



Standard Functional Specifications for Law Enforcement Records Management Systems (RMS)

Developed by the
Law Enforcement Information Technology
Standards Council (LEITSC)



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Technology Standards Council
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Executive Summary: Records Management System

History

The Law Enforcement Information Technology Standards Council (LEITSC) was created in 2002 with funding (Grant Number 2002-LD-BX-0002) from the U.S. Department of Justice, Bureau of Justice Assistance, and continued in 2003 with funding (Grant Number 2003-MU-BX-0068) through a collaborative effort between the Bureau of Justice Assistance and the National Institute of Justice. LEITSC is currently funded under the Bureau of Justice Assistance (Grant Number 2003-MU-BX-0068) and continues to work in cooperation with the National Institute of Justice. LEITSC brings together representatives from the International Association of Chiefs of Police (IACP), National Sheriffs' Association (NSA), National Organization of Black Law Enforcement Executives (NOBLE), and Police Executive Research Forum (PERF) to address law enforcement information technology standards issues.

The mission of the group is to foster the growth of strategic planning and implementation of integrated justice systems through the development and implementation of information technology standards. With guidance and leadership from BJA, LEITSC involves law enforcement partners to speak with a clear and consistent voice in shaping the course of crucial developments in information sharing.

The national initiatives include the Law Enforcement Information Sharing Program (LEISP), Law Enforcement National Data Exchange (N-DEx), and Law Enforcement Regional Data Exchange (R-DEx).

As law enforcement agencies move toward the procurement of computer aided dispatch (CAD) and law enforcement Records Management Systems (RMS), it is vital to recognize and consider the Law Enforcement Information Sharing Program (LEISP) developed by the U.S. Department of Justice (DOJ). The LEISP is designed

to promote information sharing among all levels of the law enforcement community and to guide the investment of resources in information systems that will further this goal. The goals of LEISP are supported through the proliferation of the Global Justice Information Sharing Initiative (Global Extensible Markup Language (XML) Data Model (Global JXDM). For additional information on the Global JXDM, visit www.it.ojp.gov. The Global JXDM is an XML standard designed specifically for justice information exchanges. It provides law enforcement, public safety agencies, prosecutors, public defenders, and the judicial branch with a tool to effectively share data and information in a timely manner. There are several ongoing DOJ initiatives incorporated into the LEISP.

One program currently being developed jointly between the Federal Bureau of Investigation (FBI) and state and local law enforcement is the Law Enforcement National Data Exchange (N-DEx)¹ System. A second program—the Law Enforcement Regional Data Exchange (R-DEx)² System—has been developed and implemented by the FBI. Both programs are new law enforcement information sharing systems based upon the above critical standards.

1 The N-DEx Program is an incident- and case-based information sharing system (e.g., RMS) for local, state, tribal, and federal law enforcement agencies that securely collects and processes crime data in support of the investigative and analytical process and will provide law enforcement agencies with strategic and tactical capabilities that do not currently exist on a national scale. An N-DEx concept of operations (ConOps) document is being finalized to aid in the design of the N-DEx system and to ensure that stakeholders understand and share the N-DEx vision.

2 The R-DEx Project seeks to securely share sensitive but unclassified crime information between federal agencies, while allowing for connection with several existing regionally based local and state information sharing systems to impede criminal and terrorist activities. R-DEx is now operational in several metropolitan areas.

Purpose

In 2003, LEITSC identified the need for a national standard for Records Management Systems (RMS) functional specifications with the following goals:

- Provide a starting point for law enforcement agencies to use when developing RMS requests for proposals (RFP).
- Streamline the process and lower the cost of implementing and maintaining an RMS.
- Promote information sharing.

With these goals in mind, the LEITSC Functional Standards Committee, composed of law enforcement practitioners and industry experts from around the country, was appointed to develop the Standard Functional Specifications for Law Enforcement Records Management Systems. The baseline document was developed from common elements found in the RFPs, technical documentation, and other RMS-related research. The document was then validated by the LEITSC Functional Standards Committee using a computerized modeling tool. Once developed and validated, the specifications were vetted through the law enforcement community via each of the participating associations, as well as through other stakeholder communities, in an effort to gain input from a number of different perspectives.

Document Scope

This document presents standard functional specifications for law enforcement RMS. The specifications found in this document are intended to be generic in nature rather than favoring one particular system or approach over another. They are at the functional level in that they define what is to be accomplished versus how it should be accomplished. These specifications were developed to depict the minimal amount of functionality that a new law enforcement RMS should contain. They are not intended simply to be substituted for an RFP but should be tailored to fit the specific needs of each agency or group of agencies looking to purchase or upgrade an RMS. These specifications should be used as a starting point to build a fully functional RMS, based on agency needs and open standards, to efficiently interface and share information with other systems both internally and externally.

It is expected that the process of defining detailed information exchanges in RMS will be addressed in future phases of this project. In addition, these specifications are intended to be used in conjunction with technical standards such as the U.S. Department of Justice's (DOJ) Global Justice Extensible Markup Language (XML) Data Model (Global JXDM) to streamline the process of sharing information.

It is intended that these standards will be updated and augmented on a regular basis.

Introduction

RMS is an agency-wide system that provides for the storage, retrieval, retention, manipulation, archiving, and viewing of information, records, documents, or files pertaining to law enforcement operations.

RMS covers the entire life span of records development—from the initial generation to its completion. An effective RMS allows single entry of data, while supporting multiple reporting mechanisms.

For the purposes of this document, RMS is limited to records directly related to law enforcement operations. Such records include incident and accident reports, arrests, citations, warrants, case management, field contacts, and other operations-oriented records. RMS does not address the general business functions of a law enforcement agency, such as budget, finance, payroll, purchasing, and human resources functions. However, because of operational needs, such as the maintenance of a duty roster, law enforcement personnel records and vehicle fleet maintenance records are included within an RMS.

This document addresses the following business functions:

- Calls for service
- Incident reporting
- Investigative case management
- Traffic accident reporting
- Citations
- Field contact
- Pawns
- Civil process
- Orders and restraints
- Permits and licenses
- Equipment and asset management
- Fleet management
- Personnel
- Internal affairs
- Analytical support (crime analysis)

In addition, the following support functions are addressed:

- Master indices
- Interfaces
- RMS administration
- RMS reports (general)

1 Business Function: General Requirements

The following are general requirements of RMS:

- Single entry (i.e., no duplicate data entry)
- RMS should automatically submit data to external sources as defined by the agency
- Maximum use of code tables
- Ability to enter and query narrative(s)/text fields
- Spell check and formatting capability on narrative(s)/text fields
- Ability to access multiple systems from a single RMS workstation
- Single database (i.e., virtual or physical)
- Validation on data entry (i.e., logical edits, edit checks for all fields)

Some functional specifications need to be addressed at the agency level, such as the identification of specific external agency interfaces. These unique functions are addressed within each applicable business function. For all exchanges generated by RMS, conformance with DOJ's Global JXDM is required.

Internal and External Databases:

An agency's RMS should provide the capabilities for users to generate inquiries to internal and external data sources—such as state Department of Motor Vehicles and criminal history files, as well as the National Crime Information Center (NCIC)—from within each module³ where such inquiries make sense.

³ A module is an independent portion of an RMS software application which provides specific functionality, e.g., Arrest and Booking. Each module performs those procedures related to a specific process within a software package. Modules are normally separately compiled and linked together to build a software system. Single modules within the application can normally be modified without requiring change to other modules, so long as requisite inputs and outputs of the modified module are maintained.

In addition, RMS should provide the user with the ability to reuse and/or import data returned from external sources to eliminate redundant data entry.

RMS also should provide the capability to electronically forward RMS data to external data sources, either automatically or upon the user's request (i.e., based on agency rules embedded within RMS).

The above capabilities should be based on existing and emerging criminal justice standards, including DOJ's Global JXDM; the National Information Exchange Model (NIEM); and the National Institute of Science and Technology (NIST), including the Electronic Fingerprint Transmission Specification (EFTS) and Facial Recognition Collection standards.

2

Business Function: Master Indices

An agency's RMS should have basic master indices that correlate and aggregate information in the following areas: people, locations, property, conveyances (e.g., vehicles), and organizations (including businesses and gangs). Master indices eliminate redundant data entry by allowing the reuse of previously stored information and the automatic update of the master indices upon the entry of report information.

Master indices information can be captured in a variety of ways, including during the input of information from incident, traffic accident, and vehicle reports and citation, booking, arrest, juvenile, fingerprint, and mug shot subsystems. Prior to accepting an entry, RMS should automatically give the user the option of determining whether there is a match based on existing data.

The system should support the validation and linking of addresses, commonplace names, and street intersections.

Linkages among any information contained in the master indices (e.g., people to places or person to person) must be included in RMS.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Query and retrieval by name, vehicle, location, organization, and/or property to produce a comprehensive response displaying all related records in the system

Standard External Data Exchange:

- The master indices serve as an internal or external portal for information sharing
- Mobile computing system

- State databases
- NCIC

Standard Internal Data Exchange:

- Existing RMS data

2.1 Use Case Diagram⁴ (see page 4)

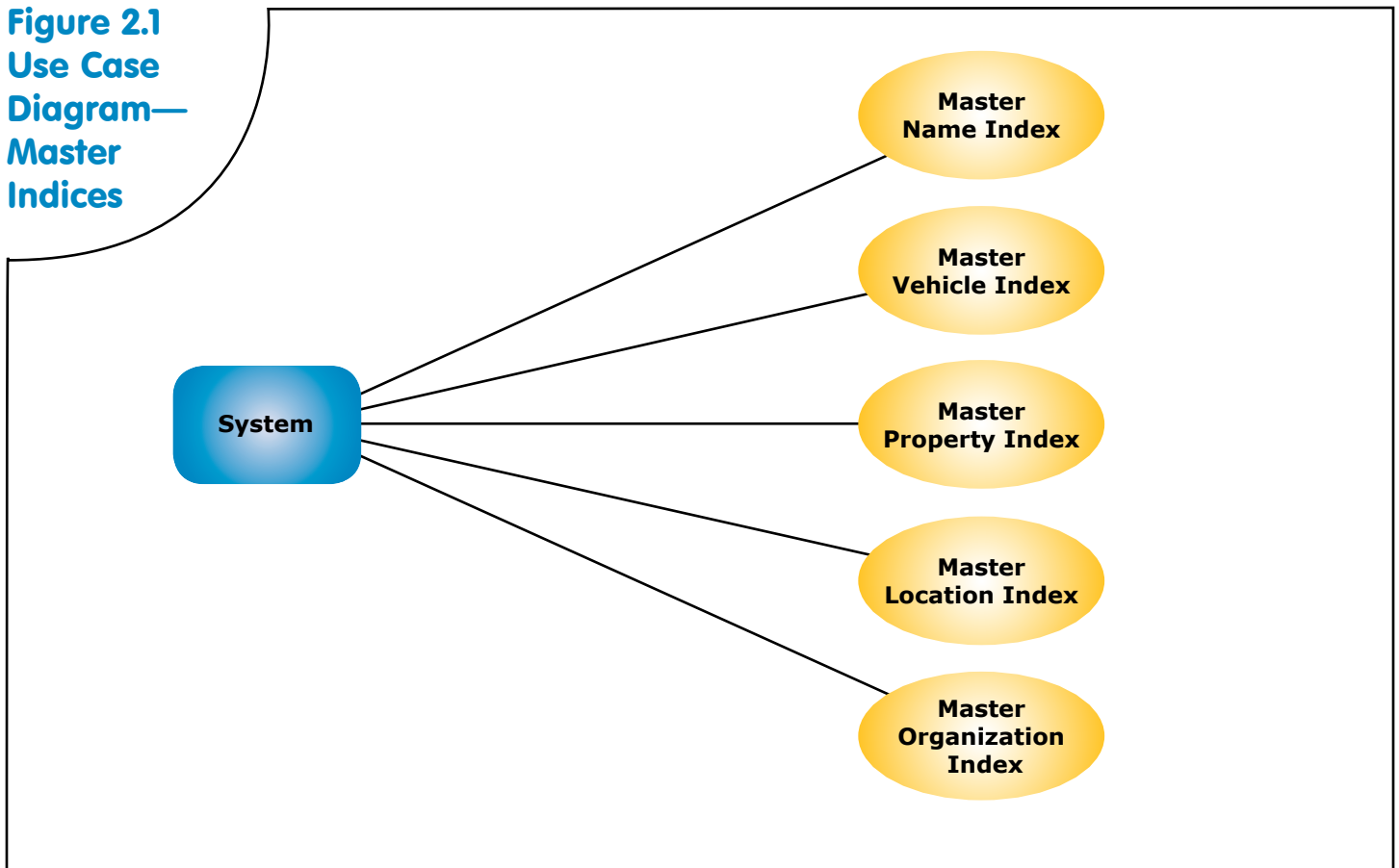
2.2 Use Case: Master Name Index

The RMS Master Name Index (MNI) function links an individual master name record to every event (e.g., incident report, arrest report, field interview, accident report, and license and permits) in which the individual was involved or associated. Every person identified within these events is given a master name record. Should that person become involved in another event, the single master name record is linked to all of the other events so that by querying that one name, the system can produce a synopsis of all the involvements associated with that one person. It also facilitates the linking of additional names to an individual master name record (i.e., alias information and relationship data). In querying an individual MNI record, the user also would be able to view all related records, as well as those associated with that individual.

When a record or report is added to RMS and a person is linked (i.e., indexed) to that event, the system should

⁴ URL Integration collaborated with LEITSC to assist in the development of the functional standards. URL Integration used an alternative method to requirements analysis with their RequirementsModeler software. RequirementsModeler is based on Uniform Modeling Language (UML), which is the defacto standard for documenting functional requirements. UML was created by the Object Management Group (OMG) in 1997 as a standard for visual object-oriented modeling. RequirementsModeler, consistent with UML principles, automatically generates diagrams and process flow (Use Case and Activity diagrams). URL Integration's Use Case and Activity diagrams were reproduced for use in this report.

Figure 2.1
Use Case
Diagram—
Master
Indices



perform a very important matching function using a rule-based process defined by the agency. The purpose of this matching function is to either automatically link an existing MNI record or to present the user with a list of possible matches to the name so that the user can make the matching decision. RMS should provide a matching algorithm that will provide the ability to search the name file by a variety of criteria, such as sound-alike searching; phonetic replacement; diminutive first names (e.g., James/Jim/Jimmy, Elizabeth/Beth/Betty, and Jack/John); and other static demographic information, such as age, sex, and race.

Once a list of possible matches is provided, the user can decide whether the information should be linked to an existing master name record or whether a new master name entry should be added. This step is very important in maintaining the quality and integrity of the master name file in the system. In addition to names, the MNI should, at a minimum, capture and maintain information on:

- Physical characteristics (e.g., current and past descriptors)
- Race and ethnicity
- Location history (e.g., current and past residences)
- Employer information

- Telephone numbers
- Known associates
- Alias names/monikers
- Available mug shot(s) and photographs
- Scars, marks, and tattoos
- Modus operandi (i.e., unique method of operation for a specific type of crime)
- Identification (e.g., social security, driver's license, and local and county identification)
- NCIC fingerprint classification

Over time, and depending on the circumstances, this information may change, and new information will be made available. Additional information can be added, but older information should be maintained and viewable.

The RMS MNI should also provide maintenance functions that will permit a record or report to be unlinked from one MNI and relinked to another. Since it is not always possible to ensure that the correct MNI record is linked to an event record, it must be possible to correct it. Functions also should be provided that will allow two or more MNI records to be merged into one record.

2.3 Use Case: Master Vehicle Index

Like individuals, vehicles often are directly or indirectly involved in events. When a vehicle is linked to an incident in RMS, it should be added to the vehicle record in the Master Vehicle Index (MVI), which provides an agency with a detailed, searchable store of information about vehicles.

RMS should provide the capability to search on:

- Vehicle Identification Number (VIN)
- License plate number
- License plate state
- License plate year
- Registered owner
- Description (e.g., make, model, year, color, style, and attributes)

When an inquiry is made on a vehicle, the system should return a list of all events in which the vehicle was involved.

In addition, RMS may require MVI to have external interfaces.

2.4 Use Case: Master Property Index

The Master Property Index (MPI) is the central access point that links all property records entered into RMS. Each record is catalogued by using unique property characteristics, such as make, model, brand, description, distinguishing characteristics, and serial number. Industry property coding standards, such as NCIC property codes, should be used during the entry of property records into RMS.

In addition, any property records entered throughout RMS should automatically cross-reference MPI to find potential matches based on the unique property characteristics outlined above.

2.5 Use Case: Master Location Index

The Master Location Index (MLI) provides a means to aggregate information throughout RMS based on a specific address, a range of addresses, an area (i.e., as defined in the agency geofile), and/or locations based on X/Y/Z coordinates. A geofile is the location information base file for emergency 911 computer aided dispatch (CAD) systems. It also provides a facility to store information about a specific location that may not be stored elsewhere in RMS. MLI should store or provide access to additional premise information, such as occupancy, elevation (e.g., floor), and premise type (e.g., residence versus business).

An assumption is made that all location information being processed in RMS is subject to stringent formatting rules. In addition, if the address is within the boundaries of the agency geofile, the actual location is validated. Typically, during the geovalidation process, key identification information, such as X/Y/Z coordinates and agency-defined reporting areas, is added to the location information.

The geovalidation process should allow an address to be accepted, even if it does not appear in the geofile. Unverified addresses should be flagged for possible review. Optionally, all addresses or only addresses within the jurisdiction are available in MLI.

2.6 Use Case: Master Organization Index

Many events also involve an organization, such as a gang, business, school, or shopping center. Information about these groups entered into RMS should be contained in a Master Organization Index (MOI). MOI provides an agency with a detailed, searchable store of information about organizations. An agency should be able to search on a variety of data elements and obtain a listing of all records associated with that organization. Organizations may change location and name, but these changes should be tracked in RMS. In addition, MOI also should permit the linking of aliases to organizations (e.g., M&M Associates, doing business as Joe's Pawn Shop).

3

Business Function: Calls for Service

All calls for service (CFS) are recorded in a structured records environment, providing the ability to run reports on these data, while also maintaining a historical record on all calls. The data are either segmented or identifiable by the agency.

Typically, data in this module cannot be modified after the call is closed because they serve as a formal audit trail of the information that started the law enforcement activity. If RMS is not integrated with a CAD system, this function must be able to serve as the initial point of data entry for a CFS. The basic call data (e.g. initial call time, units dispatched, and call disposition) can be available to facilitate the creation of an incident report. The data imported into the incident report can be modified, whether or not the call has been closed, to reflect the latest information known regarding the incident. Basic call data may be transferred at the time an incident number is assigned or at the initial closing of the call, depending on specified call types.

In the event that CFS data are transferred from CAD to RMS, RMS should receive the call number and associated incident number from the CAD system. If the call does not originate from a CAD system, this CFS module should be capable of generating or allowing manual entry of a sequential event number and an associated incident number to link CFS and incident records.

If the department is dispatched by a CAD system, an interface to the CAD system will be required to transfer the CFS data to RMS. The CAD workload⁵ reports also should be available from the calls for service module.

