



# PUBLIC HEALTH PLATFORM

A UNIFYING PLATFORM FOR PUBLIC HEALTH SERVICE  
DELIVERY AND DIGITAL TRANSFORMATION



Powered by Casetivity and Strategic Solutions Group

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## 1 Unifying Public Health IT For Better Outcomes

At SSG we understand that time and funding is precious within the Public Health Community. Throughout our 16 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 services. Most of the applications marketed to public health are monolithic, stand-alone systems that require extensive development to customize and integrate with other related systems. This approach can be disastrous for organizations with limited time and budgets – public health organizations end up having to maintain dozens of systems with dozens of vendors and the functionality within the systems overlaps. We knew that there must be another, better solution for public health.

That is why we envisioned a Public Health Platform, powered by our flagship product Casetivity, that provides highly configurable functionality for fast implementation of applications on a robust **platform built for Public Health Digital Transformation**.

- **The Best of Both worlds - Benefit from a Proven Solution and Technology, but also Have the Control and Ability to Adapt as Needed.** When you have a configurable Off-the-Shelf system, like Casetivity, the trade-off between buying a relatively static existing solution or paying for custom development disappears. With Casetivity, you don't have the take on the risk of custom development, but you also keep control of a platform that is scalable and flexible to meet your needs.
- **Automate and Optimize Your Operations: Business Process First!** Your operations are driven by business processes. Casetivity is business process centric, so allows you to establish business processes end-to-end which helps end-users prioritize work and increases operational productivity.
- **Unify your Data and Legacy Applications: Are You Spending Time and Money on Legacy Systems?** Is your data trapped across many legacy systems? So many organizations spend money maintaining and using legacy systems that don't easily share data. 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.
- **Reduce Risk and Costs.** Leverage the Software as a Service and Platform as a Service capabilities to reduce risk and optimize costs. Why should public health organizations have to worry about hosting and costly ongoing IT software maintenance contracts? With the Casetivity SaaS offer you don't – we will take care of that so you can focus on your more important work.

✓ Securely Unify your Data.

✓ Reduce the costs of dozens of point-solutions

✓ Better outcomes from a more wholistic approach to Public Health IT

Only SSG combines the power of a highly configurable platform with public health knowledge to put Digital Transformation on the fast track

## 2 The Vision for Public Health

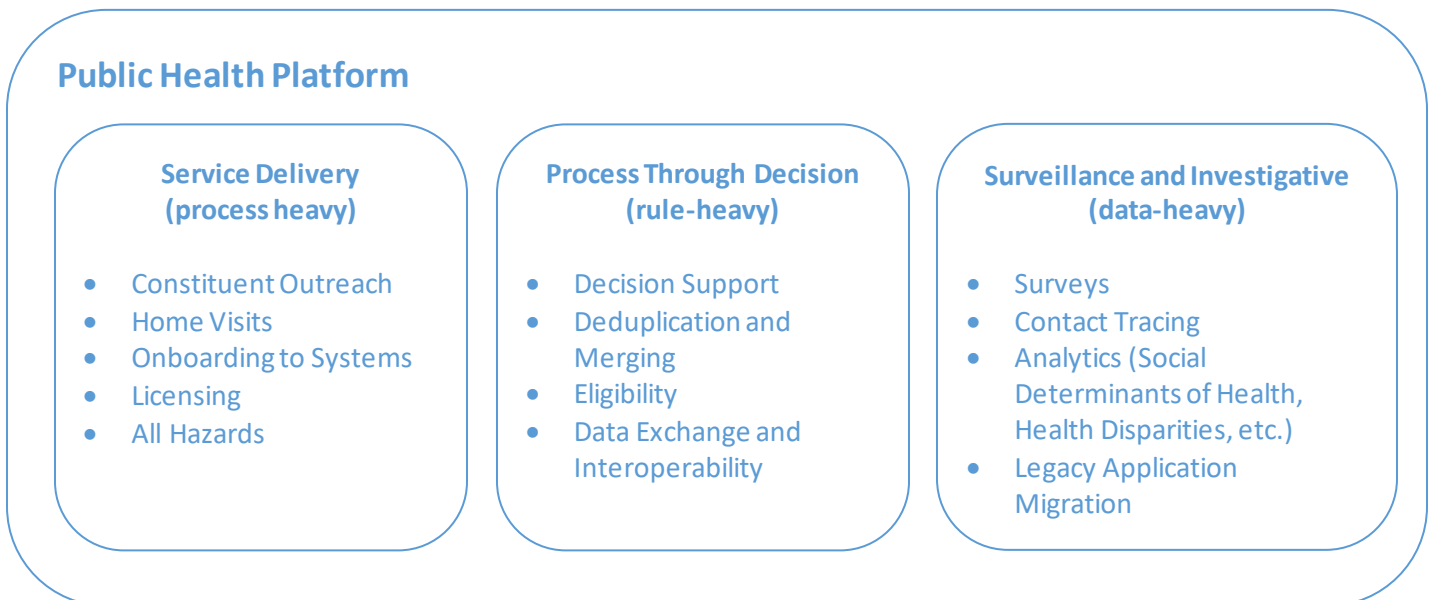
Public Health seems to always have budget constraints and high expectations. So, it's imperative to think differently about IT infrastructure – away from dozens of monolithic point solutions and toward highly configurable, business process oriented IT Platforms.

