



## **MOVING GRANTS MANAGEMENT TO THE CLOUD**

A Vision for State and Local Government Decision-Makers

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## Introduction

During fiscal year 2012, the U.S. federal government spent \$539.4 billion through grant programs<sup>i</sup>, most through state and local (S&L) governments. The federal government has undertaken numerous initiatives to automate and improve their grants management process, including Grants.gov.

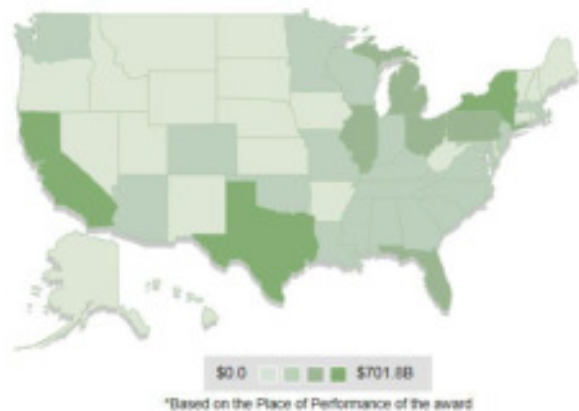
While the federal government has achieved a greater degree of process standardization and efficiency in enterprise-wide eGrants systems, many S&L governments have not.

Achieving process automation and improving methods for obtaining and dispersing grants is critical for S&L governments. They are under mounting pressure to demonstrate success in getting more grant money and distributing it compliantly, while cutting operating costs.

The amount of grant money distributed varies widely from state to state (*Fig. 1*). High-award states often have a federal grants management office or automated

system to maximize their opportunities to receive federal grants.

**Figure 1: Cumulative Nationwide Grant Spending Data Since 2000<sup>ii</sup>**



This white paper examines the challenges faced by S&L governments' grants management offices, evaluates their options, and recommends adopting a modern cloud-based eGrants solution. Such a solution can be secure, easy to adopt, and enable S&L governments to achieve efficiencies without a significant IT investment.

# 1. Unique State and Local Grants Management Challenges

**Business Challenges.** Unlike federal eGrants systems, which focus on dispersing money to grantees, S&L systems must enable S&L governments to function as **grantees**, applying for and receiving grants, and as **grantors**, distributing grants within their jurisdiction (Fig. 2). The systems support three different user communities: federal granting entities; S/L program managers and administrators; and community recipients. This dual role, along with multiple user communities, presents the following key challenges:

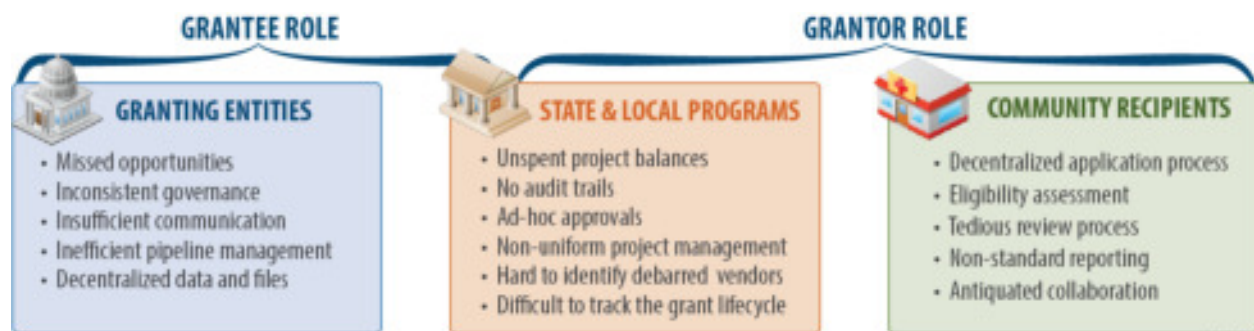
- **Missed Opportunities.** Functionality is focused on the grantor business process, so S&L governments miss chances to apply for federal grants.
- **Decentralized Processes.** Different workflow assignments and approval processes across government make standardization challenging.
- **Difficult Reporting.** Timely, accurate, and shareable data for reporting, policy making, and results evaluation is

difficult without an enterprise-wide view of information.

