

## 1. Executive Summary

Applus+ Technologies, Inc., is pleased to present its proposal to the Commonwealth's Request for Responses (RFR-900-007), Enhanced Emissions and Safety Testing Program. As incumbent program manager, Applus+ based its response on direct experience with the Massachusetts program – both goals met and lessons learned – to provide the Agencies with a comprehensive and modernized new program that leverages experienced staff, existing relationships, and advanced technologies to their fullest extent.

### A+ Innovations

In this Section...

- + Ease of transition with no data migration between contractors
- + Flexibility in equipment offerings
- + Repair and testing network endorsements of and familiarity with the Applus+ team
- + Solid understanding of dual-agency program dynamics
- + Superior understanding of the geographic station distribution
- + By new-program start-up, nine years of background directly applicable to the Massachusetts network and motoring population

The Applus+ technical and managerial approach to 2008 and beyond is designed not only to meet but significantly exceed the expectations of the Agencies and facilitate the way forward for ensuring its constituents one of the best programs in the country.

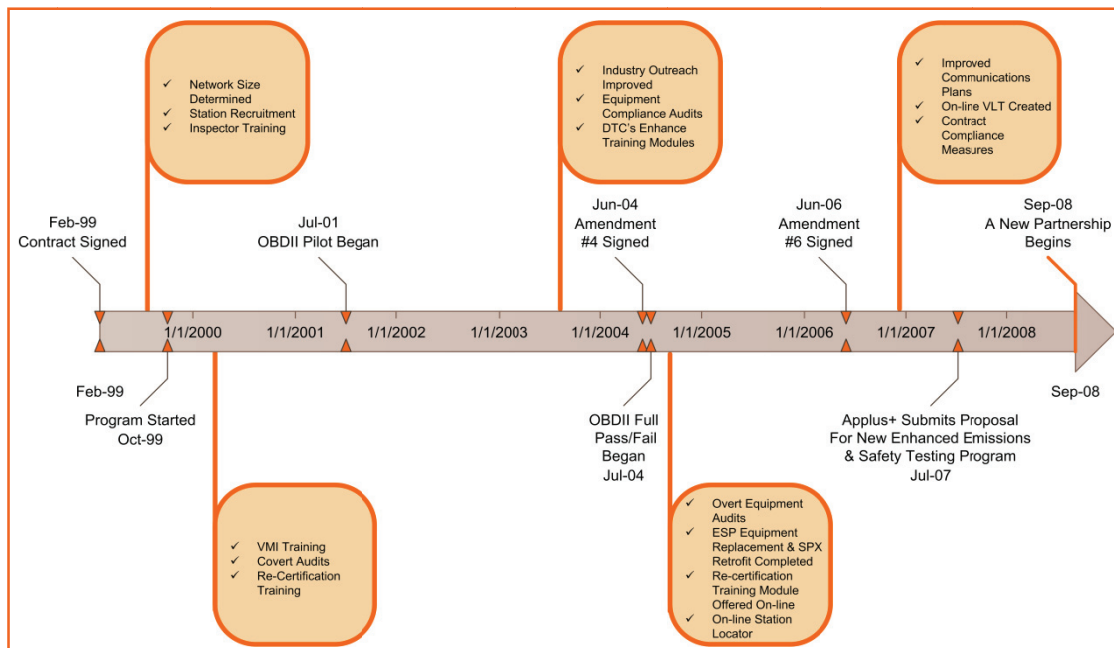
## Experience that Counts

Although some bidders may profess having experience parallel to the Massachusetts program, only Applus+ can claim the direct, relevant, and truly *unparalleled* Massachusetts-specific experience that the Commonwealth requires for a seamless transition. Many members of our management team were here when the first enhanced inspection and maintenance (I/M) program was rolled out in 1999 – Darrin Greene, Terry Hayes, Walter Moran, Jon Hess, and Henry Wysk, just to name a few. Over the years, these individuals have worked with the Agencies to serve as quality administrative, technical, compliant, and accessible stewards of the existing program. Into the new contract period, these individuals will continue to execute their duties in their respective capacities. Likewise, respected program personnel such as Don Costa, Dan DeRoy, and Paul Jannoni are proposed to ensure effective continuity at the operational level as the program evolves from what it is today to what it will be October 2008.

