# Short Public Report

# Recertification No. 1

1.  Name and version of the IT product or IT-based service:

    Predictive Targeting Network (PTN) – Version 2.1

2.  Manufacturer or vendor of the IT product / Provider of the IT-based service:

    Company Name:

    nugg.ad AG

    Address:

    Rotherstr. 16

    10245 Berlin

    Germany

    Contact Person:

    Christian Pfeiffer

3.    Time frame of evaluation:

February 26th 2011 to February 20th 2012

4.    EuroPriSe Experts who evaluated the IT product or IT-based service:

Name of the Legal Expert:

Stephan Hansen-Oest

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5.    Certification Body:

Name:    Unabhaengiges Landeszentrum fuer Datenschutz - ULD
Address: Holstenstr. 98
             24103 Kiel
             Germany
eMail:    europrise@datenschutzzentrum.de

6.    Specification of Target of Evaluation (ToE):

- nugg.ad PTN 2.1 services:

- - Processing activities on behalf of customers (website owner and publisher): Tracking of users by means of tracking pixels and cookies

  - Processing activities as controller: Conduct of surveys towards Internet users and maintenance + improvement of statistic model (aggregated data) for predictions

  - Provision of privacy functionalities for Internet users on the website www.nugg.ad: Landing page, topic monitor, opt-out + (ex post) opt-in functionality

- Technical and legal interfaces with customers, sub-processor (server hosting + operation of IP address anonymiser) and Internet users

- Optional features of PTN 2.1

  - Standard Plus (cross publisher/ad-network use of data for statistical model)

  - Campaign Management

  - Use of special interest categories besides the standard interest category taglist

  - Predictive Retargeting (predictions of brand- or product affinities by using algorithms that predict if an Internet user has visited a certain brand- or product website before)

  - Enrichment of predictions with external data with non personal data – e.g. "Nielsen Targeting" (predictions of affinities with one of the products of the Nielsen List "fast moving consumer goods" (FMCG) in regard to an Internet user)


*It does not include:*

- Server hosting + operation of IP address anonymiser

- Display of ads via the respective ad server

- Processing of customers' (website owners', publishers' and advertisers') as well as sub-processor's data for the purpose of performance of the respective contract

- Transmission of data via third-party networks (mobile network, Internet)

- Customer hardware (servers)

- Customer services (websites)

- Internet users' hardware and software

7.    General description of the IT product or IT-based service:

nugg.ad provides a special form of behavioral targeting with the TOE (PTN 2.1): Predictive Behavioral Targeting. Predictive Behavioral Targeting by nugg.ad is based on a method that links technical measurements and survey results with algorithms derived from the field of machine learning. With the implementation of PTN-technology into a website, the click behavior of a visitor to the website is analyzed in real time by use of cookies.

nugg.ad provides its services for owners/publishers of websites and ad-networks. They can implement the service in order to gain a better and user optimized delivery of advertisements on the website for users.

The publisher of the website implements a web-bug by nugg.ad on their website, which is used to track basic user behavior on the website. Each website is categorized to a certain category (e.g. sports, culture etc.). The visit of a website by a user is counted by the category the website url belongs to and is stored in the device browser of a user in the „d-cookie"; nugg.ad does not store the visits of specific websites (i.e. URLs) by users in the cookie - just the category gets counted. The categories used by nugg.ad do not contain any data

that could be considered as sensitive data in the sense of Article 8(1) of Directive 95/46/EC. The data stored in the cookie is encrypted and can just be decrypted by nugg.ad.

Click behavior data is enriched with information on demographics, product interests and potential lifestyle. In order to enrich data with statistic assumptions in PTN 2.1 services a small random sample of users of the website are also presented with an online questionnaire containing questions to pinpoint demographics, lifestyle and product interests.

nugg.ad provides their prediction about the interests, age group and the potential affinities of the user behind the browser device back to the adserver of the publisher or ad-network in order to enable the adserver to display appropriate ads to the website visitor based on the predictions by nugg.ad PTN 2.1.

The TOE does not use flash-cookies.


