



SCOPE OF WORK

Aurora Police Department 2025 Drive Test Scanner RFP

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Five Eight Group POC:

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Project Information

Name of Project

Aurora Police Department Drive Test Scanner System for 5G FR1

Project Location

Aurora Police Department

1200 East Indian Trail

Aurora, IL 60505

Company Background and Qualifications

Five Eight Group has been registered as an LLC in Arizona since 2014, and is currently a woman owned small business.

Since 2021 Five Eight Group has sold six radio frequency drive test scanners to law enforcement agencies and district attorney offices. Each of those customers have received our in person training upon delivery of these scanners, in some cases this training was one on one.

Five Eight Group uses an FR1 TSMA6B radio frequency drive test scanner on an almost daily basis for casework, testing and evaluation purposes.

Michael Pezzelle has testified US courts regarding the use of radio frequency drive test scanners and passes this knowledge along during our class.

Casework has been completed for the United States Attorney's Office Eastern District of New York, Central District of California, Maricopa County Attorney's Office, Navajo County Attorney's Office, San Bernardino County Attorney's Office, Santa Cruz County Attorney's Office, Miami State's Attorney's Office, Dallas County District Attorney, Jefferson County District Attorney, and others.

Michael Pezzelle is a member of the Scientific Working Group on Digital Evidence (SWGDE) and participates in the Forensics committee assisting in authoring best practices papers on both historical cell site location information and more recently radio frequency surveying or drive testing.

Michael Pezzelle is also a member of the Institute of Electrical and Electronics Engineers.

A curriculum vitae is attached to this RFP under other documents.

Product Specification:

The drive test scanner package from Five Eight Group features hardware and software from Rohde & Schwarz. Drive test scanners are typically used by cellular network engineers in the planning, optimization, and troubleshooting of the cellular networks and to examine network quality after upgrades or reconfiguring of networks.

Drive test scanners are also in use by law enforcement throughout the United States to compare the coverage and handoff areas of the cellular network to the location of cellular phones as provided by the providers in Call Detail Records (CDR). Call Detail Record analysis and Cell Site Location Information (CSLI) is widely used by law enforcement across the country.

TSMA6 and TSMA6B

The compact Rohde & Schwarz TSMA6B autonomous mobile network scanner is an integrated solution for efficient drive and walk testing. It offers maximum performance, autonomy The compact TSMA6B autonomous mobile network scanner is an integrated solution for efficient drive and walk testing. It offers maximum performance, autonomy and connectivity with an integrated high-performance PC and a mobile network scanner to comply with the latest requirements for state-of-the-art mobile network and connectivity with an integrated high-performance PC and a mobile network scanner to comply with the latest requirements for state-of-the-art mobile network testing.

The TSMA6B combines the technology of the TSME6 cellular network scanner with an ultra-high-performance Intel CPU based PC. The system can run Windows PC based drive test software.

With its ultra broadband frontend, the integrated scanner measures all supported technologies from 350 MHz to 6 GHz simultaneously. The future-proof architecture and in-field upgradeability for both hardware and software make it possible to combine several frontends and downconverters to achieve highest measurement speeds and to cover the FR1 and FR2 ranges. This RFP is for FR1 only.

With a sophisticated design and optional hot-swappable batteries, the test and measurement equipment can be stowed in a carrying bag, making it the ideal companion for remote or unattended operation during drive and walk test campaigns.

This drive test scanner system scans all cellular technology for all North American cellular providers simultaneously. Automatic Channel Detection allows for the configuring of all known cellular bands without user input.

NESTOR Software

Rohde & Schwarz NESTOR is a Windows based software for analyzing cellular networks over the air interface. NESTOR is used with Rohde & Schwarz mobile network scanners, which offer the most advanced technology worldwide. The software supports all relevant applications that law enforcement needs to gather information about cellular networks.