And Applus+ experience doesn't just end with its people. Although Applus+ staff remain its greatest asset, Applus' accomplishments over the past seven years make it a stronger, more experienced organization than it was in 1999. Experience gained through the assumption of

waiver activities, network-wide equipment replacement and upgrades, numerous software enhancements, the creation of reporting and monitoring tools such as the station locator and VLT website, the significant public communications plan update, and other Applus+ undertakings uniquely position us to plan, anticipate, adjust to, and accommodate the mandates of the Agencies' RFR and deliver a solution custom-tailored to the need of Massachusetts' Enhanced Emissions and Safety Testing program.

As key moments in the timeline below illustrate, accomplishments over the life of today's enhanced I/M program demonstrate how Applus+ and the Commonwealth have grown together. They also set the course for continued success tomorrow.



### **Technology + Automation = Convenience + Accessibility**

Much like the evolution of the program since 1999, Applus+ has evolved as a company, offering innovative technological solutions developed in-house.

Once known as a firm who outsourced most of its development activity, Applus+ now staffs an entire corporate technology center in Wood Dale, Illinois. Applus+ also has acquired a proven industry original equipment manufacturer in its sister company Applus+ AutoLogic (acquired in 2006). Additionally, Applus+ has field engineers geographically located in Eastern, Central, and Western North American locations. This technology team has designed a comprehensive solution to the challenges set forth by the RFR, one that will showcase Applus+ innovation and

automation and translate that into convenience and accessibility for the Agencies, inspection stations, and motorists. While some of the technical offerings that set Applus+ apart from the competition are subtle convenience items, others will demonstrate that the Applus+ solutions don't merely provide the industry standards; they define new one.

As an example of Applus' determination to stand head and shoulders above the rest, the enhanced OBDII workstation software we propose is developed in-house by local engineers at Applus+ (Illinois) and Applus+ AutoLogic (Wisconsin). With direct Applus+ control over the development process, the Agencies will enjoy faster, more responsive, and more economical software enhancements as the program and framework technologies mature. The proposed OBDII software module provides several advantages – including improved communication – over the standard Multiplex interface utilized by every other competitor. As a contractor, Applus+ AutoLogic has served as the primary troubleshooter for Multiplex in resolving communications problems between its software and the OBDII algorithms. The natural next in the Applus+ corporate evolution? To design and develop a better tool, of course.

In addition to the robust technology proposed herein, several automated functions are introduced to afford Agency convenience and facilitate much-desired program data accessibility. Some highlights of the Applus+ offering include:

- ⊕ **Real-Time Reporting** to provide timely, intuitive access to program data records and statistics through a convenient web-based portal.
- ⊕ **Integrated Customer Service Rep Ticketing System** to enable users to query Call Center and VID data together, delivering useful, “at-your-fingertips” data access. This approach also improves the accuracy of service tickets and better prepares service technicians for calls, which results in faster repairs and less downtime.
- ⊕ **Automated Contract Administration Tools** using Department of Defense (DoD) standard contract tracking protocols and a web-based Contract Data Requirements List (CDRL) and corresponding Data Item Descriptions database to insightfully augment contract compliance tasks.
- ⊕ **Electronic DLC Readiness State Monitor** developed by Applus+ AutoLogic to aid Motorist Assistance Center (MAC) personnel and station participants in quickly ascertaining the readiness condition of a vehicle through simple LED status.

- ⊕ **Web-Based Repair Industry Forum**, a “technology chat-room” facilitated and moderated by Applus+ technicians to afford the Massachusetts repair industry a virtual brainstorming center to collaborate on any technical issues relevant to the program.

