Revolutionizing Public Health Management with *Casetivity*:
A low-code platform for public health service delivery and digital transformation

UNIFYING PUBLIC HEALTH IT FOR BETTER OUTCOMES

In the heart of every public health initiative lies a story of dedication, resilience, and a relentless pursuit of better health outcomes for communities. At SSG, we recognize the quiet battles fought behind the scenes—against time, budget constraints, and fragmented IT systems that often hinder rather than help. Over our twenty years of collaboration with the public health community, we have witnessed the struggle against rigid, one-size-fits-all solutions that drain resources, stifle innovation, and leave teams in silos.

Imagine a world where public health IT empowers rather than encumbers, where systems seamlessly connect, and where every resource is maximized to improve public health services. This vision drives us at SSG, and it's why we created *Casetivity. Casetivity* is more than a low-code platform; it's a beacon of hope and a testament to what can be achieved when technology truly serves the public good.

Casetivity embodies our commitment to transforming public health through digital innovation. It's designed to meet the unique needs of public health service delivery, enabling rapid, flexible, and efficient responses to the ever-changing health landscape. With *Casetivity*, we're not just offering a software solution; we're offering a path to a more integrated, responsive, and impactful public health infrastructure.

Join us as we explore how *Casetivity* can address the most pressing challenges faced by public health professionals, bridging the gap between potential and achievement, and ushering in a new era of digital transformation in public health.

> **Only SSG combines Public Health knowledge and the power of a configurable, low-code, BPM-based platform to put Digital Transformation on the fast track**

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Public Health is so important but often underfunded or funded in a reactionary way. Meanwhile IT solutions have advanced with regards to Cloud computing and configurability. So, it's imperative to think differently about IT solutions – away from dozens of monolithic point solutions and toward highly configurable, business process-oriented solution 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. It is important to specify that Public Health will benefit from a low-code platform designed specifically for Public Health, and not a platform built for other enterprise use-cases that doesn't address the needs and challenges Public Health faces. *Casetivity* 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. By utilizing a low-code platform designed specifically for Public Health, like *Casetivity*, these outcomes can be achieved even more rapidly and more cost effectively.

FEATURES OF *CASETIVITY* FOR PUBLIC HEALTH
The following highlights some of the key features of SSG's low-code Public Health platform, *Casetivity*.

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.

✓ Securely Unify your Data.

✓ Reduce the costs of dozens of point-solutions

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

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!

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

MANAGEMENT UTILITIES

Standards Based Configuration

Auditing and Monitoring

Job Scheduling

✔ **Case Management**

✔ **Duplication Engine**

✔ **Record Management**

✔ **Reports**

✔ **Enterprise Integration and Interoperability**

✔ **Calendars and Appointments**

✔ **Public Portal**

✔ **Alerts and Notifications**

✔ **Business Rules Engine**

✔ **Dashboards**

✔ **Correspondence**

✔ **Accelerator Templates**

Security

POSSIBLE SHARED SERVICES INTEGRATIONS

○ **Data and Health Information Exchanges**

○ **Enterprise Document Management**

○ **Enterprise Access and Identity**

○ **Management**

○ **Data Analytics Services**

○ **Other Shared Services**

Each of the subsections below describes the features of the Casetivity modules.
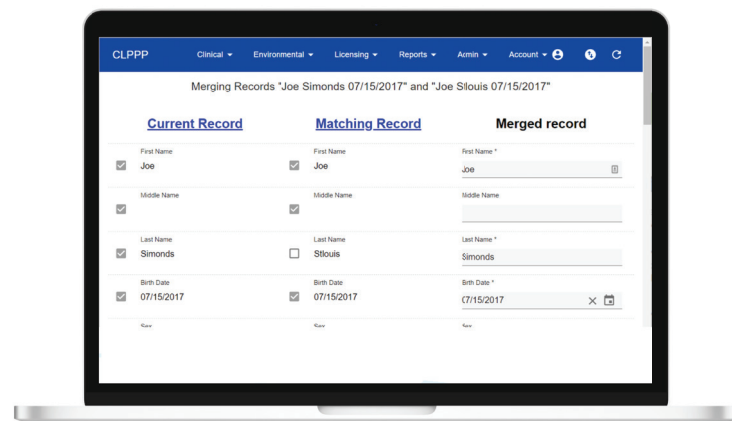
RECORDS MANAGEMENT MODULE

