



DISEASE SURVEILLANCE PLATFORM

A COMPREHENSIVE PLATFORM FOR SUSTAINABLE
PUBLIC HEALTH SERVICE DELIVERY



Powered by Casetivity and Strategic Solutions Group

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1 Adaptability for Sustained Surveillance and Prevention

At SSG we understand that time and funding is precious within the Public Health Community. Throughout our 17 years in business, we have seen our public health partners struggle with inflexible fit-to-purpose solutions that are expensive to maintain, hard to customize and don't interoperate as needed for wholistic public health responses. That is why we created a dynamic and comprehensive Disease Surveillance solution specifically for Public Health called *Casetivity*. *Casetivity* provides all the Disease Surveillance functionality you need, including robust data exchange, extremely flexible configurability, case management functionality and strong security features.

- **Automate and Optimize Your Operations: Business Process First!** Your operations are driven by business processes. *Casetivity* allows you to establish processes end-to-end, help your organization follow them, and then help make your processes smarter.
- **Unify your Data and Legacy Applications: Are You Spending Time and Money on a patch-work of Legacy Systems?** So many organizations spend money maintaining and using legacy systems that trap their data in silos. With *Casetivity* you will be able to easily migrate legacy applications into a secure and robust central system. The headache of your legacy applications will disappear and you'll have an actionable, single version of the truth regarding records within your enterprise. Since *Casetivity* has the ability to support so many different program needs, you have the benefit of using a single system throughout your program.
- **Reduce Risk and Costs.** Leverage the Software as a Service to reduce risk and optimize costs. SSG is well-positioned to take care of your IT needs so you can focus on the more important work or serving your constituents.
- **Comprehensive Features for Disease Surveillance.** Out of the box, *Casetivity* includes functionality in all of these areas to support your program:
 - Outbreak Detection
 - Outbreak Management
 - Case Management
 - Contact Tracing
 - Electronic Data Collection
 - Follow Up Care Management
 - Reporting and Compliance
 - Automated Laboratory Test Result Data Exchange
 - AI-based Deduplication Algorithm

Only SSG combines the power of a highly configurable platform with the Disease Surveillance subject matter knowledge to put your Digital Transformation on the fast track

2 The Benefits of *Casetivity*

The following highlights some of the key features of *Casetivity*.