**Technology Challenges.** S&L governments with existing eGrants systems have usually deployed either custom systems, or commercial off the shelf (COTS) applications that are heavily customized to their business processes. Both these solutions have resulted in problems like:

- **Redundant Systems.** Departments and agencies have built unique stovepiped systems and tools with redundant capabilities and operating costs.
- **Outdated Technology.** Older technology is difficult to support and patch, and money is spent on fixing issues rather than innovating and simplifying.
- **Decentralized Data.** No central repository of vendor and sub-recipient data increases the administrative burden of identifying and qualifying interested grant recipients.

**Figure 2: Challenges Faced by S&L Governments in Their Roles of Grantee and Grantor**



## 2. Objectives for a Successful eGrants System

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Grants are intended to foster and support communities. Achieving this goal requires not only disbursement of funds, but also collaboration across multiple teams in different locations using a variety of computer equipment, with access to a central repository of data. Processes vary by organization and grant recipient, so flexible workflows are also required.

Users tend to avoid using eGrants solutions deployed on restrictive environments, limiting the quality of collaboration and data at the expense of the grant's mission.

Keeping the processes simple, flexible and configurable, and the data and reporting available from a central location at any time or place, makes the system inviting to users.

A successful eGrants system should achieve these objectives and address the challenges discussed in Section 1 in the following ways.

**Maximized Opportunities.** Integration with federal and other grantor systems will allow opportunities that meet pre-set criteria to be downloaded directly to your pipeline for vetting. This will automatically expand your pipeline with pre-qualified opportunities.

**Flexible Processes.** Using a configurable, industry-standard, lifecycle-driven eGrants management process as the baseline will help create centralized processes. Creating system roles that group work functions but

are not tied to specific jobs will allow agencies to map the standardized roles to their existing staff and workflows.

**Financial Visibility & Real-Time Reporting.** Streamlined processes and direct data input will allow for standardized data and facilitate automatic, real-time visibility into grant finances and results. Integration with financial and human resources systems will provide a clear picture of project status via dashboards and ad hoc reports.

**Integrated Systems.** A single system that is configurable to both grantee and grantor processes will replace stove-piped systems developed by individual offices and departments, and reduce the cost of maintaining and supporting outdated software. Integration with federal systems will allow automatic submission of correctly formatted reports.

**Future-proof Technology.** Current technology provides the benefit of social media collaboration, and automatic audit trails. Software maintenance is handled by the cloud vendor, reducing TCO and pushing updates automatically.

**Central Source of Data.** Data centralized from disparate systems in a single, secure cloud repository facilitates reporting and allows users access anytime, anywhere, from any device.

### 3. Shared, Centralized, Cloud-based Solution

A successful eGrants solution for an S&L government must address the challenges identified in Section 1, achieve each of the objectives identified in Section 2, and integrate grantee, grantor, and recipient processes. A software as a service (SaaS) cloud solution can address the challenges and achieve these objectives with flexibility, security, and cost savings.

locked-in contractor to manage. It is moving toward cloud-based data centers managed by expert vendors that reduce total cost of ownership (TCO).