NESTOR combines a cutting-edge touchscreen software architecture with top-of-the-line mobile radio acquisition equipment from Rohde & Schwarz. In addition to direct acquisition, visualization and real-time analysis of all measurement data (online), the software enables users to carry out in-depth post processing and long-term analysis (offline).

The TSME6 and TSMA6B mobile network scanners perform parallel measurements of GSM, UMTS, LTE (TDD and FDD), 5G NR (sub 6 GHz), CDMA2000® and EV-DO signals in all frequency bands, while the TSME, TSMA and TSMW mobile network scanners carry out parallel measurements of GSM, UMTS, LTE (TDD and FDD), CDMA2000® and EV-DO signals in all frequency bands.

NESTOR supports the following applications:

- Automatic detection of all GSM, UMTS, LTE (TDD and FDD), 5G NR, CDMA2000® and EV-DO networks, bands and channels
- Autonomous acquisition of cell information, signal power and signal quality
- Mobile radio coverage measurements and determination of cell boundaries
- Creation and management of cell lists including geographic positions
- Retrieval of coverage data for forensic investigations
- Detection and analysis of misconfigured cells (mobile and stationary applications)
- Spectrum analysis in downlink bands

NESTOR architecture supports direct (live) and autonomous (offline) operations.

Below is a parts list of items included in this RFP:

Material Number	Type	Description	Quantity
		5GFR 1 System	1.00
4900.8005.20	TSMA6B	TSMA6B Autonomous Mobile Network Scanner 6 GHz	1.00
4901.0708.02	TSMA6-KAB	TSMA6 Scanner Option: Measurement all bands simult. (SL)	1.00
4901.0789.02	TSMA6-K21	TSMA6 Scanner Option: WCDMA (SL)	1.00
4901.0766.02	TSMA6-K22	TSMA6 Scanner Option: CDMA2000 (SL)	1.00
4901.0795.02	TSMA6-K23	TSMA6 Scanner Option: GSM (SL)	1.00

Material Number	Type	Description	Quantity
4901.0750.02	TSMA6-K24	TSMA6 Scanner Option: EVDO (SL)	1.00
4901.0720.02	TSMA6-K27	TSMA6 Scanner Option: RF-Power Scan (SL)	1.00
4901.0772.02	TSMA6-K29	TSMA6 Scanner Option: LTE (SL)	1.00
4901.0966.02	TSMA6-K50	TSMA6 Scanner Option: 5GNR	1.00
4901.0520.20	TSMA6B-B1T	TSMA6B 1TB storage	1.00
4901.4055.02	TSMA6B-BN2	Intel NUC HW Option	1.00
4901.0266.02	TSMA6-K62	TSMA6 Scanner Option: NESTOR	1.00
4900.9001.20	TSMA6B-BP	TSMA6B Battery Pack Unit (incl. 2 batteries)	1.00
4900.0004.02	TSME6	TSME6 Ultracompact Drive Test Scanner 6GHz	1.00
4900.2107.02	TSME6-KAB	TSME6 Scanner Option: Measurement all bands simult. (SL)	1.00
		Antennas & Accessories	1.00
1506.9817.02	TSME-ZA1	Antenna mount magnetic	2.00
3666.1574.02	TSME-ZE17	Ultrawideband antenna emitter 600-6000 MHz	2.00
4901.0550.02	TSMA6-Z1	TSMA6 AC Power Supply	1.00
4900.1800.02	TSME6-ZC2	Synchronization Cable for two TSME6	1.00
3630.7689.02	TSMA6-Z5	Carrying Box for TSMA6	1.00
4901.4332.02	TSMA6B-Z62	NESTOR Dongle Lock and installation manual	1.00
		External NESTOR dongle for TSMA6B, NESTOR and hardware drivers	1.00
1522.8870.02	NESTOR	NESTOR Network Analysis Software (SL)	1.00
1522.8870.83	NESTOR-3Y	Software Updates for 3 Years (12 Updates)	1.00
1521.5031.02	NESTOR-SCN	NESTOR Option: R&S Scanner Driver (SL)	1.00
		External NESTOR dongle for laptop/tablet, NESTOR licences	1.00
1522.8870.02	NESTOR	NESTOR Network Analysis Software (SL)	1.00
4900.3232.02	NESTOR-L3	NESTOR Language Option: Spanish (SL)	1.00
1522.8870.83	NESTOR-3Y	Software Updates for 3 Years (12 Updates)	1.00
1521.5048.02	NESTOR-ACD	NESTOR Option: Automatic Channel Detection (SL)	1.00
1521.5077.02	NESTOR-COV	NESTOR Option: Coverage Analysis	1.00
1521.5054.02	NESTOR-CPE	NESTOR Option: Cell Position Estimation	1.00
1521.5060.02	NESTOR-FOR	NESTOR Option: Forensic Analysis	1.00