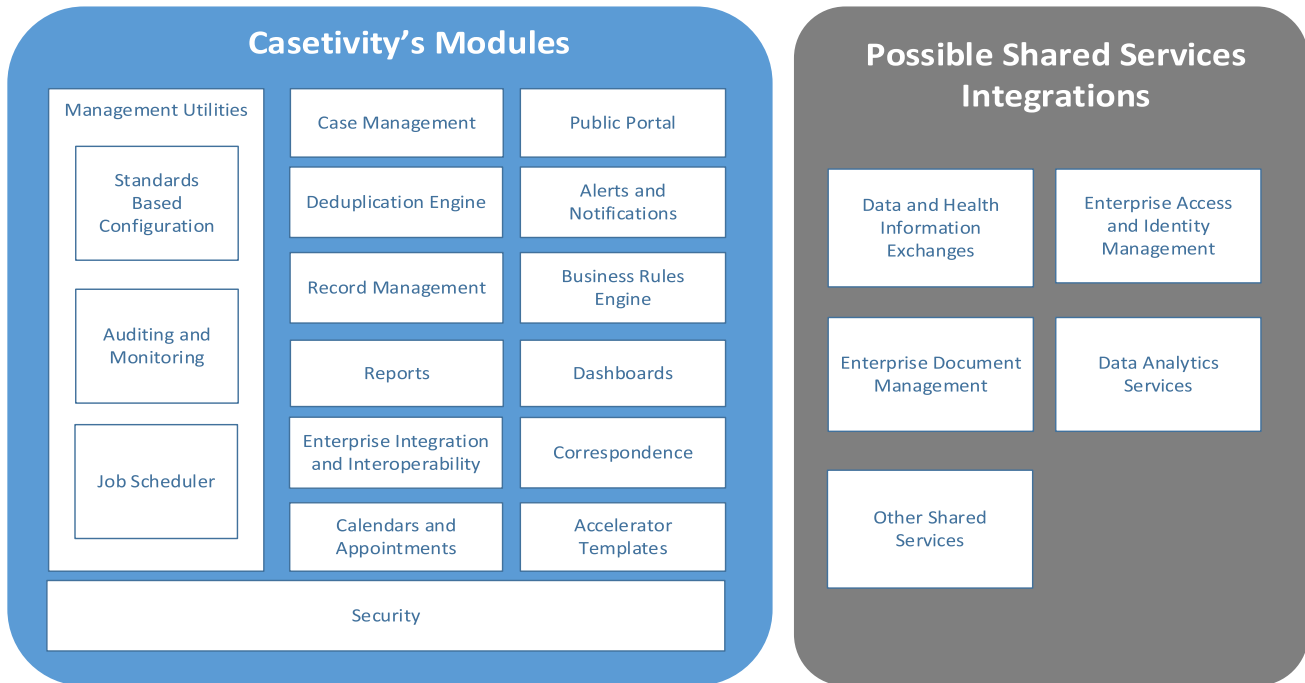
- **Easily Automate and Streamline Operations.** *Casetivity* allows you to quickly automate any processes end-to-end without custom software code. With process automation, you free up your team's time to work on more important tasks.
- **Adaptability and Sustainability through Hyper Configurability.** *Casetivity* allows our customers to build, adapt, and modify applications to meet the changing needs of their organizations. This approach guarantees long-term sustainability through scalability and enterprise re-use.
- **Shorten the Time to Solution.** Our model-driven Case Management Framework and application-authoring tools allow you to create custom solutions and make dynamic, ad-hoc adjustments without writing any software code!
- **Ensure Complete and Accurate Records through Sophisticated Deduplication.** Our AI-based deduplication algorithm ensures that your records are maintained correctly and completely.
- **Easily Access your Data.** Your data is your data. That's why *Casetivity* can support any data model and architecture that you have. We don't require you to use our own proprietary data structure. So, your legacy data migrations will be faster and you will be able to much more easily generate ad-hoc reports and extracts, as needed.
- **Integration and Interoperability - Play Well within the Enterprise.** *Casetivity* utilizes industry standards-based Application Programming Interfaces (API's) to easily integrate into Enterprise IT environments. When you use *Casetivity*, you'll forget why you couldn't have all the integrations that you would like.
- **Protect your Data. Security is Number 1.** *Casetivity* has all the protections for sensitive confidential data including a robust role-based security model.
- **Fully Mobile-Enabled.** *Casetivity* is built for mobile devices, so your solutions will be instantly available via mobile devices.
- **Have Peace of Mind.** Don't feel like you have to become experts at hosting or application management. While *Casetivity* can be hosted at your facilities it is also offered as a SaaS solution. Your SaaS solution is fully managed to reduce the burden on you and your long-term costs.

3 Features of *Casetivity* – Plan Broadly and Implement Incrementally

Casetivity enables teams to automate and streamline day-to-day business operations, dynamically adapt to changing needs, and manage service delivery and collaboration.

Casetivity utilizes a modular design to bring our customers a comprehensive solution for their business needs. The diagram below illustrates the primary modules and shared integrations of the *Casetivity* platform. This feature set allows Public Health organizations to plan broadly, but implement solutions for Public Health incrementally.

The *Casetivity* Platform



Each of the subsections below describes the features of the *Casetivity* modules.

3.1 Record Management Module

Casetivity's Records Management Module unifies your data in a secure centralized repository which ensures data security and accuracy. It is highly configurable, even down to the underlying database data model, so it can be used to collect any type of information - be it related to cases, claims, contacts, addresses, events or any other items. This centralized data system makes it easier for teams to communicate and streamline workflows regardless of the data structure and flows. In addition, *Casetivity* has been designed with security in mind, so authorization to the Records Management Module data is highly configurable and role-based.

