

VEHICLE INFRASTRUCTURE INTEGRATION (VII) VIABILITY ASSESSMENT CRITERIA

Approved by the VII Executive Leadership Team on November 30, 2007

I. Introduction

The Vehicle Infrastructure Integration (VII) research program was launched based on a consensus belief that the VII concept holds great promise for improving the safety and mobility in the U.S., while simultaneously supporting other valuable services. The VII program plan currently envisions that by 2010, the analysis, research and testing will be complete and there will be sufficient information for the major stakeholders to make an informed decision on whether or not to recommend a national deployment of VII. The *Viability Assessment* is an intermediate point along the path to a deployment decision.

To a significant extent, each major stakeholder makes an ongoing judgment as to the expected viability of a national VII system every time they decide to invest additional time, money and/or energy into the VII program. However, a comprehensive examination of the program is not conducted each time such an incremental investment is made. By mid-2008, the VII research, analysis and testing will have reached a point where it is appropriate for the major stakeholders to step back and more formally and comprehensively assess the viability of VII as it appears at that time, in order to decide whether further investment is warranted to continue the necessary research that will be needed to reach a deployment recommendation. A positive Viability Assessment represents agreement only that it is advisable to continue with VII research efforts, and does not imply any commitment to advocate deployment of a national VII system nor any commitment by any of the parties to deploy any part of a VII system.

II. Definition: Viability Assessment

Definition: The *Viability Assessment* is a determination as to whether continued investment into VII research is justified. A positive viability assessment means that, in the opinion of the VII Executive Leadership Team (ELT), VII has a reasonable chance of succeeding and achieving its goals and thus continued investment in the VII research program is warranted.

The *Viability Assessment* represents an increased confidence level in the progress and promise of the research efforts. In most cases, the criteria cannot be specified in absolute or quantitative form, nor does the standard to be met for this viability assessment require that each criterion be fully or absolutely met to justify continuing with the research efforts. The Viability Assessment criteria are a subset of those criteria that must ultimately be met in order to justify advocating national deployment of VII.

III. Assessment Criteria

For the VII program, a positive viability assessment means that in the opinion of the ELT, all of the assessment criteria as described below are met:

1. The VII system architecture has been demonstrated to work, and there is at least a moderate level of confidence that it will scale up as needed for a national deployment.
2. There is at least a moderate level of confidence that the VII infrastructure will support the intended applications.
3. There is at least a moderate level of confidence that the benefits will significantly exceed the cost of VII.
4. Vehicle Original Equipment Manufacturer (VOEM) representatives have a moderate level of confidence that VII will provide sufficient value to consumers and OEMs to justify OEM investment.
5. At least one integrated governance and financial model has been identified that is viewed as *acceptable or worthy of further pursuit* by each major stakeholder group within the ELT, and that provides moderate confidence that the system can be financed, deployed, operated, and governed in a manner acceptable to the public, to the private sector and to their political advocates and leaders.
6. There is at least a moderate level of confidence that the identified acceptable financial model(s) could potentially provide adequate funding both for deployment and operations.
7. Similarly, there is at least one identified deployment / roll-out plan that is identified as at least *acceptable or worthy of further pursuit* by each major stakeholder group within the ELT.
8. There is at least a moderate level of confidence that the VII security architecture will protect against malicious and inadvertent compromise.
9. At least one set of privacy policies have been identified that are viewed as *acceptable or worthy of further pursuit* by each major stakeholder group.
10. There is at least a moderate level of confidence that all major legal and regulatory risks will be identified, analyzed and sufficiently addressed.
11. There is an outreach plan in place to engage state and local governments and other essential stakeholders in the VII program.
12. Technical standards have been drafted or identified for the critical interfaces of the VII program and its national deployment.
13. There is at least a moderate level of confidence that all potential “show-stoppers” have been identified in the technical, applications, or policy areas. For those that have been identified to date, a mitigation plan with at least a moderate level of confidence for success has been identified. (It should be noted that, given the nascent state of policy and governance investigations, new concerns may arise that will have to be addressed in later stages of the program.)

If, in the judgment of the ELT, there is sufficient evidence that each of these is true then a positive viability assessment is justified and the VII research program should continue.

IV. Assessment Standards

For each of the assessment criteria the standards to be met for a positive viability assessment are as follows:

A criterion is deemed to have been met if either objective evidence exists that the criterion can likely be fully met for a national deployment or efforts are underway or envisioned to address the criteria and results to date indicate a reasonable likelihood that a criterion can be met for a national deployment. In addition, there is as of yet no credible evidence that a criterion cannot be met for a national deployment.

A criterion is deemed not to have been met if the following is judged to be true:

Substantial credible evidence exists that the criteria cannot be met for a national deployment and there does not appear to be any viable way to address the concern through additional research or other efforts.

V. Deployment Criteria

A detailed list of Deployment Criteria is being developed by the major stakeholders in the ELT. These criteria will address all of the questions that must be answered in order to arrive at a positive deployment decision in the future (currently planned for 2010). A program gap analysis to identify those issues which are not being sufficiently addressed by ongoing or planned efforts is also being developed.