

Critical Capabilities for Grantor Management Software

Published: 28 December 2011

Analyst(s): Massimiliano Claps

The government grantor management software market is maturing slowly because of high fragmentation of demand and supply. This research provides government grantor agencies, CIOs, enterprise architects and grant program managers an analysis of key differentiations among suppliers of commercial off-the-shelf (COTS) products.

Key Findings

- The government grant-making market is characterized by high fragmentation of demand because of departmental or program-level initiatives that are not coordinated and do not favor the standardization of core components.
- Demand fragmentation is paralleled by a fragmentation of the supply side of the market, with a majority of small-to-midsize vendors that are unable to industrialize products they can profitably sell across multiple geographies, levels of governments and grant domains.

Recommendations

Government grant-making agencies should:

- Evaluate product capabilities to match requirements across the entire life cycle, because a few address front-end processes (such as application intake and assessment) well, but lack in-depth, post-award administration functionalities for payment and reporting, or vice versa.
- Understand whether the products are easily configurable to address the specific use cases by type of grant (formula or competitive) or domain (for example, scientific research or highway safety).
- Evaluate the viability of products in terms of the vendor's competencies regarding product implementation and support, but also its road map to make the architecture available on multiple platforms and through alternative service delivery models that can make implementation more agile and affordable.

What You Need to Know

This research is an update of a study published in 2009 (see "Critical Capabilities for Grantor Management Software"). The analysis presented here takes into account new customers that have bought these software products, product developments that the vendors brought to market and the fact that there are two products that were not included at the time: Quest's AIMS and HTC Global Services' EGrAMS. Notwithstanding these changes, the government grantor management software market continues to be highly fragmented and moving rather slowly toward maturity — both on the demand side in terms of fragmented application modernization programs and projects, and on the supply side in terms of accelerating the portability of products across multiple architectures, developing alternative delivery models, and industrializing functional capabilities and implementation methodologies that can be applied across geographies, levels of government and domains.

The critical capabilities Gartner has selected may not represent those most important for every government grant-making agency. Government CIOs and enterprise architects should use this analysis of critical capabilities as one of several sources of input about a product before making an acquisition decision. For example, if a jurisdiction has multiple departments that distribute grants, such as the European Commission across various Directorate Generals, and is considering implementing an enterprisewide standard grant management system to be used by all departments, then it should consider additional capabilities (such as service-oriented architecture for reusability of services) and additional use cases (such as cross-agency reporting).

Analysis

Introduction

The government grantor management software market continues to be highly fragmented and moving rather slowly toward maturity (see "Government Grantor Management Software Market: Baby Steps Toward Maturity") — on both the demand and supply side.

On the demand side, approximately 30 contracts with net new government customers globally were awarded to the vendors analyzed in this research between 2010 and October 2011, which means a mere three contracts per vendor, on average. Furthermore, more than 50% of those contracts were aimed at addressing the grant management software modernization requirements of individual departments, or programs within departments, which means the size of contracts was small — on average, less than \$1 million. Also, many government grantors still rely on custom-developed solutions for the largest grant programs, especially at the central/federal government level, where standardizing processes across grant programs with different assessment and award mechanisms would require complex and risky change management efforts.

The fragmentation of demand is making the market unappealing to the largest IT vendors. Among global software vendors, only SAP plays a primary role in this market. The fragmentation slows down:

- The evolution of products toward portability of applications on multiple OSs, databases and middleware platforms.
- The availability of out-of-the-box integration interfaces with other software applications (for example, ERP systems).
- The availability of flexible configurations that respond to the needs of multiple grant programs and types, from discretionary grants for medical research to block grants for housing development. A few vendors have addressed this need through form-based workflow and table-driven rule management tools, but the agility is not yet at the level desired by every grant-making agency, particularly large departments that deal with multiple programs.
- The availability of alternative delivery models (particularly for software as a service [SaaS]), although vendors have made some investments in this area.
- The investment of system integrators to support standard implementation and application support methodologies.

More standardized and interchangeable products could trigger a virtuous cycle that will make it more affordable for governments to modernize their grant management systems; however, with the current fiscal and political volatility, the critical mass on the demand side is unlikely to materialize in the short term. Some government grantors are using CRM software products as the basis to configure grant management solutions. This is attracting the attention of large vendors, such as salesforce.com, Microsoft and Oracle, but the uptake is still limited. In fact, Gartner research indicates that there is one Siebel user in the U.K. central government and a couple of Microsoft CRM Grants Manager accelerator users at the federal and provincial government level in Canada.

The great financial crisis had a two-phase impact on the market. The amount of money allocated to grant programs increased steadily in the immediate aftermath, as governments tried to support the economy. As a result, grant software modernization programs grew between 2008 and 2009 to keep up with reporting requirements. Since 2010, the slowdown of funding has resulted in fewer grant management software product purchases, particularly in North America and Europe. In fact, the U.S. federal government — after a spike of assistance programs in fiscal-year 2009 because of the American Recovery and Reinvestment Act (ARRA) — has experienced an 11% reduction of funding allocated to grant programs in fiscal-year 2010 and an 8% reduction in fiscal-year 2011.

It is interesting to note that small-to-midsize, grant-making agencies (for example, those awarding less than \$500 million of funds annually through a limited set of programs) see small-to-midsize vendors as a driver of better customer intimacy and product flexibility.

This research aims to help government grant agencies' enterprise architects, application managers and grant program managers understand some of the exceptions to the baby-step evolution toward maturity and the successes some of the vendors continue to have, especially in their core segments.

Many of the capabilities discussed in this research could be of interest to nongovernment grantors, such as nonprofit foundations and higher education institutions, but readers should bear in mind that 90% of the end users Gartner talked to were government agencies.

Product Class Definition

Grant management systems provide government grant-making agencies the ability to automate the entire life cycle of a grant (see "The Government Grants Management Domain: A Gartner Market Definition"):

- Grant program preparation, such as the identification of goals for the program and budgeting
- Grant program notification phase, such as posting an announcement on the agency/department website or sending an email to potential applicants
- Applicant relationship management, such as registering and managing correspondence
- Application intake and screening, such as online submission and handling of attachments
- Review and evaluation of applications, such as eligibility determination and panel reviews
- Negotiation and contracting, such as contract acceptance or refusal
- Post-award administration, such as expense management, disbursements, reporting, closure and audit

These applications are used across a wide variety of programs — from funding medical research in academia to financing local housing renewal initiatives in disadvantaged neighborhoods.

Critical Capabilities Definition

Grant programs differ by the level of government, geography, award mechanism, administrative laws regulating contracting with grantees, and so on. Nevertheless, six common macrophases can be identified for most programs: program preparation, program notification, intake of applications and screening, evaluation of applications, negotiations and contractual arrangements, and administration — with applicant relationship management cutting across all phases.

Features and functions of COTS products are usually developed to meet business requirements across all macrophases of the grant's life cycle. Gartner identified six features and functions as being the most critical capabilities:

- **Multichannel grant notification** — The consumerization of IT and the socialization of data, processes and services are increasing the pressure on government agencies to make grant information seamlessly available through multiple channels — such as government agency websites, governmentwide portals, consumer social media and email — to reach potential applicants on the channel they prefer. It is important to note that the impact of social media is still very limited.
- **Online self-service** — The complexity of some grant applications do not easily lend themselves to online self-service; however, because many applicants are organizations (such as academic research centers of local nonprofit community service providers), rather than individuals, and because the volume of applications, especially for certain programs, is very large, enabling online self-service interactions make them more effective and efficient. This is particularly true if the ability to submit applications and preapplications is combined with the ability to register

organizations (and individuals acting on their behalf) for multiple rounds of applications, create a folder with reusable information, search for new grant opportunities, attach documentation, review the status of transactions, appeal negative decisions, and submit reports.

- **Collaborative review** — Particularly for discretionary grants, but increasingly across programs, reviews are not performed by one individual, but are performed collaboratively by clerks, managers and external reviewers. Thus, it is necessary to give appropriate reviewers access to all relevant application material, to create panels, to record meeting notes or to allow online real-time collaboration.
- **Program amendments** — The volatility of budget and policy decisions often requires the amendment of eligibility rules, budgets and the scope of programs. Thus, flexible rule management is essential to apply those changes for an entire program or, sometimes, for individual grantees.
- **Payments** — Grants are about disbursing money. Thus, key features include the ability to schedule and approve payments based on progress reports, to reconcile information with financial management systems, to profile payments based on the operating or capital nature of expenses for contractors and subcontractors, and to offset debts at the closure of the grants.
- **Reporting** — Fiscal pressure is increasing the need to transparently oversee not only how much money is being awarded, but also to what uses that money is put, what the outcome is and whether the outcome is achieved within the intended timeline. Thus, the level of detail of reporting requirements is increasing by the day to slice and dice information by program, project, grantee, subcontractor, geography, community and so forth. It is increasingly important — particularly for state and local governments in the U.S. — to be able to automatically feed reports into federal government systems. It is interesting to note that a few of the profiled vendors are investing more in making their data marts interoperable with business intelligence (BI) tools provided by global vendors, such as Microsoft, IBM-Cognos and SAP BusinessObjects, to enrich the end-user querying experience.

