Information Systems

March 4, 2026

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Overview

Maine EMS funds, oversees, and manages numerous information assets that are provided and funded by the State of Maine for use by EMS agencies, clinicians, Hospitals, Non-EMS Healthcare providers, stakeholders and other interested parties.

This report provides a brief description of each of these information assets and an update on their current status. It also provides an update on data quality and security.

Biospatial

biospatial combines EMS electronic patient care reports (ePCR) with other electronic healthcare data sources using proprietary artificial intelligence (AI) to support the missions of public sector and commercial healthcare entities. Biospatial has been acquired by ImageTrend. Biospatial is an analytics tool that provides numerous dashboards and tables of data.

Maine EMS manages users and organization within biospatial. There are currently {TODO} organizations and {TODO} users having access to the system.

EMS Patient care reports are automatically exported to biospatial.

URL: https://www.biospatial.io/

Login URL: https://app.biospatial.io/login

Gov Delivery

Gov Delivery is a communication tool used by Maine EMS that allows for mass messaging via email and social media. Gov Delivery will track delivery metrics of the messages such as delivery and views. The tool is shared with the Fire Marshalls Office.

Maine EMS manages the subscriber list and generates the bulletins sent.

In 2025 there were 134 bulletins sent to 556,818 total recipients. 3,434 deliveries failed and the email open rate was 62.2%

URL: Granicus | The Citizen Experience Platform for Government

Hospital Hub

Hospital Hub is an ImageTrend application that allows registered users who have been granted access to view and print EMS patient care reports. Users are able to view reports where the Destination/Transferred To, Name (eDisposition.01) is a facility for which the user has been provided access.

Access to Hospital Hub requires approval of the Medical Direction and Practices Board (MDPB), the Maine EMS Board, and the Maine EMS Director ([32 M.R.S. §91-B.2.E](#)). This is currently in the form of a standing order dated March 9, 2022. Agreements exist for six (6) hospital systems.

There are currently fifty-two (52) Hospital Facilities active within the system with eighty-two (82) active users.

Patient care reports are immediately accessible within Hospital Hub as soon as the Destination/Transferred To, Name (eDisposition.01) and the incident is saved in Elite. Hospital Hub is an ImageTrend application that allows registered users who have been granted access to view and print EMS patient care reports.

Users can view reports where the Destination/Transferred To, Name (eDisposition.01) is a facility for which the user has been provided access. Additionally, for patients that may have been transferred from an initial receiving hospital to another facility, the facility transferred to will also be able to see the patient care report for the originating EMS activation provided the patients first name, last name, and date of birth match and the date is within 5 days of the transferred date.

The office receives frequent requests from medical facilities that receive inbound patients from other hospitals because they are unable to access the originating (scene) EMS report. This is typically a result of inaccurate entry of patient names and dates of birth, with the occasional report that was never created.

URL: https://www.mefirs.org/mehub/menu/main.cfm

Licensure

The licensure application is an application that is used by the office to manage users, agencies, and vehicles.

User Management

User management within licensure covers numerous topics:

- Account Creation
- User Demographics and attributes
- Applications
- Licenses and Certifications
- Education
- Investigative materials
  Currently there exist 36,477 user accounts with 25,442 user accounts designated as active.

Agency Management

The agency management within licensure covers numerous topics:

- Account Creation
- Agency Demographics and attributes
- Licenses and Certifications
- Applications
- Agency Rosters
- Agency Vehicles
- Investigative materials

Currently there are 862 agencies with 621 agencies designated as active.

Vehicle Management

The vehicle management within licensure covers numerous topics:

- Account Creation
- Agency Demographics and attributes
- Applications

Currently there exist 1,825 vehicles with 981 vehicles designated as having an active license

Licensing

The licensure application allows the office to define licenses and certifications as well as the applications. The application design tends to get rather complex involving workflows, triggers, and forms that interact with licensing rules and the status of objects.

