

EXHIBIT B
SOLUTION REQUIREMENTS RESPONSE MATRIX
REVISED UNDER BULLETIN #2

Legend			
B = Meets the requirement out of the Box		X = Can not meet this requirement	
C = Requires Configuration only to meet the requirement Configuration utilizes the table driven or report / screen formatting parameters built into the application itself. The key to configuration is that when the application is upgraded by the vendor the configuration parameters are carried forward with the new release and do not need to be reconfigured.		D = Requires Development / Programming to meet the requirement Development / Programming is required when the System / Application cannot be configured to meet the business functional and technical requirements. Development requires programming or significant changes to the underlying Database. This can include the development of new modules for the application specific for the requirements and/or programming changes to the base application requiring a separate program tree that needs to be maintained by the vendor for updates.	
ALL REQUIREMENTS ARE MANDATORY			
Failure to respond to "each" Requirement will result in point deductions from Proposer's evaluation score.			
REQ #	NLRS Business Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
	NLRS		
1	The Solution records all audio voice transmissions including:		
1.a	Duplex Radio Channels		
1.b	240+ DMR		
1.c	240+ P25 digital talk groups		
1.d	Business telephone conversations (including up to 560 VoIP).		
1.e	Channel capacity up to 240 Analog		
1.f	Channel capacity up to 240 Digital PBX		
2	The Solution stores recordings 24 hours per day, 365/6 days per year.		
3	The Solution stores recordings up to a minimum of 3 years.		
4	The Solution provides the funtionality to mark specific segments of recordings to be stored longer than 3 years.		
5	The Solution provides AI Speech to Text Transcription and search capabilities.		

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6	The Solution provides AI Radio Transcription, Interfacing with NG-911.		
7	The Solution provides the ability to record:		
7.a	A minimum of 25 channels and up to a maximum of 400 channels at multi-site setup (refer to Requirement 32.a below).		
7.b	Up to 2000 channels/phone lines for a single site setup (refer to Requirement 32.b below).		
8	The Solution recordings must be encrypted.		
9	The Solution records the:		
9.a	User computer screens		
9.b	User voice/audio channels		
9.c	User telephone lines		
10	The Solution provides a user-friendly "instant playback" function.		
11	The Solution makes recordings available for search and playback/export within five minutes regardless of system background functions.		
12	The Solution provides the functionality to string several transmissions together based on their timeline.		
13	The Solution provides an audible time stamp, which includes the date and time, with resolution down to the second of the recording (HH:MM:SS).		
14	The Solution displays dialed digits for all outgoing calls.		
15	The Solution allows users to search for recordings in various ways (e.g., date/time frame, channel, dialed digits , ANI/ALI info, radio ID, etc.).		
16	The Solution allows users to annotate recordings with notes.		

REQ #	NLRS Business Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
17	The Solution provides the functionality to restrict (e.g., redact information and audio from recorded sessions, including screen recordings).		
18	The Solution provides the functionality to reconstruct incidents, instant recall, replay, and management of:		
18.a	Audio		
18.b	Screen		
18.c	Multimedia		
18.d	Text (SMS)		
18.e	IP video recording		
19	The Solution displays associated data along with the recording (e.g., ANI/ALI information for 9-1-1 calls, CAD data, Radio IDs with all radio transmissions, and caller IDs with normal telephone calls).		
20	The Solution plots telephone calls and radio traffic on a map, if the call or radio audio contains address/GPS information.		
21	The Solution provides the ability to redact information and audio from recorded sessions, including screen recordings.		
22	The Solution provides the functionality to export recordings with or without "dead air" time VOX.		
23	The Solution provides the functionality to export recordings in the following format:		
23.a	WAV		
23.b	MP3		
23.c	MP4		
23.d	A format that shows the "timeline"		
24	The Solution supports a centralized Remote Content Management system.		
	Integration Communication		
25	The Solution provides the functionality to communicate with the following:		

