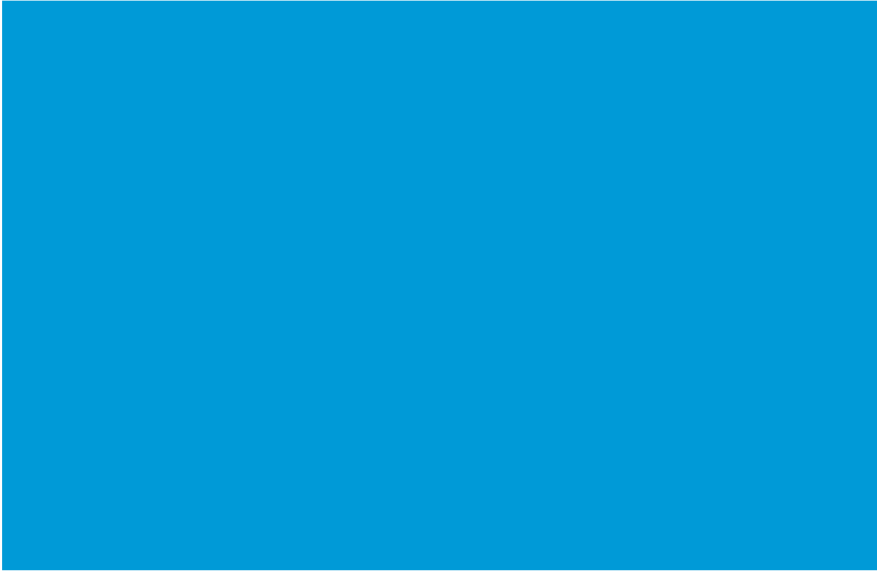




Use Case #1:

Call Taking with AI Driven Decision Support

UC#1 Context: Call Taking with AI Driven Decision Support

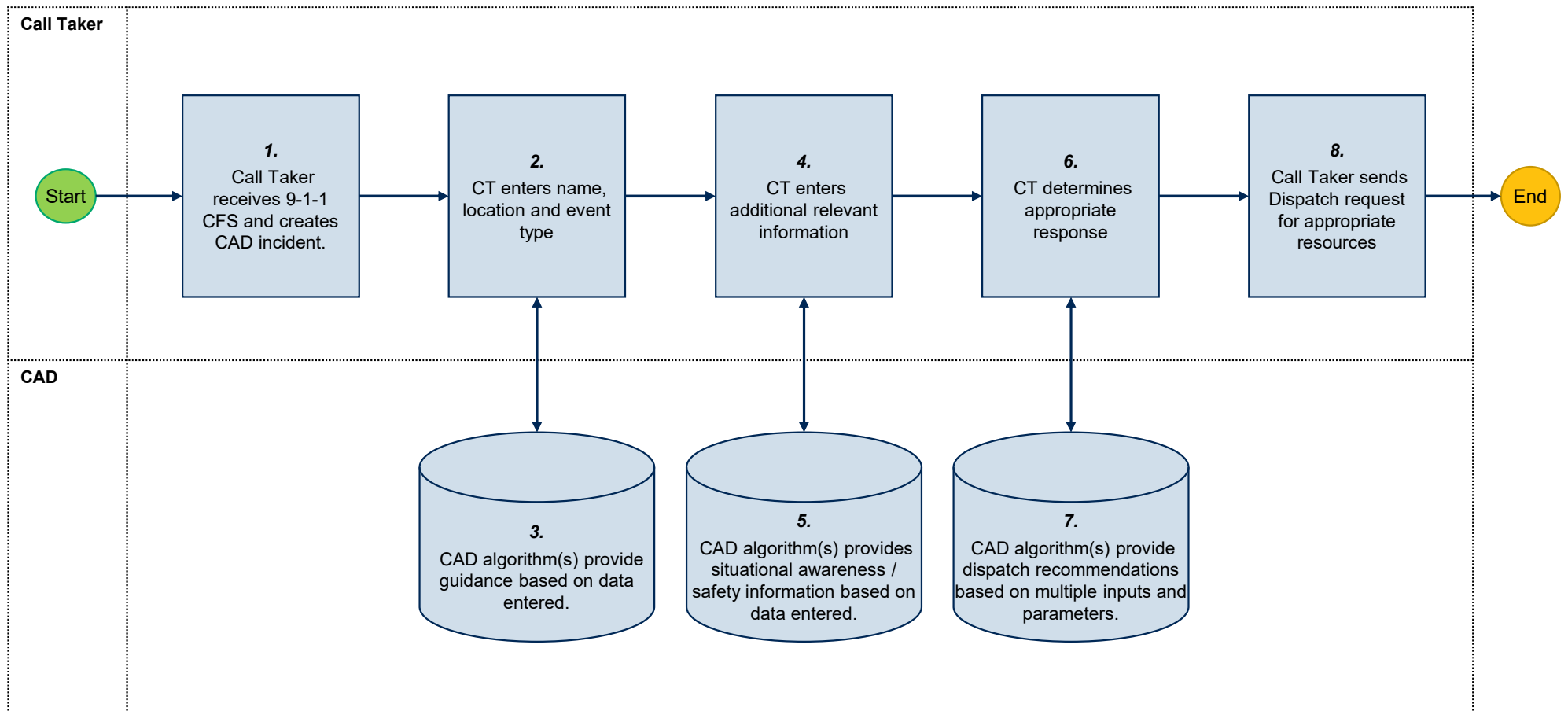
Scenario	General Information
A 9-1-1 call for service (CFS) is answered at the PSAP by a Call Taker (1). The Caller reports that they have been robbed in a State Park but can't provide an exact location. A suspect description is provided, with a note that he is armed with a knife. The CAD system uses ANI/ALI information to determine the caller's approximate location for the first responders. It also identifies potential duplicate calls created by other call takers and presents them to the current call taker for call consolidation. Additionally, the system provides guidance and updated information based on information provided by each call taker.	❑ 9-1-1 CFS are handled via the Viper 9-1-1 system. ❑ ANI/ALI is transferred into the current CAD and the Call Taker manages the call from there using CAD. ❑ A protocol tool exists for Fire-EMS calls, but no structured or formal guidance or similar scripting tools exist for Police-related calls. ❑ EMS call is transferred via CAD-to-CAD to an external PSAP for EMS agency standby status. ❑ Based upon ANI/ALI information and GEO location multiple jurisdictions may be part of the primary response and based upon exigent circumstances the closest unit. ❑ The shift supervisor utilizes verbal radio communication to identify the location of responding units in an attempt to position them to facilitate containment best.
Current Challenges	Primary Intended Outcomes
▪ A protocol tool exists for Fire-EMS calls, but no structured or formal guidance or similar scripting tools exist for Police-related calls. ▪ Current mapping configuration with command/vehicle does not provide multijurisdictional oversight of responding resources. ▪ Data quality is inconsistent and difficult to extract across different systems, complicating coordinated response efforts and reporting compliance. ▪ The current system lacks the ability to recommend consolidation of duplicate calls resulting in a manual process.	✓ The Vendors demonstrate the range of decision support capabilities available out-of-the-box from their proposed CAD solutions. ✓ The Vendors demonstrate how their CAD solutions can promote user experience efficiencies, more appropriate/informed decision-making, a reduction in the risk of human error, and other potential operational benefits like notifications to Supervisors about high-priority calls. ✓ Facilitate the call prioritization of emergency response, ensuring critical situations receive immediate attention.

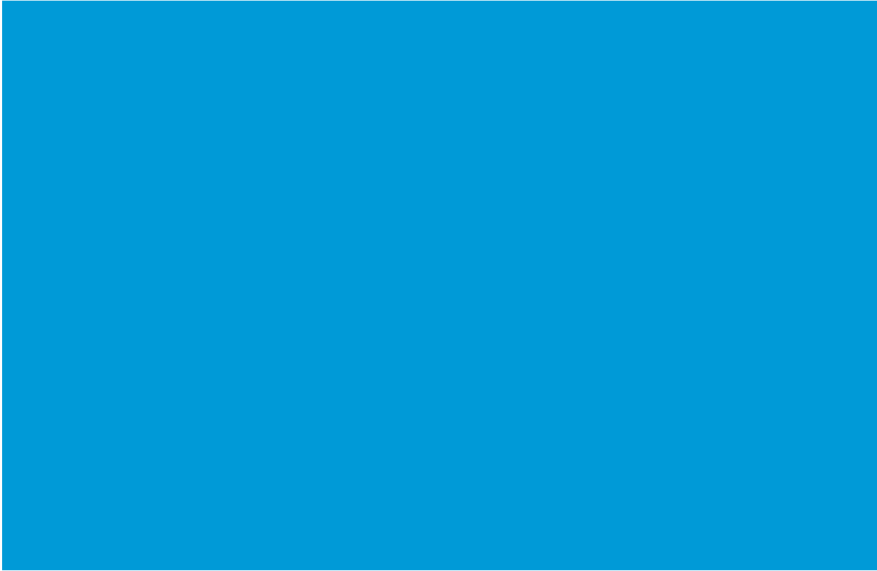
UC#1 Definitions: Call Taking with AI Driven Decision Support

Actor	Definition
Call Taker	The user responsible for handling Calls for Service, both 9-1-1 calls and non-9-1-1 calls (such as non-emergency lines answered at the PSAP)
Dispatcher	The user responsible for dispatching and coordinating first responder personnel and resources to the scene of any given event
Victim or Complainant	The person who has been involved in or viewed an accident and requires emergency medical attention or assistance

Relevant Terms	Definition
ANI / ALI	Automatic Number Identification / Automatic Location Information
CAD	Computer Aided Dispatch
CFS	Call for Service
CT	Call Taker
PSAP	Public Safety Answering Point (PSAP). Commonly referred to as the “Comms Center”, ‘9-1-1 Center’, or ‘Dispatch Center’