Client: Warren Franklin 10/08/2018

Back To Search

Edit Create Client Case Create CHW Case

- General
- Client Documents
- Notes
- Related Clients
- Test Results
- Addresses
- Home Visits
- Guardians
- Related Cases
- Demographics
- Referrals

General

First Name	Middle Name	Last Name
Warren		Franklin
Birth Date	Sex	Language
10/08/2018		
Client GS Status		

Primary Contact Information

Primary Guardian	Phone
Tom Franklin	617-721-1111 (Home)

Medical Contacts

Clinician	Clinician Hospital Affiliation	Clinician Phone
Clinician Address Line 1		
Clinician Address Line 2		

3.2 Deduplication Module

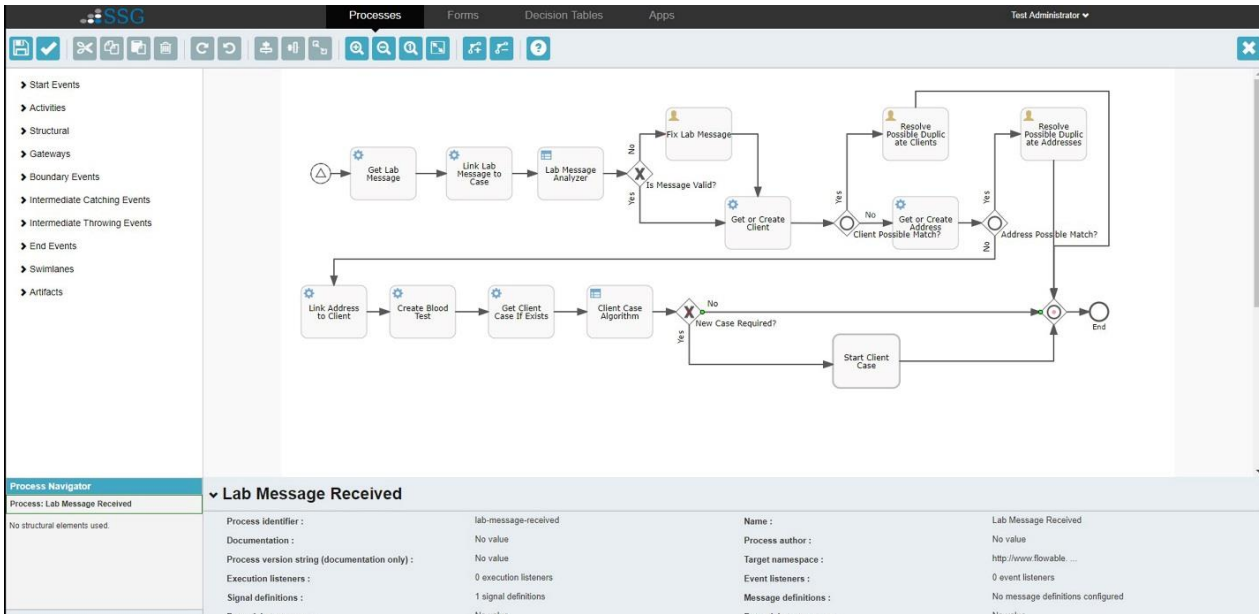
Proper deduplication is critical to accurate and complete information. *Casetivity* includes a sophisticated deduplication algorithm based on deep learning artificial intelligence concepts. This is a departure from traditional deduplication algorithms that often perform fixed statistical analysis on data points, such as expression-based comparisons or weighted algorithms. Instead, *Casetivity's* deduplication algorithm teaches itself to address more nuanced matching situations and, thus, ensures that records are always accurate and complete.

The screenshot shows a web interface for merging records. The title bar reads "Merging Records 'Joe Simonds 07/15/2017' and 'Joe Stlouis 07/15/2017'". Below the title bar are three columns: "Current Record", "Matching Record", and "Merged record". Each column has a "Save" button at the bottom. The "Current Record" and "Matching Record" columns have checkboxes next to each field. The "Merged record" column has a text input field for each field, with a calendar icon for the birth date.

Current Record	Matching Record	Merged record
<input checked="" type="checkbox"/> First Name Joe	<input checked="" type="checkbox"/> First Name Joe	First Name * Joe
<input checked="" type="checkbox"/> Middle Name	<input checked="" type="checkbox"/> Middle Name	Middle Name
<input checked="" type="checkbox"/> Last Name Simonds	<input type="checkbox"/> Last Name Stlouis	Last Name * Simonds
<input checked="" type="checkbox"/> Birth Date 07/15/2017	<input checked="" type="checkbox"/> Birth Date 07/15/2017	Birth Date * 07/15/2017

3.3 Case Management Module

So much of service delivery and operations can be broken down into Business Processes Management. Whether your operations involve investigations, service delivery, incident management or decision support, we know that you need the right information to reach the right person at the right time in order to be successful. That is why Business Process and Case Management form the backbone of the *Casetivity* System. *Casetivity* contains a fully featured, highly configurable Case Management Framework, as shown below.