REQ #	NLRS Business Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
25.a	Cal OES		
25.b	NG-911		
25.c	NGA-911		
26	The Solution integrates with an AIS transceiver and LA-RICS.		
27	The Solution integrates with ANI and ALI for location data.		
28	The Solution provides the functionality to integrate and mix multiple communication types [including analog and digital voice radio channels, 9-1-1, VoIP (using SIP), and analog business telephone lines].		
29	The Solution integrates CUCM with the Department's VoIP system.		
30	The Solution provides live monitoring of PSAP interactions ensuring policies and procedures.		
31	The Solution is capable of synchronizing with an external time signal (IRIG-E, Balanced).		
32	The Solution provides the ability to:		
32.a	Install recording systems at multiple sites throughout the Department, with the ability to access all sites networked together from any networked computer.		
32.b	Record all radio channels, station phone lines, and in-house custody and court channels to one main "hub" system at the SCC.		
	Interface		
33	The Solution provides the following interface:		
33.a	CAD		
33.b	RMS		
33.c	LARCIS		
34	The Solution provides Geo-Fence search capabilities.		
	Reports		

REQ #	NLRS Business Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
35	The Solution creates and manages reports (e.g., number of transmissions per channel during a certain date and/or time frame and user activity/log-on to the system).		
36	The Solution provides a report wizard for ad-hoc reports.		
37	The Solution provides Users a reporting tool that can:		
37.a	Create reports based on any operational data field in any system database.		
37.b	Create reports based on multiple operational data fields in any system database.		
37.c	Access multiple files and tables.		
38	The Solution's report generating tool handles the following functionalities:		
38.a	Arithmetic operations, including fractions and percentiles.		
38.b	A full suite of statistical operations (e.g., average, mean).		
38.c	Logic operations (e.g., greater than, equal to)		
38.d	Time operations		
39	The Solution allows Users to create ad-hoc reports based on any data fields in database.		
40	The Solution's queries and reports support either exact date/time or date/time ranges.		
41	The Solution allows Users to add a User-created report to a library of canned reports.		
42	The Solution allows the System Administrator to restrict a User's ability to add a User-created report to a general library of reports (e.g., only supervisors with defined security permissions may add reports to the library).		
43	The Solution allows Users to save a report to either of the following:		
43.a	General Library of Reports (County-wide)		

REQ #	NLRS Business Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
43.b	User Profile		
44	The Solution saves all User-created reports during updates and upgrades.		
45	The Solution allows authorized Users to access the general library of User-created reports.		
46	The Solution allows the System Administrator to restrict access/rights to reports within the library of reports (e.g., who may view report, modify report).		
47	The Solution allows the System Administrator to create a report and determine which Users have permission to generate that report.		
48	The Solution allows Users to put their reports in a 'dashboard' for later use.		
49	The Solution allows Users to send reports to other Users or User-groups.		
50	The Solution allows Users to generate reports on a pre-determined schedule.		
51	The Solution automatically sends scheduled reports to distribution groups.		
52	The Solution automatically prints scheduled reports to designated printers.		
53	The Solution allows Users to export results into standard formats, including the following:		
53.a	MS Office Applications (e.g., Word, Excel)		
53.b	Text files		
53.c	ASCII		
53.d	CSV		
53.e	HTML		
53.f	XML		
53.g	PDF		
	Audit Trail		
54	The Solution's audit trail captures, but is not limited to, the following:		
54.a	User ID		

REQ #	NLRS Business Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
54.b	User name		
54.c	Terminal ID		
54.d	Date and time stamp		
54.e	Action taken (e.g., print, edit, deletion)		
54.f	Before and after values of modified data (if applicable)		
54.g	User transactions		
54.h	System transactions		
54.i	External Systems Access		
55	The Solution records all User actions including, but not limited to:		
55.a	Modifications		
55.b	Security violations		
55.c	Inquiries to all systems accessed via NLRS (e.g., NCIC) External System Access		
55.d	Entries (Data inputs)		
55.e	System Messaging		
55.f	Print commands		
55.g	Successful sign-on		
55.h	Unsuccessful sign-on attempts		
55.i	View actions		
55.j	Duration of view		
55.k	Code table maintenance		
56	The Solution records all Contractor system actions.		
57	The Solution dates and time stamps the following:		
57.a	System transactions		
57.b	User transactions		
57.c	External third-party administrator transactions.		
58	The Solution's time stamps include:		
58.a	Date		
58.b	Hour		
58.c	Minute		
58.d	Second		
58.e	Millisecond		