Education

The education module allows for the tracking of courses and continuing education.

Most commonly, these are entered by the instructor or imported from MEMSEd.

There are more features with the education module that are not used such as the publishing of courses that allow for online registration.

Hours of courses completed within the education module can be used in renewal of licenses.

Operational Information

Some of the information in licensure also exists in MEFIRS (Elite) and much of the information that exists in both licensure and MEFIRS syncs to MEFIRS (Elite). Some of the information in MEFIRS however does not sync back to Licensure. The Maine EMS office is slowly, in collaboration with the Fire Marshall's office, working to transition users, agencies, and vehicle management to be primarily be managed within licensure.

Licensure also tracks the history of users, agencies and vehicles while MEFIRS is generally focused on the current active attributes.

Maine EMS has also funded an integration between Licensure and MEMSEd. This integration will create and update accounts in licensure (except for password), and return course completion into licensure from MEMSEd

Public Portal URL: https://licensure.maineems.org/lms/public/portal#/login

MEFIRS (Elite)

MEFIRS is a Fire and EMS records system funded by Maine EMS from ImageTrend which markets the product as ImageTrend Elite. The product is highly configurable, NEMSIS, NFIRS, and NERIS compliant, and provides modules for:

- EMS Patient Care Reporting
- Fire Incident Reporting
- User management
- Daily rostering and activities
- Hydrants and testing
- Occupancies and Inspections
- Inventory
- Supplies

The system provides for a tiered hierarchy that segments access and abilities by level and permission groups.

Patient Care Reporting

The EMS Patient reporting module is the principal focus of the EMS office. It is where EMS clinicians enter in their patient care reports using forms built with guidance from the Maine EMS Data Committee. When upgrading to the latest NEMSIS v3.5, the data committee evaluated each data element on the form, the values available for the data element and weighed the importance and use with the effort involved, trying to maintain a balance between need and burden.

The forms may have visibility rules that hide portions of the patient care report or values in the list depending on the selection. These rules are regularly updated based upon feedback from the field on ways to improve the report.

Data elements may also be subject to validation rules. Validation rules is a tool that helps guide an EMS clinician to achieve a minimally acceptable report by highlighting fields in red (required and validation points deducted) or orange (recommended with no points deducted). The validation rules are dynamic, and trigger based upon changes to fields as the user completes the report.

Community Health

The Community Health Module is a module to track Mobile Integrated Healthcare encounters. The module was initially implemented in 2025 and needs significant configuration to align with Mobile Integrated Healthcare programming.

Datamart

Maine EMS, in collaboration with Maine CDC, has acquired an ImageTrend product named Datamart. Datamart is a replicating copy of the ImageTrend Database used for the Report Write in MEFIRS.

Having an internal copy of the database allows us to do far more with the data than is possible from within ImageTrend Report Writer. For example, we can store pre-tabulated data so that each incident does not need to be queried when a report is run as well as combine data from different datasets, which you are unable to do in Report Writer.

One of the principal uses of the Datamart is for state-wide syndromic surveillance where EMS data, hospital data, and other healthcare data is brought together for a holistic view of health and health issues within the State of Maine.

MEMSEd (Moodle)

MEMSEd is a Maine EMS provided learning management system utilizing MOODLE that hosts and presents course content to users. The system is a free version that is hosted on servers procured through Maine Hosting.

The system allows for the creation of course content, tracks enrollment and completion, and integrates with Licensure for some aspects of account management and course completion.

Maine EMS also uses ancillary applications, such as Easy Generator, to produce and public content through MEMSEd.

The system was first made operation by Maine EMS in April of 2014. Prior to the update performed at the end of 2025, the system had not been updated since 2016 and was so far out of date that upgrading the existing instance was not possible and a new installation was required. This work was completed and most courses that are still of use have been migrated to the new instance.

As of February 7, 2026 there are 18 courses in MEMSEd with 23,119 registered users.