With Applus’ technical design, and more specifically the use of technology to reduce manual oversight and promote program efficiency, the Commonwealth and its constituents will be best positioned to ensure the Massachusetts Enhanced Emissions and Safety Testing program remains one of the most successful and technically solid programs in the country.

### **Quality Assurance**

At Applus+, “quality” isn’t just a word; it’s a culture. Applus+ is the only I/M contractor with a Quality Management System (QMS) registered under ISO 9001:2000 and tailored specifically to the I/M industry. This unique distinction means that all Applus+ processes and protocols are uniform, concise, and conform to a customer-centric QMS that is iterative for continual process improvement.

Throughout the present program, Applus+ equipment auditors and quality assurance teams have been scrutinized through performance and reliability standards that are second to none in the I/M industry. While some vendors might view such standards as those of a “difficult” customer, Applus+ saw an opportunity to excel and not only met but exceeded all standards from a quality assurance perspective. Moving forward into the new program, Applus+ pledges to take an even more diligent approach to quality assurance, invoking a more mature QMS, applying lessons learned from the past program, and working closely with MassDEP and RMV to improve upon an already exceptional and developed communicative and collaborative relationship between Agency and contractor QA teams.

This new program will employ several strategic approaches to safeguard the integrity and solvency of the Massachusetts Enhanced Emissions and Safety Testing Program. Some of these approaches include:

- ⊕ **OBD Fingerprinting**. Applus+ will work with the Agencies to determine acceptable vehicle fingerprints and design an appropriate configurable testing system to detect fraud. Described in detail as part of this offer, this system will essentially “memorize” vehicle-specific OBD characteristics from individual initial vehicle emissions tests for later comparison. OBD

characteristic comparison can be extremely effective in eliminating fraudulent activity and increases efficiency as more vehicles are OBD-fingerprinted statewide.

- ⊕ **Integrated Program Teams (IPT).** The IPT approach is an aggregate business model designed as a quality tool for fostering trust and communication between the Agencies, Applus+, and its subcontractors with the common goal of satisfying the service needs of the Massachusetts motorist. With quality in mind, this approach leads to proactive program improvements in place of reactionary downstream corrective measures.
- ⊕ **Third-Party ATP/Evaluation.** Because acceptance testing procedures (ATP) are especially critical in a program as complex as this one, Applus+ will utilize industry-recognized MACTEC to perform independent third-party evaluations and test scripting at multiple periods throughout the design phase. Additionally, MACTEC will perform formal ATPs prior to program start to ensure that a complete program will be ready to launch with the full confidence of all stakeholders.
- ⊕ **Industry/Public Outreach.** Applus+ has developed a comprehensive approach to working with station participants, registered repair facilities, and motorists alike that keeps quality at the forefront and encourages attentive interaction with all stakeholders. Section 8 of this offer details the full-cycle communications plan for all members, from program introduction and scheduled, periodic meetings for stakeholders, through formal initial and refresher training for inspectors, to motorist conveniences like drive-cycle instruction sheets.

## Quality Team

Simply stated, the Massachusetts Enhanced Emissions and Safety Testing Program is Applus' marquis program. For this reason, Applus+ has assembled a team who will accept nothing less than excellence and quality. The Applus+ Massachusetts team is not only our most experienced personnel, but strategic partnerships will provide the Agencies with a team that is certain to succeed. As a result of lessons learned in the current program, Applus+ will effectively divide the tasks required under the Statement of Work to allow core competencies and centers of quality and excellence to play to strengths and supplement any weaknesses. An example of this methodology is evident in the Applus+ quality approach to new-program VID design.

To provide the same quality, high-availability network connectivity, Applus+ has once again partnered with Verizon Business. Although the Commonwealth has enjoyed the 99.9%

operational availability this team has delivered for more than seven years, Applus+ realizes that today's program failed to exceed the application development and reporting expectations of the Agencies. For this reason, the new Applus+ Massachusetts program will be restructured to maximize the best of both quality teams, with Verizon Business designing the core VID and Applus+ delivering increased flexibility and responsiveness in handling application and report development internally.