REQ #	NLRS Business Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
59	The Solution allows the System Administrator to create User templates for the purpose of defining who has audit trail access permissions.		
60	The Solution allows the System Administrator to review all User activity performed during a defined period of time.		
61	The Solution complies with NCIC-III log-in requirements.		
62	The Solution allows select Users to create standard and ad-hoc reports from the audit log.		
63	The Solution allows audit logs to be exported to third-party programs (e.g., MS Excel).		
64	The Solution allows the Department to define audit trail data retention periods.		
65	The Solution provides the functionality to add forms for quality assurance.		
66	The Solution provides the functionality to track quality assurance assessments by employee.		
67	The Solution includes User security templates that can be assigned to each role (e.g., User, User groups, restrict audio, play restricted audio and audit).		
Security Administration			
General			
68	The Solution complies with CJIS requirements. https://le.fbi.gov/cjis-division/cjis-security-policy-resource-center		
69	If Solutions Disaster Recovery is in a hosted environment, the Disaster Recovery solution meets CJIS requirements.		
70	The Solution supports multi-factor authentication.		

REQ #	NLRS Business Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
71	The Solution provides a Health Dashboard in real-time 24/7 to monitor the system services.		
72	The Solution provides alarm filtering to monitor each recorder.		
User IDs			
73	The Solution assigns a unique ID to each User via ADFS.		
74	The Solution captures the following information associated with each User ID:		
74.a	Name		
74.b	Title		
74.c	Unit		
74.d	Assignment		
74.e	Email Address		
74.f	Security Rights/Role		
75	The Solution hides a primary key from Users (except from authorized System Administrators).		
76	The Solution maintains a history of de-activated user IDs.		
77	The Solution allows User IDs to be reactivated.		
78	The Solution supports Active Directory Federation Services authentication for Users outside of the Department.		
User Passwords			
79	The Solution uses Active Directory for User authentication and password maintenance.		
80	The Solution enforces CJIS-compliant passwords.		
81	The Solution allows the System Administrator to create unique password requirements.		
82	The Solution allows Users to change or reset their own passwords.		

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83	The Solution allows the System Administrator to change User passwords.		
84	The Solution allows the System Administrator to disable or activate an account.		
	Security Groups/Roles		
85	The Solution supports role-based security permissions.		
86	The Solution allows the System Administrator to assign personnel to specific roles.		
87	The Solution allows the System Administrator to assign personnel to multiple roles.		
88	The Solution includes User security templates that can be assigned to each role (e.g., define User permissions for Dispatcher, versus other roles).		
89	The Solution automatically updates all User roles/permissions associated with a specific User template, when that template is modified by the System Administrator.		
90	The Solution allows the System Administrator to re-use security templates.		
91	The Solution allows the System Administrator to assign multiple templates to a role.		
92	The Solution allows the System Administrator to assign permissions to each role, including but not limited to:		
92.a	Application Access		
92.b	Module Access		
92.c	External Systems Access		
92.d	Modification Rights (e.g., Read-only, Read and Write, Delete)		
92.e	Print Rights		
92.f	Query+B180:B193 Rights		
93	The Solution allows the System Administrator to designate a User as a System Administrator.		

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94	The Solution allows System Administrator to restrict User access to NCIC, regardless of other system permissions/roles (e.g., prevents a System Administrator from having NCIC access).		
95	The Solution allows the System Administrator to restrict User modification rights (e.g., add, inquiry, modify, print, delete).		
96	The Solution prevents Users from creating reports using data for which they do not have appropriate security permissions.		
97	The Solution allows the System Administrator to create temporary security profiles.		
98	The Solution's temporary security profiles are confined to date/time parameters (e.g., can only log on at this day/time).		
	Online Documentation/Help		
99	The Solution provides Users with an electronic help menu.		
100	The Solution allows for the creation of agency-specific online documentation and help files.		
101	The Solution's help file automatically updates at the time of all version/release updates.		
102	The Solution prevents software updates from overriding agency-specific online documentation and help files.		
103	The Solution allows Users to export help files/text to third-party programs (e.g., MS Word).		
104	The Solution's help files are context sensitive (e.g., the help files displayed are only applicable to the User's current view screen).		
105	The Solution tracks revisions to online documentation and help files by:		
105.a	User ID		
105.b	Date and time		

REQ #	NLRS Business Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
106	The Solution allows Users to search the help file by:		
106.a	Keyword		
106.b	Topic		
106.c	Field		