UC#1 Workflow: Call Taking with AI Driven Decision Support





Use Case #2: **CAD-to-CAD**

UC#2 Context: CAD-to-CAD

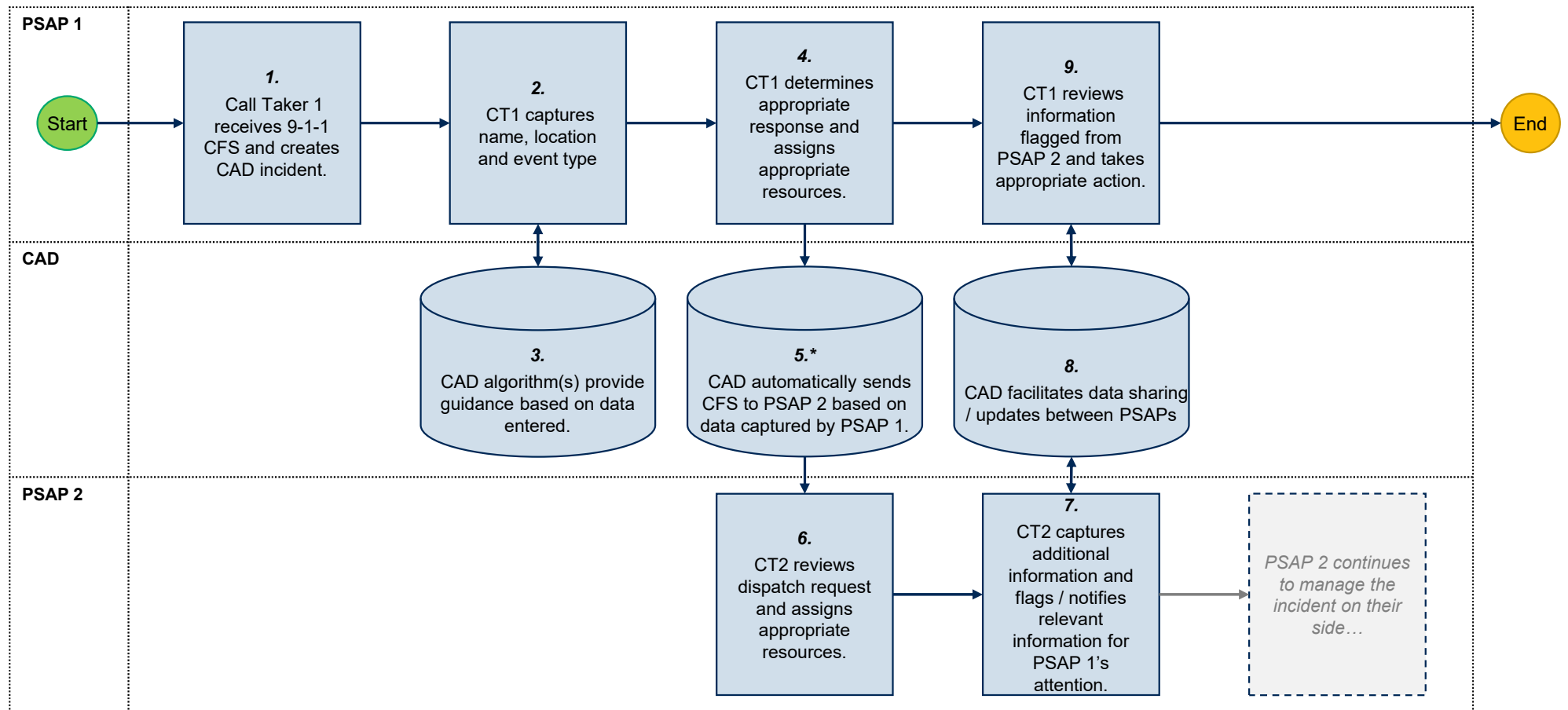
Scenario	General Information
A 9-1-1 CFS is answered at PSAP 1 by Call Taker 1 and a CAD incident is created. The caller reports that a bank robbery has occurred in Cary, the suspects have stolen a car and are headed toward Raleigh at a high rate of speed. Call Taker 1 captures the information and determines that Raleigh 9-1-1 should be notified as well as local Police to be dispatched. Call Taker 2 in PSAP 2 picks up the CAD request from PSAP 1 and starts reviewing the information presented. Based on the information provided in the CAD record, PSAP 2 assigns Police resources to intercept the stolen vehicle along several major roadways where it may be headed. While the incident is being managed, Call Taker 1 and Call Taker 2 are both entering updates and comments into CAD, and they can read and respond to each other's entries.	❑ A CAD-to-CAD interface exists between Cary and Apex PSAPs. ❑ A CAD-to-CAD interface exist between Cary PSAP and Raleigh-Wake PSAP. ❑ A CAD-to-MDC and CAD-to-Static Display configuration exist for Police and Fire Resources.
Current Challenges	Primary Intended Outcomes
▪ Updates in CAD comments are hard to find and translate, difficult to read, and distract the CAD users from their most important duties/tasks. ▪ Current CAD system Supports CAD-to-CAD using data-sharing mechanisms and APIs not a reliable fluid integration. ▪ The primary connection to the Raleigh/Wake CAD is no longer functioning optimally. A data hub has been established that lacks reliability. With system updates the bridge/hub becomes unstable and sometimes inoperable at times. ▪ CAD-to-MDC Latency in Real-Time Updates of AVL Turn-by-Turn navigation creates operational delays for first responders.	✓ In certain scenarios, the CAD system can automatically send dispatch requests to neighboring PSAPs depending on the information captured. ✓ In other scenarios, the CAD makes recommendations to send dispatch requests to neighboring PSAPs, but the decision is left to the CAD user, and the action is triggered explicitly by the CAD user. ✓ CAD users can quickly and easily see the information entered into the CAD by other CAD users inside their own PSAP and the partner PSAPs without being overwhelmed or distracted by what is presented to them. ✓ CAD-to-CAD transfer should be fast, reliable, secure and maintain a consistent compatible format, allowing for additional interfaces to be added as required.

UC#2 Definitions: CAD-to-CAD

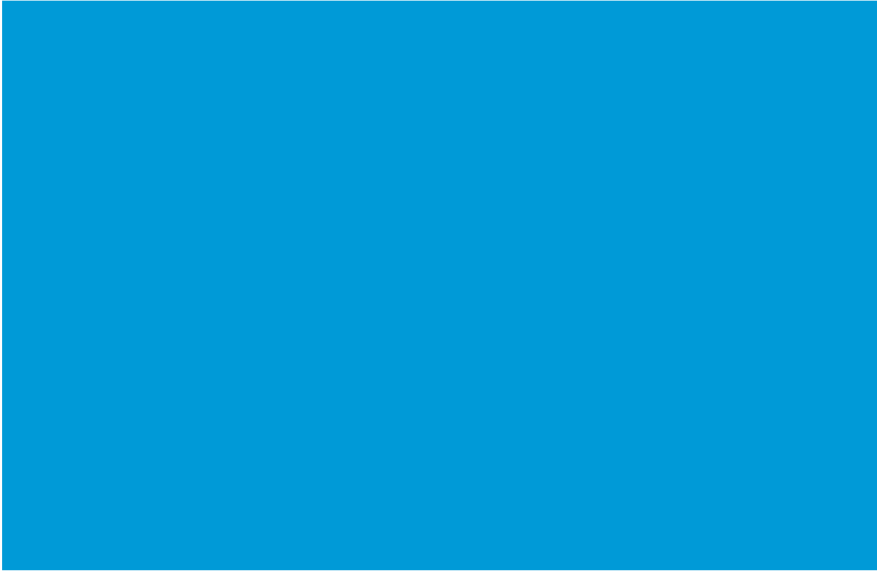
Actor	Definition
Call Taker	The user responsible for handling Calls for Service, both 9-1-1 calls and non-9-1-1 calls (such as non-emergency lines answered at the PSAP)
Dispatcher	The user responsible for dispatching and coordinating first responder personnel and resources to the scene of any given event
Victim/ Complainant	The person who has been involved in or viewed an accident and requires emergency medical attention or assistance

Relevant Terms	Definition
CAD	Computer Aided Dispatch
CFS	Call for Service
GIS	Geographic Information System
PSAP	Public Safety Answering Point (PSAP). Commonly referred to as the “Comms Center” ‘9-1-1 Center’, or ‘Dispatch Center’
CAD-to-CAD	The integration and communication between different CAD systems used by various public safety agencies

UC#2 Workflow: CAD-to-CAD



* The scenario as written assumes CAD automatically sends a dispatch request to PSAP 2, but the manual decision is also valid and required.



Use Case #3:

