International Call for Paper

International Workshop „New Technologies” in Berlin, November 23 and 24, 2010
1st Call for Papers

To whom it may concern

Modern society is characterized by a trend towards the increased use of technology in every realm of life - not a single day goes by without news of some technological advancement. The renowned Deutsches Museum in Munich even devotes a special exhibition to this subject.

There is no doubt that the use of modern technologies also has a significant impact on the work of law enforcement and security services. Quite often the benefits as well as the misuse of such technologies are recognized rather late. Usually police can only react to the challenges, which often requires considerable resources. In order to enable law enforcement and
security services to act rather than react in future, efforts are underway to detect, analyze and assess, with the aid of various tools and instruments, technological trends and their potential effects on investigative work in the early stages, i. e. in the R & D phase. Based on this knowledge recommendations for appropriate action can be submitted to decision-makers in good time.

Fedpol of Switzerland, the Bayerisches Landeskriminalamt (Bavarian State Criminal Police Office), the Oberpfaffenhofen Anwendungszentrum (applications center) and the Bundeskriminalamt (German Federal Criminal Police Office) have therefore decided to hold an international workshop for members of the police forces in

**Berlin, November 23 and 24, 2010.**

Experts, project managers, unconventional thinkers, strategists and the like from

- police
- universities, institutes
- projects
- companies

shall have the opportunity to present R & D projects in 20-minute lectures on selected topics. On this occasion, members of the police forces can also report on, and discuss, technological challenges and problems arising in police investigations and work out potential solutions. We will select R & D projects and/or new technologies whose products/results are either being misused by perpetrators or are very likely to be used by law enforcement and security agencies, or may impair or thwart police investigations. Another criterion for the technologies to be selected is the date of introduction to the market: they shall either have just entered the market or they shall be slated for launch shortly or within the next three to five years.
The following topics have been selected for this opening event:

**Internet – Computer Science**

- **Future Internet / Next Generation Network**
  The terms “Future Internet” or “Next Generation Network” (NGN) refer to networks wherein traditional line-switching telecommunications networks (such as conventional telephone networks, cable television networks, mobile phone networks) are replaced by a uniform packet-switching network architecture.

- **Cloud / Grid Computing**
  Combining a wide variety of IT resources into one unit. As a form of distributed computing, this system provides services for the storing and processing of data. “Cloud computing” is an IT term and primarily refers to the approach of providing, via network, abstracted IT infrastructures (e.g. computing capacity, data storage), complete software packages and programming environments dynamically adapted to demand.

- **Data Overload**
  The processing of digital data from information and communication technology systems poses a major challenge with regard to data quantity, quality and heterogeneity. These three aspects may lead – individually or jointly – to such a complexity of data that the processing thereof ties up both human and technical resources for a considerable time.

- **Secure Communication**
  This issue is relevant in two respects: impediment to investigations on the one hand, secure police work on the other hand. Perpetrators make use of encoding, anonymization, closed forums, etc. However, the same options are also available to law enforcement agencies (wire / radio / GSM / UMTS / HSDPA / protocols / applications / encoding / access to police applications via Internet).
- **IDS / Malware Detection**
  The number of highly professional and efficient attacks on IT systems is constantly increasing. Perpetrators put considerable effort into assessing the social and technical environments of their targets and then launch a perfectly tailored, high-precision attack. For this reason, there is a need for new means and methods of protecting IT systems against attacks, detecting attacks/unauthorized access and, finally, locating and analysing malware that has already infiltrated the system.

**Technology / Mechanics**

- **Bionics**
  Analysing and researching extraordinary biological methods and systems found in nature and using them for technical applications (e.g. liquid repellency achieved by the Lotus effect / tire treads mimicking a cat’s paws, the contact surface of the tire adapting to any change of direction / climbing robots mimicking the behaviour of squirrels / generation of energy by photosynthesis).

- **Robotics**
  R & D projects aimed at developing freely programmable motion apparatus capable of performing tasks in a partially or fully automated manner. In contrast to industrial robotics, these tasks do not refer to the industrial production of material goods but to the performing of jobs for people and institutions.

- **Satellite communication**
  Linking innovative satellite technologies from the fields of navigation, communication and Earth observation to support the work of law enforcement and security agencies. The main emphasis will be on using (mobile) satellite communication for broadband communications infrastructure to be employed in operations, crisis and disaster management.

- **Biometrics**
- **Unmanned Aircraft Systems (Drones)**
  Developing operational UAVs for various police applications and operations.

- **Aerospace**

- **Searching for and recovering biological trace evidence on IEDs**
  Remote-controlled search for, and recovery of, trace evidence on IEDs before controlled demolition.

Papers referring to further subjects may be submitted, too, but will not be given priority.

Participants will be able to establish contacts and exchange information and opinions in an informal atmosphere during dinner or at the bar.

If you are interested in giving a lecture on one of the above-mentioned topics, please submit your paper, CV and an introduction of the project team (1 to 2 A4-size pages each) by

**September 1, 2010**

at the latest,

**by fax to:** +41(0)31 322 05 67, or

**by e-mail to:** ermit@fedpol.admin.ch, or

**by mail to:** Bundesamt für Polizei – fedpol
Bundeskriminalpolizei
Abteilung Ermittlungen, Forensik, Informatik
Nussbaumstrasse 29
CH – 3003 Bern.
Your article/papers will be examined; if they are accepted, they will be published in a conference volume, on CD, in police media and/or on the Internet, etc. Should you not agree to this, please state so explicitly.

The paper to be submitted has to meet the following formal criteria:

- Powerpoint presentation (maximum of 20 minutes)
- abstract (3 to 5 A4-size pages)
- title
- subtitle (the subtitle should disclose the topic in question)
- brief description (maximum of 10 lines)
- specification, and
- contact data (postal address, telephone number, fax, e-mail).

Upon receipt of your submission, we will notify you by

October 15, 2010

whether your paper has been included in the program.

Please note that the organisers of the workshop will not bear the costs for travel, lectures, fees, publications, etc.

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Dr. Mizia
(Head of the Strategic Innovation Center at the BLKA)

Rudolph
(Head of applications center in Oberpfaffenhofen)

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