Microsoft 365

Maine EMS manages several Microsoft 365 sites for different specific uses. For the most part, access to content on SharePoint, Power Apps, tools built in Power Automate, and analytics in Power Bi are limited in access to office staff only. The exception being meeting content and committee content collaboration, which can be shared by the office liaison for the committee. SharePoint allows the office to:

- maintain business continuity by ensuring important content remains accessible to office staff
- comply with statutory requirements for document retention and the Maine Freedom of Access Act
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Support Site (Hesk)

Hesk is an open source, free, software package that provides help desk operations, support ticket management, and a knowledge base repository. Maine EMS manages the help desk software and hosts the software on a server procured from Maine Hosting.

The support software has been in use since 2012 and was updated in 2025 to the current version. The last prior update to the software was performed in 2016 so the installation was very outdated and suffering from significant issues. In total there are 10,655 support tickets with 738 having been entered since August 2025 when the system was updated.

The Fire Marshall's office is currently onboarding with us to provide similar support services to the fire service community.

URL: https://support.maineems.org/helpdesk/

Vault

Vault is an ImageTrend repository for legacy EMS patient care reports that had been entered into MEMSRR, the system in use prior to transition to MEFIRS in 2017-2019.

Reports in this system are unable to be edited but may be searched, vied and printed.

Access to vault is generally limited to EMS Agency Administrators when requested.

URL: https://maine.imagetrendvault.com/

Website

Maine EMS maintains a web presence at Home | Maine Emergency Medical Services. The website contains a wealth of information, including; reference materials, meeting dates, news, bulletins, and protocols.

Data Quality

One of the challenges faced by our office across all of the previously mentioned systems is that of data quality. Whether it be the users own name or email address, or sufficiently detailed assessment and treatment information, there is a tremendous room for improvement.

Data quality, in general, appears to be a very low priority for EMS clinicians, EMS agency Administrators, and others within the EMS ecosystem. There exist tasks within the Vision 2035 task list to create education to improve the knowledge, skills and abilities pertaining to reporting as well as improve upon the understanding of the need for quality reporting throughout the state.

Within MEFIRS, the usage of a single statewide form, visibility rules, and validation rules help significantly with data quality and allow for alignment of analytics with data inputs.

Maine EMS continues to work to improve upon quality while reducing the effort involved in reporting. The most recent example is the office funding of CAD interfaces from every PSAP to EMS agencies within the state, allowing EMS agencies to pull in CAD data to their report an populate dates and times, locations, and other elements.

We are still encountering reports with missing or lower-quality data. It's important that all services follow the data collection framework developed by the committee and endorsed by the Board so we can maintain consistency and reliability.

We have also witnessed an increase in users not selecting the correct value for a data element. In most cases this appears to be an intentional method to bypass the validation rules of a report. One frequently encountered example is classifying the Type of Service Requested as Standby or Public Assistance and Unit Disposition (eDisposition.27) of "No Patient Contact" rendering broad sections of the report to not be required. Yet the narrative will detail the encounter with the patient, the impressions, and on occasion even the medications administered and/or procedures performed.

Data Security

The majority of the systems managed by our office contain protected information, either personally identifiable information (PII), personal health information (PHI), or in several cases both PII and PHI. Each year we see many concerning actions. In 2025 alone we have identified over two million (2M+) data security incidents.

Examples of what was encountered recently:

- Sharing of protected health information on social media
- Sharing of access credentials, such as usernames, passwords, and two factor codes, with another user
- Agencies creating anonymous, generic accounts for access by unidentifiable individuals to PII and PHI
- Public presentation of data that is identifiable
- Sending protected information via an unencrypted medium
- Use of email accounts that are not compliant with data security standards
- Discussion of protected information in a public setting and/or via virtual conferencing that does not meet statutory requirements.

We are working to improve the security posture of MEFIRS and are redefining security groups to improve compliance.