Note that the list of critical capabilities is slightly different from the one that Gartner used in 2009, so the analysis is not perfectly comparable (see "Critical Capabilities for Grantor Management Software"). The changes are because of deeper research insights that indicated, for example, that the "Design of Application Forms" or "Management and Integration of Attachments" are not any more differentiating factors among products, while new business requirements have emerged, because, for instance, the higher penetration of social media has changed the mix of grant notification channel options.

Use Cases

Government grant-making agencies that evaluate and deploy grant management COTS products should consider various use cases to evaluate the functional capabilities of those systems. Gartner selected three primary use cases. The critical capabilities play a different role in supporting the various use cases. Table 1 provides the weighting that each critical capability has for the various use cases. Those weightings are intended to be average across all potential government grant-making institutions, but Gartner understands that there can be differences by type of program (such

as grants supporting medical research versus grants supporting economic development) and type of grants (such as block grants versus competitive grants):

- **Application submission/intake:** The applicants need to be able to easily search and find the grant opportunity, to use self-service application processes and guidelines, to attach documents, to check the status of the application, to receive updates, and to negotiate parts of or the entire application if amendments are required. Multichannel grant notification and online self-service are key for applicants. Grant program staff, on the other hand, benefit from the automation of data intake and validation.
- **Program staff or external review and scoring:** The program manager must be able to assign the application to reviewers, or create panels of reviewers. He or she must also be able to identify whether some reviewers have conflicts of interest with a certain applicant (either the individual or the whole organization). Reviewers must be able to access (preferably online) all applications and related attachments to provide quantitative and qualitative scoring throughout single or multiple rounds of review. The manager must be able to collect all scores, perform final validation and assign a different weighting to the various scores for final approval. Workflow and security capabilities are necessary in this use case, because rules and roles need to be set and possibly tuned during the process. Collaborative review processes are essential in this use case. Program adjustments also impact the review and scoring process.
- **Award administration:** Once the funds have been awarded to grantees, the grant program manager and his or her staff need to process expense sheets and reimbursement claims, disburse money, and, most importantly, evaluate financial and programmatic performance. In some cases, they must make adjustments if the objectives are not achieved, as well as run audits after the grant closeout to avoid fraud. Adjustments, payments and reporting capabilities are key in this use case.

Table 1. Weighting for Critical Capabilities in Use Cases

Critical Product Capabilities	Overall	Application Submission/Intake	Application Review and Scoring	Award Administration
Multichannel grant notification	10%	25%	0%	0%
Online self-service	20%	55%	20%	5%
Collaborative review	20%	0%	55%	0%
Program amendments	10%	10%	15%	25%
Payments	15%	0%	0%	25%
Reporting	25%	10%	10%	45%
Total	100%	100%	100%	100%

Source: Gartner (December 2011)

Inclusion Criteria

Taking into account the relatively low level of maturity of this market, the study included:

- Vendors of COTS grant management software for government grant-making institutions:** Vendors that primarily address the private nonprofit foundation market, such as MicroEdge and Bromelkamp in North America, and CC Technology and The Gallery Partnership in the U.K., were excluded. Grant management systems for grant recipients, or grantees, such as CGI AMS Advantage Grant Lifecycle Management or UNIT4 Business Software's grant management system, were also excluded.
- Software products that address the entire cycle of grant management from preparation of new funding opportunities to closeout grant awards:** Vendors that offer point solutions or business process management products, such as HandySoft, and electronic document and records management products that are used as components to build a grant management solution were excluded.
- Vendors that had at least five government customers that were using the grant management software as of September 2011, globally:** Vendors that only recently launched a grantor management software product and have no live customer, such as TechnologyOne in Australia, were excluded.

Based on these criteria, we included 10 vendors in this evaluation: Agate Software, Altum, Compusearch, CSDC Systems, Dulles Technology Partners, HTC Global Services, MTW Solutions,

Quest Computing, SAP and SmartSimple Software. For Altum, two products were analyzed (proposalCENTRAL and Easygrants).

Some Australian federal government grant-making agencies are using the grant manager module of the CA Clarity PPM suite. However, CA decided not to respond to Gartner's questionnaire. Thus, Gartner did not have enough information available to make a meaningful comparison with the other vendors.

Critical Capabilities Rating

Each product that meets our inclusion criteria has been evaluated against the six critical capabilities, on a scale of 1.0 to 5.0 (see Table 2). The rating reflects the existing product capabilities.

Table 2. Product Rating on Critical Capabilities

Product Rating	Agate Software (IntelliGrants)	Altum (Easygrants)	Altum (proposalCENTRAL)	Compusearch (Prism)	CSDC Systems (Grantium G3)	Dulles Technology Partners (WebGrants)	H C S (S)
Multichannel grant notification	2.5	3.0	3.0	3.0	3.0	3.5	
Online self-service	4.0	4.0	3.5	3.0	4.0	4.0	
Collaborative review	2.5	3.5	3.5	4.0	3.5	3.5	
Program amendments	4.5	4.0	2.0	4.0	4.0	3.5	
Payments	3.5	3.0	2.0	2.5	3.5	3.5	
Reporting	3.5	3.5	3.0	3.5	4.5	3.5	

Source: Gartner (December 2011)

Critical capabilities are attributes that differentiate products in a class in terms of their quality and performance. Gartner recommends that users consider critical capabilities important criteria for acquisition decisions. This methodology requires users to identify the critical capabilities for a class of products. Each capability is then weighted in terms of its relative importance overall, as well as for specific product use cases. (The sum of weights across capabilities equals 100%.)

Next, products are rated in terms of how well they achieve each of the critical capabilities. A score that summarizes how well they meet the critical capabilities overall, and for each use case, is then calculated for each product.

Ratings and summary scores range from 1.0 to 5.0:

- 1 = Poor: Most or all the defined requirements are not achieved.
- 2 = Fair: Some of the requirements are not achieved.
- 3 = Good: The product meets the requirements.
- 4 = Excellent: The product meets or exceeds some requirements.
- 5 = Outstanding: The product significantly exceeds requirements.

Ratings are the result of three sources of information (sources of information are the same as the study published in 2009, but completely refreshed between June and September 2011):