⁵ Workload is the metric or metrics which accurately describe the amount of work performed by or within a process in a specific period of time. For example, the Calls for Service (CFS) module contains information about the number of calls received and the length of time needed to process those calls. The data on time and number of calls describes workload. A workload report in an RMS is a compilation of data that provides a user with statistics pertinent to the functions performed by or recorded within a module.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Daily log showing all calls received for the prior 24 hours from prior printing of the daily log
- Activity analysis by specified geographical area and time period
- CFS summary, by specified geographical area and time period
- Activity analysis by day of week
- Activity analysis by hour of day
- Activity analysis by day and hour
- Response time analysis by specified geographical area and time period (e.g., receipt of call, dispatch time, on-scene time, and time call cleared)
- Response time analysis by call type
- Time consumed by call type by hour of day
- Workload activity by resource assigned
- Workload activity by group assigned
- Time consumed by day of the week and hour of the day
- Time consumed by specified geographical area and by time period
- Calls that should result in the creation of an incident report

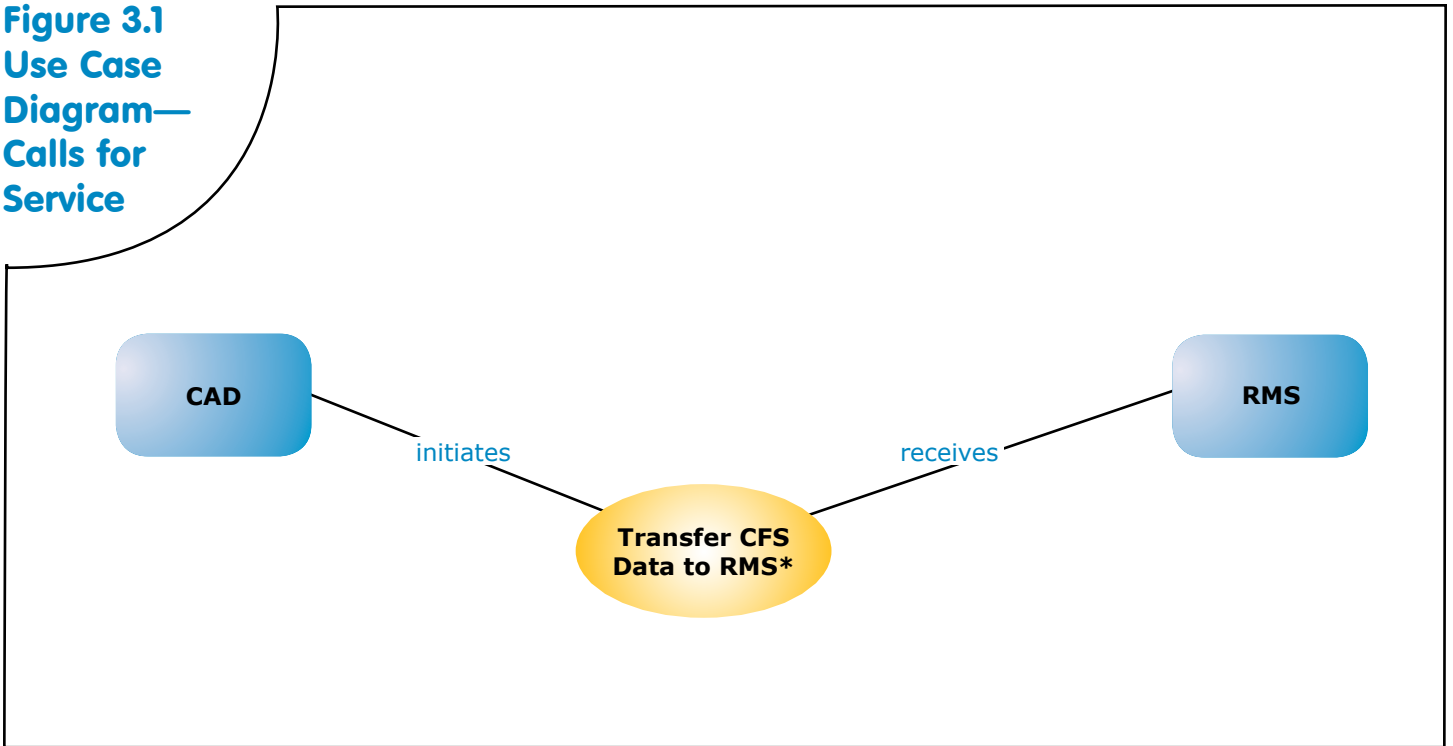
Standard External Data Exchanges:

- CAD

Standard Internal Data Exchanges:

- MNI
- Incident reporting

Figure 3.1
Use Case
Diagram—
Calls for
Service



3.1 Use Case Diagram

3.2 Use Case: Transfer CFS Data to RMS

The call data are transferred to RMS when units are initially dispatched after an incident number is assigned or when the call is closed in CAD.

If CFS information is retransferred from CAD, the most current data will replace the information previously transmitted.

4

Business Function: Incident Reporting

Incident reporting is the function of capturing, processing, and storing detailed information on all law enforcement-related events handled by the department, including both criminal and noncriminal events. The incident reporting function collects sufficient information to satisfy the National Incident-Based Reporting System (NIBRS) or the Uniform Crime Reports (UCR). Incidents often are initially documented as CFS in a CAD system. The CFS record in RMS should be linked to the incident and should be easily accessible from the incident report.

Certain types of incident reports must be available to the public. Witness information, as well as the names of juveniles who are subjects or victims, may need to be redacted for public consumption. RMS must be able to recognize the age of the majority in the jurisdiction by the date-of-birth information entered into the system that is available to the public. The system should support the redaction prior to printing a public copy or making the report available online to the public.

The data captured in this module must support the preparation and submission of all required federal crime reporting and provide the capability to print a copy of both the completed department's incident report and the redacted incident report.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- All summary UCR reports and NIBRS reports
- Total incident reports based on period of time, area or beat, and incident type
- Location code (e.g., geocode)
- Initial call type
- Offense type
- Summary of incidents by a responsible officer

Standard External Data Exchanges:

- Federal databases to support electronic submissions
- State submission following NCIC standards
- Prosecutor
- Courts
- Jail Management System (JMS)
- Regional Information Sharing Systems (i.e., standards-based, such as Global JXDM, NCIC)

Standard Internal Data Exchanges:

- Mobile reporting system
- Investigative case management
- Property and evidence

4.1 Use Case Diagram (see page 10)

4.2 Use Case: Prepare Initial Incident Report

The incident report is prepared as soon as it is practical to do so following the incident and, depending on department procedure, may be updated throughout the initial investigation. Multiple officers may provide input once a single incident report is created and an incident number assigned. A primary officer will be assigned with overall responsibility for completing the report. This primary responsibility may shift to other officers during the life of the report. The incident report must contain sufficient information to comply with national reporting requirements.

Typically, an incident report contains factual information pertaining to the incident, including offense information, suspect information, and case status, as well as information pertaining to perpetrators, witnesses, victims, and complainants. Reporting requirements typically mandate the collection of certain elements of information.

In addition, incident reports have free-text fields, which allow the collection of an unlimited amount of narrative information. The system should provide the capability to search the narratives for a specific word or phrase.

Once completed, officers submit the incident report to their supervisor for review.

4.3 Use Case: Create Supplemental Report

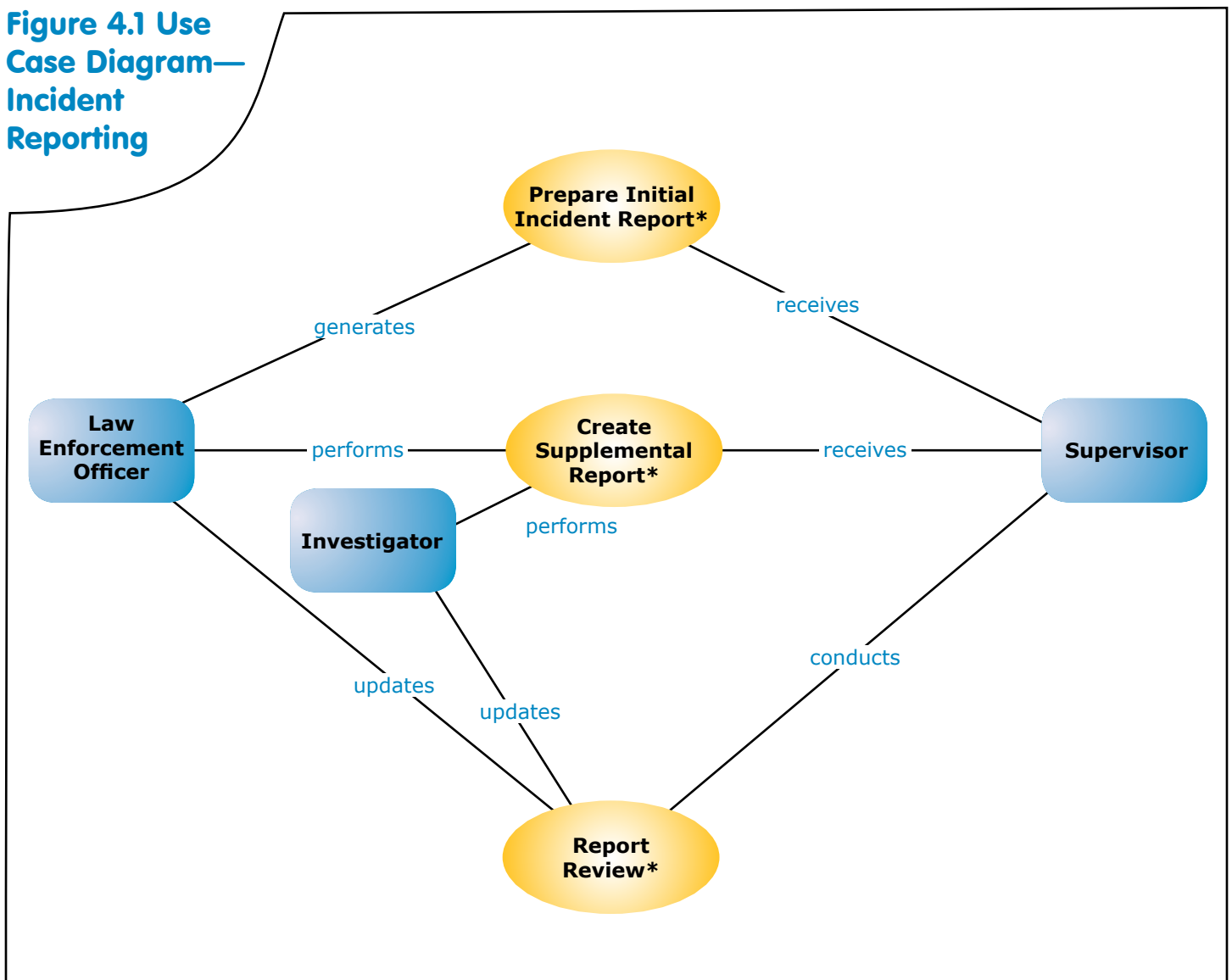
A supplemental report is used to add new information to the case after the initial incident report has been submitted and approved. The creation of a supplemental report may result from information gained during additional investigation and also may result in updating the status of the investigation, possibly bringing it to closure.

Investigators are typically the individuals within the law enforcement agency responsible for follow-up investigation and for creating supplemental reports. To that end, they must be able to query and retrieve the initial incident report and use it as a baseline document for the supplemental report. They also must be able to electronically submit the report to a supervisor for review and dissemination.

Multiple officers must be able to simultaneously create and add supplemental reports regarding the same event.

All supplemental reports are linked to the original incident report. The agency should be able to link all of the associated reports with a common report number. This may be done using the original incident report number, possibly with a suffix indicating supplementals or a case number.

Figure 4.1 Use Case Diagram— Incident Reporting



4.4 Use Case: Report Review

The incident report must be able to be locked from further edits at a point determined by the agency. This does not preclude the viewing of the document by those with access permissions, but the ability to block access should be a capability of the system.

Supervisors review incident reports and supplemental reports for accuracy and quality prior to their permanent, noneditable storage in the local RMS database and/or their distribution to the agency records bureau; to other agencies; and to local, state and federal criminal information repositories.

RMS must allow supervisors to receive, review, and approve incident reports online and to electronically respond to submitting officers and investigators regarding report quality and accuracy issues. The department's Standard Operating Procedures (SOP) also may require that the records division complete an accuracy review for compliance to reporting requirements prior to adding the information to the database. The system should support all required reviews and corrections prior to locking down the incident report.

5

Business Function: Investigative Case Management

Incidents that require further investigation or follow-up may be referred to an investigator before they are closed or submitted to the prosecutor for a charging decision. Depending on the department's size and policies, the assignment may be made to a patrol officer, generally the officer who responded to the original incident, or the department's investigative unit. The system should be able to assign case responsibility and task responsibility.

The assigned officer receives these referrals or cases electronically and records all of the subsequent case management-related activities in RMS. Case management functions include, but are not limited to, capturing and storing investigation data, requesting a warrant, conducting interviews and photo lineups, and producing supplemental reports. Investigators also may initiate criminal charges and obtain and execute both search and arrest warrants. The department should be able to define its specific activities, including a time allocation for each activity, so the system can generate alerts to both the assigned investigator and the supervisor.

Key products of the process are producing information for the prosecutor, assisting in managing case materials (i.e., including evidence), and preparing cases for prosecution.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Cases not assigned for investigation or follow-up
- Case summary
- Case aging report (list of cases by age range, days, weeks, month, etc.)
- Assigned cases (open cases by investigator and current status)
- Cases pending assignment

- Activity follow-up
- Alerts (e.g., overdue, case assignment, and task assignment)
- Pending activity (e.g., by investigator, case, and division)
- Case disposition (both law enforcement dispositions and court dispositions)
- Prosecutor charging documents

Standard External Data Exchanges:

- Prosecutor (case submission)
- Court (disposition exchanges)
- Regional Information Sharing Systems® (RISS) (i.e., standards-based, such as Global JXDM, NCIC)
- Jail Management System (JMS)

Standard Internal Data Exchanges:

- Incident reporting
- Property and evidence
- Warrant

Other Optional External Data Exchanges:

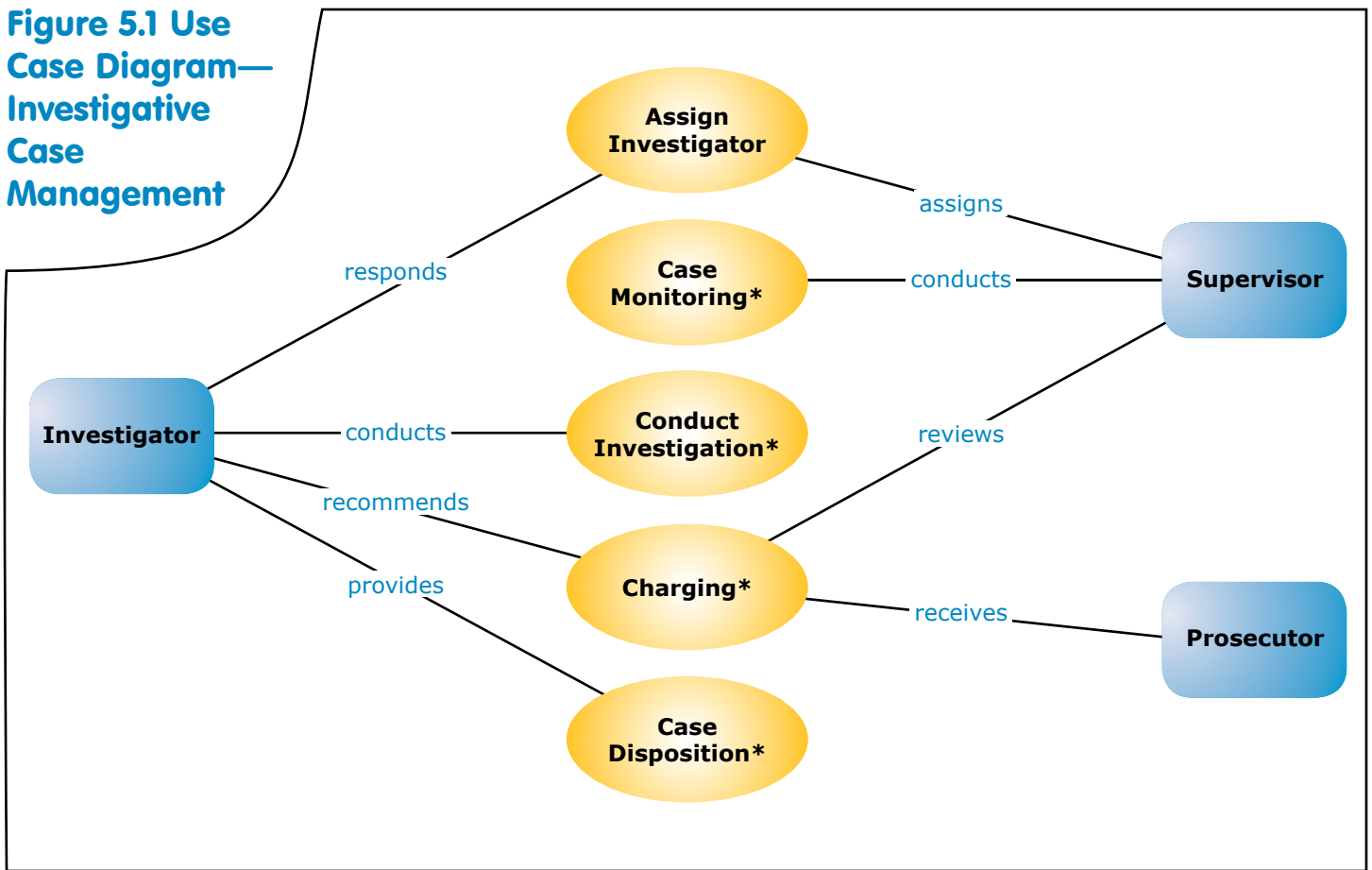
- Financial management system

5.1 Use Case Diagram (see page 14)

5.2 Use Case: Assign Investigator

The supervisor must be able to access and review unassigned cases. The supervisor will assign case responsibility to a primary investigator. Assignment factors may include the nature of the activity, type of follow-up required, the workload of available investigators, and cases already assigned.

Figure 5.1 Use Case Diagram—Investigative Case Management



5.3 Use Case: Case Monitoring

Supervisors monitor cases to ensure that progress is being made. The information used in case monitoring includes case status and activities, both pending and overdue, and investigator case workload.

Supervisors must be able to obtain workload information, assess all requests for new investigations, receive deadlines and reminders, and interact with investigators electronically. They must be able to view existing assignments, shift resources, and notify investigators of changes, as required.

5.4 Use Case: Conduct Investigation

Conducting an investigation involves following up on leads and documenting additional facts about the case. The activities associated with the investigation typically include collecting evidence, developing leads, conducting interviews and interrogations, requesting warrants, and writing supplemental reports. Each of these activities must be documented in RMS to confirm that proper department procedure was followed and that all potential leads were developed. This documentation may include case notes.

Each activity during this process may result in an update of the status of the investigation.

During the course of the investigation, the primary investigator may assign tasks to others. The system should be capable of monitoring and tracking at both the case and task levels.

Several of the activities that are a part of conducting an investigation are detailed in other sections of this document. Investigators may need to create a supplemental report as defined in the Incident Reporting module. Warrants may be requested as defined in the Warrant module. Evidence collection and disposition is defined in the Property and Evidence and Management module. The arrest process is detailed in the Arrest module.

5.5 Use Case: Charging

In the situation where charges are to be filed, investigators and supervisors must assemble all relevant case information and reports, as well as their charging recommendations, for submission to the prosecutor. The system should support the development of charging

recommendations and their electronic approval prior to the submission to the prosecutor. In some cases, the prosecutor may refer the case back for further investigation.

The prosecutor may decide to prosecute some, all, or none of the charges recommended by the law enforcement agency or decide to prosecute other charges. The prosecutor's charging decisions should be communicated to the law enforcement agency, and the system should capture the charging decisions.

In integrated justice systems, much of the communication between the prosecutor and the law enforcement agency happens electronically. If no interface is available, the data must be entered manually into RMS.

5.6 Use Case: Case Disposition

When the case is completed, a Law Enforcement Case Disposition is captured. This disposition is in addition to a case status. At this point, any property may be eligible for release to the owner as defined in the Property and Evidence Management module.

A court disposition (per person arrested and per charge) also should be included in the record as the court case is completed. With an integrated justice system, the disposition can be exchanged electronically. The system should support the ability to reopen a case, if necessary, based on new evidence.

6

Business Function:

Property and Evidence Management

Property refers to any tangible item that can be owned, consumed, or otherwise used (e.g., stolen or recovered items, currency, narcotics, vehicles, animals, and evidence of any form) that is to be tracked by the agency. Property owned for use by the agency (e.g., department equipment) is typically not included in this module. Law enforcement agencies can take custody of property during the investigation of cases and preserve it for possible use at trial. Agencies also will receive property turned over by the public in which ownership is unknown or where circumstances of receiving the property are unknown or unrelated to an event or incident.

A property custodian is responsible for receiving property for the agency. Information about the property, including its source, is collected and recorded in RMS.

Law enforcement personnel can access property data to view detailed information about the item and historical information about the custody and control of the item, including the current status or location. Personnel also can follow links to related property items tracked in the system. The tracking system provides the ability to accurately track and verify that all property items and the evidentiary chain-of-custody requirements are met. The system also will track property that has been impounded or stored in remote facilities. Information about property and evidence must be linked to either a case file or a report that describes the property's involvement.

The disposition of property is managed by the system, with timed events to notify property custodians when property items will be released, destroyed, or sold at auction. The disposition history is maintained for a specified time period or may be indexed for future investigative purposes.