Environmental Mapping

UC#3 Context: Environmental Mapping

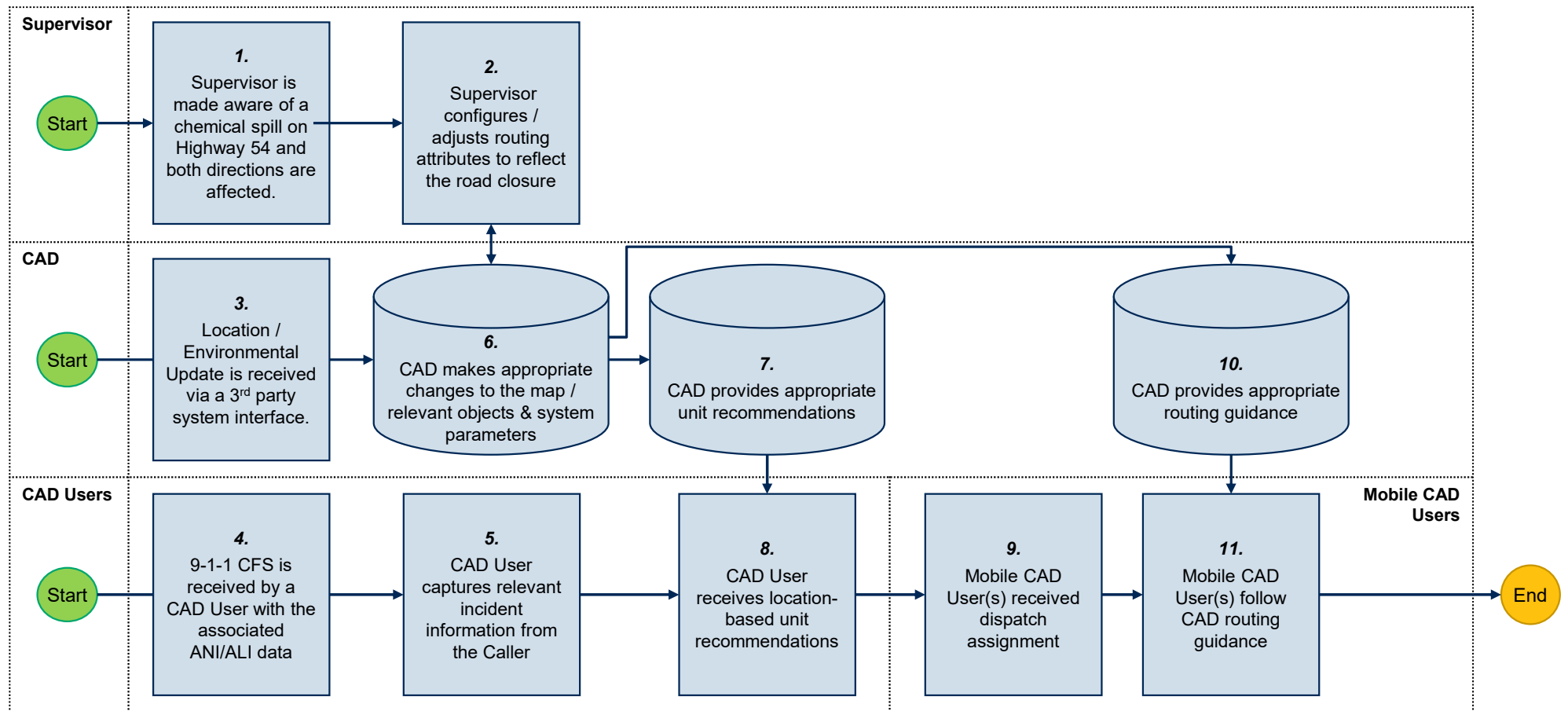
Scenario	General Information
A train derailment involving the spill of hazardous materials occurred at the O'Kelly railroad crossing connecting the RTP and Parkside Town Commons. The crossing is located near a local river that has a history of seasonal flooding and poses a significant risk to residents, infrastructure, and the environment. Call Taker/Dispatcher 1 (PSAP 1) captures the information and determines that Raleigh Wake 9-1-1/Wake EMS, and the fire departments of Cary, Morrisville, and Apex Fire should be notified of the incident. Additionally, local Police and Emergency Management should be dispatched to the scene. Call Taker/Dispatcher 1 begins dispatching police units to the scene and placing the call-in queue for Fire Dispatcher 1 (PSAP 1). Fire Dispatch automatically selects and dispatches units to respond according to CAD recommendation. Call Taker 2 (PSAP2) picks up the CAD request from PSAP 1 and starts reviewing the information presented. PSAP 2 assigns EMS resources to standby with established incident command.	❑ Capabilities that ensure that updates to roads, highways, and transportation by local conditions (i.e., thunderstorms) are taken into account and processed efficiently into the mapping functionality of the system are lacking. ❑ Capabilities that ensure weather capabilities can be viewed and utilized to project for contaminant dispersion and site and risk assessments are unavailable to response units. ❑ Capability to provide incident command and control to be able to see all responding units tied to a specific events is limited. ❑ Capability to provide timely turn-by-turn navigation to incidents and alternative routing if the recommended route has construction or obstructions that restrict access.
Current Challenges	Primary Intended Outcomes
▪ The Current System has limited environmental mapping. ▪ Users report that mapping is not in real-time, and they must reroute depending on local conditions or environmental changes. ▪ This is especially prevalent for users in rural areas of the impacted jurisdiction and could create officer and public safety risks. ▪ Restricted capabilities to alter nature codes for optimal resource responses.	✓ Future systems should incorporate real-time environmental impacts and should feed that information into the routing information for users. ✓ Interface with third-party mapping tools such as Waze or Google Maps. ✓ Predefined incident based Dynamic dispatching capabilities. ✓ Capability to provide based on a delineated polygon on a map identifying each of the structures within a given area. (providing detailed information about Residential, Occupied, Commercial, and Suppressed Infrastructure) by clicking on or querying the address.

UC#3 Definitions: Environmental Mapping

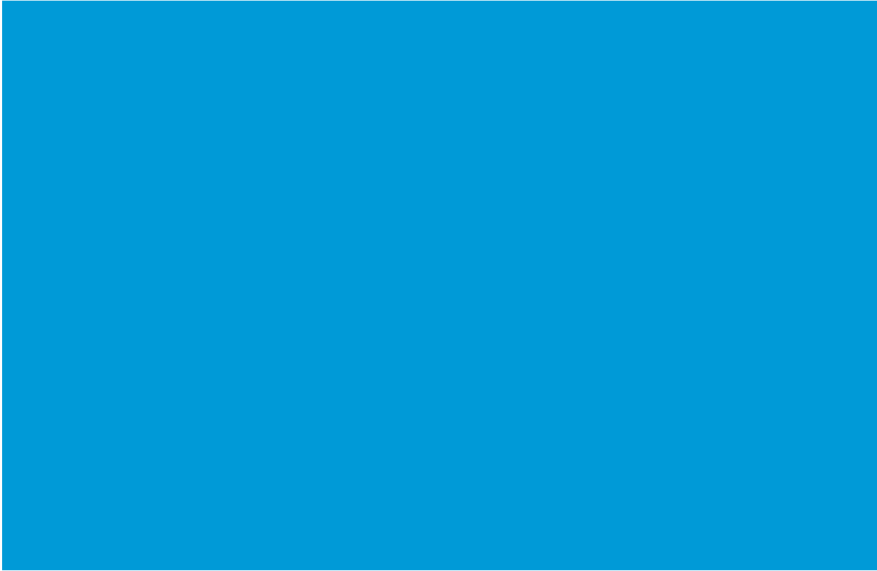
Actor	Definition
Call Taker	The user responsible for handling Calls for Service, both 9-1-1 calls and non-9-1-1 calls (such as non-emergency lines answered at the PSAP)
Dispatcher	The user responsible for dispatching and coordinating first responder personnel and resources to the scene of any given event
Victim/ Complainant	The person who has been involved in or viewed an accident and requires emergency medical attention or assistance

Relevant Terms	Definition
CAD	Computer Aided Dispatch
CFS	Call for Service
GIS	Geographic Information System
PSAP	Public Safety Answering Point (PSAP) . Commonly referred to as the “Comms Center”, ‘9-1-1 Center’, or ‘Dispatch Center’
Dynamic Dispatching	The real-time allocation and deployment of firefighting resources are based on the current situation and available information

UC#3 Workflow: Environmental Mapping



* The scenario as written assumes CAD automatically sends a dispatch request to PSAP 2, but the manual decision is also valid and required.



Use Case #4:

GeoFile Maintenance

UC#4 Context: GeoFile Maintenance

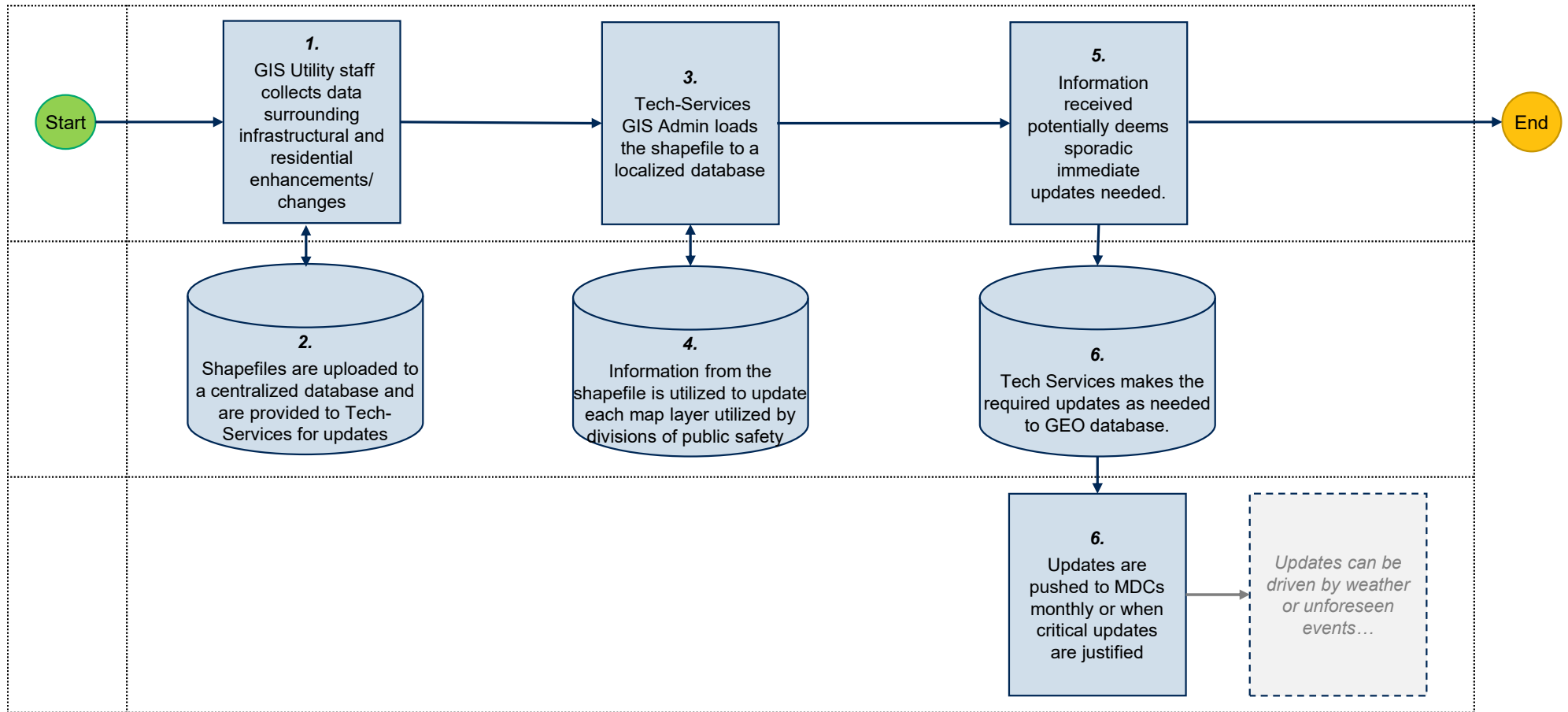
Scenario	General Information
Cary over the last couple of years has experienced a large population growth with a population of over 180,000 residents and growing consistently at .97% annually. With the increased growth in infrastructure development, there becomes a consistent need to provide accurate up-to-date mapping information. This information translates into life-saving response minutes when dealing routing of responding personnel. When a change or update occurs a system administrator receives frequently updated map data that includes, hydrant additions, road enhancements, residential developments, and road closures and makes timely changes to the multi-layered mapping models.	❑ City Utility Services provides a shape file for maintaining the geographic file used in validating event locations to reflect changing conditions such as new street constructions, response agency boundary realignments, new site/structure construction, and new and evolving landmarks. ❑ A system administrator updates the shape file within the ESRI ArcGIS server with the current data and a manual upload of the mapping is pushed to each of the MDC (Mobile Data Computers) creating a static map within each unit. ❑ Map updates are provided by the Utilities/GIS staff and are routinely updated monthly or as needed by the GIS Specialist in Tech Services.
Current Challenges	Primary Intended Outcomes
▪ Geofiles are currently located on each device, but updates are not in real-time, often leading to users following outdated routes. ▪ Outdated maps and routes can create officer and public safety risks. ▪ The Fire Department is unable to operationally make changes within the CAD to view and update fire hydrant serviceability in real-time. ▪ There is an inability to establish single-lane closure in the map overlays to auto-correct routing of first responders.	✓ Future State Geofile maintenance should be streamlined to enable remote map updates or the utilization of a Map-Server to provide near-real-time map updates that take into account real-time changes to the environment. ✓ Hydrant serviceability update capability should be accessible by the fire service and dispatch administration to ensure accurate status verification at each location is accessible and within service. ✓ Map layer updates should be able to align with and adjust to traffic pattern restrictions, including detours and single-lane closures.