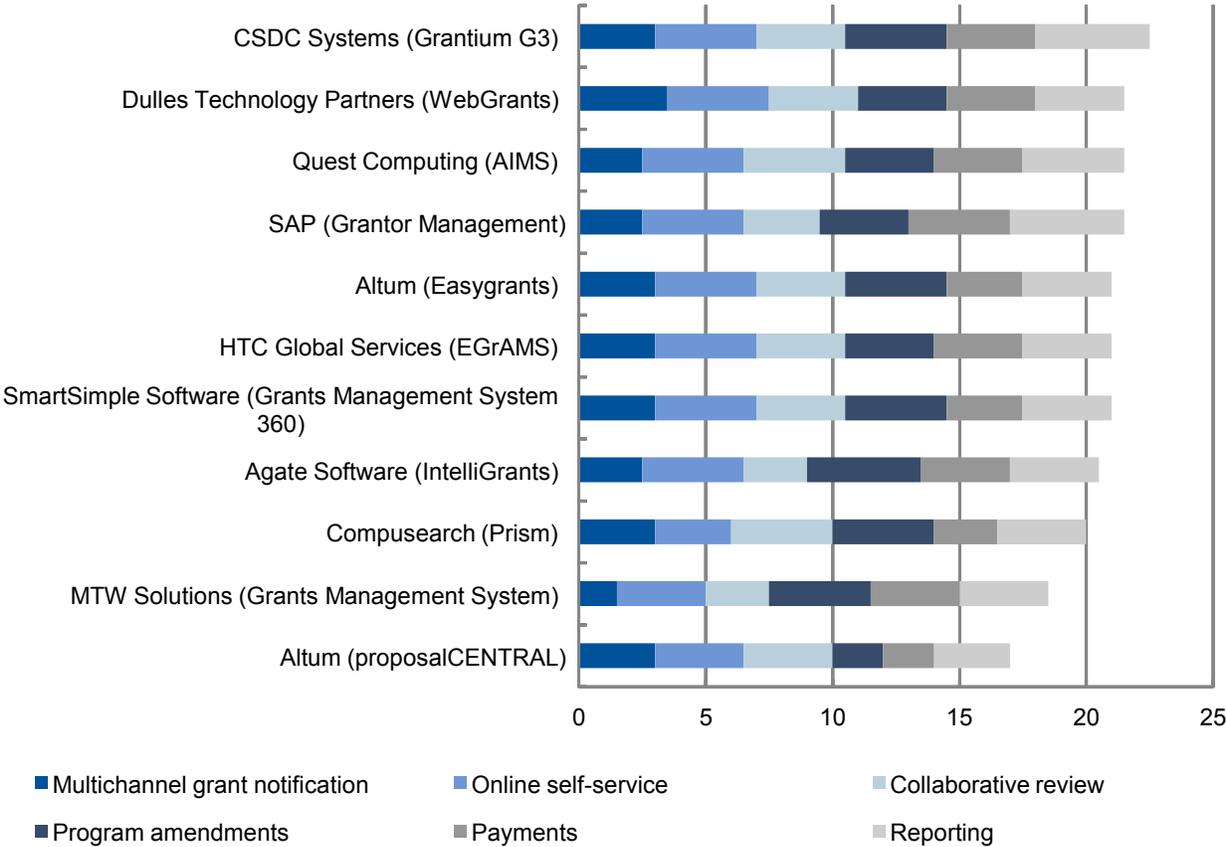
- A questionnaire that each vendor responded to
- A phone briefing each vendor provided
- Gartner interviews with at least two reference customers for each vendor

Compusearch and MTW Solutions did not respond to the questionnaire or provide customer references for interviews, but they provided phone briefings as updates. Altum did not provide any customer references, and CSDC Systems provided only one.

To determine an overall score for each product (see Figure 1) in the use cases, the ratings in Table 2 are multiplied by the weighing shown in Table 1. These scores are shown in Table 3.

Figure 1. Overall Score for Each Vendor's Product Based on the Nonweighted Score for Each Critical Capability

Product Rating Chart



Source: Gartner (December 2011)

Table 3. Product Score in Use Cases

Use Cases	Agate Software (IntelliGrants)	Altum (Easygrants)	Altum (proposalCENTRAL)	Compusearch (Prism)	CSDC Systems (Grantium G3)	Dulles Technology Partners (WebGrants)
Overall	3.4	3.5	3.0	3.4	3.9	3.6
Application submission/intake	3.6	3.7	3.2	3.2	3.8	3.8
Application review and scoring	3.2	3.7	3.2	3.8	3.8	3.6
Award administration	3.8	3.5	2.5	3.4	4.1	3.5

Source: Gartner (December 2011)

Product viability in Table 4 is our assessment of the vendor's strategy and its ability to enhance and support a product over its expected life cycle. It is not an evaluation of the vendor as a whole. Each product is rated on a five-point scale from poor to outstanding. Four major areas are considered:

- Strategy includes how a vendor's strategy for a particular product fits in relation to its other product lines, market direction and business overall.
- Support includes the quality of technical and account support, and customer experiences for that product.
- Execution considers a vendor's structure and processes for sales, marketing, pricing and deal management.
- Investment considers the vendor's financial health and the likelihood of the individual business unit responsible for a product to continue investing in it.

Each area is scored on a 1 (poor) to 5 (excellent) scale. Ratings of the four areas were summed up to define the summary scoring:

- Sum of four areas from 4 to 6 = poor product viability
- Sum of four areas from 7 to 10 = fair product viability
- Sum of four areas from 11 to 14 = good product viability
- Sum of four areas from 15 to 17 = excellent product viability

- Sum of four areas from 18 to 20 = outstanding product viability

Table 4. Product Viability

Vendor/ Product Name	Agate Software (IntelliGrants)	Altum (Easygrants)	Altum (proposalCENTRAL)	Compusearch (Prism)	CSDC Systems (Grantium G3)	Dulles Technology Partners (WebGrants)	HTC Global Service (EGrA)
Product Viability	Good	Good	Fair	Good	Good	Good	Good

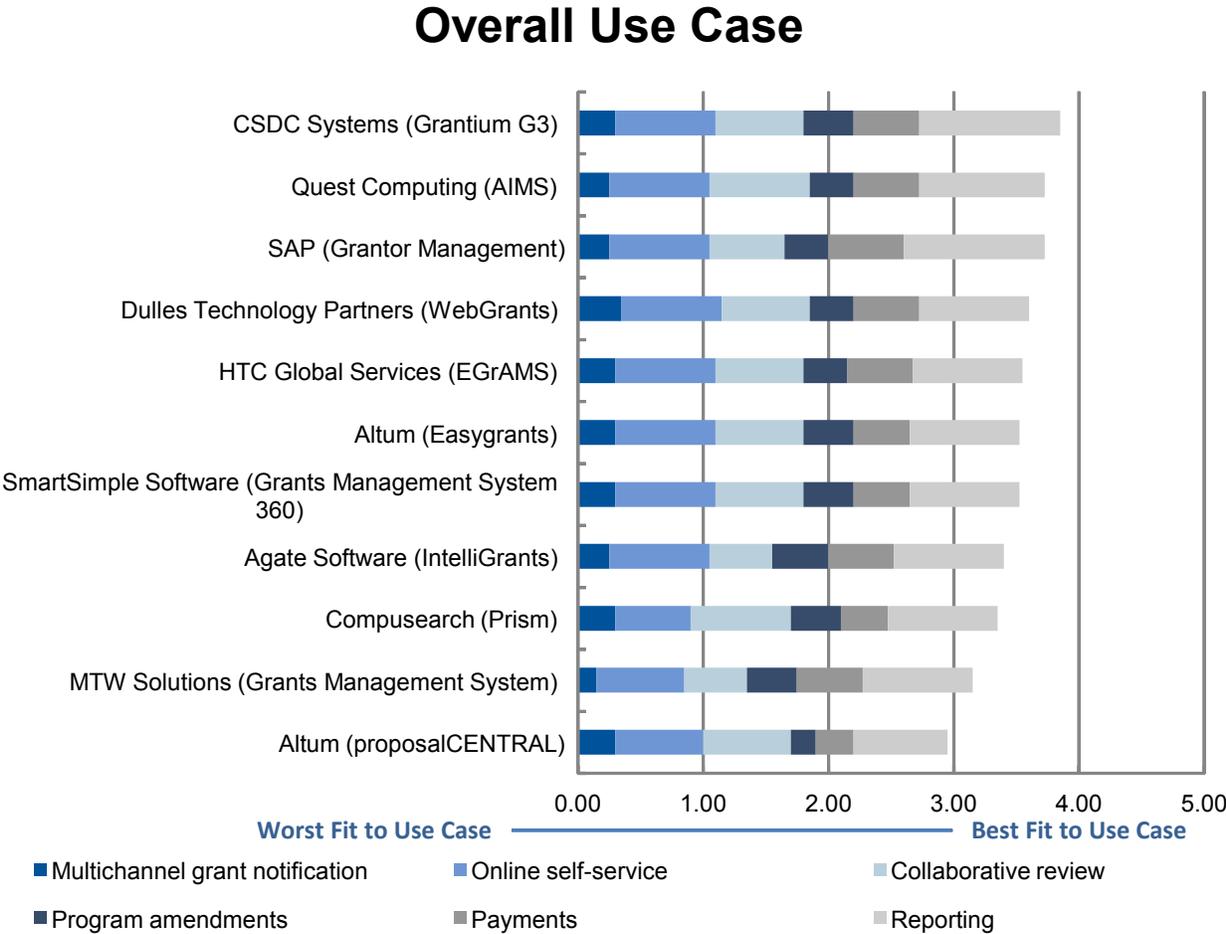
Source: Gartner (December 2011)

Table 4 only provides a summary assessment of those four areas. Readers should look at the qualitative comments provided in the following section to better understand the vendor's ability to provide service support directly or through partners, the market segments they serve, and the technical requirements.

The weighted capabilities scores for all use cases are displayed as components of the overall score.

Figure 2 shows the vendor scores for the overall use case.