While many RMS include integrated Property and Evidence Management modules, many jurisdictions are using stand-alone programs to support the property

and evidence function. Any stand-alone program should include an interface to RMS to minimize duplicate data entry. Links to appropriate RMS records should be made at the time the property record is uploaded.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Chain of custody
- Property summary report
- Property item detail
- Released property report
- Property inventory report
- Property disposition reports
- Form letter to inform the property owner of the pending disposition of property with instructions for filing a claim
- Vehicle impound forfeiture report
- Case closed evidence report
- Evidence location summary report
- Audit report

Standard External Data Exchanges:

- Regional Information Sharing Systems (RISS) (i.e., based on standards, such as Global JXDM, NCIC)
- State information sharing systems (i.e., based on standards, such as Global JXDM, NCIC)
- Prosecutor
- Court

Standard Internal Data Exchanges:

- Incident reporting
- Fleet management

Other Optional External Data Exchanges:

- Bar-code system
- Third-party property management systems, including a laboratory evidence processing system
- Pawn shops

6.1 Use Case Diagram

6.2 Use Case: Collect Property and Evidence

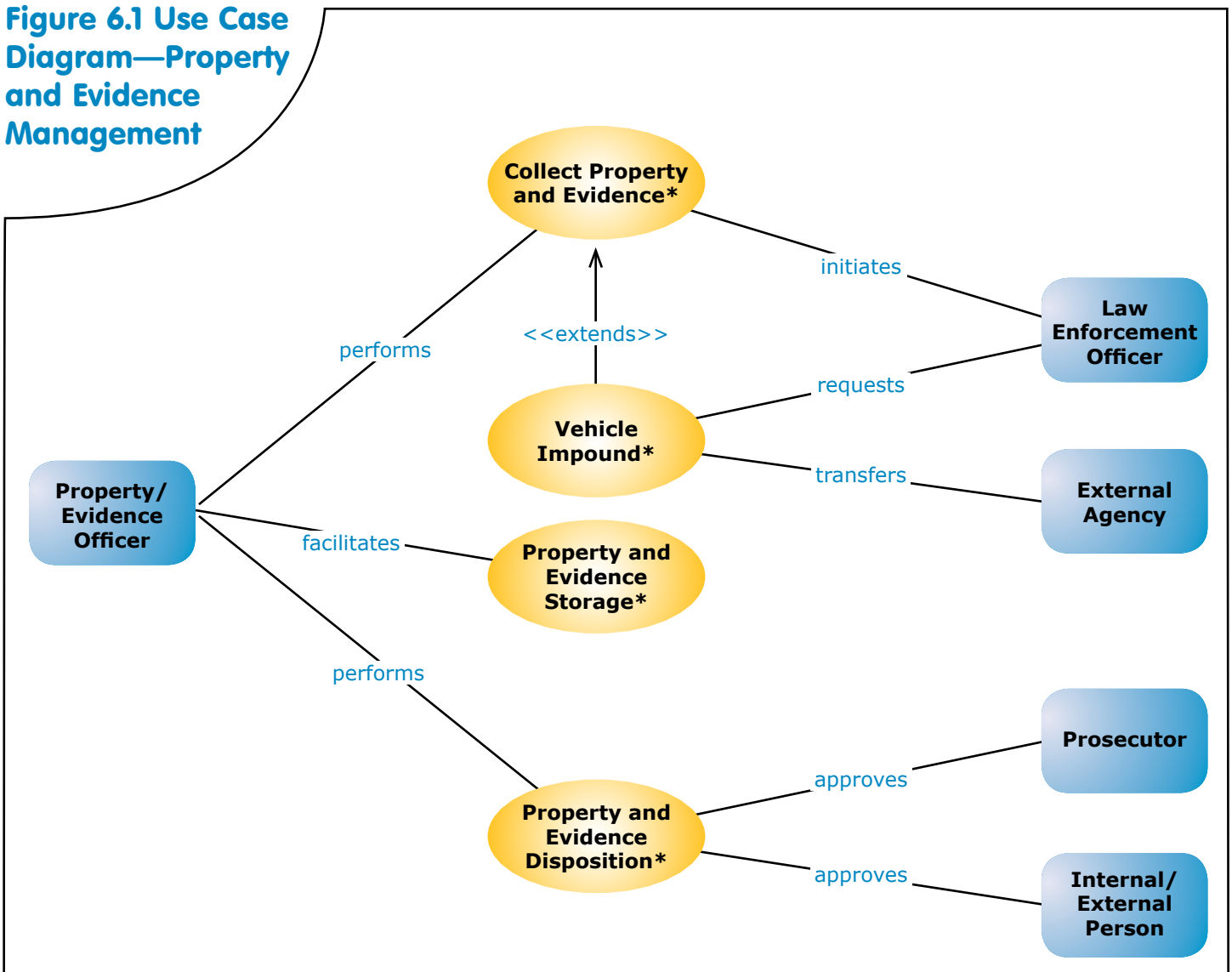
Property and evidence items are collected and processed into a physical location with established process and security controls. This is the point of entry into the system where descriptors and tracking identifiers (e.g., date/time received, contributing and receiving officers, and location)

are recorded for both inventory control and chain-of-custody purposes. The property will be checked against internal and external databases for matches. RMS will link property/evidence information with the case and reports.

6.3 Use Case: Vehicle Impound

The law enforcement agency will impound vehicles in the normal course of operations. Vehicles might include boats, cars, motorcycles, airplanes, and other items used for transportation. The system should support the entry of all identifying information for all of these vehicle types. A vehicle may be impounded as evidence in an ongoing investigation or because the driver was driving under the influence. A vehicle may be impounded because it has been abandoned or because it was parked in a prohibited location.

Figure 6.1 Use Case Diagram—Property and Evidence Management



The officer who initiates the impound records the reason behind the impoundment and information about the towed vehicle, including the VIN, description, license number, and the condition of the vehicle, as well as information about the car owner and driver.

The vehicle should first be checked against the MVI in RMS and then automatically queried in both the state and federal repositories for wants and warrants.

The officer enters his estimate of when the vehicle will be available for release and includes the name of the tow company that will be moving the vehicle to the impound lot. A mobile computing system enables the information to be captured at the scene and made available at the time the vehicle arrives at the impound lot.

At the impound facility, the owner and driver information, as well as the vehicle identification and description information, are validated or updated, and the specific location within the facility is added to the record. Information related to the tow-and-impound process also is captured. An initial estimate of the vehicle's value may be entered. A general inventory is conducted to document items that may potentially be removed from the vehicle, including personal items, spare tires, gas caps, batteries, weapons, etc. This module should support a quick and easy way to capture that information.

If the vehicle has evidentiary value, it will be subject to the rules for chain of custody and should be protected and tracked by the system like other tangible evidence. RMS can treat the vehicle and most of its contents as one piece of evidence. However, if additional evidence is found during the impoundment process, it can be processed as a stand-alone piece of evidence.

6.4 Use Case: Property and Evidence Storage

Movement of property and evidence, regardless of how minor, is recorded to ensure that an accurate log of the activity is captured and all policies and chain-of-custody rules are followed. Bar-coding the property and using RMS during the check-in, checkout, and movement of the property will improve the accuracy of the chain-of-custody information in the system.

6.5 Use Case: Property and Evidence Disposition

Final disposition of property is essential to maintaining manageable storage capacities for the agency and making certain owners have their property returned in a timely fashion. The disposition process documents the disposition action and includes safeguards to ensure that procedures and laws governing the release, sale, or destruction of the item are followed. The system will use timed events by using system messages or providing access to lists of eligible property items to notify the property custodian when property can be lawfully disposed.

The prosecutor's approval will be required before the disposition of property with evidentiary value can go forward. The system should provide a means to store images of the item prior to the disposition. The system may include an interface or exchange capability with the prosecutor that affords officials an efficient and accurate means by which to review and grant or deny approval of disposition requests sent by the law enforcement agency.

Appropriate identification is required to verify the identity of the individual coming to claim a piece of property, and a search of information sources may be conducted where warranted. For example, if a person comes in to claim a weapon, a check of records should be conducted to ensure he or she can lawfully possess a weapon. An additional check against property databases (e.g., NCIC) should be conducted to determine if the property has been reported as being stolen. RMS should automate these queries and document that they were completed prior to the release of property.

After a prescribed period of time, property is eligible for sale or destruction. Only lawful property can be returned to the owner or sold at public sale. Any property deemed illegal for an individual to possess will be properly destroyed.

The system should generate automatic alerts when property is eligible for release or sale.

7

Business Function: Warrant

A warrant is an order of a court that directs a law enforcement officer to take specific action. For example, an arrest warrant would direct a law enforcement officer to arrest a person and bring that person before the court. A warrant may be issued for a person charged with a crime, a person convicted of a crime who failed to appear for sentencing, a person owing a fine, or a person that the judge has ruled to be in contempt of court.

The Warrant module is designed to track warrants that the law enforcement agency will be serving and that include the physical location of the warrant. It also tracks and records any warrant-related activity or status changes. The documentation of each activity includes the type of activity, contact with the subject (if any), the date of the activity, and the result of the activity.

In many departments, other papers (e.g., criminal summons) are handled using the process identified in the Warrant module.

The Warrant module should be able to create a warrant affidavit requesting that the court issue a warrant.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Warrants issued
- Warrants served or cancelled
- Warrant summary based on varying search criteria
- Attempts to serve by date or date range
- Warrant aging report
- Warrant affidavit

Standard External Data Exchanges:

- Court
- Regional, state, and federal warrant repositories following NCIC standards
- Jail Management System (JMS)
- Corrections

Standard Internal Data Exchanges:

- Booking
- Master Name Index (MNI)
- Master Vehicle Index (MVI)
- Master Property Index (MPI)

7.1 Use Case Diagram (see page 22)

7.2 Use Case: Receive and Process Warrant

Upon receipt of a warrant from the court, the warrant clerk enters the information into the Warrant module. An interface with the court system will reduce data entry. Entry into the local warrant system will update the appropriate regional or state warrant system. The warrant clerk reviews the warrant for completeness and ensures the subject information is up to date.

7.3 Use Case: Verify Warrant

Immediately prior to warrant service, the officer must verify that the warrant is still valid before the actual service takes place. This is especially important in serving an arrest warrant. The warrant verification process is important in determining whether the agency is willing to extradite the subject if the warrant is served.

If available, the verification can be done using a mobile data computer that has the appropriate interface. As an alternative, the officer can contact dispatch or another department facility to have the warrant verified.

contact with the subject (if any), the date of the activity, and the result of the activity. Once the warrant is served, the module is updated and the warrant is cancelled in other appropriate warrant systems.

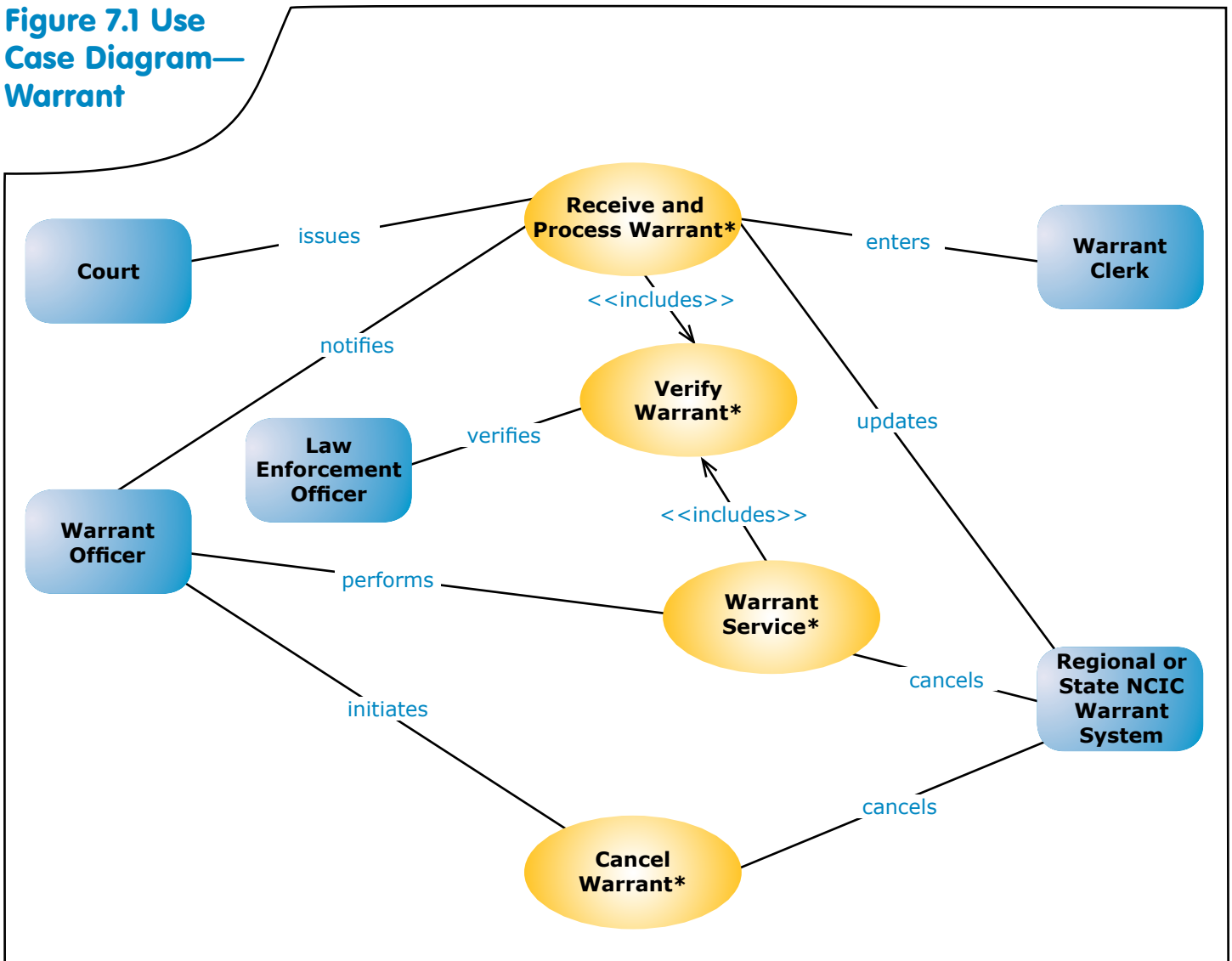
7.4 Use Case: Warrant Service

The process for warrant service will depend on the type of warrant. The Warrant module tracks and records any warrant-related activity or status changes. The documentation of each activity includes the type of activity,

7.5 Use Case: Cancel Warrant

The court has the ability to cancel the warrant. The reason for the cancellation must be recorded in the Warrant module. Other appropriate warrant systems also must be updated to reflect that the warrant has been cancelled.

Figure 7.1 Use Case Diagram—Warrant



8

Business Function: Arrest

Law enforcement agencies arrest subjects suspected of having committed a crime. Arrest actions must be supported by either probable cause rules or definitions or a court warrant commanding the arrest of a subject. It is essential that the arresting officer follow well-defined procedures that include accurately documenting and recording every step in the arrest process. Both scenarios follow the same procedure when the person is arrested.

The Arrest module provides a place to document all of the steps taken in an arrest. This complete documentation may be used to defend the legality of an arrest.

The data from this report can then be used by the Booking module, the Jail Management System (JMS), and the court.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Daily arrests, by day and time, and date range
- Arrest report and/or affidavit
- Arrests by location
- Arrest log

Standard External Data Exchanges:

- Jail Management System (JMS)
- Court
- Prosecutor
- State criminal history system

Standard Internal Data Exchanges:

- Mobile field reporting
- Incident reporting
- Booking

- Master Name Index (MNI)
- Master Vehicle Index (MVI)
- Master Property Index (MPI)
- Property and evidence

8.1 Use Case Diagram (see page 24)

8.2 Use Case: Arrest Subject

When a law enforcement officer has control of a subject suspected of a crime, the officer will take the subject into custody if the circumstances support keeping control of the individual to maintain public safety and peace. The officer may be making a probable cause arrest, serving an arrest warrant, or making a driving-under-the-influence (DUI) arrest.

A probable cause or on-view arrest is based on immediate circumstances of an incident, where sufficient evidence supports the actions of the law enforcement officer. Examples include traffic violations and incidents when the officer witnesses the commission of a crime. In some cases, the arrest may trigger the detention process and booking.

The law enforcement officer must make every reasonable effort to confirm the identity of a subject prior to the person's being taken into custody. The Arrest module must allow the officer to capture the method of identification that was used. It also must capture the completion of other steps such as the issuing of the Miranda warning.

RMS must provide the capability to print the arrest report after all of the data have been entered into the system.

An arrest report will be required when the law enforcement officer takes the final step in the arrest process of

transporting the person to jail. RMS should facilitate and document the agency's arrest report review process.

An interface with the appropriate booking and/or Jail Management System is desirable.

8.3 Use Case: Arrest Warrant Service

There are two situations that may trigger an arrest based on the serving of a warrant. The law enforcement officer may be serving an arrest warrant that was issued as a result of an ongoing investigation. Certain charges will have been approved by the prosecutor prior to the warrant being issued. These charges may or may not be updated prior to the service of the warrant. The arrest now follows the same process as a probable cause arrest.

The second trigger of a warrant arrest is when a law enforcement officer conducts a warrant check during a traffic stop or some other activity and finds that there is an active warrant on file for the person involved.

Prior to the warrant service, the officer must verify that the warrant is still valid. If the warrant was issued by another jurisdiction, the law enforcement officer must first confirm that the issuing agency is willing to extradite. This warrant verification process can be done using a mobile data computer that has the appropriate interface. Some agencies do not require an arrest report to be written if the warrant was issued by another jurisdiction.

After the warrant has been served, it is necessary to remove the warrant from all of the appropriate warrant systems.

8.4 Use Case: DUI Arrest

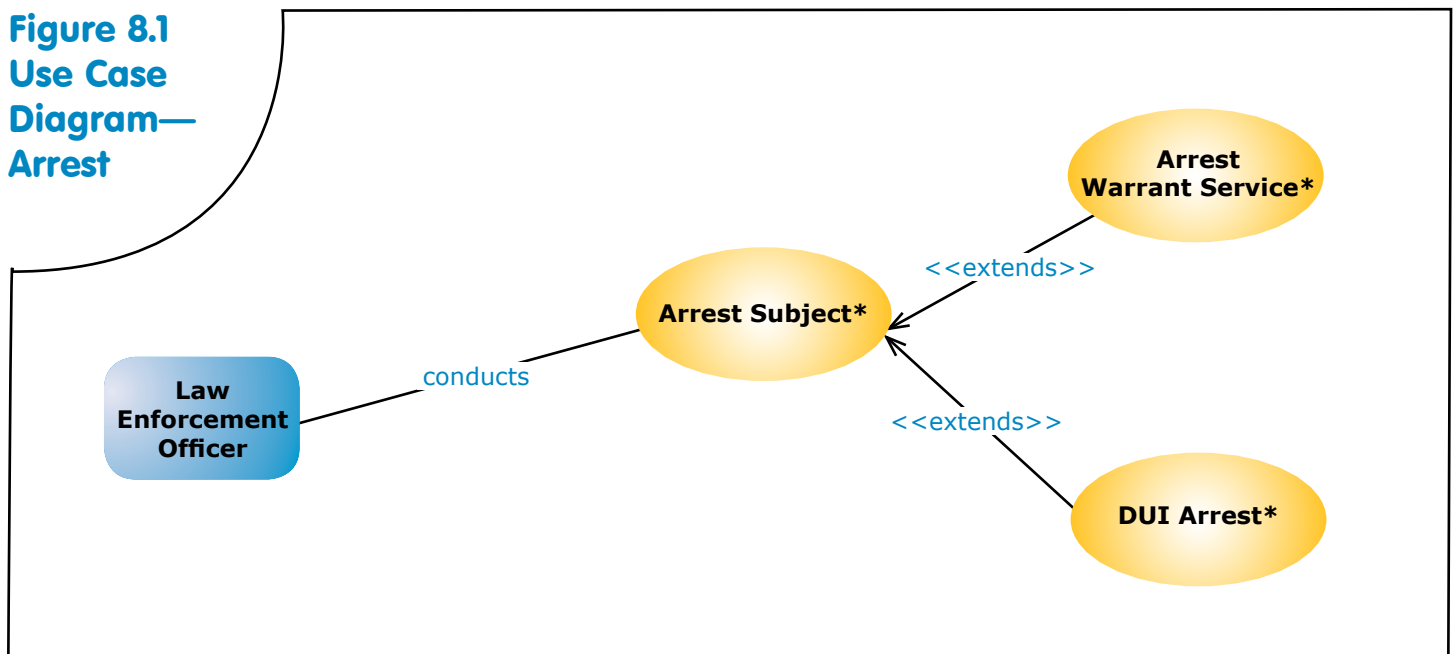
Driving under the influence of drugs or alcohol or while impaired in some other way is considered one of the most serious issues for traffic enforcement. Additional steps are required prior to the beginning of a DUI arrest.

This process may be initiated as part of a traffic stop or in response to an accident. If the law enforcement officer suspects that the driver was using drugs or alcohol, a chemical test will be conducted either in the field or under more stringent controls. The law enforcement officer will ask the subject if he or she is willing to submit to a chemical test. The response should be captured in RMS. When fatalities are involved, the law enforcement officer may be required to obtain chemical tests without the consent of the subject. All relevant information regarding the results from tests are gathered and recorded to supplement the report in RMS.

Based on the test results, the department's SOP for handling DUI arrests will be followed, and each step will be documented in RMS.

Evidence may be obtained from these types of traffic incidents, which require property handling and tracking.

Figure 8.1
Use Case
Diagram—
Arrest



9

Business Function: Booking

Booking data captured in a law enforcement RMS are eventually linked to the arrest report. The data to be captured include personal information of the subject.

The personal identification information provided by the subject will be checked against MNI to create a link to this booking and avoid unnecessary or redundant data entry. Personal information will include the subject's name and any known aliases; a physical description, including tattoos and other identifying marks; address and other contact information; date of birth; and identification data, such as a driver's license number or social security number. The subject's fingerprints will be taken as part of the booking process. A photo image also will be taken of the subject and may include images of any identifying attributes, such as tattoos and scars. RMS will provide the capability to store the images in the database linked to the booking record.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Booking form
- Booking summary, based on varying search criteria
- Daily court list by court and time
- Property received receipt
- Property released receipt
- Booking activity (e.g., intakes, releases, and transfers)

Standard External Data Exchanges:

- Jail Management System (JMS)
- Arrest
- Regional and state warrant and criminal history repositories, following NCIC standards
- Automated fingerprint identification system
- Mug-shot system

Standard Internal Data Exchanges:

- Master Name Index (MNI)
- Master Vehicle Index (MVI)
- Master Property Index (MPI)
- Property and evidence

9.1 Use Case Diagram (see page 26)

9.2 Use Case: Process Subject

The booking process includes collecting all relevant information on the subject and his or her arrest details, verifying the subject's identity, and addressing obvious physical and mental health needs.