8.   Transnational issues:

All data processing takes place in a German data center. nugg.ad focuses on clients in the European Union. Transmission of personal data to third countries is not part of the service. nugg.ad has several branches in other EU member states. All management decisions and decisions regarding the processing of personal data are always made by the parent company (nugg.ad AG in Berlin, Germany).


9.   Tools used by the manufacturer of the IT product / provider of the IT-based service:

Main Programming Languages:

- ▪ Ruby

- C

- Java

- Erlang

Main Software Components:

- Apache HTTP Webserver

- Ruby HTTP Webserver Thin

- Apache Hadoop MapReduce Framework

10. Edition of EuroPriSe Criteria used for the evaluation:

EuroPriSe Criteria May 2011

11. Modifications / Amendments of the IT product or IT-based service since the last (re)certification

- nugg.ad AG has changed their hosting service provider and anonymization service from Pixelpark AG to the "The unbelievable Machine Company GmbH" (UM).

- The geo-location features have been changed: Before the geo-lookup conducted by the anonymizer party all IP-addresses are shortened by the last octet of the IP-address.

- The list of categories ("taglist") that contains potential interest categories by users has been modified slightly.

- The cookie structure has been slightly modified.

- Contracts, documentation, whitepapers, privacy policies and documentation regarding implementation advice have been modified

- *Optional* feature: "Cross publisher/ad-network use of data"
  The nugg.ad PTN 2.1 service now includes optional cross-publishers or cross-ad-networks. Nevertheless nugg.ad still collects and saves clicks on interest categories on a "per-website-basis" separately for each client in a single cookie.  Click data are not intermingled in the cookie.  This data from various websites is used to build and optimize the statistical model that provides the mechanism for predictions for the individual website. The data in the statistical model does not contain any information that can be used to directly identify a person.  With using non personal identifiable click data comprehensively from various websites (cross-publisher/cross-ad-network) for the statistical model nugg.ad does improve the accuracy of predictions for publishers of websites.

- *Optional* feature: Enrichment of statistical data with external data: nugg.ad generates its predictions based on a build statistical model that does not contain any directly personal identifiable information. In order to improve the statistical algorithms and the accuracy of predictions nugg.ad enriches this data with further non personal data like Nielsen Targeting Data or other data sources that provide purely statistical information about buying behavior of demographic groups.

- *Optional* feature: "Nielsen Targeting":
  nugg.ad does offer an optional feature that helps to predict if the visitor of a website is likely to have an affinity with one of the products of the "fast moving consumer goods" (FMCG)

- *Optional* feature: "Campaign Management"

  With nugg.ad PTN 2.1 nugg.ad now offers special „campaign management" features that enable advertisers to show a specific ad just for a specific amount to a single browser. In order to provide this feature nugg.ad does track how often a specific ad from a campaign has been displayed to user/browser.

- *Optional* feature: "Predictive Retargeting":

  nugg.ad does offer the use of an algorithm that puts outs a prediction that a website visitor has likely special affinities to a certain brand or product and transmits this prediction to the ad-server of the publisher or ad-network. Within the nugg.ad statistical model it is tracked which group of Internet users with similar attributes visit a certain brand- or product website. The algorithm predicts if it's feasible that the current Internet user has visited a certain brand- or product website before.

- *Optional* feature: Use of special interest categories besides the interest category taglist:

  nugg.ad does provide special features for better prediction on special interest categories that are tracked by a second cookie "dp-cookie". New categories have to be authorized by the data protection official of nugg.ad and new categories are regularly sent to the certification body for checking.

12. Changes in the legal and/or technical situation

There have been relevant legal changes since the first certification of nugg.ad's Predictive Targeting Network. Directive 2002/58/EC has been amended by Directive 2009/136/EC which lead to new provisions in regard to the use of cookies.

Even though nugg.ad just uses pseudonymous identifiers in cookies by which nugg.ad can not derive any directly personal data, the provisions of Art 5 (3) of Directive 2002/58/EC apply. Pursuant to Art. 5 (3) the use of cookies is only allowed on condition that the subscriber or user concerned has given his or her consent, having been provided with clear and comprehensive information, in accordance with Directive 95/46/EC, inter alia, about the purposes of the processing.

