

# ALERT-2 Protocol Development

Salo IT Solutions, Inc. (SaloITS) is developing the ALERT-2 protocols, a suite of next-generation wireless communication protocols that will provide enhanced services to Automated Flood Warning Systems (AFWS). The focus of this initial project is to create and develop a consensus within the AFWS community in support of an ALERT-2 Requirements Specification document and an ALERT-2 Protocol Specification document. This work is supported by a Phase I Small Business Innovation Research (SBIR) contract awarded by the National Oceanic and Atmospheric Administration (NOAA).

The ALERT-2 Requirements Specification will record the unmet needs that a next-generation suite of protocols for automated flood warning systems should address. Its audience will include users of flood warning information, flood warning system operators, government agencies responsible for flood warnings and flood warning systems, and vendors. This document is intended to provide a benchmark against which the ALERT-2 Protocol Specification can be evaluated. The initial versions of the Requirements Specification will be compiled by SaloITS. The document will be widely disseminated throughout the AFWS community for review discussion and comment; it will be revised in response to these review comments.

The ALERT-2 Protocol Specification will describe the technical details of the proposed protocols. The ALERT-2 protocols will be flexible and extensible. They will support a broad range of sensor, reporting station, and network configurations, and will be designed so that new functionality can be added gracefully, without adversely affecting existing products or deployed networks. This document will be written by SaloITS, circulated to all interested parties for review and comment, and subsequently revised.

This open design process will leverage both the technical expertise provide by SaloITS and the operational experience and domain knowledge of the AFWS community. This collaboration will ensure that the ALERT-2 protocols meet the current and future needs of the AFWS community.

The ALERT-2 protocols will be open and non-proprietary. The freely available protocol specification will be written with the clarity and level of detail necessary to ensure interoperability between products and vendors: products that conform to the specification will be assured of interoperating with other conforming products. The open, non-proprietary nature of the protocol specification will ensure that the benefits of the technologies developed by this project will be available to all automated flood warning system vendors. Furthermore, the assurance of interoperability between products and vendors will simplify the task of deploying, upgrading, operating, and maintaining ALERT-2 products and networks.

An ALERT-2 Protocol Development project Web site has been created (<http://www.alert-2.com>) to provide access to the documents created by this project and to support discussion about the ALERT-2 Requirements Specification and ALERT-2 Protocol Specification documents.

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