Figure 2. Overall Use Case

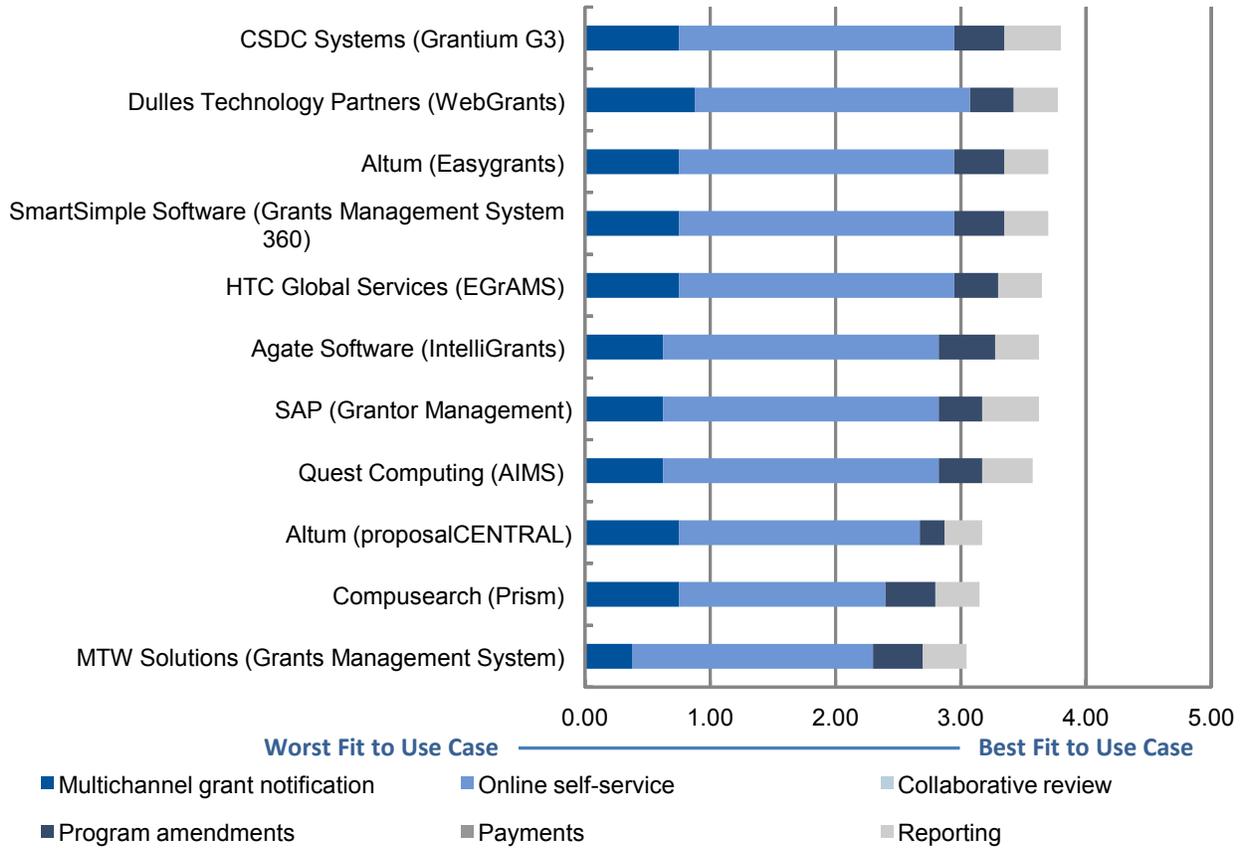


Source: Gartner (December 2011)

Figure 3 shows the vendor scores for the application submission/intake use case.

Figure 3. Application Submission/Intake Use Case

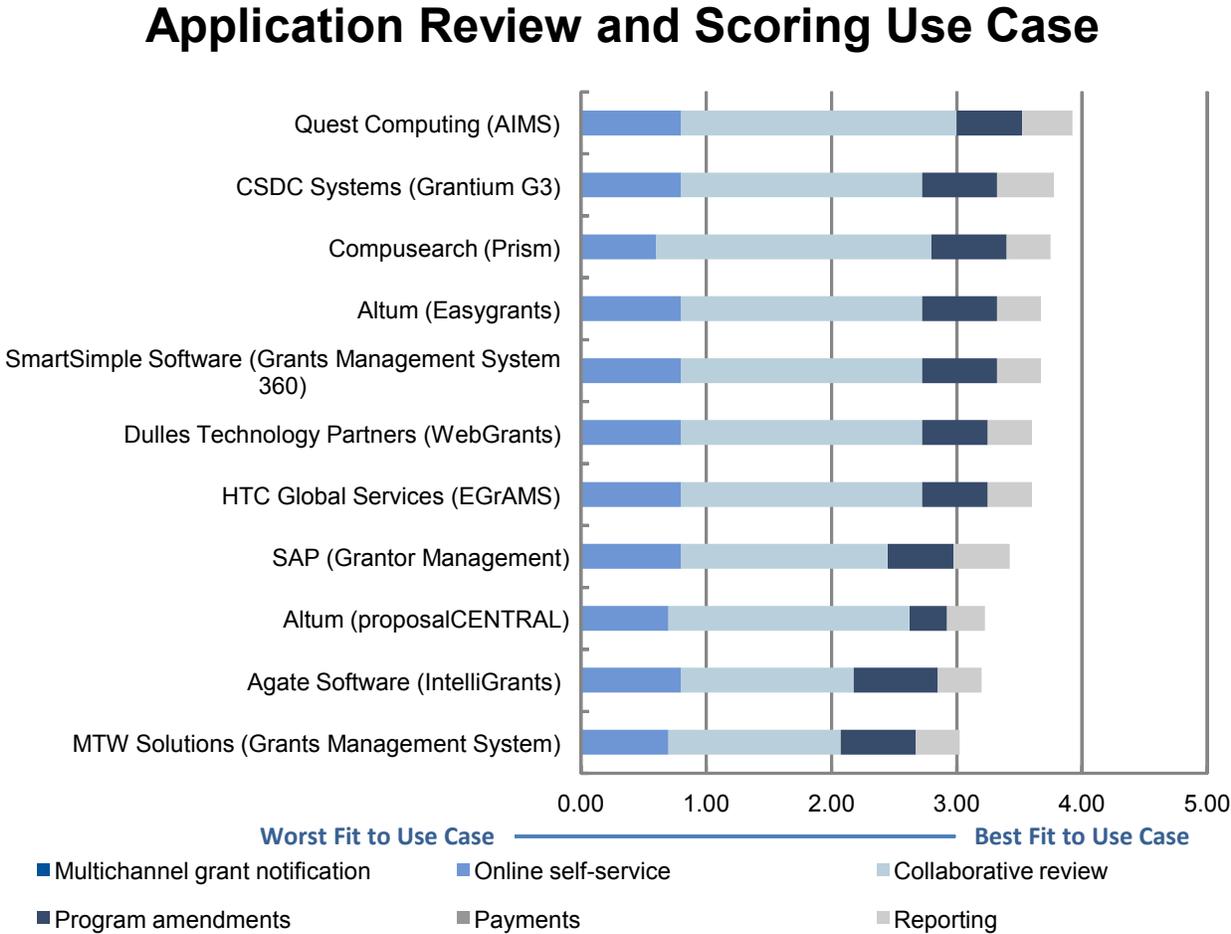
Application Submission/Intake Use Case



Source: Gartner (December 2011)

Figure 4 shows the vendor scores for the application review and scoring use case.