This information may be obtained from the arrest report record within RMS. If the arrest report is available in RMS, a link should be established between the arrest report and the booking record.

If the booking record precedes the arrest record, the data from the booking record should prepopulate the arrest record. MNI acts as the primary key between the arrest record and the booking record.

Information about the arrest of the subject will be entered into the Booking module.

Agency officials perform an assessment during the course of the arrest and booking process. Generally, the assessment may follow a checklist of questions in RMS to capture noted medical needs and security risks. In an integrated environment, this information should be forwarded to appropriate external systems including the Jail Management System (JMS).

Property in the possession of the subject will be inventoried and stored in a secured area while the subject

is in custody. If it is determined that the property will not be released to the subject at the time of his or her release, then the property should be handled following department procedures for property and evidence management. If the subject is in custody, agency officials should perform an assessment of the subject during the course of the arrest and booking process. Generally, the assessment follows a checklist of questions and captures in RMS noting medical needs and security risks. In an integrated environment, this information should be forwarded to appropriate external systems, including JMS.

The subject will be assigned to an appropriate facility and bed, based on gender, assessment needs, and space availability. Temporary holding areas may be used in cases where long-term accommodations are unavailable or where the subject's assessment warrants the assignment, such as when medical needs exist or intoxication is a factor.

9.3 Use Case: Verify Subject

Personal information obtained from the subject will be used to obtain verification information from one or more sources to affirm or disaffirm the subject's identity. The personal information obtained from or about the

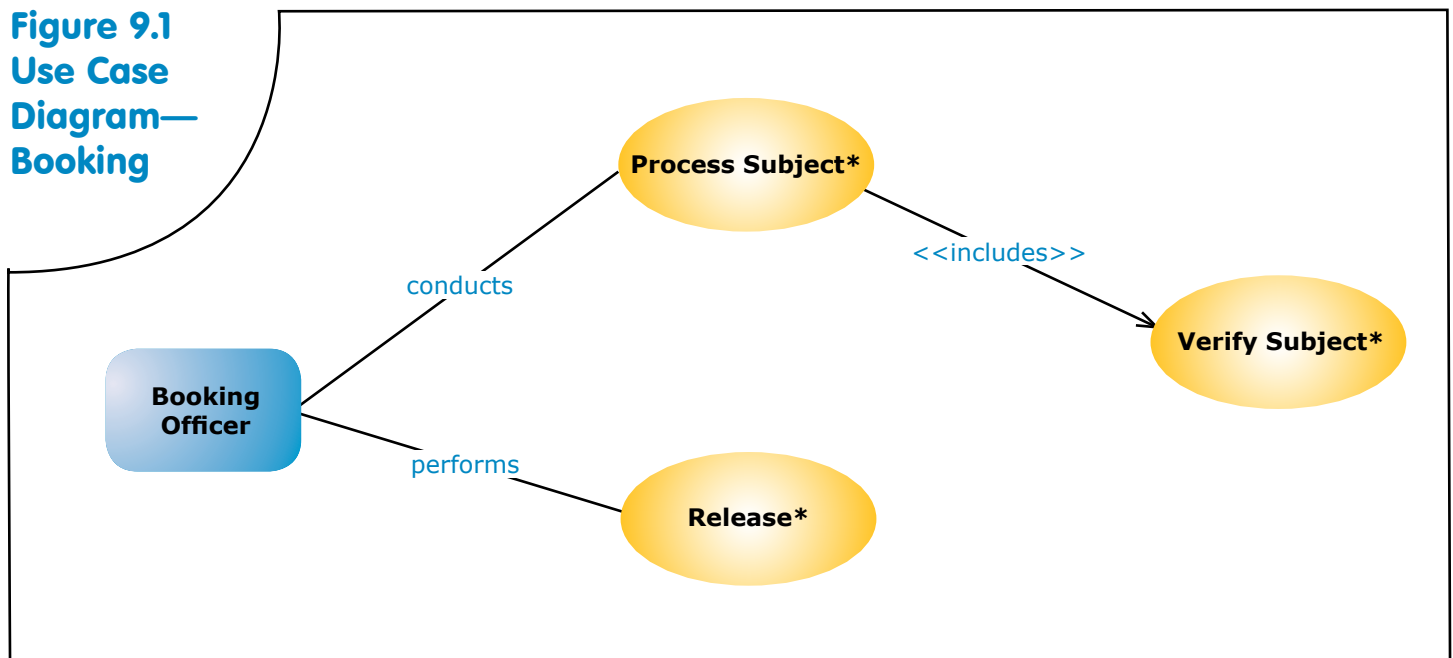
subject will exist in many forms, including descriptive text, fingerprints, DNA, and photographic images. In most instances, the verification process will affirm or disaffirm the subject's identity electronically, but in some instances, a visual comparison will be necessary to make a determination. Fingerprints may be sent to an Automated Fingerprint Identification System (AFIS) and the Federal Bureau of Investigation's (FBI) Integrated Automated Fingerprint Identification System (IAFIS).

The system should check MNI plus state, regional, and federal databases for any information. The State Identification Number (SID), FBI number, and any other information returned from AFIS/IAFIS will be added to the report as they are received.

9.4 Use Case: Release

When a subject is released from custody, bond money will be collected, if required, and a check will be made to determine if the subject has any active warrants. Prior to release, subjects will have their personal property returned to them. The booking record will be updated, where applicable, to record all relevant information supporting the release of the subject from custody, including the reason, effective date, and time of release.

Figure 9.1
Use Case
Diagram—
Booking



10

Business Function: Juvenile Contact

The juvenile justice system requires special handling of information about juveniles. Paramount in this is the handling of their records, which must conform to legal requirements that specifically define privacy protections.

RMS must accommodate the need to access juvenile data distinctly from adult information.

As with all cases, information about juveniles disseminated externally also requires information entered into the system to be expunged when ordered by the court or statute. Access must be restricted to authorized law enforcement personnel with special privileges.

In some jurisdictions, the juvenile court is actively involved in juvenile intake and assessment activities. As such, there may be an interface between courts and RMS. Juvenile RMS modules also may provide notifications to external agencies, such as social services organizations and schools, based on certain activities involving juveniles.

RMS should have the ability to automatically archive juvenile information after a requisite amount of time (as governed by state law) has passed since the entry or when the subject reaches the age of 18 (whichever occurs first).

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Juvenile custody
- Juvenile contact report
- Name listing for juveniles separate from adults, based on varying search criteria

Standard External Data Exchanges:

- Prosecutor
- Juvenile assessment center

- Juvenile detention center
- Jail Management System (JMS)

Standard Internal Data Exchanges:

- Mobile reporting system

Other Optional External Data Exchanges:

- Social services
- Court
- Schools

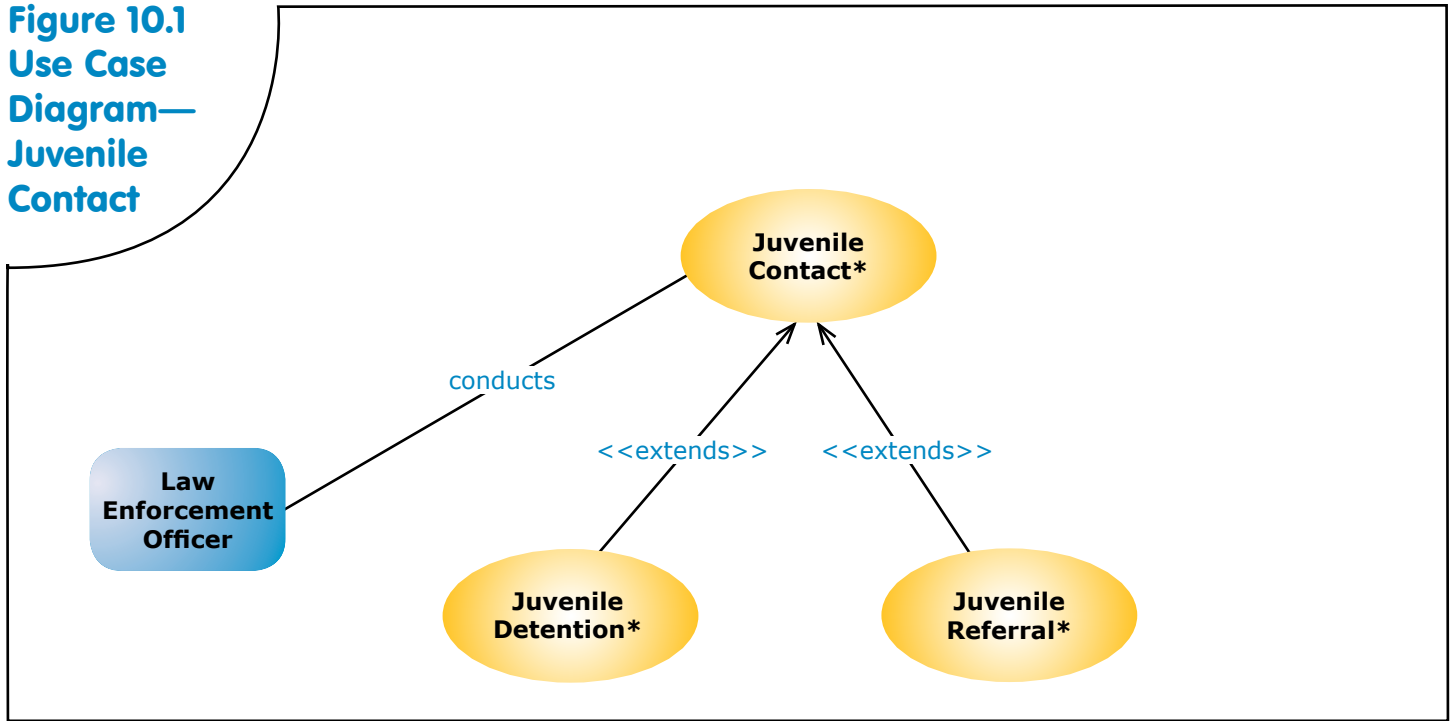
10.1 Use Case Diagram (see page 28)

10.2 Use Case: Juvenile Contact

A contact with a juvenile should be documented in RMS. The contact may result in a citation, referral, or detention. Taking the juvenile into custody allows the law enforcement officer to have the juvenile assessed and ensure the juvenile is not in danger. The law enforcement officer will gather information from the juvenile about the event to determine whether an offense (or status offense) occurred and whether to sanction the juvenile in any way.

In some jurisdictions, the law enforcement officer who takes the juvenile into custody will take the subject to a juvenile intake center for assessment. In other cases, qualified personnel at the law enforcement agency will make the assessment. Once the law enforcement officer has determined that the circumstances warrant more than admonishment, he or she will determine the appropriate recourse or referral. This evaluation is based on the nature of the incident, whether weapons were involved or narcotics were present, and the number of past contacts with the law and victims. In many jurisdictions, referral to juvenile intake is mandated if the juvenile has a pattern of delinquency over a period of time defined by law.

Figure 10.1
Use Case
Diagram—
Juvenile
Contact



The juvenile may be released to a parent or guardian, a hospital, or other nonjudicial authority. Informal diversion might include requiring the juvenile to perform specific community service. RMS has a mechanism that allows for timed alert notices if follow-up contact or information is necessary.

RMS will support these activities by documenting the contact with the youth in a juvenile contact record. It also will guide the law enforcement officer to the appropriate remedy, sanction, or referral, depending on the circumstances.

In handling a juvenile contact, law enforcement officers must communicate with both the professionals conducting the assessment and the juvenile’s parents or guardian. RMS must document these communications, as well as other information about the juvenile. The youth’s full name, age, address, contact (i.e., family) information, physical description, gender, and name of school he or she attends, as well as information about the incident, are examples of information that will be entered into RMS.

RMS should have the ability to automatically archive juvenile contacts after a requisite period of time (as governed by state law) has passed since the entry or when the subject turns 18 years of age (whichever occurs first).

10.3 Use Case: Juvenile Detention

The juvenile is placed into the care of a custodial facility. The system must send appropriate notification to the court, the prosecutor, and all appropriate social services agencies involved.

10.4 Use Case: Juvenile Referral

Formal charges may be brought against the juvenile. The juvenile may be released to a parent or guardian, a hospital, or other nonjudicial authority. Informal diversion may include assigning required community services. RMS has a mechanism that allows for timed alert notices if follow-up contact or information is necessary.

11

Business Function: Traffic Accident Reporting

Traffic accident reporting involves the documentation of facts surrounding an accident. Typically, these are incidents that involve one or more motor vehicles but also may include pedestrians, cyclists, animals, or other objects. Traffic accident reporting also may be referred to by the terms “collision” or “crash.”

Most states require law enforcement to provide uniform documentation and reporting on all traffic and highway accidents. The information compiled in accident reports is used by the public, insurance companies, traffic analysts, and prosecutors to assist in prosecuting individuals where a criminal offense also may be included. The accident data can also facilitate analysis by identifying necessary road improvements and the elimination of traffic safety hazards.

Typically, Traffic Accident Reporting is a module within the agency RMS. The information is typically captured at the location of the incident; transcribed into electronic forms (e.g., in the field or office); transferred to and used by RMS for local analysis; and, in many jurisdictions, transmitted to the state transportation department. In some jurisdictions, traffic accident reporting is performed using a separate software system, which often is provided by the state transportation agency.

The module also should allow the officer to collect data on the demographics of the people involved, to collect statistics for reporting on bias-based policing evaluations.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- State accident report
- Accidents by location
- Accidents by time of day and day of week
- Accidents by violation

- Accidents by severity
- Accidents by driver demographic
- Statistical summary by intersection
- Statistics by area (e.g., beat, precinct), day, and time

Standard External Data Exchanges:

- State motor vehicle division
- Local, regional, and state transportation departments, using U.S. Department of Transportation (DOT) standards
- Traffic engineering using DOT standards
- Community development

Standard Internal Data Exchanges:

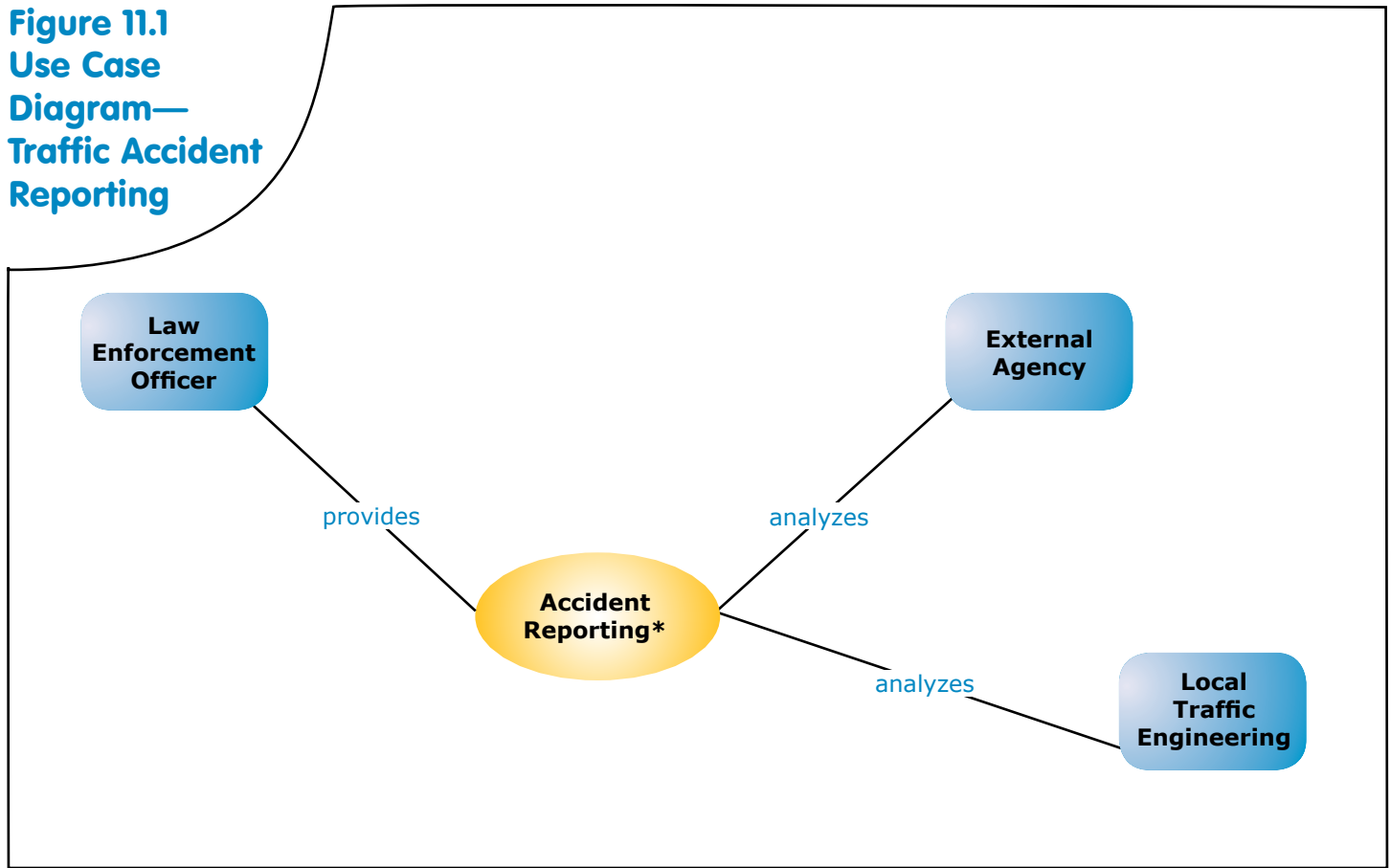
- Mobile reporting system
- Citation
- Master Name Index (MNI)
- Master Vehicle Index (MVI)
- Master Property Index (MPI)
- Arrest
- Citation
- Property and evidence
- Fleet management

11.1 Use Case Diagram (see page 30)

11.2 Use Case: Accident Reporting

Traffic accident reporting requirements differ from general criminal incident reports in that they emphasize the cause of the accident; weather, visibility, and road surface conditions at the time of the accident; and location information. Therefore, traffic accident reporting systems usually include drawing or diagramming tools to assist

Figure 11.1
Use Case
Diagram—
Traffic Accident
Reporting



in accurately capturing accident scene and location information.

The system should support the ability to attach accident diagrams and photographs to the accident report. If a citation is issued as a result of the accident, the citation should be linked to the accident report.

12

Business Function: Citation

Individuals or organizations charged with minor offenses often are issued a citation or ticket, which requires them to pay a fine, post a bail amount, and/or appear in court on a specified date. Citations are commonly used in traffic and misdemeanor law enforcement.

The offender is given a copy of the citation that may contain a preassigned court appearance date. When the citation data are entered or uploaded into RMS, the appropriate links should be made to the master index records. The court clerk is notified of the charges, either by receiving a paper copy of the citation or an electronic copy of the citation data. Often, the offender can pay a fine or forfeit a bail amount to satisfy the fine. In the event that the court date is not assigned when the citation is issued, it is assigned at a later date. The Citation module should capture the court data and record the court's disposition of the citation.

In many jurisdictions, a uniform citation form is used by all law enforcement agencies. The application that supports the creation of the citation may be a module of RMS or a third-party solution designed for the creation of citations in the field.

