



**Homeland  
Security**

## **Department of Homeland Security Interoperability Test Laboratory (ITL)**

The Department of Homeland Security (DHS) Chemical and Biological Research Division (CBRD) recently launched a virtual Interoperability Test Laboratory (ITL), with capabilities distributed across a diverse set of government and industry partners, including the Los Angeles Fire Department, the Naval Postgraduate School, DHS Science and Technology (S&T) and SPAWAR Systems Center Pacific. The ITL is located at the Naval Post Graduate School in Monterey, CA. The ITL serves as a test bed for the Emergency Data Exchange Language (EDXL) suite of standards to support research, development, testing, and evaluation of the EDXL standards and to further develop future capabilities to increase the level of information sharing within the first responder community. The ITL is available at no cost to all first responders, vendors, individuals and government agencies seeking to enhance their EDXL capabilities.

DHS created the ITL to provide a test bed environment for information exchange between different devices, systems and applications that support the first responder community and to foster the education, training, testing, and adoption of EDXL standards to improve interoperability of emergency information. The ITL allows users and developers of EDXL based solutions to test and expand their capabilities before implementing them in an operational environment and offer the opportunity for users and developers to have more exposure to other devices, systems and applications. This shall allow the developers to create more diverse applications and solutions without having to make any significant investment in new hardware or software.

The laboratory may also be used to further validate current standards or recommend updates to proposed EDXL standards or later versions of existing standards. The laboratory shall be capable of supporting both software and hardware in the interoperability testing environment. The laboratory also is equipped to support field trials and pilots using the entire EDXL suite of standards or specifications to validate the scope and scalability of incident information sharing and interoperability from local emergency response operations to the Federal government.

The laboratory is vendor-neutral and is open to any vendor, first responder or government agency that wants to further enhance interoperability through the EDXL standards. The ITL is managed by the Space and Naval Warfare Systems Center Pacific (SPAWAR). Although SPAWAR facilitates use of the ITL, SPAWAR is not primarily responsible for technical support, consulting services or trouble-shooting to users of the ITL. Each participant using the ITL shall be responsible for their own technical issues and the ITL should be considered an individually managed environment for all users. Also, participation in the ITL does not validate any level of compliance to any standard nor does it imply an endorsement from DHS. SPAWAR will ensure users of the ITL are provided the

proper level of access, physical or virtual, to the ITL to install, test and validate their services or products.

While the core standard of the ITL will be EDXL, the ITL can support many cross-domain interoperability information exchanges with other standards which include but not limited to the following:

<ul style="list-style-type: none"><li>• National Information Exchange Model (NIEM)</li></ul>	<ul style="list-style-type: none"><li>• Integrated Public Alert and Warning System (IPAWS)</li></ul>
<ul style="list-style-type: none"><li>• Commercial Mobile Alert System (CMAS)</li></ul>	<ul style="list-style-type: none"><li>• Universal Core (UCore)</li></ul>
<ul style="list-style-type: none"><li>• Unified Incident Command and Decision Support (UICDS)</li></ul>	<ul style="list-style-type: none"><li>• American National Standards Institute (ANSI)</li></ul>
<ul style="list-style-type: none"><li>• National Fire Protection Association (NFPA)</li></ul>	<ul style="list-style-type: none"><li>• Institute of Electrical and Electronics Engineers (IEEE)</li></ul>
<ul style="list-style-type: none"><li>• Open Geo-Spatial Consortium (OGC)</li></ul>	<ul style="list-style-type: none"><li>• Chemical, Biological, Radiological and Nuclear (CBRN) Sensor Standards</li></ul>

DHS continues to explore and encourage the use of open standards to support the first responder community. The ITL provides another no cost tool to vendor and first responder communities that will allow them to continuously explore and develop tools to better share information.

The ITL system architecture includes a mix of web-based access to capabilities, with URLs providing access to sample data feeds and data format conversion routines, wiki support for documentation, with access to partner capabilities for EDXL parsers, EDXL-aware routing services, pub/sub, and messaging backbones, such as the DHS OPEN.

To learn more about the ITL and to set-up a user account, go to <http://www.icbrne.org/>. For specific questions, please contact:

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