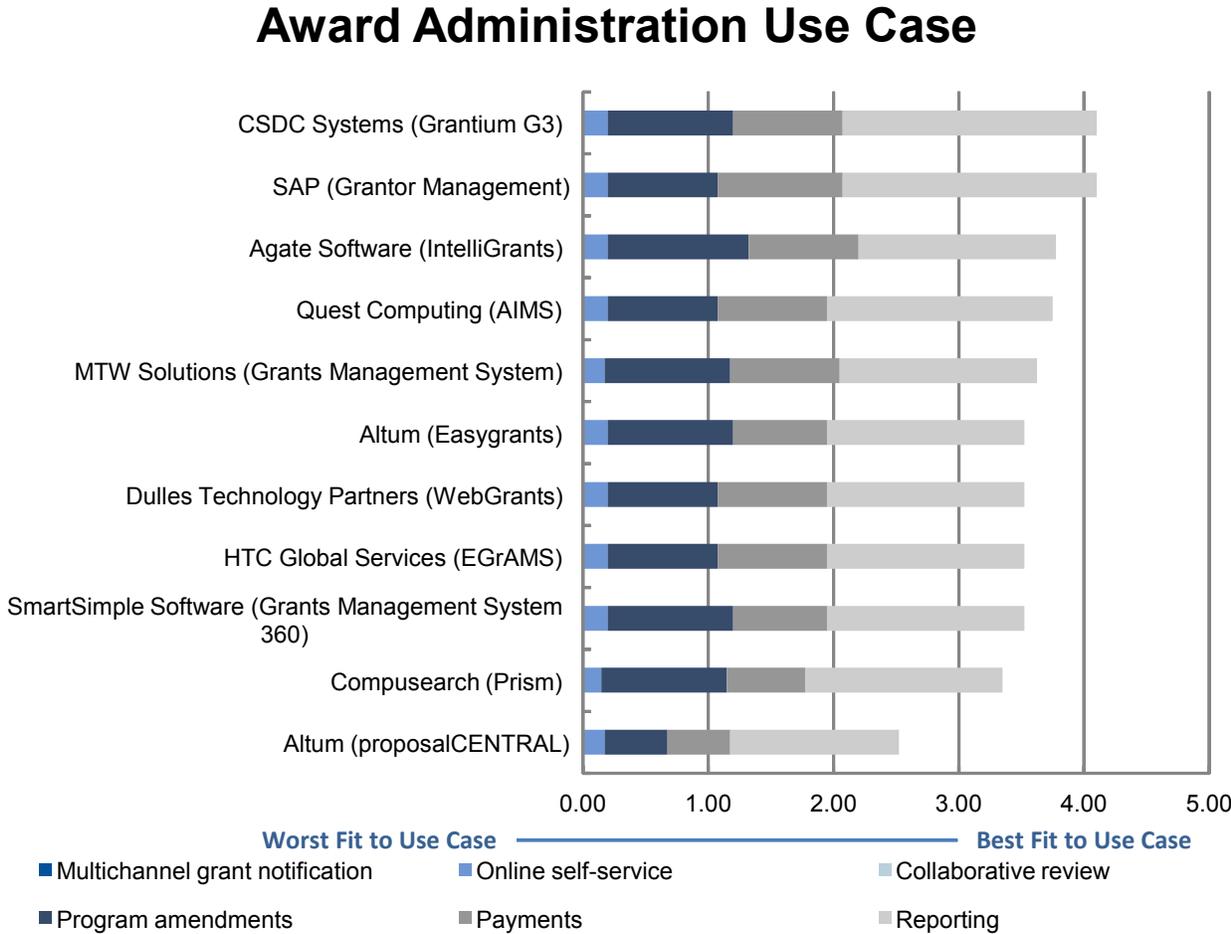
Figure 4. Application Review and Scoring Use Case



Source: Gartner (December 2011)

Figure 5 shows the vendor scores for the award administration use case.

Figure 5. Award Administration Use Case



Source: Gartner (December 2011)

Vendors

Agate Software (IntelliGrants)

Company background: Agate Software first developed a grant management system in the mid-1990s. Since then, it has entirely focused its employees and R&D efforts on its IntelliGrants product line. Gartner estimates that the company employs approximately 50 full-time equivalents and enlists approximately 45 active customers. More than 90% of them are in the state government sector in the U.S. — particularly among transportation, education, housing and community, public safety, and justice departments (or programs and agencies within those departments) — and some are in the nonprofit sector.

Product capabilities: The current version of the product is IntelliGrants v.12.

Strengths: IntelliGrants offers comprehensive functionality for block/formula grant programs for applicant registration (both individuals and organizations) and online self-service, which includes the recent addition of on-screen validation and dynamic triggering of fields and forms based on data selection, application intake, review, and scoring for program staff and managers, as well as post-award administration — particularly reporting by program, project, contract, and subcontracts, and the automation of payments from program funds (for example, by configuring triggers once expense claims have reached a certain threshold).

Challenges: IntelliGrants has limited flexibility to meet collaborative peer review process requirements, such as online collaboration among reviewers, peer reviewer knowledgebase and conflict-of-interest assessment, which are relevant for competitive grant programs, such as scientific research. IntelliGrants does not offer out-of-the-box text search capabilities or social media features, which impacts the multichannel notification capability and the online experience. It does not provide out-of-the-box functionalities related to making payments and cashing in refunds, or debt collection offset at the closure of a grant, but offers integration with SAP ERP and Oracle PeopleSoft to complement those features.

Product viability:

Strengths: Agate can count on fully dedicated business development, R&D, and system configuration and implementation service expertise with a wide range of U.S. state government departments — particularly in the block grant domain. Along with Dulles Technology Partners and SmartSimple Software, Agate recorded the largest number of net new customer wins (among the vendors assessed here) between 2010 and 2011, which is evidence of continued market traction.

Challenges: Agate's small size could stretch its resources when multiple implementation projects run concurrently, because there are no structured partnerships with system integrators. Agate has limited experience with alternative delivery models, because it offers application hosting, but has no live customers yet and does not offer a SaaS version. All products are sold directly by Agate, which limits the company's reach to penetrate new markets. Marketing efforts consist of publishing brochures and case studies, while no wide-reaching campaigns or user group events are organized to enhance customer intimacy. IntelliGrants is a .NET-based product that runs primarily on Microsoft database management systems (DBMSs), OSs and middleware, which gives limited flexibility to customers that have a different architecture.

Government grant-making departments/agencies that should consider the product: U.S. and Canadian state, regional and provincial government agencies that manage block grant programs and U.S. nonprofit organizations that fund community programs, such as housing

Government grant-making departments/agencies that should consider alternative products: National and federal government agencies — particularly those that manage competitive/discretionary grant programs — and grantor agencies outside of North America

Altum (Easygrants)

Company background: Altum is a U.S.-based COTS product vendor that has approximately 70 employees. The vendor also provides custom software development and COTS implementation services to federal government departments, particularly in the area of performance management. Altum's offerings include two product lines for grantor management: Easygrants and proposalCENTRAL (the latter is only available as a SaaS). Approximately 75% of Altum's revenue is generated in the government sector, while 25% is generated in the nonprofit foundation sector. Gartner estimates that Easygrants has approximately 20 customers (half of which are in the government sector) and that proposalCENTRAL has approximately 60 customers (20% of which are in the government sector).

Product capabilities: The current version of the product is Easygrants 6.5.3.

Strengths: Easygrants has been deployed for application submission/intake, validation and prescreening, and post-award administration for block and discretionary grants. Product performance and scalability were significantly enhanced because of the implementation of the application intake solution for the ARRA's Rural Broadband program. New functionalities include enhanced configuration flexibility and tagging, labeling screens, and defining favorites (for example, programs, reports and contacts), which make navigation easier for program staff and applicants.

Challenges: Customers that Gartner spoke with indicated that collaborative review and scoring processes required more configuration than customers expected in some cases. Out-of-the-box reporting satisfy the basic requirements for financial reporting by project and contract, but is not as sophisticated for ad hoc analysis of program-operating outcomes. Easygrants tracks payment information, and provides management of payment scheduling and release for the post-award process; however, for the actual payment, cashing in of refunds or debt collection offset at the closure of a grant requires integration with financial management systems. Thus, customers have to custom-develop add-ons, or batch integrations with ERP products.

Product viability:

Strengths: Altum has more experience than many of its direct competitors with alternative delivery models. In fact, Easygrants has been deployed as a managed application, and the ARRA Rural Broadband implementation provided Altum with additional experience, because it was a shared implementation between the U.S. Department of Agriculture and the U.S. Department of Commerce, which Altum is now able to support as a U.S. government community cloud offering in partnership with the U.S. Department of Commerce National Technical Information Service. Increased investment in marketing efforts, such as dedicated campaigns and an international road show, resulted in the first signs of growth beyond the U.S. Altum has partners in the U.S. and the U.K. to deliver Easygrants as a hosted solution.

Challenges: The relatively small size of the organization, compared with global software vendors, such as SAP, could stretch resources in case of multiple implementation projects running concurrently, because there are no structured partnerships with system integrators. Sales are currently handled only directly by Altum, rather than through channel partners, which limits the business development capabilities. For example, the U.S. state government market, which is more

fragmented than the federal government, requires domain-specific expertise in areas such as education, transportation, and community and housing. Altum lacks the internal resources or partners to penetrate these areas significantly. Easygrants is a .NET-based product that runs primarily on Microsoft DBMSs, OSs and middleware, which gives limited flexibility to customers that have a different architecture.

