



# ICE Overview

Today two major versions of ICE exist. ICE 1.1, provides businesses with an XML-based common language and architecture that facilitates automatic delivery, updating and managing content assets in a trusted fashion without manual packaging or knowledge of remote Web-site structures. ICE 1.1 uses an XML DTD to define a hierarchical structure that addresses both messaging and a syndication model. ICE 2.0 represents a major revision to the ICE Specification. ICE 2.0 defines robust content syndication, supported in a Web Services environment. ICE 2.0 is defined as a W3C XML Schema, replaces the ICE 1.1 messaging structure with SOAP messaging protocol, and provides WSDL scripts to facilitate syndication as a Web service

## About ICE 2.0

The ICE Authoring Group extended ICE 1.1 design goals for ICE 2.0 through a formal and open requirements process. Design goals for ICE 2.0 build on the goals for ICE 1.0 and 1.1. New goals for ICE 2.0 include:

- **XML Namespaces:** The requirement is to eliminate element collisions by moving all ICE-defined elements into one or more ICE namespaces.
- **XML Schema:** Since ICE is a protocol, it requires features such as type definitions found in XML Schemas but not supported by XML DTDs. This entails ICE DTD transforming to ICE SCHEMA but more than a straightforward translation to one that is extensible.
- **Simplicity of Specification:** There shall be a requirement to break ICE into modules in a manner that allows for simplicity of implementation and maintains interoperability.
- **ICE and SOAP:** ICE 2.0 needs to define the characteristics of the communication over SOAP Version 1.2.
- **Express ICE as a Web service (WSDL):** There is a requirement to define the end points of the ICE conversation as WSDL, either message-oriented, RPC-oriented or both, on top of SOAP.
- **Asynchronous Communication:** ICE must be able to support Asynchronous Communication for wireless and transient systems.
- **ICE Subscription Management of non-ICE delivery, FTP and simple HTTP:GET Mechanism:** ICE 2.0 shall be able establish a subscription that may then be delivered outside the ICE protocol. E.G. use ICE subscription management to control the FTP delivery of files. ICE 2.0 is designed to handle current and future delivery vehicles, and an apparatus needs to be considered to allow for such delivery including both in-band and out-of-band delivery transport with behavior defined and in-band and out-of-band negotiation transport with behavior defined.