UC#4 Definitions: GeoFile Maintenance

Actor	Definition
Call Taker	The user responsible for handling Calls for Service, both 9-1-1 calls and non-9-1-1 calls (such as non-emergency lines answered at the PSAP)
Dispatcher	The user responsible for dispatching and coordinating first responder personnel and resources to the scene of any given event
Victim or Complainant	The person who has been involved in or viewed an accident and requires emergency medical attention or assistance
GIS Specialist	Professional who uses GIS technology to gather, analyze, update, and interpret geographic data

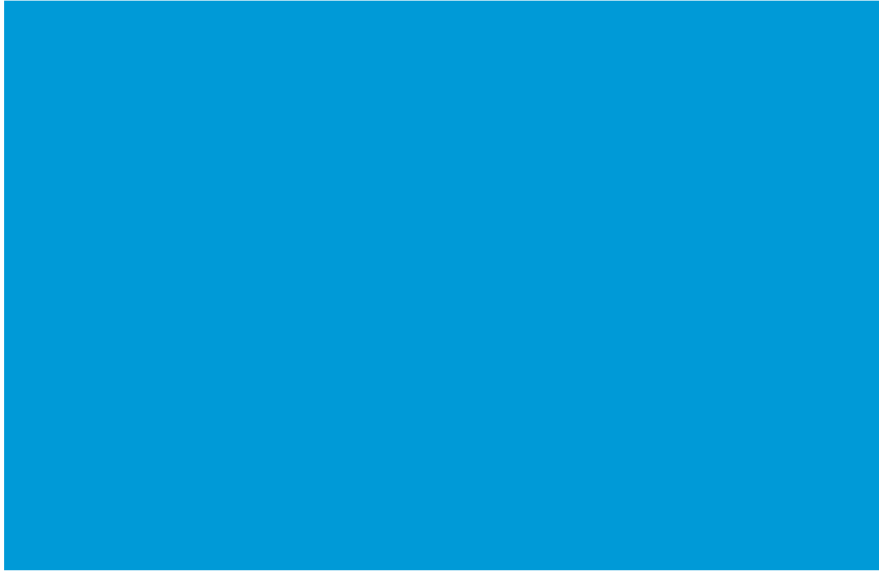
Relevant Terms	Definition
CAD	Computer Aided Dispatch
CFS	Call for Service
GIS	Geographic Information System
PSAP	Public Safety Answering Point. Commonly referred to as the “Comms Center” or ‘Dispatch Center’
GEO FILES	Shape files, GeoJSON, KML/KMZ, GeoTIFF, GDB, CSV, GML, NetCDF
MAP LAYERS	Component of Geographic Information System that allows users to organize, visualize, and analyze spatial data
MAPPING SHAPE FILES	Shapefiles are used to store the geometric location and attribute information of geographic features

UC#4 Workflow: GeoFile Maintenance





Use Case #5: **Reporting**



UC#5 Context: Reporting

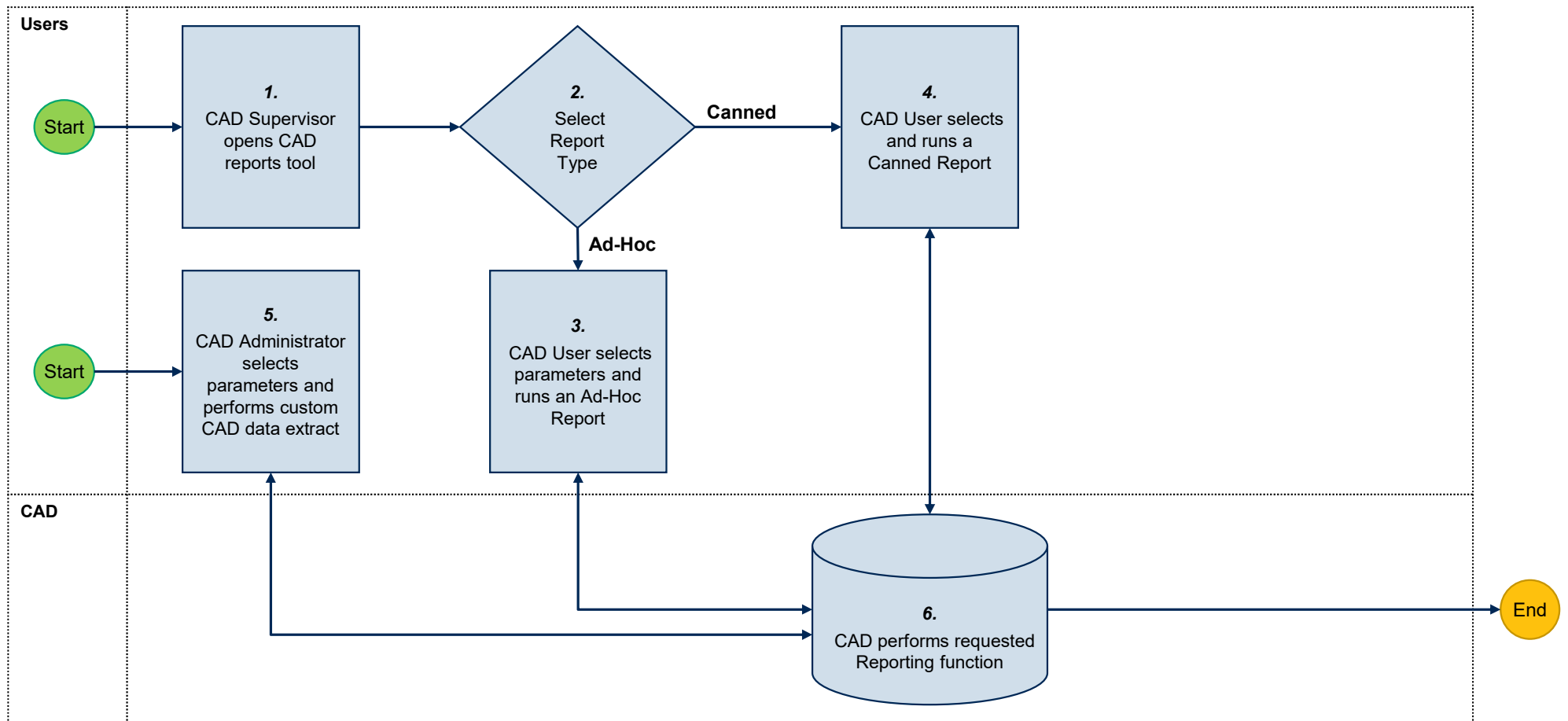
Scenario	General Information
There is a fire at a warehouse in Cary and the flames are spreading. Fire units are dispatched to the scene. The initial dispatch included Fire Engine 9, Ladder Truck 3, and Hazmat Unit 2. Upon arrival, heavy smoke and flames necessitated additional resources. There was on-site coordination for unit status and resource allocation. After the fire was contained, a comprehensive incident report was compiled from the CAD system.	❑ Information is entered into the CAD system, then transferred to the Records Management System (RMS). ❑ Data from RMS is not easily digestible and requires high-level of manual translation for reporting and compliance. ❑ Third-party integrations are either cumbersome or unavailable, necessitating the use of separate applications due to the lack of integration.
Current Challenges	Primary Intended Outcomes
▪ The current state system provides limited reporting functions as part of the core software platform. ▪ Reporting exports results in large amounts of extraneous data, which fosters the need for labor-intensive translation that is no longer relevant to compliance and reporting. ▪ Customization of reports is costly with existing vendors and is not available under the current platform. ▪ These manual processes put extra strain on Cary's workforce, especially in highly critical areas.	✓ Streamline report creation and minimize human error to improve efficiency and ensure accuracy with compliance and reporting metrics. ✓ Tailored reports track resource usage and availability, ensuring that personnel and equipment are allocated effectively and efficiently. ✓ Historical data from customized reports reveal trends and areas for improvement, supporting strategic forecasting, opportunities to enhance training programs, and enhancing preparedness strategies. ✓ Real-time analytics enable emergency personnel to adapt strategies and resource allocation.

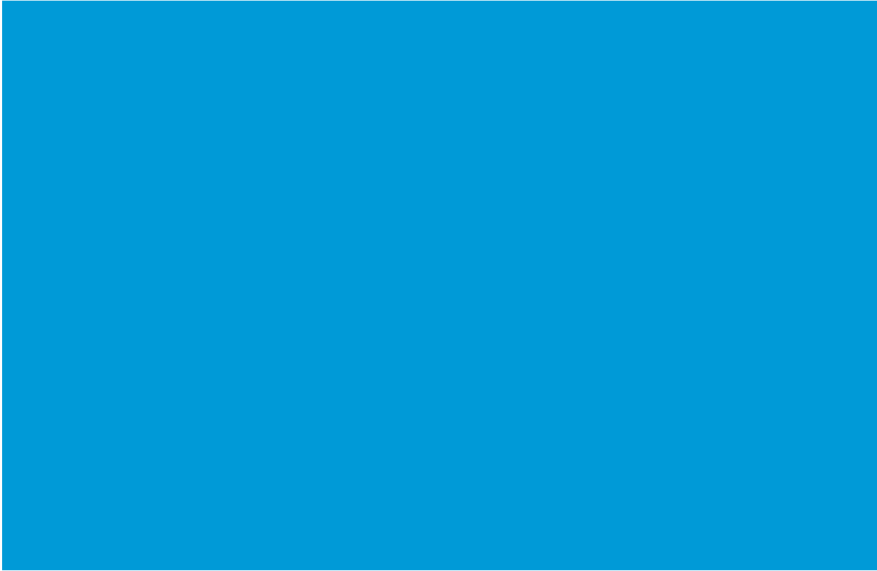
UC#5 Definitions: Reporting

Actor	Definition
Supervisor	The role responsible for supervising call taking and dispatch operations within the PSAP with a discrete set of CAD system privileges, based on role-based permissions, beyond standard CAD user capabilities.
CAD Administrator	The user responsible for managing the CAD system, including but not limited to such tasks such as user account provisioning, user interface enhancements, application workflow enhancements, creation of new reports, etc.