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ALL REQUIREMENTS ARE MANDATORY Failure to respond to "each" Requirement will result in point deductions from Proposer's evaluation score.			
REQ #	NLRS Technical Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
	Multiple Environments		
1	The Solution has the ability to support multiple environments, including the following:		
1.a	Production		
1.b	Test		
1.c	Training		
1.d	Disaster Recovery		
2	The Solution performs complex queries, involving multiple parameters, without adversely impacting performance in the production environment.		
3	The Solution performs historical system queries without adversely impacting performance in the production environment.		
4	The Solution can be modified in the test environment and pushed/uploaded to the production environment.		
5	The Solution supports the following architectures for all Environments (e.g., production on-premise, replication in cloud): *Proposer must specify, in comments section, the on-premise portions vs. cloud.		
5.a	A cloud computing architecture		
5.b	An on-premise architecture		
5.c	A hybrid of cloud computing and on-premise architecture for all environments.		
6	The Solution is housed in either a CJIS-compliant cloud environment or a CJIS-compliant data center.		
7	The Solution replicates data from production to Disaster Recovery environment synchronously or asynchronously (with an agency-defined lag) as needed.		
8	The Solution allows the System Administrator to determine the lag time between production and replication environments.		

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9	The Solution supports a clustered architecture environment.		
10	The Solution supports a virtualized server environment. *Proposer must specify, in comments section, the virtualization software utilized.		
	Application Accessibility		
11	The Solution can be accessed from the following device(s):		
11.a	Desktop		
11.b	Mobile Computer		
11.c	Smart phone		
11.d	Tablet		
12	The Solution supports multiple operating systems from MS Intune MDM, including, but not limited to the following:		
12.a	iOS		
12.b	Android		
	System Connectivity		
13	The Solution continuously attempts to reconnect to NLRS system in the event connectivity is lost.		
14	The Solution provides the NLRS Users a visual alert if the NLRS system is down due to lost connectivity (e.g., no connection to NLRS servers).		
	Network Protocols		
15	The Solution supports the following network protocols:		
15.a	TCP and UDP		
15.b	HTTPS, WSS, SSL		
15.c	SIPREC		
15.d	RTP/SRTP		
15.e	NENA STA-19 (NG 911 Call Processing)		
15.f	NENA STA-10 and NENA i3 Standard (NG, NG 911)		
15.g	MSRP		
15.h	SMS		
15.i	TLS/AES-256		
	Operating System		
16	The Solution supports the following operating systems:		
16.a	Windows		
16.b	Red Hat Linux enterprise		
17	The Solution operates on the latest Windows Operating System within:		
17.a	Current Version		
17.b	N-1		
17.c	N-2		
17.d	N-3		
17.e	N-4		

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18	The Solution supports a centralized Remote Content Management system.		
	Software Updates		
19	The Solution supports the following functionalities, without affecting work in progress:		
19.a	A User-initiated download of software/files (e.g., code tables, updates) at log-on		
19.b	An automatic download of software/files (e.g., code tables, updates) at log-on		
19.c	A scheduled download of software/files (e.g., code tables, updates)		
20	The Solution maintains compatibility with standard Windows or Linux Operating Systems and associated component updates (e.g., if Windows or Linux or supporting software makes an update, the system will make a corresponding update to maintain compatibility).		
21	The Solution prevents a User without appropriate security permissions from updating the application.		
	Database		
22	The Solution provides a relational database management system.		
23	The Solution supports the following database(s):		
23.a	Oracle database		
23.b	MS SQL database		
24	The Solution provides a common error table across applications for system monitoring.		
25	The Solution supports transparent data encryption for database files.		
26	The Solution supports compression within the database without additional latency. *Proposer must identify, in comments section, the tools being used for compression with an explanation of how this will be accomplished.		
27	The Solution enables sub-partitioning of the tables within the database.		
28	The Solution masks/encrypts production data in non-production environments. *Proposer must specify, in comments section, how this will be accomplished.		
	System Reliability		
29	The Solution supports 99.999% uptime.		
	Disaster Recovery		
30	The Solution:		