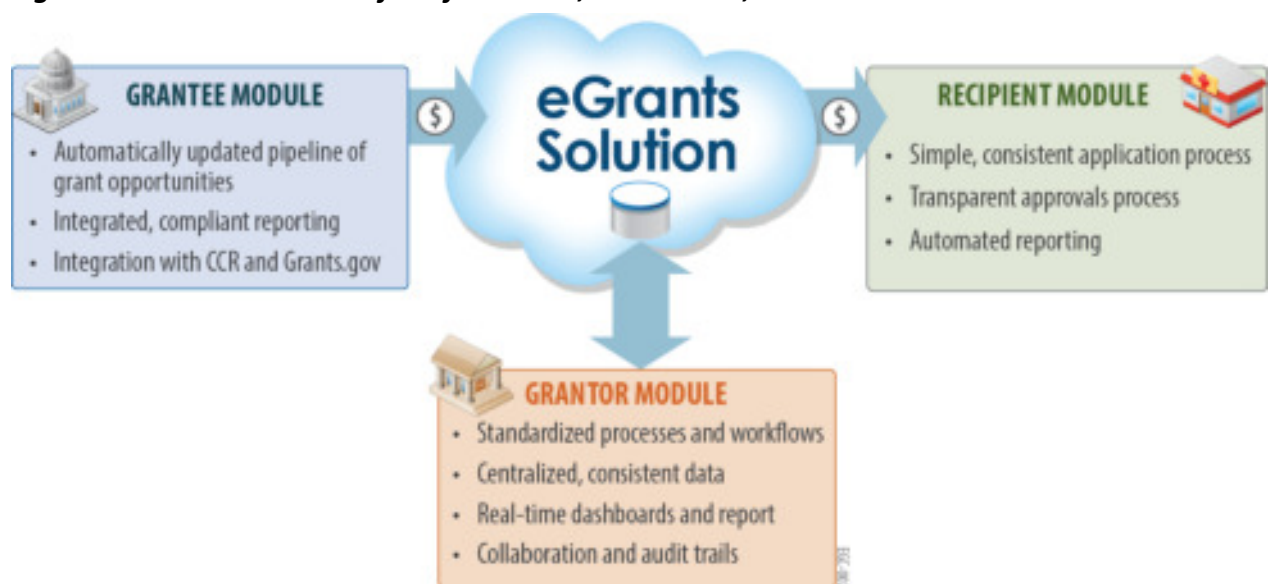
A centralized cloud-based application and database (Fig. 3) around a structured grant life cycle-driven approach (see Section 5) capitalizes on this trend.

Building modules for grantee, grantor, and recipient functionality will connect your programs, people and processes to help your agencies, departments and offices easily identify funding opportunities; plan and budget for projects; better serve citizens and communities; and easily visualize and report on project progress and effectiveness. It will also reduce investment in physical hardware and maintenance.

**Although cloud is relatively new to government, 42% of the federal and 27% of S&L governments are doing some business there.**<sup>iii</sup>

The federal government is moving away from localized, proprietary, technology-specific solutions that are not scalable and require either in-house expertise or a

**Figure 3: Features and Benefits of a Shared, Centralized, Cloud-based eGrants Solution**





## 4. Benefits of a Cloud-based Solution

Most eGrants systems are built using a custom, COTS, or tailored cloud solution. A technology agnostic assessment of options (Table 1) shows that a tailored SaaS cloud-based solution provides the greatest benefit.

Because a tailored cloud-based solution allows rapid and efficient configuration of workflows, it can be deployed as quickly as a COTS solution, and is as tailored as a custom solution. The cost is reduced because of the ability to re-use modules.


Using a COTS public cloud platform provides the benefits of COTS, the security and accessibility of the cloud, and configurable business processes. Salesforce.com’s

**Research shows that the cloud can be as secure as an enterprise system when administered by a reputable provider like Salesforce.com.<sup>iv</sup>**

Force.com platform, Microsoft’s AZURE Cloud, and Amazon’s Amazon Web Services could be considered as platforms.

Of these options, Force.com is particularly well-suited for government eGrants systems because it is already in use by many governments, it is highly configurable, and it enables collaboration across the entire grant community.