Relevant Terms	Definition
CAD	Computer Aided Dispatch
PSAP	Public Safety Answering Point. Commonly referred to as the “Comms Center” or ‘Dispatch Center’

UC#5 Workflow: Reporting





Use Case #6: **Quality Assurance**

UC#6 Context: Quality Assurance

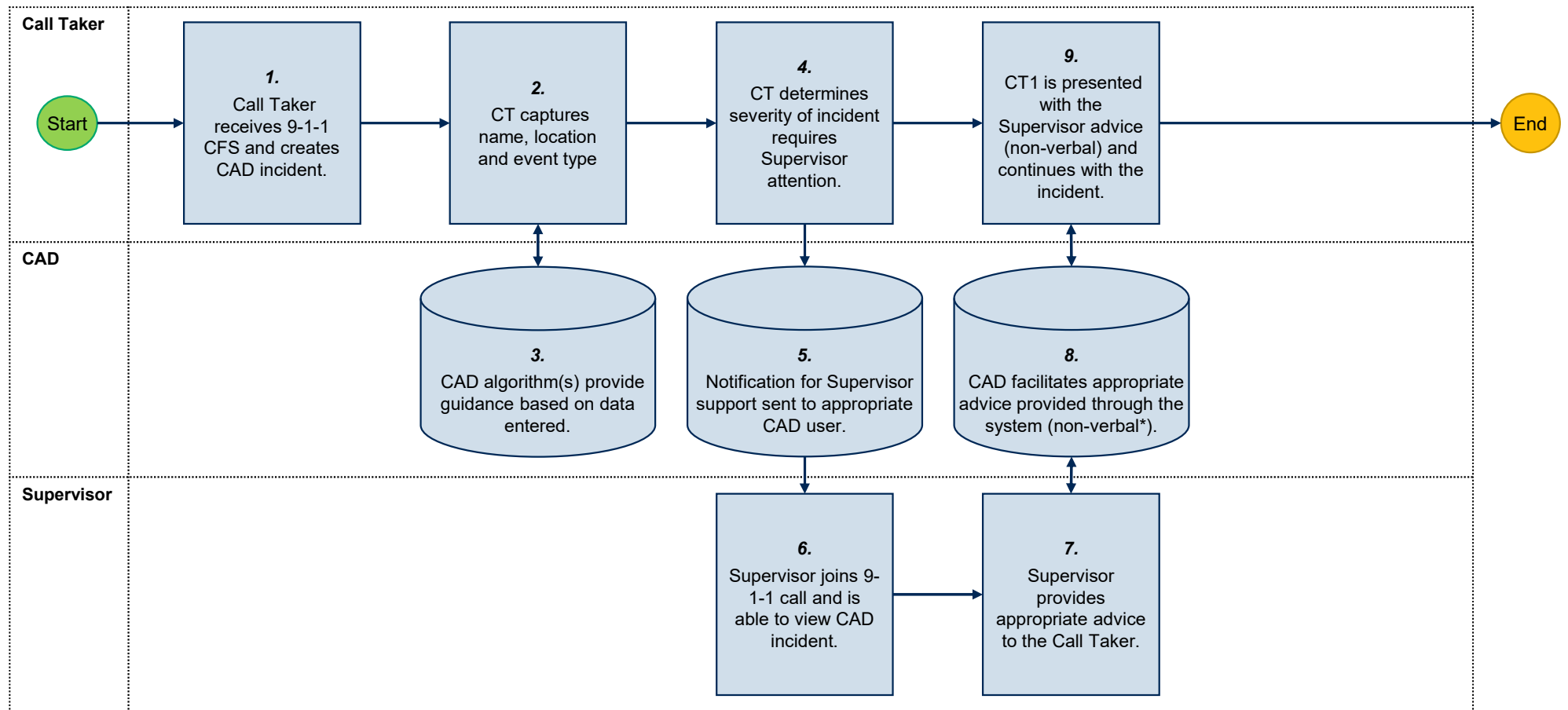
Scenario	General Information
A 9-1-1 call for service (CFS) is answered at the PSAP by a Call Taker. The Caller is reporting that a lot of smoke is coming from the shopping mall in downtown Cary. The Call Taker opens the primary CAD incident and adds additional information. The Caller reports that he can see fire moving across the roofline and spreading to several adjacent residential buildings. Given the escalating situation, the Call Taker requests support from the Supervisor. The Supervisor provides advice to the Call Taker, advising the need to dispatch supporting Fire Crews from mutual aid partner Fire-Rescue services as well as local law enforcement resources. The Supervisor continues to monitor the CFS and situation in the PSAP, reviewing several active related Calls for Service across the center.	❑ For major incidents, Call Takers and Dispatchers may need help from a Supervisor or other colleague within the PSAP. The CAD system is expected to provide capabilities that allow for Supervision and intra-communications center collaboration that does not interfere with or hinder the Call Takers or Dispatchers from performing their duties when handling a CFS. ❑ Pro/QA is utilized for Fire and EMS CFS. Supervisors utilized the call recording, and the data was entered into CAD for call performance review and staff evaluations. ❑ Pro/QA is one of the primary tools utilized to identify opportunities for training enhancements and call handling of Fire and EMS calls. Pro/QA is not utilized for Police responses. ❑ 9-1-1 CFS are handled via the Viper 9-1-1 system and entered ingested into the current CAD system.
Current Challenges	Primary Intended Outcomes
▪ Current System QA processes are highly manual and labor-intensive, with individual power users having to compile Excel reports from SQL databases. ▪ Some of this information is outdated, e.g., Open text fields that describe incidents, making QA reporting unreliable. These manual processes put extra strain on Cary's workforce, especially in highly critical areas. ▪ Power users must add a lot of description/narrative into fields that are purely text. Currently, this is a very manual process and is hard to effectively translate between systems for analysis. Functionality such as spellcheck, keyword alerts, and time stamps is useful. ▪ The CAD-to-CAD integration is inconsistent during peak times, preventing the visibility of Raleigh Wake and county units.	✓ The ability for a Supervisor to conference into the 9-1-1 phone call is indirectly relevant to the objective of the Use Case. The primary objective of this UC is to understand the CAD system's Supervisory capabilities. ✓ Allow real-time monitoring of incidents, resource allocation, and personnel performance. ✓ Continuous improvement by providing detailed records and analytics for post-incident reviews and training purposes. ✓ System playback capability for evaluation and evaluation of call handling process.

UC#6 Definitions: Quality Assurance

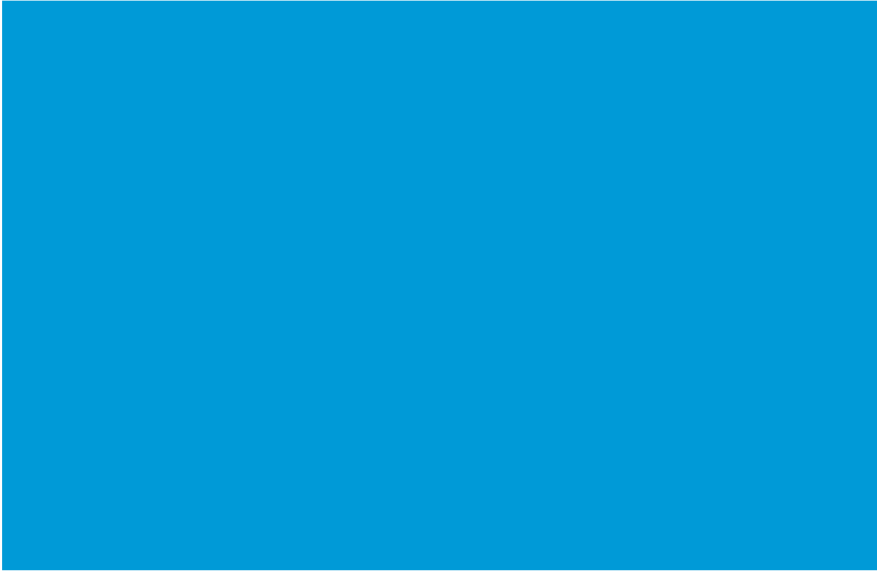
Actor	Definition
Call Taker	The user responsible for handling Calls for Service, both 9-1-1 calls and non-9-1-1 calls (such as non-emergency lines answered at the PSAP)
Dispatcher	The user responsible for dispatching and coordinating first responder personnel and resources to the scene of any given event
Supervisor	The role responsible for supervising call taking and dispatch operations within the PSAP with a discrete set of CAD system privileges, based on role-based permissions, beyond standard CAD user capabilities.
Mutual Aid Fire Crew	The Fire personnel dispatched by the PSAP and responsible for responding to the CFD

Relevant Terms	Definition
CAD	Computer Aided Dispatch
CFS	Call for Service
GIS	Geographic Information System
PSAP	Public Safety Answering Point (PSAP) . Commonly referred to as the “Comms Center”, 9-1-1 Center’, or ‘Dispatch Center’
PRO/QA	Public safety software solution that provides expert insights and expertise on call processing

UC#6 Workflow: Quality Assurance



* Phone System / Telephony monitoring is indirectly relevant to the objective of the Use Case. The primary objective is understanding the CAD system Supervisory capabilities.