Government grant-making departments/agencies that should consider the product: U.S., U.K. and Canadian federal government agencies that handle any type of grant program, as well as nonprofit organizations in those countries

Government grant-making departments/agencies that should consider alternative products: State government agencies in the U.S. and Canada, and government agencies outside of the U.S., the U.K. and Canada (which should consider Altum with care, because the vendor is in the early stages of development in those markets)

Altum (proposalCENTRAL)

Company background: Altum is a U.S.-based COTS product vendor that has approximately 70 employees. The vendor also provides custom software development and COTS implementation services to federal government departments, particularly in the area of performance management. Altum's offerings include two product lines for grantor management: Easygrants and proposalCENTRAL (the latter is only available as a SaaS). Approximately 75% of Altum's revenue is generated in the government sector, while 25% is generated in the nonprofit foundation sector. Gartner estimates that Easygrants has approximately 20 customers (half of which are in the government sector) and that proposalCENTRAL has approximately 60 customers (20% of which are in the government sector).

Product capabilities:

Strengths: proposalCENTRAL is being used successfully for the automation of front-end functionalities, such as applicant registration and application intake. The application review and scoring functionality is particularly suitable for discretionary grant programs that involve external panelists, because it offers capabilities to compile and review information completely online. For example, a recent enhancement included multiple reviewer critique form configurations to have different critique forms for each grant program and/or reviewer role while being reviewed in a single committee.

Challenges: Compared with other products analyzed in this research, proposalCENTRAL has some capability gaps in post-award administration — particularly program amendments and reporting (for example, it limits the narrative text or flexibility of ad hoc querying, claim/payment management and integration with financial management systems).

Product viability:

Strengths: Along with SmartSimple Grants Management System 360, proposalCENTRAL is the product with the most successful SaaS model, which makes the solution very affordable for smaller

organizations that cannot invest in an on-premises implementation, or for grant programs that could be shut down after a brief period.

Challenges: Investments in product development and support are continuing for proposalCENTRAL; however, Easygrants contributes a larger share of revenue generation for Altum, which could trigger future plans to consolidate the two product road maps into Easygrants.

Government grant-making departments/agencies that should consider the product: Nonprofit foundations, academic institutions, and small and midsize government agencies or programs within larger agencies with limited budgets

Government grant-making departments/agencies that should consider alternative products: Large grant-making government departments managing multiple billion-dollar programs, and grant-making agencies whose first priority is to have a comprehensive award administration tool with flexible BI capabilities

Compusearch (Prism)

Company background: Compusearch develops, markets and supports the Prism suite, which provides government procurement and government grant management functionalities for the U.S. federal government sector. Compusearch's annual revenue is approximately \$28 million, and it employs 160 people. Gartner estimates that Prism is live at more than 50 federal government departments and agencies, but only six of them use the product for grant management programs.

Product capabilities: The current version of the product is Prism Grants 7.

Strengths: Prism Grants 7 provides functionalities for the entire grant life cycle and is highly tailored to U.S. federal government assistance programs. It also provides out-of-the-box interfaces to more than 30 federal systems, including Financial Systems Integration Office (FSIO)-certified financial systems, Federal Assistance Awards Data System (FAADS), Integrated Acquisition Environment (IAE) initiatives such as Central Contractor Registration (CCR), and other business management systems.

Challenges: Prism Grants 7 does not provide some functionalities that are provided by other solutions commonly used by U.S. federal government agencies, such as electronic data capture and validation of applications, which is provided by Grants.gov, program preparation, budgeting and amendments, and payments and debt collection offsets, which are provided by commonly used financial management systems. As a result, it can only automate portions of the grant's life cycle for grant-making agencies outside the federal government.

Product viability:

Strengths: Prism Grants 7 has a strong installed base as a government procurement solution, which offers ample cross-selling opportunities. System development, implementation, marketing and sales are fully dedicated to the U.S. federal government, which ensure great customer intimacy. Partnerships with some large system integrators operating in the federal government market ensure a further base of system deployment and integration skills. Compusearch has significantly increased

its investment in cloud-based solutions with the launch of Prism On Demand, which offers SaaS and cloud application hosting delivery. Compusearch expects Prism On Demand to open up opportunities at the state government level; however, government grantors considering the option will be early adopters.

Challenges: Product development, marketing and sales resources are focused on the Prism product and the U.S. federal government market, rather than on the grant management domain, which limit investments in growing the customer base at the state level or internationally. The product runs on multiple application servers and OSs, but only on the Oracle Database server.

Government grant-making departments/agencies that should consider the product: U.S. federal government agencies

Government grant-making departments/agencies that should consider alternative products: Grant-making organizations that are not part of the U.S. federal government

CSDC Systems (Grantium G3)

Company background: CSDC Systems provides COTS software for state, provincial and local governments in the U.S., Canada and the Caribbean. Grantium G3 was developed during the past 13 years by Grantium, which was acquired by CSDC in March 2010. The company employs 180 professionals — 75 of them are dedicated to the Grantium G3 line of business. Gartner estimates that Grantium G3 is used by 13 government grant-making agencies in the U.S. and Canada. Four of those clients are at the federal government level, and nine are at the state government level. Grantium has also some customers in the nonprofit sector and one government customer in Australia.

Product capabilities: The current version of the product is Grantium G3 3.3.

Strengths: Grantium G3's key strengths are in the grant application submission/intake use cases across a wide variety of grant programs with intuitive submission forms, applicant registration and recent enhancements, such as the ability to accept supporting submissions from associate applicants and to establish a parent-child relationship in applicants. BI capabilities, including traditional financial reporting, are robust. CSDC Systems is in the process of enhancing its user interface and audit capabilities by leveraging its partnership with IBM-Cognos for the embedded BI tool.

Challenges: The form-based workflow architecture may require lengthy requirements gathering to optimize configuration of the most complex middle-office capabilities for collaborative application review and scoring processes, and back-office post-award administration, such as claims processing. It must be noted that, in those cases where Grantium G3 has been implemented across multiple grant programs, the forms and workflows configured for the first deployment were reused to speed up subsequent implementations.

Product viability:

Strengths: System design and implementation expertise encompasses a wide variety of grant programs from block to discretionary grants. The Java-based architecture allows clients to run the application on all the most common OSs, DBMSs, and middleware and interfaces with financial management systems, such as SAP and Oracle. A recent enhancement consisted of supporting the Google Chrome browser. The architecture also allows greater flexibility than some of the direct competitors to build interfaces with Tier 1 financial management and CRM products. G3 can be delivered as a cloud-hosted application through a partnership with Hosting.com.

Challenges: During the first 12 months after the acquisition of Grantium by CSDC, Gartner noticed limited progress in terms of product and business development investment. However, in the past six months, CSDC has increased business development efforts, scaling from two to eight full-time dedicated account executives in North America and one in the U.K. It doubled the Grantium G3 product development efforts, which will result in a new release in 1Q12. Gartner expects the new release to provide better capabilities for project scoring and budgeting.

Government grant-making departments/agencies that should consider the product: All state, provincial and federal government agencies; large municipalities in the U.S. and Canada; and nonprofit grantors

Government grant-making departments/agencies that should consider alternative products: Grant-making organization outside the North American market

Dulles Technology Partners (WebGrants)

Company background: Dulles Technology Partners (DTP) is a 10-person company focused entirely on grant management. Its WebGrants product is designed to support grant-making agencies, while the MyWebGrants subscription-based system is aimed at providing grant management software to grantees. Gartner estimates that WebGrants is used by 15 government agencies in the U.S., across federal, state and local governments. DTP has an equivalent number of customers in the higher education and nonprofit industries combined. Thus, the government market represents approximately 50% of the company's revenue.

Product capabilities: The current version of the product is WebGrants 3.1.

Strengths: All WebGrants customers that Gartner talked to praised the configurability of the product for all functionalities across the grant life cycle. This flexibility has enabled customers to use the product for ancillary programs, such as loan management, or for reporting and audit of other government services that have a caselike workflow.

Challenges: WebGrants does not provide out-of-the-box functionalities for some ancillary capabilities, such as integration with Grants.gov or social media, online real-time collaborative review and scoring, appeal management, and feeding standard reports into governmentwide websites, such as USAspending.gov. Thus, customers that would like those functionalities will have to develop some customizations.

Product viability:

Strengths: The small size of the company is reflected in limited overhead costs, which translates into competitive pricing. WebGrants is also available as a hosted application and as SaaS, which increases the agility of deployments. Along with Agate Software and SmartSimple Software, DTP recorded the largest number of net new customer wins between 2010 and 2011, which is evidence of continued market traction. The product runs on all the most common DBMSs and OSs.