Proposed Project Plan and Delivery Timeline:

Upon receipt of a purchase order for the FR1 Drive Test System, Five Eight Group will require approximately 8 weeks for delivery.

Once Five Eight Group has received the parts from Rohde and Schwarz, the scanner will be assembled and field tested. The equipment will be configured to operate in conjunction with other systems, allowing a common operating picture between multiple systems. Export programming will be conducted to allow the data to communicate and upload without manipulation into the TraX Scan Suite. This data also stands alone without any processing through mapping software.

Once the programming is complete, the Aurora Police Department will be contacted for delivery and training scheduling.

Once the training and delivery schedule is set, Five Eight Group will deliver the FR1 Drive Test System in person and conduct the training to APD personnel. At this time Five Eight Group will also provide APD with an invoice.

This is an approximate timeline based on supplier availability. Some of the devices are manufactured at the time they are ordered. A typical timeline for Five Eight Group has been 5 to 8 weeks.

Warranty and Service Options:

Hardware Warranty:

A three year warranty on all hardware is included in with this quote. An optional extension to five years is available.

NESTOR Software Updates:

The NESTOR software licenses are perpetual. This RFP includes a software license for the scanner hardware and an external dongle for use in a PC or Tablet.

Rohde and Schwarz publishes updates to the software quarterly. Three years or 12 updates are included in this RFP.

At the end of the three years, NESTOR software updates can be purchased with three year and five year options. Please request a separate quote for software updates only.

Included with Package:

Five Eight Group provides a Touch Screen Monitor, Keyboard, Mouse and Carry Bag for walk test.

Hardware and software set up and custom export programming both stand alone and TraX Scan Suite.

24/7 Customer Service and Technical Support including assistance with mapping and interpretation.

Expert Witness consultation for cellular signal identification and geolocating. This does not include court testimony. Support includes assistance in the field of geolocation as it pertains to cellular data.

Personal Delivery. Five Eight Group will deliver this system in person.

Onsite Training in person at your facility. This training includes classroom familiarization and field portions conducting live scans and interpretations.

Specification of Training:

Five Eight Group will provide on site training of the Rodhe Schwarz TSMA/TSME/ TSMAB with 5G FR1 capability at an Aurora PD training location.

The training consists of classroom and field segments to introduce and familiarize users with:

- Set up of the hardware and software in both drive test and walk test configurations
- Vehicle configuration for successful drive testing
- Backpack configuration for successful walk testing
- The use of Nestor Software to include:
 - Cellular Network Analysis
 - Automatic Channel Detection
 - Cell Position Estimation
 - Coverage Analysis
 - Alibi Mode
 - Crime Scene Investigation Mode
 - Exporting and Processing Data using customer's mapping program
 - Analysis of a Drive Test Scan using mapped KMZ file
 - Overview of combining Drive Test Scan with CDR data for court presentation
- Final Exercise consisting of:
 - Hardware/Software set up and configuration
 - Drive Test
 - Export Data
 - Process Data
 - Student teach backs of process
- Cellular Network Theory and Radio Frequency Surveying
 - A comparative analysis of your Call Detail Record data and the cellular networks

