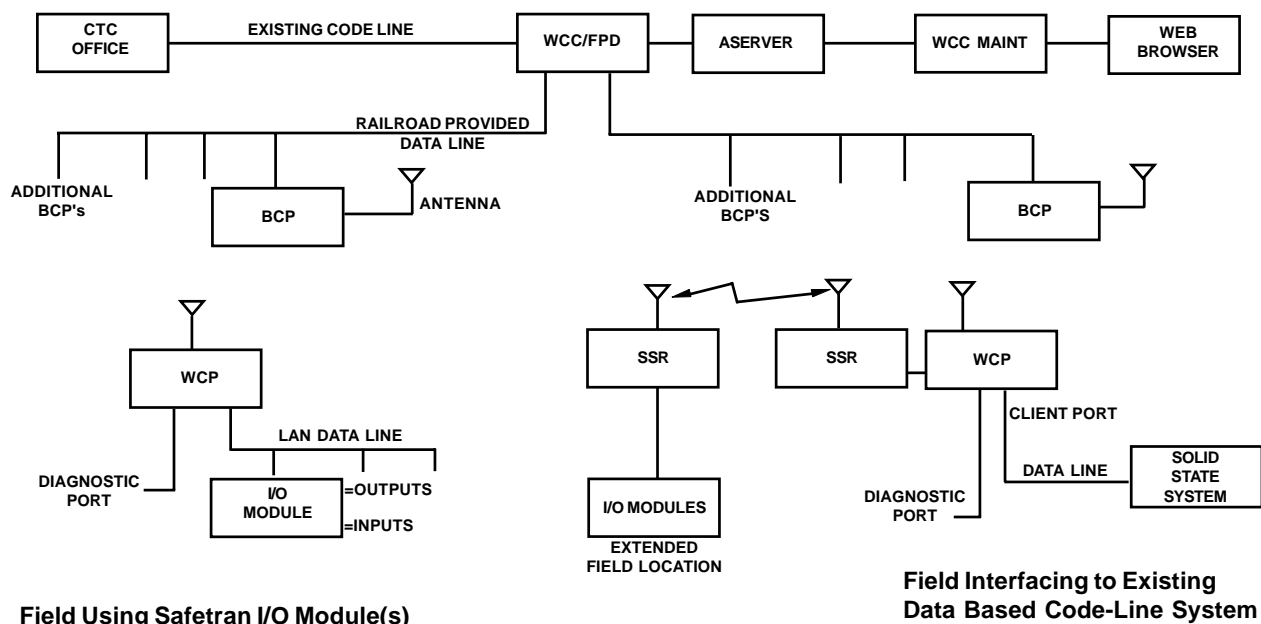


R/LINK™ RADIO CONTROL SYSTEM

Safetran's R/Link™ Radio Control System is entirely modular, highly flexible, and can be used for new applications or adapted to replace virtually any existing data based or relay code line system. The R/Link™ System is programmable and conversion software is available to interface with most existing code systems.

In addition to being flexible and easily adaptable, the R/Link™ System utilizes specification-compliant ATCS communications protocol and is, therefore, compatible with all messaging used in an ATCS data communications system. Since standard ATCS protocol and radios are used, spectrum space is assured throughout United States and Canada utilizing any of the six allocated ATCS frequency pairs.

Since the R/Link™ System is modular, it can be easily adapted to any existing field installation, regardless of code line, office data protocol, or field equipment. Protocol conversion is available both at the office and in the field to accommodate virtually all data formats and code-line types currently in use. Additionally, the R/Link™ System provides a convenient and cost effective migration path to a completely radio-based supervisory control system.



WAYSIDE COMMUNICATION CONTROLLER/FIELD PROTOCOL DEVICE (WCC/FPD)

A typical R/Link™ System required to replace existing code line is illustrated in the diagram above. Data from the office, regardless of its format, is converted to an ATCS-compatible message by the Wayside Communications Controller/Field Protocol Device (WCC/FPD). The data output of the WCC/FPD is routed over the railroad's microwave, fiber-optic, or other wide area network communications system to a Base Communications Package (BCP). At field sites, a Wayside Communications Package (WCP), in communication with a BCP, provides data messages to and from the field equipment. Safetran provides field interface equipment and input/output (I/O) modules to interface with any code equipment, either solid-state or relay.

Optional WCC Maintenance Software provides easy provisioning and monitoring of large cluster controller/front end processor systems. Convenient Web browser tools make it easy to observe system operation remotely.