### Different Public Health Programs, Same Needs and Issues

Public Health IT infrastructure has been born out of many different lines of funding, often distributed to programs, which then implement point solutions across the enterprise. This leads to a patch work of systems that are costly to maintain, duplicate functionality, and eliminate an opportunity for IT re-use since data is trapped in silos.

### Rationalizing Public Health IT Solutions: What are the Common Services for Public Health?

Point solutions can be maintained; however, Public Health will benefit from a platform of interoperable shared solutions. The Public Health Platform provides secure and flexible public health IT shared solutions that are responsive to the public health community. As an example, the following lists some of the services provided by the Platform.



These services can be combined to provide program specific applications. As an example, the matrix below identifies which Platform services may be applicable to common Public Health programs.

#	Public Health Programs	Outreach and Home Visits	Referrals	Onboarding	Licensing	Deduplication and Merging	Data Exchange	Surveys	Eligibility	Training	Legacy Data Migration
1.	Disease Surveillance		✓	✓		✓	✓	✓		✓	✓
2.	Professional Licensure			✓	✓	✓	✓			✓	✓
3.	Health Care Facility Reporting			✓	✓	✓	✓			✓	✓
4.	Vitals			✓		✓	✓			✓	✓
5.	Prescription Monitoring			✓		✓	✓			✓	✓
6.	New Born Screening		✓	✓		✓	✓			✓	✓
7.	Immunization			✓		✓	✓	✓		✓	✓
8.	Women’s Health	✓	✓	✓		✓	✓	✓	✓	✓	✓
9.	Childhood Lead Poisoning Prevention	✓	✓	✓	✓	✓	✓		✓	✓	✓
10.	Early Intervention	✓	✓	✓		✓	✓		✓	✓	✓
11.	Trauma Registry			✓		✓	✓			✓	✓
12.	Substance Abuse		✓	✓		✓	✓		✓	✓	✓

By rationalizing common Public Health activities, public health can reduce the cost of one-time implementations and ongoing operations. More importantly, eliminating data silos will improve outcomes and service delivery.

### 3 The Benefits of the Casetivity Public Health Platform

The following highlights some of the key features of the Public Health Platform.

- **Use a Proven Technology Solution, yet Also Have the Benefit of Easy Customization.** Through its configurability, Casetivity allows our customers to build, adapt, and modify applications to meet the changing needs of their organizations. This approach gives the peace of mind with using a proven technology while also ensuring long-term sustainability through adaptability, scalability and enterprise re-use.
- **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.
- **Implementation Peace of Mind.** Don't feel like you have to become experts at IT systems implementation, hosting or ongoing IT operations. SSG and Casetivity offer fully managed solutions to reduce the burden on you and your long-term costs. Casetivity can be hosted at your facilities or fully managed by SSG as a Cloud-based SaaS solution.
- **Reduce the Cost of Fit-to-Purpose Solutions through Casetivity Extensibility.** Having multiple fit-to-purpose solutions is a thing of the past. As a re-usable Platform to build applications, Casetivity is the ultimate in re-usability for your enterprise. The System delivers a consistent user experience across all your applications for increased ease of use and centralized control.
- **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.
- **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.
- **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.
- **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!

