# Call for Papers

# $3^{rd}$ International Workshop on Quality of Protection (QoP 2007)

Affiliated with ACM CCS

# October 29, 2007 Alexandria, VA, USA

In the last few decades, Information Security has gained numerous standards, industrial certifications, and risk analysis methodologies. However, security still lacks the strong, quantitative, measurementbased assurance that we find in other fields. For example, Networking researchers have created and utilize Quality of Service (QoS), Service Level Agreements (SLAs), and performance evaluation metrics. Empirical Software Engineering has made similar advances with software metrics: processes to measure the quality and reliability of software exist and are appreciated in industry.

Security looks different. Even a fairly sophisticated standard such as ISO17799 has an intrinsically qualitative nature. Notions such as Security Metrics, Quality of Protection (QoP) or Protection Level Agreement (PLA) have surfaced in the literature, but they still have a qualitative flavor. Furthermore, many recorded security incidents have a non-IT cause. As a result, security requires a much wider notion of "system" than do most other fields in computer science. In addition to the IT infrastructure, the "system" in security includes users, work processes, and organizational structures.

The goal of the QoP Workshop is to help security research progress towards a notion of Quality of Protection in Security comparable to the notion of Quality of Service in Networking, Software Reliability, or Software Measurements and Metrics in Empirical Software Engineering.

# **Submission Topics**

Original submissions are solicited from industry and academic experts to presents their work, plans, and views related to Quality of Protection. The topics of interest include but are not limited to:

- Industrial experience
- Security risk analysis
- Security metrics
- Reliability analysis
- Security quality assurance
- Measurement-based decision making and risk management
- Empirical assessment of security architectures and solutions

# Key Dates

- June 17 (Sun) Submissions due (extended)
- July 20 (Fri) Authors notified

# Publication

Authors of accepted papers are expected to give full presentations at the workshop. The proceedings will be published by the ACM; they will have an ISBN number and be included in the ACM digital library.

- Mining data from attack and vulnerability repositories
- Measurement theory
- Formal theories of security metrics
- Security measurement & monitoring
- Experimental validation of models
- Simulation & statistical analysis
- Stochastic modeling
- August 22 (Wed) Camera-ready papers due
- October 29 (Mon) Workshop

# Paper submission

Original **research papers** are solicited in any of the above mentioned topics describing significant research results. Preliminary research results can be submitted in the form of **short papers**. We also solicit **industry experience reports** about the use of security measurements and metrics in industrial environments. Industry papers should have at least one author from industry or government, and will be considered for their industrial relevance.

Experimental papers are required (1) to explicitly state the hypothesis being tested, or the problem being solved, and (2) to have a methodology section. The methodology section should contain enough details that a reader could reproduce the work, at least as a thought-experiment. Where appropriate this section should include information like: materials, apparatus & stimuli used, a description of the subjects or data sets used, the experimental design, and the procedure followed.

Theoretical papers should succinctly state the hypothesis that results from the theory and describe an experiment for its validation.

Authors should use the ACM SIG proceedings template when preparing their submission. The page limit for the final proceedings version will be 6 pages in double-column ACM format; short papers are limited to 3 pages. Only PDF or PS files are accepted.

# **Program Co-Chairs**

Günter Karjoth - IBM Research (CH) Ketil Stølen - SINTEF (NO)

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# **Previous Workshops**

- The ACM Proceedings of QoP 2006, affiliated with ACM CCS 2006.
- The Springer revised Proceedings of QoP 2005, affiliated with ESORICS 2005 & METRICS 2005.

# **Organization Chair**

Andy Ozment - U. of Cambridge (UK)