In addition to quality partnerships, the Applus+ offering includes the same quality executive team the Agencies are accustomed to working with in today's program. At Applus+, Dave Comeau and Darrin Greene look forward to continuing to work with MassDEP and RMV key members as Applus+ rolls out a new program with consistency and continuity. At the local level, the best personnel from our present program will be augmented by additional proven veterans in the industry. Careful review of the Applus+ management plan and business approach will reveal a level of quality and expertise not seen in other vendors. The Applus+ Team simply will deliver more direct, applicable, quality, and proven expertise to the Massachusetts Enhanced Emissions and Safety Test Program than any other bidder.

The Applus+ quality team comprises decades of management experience implementing and operating both centralized and decentralized programs nationally and internationally. Applus+ has successfully transitioned and implemented several I/M programs on time and with full functionality. In contrast, Applus+ competitors have historically started late (California) or diluted their implementations to a level of material non-compliance (Rhode Island). The Applus quality team understands the Massachusetts Enhanced Emissions and Safety Testing Program better than any other vendor. Combined with a solid, innovative technical offering, Applus+ is the best solution and least risk-inherent option for 2008 and beyond.

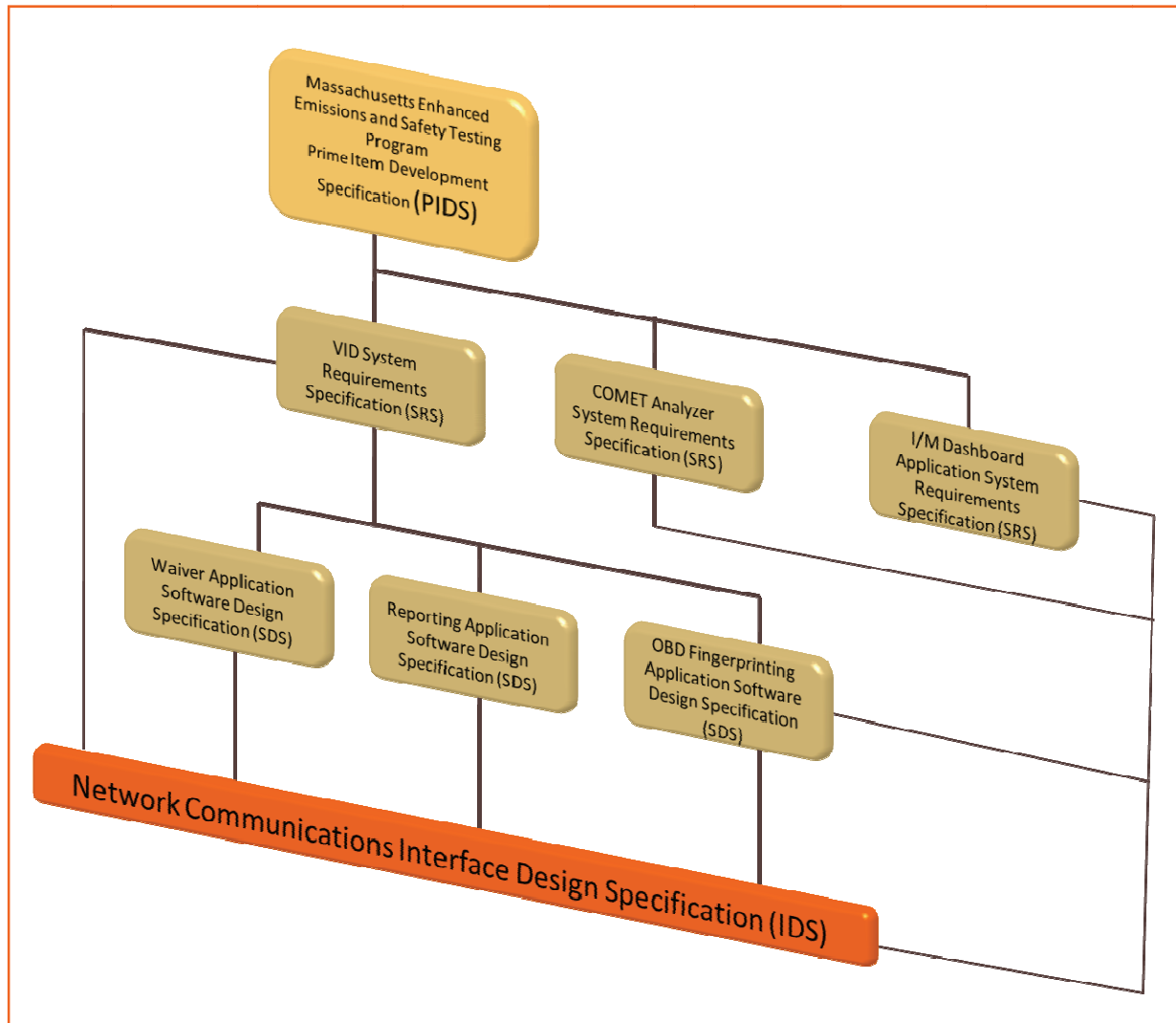
### **Quality Documentation**

Quality design requires sound documentation. With a QMS designed specifically to emissions and safety testing and a project development model utilizing a DoD systems engineering methodology, Applus' design will be supported by useful and applicable documentation.

Applus+ will develop a Prime Item Development Specification (PIDS) to serve as the overall program-requirements governing document. Subordinate to the PIDS will be several System

Requirements Specifications (SRS) for each functional element of the program. These documents define the system level requirements for each major component of the program.

Modularity is the key to any quality software design. As such, Applus will develop its code for the Massachusetts program in modular, functional blocks with each module defined and detailed



in a corresponding Software Design Specification (SDS). In this tier of the documentation hierarchy, multiple SDSs are likely for each SRS under the PIDS. The last layer of documentation is the Interface Design Specification (IDS). As its name implies, this document defines the communication and interface between key elements of the design.