Use Case #7:

User Interface Configuration

UC#7 Context: User Interface Configuration

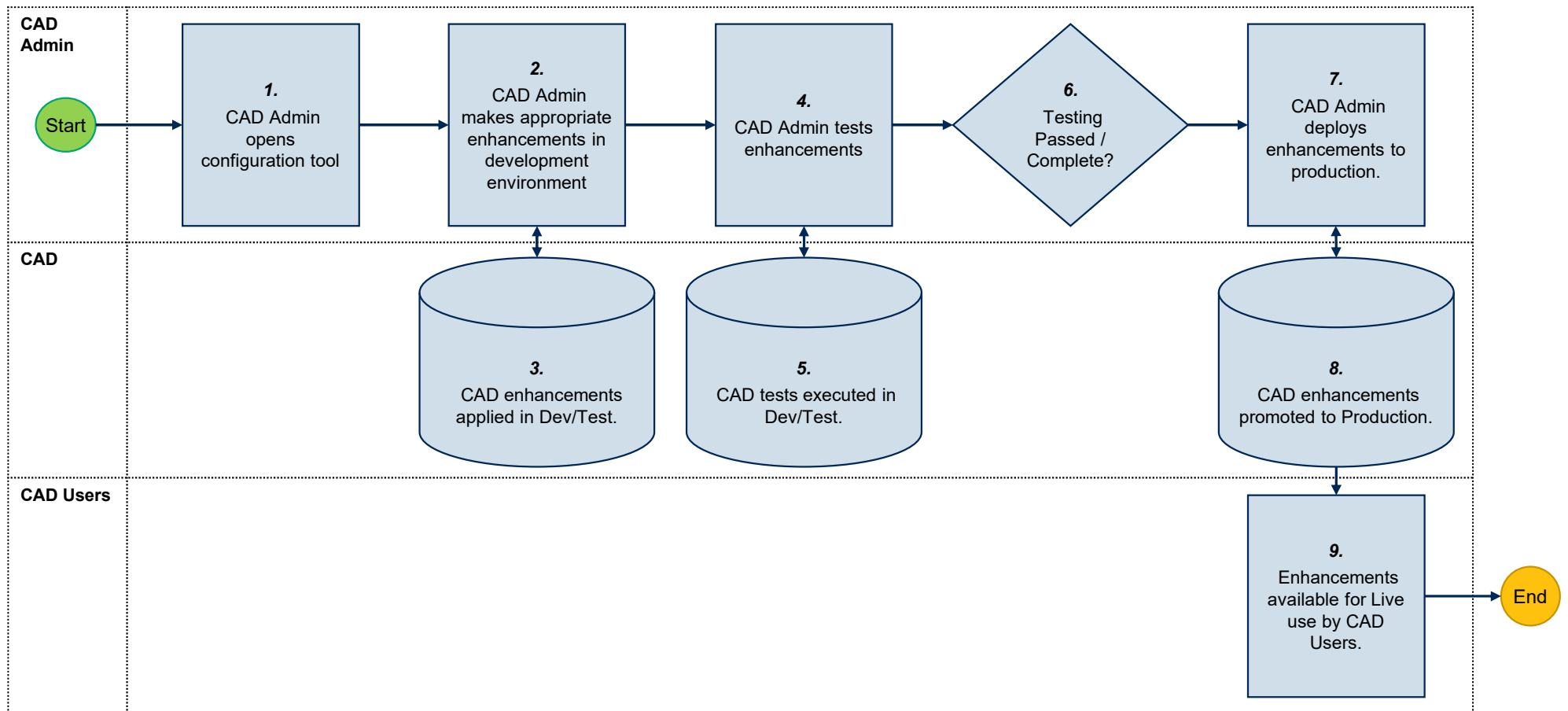
Scenario	General Information
A new policy has been enacted which requires the PSAP to collect additional data elements associated with a certain scenario. To be able to do this, the CAD system's user interface needs to be enhanced. The CAD Administrator uses the system's configuration tool to make the necessary changes / enhancements to the CAD system in a development or other non-production environment. The CAD Administrator tests the enhancements before then publishing the changes to the production CAD environment.	❑ The current user interface configurations are limited due to the current software platform version and roadmap. ❑ The current vendor is responsible for upgrades, integrations, and enhancements to the existing environment. ❑ The current CAD system lacks the functionality to easily integrate with various platforms essential for daily operations, creating additional workloads for staff who must toggle between multiple independent applications for call confirmation and dispatching execution. ❑ The current system has a CJIS interface integration that populates CJIS return information into the call summary.
Current Challenges	Primary Intended Outcomes
▪ Changes to the current CAD are difficult and time consuming to make, as well as costly to customize. ▪ Changes to the user interface need to be performed primarily by the current CAD Vendor through a formal and lengthy change control process. ▪ The current CAD is generally considered to be very inflexible in terms of its ability to be changed or enhanced. ▪ Current CAD interface restrictions prohibit integration into multiple software solutions, requiring multiple applications to complete the dispatch process.	✓ A Town of Cary CAD Administrator or other appropriate authorized user can make changes to the CAD system relatively quickly in a controlled, safe, and risk-averse way. ✓ A replicated production environment enables User Acceptance Testing (UAT), patching, and testing separate from the live system, ensuring validation of expected outcomes before deployment into production. ✓ The proposing CAD vendors can demonstrate other enhancements, such as changes to process/application workflow or other UI elements. ✓ System integration with existing systems or providing options to replace multiple web-based solutions that are needed to enhance operations and effectively complete the dispatch process.

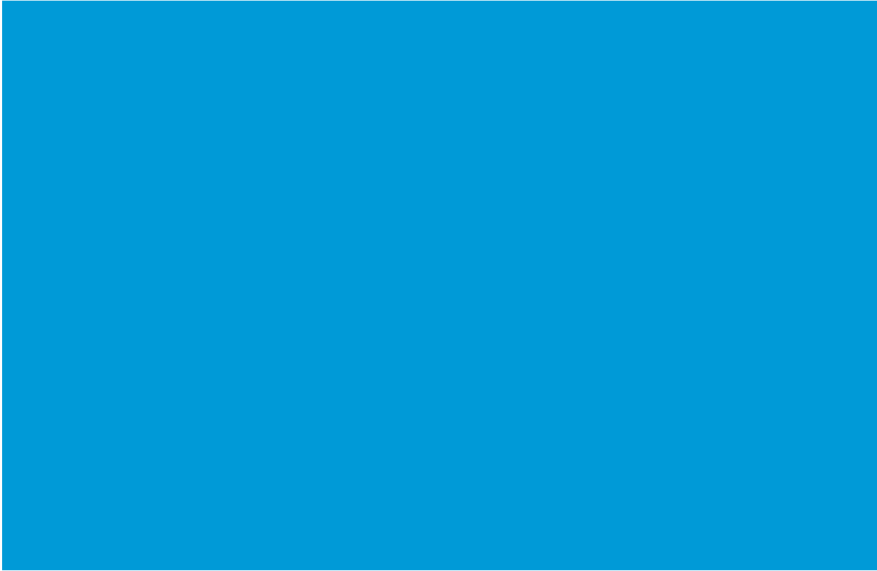
UC#7 Definitions: User Interface Configuration

Actor	Definition
CAD Administrator	The user responsible for managing the CAD system, including but not limited to such tasks such as user account provisioning, user interface enhancements, application workflow enhancements, creation of new reports, etc.
CAD Users	For the purposes of this UC, CAD Users refers collectively to Call Takers, Dispatchers or Supervisors using the live CAD system.
Vendor	Organization or company that provides products, services, solutions or after sales support.

Relevant Terms	Definition
CAD	Computer Aided Dispatch
Dev-Test-UAT	An assumed development and/or test environment available to the CAD Admin from the CAD system.
Production	The live CAD system in an assumed production environment.
UI-User Interface	The point of interaction between a user and a digital device or application.

UC#7 Workflow: User Interface Configuration





Use Case #8:

CAD Command Prompts

UC#8 Context: Import CAD Commands

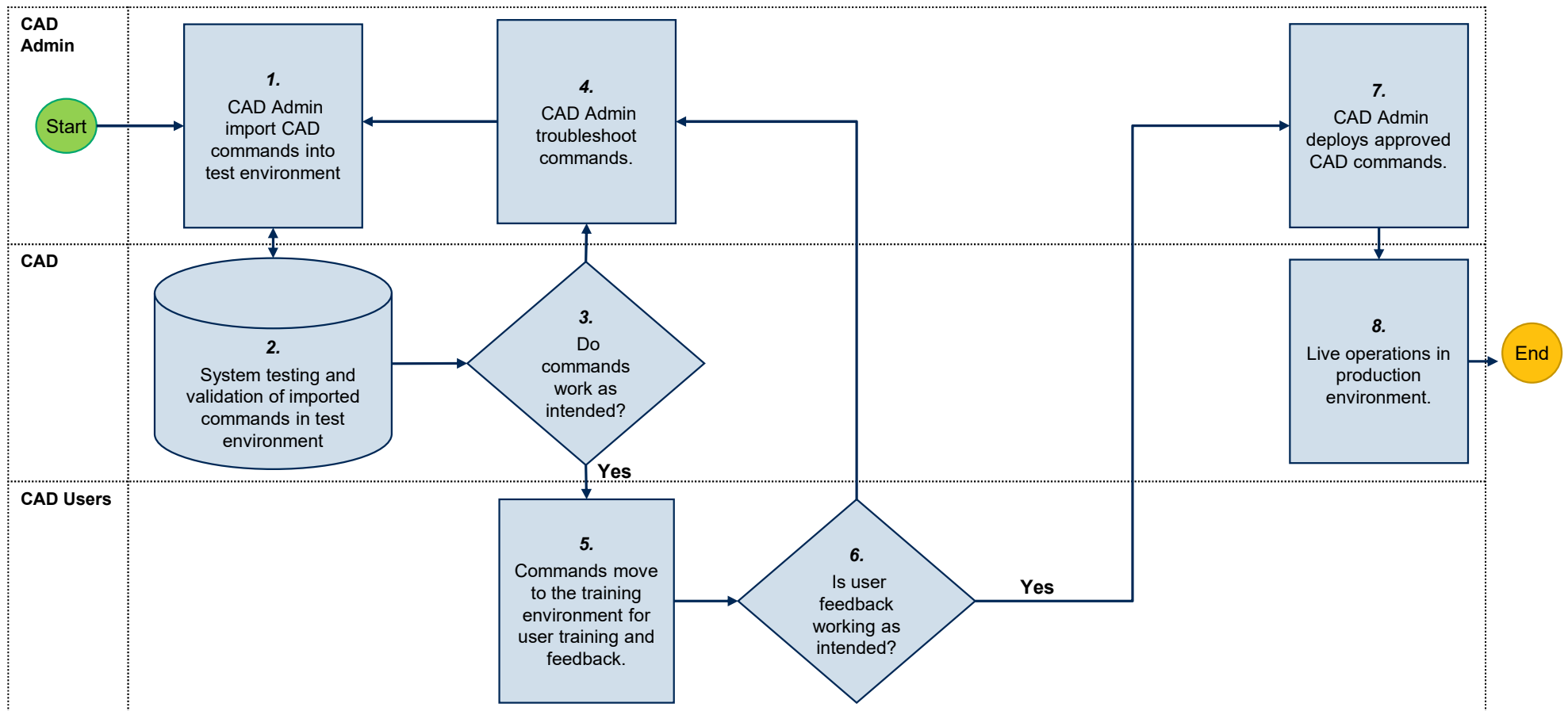
Scenario	General Information
A supervisor for the Town of Cary's 9-1-1 communications center supports a network of regional police and fire responders. Because the Town's system requires multiple actions to complete some simple tasks, the supervisor wants to create a new command-line function to streamline workflows. Using the system's configuration tools, the supervisor imports this new command-line feature. To avoid any disruptions to the live operations, the supervisor first deploys and reviews the command within the dedicated User Acceptance Testing (UAT) environment. During this review phase, the supervisor tests the command and verifies that the system automatically saves all command-line entries so they can be historically searched before a user logs out. Once the supervisor has fully validated the functionality in the testing phase, the supervisor follows the town's formal configuration management processes to successfully promote the new command line component from the test environment into our live production environment.	❑ The CAD system must support the ability to import and export data using common data standards, including delimited files (such as CSV or tab-delimited), fixed-length files, Excel files, JSON files, and various mapping and GIS formats like Shapefiles, File Geodatabases, and GeoJSON files. ❑ The current CAD system lacks the functionality to easily integrate with various platforms essential for daily operations, creating additional workloads for staff who must toggle between multiple independent applications for call confirmation and dispatching execution. ❑ Some commands, like Automatic Vehicle Location (AVL) functions, commands must be available directly through the Dispatch and Records Management system so that users do not have to switch to a separate interface to use them.
Current Challenges	Primary Intended Outcomes
▪ Current system does not efficiently allow user to import command lines into a test environment and then seamlessly transfer it over to the live environment. ▪ Unique, department-specific commands might not be supported natively in the new system. ▪ Dispatchers and officers are accustomed to current commands; changes may require extensive retraining. ▪ Early post-implementation periods may experience decreased dispatcher efficiency and increased call handling times. ▪ Risk of losing command data or misinterpreting command logic during import.	✓ Minimize retraining by maintaining command consistency. ✓ Import current CAD commands so Town of Cary dispatchers and officers can continue using familiar workflows with minimal disruption. ✓ Efficiently import new command lines into the system through a structured process that allows for testing upfront. ✓ Ensure all critical and custom commands retain their intended functionality in the new system. ✓ Improve operational efficiency by leveraging the new system's capabilities while retaining proven command workflows.

