ERP suite that includes multiple applications and components.</td>
</tr>
<tr>
<td></td>
<td>Application stack and platforms</td>
<td>Able to store dependency of an application on the application stack and support the many-to-many relationship between applications, application components, software products and datastores.</td>
</tr>
<tr>
<td></td>
<td>Dependencies</td>
<td>Stores dependencies between applications like integrations, data flow dependencies and process flow dependencies.</td>
</tr>
<tr>
<td></td>
<td>Business capabilities</td>
<td>Supports storing a business capabilities model or business processes model, including the many-to-many relationship between business capabilities and applications.</td>
</tr>
<tr>
<td></td>
<td>Business value streams</td>
<td>Supports modeling business value streams, including the many-to-many relationship between business value streams and applications.</td>
</tr>
<tr>
<td></td>
<td>Organization structure</td>
<td>Defines the organization structure and maps applications to business units.</td>
</tr>
<tr>
<td>Application Inventory</td>
<td>Application ownership</td>
<td>Assigns multiple owners and stakeholders — from business and IT — for an application.</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Application Inventory</td>
<td>Flexible application inventory</td>
<td>Provides an application inventory data model with a standard structure and set of data elements. Users can change and extend the data model to fit their needs.</td>
</tr>
<tr>
<td>Application Inventory</td>
<td>Unstructured data</td>
<td>Able to incorporate unstructured data, such as documents, emails and screenshots.</td>
</tr>
<tr>
<td>Integration</td>
<td>Custom integration</td>
<td>Enables users to create custom integrations via APIs and import/export of data.</td>
</tr>
<tr>
<td>Integration</td>
<td>Discovery tools</td>
<td>Integrates with discovery tools like static code analysis, enterprise complexity analysis and runtime discovery tools to identify applications and application components.</td>
</tr>
<tr>
<td>Integration</td>
<td>Enterprise architecture tools</td>
<td>Integrates with enterprise architecture tools to leverage EA models and artifacts.</td>
</tr>
<tr>
<td>Integration</td>
<td>IT financial management</td>
<td>Integrates with IT accounting, IT financial management and other finance systems to capture cost data per application.</td>
</tr>
<tr>
<td>Integration</td>
<td>ITSM/CMDB tools</td>
<td>Integrates with IT service management and configuration management database environments to leverage IT asset data including information on operational statistics, performance and health indicators.</td>
</tr>
<tr>
<td>Integration</td>
<td>Work management tools</td>
<td>Integrates with work management tools like PPM, SPM, EAP and value stream management to leverage information on existing and planned work and changes that impact applications.</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Integration</td>
<td>Visualization</td>
<td>Integrates, directly and via export, with data analytics and data visualization tools like Tableau and PowerBI.</td>
</tr>
<tr>
<td>Business and Cost Fitness</td>
<td>Capture business value</td>
<td>Captures data and scores each application on business value and how important or critical the application is to the business.</td>
</tr>
<tr>
<td>Business and Cost Fitness</td>
<td>Compliance</td>
<td>Captures and scores how well the application complies with internal policies and external regulations.</td>
</tr>
<tr>
<td>Business and Cost Fitness</td>
<td>Score business fitness</td>
<td>Collects, aggregates and analyzes data, and scores each application on business fitness expressing how well the application supports the business including future support and strategic fit.</td>
</tr>
<tr>
<td>Business and Cost Fitness</td>
<td>Capture application cost information</td>
<td>Collects and aggregates cost information from financial systems, IT financial management tools, project/program/product management, resource management, contract and license management tools — via integration or import — on the cost of an application and its major components.</td>
</tr>
</tbody>
</table>
| Business and Cost Fitness | Score application cost fitness | Analyzes cost information from various sources at
| Technical Fitness | Capture application risk | Collects, aggregates and analyzes information on application risks, taking into account the probability of application risk and impact on other applications and the business. Risk aspects include vendor viability, operations, security, privacy and compliance. |
| Technical Fitness | Capture application technical fitness information | Collects and aggregates information from other tools like performance monitoring, ITSM, CMDB, defect tracking tools and development environments — via integration or import — on the state, technical quality and operational performance of an application. |
| Technical Fitness | Capture vendor support status | Able to determine whether the vendor supports a version of application or technical stack item or when they will stop supporting this. Integrates with IT asset intelligence services and databases, such as Technopedia, with hardware and software product support information. |
| Technical Fitness | Score application technical fitness | Analyzes data from various sources and scores the technical fitness of an application. |
| Analysis | Classification | Supports classification for specific fitness indicators or application characteristics. For |
example, classifies technical debt into high, medium and low categories.