If the subject is not issued a citation from a citation book, the application must be able to print the citation.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Citation and warnings summary based on varying search criteria
- Citation by location
- Citations and warnings by demographic data
- Citation audit (e.g., missing/voided numbers)

Standard External Data Exchanges:

- Court
- Jail Management System (JMS)
- Warrant
- Prosecutor
- Department of Motor Vehicles (DMV)

Standard Internal Data Exchanges:

- Mobile reporting system
- Traffic accident reporting
- Incident reporting (e.g., misdemeanor citations)
- Master Name Index (MNI)
- Master Vehicle Index (MVI)
- Master Property Index (MPI)
- Arrest
- Juvenile contact

12.1 Use Case Diagram (see page 32)

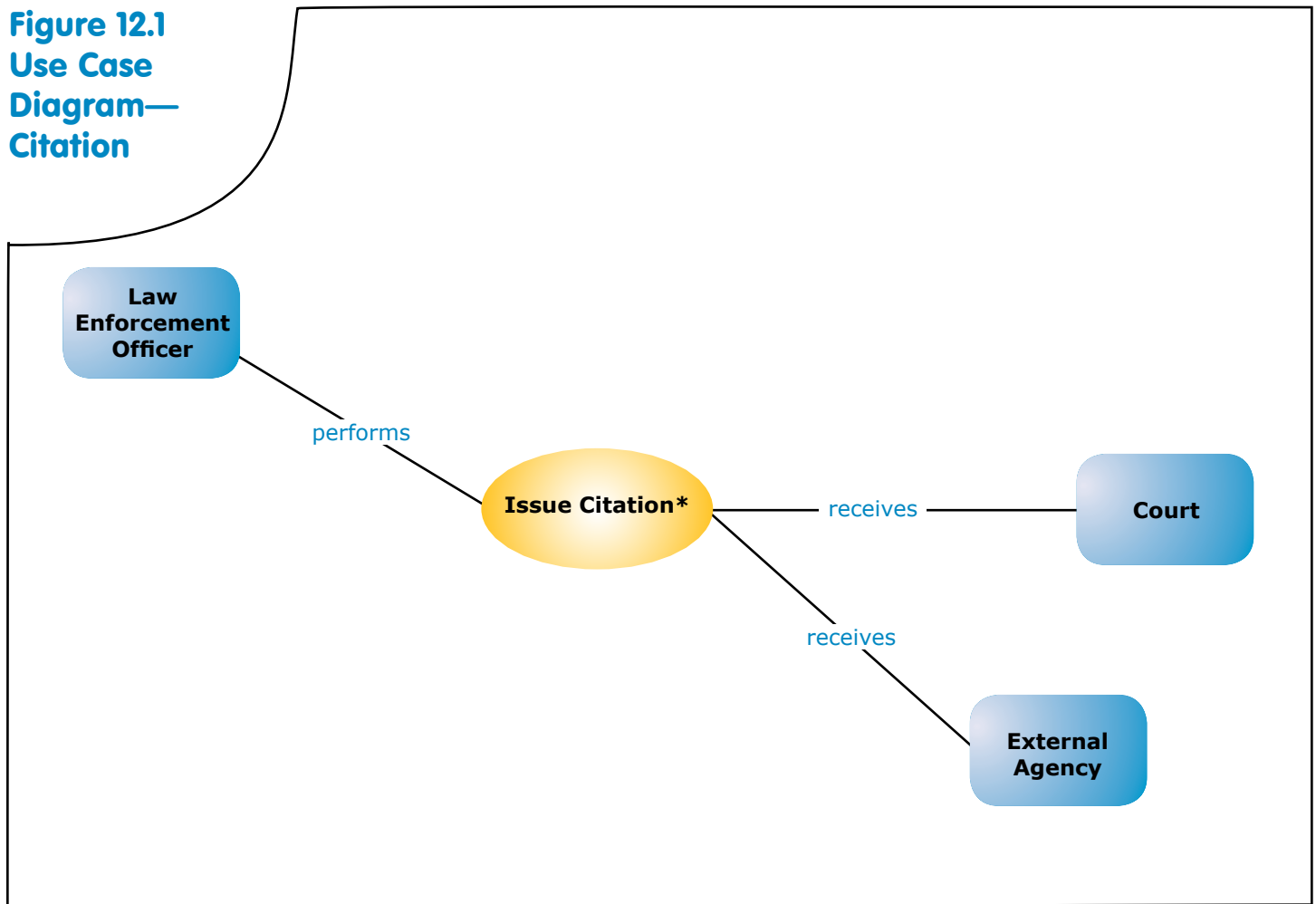
12.2 Use Case: Issue Citation

Citation information is stored and tracked in RMS. Officers will enter information about a violation or charge, as well as relevant court information, into RMS. The citation information will then be sent to the court, either electronically, if the appropriate interface is in place, or manually.

The officer issuing the citation needs to query state and local databases that contain information regarding previously issued citations and warnings. The query also should check for any outstanding warrants or alerts.

A law enforcement officer may decide to issue a warning

Figure 12.1
Use Case
Diagram—
Citation



instead of a citation. RMS must track warnings, as well as citations. Both must be linked to the subject's master name record.

The module also should allow the law enforcement officer to collect data on the demographics of the people involved, to collect statistics for reporting on bias-based policing evaluations.

13

Business Function: Field Contact

A field contact record is created by a law enforcement officer based on the department's SOP. Typically, this process is triggered by unusual or suspicious circumstances or any activity that is considered by the law enforcement officer to be of interest but would not otherwise be documented in RMS (see the Incident Reporting module for more details). The data in the Field Contact module are available for analytical support (crime analysis). It also can be searched by investigators to develop leads.

Field contacts are not subject to the same stringent review and approval process as incident reports.

The module also should allow the officer to collect data on the demographics of the people involved in order to collect statistics for reporting on bias-based policing evaluations.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Field contact summary, based on varying search criteria

Standard External Data Exchanges:

- State repositories, NCIC
- Mug shots
- Fingerprints

Standard Internal Data Exchanges:

- Mobile reporting system
- Master Name Index (MNI)
- Master Property Index (MPI)
- Master Vehicle Index (MVI)

13.1 Use Case Diagram (see page 34)

13.2 Use Case: Document Field Contact

A field contact is documented, usually at the discretion of the law enforcement officer, based on an observation or information indicating suspicious or unusual activity or circumstances, such as the following:

- A parked car in an area and at a time normally vacant of cars
- One or more people in an area and at a time normally vacant of people
- One or more people loitering in a vulnerable area
- People and vehicles that appear to be out of place for any particular reason

Specific areas may be targeted for field contact based on departmental policy. Such targeting may be for high-crime areas or in potentially sensitive areas, such as areas near schools and religious institutions.

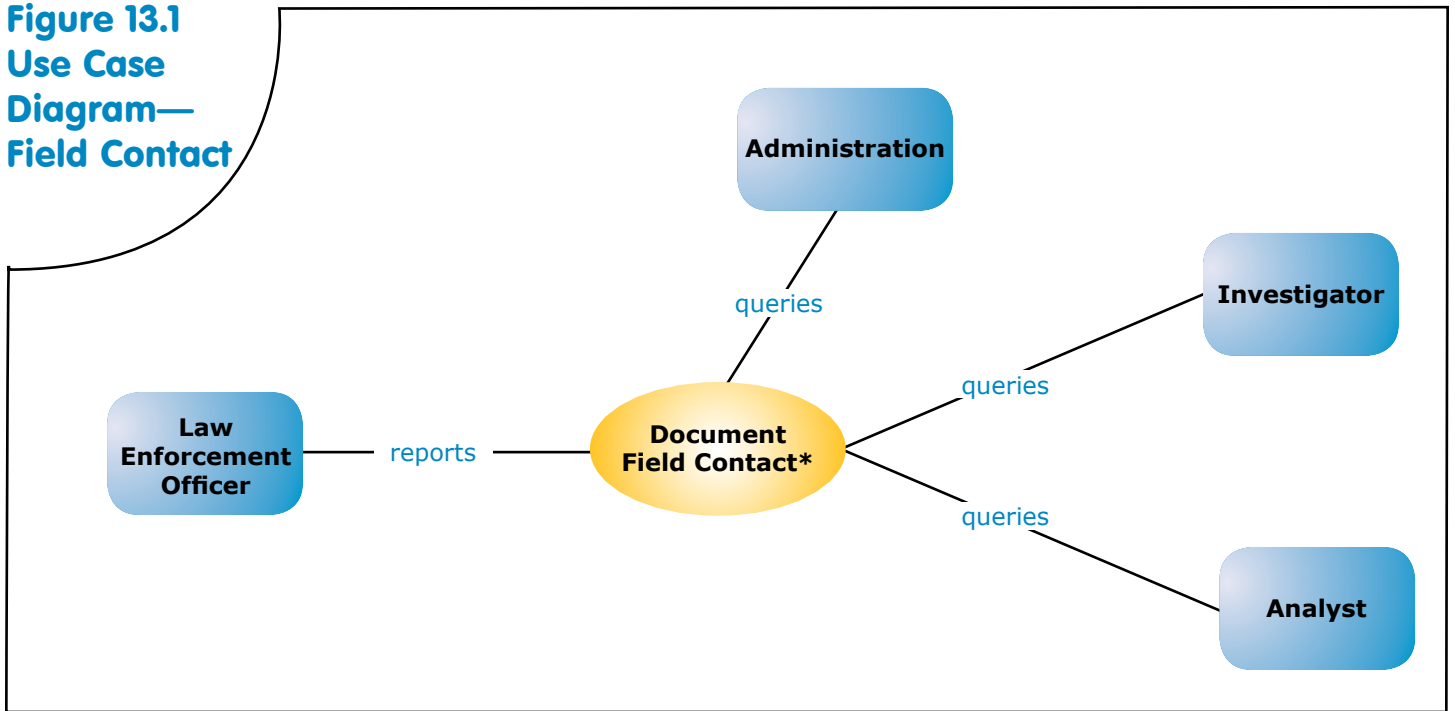
The information collected includes:

- Location and time
- General circumstances
- Names and descriptions of persons
- Identifying information on vehicles or other property

Field contact information serves as a key input to analytical support (crime analysis) and other investigative processes. It helps to establish links between persons, vehicles, and crime events. Because of this, field contact information should be consistent with data standards used in the analytical support/crime analysis process.

Field contact reports, unlike incident reports, are normally not subject to a stringent supervisor review and approval process. They are, however, reviewed to ensure the

Figure 13.1
Use Case
Diagram—
Field Contact



quality and adequacy of reporting and consistency with departmental policy and statute.

14

Business Function: Pawn

Pawn modules in RMS help law enforcement representatives identify and recover personal property that has been reported stolen. Many jurisdictions require pawnshops to register the items they receive and sell to facilitate this tracking process.

Specific functionality of the Pawn module includes:

- Collecting, storing, and tracking pawn data
- Comparing pawn data with lost or stolen property
- Supporting the investigative process for matches or patterns
- Running inquiries to external regional, state, and federal systems
- Providing data necessary to serve the needs of state pawn systems

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Pawn summary based on varying search criteria (e.g., date, time of sale, and property type)
- Frequent pawner list

Standard External Data Exchanges:

- State and regional pawn systems following NCIC property standards
- Local pawnshop computer systems following NCIC property standards

Standard Internal Data Exchanges:

- License and permits
- Master Property Index
- Property and evidence

14.1 Use Case Diagram (see page 36)

14.2 Use Case: Receive and Process Pawn Data

The pawn shop must submit pawn tickets to the law enforcement agency—either by paper or electronically. This information is then entered into the Pawn module. In the event the property record has a unique identifier, such as a serial number, inquiries may be made to local and external systems. In addition, the name of the person pawning the item and personal identity documentation information (e.g., driver's license number) should be included. Depending on the type of property being pawned, name inquiries may be made to state and national systems.

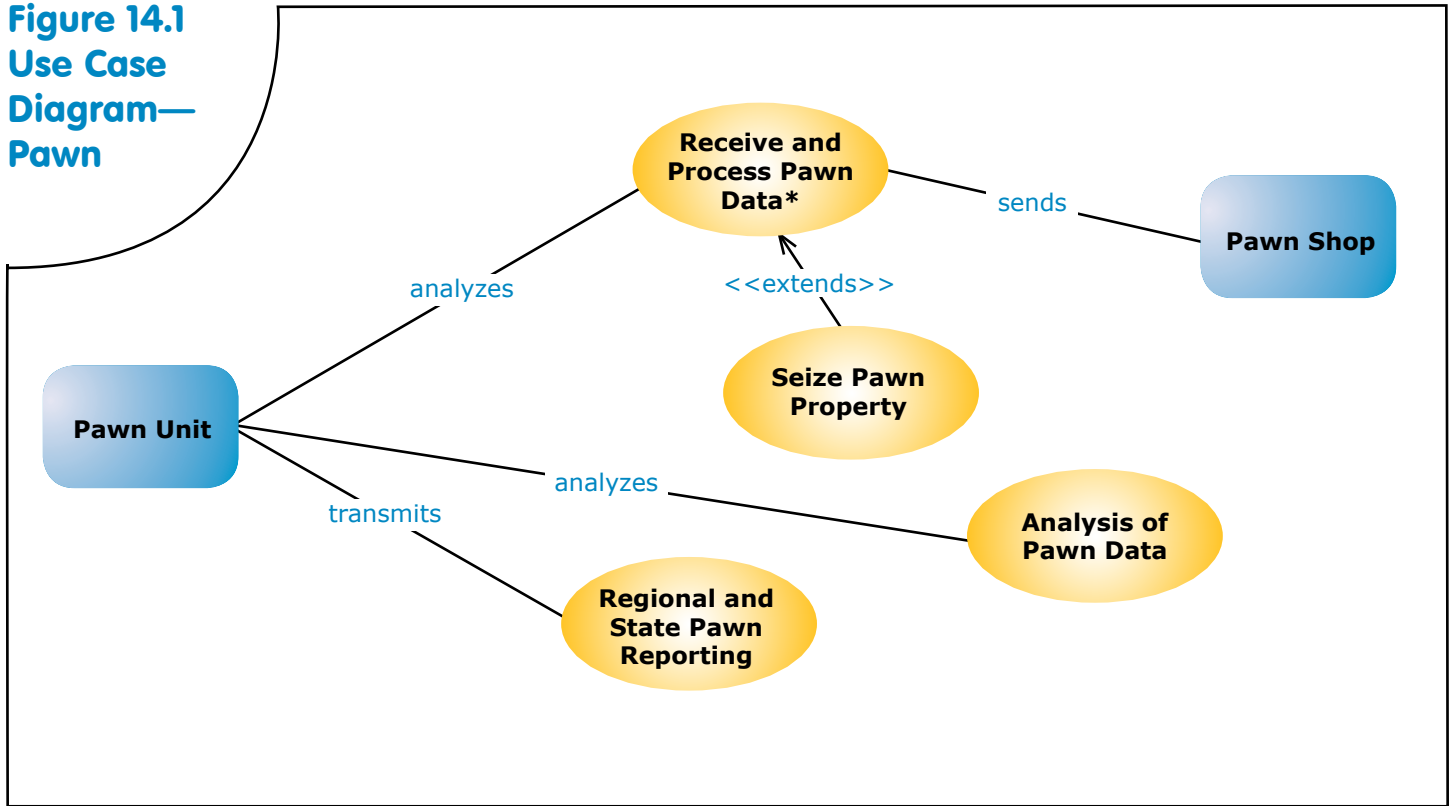
As new items are added to the stolen property database, the pawn database should be automatically queried to determine if the item was previously reported as being pawned.

Any positive hits that return from these external inquiries require follow-up on the part of the pawn unit. This follow-up could include seizing property or further investigation.

14.3 Use Case: Seize Pawn Property

When the pawn unit has identified pawned property that was reported stolen, the pawn record is updated to reflect that the article had been reported stolen and then seized. The pawn unit will take action to seize the property for evidentiary or safekeeping purposes. The property is then checked into the Property and Evidence Management module and, at this point, becomes part of an investigation.

Figure 14.1
Use Case
Diagram—
Pawn



14.4 Use Case: Analysis of Pawn Data

The Pawn module will analyze pawn data versus stolen data to identify trends and patterns. Examples of analysis include frequent pawn activity by location, person, type, etc. The module must create reports to support the analysis.

14.5 Use Case: Regional and State Pawn Reporting

If an external repository maintains pawn data, information from local Pawn modules may be transmitted to these systems electronically.

15

Business Function: Civil Process

Civil process describes the law enforcement agency responsibility to serve legal papers and execute legal processes as required to facilitate due process through the judicial system. These functions are commonly performed by sheriffs' offices, which are entitled to payment by private parties for such service. RMS modules should allow the data entry of papers to be served, as well as the capability to track the service of civil papers. There often is a data exchange with a billing or accounting system.

The agency may be required by statute to serve these court documents as prescribed and within specified time limits. These documents may include writs, summons, subpoenas, warrants, judgment orders, and civil protection orders. RMS will provide the ability to record the disposition of all actions required by the order, including court-ordered eviction, the seizure of property, and collection of court-ordered fees.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Active civil papers (e.g., by age, jurisdiction, and server)
- Served/returned civil papers
- Civil paper/civil paper jacket
- Expired civil papers
- Notice generation
- Letter generation
- General financial
- Civil summary (e.g., paper summary, assignments, and attempts to serve)
- Affidavit of service

Standard External Data Exchanges:

- Accounting system
- Court
- Jail Management System (JMS)

Standard Internal Data Exchanges:

- Master Name Index
- Master Vehicle Index
- Master Location Index (MLI)
- Master Property Index (MPI)
- Master Organization Index (MOI)
- Warrant

15.1 Use Case Diagram (see page 38)

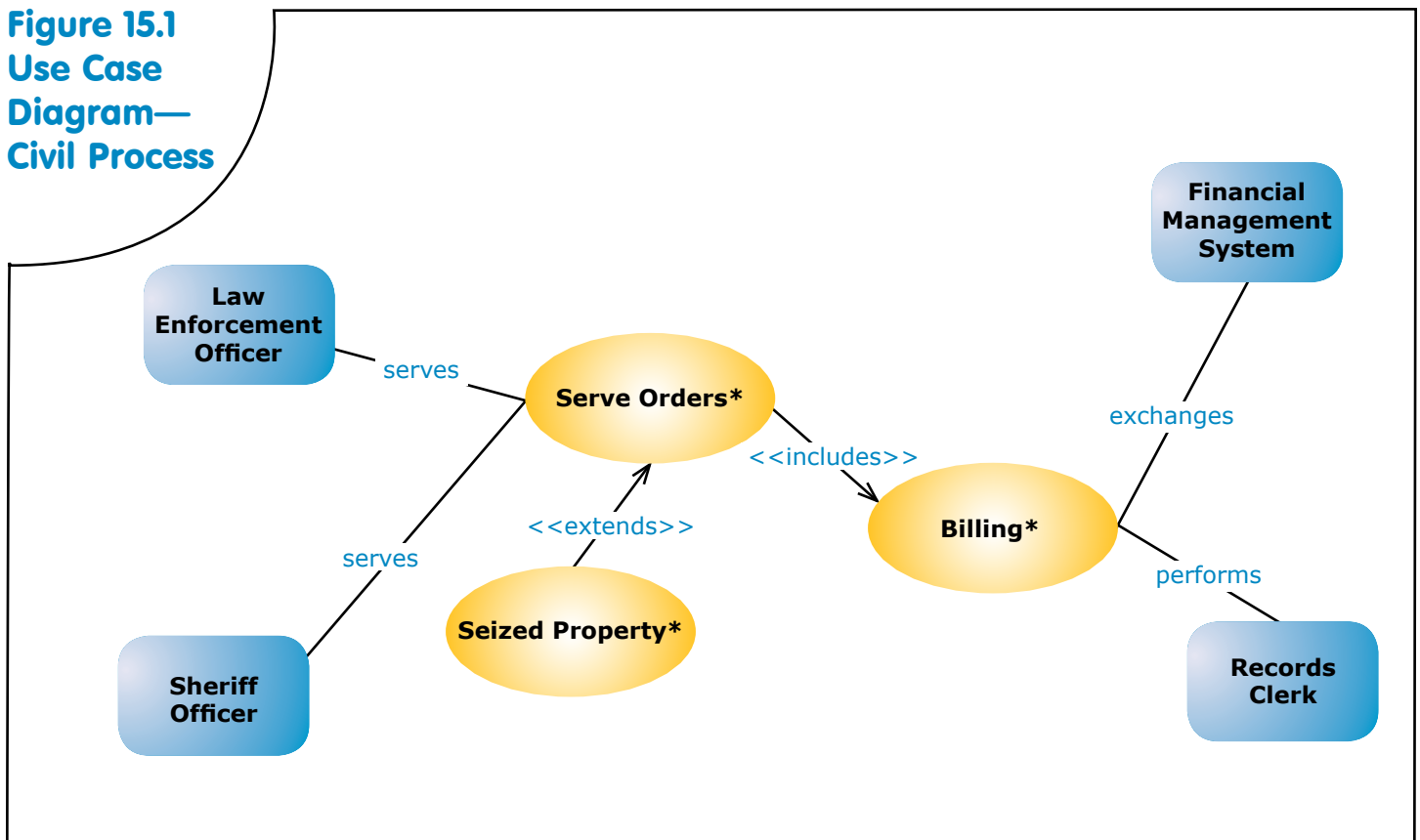
15.2 Use Case: Serve Orders

The service of orders to individuals, organizations, or other justice officials is based on court orders or subpoenas. Service of orders also includes evictions. There will be a good faith effort to serve the order as many times as necessary up to the expiration date. The service attempts and circumstances will be documented. The system generates an affidavit of service to the court on successful service or expiration of the order.

15.3 Use Case: Seized Property

Seized property describes the process and action of seizing personal property, based on a court order presented to a law enforcement officer. The individual or organization is served the order to voluntarily relinquish the property. On failure to relinquish property on a designated date, a property seizure will be scheduled and executed. All service attempts, as well as the order execution, will be documented in RMS.

Figure 15.1
Use Case
Diagram—
Civil Process



15.4 Use Case: Billing

An agency's RMS should collect the information pertaining to any fees associated with an order service and transfer billing data to the financial system for billing, collection, and distribution of funds. Billing information includes whom and when to invoice, billing amounts, and the allocation and disbursement of fees.