Given the fact that cookie technology "drives" a lot of the websites today, the Art. 29 Working Party has introduced a "discussion period" with its opinion 2/2010 in which supervisory authorities and the industry shall develop technical and organizational best practices for complying with the provisions of the new Art. 5 (3) of the Directive 2002/58/EC.

For EuroPriSe certifications the EuroPriSe team has published a position paper regarding the certifiability of online behavioural advertising (OBA) systems in January 2011 and the relevant requirements OBA providers have to comply with:

*3 basic guidelines:*

- Requirements for transparency of online behavioural advertising systems are enhanced. This concerns both the duty of information to users and the duty of enabling users to exercise their right of access.

- Providers of online behavioural advertising systems need to take first steps towards an implementation of opt-in mechanisms as required by the new legal situation.

- The requirements that were developed under the former legal situation (e.g., waiver of sensitive categories) retain their validity and must be met.

The more detailed requirements are contained in the EuroPriSe position paper in detail (https://www.european-privacy-seal.eu/results/Position-Papers).


13. Evaluation results:


Set 1: Overview on fundamental issues

nugg.ad PTN 2.1 – just like the precursor – is still a service with a very transparent documentation of features. nugg.ad does not only have good privacy information for website visitors. nugg.ad furthermore provides customers

and potential customers with a very good information about their services; they give their (potential) customers good and detailed instructions on how to implement the services in a data protection friendly way.

One of the key components of nugg.ad PTN 2.1 is the data avoidance & data minimization setup. nugg.ad is not dependent on real personal data about user behavior for generating predictions. In fact nugg.ad does concentrate on building extraordinary statistical models without any directly identifiable personal information that are used to create predictions about probable demographic data and interest categories of website.

Set 2: Legitimacy of Data Processing

*Processing on the basis of consent*:

In order to comply with the current provision of Art. 5 (3) of Directive 2002/58/EC nugg.ad had to fulfill the requirements the certification body has posed in his „Position paper on certifiability of online be-havioural advertising systems according to EuroPriSe Follow-up" in January 2011.

These are three requirements nugg.ad has to comply with:

• Requirements for transparency of behavioral advertising systems (No. 1)

• First steps towards implementation of opt-in mechanisms (No. 2)

• Requirements that were developed under the former legal situation (No. 3)

ad 1)

nugg.ad has undertaken technical and organizational measures to ensure that the identity of the entity that is responsible for serving the tracking cookie is provided to the user.

nugg.ad does provide their customers with templates for the necessary additional in-formation for their privacy policies and offers detailed information about the necessary steps to be taken in an „implementation guide".

nugg.ad has a special website for further information about behavioral targeting in general. Furthermore, users can inspect their own cookie and the collected interested categories by using the „My Topic Monitor" and the specific interest categories nugg.ad has tracked in their browser cookie.

All ads that are served by nugg.ad PTN 2.1 technology will be displayed with a special icon by PTN 2.1 customers and link to further information about nugg.ad predictive behavioral targeting. By clicking the link the user is redirected to the special website about nugg.ad behavioral targeting.

nugg.ad takes part in the industry initiatives „meine-cookies.org" and „youronlinechoices.com". To provide the user with more advanced transparency tools and controls nugg.ad will use its own information website about its predictive behavioral targeting technology (http://ad-choices.nuggad.net). which is linked to the aforementioned industry websites.

ad 2)

nugg.ad has already offered opt-out technologies that user can activate to stop any further tracking by nugg.ad as long as the „block-cookie" is not deleted.

With PTN 2.1 nugg.ad takes user control to a new level. nugg.ad provides a prominently displayed possibility for users to opt-in or to opt-out to the nugg.ad PTN 2.1 service.

ad 3)

All these requirements have been kept by nugg.ad with the originally certified service PTN 2.0. The current ToE „2.1" still complies with the requirements of limited lifetime of cookies, anonymized ip-addresses, no use of sensitive categories of personal data and sufficient contractual measures to ensure compliance with customers.