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Cost analysis</th>
<th>Analyzes total cost of ownership, including operations and maintenance cost.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis</td>
<td>Multidimensional analysis</td>
<td>Supports multidimensional analysis with two, three or more dimensions using quadrants, bubble charts or other multidimensional graphics. An example is Gartner's three-dimensional TIME model using business fitness, technical fitness and cost fitness scores.</td>
</tr>
<tr>
<td>Analysis</td>
<td>Optimization scenarios</td>
<td>Creates and compares scenarios for optimization, considering more than just cost/value analysis by including other fitness indicators of the application portfolio.</td>
</tr>
<tr>
<td>Analysis</td>
<td>Redundancy analysis</td>
<td>Detects or reports possible gaps, overlaps and duplication in the application portfolio by analyzing relations between applications with business capabilities and business units.</td>
</tr>
<tr>
<td>Analysis</td>
<td>Scoring, comparison and weighting</td>
<td>Supports scoring, comparison and weighting of application portfolio fitness indicators.</td>
</tr>
<tr>
<td>Visualization</td>
<td>Application maps</td>
<td>Generates maps of the application landscape showing dependencies and selection of fitness indicators.</td>
</tr>
<tr>
<td>Visualization</td>
<td>Business-level visualizations</td>
<td>Creates and customizes business-oriented</td>
</tr>
<tr>
<td>Visualization</td>
<td>Custom visualizations</td>
<td>Creates custom reports, graphics and dashboards.</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Visualization</td>
<td>Dashboards</td>
<td>Creates and customizes dashboards, presenting an array of fitness indicators with aggregated values.</td>
</tr>
<tr>
<td>Visualization</td>
<td>Interactive visualization</td>
<td>Graphical presentation and visualization with the ability to interactively change scope and aspects of the data shown.</td>
</tr>
<tr>
<td>Visualization</td>
<td>Role-specific views</td>
<td>Supports creation and management of role-specific reports, graphics and dashboards with data segregation to show only relevant information.</td>
</tr>
<tr>
<td>Recommendations</td>
<td>Initiative prioritization and selection</td>
<td>Provides recommendations for optimization. Supports prioritization and selection of the best opportunities.</td>
</tr>
<tr>
<td>Recommendations</td>
<td>Optimization intelligence</td>
<td>Uses artificial intelligence and machine learning to provide recommendations.</td>
</tr>
<tr>
<td>Recommendations</td>
<td>Portfolio-level recommendations</td>
<td>Provides recommendations beyond the scope of a single application, like per business domain or per platform.</td>
</tr>
<tr>
<td>Recommendations</td>
<td>Source code analysis intelligence</td>
<td>Analysis</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Life Cycle Planning &amp; Roadmapping</td>
<td>Source code analysis intelligence</td>
<td>Analyzes source code and recommends improvement for specific code areas.</td>
</tr>
<tr>
<td>Life Cycle Planning &amp; Roadmapping</td>
<td>Business milestones</td>
<td>Able to include business milestones in the application roadmap including links to business initiatives.</td>
</tr>
<tr>
<td>Life Cycle Planning &amp; Roadmapping</td>
<td>Future-state planning</td>
<td>Plans for the evolution of the application landscape. Creates future versions of applications to model future state, and compares them to current portfolio views, while highlighting and rationalizing the changes required to move from one view to the next to assist in planning.</td>
</tr>
<tr>
<td>Life Cycle Planning &amp; Roadmapping</td>
<td>Graphical roadmap</td>
<td>Depicts the life cycle of each application and its main stack components using roadmapping capabilities, including initiatives and projected changes.</td>
</tr>
<tr>
<td>Life Cycle Planning &amp; Roadmapping</td>
<td>Monitor life cycle status</td>
<td>Tracks the life cycle state of the applications and its major components in the application stack, including current and planned versions, life expectancy, and end-of-support dates.</td>
</tr>
<tr>
<td>Life Cycle Planning &amp; Roadmapping</td>
<td>Multiple applications</td>
<td>Creates a single view and roadmap for a set of applications like the applications within a business domain.</td>
</tr>
<tr>
<td>Generic Capabilities</td>
<td>Security</td>
<td>Single sign-on (SSO) based on Active Directory, Azure AD, Google authentication, SAML; integration with third-party SSO providers such as</td>
</tr>
<tr>
<td>Generic Capabilities</td>
<td>OKta and OneLogin; multifactor authentication; data-at-rest encryption; and client encryption keys.</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Mobility</td>
<td>Enables access from different devices, native, customer-branded mobile apps for iOS and Android, full access to all system functionality from all devices, mobile-first design, and mobile development framework for building or customizing mobile apps.</td>
<td></td>
</tr>
<tr>
<td>Internationalization</td>
<td>Configures the user interface as well as handles content in popular languages such as English, Spanish, French, German, Italian and Portuguese; handles at least one right-to-left script language such as Arabic or Hebrew; handles at least one double-byte language such as Chinese, Japanese and Korean.</td>
<td></td>
</tr>
<tr>
<td>Search and filtering</td>
<td>Searches all data including attachments, filtering based on multiple criteria such as dates, data types, topics, authors, deadlines and events, Boolean search, proximity search, saved searches, and drag-and-drop query builders.</td>
<td></td>
</tr>
<tr>
<td>Notifications and reminders</td>
<td>Notifications and reminders by role, by subscription, or by custom rules for events or deadlines; push and pull notifications; and notifications of changes on inventory items and attribute level.</td>
<td></td>
</tr>
</tbody>
</table>
### Generic Capabilities

| **Custom workflows** | Creates custom workflows using any system change or threshold as a trigger. Users can modify steps or approvers for any step at any time with full audit trails, and can copy and customize workflow templates. Visual toolkit enables creating or modifying workflows by business users without special technical training. |

| **Productivity integration** | Integrates with email and calendar where inbound and outbound emails can be automatically categorized, tagged and added to relevant repositories based on rules or by setting up special mailboxes. Day-to-day activities including tasks or follow-up actions can be performed directly from an email client (e.g., Outlook), calendar events are synced bidirectionally with tasks; there is bidirectional integration with other content and document repositories. |

| **Platform extensibility** | Programmatic API access to content and data for technical professionals including REST APIs; offers app-store for third parties to publish apps that integrate with a system; have published apps that provide access to a system in third-party app stores; bulk import/export of system data in a structured format including spreadsheets or CSV files. |