16

Business Function: Protection Orders and Restraints

Law enforcement agencies receive court orders for protection directly from the court or the protected party. This module is used to record protection orders and restraints, including antiharassment orders, protection orders, no-contact orders, and civil protection orders. All parties named in the orders and their relationship to the order must be stored in the system. The conditions of the order are stored as well. The conditions should include information such as the issuing authority, effective time period, location, distance, restrictions, and type of contact prohibited. This information must be readily available by name and location of the parties and also may be cross-referenced by vehicle.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Expired/soon-to-expire orders
- Active orders
- Orders that have been served
- Orders received, by source
- Cancelled orders
- No trespass order

Standard External Data Exchanges:

- CAD
- Court
- National Protection Order Registry (NPOR)
- Jail Management System (JMS)

Standard Internal Data Exchanges:

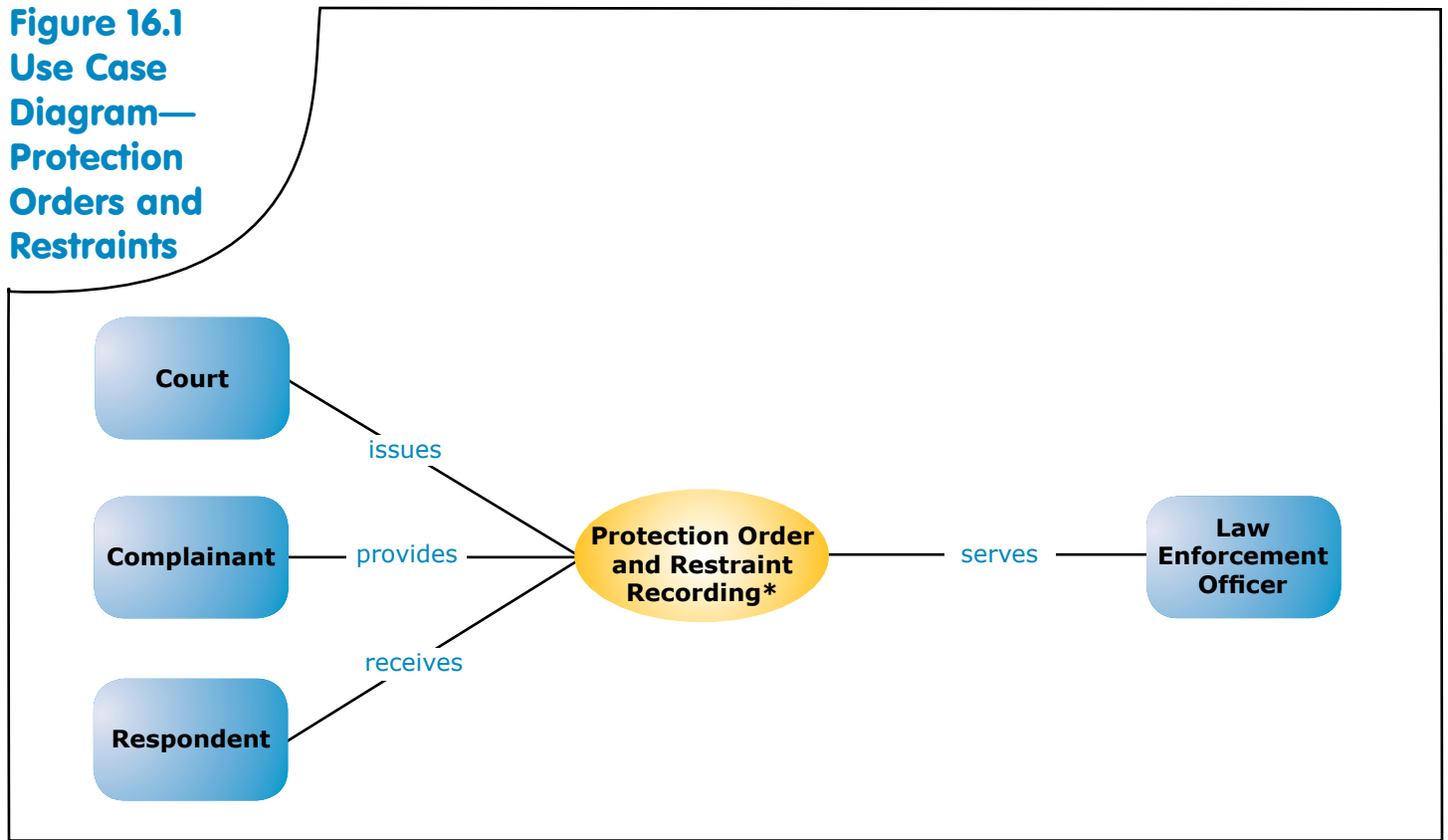
- Master Name Index (MNI)
- Master Location Index (MLI)
- Master Vehicle Index (MVI)
- Master Organization Index (MOI)
- Master Property Index (MPI)

16.1 Use Case Diagram (see page 40)

16.2 Use Case: Protection Order and Restraint Recording

A valid protection order or restraint is recorded in RMS.

Figure 16.1
Use Case
Diagram—
Protection
Orders and
Restraints



17

Business Function: Permits and Licenses

The Permits and License module records and tracks the issuance of licenses by agency. Examples of devices and activities that require a license include, but are not limited to, electronic alarms, firearm ownership, and operating massage parlors. Examples of permits include parade, race, or demonstration permits. Licensing is generally for an extended period of time, while permits provide authority for a shorter and specific period of time.

The status of licenses and permits is tracked, including application granting, denial, revocation, and expiration. The change of status or an upcoming expiration date generates appropriate alerts and notifications.

Applicant names are checked against the system MNI. Depending on the type of license or permit, there may be criminal history or other background information that precludes the applicant's eligibility to obtain the license.

Once a license is issued, if the licensee is arrested or is issued a traffic violation, the system will generate an alert to notify the permit and license group to determine whether the license should be revoked.

The system also must track the payments associated with the issuance of licenses and permits or link with a financial system to determine payment status.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Permits and license applications granted based on varying search criteria
- Permits and license applications denied with reason
- False alarm responses, for billing purposes
- Expiration notice

Standard External Data Exchanges:

- CAD (e.g., call data from alarms)

Other Optional External Data Exchanges:

- Financial management system

17.1 Use Case Diagram (see page 42)

17.2 Use Case: Application Processing

The application process includes reviewing the application to ensure all requirements are met. The review will result in either an approval or denial. The decision will be recorded in the RMS, and a notification will be generated by the system and sent to the applicant.

Guidelines for approval may include successful completion of specific training and/or passing a background check to verify the absence of relevant criminal history. There may be fees associated with the application process.

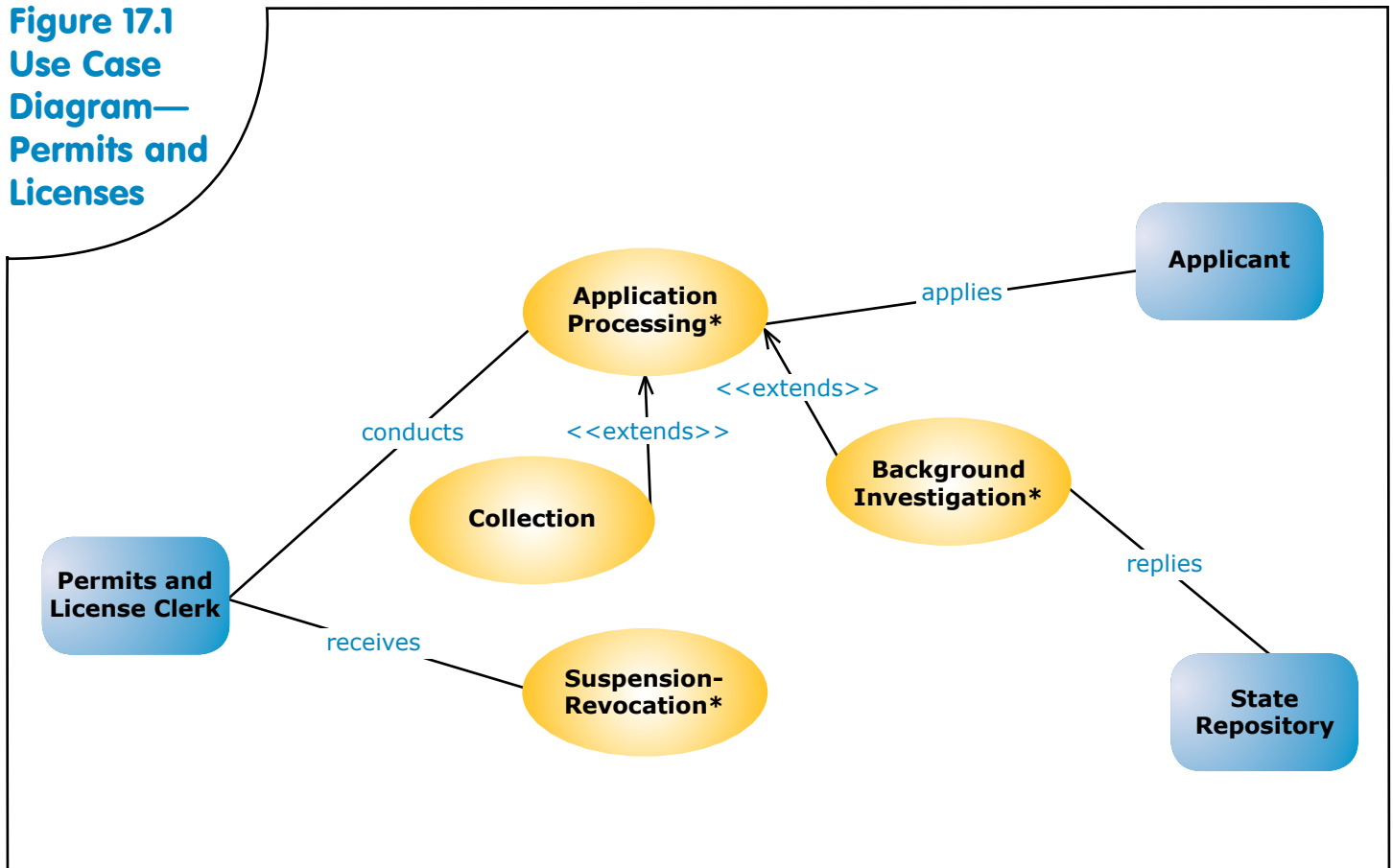
17.3 Use Case: Collection

The system will either receive notification of payment receipt from the financial system or record payment for the application. This module merely associates the payment with the application; it does not include cash drawer accounting.

17.4 Use Case: Background Investigation

The purpose of the background investigation is to determine whether the individual is eligible for the license or permit. The type of permit or license may require differing investigative steps and procedures, such as collecting fingerprints and criminal history checks.

Figure 17.1
Use Case
Diagram—
Permits and
Licenses



17.5. Use Case: Suspension-Revocation

Once the license has been issued, if a licensee is arrested or has traffic violations, the system will generate an alert to notify the permit and license group to determine whether the license should be revoked.

The above situation can result in the generation of a notification letter to the licensee.

18

Business Function: Equipment and Asset Management

Equipment management describes the processes that the law enforcement agency uses to:

- Record the receipt of equipment
- Record the source of the equipment
- Issue equipment to an organizational element or individual
- Track equipment check-in or checkout

Management and tracking of equipment may be facilitated by the integration of bar-coding equipment, a Radio Frequency Identification Device (RFID), etc. The system should have the ability to store photographs of the equipment.

The Equipment and Asset Management module should generate reports to support the physical inventory and audits, which will assist in managing the repair, disposal, and maintenance of agency equipment.

In some agencies, inventory and control of agency property are regulated by authorities outside the law enforcement agency. If this is regulated by an outside agency, an interface between the two systems may minimize duplicate data entry.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Physical inventory report, based on varying search criteria (e.g., category, age, unit, and location)
- Physical inventory exception report
- Check-in/checkout log
- Equipment history

External Data Exchanges:

- Regulating authority (e.g., general services, facility services)

Other Optional External Exchanges:

- Financial management system
- Purchasing

18.1 Use Case Diagram (see page 44)

18.2 Use Case: Equipment Receipt

The Equipment and Asset Management module will allow the capture of descriptive characteristics of the equipment, associated identifiers on the equipment, and any agency-specific unique identifier, such as an inventory control number.

18.3 Use Case: Equipment Issuance

Equipment may be assigned to an organizational element (e.g., unit, division, or group) of the agency, a physical location, or an individual. In addition, equipment may be assigned on a check-in/checkout basis (e.g., daily basis, for patrol). The system must maintain a log of all activity.

Equipment may be authorized but not issued (e.g., a personally owned weapon). The authorization to carry that equipment must be captured.

18.4 Use Case: Equipment Checkout

When equipment is checked out to a unit or authorized person, information about the checkout (e.g., individual receiving equipment, date and time of equipment checkout, and condition of equipment) is recorded for tracking purposes.

This process may be facilitated by the use of bar-code or RFID equipment.

18.5 Use Case: Equipment Check-In

The return of equipment will include an evaluation of the condition of the item, performance of maintenance procedures, disposition of equipment deemed unfit for service, and the return of functional equipment.

The system must support the generation of reports for overdue, lost, stolen, or destroyed equipment.

18.6 Use Case: Physical Inventory/Audit

This function of the system must be able to generate reports about the physical whereabouts of agency equipment. The physical inventory will result in the identification of missing equipment, as well as equipment recommended for repair, replacement, or disposal. This process may identify that the location of the equipment

has changed. All information gathered during the physical inventory is used to update the system.

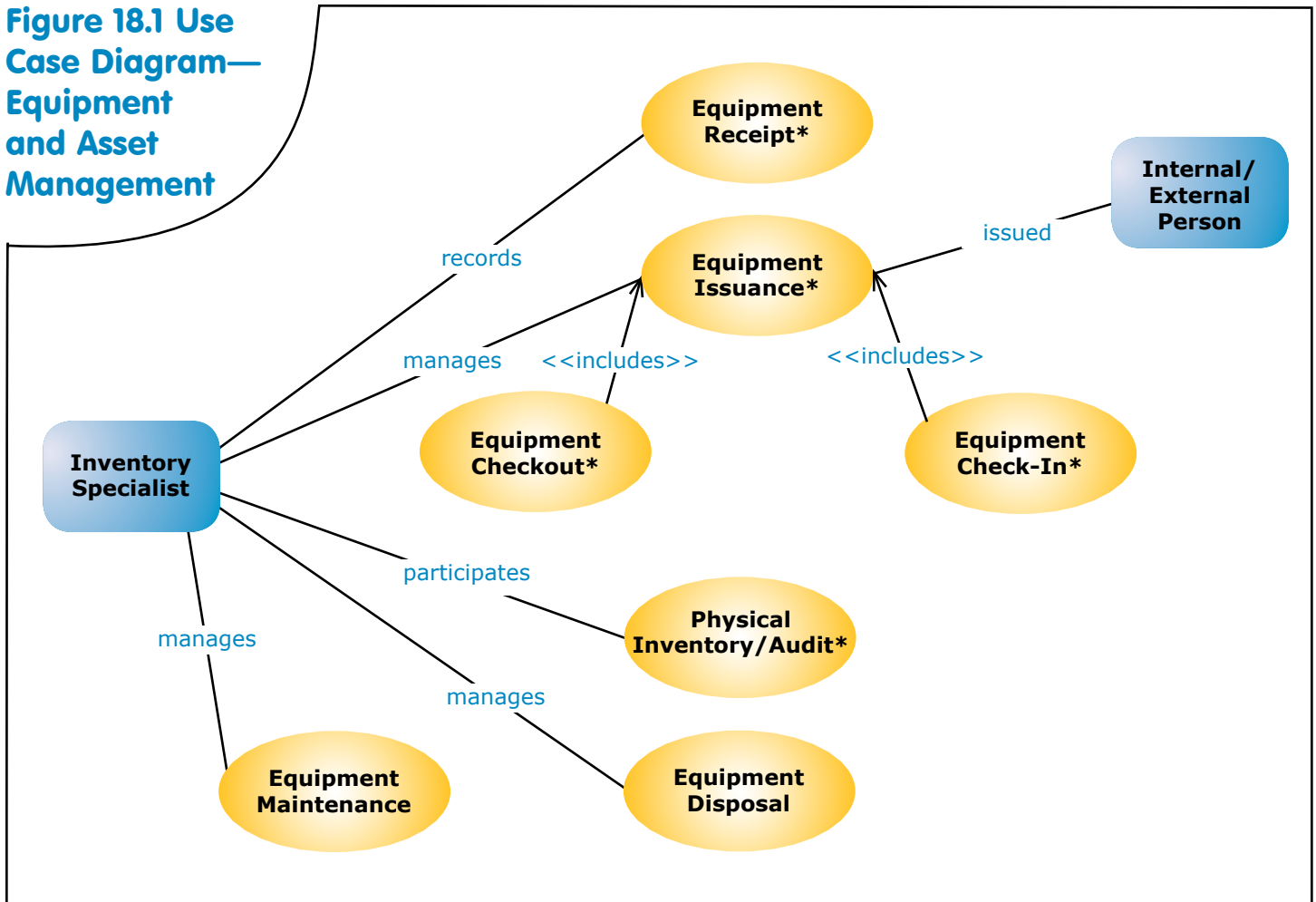
18.7 Use Case: Equipment Maintenance

The system shall record information about equipment condition and maintenance. The information recorded in this module includes reason for repair, cost of repair, date of repair, maintenance location, date expected back in service, date returned to service, and date of next scheduled maintenance.

18.8 Use Case: Equipment Disposal

This is the process associated with taking a piece of equipment out of service and disposing of it. The system changes the equipment status but will not delete or remove historical records associated with that item.

Figure 18.1 Use Case Diagram—Equipment and Asset Management



19

Business Function: Fleet Management

Fleet management includes all vehicle types (e.g., car, motorcycle, boat, and aircraft) and generally encompasses:

- Tracking and issuance of fleet assets
- Tracking service and maintenance schedules and history
- Parts inventory and warranties
- Fuel and oil inventory and usage
- Vehicle disposal

When maintenance or repair work is performed by a contractor, the fleet management module may include functions to track vendors and the services they provide.

Equipment assigned to vehicles may be associated with the identifiers issued by the Equipment and Asset Management module.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Fleet inventory
- Maintenance schedule
- Fleet repair log
- Fluid consumption/cost
- Vehicle repair cost
- Fleet equipment list

External Data Exchanges:

- CAD (e.g., for mileage and use information)

Other Optional External Data Exchanges:

- External fleet management system managed by city, county, or agency
- Fuel card system

19.1 Use Case Diagram (see page 46)

19.2 Use Case: Fleet Receipt

The Fleet module will allow the capture of:

- Descriptive characteristics of the vehicle (e.g., color, make, and model)
- Date the vehicle was deployed
- Starting mileage
- Identifiers (e.g., VIN and license plate number)
- Any agency-specific unique identifier

This module also will establish the service schedule, such as tune-ups and oil changes.

19.3 Use Case: Fleet Issuance

Fleet issuance refers to tracking events related to fleet asset issuance and where fleet is assigned. Vehicles are assigned to a particular organizational element or individual. The system should allow the ability to track the issuance history of the vehicle.

19.4 Use Case: Fuel Log

The Fleet module records the date, price, and amount of fuel purchased at each fill-up, as well as the vehicle's mileage at the time of fill-up. This assists the agency in tracking fuel-related costs.

If the agency uses a fuel card system, there may be an interface between it and the Fleet module to import the fill-up data directly.

19.5 Use Case: Fleet Maintenance

The system can be used to record information about vehicle maintenance and service. The information recorded in this module includes:

- Projected and actual maintenance schedule
- Fluid servicing
- Vendor providing service
- Repair schedule
- Repair and maintenance costs

In addition to periodic scheduled maintenance, a vehicle can enter this process if it is determined to be in need of unexpected repair.

19.6 Use Case: Damage Reporting

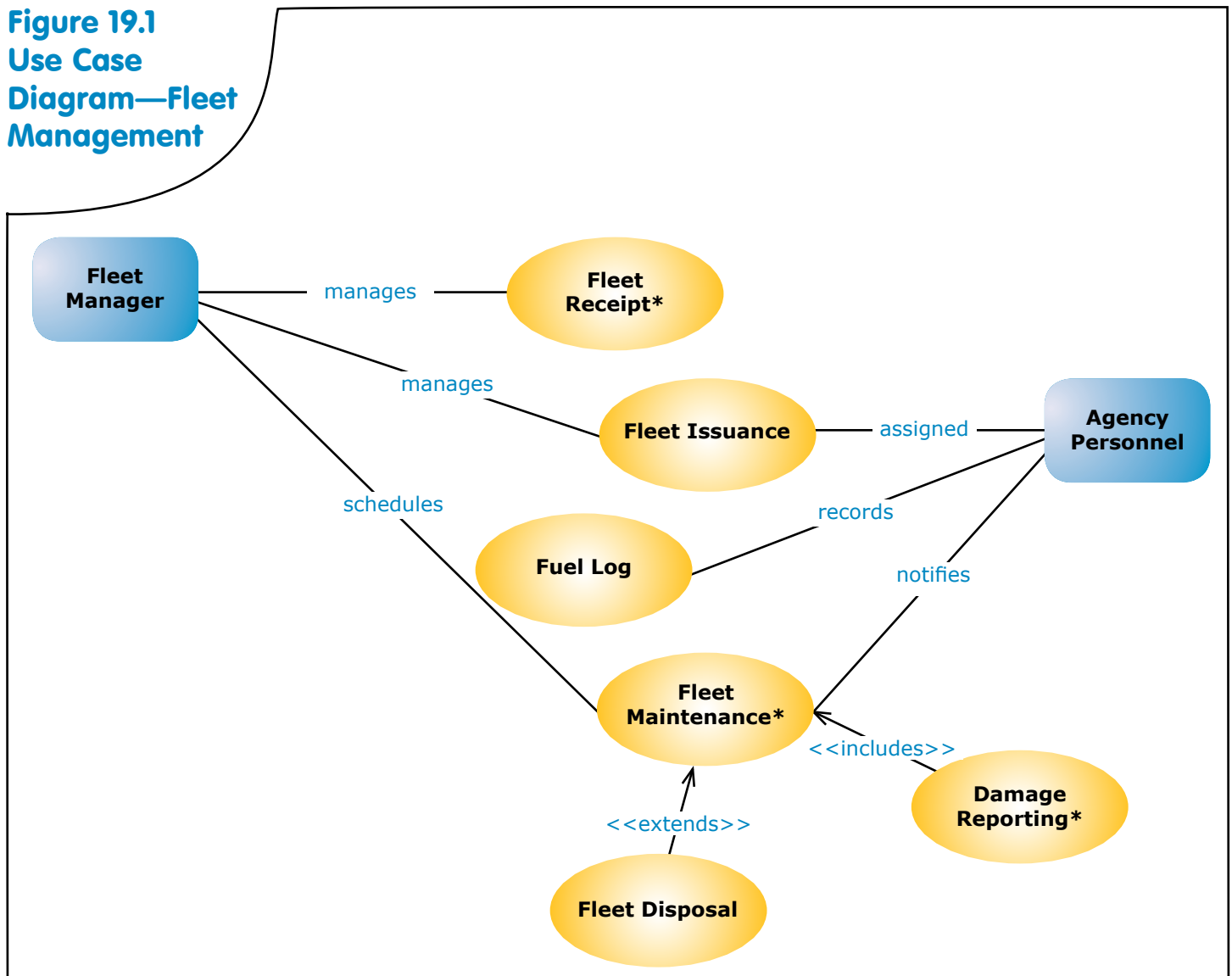
Agency personnel and the fleet manager will periodically assess the condition of the vehicle and record any damage.