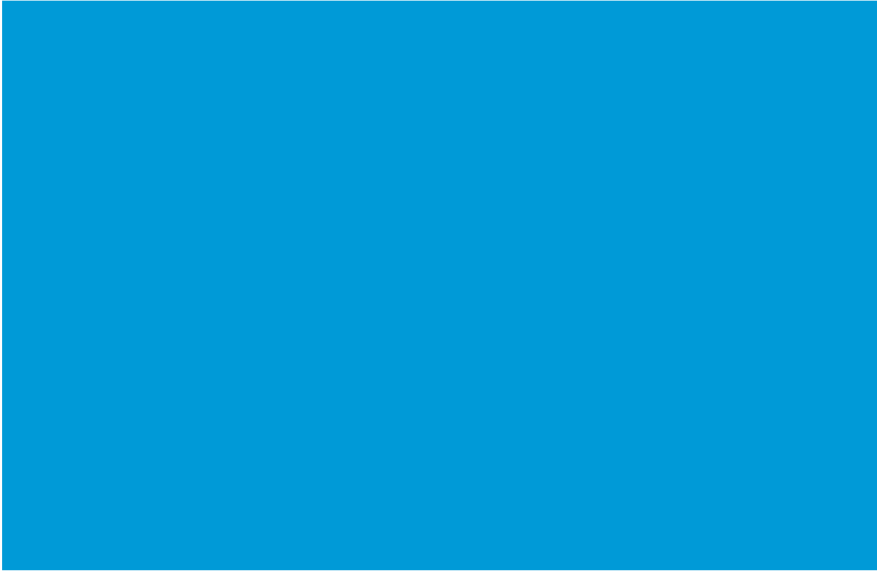
UC#8 Definitions: Import CAD Commands

Actor	Definition
Dispatcher	The user responsible for dispatching and coordinating first responder personnel and resources to the scene of any given event
Supervisor	The role responsible for supervising call taking and dispatch operations within the PSAP with a discrete set of CAD system privileges, based on role-based permissions, beyond standard CAD user capabilities.
CAD Administrator	The user responsible for managing the CAD system, including but not limited to such tasks such as user account provisioning, user interface enhancements, application workflow enhancements, creation of new reports, etc.

Relevant Terms	Definition
CAD	Computer Aided Dispatch
GEO FILES	Shape files, GeoJSON, KML/KMZ, GeoTIFF, GDB, CSV, GML, NetCDF
MAPPING SHAPE FILES	Shapefiles are used to store the geometric location and attribute information of geographic features
GIS	Geographic Information System

UC#8 Workflow: Import CAD Commands





Use Case #9: **Rules Management**

UC#9 Context: Rules Management

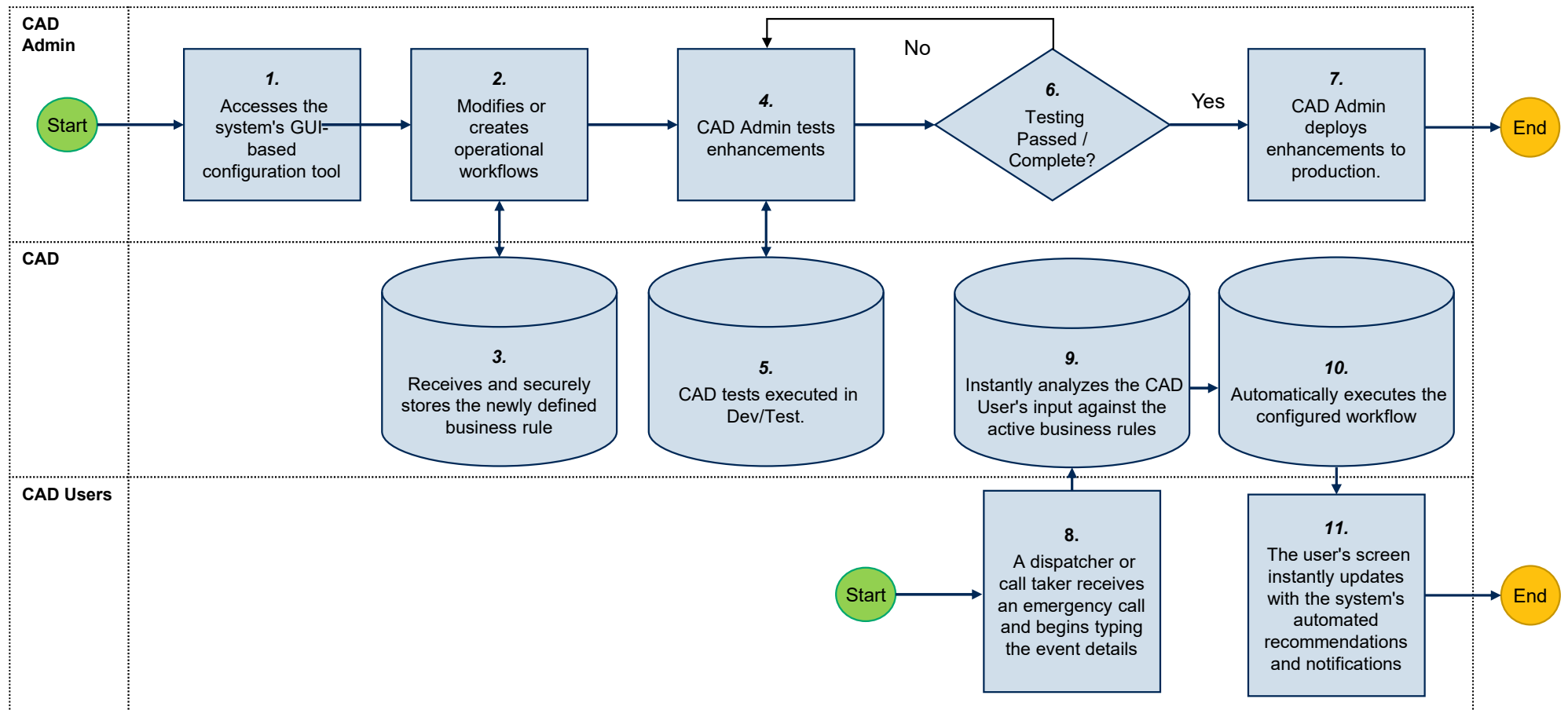
Scenario	General Information
The Town of Cary requires a robust rules management engine that enables authorized system administrators to independently define, deploy, monitor, and maintain automated decision logic without altering the core application code or requiring extensive vendor intervention. An administrator utilizes a GUI-based configuration tool to establish specific business rules that dictate system behavior on the fly. For example, the administrator configures a custom workflow to automatically create and route an Event record for immediate dispatch when specific text or call types are entered, such as an active shooter scenario or a specific medical emergency. Furthermore, the administrator leverages this rules engine to build complex, agreement-specific utilization logic for multi-jurisdictional mutual aid and automatic aid responses.	❑ The Town requires the system to support complex, multi-agency operations (Cary, Apex, and Morrisville). Solutions should allow administrators to define multiple mutual aid and automatic aid agreements, applying agreement-specific business rules to dictate various levels of response and utilization. ❑ Because maintaining system stability and 99.999% uptime is critical, vendors must explicitly detail their deployment process for new rules. ❑ The rules engine must be capable of driving automated alerts. Vendors should highlight how their system allows the Town to define custom visual and audible alerts to notify field units and dispatchers of specific activities.
Current Challenges	Primary Intended Outcomes
▪ The system's current automated decision logic is not fully separated from the core application software making it difficult to create new rules efficiently. ▪ The Town does not have functionality for "super users" to independently configure and alter system functionality on the fly without needing some intervention from developers. ▪ The lack of an intuitive and easily managed rules engine forces dispatchers to over rely on manual decision-making.	✓ System administrators can use a GUI-based configuration tool to quickly adjust, augment, and manage workflows without altering the core application code. ✓ The system can automatically create and route Event records directly to dispatch for severe emergencies—such as an active shooter—saving critical time. ✓ The system reduces manual decision-making by automatically setting an initial priority level.