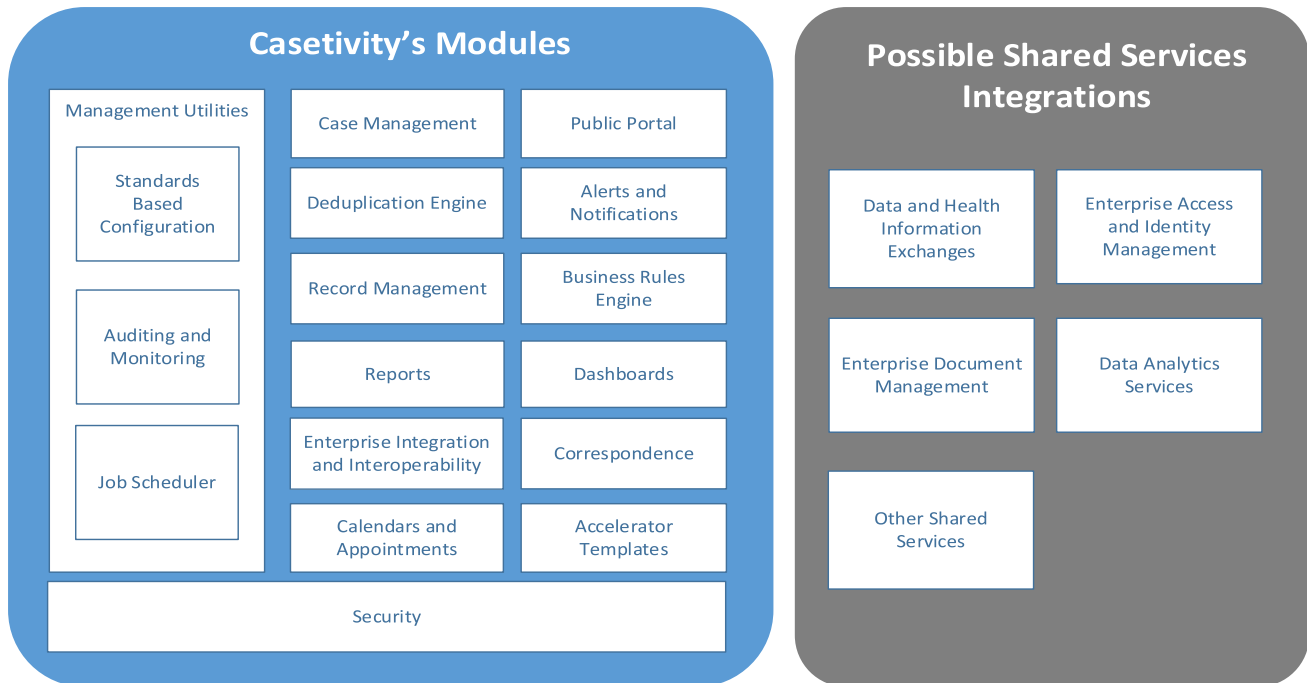
## 4 The Features of Casetivity: Plan Broadly and Implement Incrementally

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. Moving to a services platform cannot be done all at once and requires an incremental approach.

### The Casetivity Platform



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

## 4.1 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.

CLPPP Clinical Environmental Licensing Reports Admin Account

### 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		

#### Primary Contact Information

Primary Guardian	Phone
<a href="#">Tom Franklin</a>	617-721-1111 (Home)

