



### 35.5.1 Contractor Supplied Materials

Following specifications 651.2 and 670.2, all products supplied by the contractor should conform to specification requirements on the department's approved product list. For materials not on the approved list, refer to Standard Specification 670.3.3.1.

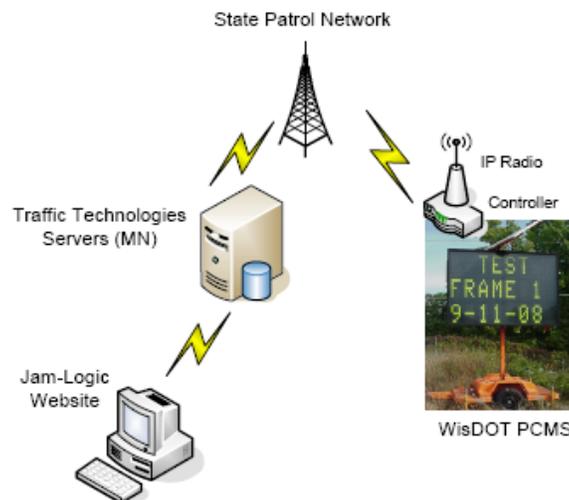
### 35.5.2 Communication Requirements

Communication between the PCMS and control center allows information to be disseminated on a real-time basis, providing up-to date information to the motorist. Signs are capable of having manual on-site control or remote control. The manual on-site control allows a project engineer or maintenance supervisor to program the sign using the on-board computer keyboard. However, this does not supercede the requirements for compliance with message guidelines. There are at least three methods of remote control; (1) Utilizing a cellular telephone, (2) utilizing a central base computer, and (3) utilizing Jam Logic Controller through the state patrol radio network.

PCMS owned by the State of Wisconsin can be identified with a large, reflective number placed on the back of the sign. The number will start with PCMS, followed by the two-digit region number, and a four-digit number. (e.g. PCMS-04-4001).

All state PCMS have a JamLogic controller and IP radio installed, as illustrated in Figure 35.5-1. The signs controller works with the JamLogic to change the message displayed. An IP radio is connected to the JamLogic Controller to communicate with the State Patrol Network tower. The message from the tower then goes to the servers at Traffic Technologies in Minnesota. Traffic Technologies currently has the contract to provide these services to the state, Traffic Technologies operators a website called JamLogic, which is where the PCMS messages can be controlled and viewed for each of the signs. This configuration allows for control of all State owned PCMS though the JamLogic website or on-site at the sign. The JamLogic system also has the capability to monitor a sign's health and history remotely. For instance, messages, voltage levels, and signal strength can be tracked over time through the JamLogic website.

The communications configuration through the State Patrol Network came about as a solution to the unreliable cellular communication coverage in many parts of Wisconsin.



**Figure 35.5-1. State PCMS Communication Network**

Other signs may be found in the right of way that not owned by the State of Wisconsin. For example, a specific project may have a number of PCMS associated with it as part of its traffic management plan. Those signs will not have the communications network illustrated in Figure 35.5-1. It is up to the contractor to operate and maintain those signs as specified by that project's contract.

Chapter 50, Communication Systems provides additional information on communication types and requirements.

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### **35.5.3 Power Requirements**

PCMS are designed to operate independent of external power for extended periods of time and have solar power technologies installed. Hard wiring the device to an electrical service is not required.

### **35.5.4 PCMS Construction Standards**

Construction details, Standard Detail Drawings, and Special Provisions can be found in Appendix 70.