*Processing on the Basis of Balancing of Interests:*

Pursuant to Art. 7 (f) of Directive 95/46/EC the processing of personal data is lawful when the processing is necessary for the purposes of the legitimate interests pursued by the controller or by the third party or parties to whom the data are disclosed, except where such interests are overridden by the interests for fundamental rights and freedoms of the data subject . The data avoidance and minimization approach by nugg.ad helps to comply with data protection law in regard to new features. Since most of the processed data does not contain any data that can be directly related to a person, the interpretation of the balancing of interests in regard to the provisions of Art. 7 (f) of Directive 95/46/EC can always end in favor of nugg.ad.

With nugg.ad PTN 2.1 nugg.ad now offers special „campaign management" features that enable advertisers to show a specific ad just for a specific amount to a single browser. In order to provide this feature nugg.ad does track how often a specific ad from a campaign has been displayed to a user/browser. This processing of data does not require a different treatment and therefore complies with the data protection provisions.

*Purpose-specifiation and –limitation*

The comprehensive using of data from various websites ("cross-website"/"cross-ad-network") does comply with the provisions of Art. 6 (1)(b) of Directive 95/46/EC in regard to specification and limitation of purposes. nugg.ad still collects interests category data as a processor of the publisher or ad-network on a "per-website-basis". If a publisher wants to make use of a comprehensive analyzing of data across various websites or ad-networks he has to agree by contract with nugg.ad.

There is no intermingling of data of nugg.ad clients in regard to generating predictions. The interest categories of each browser cookie are singly processed and stored in the statistical model database of nugg.ad. When a user visits a website that uses comprehensive cross-publisher pre-dictions by nugg.ad, nugg.ad provides a prediction for the ad-server of the publisher that not only uses the interest categories of the user that have been ascertained on this publisher's website. Neither does nugg.ad directly use the interest categories in the cookie that have been ascertained for another website. In fact nugg.ad just uses the interest category data in the browser cookie for the specific, just visited website. Due to the enrichment of the statistical model database by cross-publisher/cross-ad-network interest category data the ad-server of the specific publisher gets a much better prediction of the interest of the website visitor and can thus serve more suitable ads.

This does not lead to processing of personal data for different purposes as the specific processing of personal data is always conducted for the publisher.

In addition to the traditional interest category data nugg.ad does offer a special tracking of descriptive interest categories which is done in a further cookie („dp-cookie"). If - for example - a nugg.ad client wants to improve ad-displays in regard to a specific trademark or a special category of cars (e.g. „van") this interest is stored in the „dp-cookie". Just like the processing of other interest categories, this information is always collected on a „per-website-basis". For example - a user visits a car market website and looks at several pages about „vans", than this interest about „vans" may be stored in the „dp-cookie" of the browser. If this user then visits a newspaper web-site advertisers would want to serve a specific advertisement about this interest by using nugg.ad PTN 2.1. nugg.ad tries to enable this, but does not use this specific „interest category" in the „dp-cookie" to inform the advertiser about the „van"-interest. Pursuant to the purpose specification and -limitation nugg.ad uses this information solely to improve the predictions generated by the statistical database model. In an ideal case the prediction by nugg.ad would result in a „van"-interest. But the prediction does not derive directly from „dp-cookie"-content but just from the

predictions generated by the statistical database model. The EuroPriSe experts have investigated raw data to ensure that the prediction does not directly derive from the „dp-cookie" data.

Set 3: Technical-Organisational Measures: Accompanying Measures or Protection of the Data Subject

nugg.ad has moved it's whole IT-infrastructure to a new data center. The data center complies with all standards in regard to physical access control. nugg.ad has undertaken technical and organizational measures to ensure that no unauthorized access of any data can occur.

The IT infrastructure is well-documented and a security policy including incident management is in charge.

Set 4: Data Subjects Rights

nugg.ad provides an excellent feature with it's new "My Topic Monitor". This feature allows users to get an overview of the interest categories that nugg.ad has tracked with their device browser. This helps users to understand why they may get certain categories of ads and not others. Data Subjects can easily declare an opt-in or an opt-out dependent on their choice in regard to further tracking by nugg.ad.