Challenges: WebGrants runs only on the JBoss application server. The small size of the organization and its direct control of all sales engagements have resulted in high customer intimacy, but limited resources to invest in product development that are as frequent as those of some competitors, and to establish a partner ecosystem to expand beyond the U.S. market. The largest customer is the state of Iowa, which aims to encompass 300 grant programs with WebGrants, but this is not yet fully live, so scalability has to be fully tested — particularly for enterprisewide environments at the federal government level.

Government grant-making departments/agencies that should consider the product: U.S. state and local government agencies, as well as individual grant programs in large federal government agencies

Government grant-making departments/agencies that should consider alternative products: U.S. federal government departments that want to implement an enterprisewide grant management platform, and grant-making organizations outside the U.S.

HTC Global Services (EGrAMS)

Company background: HTC Global Services is a global provider of IT solutions and business process outsourcing services, with an annual revenue of more than \$100 million. HTC has an operating presence in Europe, the Asia/Pacific region and North America. The government sector generates approximately 10% of the vendor's annual revenue. HTC's grant management product is Enterprise Grants Administration and Management System (EGrAMS), which was initially developed in collaboration with the Michigan Department of Community Health (MDCH), and then productized as a configurable grant management application. Gartner research indicates that nine U.S. state government departments are using HTC EGrAMS — seven of them are in the state of Michigan. HTC has also one customer in the nonprofit medical research foundation sector.

Product capabilities: The current version of the product is EGrAMS 3.03.

Strengths: EGrAMS offers highly configurable forms, business rules, security and workflow capabilities that can automate the entire life cycle of a diverse variety of grant programs. It also enables customers to copy configurations across programs running on the same DBMS. HTC is a forerunner among the vendors analyzed in this research in developing prototypes to post-grant announcements and critical notifications on social media and mobile devices. The user interface is also being enhanced for online application processes and reporting.

Challenges: HTC offers case management capabilities for auditing but requires some customization for other types of cases, such as appeal management. The built-in reporting tool is not as

comprehensive as mainstream BI software packages (for example, for matching large and disparate sets of data for audits); however, these third-party reporting tools can be integrated with EGrAMS to leverage their advanced reporting capabilities. The product lacks some out-of-the-box capabilities that could be of interest to federal government agencies in the U.S., such as integration with Grants.gov.

Product viability:

Strengths: The large scale of the organization, especially when compared with direct competitors, and its IT service expertise enable HTC to make investments to grow the business and support the implementation of the product in large organizations. Its extensive relationship with the state of Michigan enabled HTC to develop system design and implementation expertise across a wide variety of grant programs, especially (but not exclusively) with block grant programs. EGrAMS is available as a hosted solution and as SaaS, although the latter delivery model is not yet being used by any customer. HTC is further investing to decouple the various modules to facilitate the implementation of individual modules as SaaS and to eliminate the need to use the entire EGrAMS suite.

Challenges: The grant management business is not a big part of HTC's revenue. Therefore, in challenging times, it could be treated as a Tier 2 priority in terms of R&D investments and sales efforts. EGrAMS runs only on Microsoft OSs, DBMSs and application servers, which is a limit for customers that have invested in different software architectures. Customers that Gartner talked to indicated that training and documentation are not fully comprehensive because of the extensive configurable nature of the product.

Government grant-making departments/agencies that should consider the product: All state and provincial government grant-making organizations in the U.S. and Canada, as well as research foundations and nonprofit organizations in the same regions

Government grant-making departments/agencies that should consider alternative products: U.S. and Canadian federal government agencies (but they would be early adopters) and grant-making organizations outside of North America (but they should keep in mind that HTC may have limited exposure to those markets)

MTW Solutions (Grants Management System)

Company background: MTW Solutions is a 25-person firm with experience in state government environmental quality and grant management consulting. In 1998, MTW's Grant Management System (GMS) was developed as a result of these customer engagements. MTW has seven customers using the product in the state government market. All of them are in the education domain. For two other customers in the same segment, MTW custom-developed a grant management solution.

Product capabilities: The latest version of the product is GMS 4.5.

Strengths: GMS provides out-of-the-box capabilities that meet the education domain-specific requirements, such as grant-specific multitiered reviews — allowing a mixture of parallel and serial

review stops, detailed budget entry forms for applicants, reporting and payment administration. The latest release provides some important enhancements, such as a GMS data warehouse that allows for improved ad hoc query and reporting of the application data, the ability to have application changes made by the applicant between review rounds or on an amendment highlighted for the reviewers, nonfinancial reporting data collection on the periodic reporting, and extended ability to attach supporting documents to payment requests and periodic reports.

Challenges: GMS does not provide grant notification capabilities and application registration capabilities, because these are not critical capabilities in the education funding space, where applicants are mostly known entities. This gap makes configuration of applicant registration and submission for noneducation grant programs difficult. Navigation for system administrators creating and configuring individual grant program applications is not always user-friendly because of the need to navigate across multiple interfaces.

Product viability:

Strengths: MTW provides domain-specific system configuration and implementation service expertise for U.S. state government education agencies. MTW has a deep understanding of customer needs in the state government education grant domain, and its product development and sales force are entirely dedicated to this industry. MTW is leveraging its expertise to offer new solutions to state governments (beyond the education domain), starting with ARRA reporting.

Challenges: The small size of the organization could stretch resources in case of multiple implementation projects running concurrently, because there are no structured partnerships with system integrators. Its size also limits the availability of resources to deploy marketing and sales campaigns to attract customers outside the education domain or internationally. MTW has limited experience with alternative delivery models, because it offers application hosting, which one customer has used since 2004. MTW does not offer a SaaS version. MTW GMS is based on Microsoft's .NET platform and runs primarily on Microsoft's OS and database tools, although one customer runs it on Oracle Database.

Government grant-making departments/agencies that should consider the product: U.S. state government agencies funding education programs

Government grant-making departments/agencies that should consider alternative products: Any U.S. grantor organization outside the state government education domain and any grantor organization outside the U.S.

Quest Computing (AIMS)

Company background: Quest is an Irish company with approximately €4 million in annual revenue and 40 employees. It is entirely focused on grant management for the government and nonprofit sector. Quest's grant management product, Award Information Management System (AIMS), is based on a knowledge management framework. Gartner estimates that there are approximately 25 organizations using AIMS. The majority are at the central government agencies involved in

academic research, and community and cultural affairs funding; however, there are AIMS users at all levels of government, as well as in higher education and nonprofit organizations.

Product capabilities: The current version of the product is AIMS 3.1.9.

Strengths: The product is highly configurable, especially to accommodate discretionary grant program business processes. It has a multilingual capability to use French, English and Dutch in the same implementation, which is a benefit for some international institutions in Europe. AIMS recently introduced a PDF generator to integrate attachments and online submissions, which fills a gap relative to some of its competitors. AIMS has been integrated with mainstream ERP suites, such as SAP Business Suite, Oracle E-Business Suite and PeopleSoft to fulfill program-level budget appropriation and debt offset requirements.

Challenges: Grant announcement capabilities, such as online notification or integration with social media, are not available out of the box. It has limited experience in designing complex eligibility rules for block grant programs. In the past 18 months, AIMS embarked on a new road map for the reporting capabilities to progressively move from its internal report writer to table views that allow extraction with mainstream BI tools. This is an important step that will make querying more flexible from the user perspective, while maintaining consistency of the data included in the transactional system tables. In the transition phase, existing customers will have to work closely with Quest to understand how to best leverage their investments and not incur additional BI licensing and extraction algorithm costs.

Product viability:

Strengths: Quest offers in-depth expertise in designing and implementing the solution for discretionary grant programs, particularly arts councils and scientific research programs. The launch of AIMS Foundation, which is a SaaS version preconfigured for smaller clients, complements the on-premises and hosted version; however, it is at the early stages of adoption.

Challenges: Quest is still primarily dependent on its own resources for business development and system configuration and implementation, which could hinder its ability to expand more quickly to larger grant-making agencies; however, the company is making significant investments to set up more structured partnerships — particularly for Continental European markets, such as Germany and the Netherlands. AIMS runs only on Oracle Database, which could represent a limit for users that have invested in other DBMSs.

Government grant-making departments/agencies that should consider the product:

Government agencies in Europe, Southeast Asia and North America that administer discretionary/competitive grants (particularly those in the arts and scientific research domains, and with annual funding below \$1 billion)

Government grant-making departments/agencies that should consider alternative products:

Grant-making organizations that administer only block grants and/or that have a scale of grant awards above the \$1 billion threshold

SAP (Grantor Management)

Company background: SAP is one of the largest global software application vendors. In 2010, it generated €12.5 billion (approximately \$17 billion) in revenue. It employed 53,500 people. The Public Services Solution Management industry business unit, which serves public-sector, defense, healthcare, higher education and research clients, accounted for approximately 7% of SAP's revenue and grew between 2009 and 2010. SAP Grantor Management is based on SAP Business Suite 7. It uses the SAP CRM platform and interfaces with ERP for all fund management and financial execution capabilities. Gartner estimates that SAP Grantor Management is being used by 16 government agencies at all levels of government, and a few others are implementing it.