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.
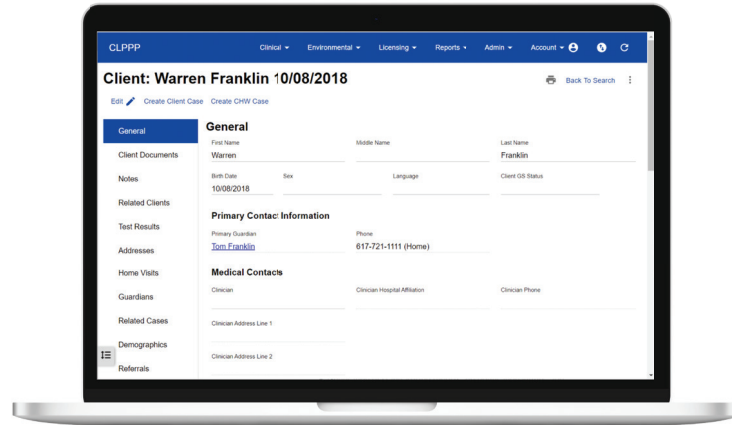
DEDUPLICATION MODULE

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.

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.
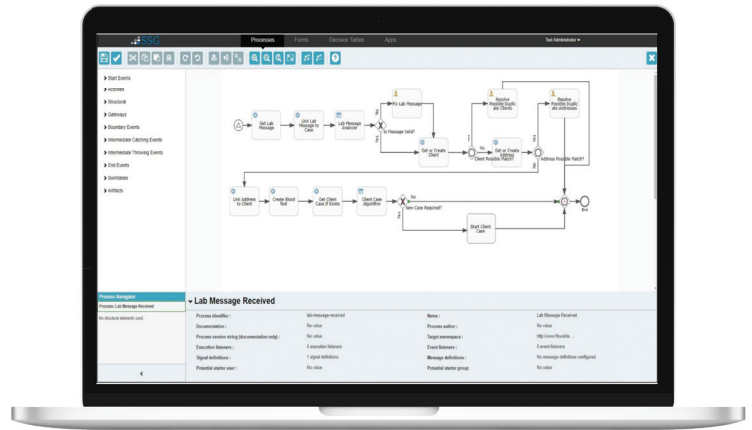
DASHBOARDS MODULE

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).
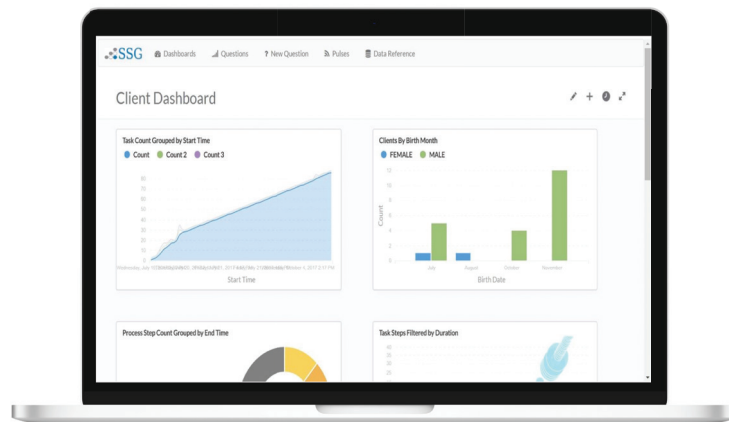
REPORTS MODULE

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.

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.

