

<b>GENERAL</b>				
<b>Section</b>	<b>Item</b>	<b>User Requirement</b>	<b>Definition/Test</b>	<b>Mandatory/ Non- Mandatory/ Desired</b>
<b>General</b>	T1.1	The system must be capable of analyzing the current state of coverage and, based on pre-defined business rules, recommend the 'move up' or reallocation of apparatus and resources in order to improve coverage.		Mandatory
	T1.2	Predefined business rules must be modifiable as they will change over time.	1 Ideally these would be modifiable by the system administrator.	Mandatory
	T1.3	Predefined business rules should include rules based on specific areas, apparatus or event type expectations	1 Areas may include station area or community area and may be different based on unit type or class of unit type (EMS vs Fire)	Non- Mandatory
	T1.4	Coverage should be based on a variety of criteria including unit type and skills of personnel associated to that unit	1 For example, an EMS unit could have personnel associated to it which make it Primary Care Paramedic (PCP) versus an Advanced-Care Paramedic (ACP)	Non- Mandatory
	T1.5	The system must take historical data into consideration along with the pre-defined business rules when making reallocation recommendations.	1 This will allow the system to review what the 'likelihood' of a scenario occurring before making a recommendation.	Mandatory
	T1.6	It should be possible to recognize a unit as different unit types	1 For example a Quint could be considered a Ladder or an Engine	Non- Mandatory
			2 Unit types can be changed on the fly based on the skills of the personnel or equipment on the apparatus	Desired
	T1.7	The system must display the coverage in both graphical (map) and text-based methods.	1 Graphical display should have different representation for different levels of coverage. This could include different colours (green, yellow, red, etc.)	Mandatory
			2 Text based methods would present the information in different forms based on different coverage levels.	Non- Mandatory
	T1.8	The system should be capable of warning the appropriate personnel before coverage in any area is critical.	1 The graphical (map) should change colour or have a specific representation for a warning	Non- Mandatory
			2 A textual warning should be presented to the user indicating the warning.	Non- Mandatory
			3 Warnings may be logged so they can be referenced at a later time for training and quality improvement opportunities	Desired
			1 It may be clear what method or formula is utilized to calculate estimated times.	Desired

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	T1.9	When a unit is 'busy', the system may display the estimated time until the unit is available for dispatch.	2 The system may recognize the availability of a unit vs the status alone. For example, a unit could be assigned to an event or busy code but still be recommendable.	Desired	
			3 It may be beneficial if the system used status code and event type to calculate estimated time to availability	Desired	
	T1.10	The system may allow the dispatcher to override the estimated availability time in order to make it longer or shorter based on external information.		Desired	
	T1.11	The system administrator should be able to define areas of priority.	1 Areas of priority mean that anytime there are multiple coverage gaps in the city, the areas of priority are covered first.	Non-Mandatory	
			2 The system should allow for different areas of priority based on the class of the units (i.e. fire versus ambulance).	Non-Mandatory	
			3 The system should allow for different areas of priority based on the time of the day, day of week and month of year.	Non-Mandatory	
	<b>Recommend</b>	T1.12	Resource management must be done by unit or apparatus 'type'. For example, a Primary Care Paramedic versus an Advanced-Care Paramedic, a fire pumper versus a rescue unit etc.	1 The system must be configurable so that the appropriate combination of resources can be defined for coverage.	Mandatory
				2 The system should be configurable so that the appropriate coverage can be defined by hour of the day, day of the week, month of the year etc.	Non-Mandatory
		T1.13	When a coverage gap is detected by the system, the system should recommend the most appropriate unit reallocation based on pre-defined business requirements.		Non-Mandatory
		T1.14	Recommendations may be presented only to the affected dispatchers	1 Affected dispatchers would be dispatchers who are responsible for units or areas associated to the recommendation	Desired
T1.15		The system may present multiple options for the recommendation when a coverage gap is detected	1 Each option may include the impact on the overall coverage	Desired	
T1.16		The dispatcher should be able to select a recommendation option and 'test' the results prior to selecting a recommendation to be performed	1 Selecting the recommendation option may change the graphical display of the coverage for the user	Non-Mandatory	
T1.17		The dispatcher should be able to override the recommended unit reallocation and manually move units as required.		Non-Mandatory	

