

CECOM PERSPECTIVE ON BROADBAND WIRELESS SYSTEMS

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The success of the Future Combat Systems (FCS) concept is totally dependent on the ability to provide assured Networked Communications. The communications grid will be the common ubiquitous “always on” robust infrastructure and comprises the entry fee for network centric warfare. It provides the critical information transport mechanism to enable the situation awareness, fire control and command functions critical to allow for the survival of a FCS equipped force on a hostile battlefield. The communications grid will provide virtual connectivity between any FCS entities almost instantaneously and on demand via a “plug and play” type of architecture. Individual elements or cells can be either added or deleted to the network on an ad hoc basis much the way the commercial Internet is constructed. From the network user perspective the communications grid will appear as one homogeneous communications asset. Implementation of the grid will be realized via a layered multi-tiered communications architecture providing wide area coverage allowing a FCS equipped force to traverse large areas while maintaining connectivity. Seamless communications support split-based operations by spanning the globe and interconnecting command echelons, services and allies worldwide through common transport protocols and dynamic network management. Emphasis is on universal and ensured communications, network management, smart radios, antenna technology and heterogeneous transmission systems (wired and wireless). By focusing on wide band capabilities linked to our narrow band tactical systems, we can provide the correct critical information to the warrior anywhere in the world.