Specifically, the IDS documents provide the roadmap for all interrelationships of the system, whether a hardware-to-software interface or simple communication/handshaking routines. The

figure on the previous page provides an example of Applus' approach to quality system documentation. All documentation will be hosted on a MicroSoft SharePoint site from draft to final stages. Agency-designated personnel will have full access to this documentation throughout the life of the program.

### **In Summary...**

Applus+ is proud to be a part of the present Massachusetts Enhanced Emissions and Safety Test Program, sharing both its successes and its challenges over the years. Applus+ has demonstrated its commitment to the Agencies, to quality, and to service of the test network. We have proven to be flexible and responsive to all program needs, including major program milestones like Amendment #4 and recently, Amendment #6. As today's program evolves into the new program of tomorrow, the Applus+ team stands ready and well-positioned to provide full continuity of service in addressing emissions and safety testing in the Bay State.

Although Applus+ takes great pride in being the Commonwealth's incumbent vendor, we do not take your business for granted. This Applus+ response is rich in technology, deep in resource, and sound with compliance mechanisms. Many reasons support continuing the relationship between Applus+ and the Massachusetts Enhanced Emissions and Safety Test Program. To name a few: Ease of transition with no data migration between contractors; flexibility in equipment offerings; repair and testing network endorsements of and familiarity with the Applus+ team; a solid understanding of dual-agency program dynamics; superior understanding of the geographic station distribution; and by new-program start-up, nine years of background directly applicable to the Massachusetts network and motoring population.

All of these facts stated, beyond our proven performance, we believe the goals and mandates of this RFR are real and obtainable. We value Massachusetts as our marquis customer, and we are eager to continue to enjoy the opportunity to exceed your expectations. We hope that as you read through and evaluate this response, in addition to its merits, our offer will reflect that very desire to remain as your contractor and forge a new partnership with the Agencies in continuance of delivering stellar service to the motorists of Massachusetts.