Product capabilities:

Strengths: Scalability of the solution for large customers. The solution is scalable for large customers. Post-award administration capabilities (particularly claims processing) and reconciliation of funds and audits are comprehensive because of the integration with SAP ERP and SAP BusinessObjects reporting products.

Challenges: Workflow and business rule management capabilities provided by SAP NetWeaver BRFplus require customization for allocation of reviews to external panels, conflict-of-interest verification, online collaboration for review and scoring, and the configuration of online capabilities, such as application withdrawal and resubmission.

Product viability:

Strengths: The global nature of SAP's ecosystem and the size of the organization ensure a stronger capability to support design and implementation across multiple customers and programs. It is interesting to note that Mahindra Satyam, an SAP global partner, is developing a solution template called Grants Integrated Solution Template (GIST) to provide accelerated implementation through preconfigured form and process templates based on the SAP Grantor solution. SAP products run on all common OSs (including z/OS and System i), DBMSs and application servers.

Challenges: Compared with other competitors analyzed in this study, SAP's grant management business is a relatively small part of the company business. Thus, there is a risk of less focus on (and continuity of) product development and business development capabilities. SAP Grantor is available as a hosted solution, but not as SaaS.

Government grant-making departments/agencies that should consider the product: Midsized to large government grant-making agencies, as well as government agencies that are already using SAP ERP and CRM products

Government grant-making departments/agencies that should consider alternative products: Grant-making agencies that award less than \$100 million per year

SmartSimple Software (Grants Management System 360)

Company background: SmartSimple Software is a 40-employee software vendor with approximately 200 customers, and a presence in North America, the U.K. and Ireland. It develops an information management framework that is used to provide solutions in a variety of domains, such as case management, CRM, medical claims management, and research and grant management. SmartSimple Grants Management System (GMS) 360 is the product name for the platform when it is configured to support grant management. Gartner estimates that SmartSimple GMS is live in approximately 20 organizations in North America, the U.K. and Ireland. More than half of those organizations are government departments or agencies at the provincial or federal/central level, while the others are nonprofit organizations or higher education institutions.

Product capabilities:

Strengths: The product is highly configurable for different types of grant programs and funding sources. SmartSimple users indicate that comprehensiveness of online self-service functionality for application submission and the ability to automate notifications of all changes that occur during a submission and review process are deemed particularly useful for applicants and grant program managers who require visibility into the outcomes of projects and the use of funds.

Challenges: The solution has been scaled to accommodate some relatively large customers, such as the Science Foundation Ireland; however, the solution's scalability for agencies handling more than \$500 million in grant funding per year is yet to be demonstrated. The product does not provide some payment functionalities, such as authorization, withdrawal and reconciliation. Thus, integration is required with mainstream ERP vendors, such as SAP, Oracle E-Business Suite and PeopleSoft, but there are a few examples of extensive integration with other products. SmartSimple offers standard APIs (SOAP, COM and Web Services) to facilitate data migration.

Product viability:

Strengths: SmartSimple has more experience than its competitors in delivering its solution as a hosted application and as a SaaS in the government sector in Canada and Ireland, and in the nonprofit sector in the U.S. and the U.K. SmartSimple has been successful in positioning its product as the most affordable solution relative to other vendors included in this analysis. The company also maintains a wiki (www.smartsimple.org) that grows collaboration with clients and facilitates support, but some customers complain that information is difficult to find or too technical. Along with Dulles Technology Partners and Agate Software, SmartSimple recorded the largest number of net new customer wins between 2010 and 2011, which is evidence of continued market traction.

Challenges: The high configurability of the product enables users to make changes, but more complex changes and updates usually require support from the vendor. Examples include reports that combine multiple subreports, or the most complex eligibility and panel review rules. This may represent a risk, given the relatively small size of the vendor. Testing and training are not always as accurate as customers would expect, especially for those outside of Canada, given the limited resources. Although the majority of SmartSimple clients elect to deploy the solution in a SaaS or hosted server environment, on-premises implementations are usually deployed on Windows 2003 or

open-source architectures, which limits choices for larger government departments that might have invested in a different infrastructure.

Government grant-making departments/agencies that should consider the product:

Government grantors awarding less than \$500 million in grant funds per year

Government grant-making departments/agencies that should consider alternative products:

Government grantors awarding more than \$500 million in grant funds per year, and government grantors that need a solution that provides out-of-the-box functionalities for specific grant domains outside of medical and scientific research, such as transportation, housing, energy and education

Recommended Reading

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

"The Government Grants Management Domain: A Gartner Market Definition"

"Critical Capabilities for Grantor Management Software"

"Government Grantor Management Software Market: Baby Steps Toward Maturity"

Critical Capabilities Methodology

"Critical capabilities" are attributes that differentiate products in a class in terms of their quality and performance. Gartner recommends that users consider the set of critical capabilities as some of the most important criteria for acquisition decisions.

This methodology requires analysts to identify the critical capabilities for a class of products. Each capability is then weighted in terms of its relative importance overall, as well as for specific product use cases. Next, products are rated in terms of how well they achieve each of the critical capabilities. A score that summarizes how well they meet the critical capabilities overall, and for each use case, is then calculated for each product.

Ratings and summary scores range from 1.0 to 5.0:

- 1 = Poor: Most or all the defined requirements are not achieved.
- 2 = Fair: Some requirements are not achieved.
- 3 = Good: The product meets requirements.
- 4 = Excellent: The product meets or exceeds some requirements.
- 5 = Outstanding: The product significantly exceeds requirements.

Product viability is distinct from the critical capability scores for each product. It is our assessment of the vendor's strategy and its ability to enhance and support a product over its expected life cycle; it is not an evaluation of the vendor as a whole. Four major areas are considered: strategy, support, execution and investment. Strategy includes how a vendor's strategy for a particular product fits in relation to its other product lines, its market direction and its business overall. Support includes the quality of technical and account support as well as customer experiences for that product. Execution considers a vendor's structure and processes for sales, marketing, pricing and deal management. Investment considers the vendor's financial health and the likelihood of the individual business unit responsible for a product to continue investing in it. Each product is rated on a five-point scale from poor to outstanding for each of these four areas, and it is then assigned an overall product viability rating.

The critical capabilities Gartner has selected do not represent all capabilities for any product and, therefore, may not represent those most important for a specific use situation or business objective. Clients should use a critical capabilities analysis as one of several sources of input about a product before making an acquisition decision.

Regional Headquarters

Corporate Headquarters

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

European Headquarters

Tamesis
The Glanty
Egham
Surrey, TW20 9AW
UNITED KINGDOM
+44 1784 431611

Asia/Pacific Headquarters

Gartner Australasia Pty. Ltd.
Level 9, 141 Walker Street
North Sydney
New South Wales 2060
AUSTRALIA
+61 2 9459 4600

Japan Headquarters

Gartner Japan Ltd.
Aobadai Hills, 6F
7-7, Aobadai, 4-chome
Meguro-ku, Tokyo 153-0042
JAPAN
+81 3 3481 3670

Latin America Headquarters

Gartner do Brazil
Av. das Nações Unidas, 12551
9° andar—World Trade Center
04578-903—São Paulo SP
BRAZIL
+55 11 3443 1509

© 2011 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. or its affiliates. This publication may not be reproduced or distributed in any form without Gartner's prior written permission. The information contained in this publication has been obtained from sources believed to be reliable. Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information and shall have no liability for errors, omissions or inadequacies in such information. This publication consists of the opinions of Gartner's research organization and should not be construed as statements of fact. The opinions expressed herein are subject to change without notice. Although Gartner research may include a discussion of related legal issues, Gartner does not provide legal advice or services and its research should not be construed or used as such. Gartner is a public company, and its shareholders may include firms and funds that have financial interests in entities covered in Gartner research. Gartner's Board of Directors may include senior managers of these firms or funds. Gartner research is produced independently by its research organization without input or influence from these firms, funds or their managers. For further information on the independence and integrity of Gartner research, see "Guiding Principles on Independence and Objectivity" on its website, http://www.gartner.com/technology/about/ombudsman/omb_guide2.jsp.