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	T1.18	The system should record when a recommendation was overridden and another move was made.		Non-Mandatory
	T1.19	The system may allow the dispatcher to enter comments when they override the recommended unit reallocation.		Desired
	T1.20	The system may provide a mechanism for the dispatcher to 'test' specific resource allocation changes in order to see what the impact is.	1 This test may not be committed automatically unless the dispatcher 'commits' the change.	Desired
			2 The dispatcher may be able to test and compare up to 3 scenarios at a time to see what the best overall coverage would be.	Desired
	T1.21	If a two way interface with CAD is configured, when the dispatcher selects the recommendation option, the system should be able to send the appropriate move up (relocation) information to the CAD system and the unit will be moved in the CAD system.		Non-Mandatory
<b>Resource Movement</b>	T1.22	A mechanism should be available to prevent specific units from being moved.		Non-Mandatory
	T1.23	A mechanism may be available to prevent any unit from moving beyond a specific distance from their normal coverage area.	1 This may be configurable by the system administrator	Desired
			2 May be beneficial to have this be based on time of day (i.e. so a unit isn't too far from base of operations prior to the end of shift).	Desired
	T1.24	The system should be capable of moving a unit to a station (hall) or a 'post'		Non-Mandatory
<b>Display</b>	T1.25	The system administrator may be able to define the level of detail displayed on the map	1 Major streets	Desired
			2 Minor streets	Desired
			3 Coverage boundaries (by response type - Fire or EMS)	Desired
			4 Water features	Desired
			5 Railroad tracks	Desired
	T1.26	The system administrator should be able to define what information is viewable at each workstation	1 Fire dispatch positions may not by default see the ambulance coverage etc.	Non-Mandatory
			2 The dispatcher should be able to toggle between what coverage they see (for break coverage)	Non-Mandatory
			3 The system administrator should be able to prevent a dispatcher from viewing coverage that is not appropriate.	Non-Mandatory

<b>Interfaces</b>				
<b>Section</b>	<b>Item</b>	<b>User Requirement</b>	<b>Definition/Test</b>	<b>Mandatory/ Non- Mandatory/ Desired</b>
<b>Interface General</b>	T2.1	The system must be capable of interfacing with COTS CAD solutions		Mandatory
	T2.2	The interface may be able to be configured as one-way only (CAD to Resource Reallocation Tool) or two-way	1 This will allow the system administrator to determine if actions taken in the resource reallocation tool are sent back to the CAD automatically	Non- Mandatory
	T2.3	The interface must operate over standard IP-network		Mandatory
	T2.4	The system administrator should be able to configure the network ports that the interface will operate over		Non- Mandatory

<b>TECHNICAL</b>					
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<b>User Experience</b>	T3.1	The font size, colour and type should be configurable by the system administrator.		Non-Mandatory	
	T3.2	The system must operate on a standard industry-recognized operating system		Mandatory	
	T3.3	The user interface should scale appropriately based on the size, orientation and screen resolution of the user device.		Non-Mandatory	
	T3.4	Any Web App or Web Interface should operate in modern browsers including Safari, Firefox, Internet Explorer, Microsoft Edge, Google Chrome		Non-Mandatory	
<b>Infrastructure</b>	T3.5	Must be capable of operating in a Windows Server 2008 r2 or higher environment.		Mandatory	
	T3.6	The database must be on a standard industry-based database		Mandatory	
	T3.7	The vendor must allow for annual upgrades of OS and DB		Mandatory	
	T3.8	System backups must not negatively impact system performance		Mandatory	
	T3.9	The vendor should provide the database schema, with annual updates		Non-Mandatory	
	T3.10	The vendor may provide the database dictionary		Desired	
	T3.11	The vendor should provide detailed system administration documentation		Non-Mandatory	
	T3.12	The vendor should provide system administration training		Non-Mandatory	
	T3.13	The vendor should provide functional documentation		Non-Mandatory	
	T3.14	The vendor should provide functional test plans and test scripts		Non-Mandatory	
	T3.15	The vendor may provide load test scripts		Desired	
	T3.16	The vendor should provide a system architecture diagram		Desired	
	T3.17	The vendor should all for multiple environment test environments	1	There may be at least the following database environments required - Production (LIVE), training and development	Non-Mandatory
	T3.18	Database backup	1	The system should provide the ability for on line/hot backups of the database without impairing system operation	Non-Mandatory