REQ #	NLRS Technical Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
30.a	Automatically initiates moves to the failover environment without requiring manual intervention. *Proposer must identify, in comments section, the time required to move to the failover environment.		
30.b	Does not automatically initiate the move to failover, rather, manual intervention is required by authorized System Administrator prior to initiating move to failover environment.		
31	The Solution allows the System Administrator to utilize test scripts for moving between the failover/Disaster Recovery and Production environments.		
Data Retention			
32	The Solution allows the System Administrator to determine data retention periods.		
33	The Solution's data retention periods can be modified.		
34	The Solution allows the System Administrator to establish/define the table-driven parameters for data retention.		
35	The Solution notifies appropriate personnel, when a retention period is modified. *Proposer must indicate in "Comments" field how the notifications are made.		
36	The Solution requires acknowledgment of the notification if a retention period is modified.		
37	The Solution:		
37.a	Automatically purges records after the associated retention period has lapsed, -OR -		
37.b	Does not automatically purge records after the retention period has lapsed, rather, the Solution requires manual intervention prior to purging a record.		
Data Backup			
38	The Solution automatically backs up data to the following:		
38.a	Local disk, on-premise		
38.b	A cloud environment		
39	The Solution utilizes or integrates with the Department's backup solution for on-premise solutions.		
40	The Solution allows the System Administrator to define the point-in-time recovery period (e.g., one day, one week, one month, etc.).		
Security			
41	The Solution supports multi-factor authentication.		
42	The Solution supports role based security permissions.		
43	The Solution uses Microsoft ADFS for account management, user permissions, and user credentials for internal and external users.		

REQ #	NLRS Technical Requirements	Response Code B/C/D/X	Comments Please include a detailed description of how the proposed Solution meets/will meet each Requirement below.
44	The Solution allows for Administrators to add/delete Users.		
45	The Solution supports profile-based login.		
46	The Solution complies with the Department antivirus software.		
	Product Support and Maintenance		
47	The Solution provides remote system diagnostics for use by the System Administrators and technical support personnel.		
48	The Solution performs a debug trace (e.g., record user activity/transactions) to replay for troubleshooting purposes.		
49	The Solution allows the System Administrator to schedule deployment of system updates/upgrades.		
50	The Solution provides tools for the System Administrator to deploy system updates/upgrades remotely.		
51	The Solution allows the System Administrator to decline a system update or upgrade.		
52	The Solution provides a reporting tool that can identify system response times (e.g., certain NLRS transactions must be <u>≤ 1</u> second; tool provides an automated report showing performance against that benchmark).		

Acronym Glossary

ADFS	Active Directory Federation Services
AES	Advanced Encryption Standard
ASCII	American Standard Code for Information Identification
AI	Artificial Intelligence
AIS	Automatic Identification System
ALI	Automatic Location Identification
ANI	Automatic Number Identification
Cal OES	California Governor Office of Emergency Services
CUCM	Cisco Unified Communications Manager
CSV	Comma Seperated Values
CAD	Computer Aided Dispatch
CJIS	Criminal Justice Information Services
DMR	Digital Mobile Radio
XML	Extensible Markup Language
GPS	Global Positioning System
HTML	Hyper Text Markup Language
HTTPS	Hyper Text Transfer Protocol Secure
ID	Identification
IRIG	Inter Range Instrumentation Group
IP	Internet Protocol
LARCIS	Los Angeles Regional Crime Information System
LA-RICS	Los Angeles Regional Interoperable Communication System
LASD	Los Angeles Sheriff's Department
MSRP	Message Session Relay Protocol
MS	Microsoft
MDM	Mobile Device Management
MP3	MPEG-1 Audio Layer 3
MP4	MPEG-4 Part 14
NCIC	National Crime Information Center
NENA	National Emergency Number Association
NLRS	Networked Logging Recorder System
NG	Next Generation
NGA	Next Generation Advanced
PDF	Portable Document Format
PBX	Private Branch Exchange
P25	Project 25 (interoperable digital 2-way radio)
PSAP	Public Safety Answering Points
RTP	Real-time Transport Protocol
RMS	Records Management ystem
SRTP	Secure Real-time Transport Protocol
SSL	Secure Sockets Layer
SIP	Session Initiation Protocol
SIPREC	Session Initiation Protocol Recording

SCC	Sheriff's Communicaiton Center
SMS	Short Message Service
SQL	Structured Query Language
TCP	Transmission Control Protocol
TLS	Transport Layer Securit
UDP	User Datagram Protocol
VOX	Voice Operated Exchange
VoIP	Voice over Internet Protocol
WAV	Waveform
WSS	Web Socket Secure