**Table 1: Technology Agnostic Assessment of eGrants Solution Options**

Options	Strengths	Weaknesses
<b>Custom</b> <i>Solution is built to customer specifications on a preferred technology platform. Typically hosted on premise infrastructure.</i>	<ul style="list-style-type: none"> <li>✓ Highly specific to organization's business processes</li> </ul>	<ul style="list-style-type: none"> <li>✗ Requires a great deal of time, effort and money</li> <li>✗ Customer expectations/business needs often change by the time the solution is deployed</li> <li>✗ Difficult and expensive to maintain/modernize</li> </ul>
<b>Commercial-off-the-Shelf</b> <i>Solution is installed locally out of the box, with minimal customization.</i>	<ul style="list-style-type: none"> <li>✓ Quick to implement</li> <li>✓ Relatively inexpensive</li> </ul>	<ul style="list-style-type: none"> <li>✗ Few eGrants COTS choices available</li> <li>✗ Often get locked into a single vendor/process</li> <li>✗ Generic features and functionality result in expensive customizations</li> </ul>
 <b>Tailored Cloud</b> <i>Solution is deployed on a public cloud and offered as a subscription. Minor tailoring is done to integrate the solution with existing software and address business processes.</i>	<ul style="list-style-type: none"> <li>✓ As secure as an enterprise system</li> <li>✓ Economies of scale through sharing and licenses</li> <li>✓ Scalable, extensible</li> <li>✓ Offsite maintenance</li> <li>✓ Automatic upgrades</li> <li>✓ Always available, on any device</li> <li>✓ Quick and inexpensive to build</li> <li>✓ Enables cross-team collaboration</li> </ul>	<ul style="list-style-type: none"> <li>✗ Requires minimal customization to meet business processes</li> </ul>

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## 5. Integrated Grants Management Processes

As discussed in Section 3, S&L governments must function both as grantees, applying for and receiving funds from the federal government and other grantor entities; and as grantors, distributing grants to its constituents.

These processes can be complicated, inconsistent, and time consuming, especially when reporting is factored in.

Creating a cloud-based eGrants solution will help integrate these processes (Fig. 4) through:

- **Consolidating Your Pipeline.** A cloud-based solution with a portal interface is easy to connect to federal grants databases. This allows automatic downloads of information on available grants, and electronic submission of applications.
- **Standardizing Processes.** A cloud-based system enables a centralized database and decentralized, modular eGrants processes. This standardizes the data received and maps to federal grant processes, while giving agencies the flexibility to tailor the standard process to their specific needs.
- **Centralizing Data and Real-time Reporting.** S&L governments collect reports from their grantees, and submit reports to their grantors. A centralized, cloud-based database and mobile access ensures real-time access to and ability to submit data. Integrated business intelligence tools facilitate reporting at every step of the grants lifecycle. Integration with the federal process enables automatic, electronic submission of compliant reports.

**Figure 4: Integrated Grants Lifecycle and Reporting Process**





## 6. Advanced Collaboration and Record Keeping

The success of a grant depends on more than just getting money to recipients. It depends on a network of S&L government and recipient staff collaborating to use the money in a way that best and most efficiently benefits the target community.

A successful eGrants system should support and enable formal and informal communication across the entire grant community, in the following ways:

- **Recipients** should be able to see opportunities, submit and track their applications electronically, ask questions of S&L program staff, and submit reports via the system.
- **S&L Program Staff** should be able to review possible grants, use a social media feature like Salesforce.com’s “Chatter” to discuss and approve opportunities and applications, track site visits, and submit high-level reports to grantors, all within the system.
- **S&L Business Staff** should be able to assess and report on the grant’s financial health through integration with your financial system.
- **Audit Staff** should be able to view the Chatter-based approvals process associated with each grant, as well as the spending and reports.

**Figure 5: Collaborative Inputs and Outputs Possible with an eGrants System**



## 7. Recommended Implementation Approach

To efficiently implement a cloud-based eGrants system for your organization, the following four process steps are recommended.