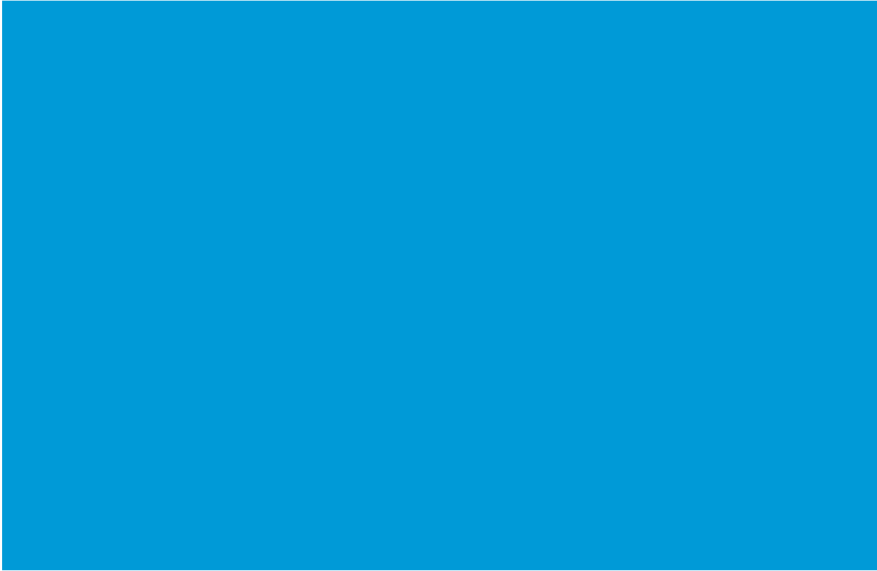
UC#9 Definitions: Rules Management

Actor	Definition
Dispatcher	The user responsible for dispatching and coordinating first responder personnel and resources to the scene of any given event
Supervisor	The role responsible for supervising call taking and dispatch operations within the PSAP with a discrete set of CAD system privileges, based on role-based permissions, beyond standard CAD user capabilities.
CAD Administrator	The user responsible for managing the CAD system, including but not limited to such tasks such as user account provisioning, user interface enhancements, application workflow enhancements, creation of new reports, etc.
First Responders / Field Units	The emergency personnel who are automatically routed and dispatched to scenes based on the automated workflows triggered by the rules engine
Developers and Technical IT Teams	The technical personnel responsible for establishing the underlying system architecture that separates automated decision logic from the core application code

Relevant Terms	Definition
Rules Engine Management	The specific capability of defining, deploying, monitoring, and maintaining system rules
Automated Decision Logic	The underlying rules and workflows that dictate system behavior, which the Town wants to be able to manage independently
GUI-Based Configuration Tool	A graphical user interface that allows CAD administrators to easily configure data fields, user interfaces, and system notifications "on the fly" without needing to write custom code
Core Application Code	The foundational software programming. The Town's primary goal for this use case is keeping the automated decision logic completely separate from this core code so administrators can make changes without a developer

UC#9 Workflow: Rules Management





Use Case #10:

Web Portal Access

UC#10 Context: Web Portal Access

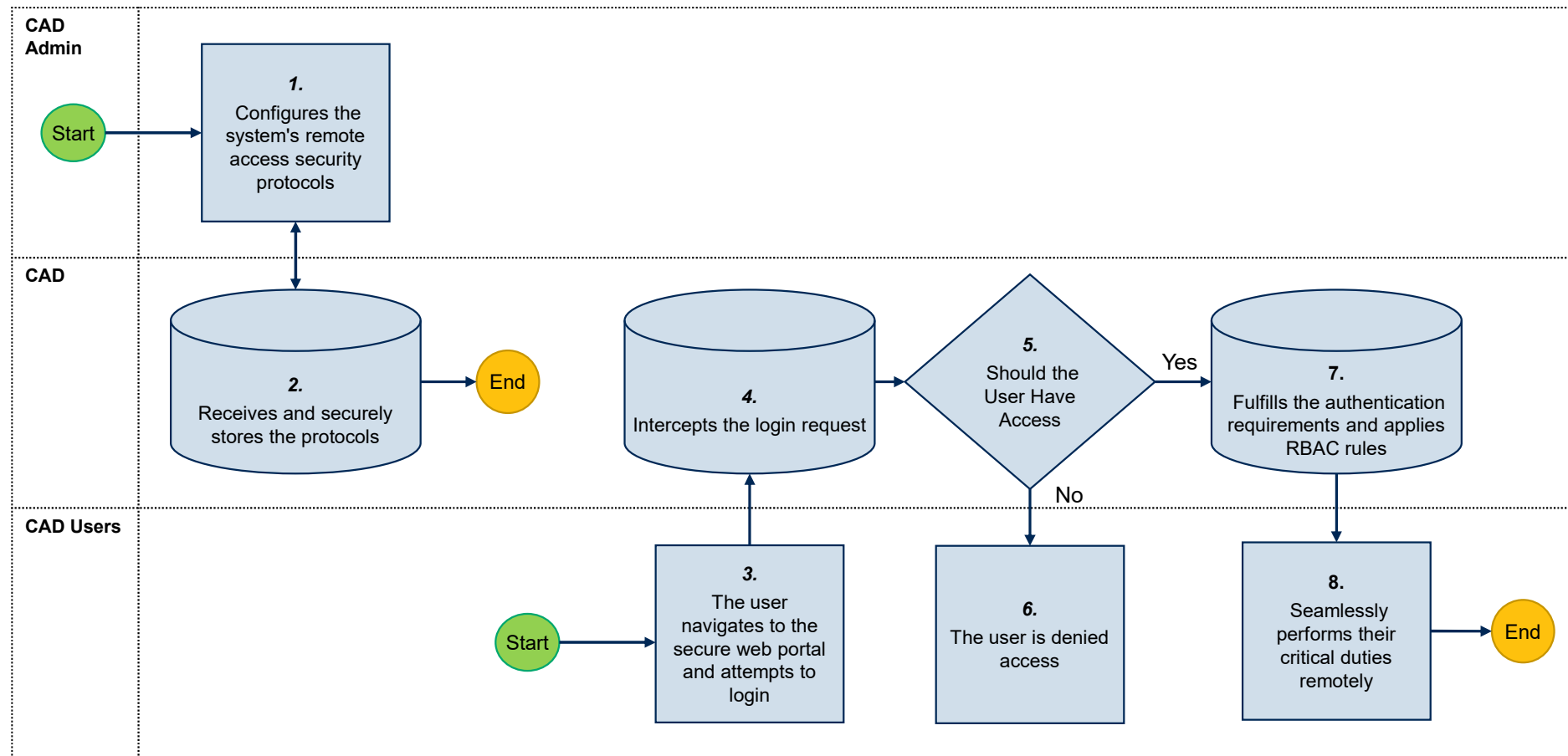
Scenario	General Information
During a critical emergency or facility disruption, an authorized dispatcher or supervisor must be able to securely access the Town of Cary's Computer Aided Dispatch (CAD) system from an off-site location, such as a remote residence or mobile command post. The user navigates to a secure web portal or CAD web client and authenticates utilizing Single Sign-On (SSO) and Multi-Factor Authentication (MFA) to ensure strict data security and regulatory compliance. Upon successful login, the system applies Role-Based Access Control (RBAC) to present a fully functional user interface that perfectly mirrors the experience, resource access, and situational awareness available within the primary 9-1-1 communications center.	❑ The Town requires a cloud-capable system that supports robust remote access, including Work From Home (WFH) capabilities that perfectly mirror the user experience and resource access available in the primary communications center. ❑ Because users will be accessing the system off-site, the solution must adhere to strict security protocols. The system must support Multi-Factor Authentication (MFA), Single Sign-On (SSO), and Role-Based Access Control (RBAC). ❑ To support this secure remote access, the proposed system must integrate with Identity Providers (IDPs), such as Microsoft or Google, to facilitate the SSO and MFA requirements.
Current Challenges	Primary Intended Outcomes
▪ The Town of Cary's legacy CAD system allows some user in the field to remotely access CAD data primarily through Mobile Data Computers (MDCs). ▪ However, for users like dispatchers or supervisors who need to remotely access the database from off-site locations (such as working from home or at a mobile command post), the current system does not adequately support this capability.	✓ Staff can seamlessly connect to the system from remote locations. ✓ Mobile functionality will perfectly mirror the experience, capabilities, and resource access available inside the primary 9-1-1 center, ensuring users suffer no degradation in their ability to perform their duties. ✓ The system will utilize web portals to provide authorized external users with secure access to CAD data, promoting better information sharing and situational awareness without compromising the core database. ✓ The Town will establish a robust, platform that ultimately improving the reliability and delivery of emergency services to the public.

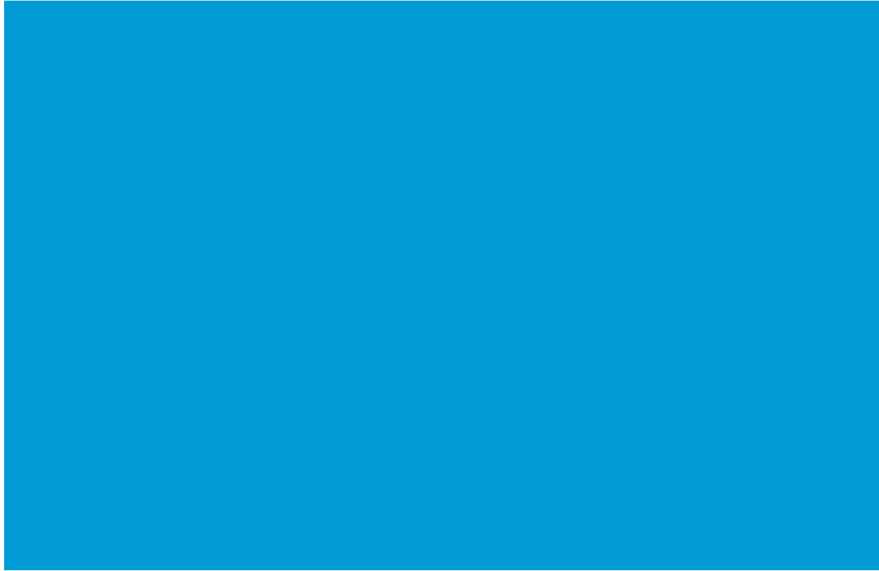
UC#10 Definitions: Web Portal Access

Actor	Definition
Dispatchers / Call Takers	Authorized personnel who securely access the CAD system from off-site locations to seamlessly coordinate emergency responses and generate CAD calls for service using a "Front Counter" CAD web client.
Supervisors	Management personnel who leverage remote access from secondary locations, such as a mobile command post, to monitor active incidents and maintain operational continuity during emergencies or facility disruptions
System Administrators	Technical personnel responsible for configuring and enforcing the system's strict remote access security protocols, including Single Sign-On (SSO), Multi-Factor Authentication (MFA), and Role-Based Access Control (RBAC)

Relevant Terms	Definition
Multi-Factor Authentication (MFA)	A strict security protocol required for remote access that necessitates users to provide multiple verification factors to confirm their identity.
Single Sign-On (SSO)	An authentication method that allows users to securely log in once and gain access to the system across various devices. This is typically integrated with Identity Providers (IDPs) such as Microsoft or Google.
Role-Based Access Control (RBAC)	A security mechanism that restricts system access and tailors the user interface and data permissions based on the specific role of the user (e.g., dispatcher, supervisor, or external user)

UC#10 Workflow: Web Portal Access





End of Document