This may or may not lead to a repair or maintenance activity. It also may lead to an assessment of officer performance.

19.7 Use Case: Fleet Disposal

This process is associated with taking a vehicle out of service and disposing of it. The system changes the vehicle status but will not delete or remove historical records associated with that item.

Figure 19.1
Use Case
Diagram—Fleet
Management



20 Business Function: Personnel

The Personnel module allows law enforcement managers to capture and maintain information on the individuals in their department, including volunteers. It also may include information on people outside the department who have received training from the department (e.g., people attending a citizen's academy). This information typically includes the person's basic information, such as emergency contacts, current and past assignments, education, training history, and certifications.

In most locations, information about the employee also is maintained in an external human resource system. To avoid duplicate data entry, an interface should be established between the personnel system and the law enforcement RMS personnel module.

This module addresses those functions that are unique to a law enforcement agency and/or are typically not found in a stand-alone human resources software program.

The Health Insurance Portability and Privacy Act (HIPPA) applies to those agencies that provide health care.

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Personnel summary, based on varying search criteria
- Personnel detail
- Duty roster
- Training and certification scheduling
- Pending certification and skill expiration
- Issued equipment based on varying search criteria
- Health maintenance requirements for duty status

Standard External Data Exchanges:

- Human resources
- Staffing deployment system
- CAD

Standard Internal Data Exchanges:

- Equipment and asset management
- Fleet management

20.1 Use Case Diagram (see page 49)

20.2 Use Case: Operational Management

RMS should be able to draw on RMS data to identify potential personnel and organizational issues. The information includes biased-based policing, uses of force, vehicle pursuits, vehicle crashes, employee injuries, citation data, field contact reports, citizen complaints, and civil and criminal actions.

Management should be able to conduct analyses, as well as ad hoc reporting on these parameters. Management should have the ability to define thresholds on data elements of interest and be notified when certain values, either above or below the thresholds, have been reached.

20.3 Use Case: Personnel Information

The system must allow for the gathering and maintenance of basic information for all personnel working for the department. Information may include names and addresses, physical characteristics, assigned equipment, emergency contact information, special skills, classifications (e.g. sworn/nonsworn), and rank histories.

Health maintenance is important to agency productivity, and some aspects of protecting employee health are mandated by law. The Personnel module will support tracking required vaccinations and medical baselines, such as titer tests for tuberculosis exposure. An agency-specific table should maintain information on vaccinations required by law or recommended by the agency and each vaccination's duration of efficacy. The Personnel module will collect information on date, type, and expiration date of vaccinations employees receive. Reports generated to supervisors will alert the agency to upcoming expirations and needed vaccinations. Similarly, the module will collect information on current health-related duty restrictions affecting employees, produce supervisor reports to ensure employee duties are assigned appropriately to prevent injury, and permit longitudinal tracking and analysis of medical limitations for risk management.

20.4 Use Case: Scheduling and Assignment

The scheduling portion allows for the creation and maintenance of schedule patterns (e.g., days on, days off, and assigned hours). The assignment portion records the officer assignment, shift, and location and associates the officer with a particular pattern. As assignments change, the personnel record is updated to reflect the new assignment. All exceptions to the officer assignment must be recorded.

The system creates the duty roster, which is based on the assignment, schedule, and exceptions to the schedule. To be able to generate past and future rosters, a complete history of assignments, patterns, and exceptions are maintained.

If the department uses a manpower deployment system, the system can be used for defining and finalizing changes in the overall plan for resource utilization, and changes in the assignment can be updated in the Personnel Information module. These automated updates will require an interface between the two systems.

20.5 Use Case: Exceptions

After schedules and assignments have been generated, it will then be necessary to document all conflicts with previously created work schedules. The exception can include any other duty or assignment outside the scheduled or assigned pattern (e.g., training; vacation or sick leave).

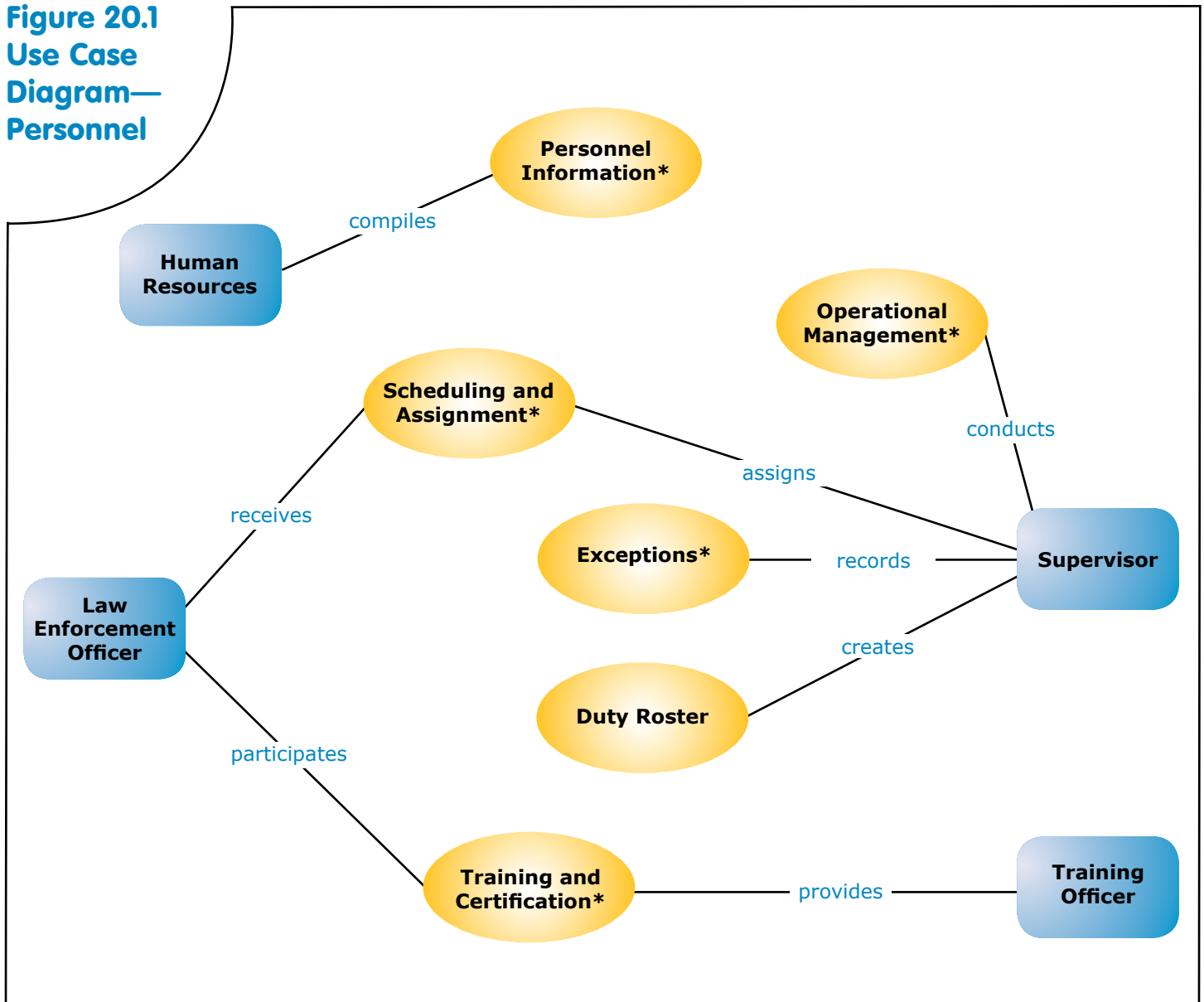
20.6 Use Case: Duty Roster

From the scheduling rotation, assignment, and exception information, the system generates the duty roster for a particular time period (e.g., past, present, or future) the supervisor selects.

20.7 Use Case: Training and Certification

The Personnel module tracks training history and the certification process. The certification process includes officer certification status; deadlines for maintaining certifications, including necessary hours of training, etc.; and student performance.

Figure 20.1
Use Case
Diagram—
Personnel



21

Business Function: Internal Affairs

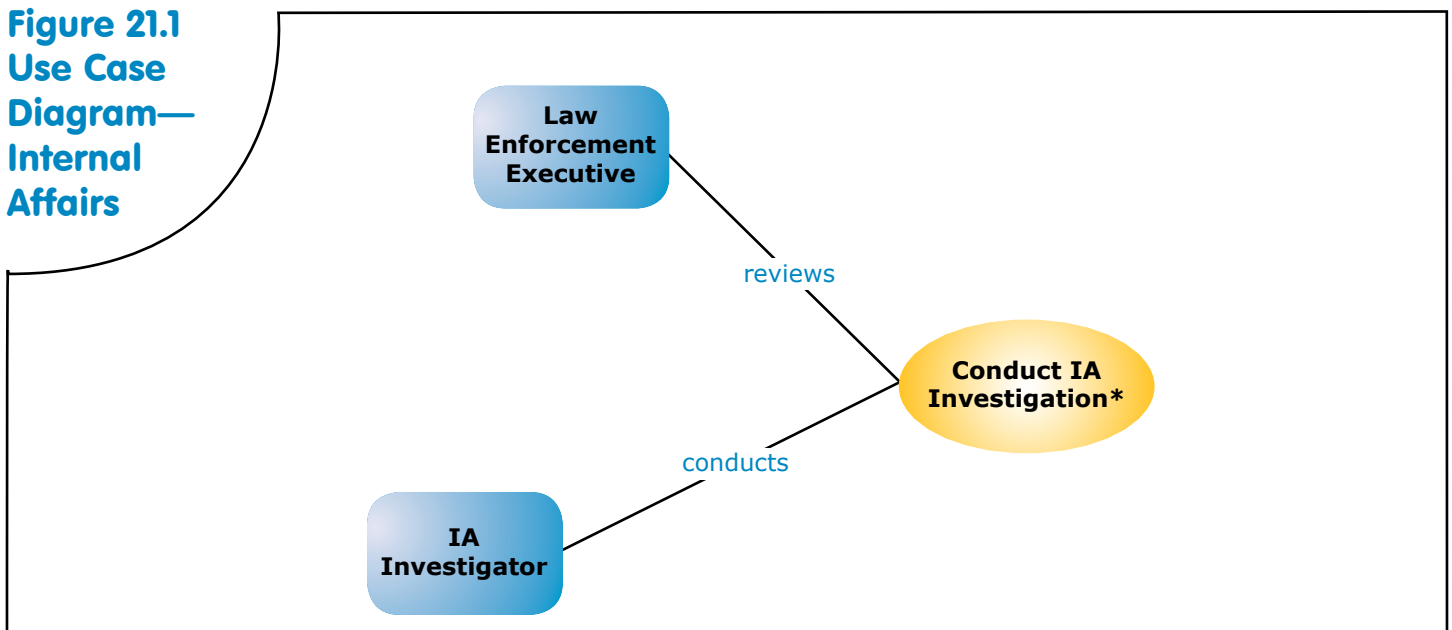
A law enforcement agency's Internal Affairs (IA) Division thoroughly investigates allegations of misconduct on the part of employees of the department.

There are several common administrative requirements that help isolate the IA investigation information. The IA system must have multiple levels of security for the application itself, for individual records or groups of records, and for individual or groups of fields. Due to the sensitivity of the information collected in IA functions, the data could be encrypted.

RMS will store all information related to the IA investigation.

21.1 Use Case Diagram

Figure 21.1
Use Case Diagram—
Internal Affairs



21.2 Use Case: Conduct IA Investigation

The purpose of an IA investigation is to ensure that department policy and procedures are followed and that agency standards of professionalism are adhered to by all department employees.

In many ways, IA investigations are conducted in a manner similar to criminal investigations. Subjects, witnesses, and complainants are interviewed and that information, along with the facts of the case, is recorded in the Internal Affairs module.

Security levels within the Internal Affairs module will limit the availability of information accessible through other RMS modules and indices. An agency-designated recipient will receive an alert whenever a party to an investigation is the subject of a query or if any other RMS activity occurs regarding that party.

22

Business Function: Analytical Support (Crime Analysis)

Analytical support is the systematic process of collecting, collating, analyzing, and disseminating timely, accurate, and useful information that describes patterns, trends, problems, and potential suspects. RMS should support the tools used by the analyst in this work. Analytical support can be subdivided into four main types:

1. **Tactical Analysis:** Provides information to assist operations personnel in the identification of specific policing problems and the arrest of criminal offenders.
2. **Strategic Analysis:** Provides information concerning long-range crime problems. Strategic crime analysis provides information concerning crime rate variations and provides geographic, economic, social, and/or other types of general information to administrators.
3. **Administrative Analysis:** Provides information to support administrative decisions related to resource allocation and to support budget requests and decisions.
4. **Forecasting Analysis:** A combination of tactical, strategic, and administrative analysis; merging multiple sets of data.

In addition to being able to query and produce ad hoc reports on any number of indicators, analytical support also includes standardized reporting functionality. One example of a standardized report is crime statistics. Crime statistics are essentially comparative statistics on the community crime rate, which can be disaggregated by specified timeframes, offenses, and complaints by beat or zone.

RMS must interface with analytical support tools, such as crime-mapping software and link-analysis, data mining, spatial, and temporal tools. The results of these analyses should be stored in RMS for a time determined by the jurisdiction's SOP and can be used to assess agency performance and provide support for administrative

decisions. RMS should have a variety of reporting functions attached to their Analytical Support modules and allow presentation of information in a variety of formats, such as bar graphs, pie charts, and line graphs.

RMS should support the ability to aggregate data on the various indicators, such as:

- Current period vs. previous period
- Current period vs. historical average
- Percentage of total crimes for period by:
 - Reporting districts
 - Areas/beats/zones
 - Teams/shifts
- Percentage change from prior periods (i.e., trend)

RMS should contain the ability to conduct crime distribution analysis based on a number of criteria, including:

- By area/beat or reporting district (i.e., ZIP codes)
- By time, date, and day of week
- Frequency of occurrence
- Citation
- Crime/incident report number
- Field interview data
- Search warrant data
- Vehicle information
- Type of offense (e.g., residential, auto, or business)

The system also should include standardized reports, such as general offense activity, offense activity by day of week, and offense activity by beat. Every field of operational data in RMS (i.e., data entered by the user in any form, not configuration or system control data) should be

searchable, including narrative (e.g., text or memo) fields. This can be done by using query interfaces that are part of the application or, at a minimum, using third-party tools that can access the operational database via Open Data Base Connectivity (ODBC).

RMS should include an alert function related to analytical support to provide for the immediate transmission of information to law enforcement officers in the field.

RMS should support a quality control process on incoming reports to ensure that data are correctly and completely entered.

RMS should contain complete data elements that relate to time, such as the day, time of day, week, date, month, and year. It also should include a locally determined and previously validated geographic reference.

RMS should support crime/suspect correlations to show a relationship between a suspect and an offense. The correlations may be made by using any number of selected criteria in which unique and distinguishing characteristics, physical identifiers, modus operandi, and various other common traits of offenders are known. These identifiers may be captured as a part of multiple different business functions, including incident, field contact, arrest, accident, citation, MNI, MVI, MLI, and MOI.

Standard Output:

- Crime distribution analysis reports using the criteria listed above

Standard External Data Exchanges:

- Third-party mapping and graphing tools
- Regional Information Sharing Systems (RISS) (i.e., based on Global JXDM, NCIC standards)

22.1 Use Case Diagram (see page 55)

22.2 Use Case: Tactical Analysis

Tactical analysis provides information to assist personnel in the identification of specific, immediate crime or disorder problems and the arrest of criminal offenders. Tactical analysis provides information to assist personnel (e.g., patrol and investigative officers) in preventing and disrupting criminal behavior, identifying specific

and immediate crime problems, and arresting criminal offenders. Analytical data are used to promote a quick response to field situations.

22.3 Use Case: Strategic Analysis

The purpose of strategic analysis is to provide information concerning long-range problems. Strategic analysis is primarily concerned with solutions to ongoing problems. It results in the ability to accomplish the agency mission more effectively and efficiently.

22.4 Use Case: Forecasting Analysis

The purpose of forecasting analysis is to prevent crime by analyzing information collected in RMS and correlating it with external sources. It can involve the application of advanced analytical methods to forecast the occurrence of specific crimes or trends.

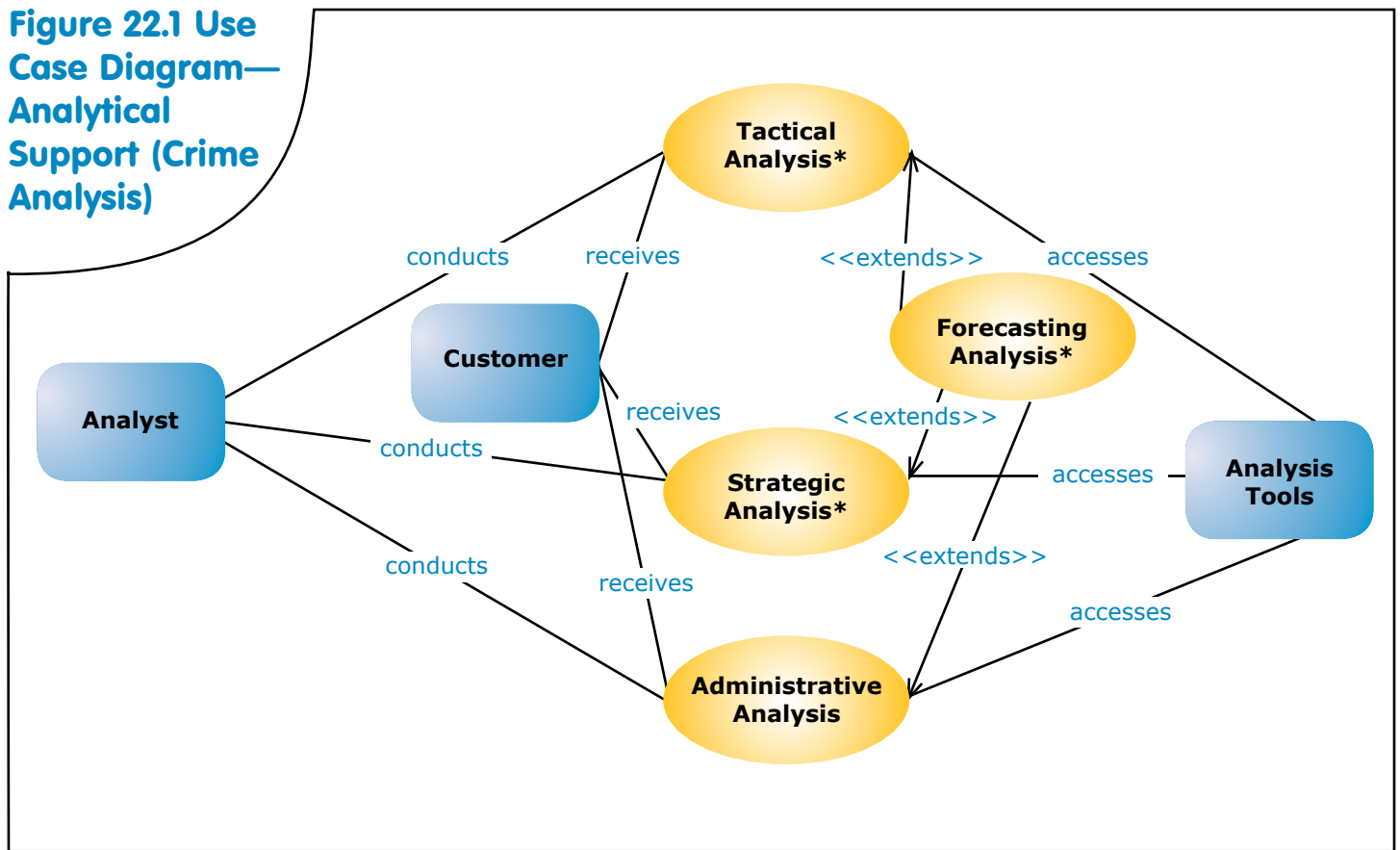
RMS should support the ability of the analyst to generate the Forecasting Analysis report. The report's format should be tailored to meet the particular requirements of the customers who receive the information, whether they are patrol, investigative, or administrative personnel.