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.

⚠ 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.

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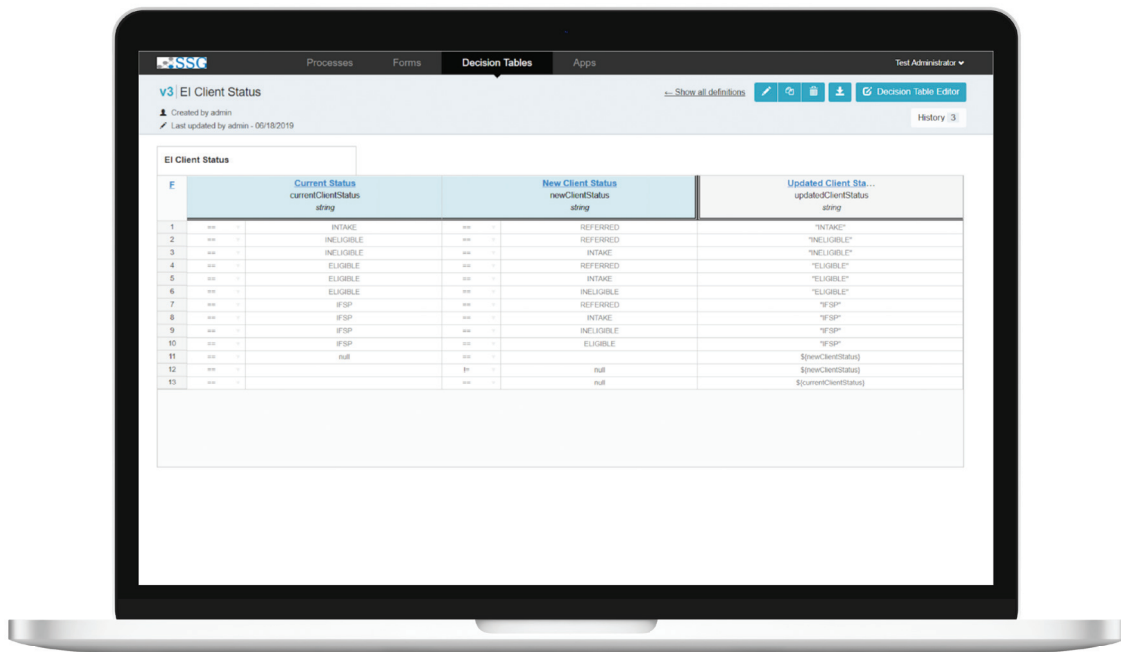
Casetivity's ability to implement complex business rules enables decision support and automation across your processes.

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.

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.

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.

