Call for Papers

1ˢᵗ International Workshop on
Data Dissemination for Large scale Complex Critical Infrastructures (DD4LCCI 2010)

Held in conjunction with EDCC 2010, Valencia - Spain, April 28-30, 2010
http://www.mobilab.unina.it/dd4lcci.html

We are witnessing a revolution in the architecture of current critical infrastructure moving from a "closed world" perspective (i.e., a set of computing devices interconnected by dedicated networks with limited, or even no connection to the outside world) to a "cooperative world" perspective (i.e., several critical systems are federated, i.e., forming the so-called system of systems, and brought to interoperate in order to carry out some critical functionalities). In fact, several research and industrial projects plan to build future critical infrastructures, called Large-scale Complex Critical Infrastructures (LCCI), as federations of several, sometimes preexistent, systems. Any middleware solution adopted to address these requirements should satisfy the requirement of reliable, timely and scalable communication over large-scale wireless/wired networks: 1) assuring timely message deliveries despite omissions by the adopted networks; 2) exhibiting autonomic capabilities to adapt when network conditions change and/or when connectivity in the system is compromised; 3) providing a seamless message distribution among heterogeneous networks; and 4) scaling up to several receivers without causing strong performance fluctuations. Current approaches are unsuitable for these innovative systems due to severe limitations. First, most of them achieve the gain of reliability at the expense of causing performance fluctuations. Second, contemporary approaches are applicable only to systems of medium scale (i.e., comprising hundreds of nodes). New solutions are desired as systems start to scale up to several thousands of nodes and are interconnected via multiple heterogeneous networks. Last, the problem of autonomous and adaptive data dissemination over these large-scale systems is still an unresolved challenge.

GOALS: This workshop aims at providing a forum for researchers and engineers in academia and industry to foster an exchange of research ideas, results, experiences, and products in the area of reliable, timely and scalable data dissemination in large-scale critical systems from a middleware support perspective. The scope is to envision new trends and ideas about theoretical and practical aspects of designing, implementing, and evaluating future data distribution platforms for the next generation critical networked infrastructures.

The major areas of interest include, but are not limited to, the following:
- Reliable Publish/subscribe services and Application-Level Multicast over wired and wireless networks;
- Scalable and real-time information dissemination;
- Adaptive and Autonomic Data dissemination;
- Reliable Data Aggregation;
- Use cases of Future Critical Networked Systems.

SUBMISSION GUIDELINES:

Authors should prepare a Portable Document Format (PDF) version of their full paper. Regular papers must be no longer than 6 pages, following the IEEE two-column format for conference proceedings. The font size must be no smaller than 10 points, and must fit properly on US "Letter"-sized paper (8.5 x 11 inches). All the submissions should be made through https://www.softconf.com/a/DD4LLCI-2010/.

PUBLICATION:

All submitted papers will be peer-reviewed and the accepted papers will be included in a Workshop Proceedings distributed at the EDCC conference. The papers will also be made available online from the workshop webpage: http://www.mobilab.unina.it/dd4lcci.html. The EDCC organization team will provide companion proceedings covering all the papers of DD4LCCI workshop and plan to make all workshop papers available in the ACM Digital Library.

FURTHER INFORMATION AND DETAILS:

The organization committee has planned a special issue of best papers from this workshop to be published in the International Journal of Network Protocols and Algorithms (http://www.macrothink.org/journal/index.php/npa/). Authors of accepted papers for the workshop will be provided an opportunity to submit significantly extended versions of their workshop papers, which will undergo a separate, rigorous review.

IMPORTANT DATES:
- Submission deadline: **January 20, 2010**
- Author notification: **March 5, 2010**
- Camera-ready: **March 26, 2010**
- Workshop: **April 27, 2010**

For more details, contact: Dr. Christian Esposito at christian.esposito@unina.it. Visit: http://edcc.dependability.org/