This Case Management Framework enables the following:

- Highly configurable business processes to allow dynamic adaptation.
- Robust security model to ensure tasks and data are only available to specific end users.
- Drag-and-drop workflow configuration manager that allows System Administrators to visually diagram their business process flows.
- Fully configurable case triggers that automate particular events within processes and provide top-down orchestration among them.

These configurable processes give you control to create structured Tasks to support end users through their daily work.

CLPPP

Clinical Environmental Licensing Reports Admin Account

Case Number: MA00000170	Open Date: 09/05/2019	Case Review Date:
Case Title: Joe Stlouis 07/15/2017	High Risk Factors:	Close Date:
Case Type: Client	Address: 5415C CARPENTER AVE, BOURNE, MA 02542	Close Reason:
Minor Case Type: Poisoned	Staff Assignee: Marie Visco	
Category: BLL 10-14 (Venous)	Team: Marie Visco, Elvira Smith, Lorraine Simbliaris	

Process Variables Case Close Case

Process Diagram

Notes

Task Summary

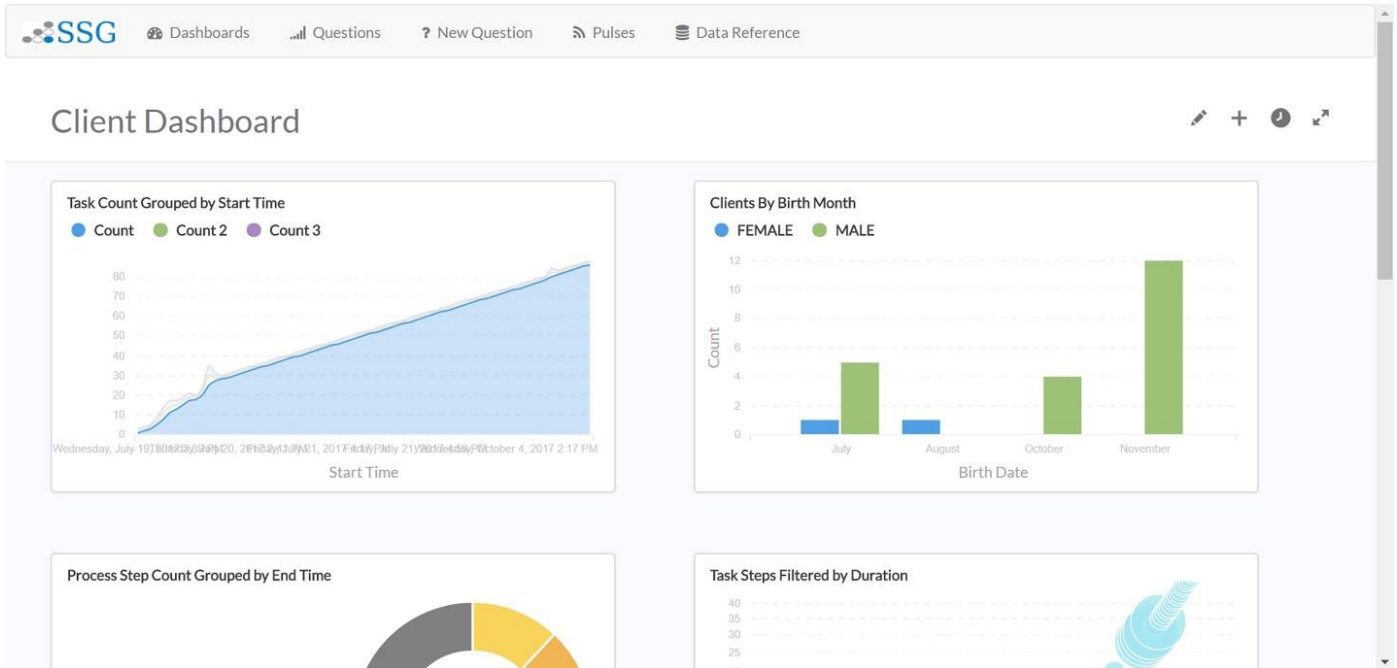
< □ Create Task + Close X

Search Task Status

Task Name	Outcome	Due	Completed

3.4 Dashboards Module

Dashboards give users critical insights to their assignments, task priority, and insight to the overall team’s metrics. SSG understands the importance of creating dashboards for situational awareness, continuous process improvement, and incident management. Dashboards provide a simple, single-view of cases and information within the System, supporting both analytics for enterprise planning (e.g. throughput, measurement of progress against key performance milestones, etc.) and information related to automating daily operations (e.g. worklists and daily assignments).