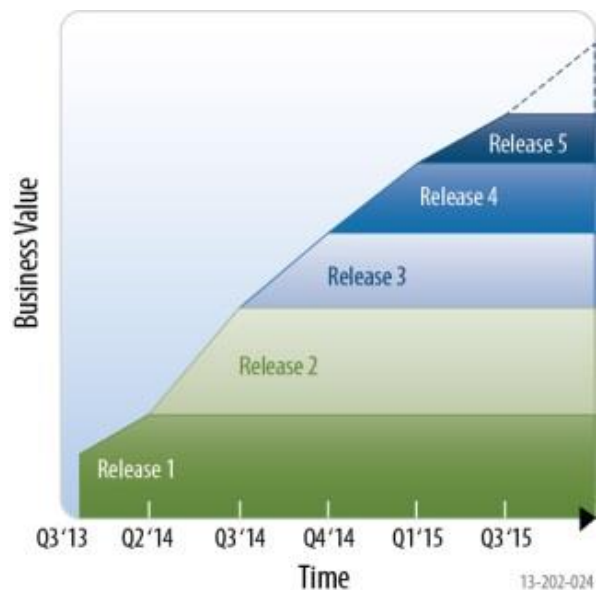
**1. Set an eGrants Governance Body.** This body should establish the minimum acceptable workflow, data collection, quality, and project management processes, ensuring consistency across your organization. They should define mandatory rules, guidance, prioritization, and standardization of the grant file structure, the application and peer review process, and the site visit process. During development, agencies should be allowed to tailor the system according to their unique requirements, within the body's overarching rules.

**2. Select a Cloud Platform.** Your platform should provide the features and pricing flexibility to get started quickly. It should integrate with internal and external systems, and be easy to maintain. Instead of capital expenditure, adopt the subscription model. As your organization adopts the system more widely, you can scale to accommodate the larger user base by buying more licenses.

**3. Develop Using Iterative Releases.** Breaking development into a series of releases will result in incremental delivery of fully functional software components

(Fig. 6). Each release should use a continual integration process, where software is built and tested on a continuous basis until the release is completed. This iterative release approach will help your organization see nearly immediate results from its investment, and significantly reduces defects prior to user acceptance testing.

**Figure 6: Value of Iterative Releases**



**4. Evolve into an Enterprise System.** It is not possible to anticipate all requirements and compliance needs as you start out. As agencies begin to adopt the system, a few iterations may be required to get everything right. As the processes and user interfaces are tailored to meet user preferences, and large amounts of data are collected and entered into the system, the system will gain enterprise-wide adoption.

## 8. Cost Benefits of a Cloud-based Solution

The point of any eGrants system is to disburse money to deserving organizations that help their communities. An expensive eGrants system can create unnecessary costs for S&L governments that could be

**No capital investment = reduced cost and risk because no hardware or software can get outdated.**

better spent other ways. To ensure that government dollars are not tied up in a heavy eGrants infrastructure and overhead costs, cloud-based eGrants solutions can reduce costs in the following ways:

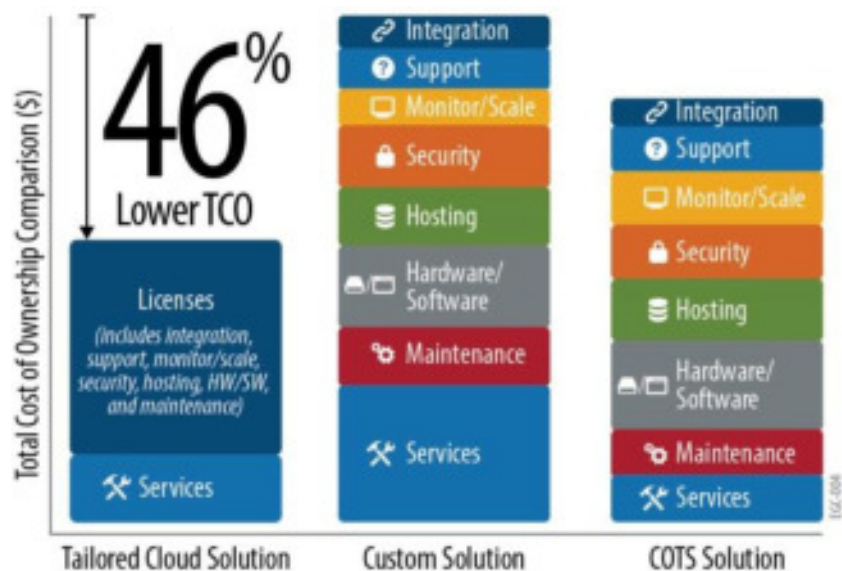
- Automatically rolling out upgrades and new features
- Eliminating hardware and infrastructure