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	T3.19	Failover capability	1	The system should have the ability to fail over to another server/system	Non-Mandatory
	T3.20	The system should support current industry standard infrastructure formats	1	The system should be capable of operating in a Virtual Machine environment	Non-Mandatory
			2	Virtual Machine environment may include database servers, interface or application servers and dispatch workstations	Non-Mandatory

<b>CORPORATE</b>					
<b>Section</b>	<b>Item</b>	<b>User Requirement</b>		<b>Definition/Test</b>	<b>Mandatory/ Non- Mandatory/ Desired</b>
<b>Corporate General</b>	T4.1	Vendor solution must be currently installed in departments of similar size and number of users	1	Vendor may be able to provide references	Mandatory
	T4.2	Vendor must provide support/work with standard vendors for various interfaces including CAD systems			Mandatory
	T4.3	Vendor should offer annual maintenance packages			Non-Mandatory
	T4.4	Vendor should provide a warranty for the product/solution			Non-Mandatory
	T4.5	Vendor may offer an extended warranty			Desired
	T4.6	Vendor may support/provide a user conference	1	Vendor may support/provide a user conference	Desired
	T4.7	Vendor may support/provide a Canadian user conference	1	Vendor may support/provide a Canadian user conference	Desired
	T4.8	Vendor may support a regional user conference	1	Vendor may support supports a regional user conference	Desired
	T4.9	Vendor may support annual data reviews to ensure the system is configured and calculating appropriately.			Desired
<b>Product Documentation</b>	T4.10	The vendor should provide a system database schema			Non-Mandatory
	T4.11	The vendor may be able to describe the different services and levels of support that are available			Desired
	T4.12	The vendor should provide product release notes for the version of the software being recommended for use at the time of system implementation			Non-Mandatory
	T4.13	System documentation should include both user guides and system administrator guides			Non-Mandatory
	T4.14	The vendor may provide system test plans	1	User Acceptance Test Plan	Desired
2			Regression Test Plan	Desired	
<b>Client Support</b>	T4.15	The vendor should provide technical assistance with the configuration of the system			Non-Mandatory
	T4.16	The vendor should provide technical assistance with the implementation of the system			Non-Mandatory
	T4.17	A predefined process and associated expected timelines for trouble resolution should be provided			Non-Mandatory
	T4.18	The vendor should be able to provide a process for system upgrades			Non-Mandatory
	T4.19	System solution may be subject to an internal (vendor) QA process			Desired

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	T4.20	The vendor should provide software configuration training to identified super users			Non-Mandatory
	T4.21	The vendor may provide user-level training in a train-the-trainer format			Desired
	T4.22	The vendor should provide implementation and project support			Desired
	T4.23	Vendor should provide 7/24/365 support	1	The vendor should provide an agreed service level agreement	Non-Mandatory
			2	The vendor will provide a response within a certain time frame to calls for assistance	Non-Mandatory
			3	The response time should be based on the priority of the request	Non-Mandatory
			4	The vendor may provide first, second and third level support	Desired
			5	The vendor may provide a web-based knowledge bank;	Desired
			6	Users should be able to post information/issues to the web-based bank	Desired
	T4.24	The vendor may provide a file transfer site;			Desired
	T4.25	Vendor should track and monitor customer submitted bugs	1	May track, monitor bugs and provides feedback to the customer	Non-Mandatory
	T4.26	Vendor should provide a single point of contact	1	The vendor should provide a single point of contact for customer support This should include a single project manager	Non-Mandatory



<b>Glossary</b>	
<b>Word</b>	<b>Description</b>
Move up	The move of a unit from one location to another to provide fill-in or coverage
Post	Post is a fixed, pre-determined location where an apparatus can be moved to provide coverage for a large area. The post is typically centrally located between the two areas being covered.
Area of priority	Area of priority is an area of high call volume or where critical calls historically occur most frequently.
PCP	Primary Care Paramedic
ACP	Advanced-Care Paramedic
COTS	Commercial Off the Shelf