3.5 Reports Module

In addition to dashboards, *Casetivity* includes wide-ranging report capabilities, including the ability to generate reports that contain tables and charts. Furthermore, since *Casetivity* does not have a set proprietary data structure, your reporting will be much easier since the data structure will be familiar to you and follow industry standard best-practices. The reporting features available are configurable, by role, and the data available in the report is filtered based on the end user’s security permission. The System allows reports to be configured as exportable for offline processing.

Report features include:

- **Fully Integrated Security Framework.** The Reporting Module is fully-integrated with the security framework, so end users can only see data that they have security permission to see.
- **Real-time information.** Reports refresh in real-time to ensure that the most recent data is always displayed when the dashboard loads.
- **Drilling down or launching records.** End users can drill down on information or open case records directly from the dashboard to create a very easy to use and efficient system.

3.6 Enterprise Integration and Interoperability Module

As an enterprise-ready application built with Service Oriented Architectures in mind, *Casetivity* exposes service endpoints for use throughout the enterprise environment, including by any existing Enterprise Service Bus

(ESB). The *Casetivity* application leverages configurable processes to optimize and orchestrate infrastructure re-use and reduce ongoing operational costs.

Casetivity is fully compliant with industry standards and supports receiving data using Web Service (WS) standards (for example, JSON-WDP, SOAP, REST, UDDI, WS-Addressing, WSDL, WS-Security, WS-Trust, etc.). In particular, JSON over REST and XML over SOAP have seemed to be the most prevalent requests from the Enterprise Architects of our existing customers. All of the System's APIs utilize industry standard design patterns, including loose coupling, and sending acknowledgement for transactional integrity. *Casetivity* is fully enabled for Integration and Interoperability.

3.7 Portal Module

Casetivity enables the creation of Portals specific for particular roles of end users. Portals, such as a Provider Portal, for example, are crucial to the effective and safe communication and engagement of particular stakeholder groups. These Portals enable the exact functionality required by the particular set of end users. Through appropriately partitioning access to features and data in the System, the Portal Module enables the creation of public-facing or secured Portals to support functionality including:

- Ability to access necessary forms and complete electronically in real time or upload hard copies
- Provide a method to appropriately create and edit information, even for public non-authenticated end users
- Form validation and user notification
- Certification and re-certification functionality
- Credentialing and re-credentialing functionality
- Provide information on service delivery to clients and providers
- Perform Quality Control on service delivery, including the functionality to report issues
- Provide a public facing (e.g. no login required) portal for critical incident reporting including grievances and complaints.

3.8 Alerts and Notifications Module

Teams are busy, often juggling multiple priorities and projects. So, receiving alerts, notifications, and reminders are paramount for keeping teams reminded of and accountable to organizational goals. While Workflow and Business Process solutions are instrumental in setting expectations, timely alerts and reminders ensure teams are on track to meet deadlines.

In all cases, manual or automated alerts can be created for users. For manual alerts, typical functionality includes the ability to configure the audience, content, and schedule of the alert. For automated alerts, functionality includes the ability to configure the target audience, content, and trigger events (e.g. threshold values such as age, missed appointments or more sophisticated business logic). The configurable Alerting capability of *Casetivity* ensures that you will not only establish your business processes for the team, but also help everyone follow them.

3.9 Business Rules Engine

Robust workflow processes require sophisticated Business Rules engines. Ensuring that your system can address complex business rules is critical to complying with all regulations and enhancing service delivery. *Casetivity* includes two layers of business rule creation: decision tables to easily create a series of rules and more open-ended scripts for very complex business rules. The following screen shot is of a decision table implementation that allows for easy creation and editing of business rules.

