

## ITC - Loc/ID Separation SIG Report 2012

In the framework of ITC Special Interest Groups activities, the Loc/ID Separation SIG has been created in 2012, aiming at gathering and disseminating activities about the Locator/Identifier Separation paradigm. The paradigm is instantiated in LISP (Locator/Identifier Separation Protocol) and the highlights of 2012 activities concern the advances in the IETF LISP WG, the evolution of the OpenLISP implementation, and the growth of the LISP Beta Network.

The LISP WG at the IETF, during 2012, has worked a lot so to publish the first set of documents containing the basic specifications of the LISP framework. As of January 2013, RFC 6830 Locator/Identifier Separation Protocol has been published. RFCs from 6831 to 6836 concern additional aspects of LISP. Furthermore, new working items have been added. First of all a new mapping system has been adopted, the LISP-DDT (cf., hereafter), as replacement of the ALT mapping system, which has shown important scalability issues. Also, the WG has started to work on two new documents aiming at introduce LISP to new comers (draft-ietf-lisp-introduction) and describe the LISP overall architecture (draft-ietf-lisp-architecture). Another new work item consist in a canonical address format aiming at enlarging the type and scope of EIDs (draft-ietf-lisp-lcaf). The work item requesting an IPv6 address space reserved for LISP (draft-ietf-lisp-eid-block) did not go through the IETF Last Call process and is back to the WG for further refinement. The WG has also worked on security issues, analyzing security threats related to LISP (draft-ietf-lisp-threats) and proposing a security framework (draft-ietf-lisp-sec), and on deployment issues (draft-ietf-lisp-deployment).

The OpenLISP project ([www.openlisp.org](http://www.openlisp.org)) is an open source implementation of the LISP protocol on FreeBSD platform. During 2012 a new release has been issued, adding support for latest FreeBSD version, as well as basic support to the LISP-MS control protocol. LISP-MS (LISP Map Server) is the front-end toward the mapping system. Another main event of 2012 has been the release of an independent LISP control plane implementation, using the OpenLISP data-plane, by Université Pierre et Marie Curie (<http://www.lisp.ipv6.lip6.fr>). Such a new control plane allowed deploying new nodes in the LISP Beta Network, using only open source code (cf., hereafter).

The LISP Beta Network ([www.lisp4.net](http://www.lisp4.net)) has continued its growth during all of the year, reaching more than 140 sites now connected using the LISP technology. Some of the sites use the open source implementation OpenLISP (cf., above) but large majority is still using the Cisco implementation. The most important event in 2012 has been the switchover from the LISP-ALT (LISP ALTerNative topology) mapping system to the new LISP-DDT (LISP Delegated Database Tree) mapping system. ALT was based on BGP overlay, built on GRE tunnels statically configured. The growth of the LISP Beta Network has shown that such a solution is really cumbersome to maintain. The 12th March 2012 (after a first failed attempt the 7th March 2012) the whole LISP Beta Network has switched to the DNS-like system DDT. The new mapping system follows the philosophy of the DNS system, i.e., on a tree-based large scale distributed database, allowing for EID space delegation, hence much easier to deploy and maintain.