#### Medical Contacts

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



## 4.2 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.

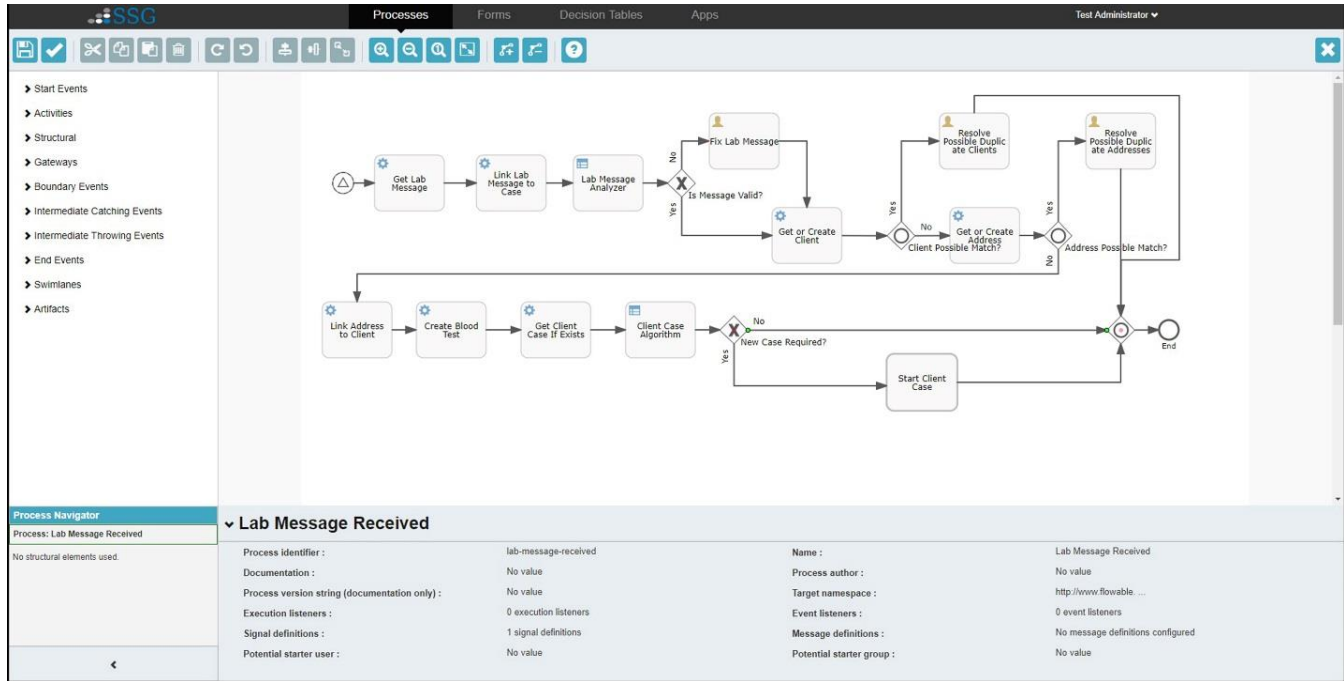
CLPPP    Clinical ▾    Environmental ▾    Licensing ▾    Reports ▾    Admin ▾    Account ▾    [User Icon]    [Download Icon]    [Refresh Icon]

Merging Records "Joe Simonds 07/15/2017" and "Joe Stlouis 07/15/2017"

<u>Current Record</u>	<u>Matching Record</u>	<b>Merged record</b>
<input checked="" type="checkbox"/> First Name Joe	<input checked="" type="checkbox"/> First Name Joe	First Name * Joe [ID Icon]
<input checked="" type="checkbox"/> Middle Name	<input checked="" type="checkbox"/> Middle Name	Middle Name [Empty Field]
<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 [X] [Calendar Icon]

### 4.3 Case Management Module

So much of service delivery and operations can be broken down into Business Processes Management (BPM). 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.