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
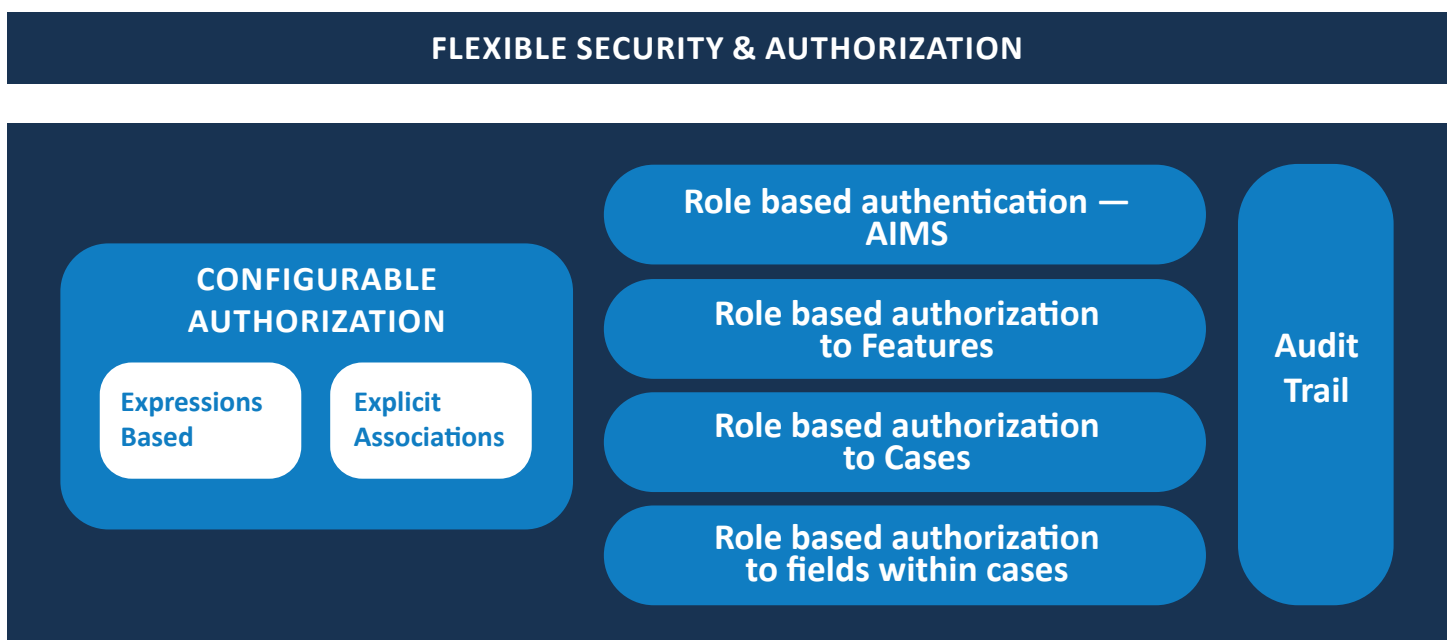- Laboratory Test Result Mapping and Routing
- Deduplication

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.

🔒 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

CONFIGURABLE AUTHORIZATION

Expressions Based

Explicit Associations

Role based authentication — AIMS

Role based authorization to Features

Role based authorization to Cases

Role based authorization to fields within cases

Audit Trail

Digital transformation in Public Health encompasses the integration and utilization of technologies, data and innovative solutions to enhance and modernize the delivery of health services, improve Public Health outcomes and streamline administrative processes within public sector. All digital transformation efforts have 3 characteristics in common:

1. Increased agility
2. Greater collaboration between program operations and IT
3. Accelerated innovation cycles.

Low-code applications are a key component to delivering these benefits. "Low code" is a software development approach that enables developers to create applications with minimal hand coding. Rather than writing thousands of lines of complex code and syntax, low-code developers drag and drop visual models to create complete applications with modern user interfaces, integrations, data and logic.

As the Public Health sector continues to experience a workforce shortage, low-code and no-code tools have raised in popularity to empower both professional developers and a range of non-technical staff ("citizen developers") to collaborate on building applications required to support digital transformation efforts.

Low-code applications remove the complexity from software development, allowing Public Health organizations to accelerate the development of simple, flexible and cost-effective solutions; across a variety of Public Health programs. SSG's user friendly interfaces, intuitive and flexible application development enables Public Health workers, across a range of programs, who may not have extensive programming skills to quickly collect, analyze and use electronic data and provide timely solutions that are critical for managing and delivering Public Health services, especially in the event of managing emergencies or outbreaks.

In wrapping up, *Casetivity* stands as a beacon for public health transformation, blending SSG's expertise with powerful, adaptable technology to uplift and streamline your operations. It's not just about software; it's about empowering your team with the tools to make a real difference. We're excited to explore this journey with you, to see how together, we can enhance the health and well-being of our communities. Let's collaborate to bring your public health goals to life, leveraging *Casetivity*'s flexibility and innovation for a brighter, healthier future.

TO SEE A DEMO OF OUR *CASETIVITY* PLATFORM, PLEASE
EMAIL US AT SALES@SSG-LLC.COM

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