(Fig. 7)

- Reducing audit-related overhead through social media trails
- Customer complaints can be expressed and addressed through social media by an administrator
- Offering subscription-based licensing that scales based on needs and use

- Keeping up productivity with nearly 100% uptime from automated failover
- Scaling to support any number of users without data center and capital investments
- Conforming out of the box to many federal and industry standards
- Supporting integration across operating environments and systems
- Reducing the risk of vendor or technology lock-in
- Providing access to thousands of pre-built modules and Apps
- Using a multi-tenant paradigm to consolidate systems
- Enabling out-of-the-box mobile capability

**Figure 7: Cost Benefits of a Tailored Cloud-Based Solution<sup>v</sup>**



## Summary

S&L governments can address the challenges identified in Section 1 by meeting several objectives (Table 2).

An eGrants system that meets these objectives will be on its way to integrating successfully with federal systems to identify and apply for more grant money; reviewing applications and dispersing grant money efficiently to recipients; and collecting performance data from its recipients to analyze and report on mission success.

**Table 2: Objectives of a Successful eGrants Solution**

Objective	Benefit	Challenges Addressed					
		Missed Opportunities	Decentralized Processes	Difficult Reporting	Redundant Systems	Outdated Technology	Decentralized Data
Enterprise-wide eGrants solution	Centralized data, easy reporting, reduced total cost of ownership (TCO)	✓	✓	✓	✓		✓
Integrated grant lifecycle business processes	Better customer service, high user adoption	✓	✓	✓			✓
Integration with federal systems like Grants.gov	Opportunities automatically pushed to pipeline for qualification, federal reporting is built into the workflow	✓	✓	✓			✓
Cloud-based SaaS technology platform	No maintenance cost, updates pushed automatically, nothing to get outdated			✓	✓	✓	✓
Mobility, social collaboration, and process automation	Expedited approvals, clearly documented audit trails		✓	✓		✓	
Integrated reporting and business intelligence	Easy metrics tracking, easy to run and submit compliant reports			✓			✓
Flexible, easily configurable business process model	Adjustments to workflow made by business owners without engaging IT		✓			✓	
Role-based access model	Tailored system interactions for decision-makers, staff, and grant recipients		✓	✓			
Pay-as-you-go, subscription-based model	Lower TCO, predictable recurring costs, pay for only what is used				✓	✓	
Common Governance, Risks and Compliance (GRC) model	Fewer conflicts, wasteful overlaps, and gaps		✓	✓	✓		✓
Implementer with federal eGrants and cloud expertise and experience	Reduced implementation risk, improved compliance with federal IT policies and standards	✓	✓	✓	✓	✓	✓

## About the Authors

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Mr. Bhat has 18 years of experience in strategy and solution development, project management, enterprise analysis, software development, and systems integration. He has built secure cloud-based enterprise business solutions, including grants management, on different technology platforms for government and commercial clients.

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## About REI Systems

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REI Systems (REI) has built ten automated eGrants systems for nine federal agencies during the past 17 years. In 2012, our systems disbursed more than \$20 billion in 41,000 grants for 1,700 programs. We are members of the Industry Advisory Council, the Grants Center of Excellence, and the National Grants Management Association.



REI has built and implemented more than 450 Salesforce.com solutions during the past seven years, for 150 customers including NASA, General Electric, and Merrill Lynch.



For the past five years REI has supported initiatives focused on government performance, accountability, and transparency at the federal, state, and local levels, including Performance.gov, Data.gov, and ITDashboard.gov. We have implemented dashboard solutions for DHS, GSA, OMB, HHS, and NASA using module-based open source technologies.



[www.reisystems.com](http://www.reisystems.com)

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<sup>v</sup> Source: Yankee Group: Hosted vs. Premise based Sales Solutions: TCO and Trade Offs

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