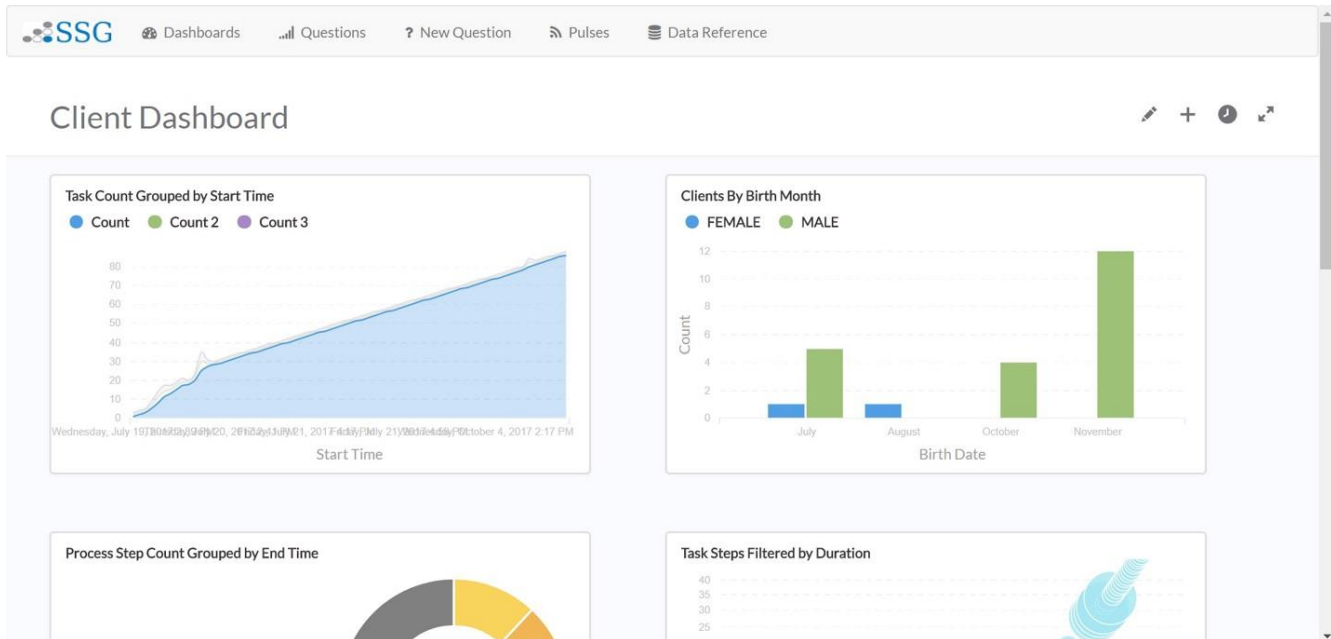


This Case Management Framework enables the following:

- 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.

## 4.4 Dashboards Module

Dashboards give users critical insights into their assignments, task priority, and insight into 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).



## 4.5 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.

## 4.6 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.

## 4.7 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.

## 4.8 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.

## 4.9 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.

The screenshot shows the Casetivity Business Rules Engine interface. At the top, there are navigation tabs for 'Processes', 'Forms', 'Decision Tables', and 'Apps'. The current view is 'v3 EI Client Status'. Below the navigation, there are options to 'Show all definitions', 'Decision Table Editor', and 'History 3'. The main content area displays a decision table with the following structure:

E	Current Status currentClientStatus string	New Client Status newClientStatus string	Updated Client Sta... updatedClientStatus string
1	INTAKE	REFERRED	"INTAKE"
2	INELIGIBLE	REFERRED	"INELIGIBLE"
3	INELIGIBLE	INTAKE	"INELIGIBLE"
4	ELIGIBLE	REFERRED	"ELIGIBLE"
5	ELIGIBLE	INTAKE	"ELIGIBLE"
6	ELIGIBLE	INELIGIBLE	"ELIGIBLE"
7	IFSP	REFERRED	"IFSP"
8	IFSP	INTAKE	"IFSP"
9	IFSP	INELIGIBLE	"IFSP"
10	IFSP	ELIGIBLE	"IFSP"
11	null		\$(newClientStatus)
12		null	\$(newClientStatus)
13		null	\$(currentClientStatus)

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

## 4.10 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.

## 4.11 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.

## 4.12 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 functionality ensures teams are properly informed of pertinent dates and reminders. Teams can rest assured that their work is happening on time and schedule.

## 4.13 Accelerator Templates

Casetivity was designed to offer configurable, cost efficient business process management to our customers. In addition to the Casetivity platform and our configuration services, we offer accelerator templates with pre-configured functionality and settings of the System. Using the Public Health Platform, SSG has created comprehensive Accelerator Templates in the following areas:

- Childhood Lead Poisoning Prevention
- Early Intervention
- Onboarding End Users and Constituent Relationship Management
- Licensing
- Training
- Eligibility
- Laboratory Test Result Mapping and Routing
- Deduplication

These solutions are pre-configured and ready for use to provide an easy way to make an immediate impact on a Platform with a boarder enterprise perspective in mind.

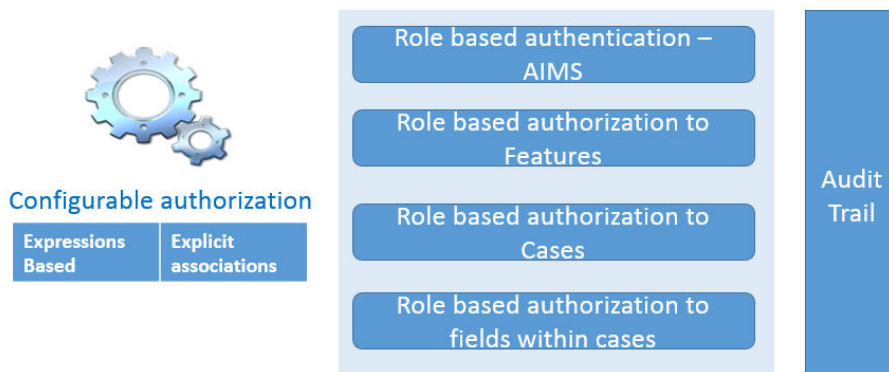
## 4.14 Security

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:

### Flexible Security & Authorization



## 5 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 public health 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 service delivery and offering greater flexibility and control. 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](mailto:solutions@ssg-llc.com).