SSG Processes Forms Decision Tables Apps Test Administrator

Environment Case Trigger

E	Level bloodTestEntity... number	Size of Relate... searchRelated... number	Test Method bloodTestEntity... string	Environment Case... envTrigger boolean	Sub_Type caseSubType string
1	>= 10	== 0	== V	true	POISON
2	>= 10	> 0	== V	true	SUPPMAND
3	<= 10	> 0	== V	true	SUPPOFFER
4	==	> 0	==	true	SUPPOFFER
5	==	== 0	== C	false	
6	==	== 0	== Z	false	
7	<= 10	== 0	== V	false	
8	==	==	==	false	

Casetivity's ability to implement complex business rules enables decision support and automation across your processes.

3.10 Correspondence Module

The System allows end users with the correct security permissions to create Correspondence Templates using familiar document editing programs such as MS Word. System Administrators create Correspondence Templates in MS Word that reference fields within the System. Once this template is published, other end users will be able to print the letters, send emails or send text messages based on the template. When the correspondence is sent, the System populates the field placeholders within them with the appropriate field values from the database.

3.11 Management Utilities

Casetivity includes a comprehensive set of management utilities including:

- **Job Scheduler Module:** The Job Scheduler enables configuration of background jobs, orchestrates their execution, allows for manual interjection, and provides full auditing.
- **Audit Module:** Casetivity has robust auditing capability to ensure auditability of transactions from origination to destination. Our audit controls track hardware, software, data integrity, and activity in our systems.

3.12 Calendars and Appointments

Our Calendars and Appointments module makes it easy for users to schedule, track, and send appointments all within Casetivity. Staying organized is key for successful teams, and our calendar and appointment functionality helps users to prepare and plan their schedules, by linking specific events within the System to cases and entities. This functionally ensures teams are properly informed of pertinent dates and reminders. Teams can rest assured that their work is happening on time and schedule.

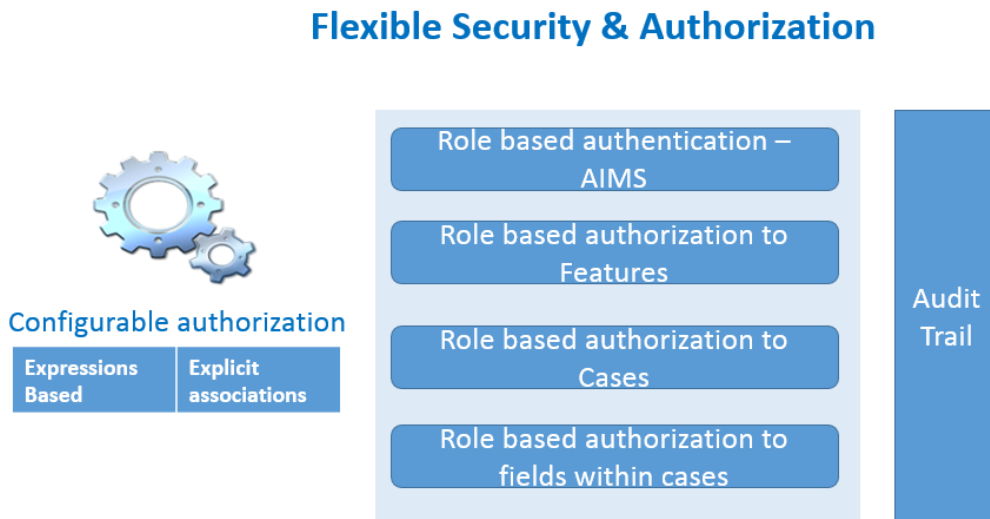
3.13 Security

Casetivity implements a highly configurable and robust security framework that is fully compliant with the National Institute of Standards and Technology (NIST) and other public sector regulations and security standards.

At a high level, there are three components to the role-based access:

1. Identity management and authentication
2. Authorization to data
3. Authorization to features within the System.

The following diagram illustrates this conceptual role-based security framework:



4 Empower Your Team with Casetivity

In summary, *Casetivity* allows teams to automate and enhance business operations by providing a unique package of short-term and long-term benefits including highly configurable functionality, a modular architecture, and flexible hosting options. Our team's steadfast work and subject matter expertise has created a product that we know your team will come to depend on and love. We believe that these benefits will positively impact your organization by improving your case management capability while offering greater flexibility and control in your hands. We would love the opportunity to partner with you in achieving your organization's goals.

To see a demo of our *Casetivity* platform, please email us at solutions@ssg-llc.com.

