

### Site Planning Check List

Listed below are the recommended guidelines for implementing an ESTeem radio frequency (RF) data communications system.

- 1. Perform Radio Frequency (RF) Site Survey.** The foundation of a radio network is the RF Site Survey. The ESTeem engineer performs on-site measurements and analysis to determine factors needed to design the RF data communications system including RF signal levels between all nodes, co-channel emitter frequencies/signal strengths, and RF data quality. Additional design input is given on antenna selection and location, feedline requirements, and lightning/power protection for each node, as well as specific installation requirements as dictated by the customer's application. After completion of the analysis, a formal Site Survey Report is prepared to document the above findings and the installation/hardware requirements for the site.
- 2. Obtain Site License (If Required).** Depending upon the operating frequency of the wireless network, the Federal Communications Commission (FCC) may require a site license for operation of the ESTeem products for commercial applications in the United States. This license guarantees the user a specific individual frequency that is free from co-channel interference. ESTeem technical support will provide assistance to customers applying for their license directly or the name of companies that provide "turn-key" licensing assistance. The typical licensing time is six to ten weeks.
- 3. Select Systems Integrator.** Select a qualified systems integrator based on the project requirements. ESTeem can provide, upon request, company names of referenced integrators who are familiar with the ESTeem products and have multiple successful integrations. ESTeem has available an Engineering Report library to aid the integrator in hardware interfacing.
- 4. Purchase Equipment.** It is recommended that the ESTeem hardware be shipped to the integrators facility for system mockup and testing prior to installation on site. Low cost antennas are available to the integrator for in-house testing. ESTeem Technical Support is available at no-charge for all phases of site design and integration.
- 5. Perform Site Installation.** The Site Survey Report and technical bulletin library are available to aid the installer. Factory tested coaxial cables can be provided saving the integrator considerable time and expense on site. The Site Survey report provides valuable information regarding a detailed hardware list for each node including height of antenna towers, feedline type and length, and other information which could greatly influence the installation cost.
- 6. Perform Site Commissioning.** ESTeem support personnel are available to provide on-site technical assistance for startup and customer training.