22.5 Use Case: Administrative Analysis

Administrative analysis develops long-range (e.g., quarterly, semiannually, or annually), strategic comparisons and reports them externally. Examples of administrative crime analysis tasks may include providing economic, geographic, and law enforcement information to law enforcement management, neighborhood/citizen groups, other appropriate agencies, and the public.

Where required by the agency's SOP, RMS should support the ability to generate statistical reports on all law enforcement activities within that agency, allocate costs to those activities, and track performance measures as defined by the agency.

Figure 22.1 Use Case Diagram—Analytical Support (Crime Analysis)



23 Business Function: RMS Reports

RMS reports document officer and agency-wide activity or performance in a given area. Many reports are created over the course of conducting policing business (e.g., arrest report and incident report). Aggregated reports are conducted by line and supervisory staff and reviewed by law enforcement executives. Role-based security should restrict access to some reports.

Law enforcement personnel must be able to generate standardized reports and aggregate reports, as well as query RMS to produce ad hoc reports from the RMS reports module.

Examples of standardized reports from RMS business functions are:

- Incident reports
- Accident/crash reports
- Property/evidence reports
- Citation reports
- Field interview reports
- Uniform Crime Reports (UCR)/National Incident-Based Reporting System (NIBRS)
- Case management reports
- Billing reports
- Summary reports for warrants, citations, CFS, accidents, and employees

Typically, third-party products are used for ad hoc queries and reports.

23.1 Use Case Diagram (see page 58)

23.2 Use Case: Aggregate Reporting

Aggregate, agency-wide reporting allows law enforcement personnel to associate information in a variety of ways and among a number of different tables or fields, including CFS, warrants, incident reports, traffic data, property data, and weapons data.

Managers must be able to query, retrieve, and display information in a variety of ways. They must be able to query on indicators, such as date of the incident, case type, and assigned officer. They should be able to produce reports from a list of standardized reports or on an ad hoc basis.

The query and data retrieval system must be integrated with the RMS security system so that the department can designate search and query types and depths by password or groups of passwords.

23.3 Use Case: Standardized Reporting

Each module includes its own set of standardized reports, which also are available through the RMS Incident Reporting module.

23.4 Use Case: Ad Hoc Reporting

The agency may need operational reports and analysis that are not provided by standard RMS reports and queries. Ad hoc reporting will allow a user to define and create these additional custom reports. Once created, these custom reports can be saved and run as standard reports.

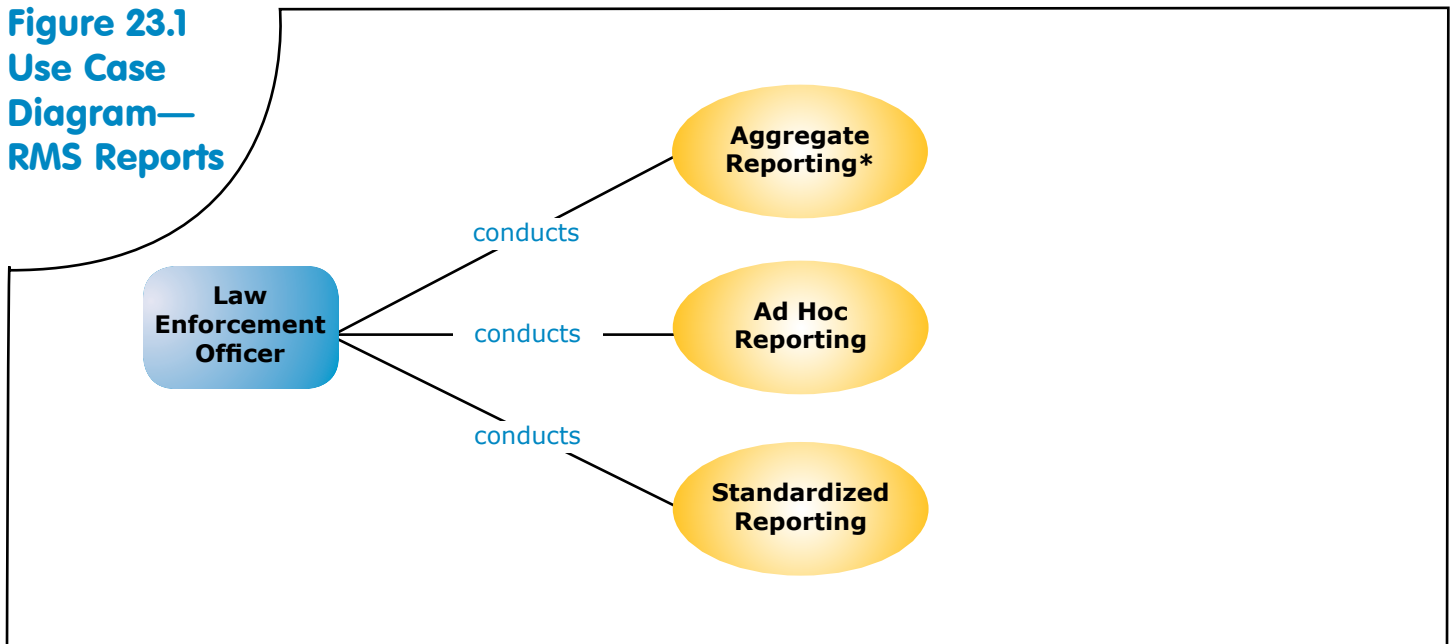
RMS should provide a tool that can be used to produce any number of ad hoc reports.

These ad hoc reporting tools may be provided using a third-party solution. This solution may be imbedded in the application or run as a stand-alone. Ad hoc reporting functions that are imbedded into the RMS solution may use existing RMS security controls. Stand-alone, ad hoc applications open the potential to bypass the RMS security controls (e.g., juvenile data, sealed records, and redacted records). The stand-alone approach may allow an agency to have a broader selection of ad hoc tools.

However, there are trade-offs, such as the security issue noted above.

Another approach is to extract data, excluding secured information, into separate data warehouses. That way, stand-alone, ad hoc tools could be used to access the data without compromising RMS security controls.

Figure 23.1
Use Case
Diagram—
RMS Reports



24

Business Function: RMS System Administration

While most RMS systems are standard, they should be configurable so that they can be used to meet specific agency requirements. The RMS systems administration functions address RMS configurable aspects.

System administration encompasses a wide array of general functions that law enforcement agencies need from their RMS to be able to create and query information effectively; ensure appropriate access to information and systems security; and ensure effective departmental information, image, and document management.

Examples of administrative functions include:

- RMS table maintenance
- RMS configurations (e.g., parameters, defaults)
- Security (e.g., user role, jurisdiction)
- Geofile
- Data management (e.g., data dictionary, archive and purge)

Standard Outputs, External Data Exchanges, and Internal Data Exchanges

Standard Outputs:

- Report on users, sortable by names, access level, password age, and machine used
- Report on RMS use, sortable by user log-in, frequency, total time in system, number of concurrent log-ins, machine used, and duration time-outs
- Report on failed log-ins, sortable by log-in name, number of attempts, date/time of attempt, and machine used
- Report on subsystem security violations
- Alerts; user-definable security violations, which generate an external message to predefined locations

Standard Internal Data Exchanges:

- Agency network operating system
- E-mail system for alerts

24.1 Use Case Diagram (see page 60)

24.2 Use Case: Security

Systems should allow tiered access to information, based on passwords and other authentication and nonrepudiation practices. Role-based authentication and authorization must be a part of RMS. Other identification technologies such as biometrics, identification cards, and security tokens are emerging standards.

Systems should apply appropriate edits to all entered data to ensure data integrity and maintain activity logs and audit trails.

24.3 Use Case: RMS Table Maintenance

RMS should include the ability for the user agency to define and maintain codes and associated literals (i.e., plain English translation) for as many data elements as possible. The literals should be stored in the database, as appropriate.

Where available and applicable, RMS should use the authoritative code tables referenced in Global JXDM and NCIC.

24.4 Use Case: Data Management

Data management includes the following:

- Record expungement and sealing
- Data redaction
- Data dictionary

These topics are further described in the following paragraphs.

Record Disposition

RMS must be able to support expungement, sealing, and purging of whole records and partial records. To support this function, the system must be able to flag a record, flag data elements within a record, and delete a record. The flag should indicate why the record or data element is restricted.

Data Redaction

Redaction is the process of editing report information to filter sensitive or confidential information before the report is released to the public or for general use outside

the department. The type of information that is edited includes victims' names in certain types of cases, juvenile information, or information that is considered by the agency to be sensitive to an investigation.

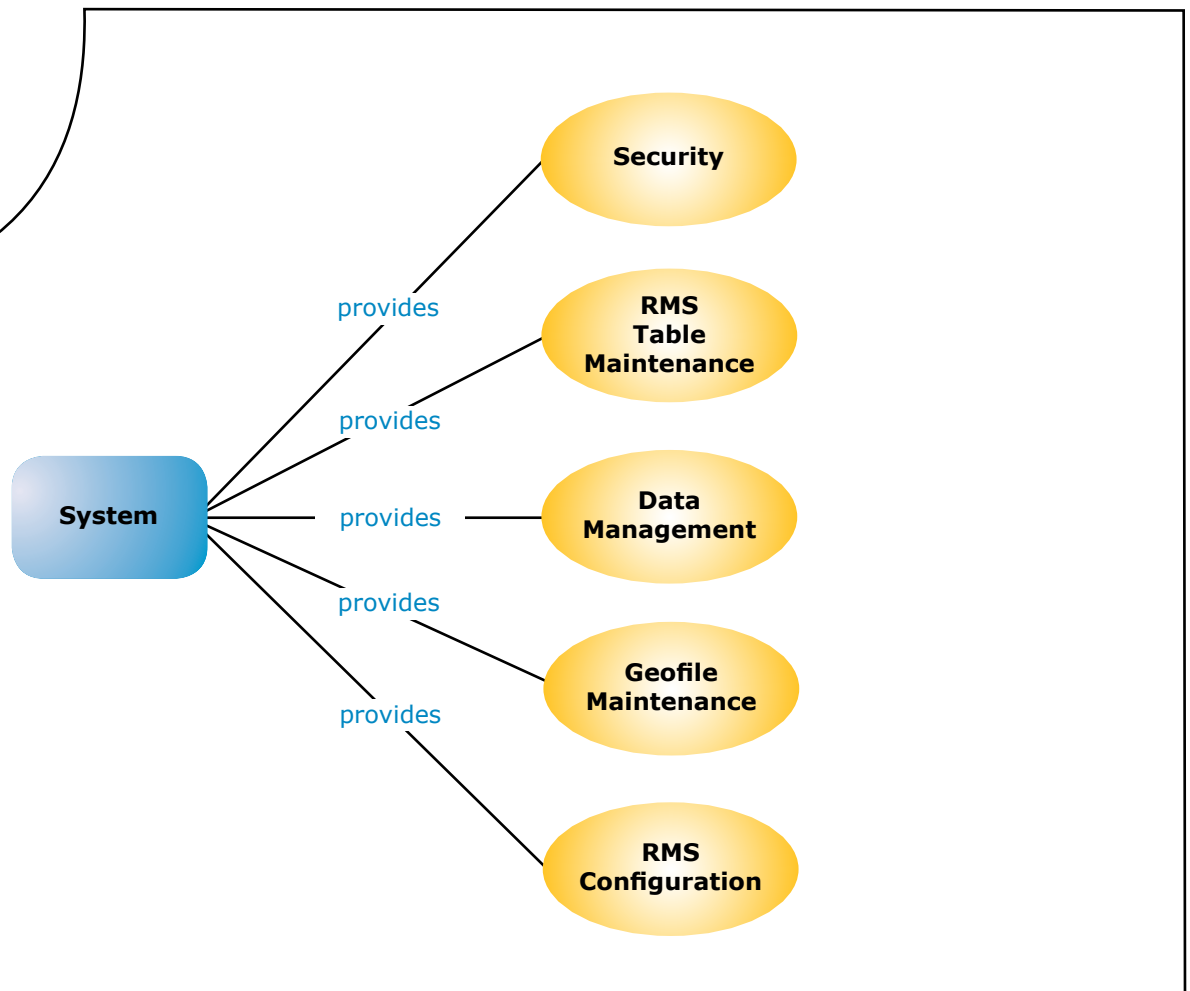
In the case of formatted and structured data, report output programs can produce a redacted version of specific report data. In the case of narrative or otherwise unstructured information, the redaction process requires a manual step to produce a public version of the report.

Generalized report tools, if employed to produce reports for public consumption, should be used only on data that have already been redacted.

Data Dictionary

RMS must provide a capability to display and/or print the database structures to allow the end user to access the database tables through third-party, ad hoc inquiry tools/ utilities.

Figure 24.1
Use Case
Diagram—
RMS System
Administration



The data dictionary may contain the following information for each field description:

- Field name (e.g., external representation)
- Database column name (e.g., internal representation)
- Data type (e.g., numeric, alpha, or date)
- Field size
- Field format (i.e., output format)
- Edit or validation criteria
- Associated code table
- Default value
- Description

24.5 Use Case: Geofile Maintenance

The geofile is used to validate and standardize location and address information. It also is used to cross-reference addresses and locations with law enforcement-defined reporting areas, X/Y/Z coordinates, ZIP codes, and other identifiers. The geofile contains sufficient information to ensure that an address is valid. Furthermore, it provides cross-references to addresses and locations using commonplace names (e.g., business names, parks, hospitals, and schools) and street aliases. It includes information such as direction of travel on particular streets and can identify the side of a street for a specific address. It is assumed that all addresses in RMS are validated using the system geofile.

The reporting area defined above should be used to define beats, sectors, command areas, neighborhoods, communities, etc.

The geofile contains the geographic information that is the basis for many decisions in a communications center. The system needs to provide the ability for an agency to enter and update all geofile data, including the physical address and the X/Y/Z coordinates.

The creation of a comprehensive geofile is a significant undertaking. The system should support the creation and maintenance of the geofile using an available mapping/Geographic Information System (GIS) database. Geofile information in CAD and RMS should be synchronized, based on established parameters.

24.6 Use Case: RMS Configuration

Some parameters of RMS should be configurable by the system administrator. For example, the system administrator should be able to modify the system variables, such as agency and chief's name, Originating Agency Identifier (ORI), address, and phone number. Changes to parameters, such as juvenile default age, X/Y/Z or state plane geography coordinates, and name match rules, should be allowed.

The system administrator also must have the ability to define the conditions under which an alert or notification is issued.

In a multijurisdictional RMS, the system administrator should be able to change the parameters for each participating agency.

Any configuration changes that could affect system integrity must be properly flagged with adequate warning to prevent inadvertent damage to the system.

25 Business Function: RMS Interfaces

RMS frequently requires functionality to exchange data with other systems. The exact nature of those exchanges will, in large part, be determined by local business practices and local agency work flows. All interfaces need to comply with national standards. Each business function includes examples of data exchanges.

25.1 Use Case Diagram

25.2 Use Case: CAD Interfaces

Information may be transferred from CAD to RMS when units are initially dispatched, an incident number is assigned, and/or the call is closed in CAD.

CAD users require the ability to retrieve information from RMS based on name, location, and vehicle descriptors.

25.3 Use Case: Local/Regional Interfaces

RMS users need to access and possibly update a variety of local and regional systems. Examples include courts, prosecutor, financial systems, Jail Management Systems, human resources systems, and multijurisdictional information systems. Data exchanges with many of these systems are identified in the specific business functions in this specification.

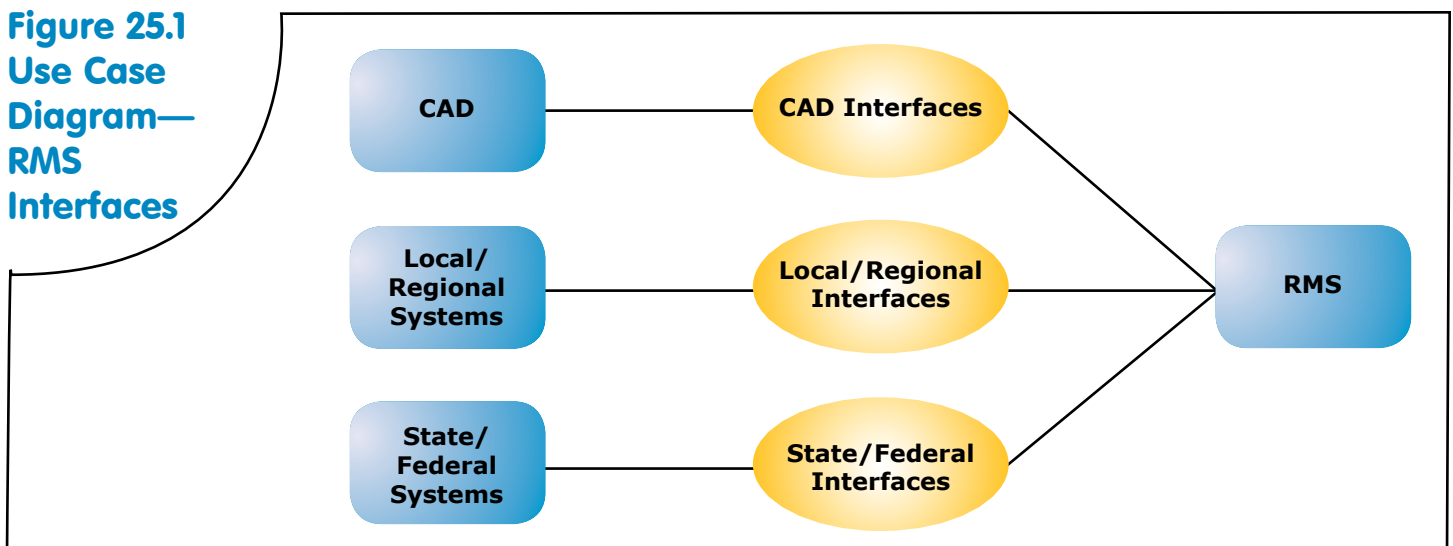
These interfaces should be based on national standards, such as Global JXDM and NCIC.

25.4 Use Case: State/Federal Interfaces

RMS needs to query, add, or modify information stored in state and federal systems. Examples include updates for wanted people, missing people, stolen vehicles/property, and state sex offender registries.

These interfaces should be based on national standards, such as Global JXDM and NCIC.

Figure 25.1
Use Case
Diagram—
RMS
Interfaces



27 Conclusion

LEITSC had a mission to create a national standard for law enforcement RMS and has succeeded in carrying out this task.

The RMS functional standards are meant to describe the minimal amount of functionality that an RMS for law enforcement should contain. These standards should be used as a starting point to build a fully functional RMS, based on agency needs and open standards, to efficiently interface and share information with other systems, both internally and externally. They are designed to serve as a guiding tool for law enforcement agencies and should be tailored to fit the specific needs of each law enforcement agency or group of agencies looking to upgrade or

purchase a new RMS. Although the RMS functional standards were not developed to substitute for an RFP, they can be used to supplement an RFP.

The functional standards found in this document are intended to be generic in nature and do not favor one particular system or approach over another. They are at the functional level, meaning that they define what is to be accomplished versus how it should be accomplished.

The RMS functional standards were developed by the LEITSC Functional Standards Committee and are now available to all law enforcement agencies.

Acronyms: RMS

AFIS	Automated Finger Print Identification System
BJA	Bureau of Justice Assistance
CAD	Computer Aided Dispatch
CFS	Calls for Service
DMV	Department of Motor Vehicles
DOJ	U.S. Department of Justice
DOT	U.S. Department of Transportation
DUI	Driving Under the Influence
EFTS	Electronic Fingerprint Transmission Specification
FBI	Federal Bureau of Investigation
GIS	Geographic Information System
Global JXDM	Global Justice XML Data Model
HIPPA	Health Insurance Portability and Privacy Act
IA	Internal Affairs
IACP	International Association of Chiefs of Police
IAFIS	Integrated Automated Fingerprint Identification System
IJIS	Integrated Justice Information System Institute
JMS	Jail Management System
LEITSC	Law Enforcement Information Technology Standards Council
MDC	Mobile Data Computer
MLI	Master Location Index
MNI	Master Name Index
MOI	Master Organization Index
MPI	Master Property Index
MVI	Master Vehicle Index
NCIC	National Crime Information Center
NIBRS	National Incident-Based Reporting System
NIEM	National Information Exchange Model
NIJ	National Institute of Justice
NIST	National Institute of Science and Technology
NOBLE	National Organization of Black Law Enforcement Executives
NPOR	National Protection Order Registry
NSA	National Sheriffs' Association
ODBC	Open Database Connectivity
OJP	Office of Justice Programs
ORI	Originating Agency Identifier
PERF	Police Executive Research Forum
RFID	Radio Frequency Identification Device
RFP	Request for Proposal
RISS	Regional Information Sharing Systems
RMS	Records Management Systems
SID	State Identification Number
SOP	Standard Operating Procedures
UCR	Uniform Crime Report
VIN	Vehicle Identification Number
XML	Extensible Markup Language
X/Y/Z	Longitude, latitude, and altitude