14.  Data flow:

Schematic representation of the nugg.ad system
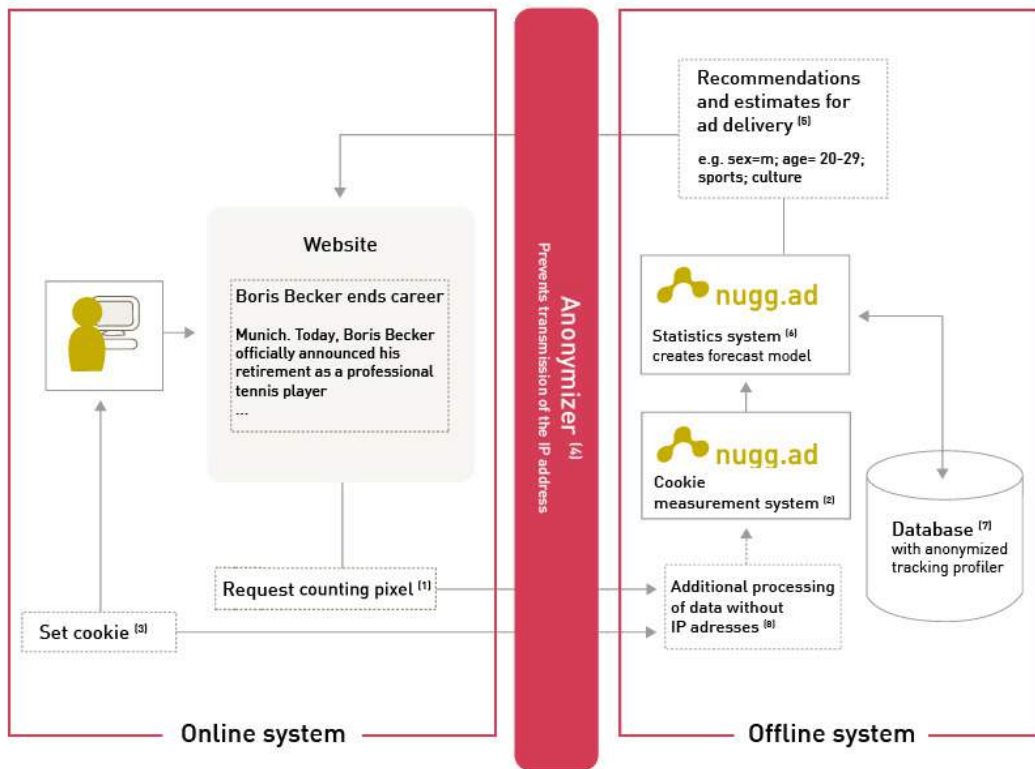


15.  Privacy-enhancing functionalities:

The service enhances privacy by focusing on data avoidance and data minimization. Through the informational separation of powers it is ensured that personal data is collected, stored and used to the necessary extent only. Furthermore the service provides transparency technologies for data subjects with offering a "My Topic Monitor" where browser users are provided with interest category information that is stored in the browser cookie.

16.  Issues demanding special user attention:
- none -

17.  Compensation of weaknesses:

- does not apply  -

18.   Decision table on relevant requirements:

| EuroPriSe Requirement | Decision | Remarks |
|---|---|---|
| Data Avoidance and Minimisation | *Adequate* | The service makes intensive use of anonymisation. nugg.ad takes care that personal identifiable information is just collected,  stored and used to the necessary extent. nugg.ad stores cookies no longer than 26 weeks. In case of a user "opt-in" all cookies are stored for a total of max. 1 year. The category information regarding user interests used by nugg.ad does not contain any categories that can be specified as sensitive data. |
| Transparency | *adequate* | nugg.ad provides an adequate technical documentation of the service and the technical and organisational measures taken to ensure the protection of personal data. Customers using the TOE get excellent support/information material in order to inform their website visitors about the details of the service and the processing of personal data. |
| Technical-Organisational Measures | excellent | The technical-organisation measures taken by nugg.ad to ensure the protection of data are excellent. It is assured that state-of-the-art measures are in place to protect access to data and programs by unauthorized third parties. |
| Data Subjects' Rights | excellent | Data subject rights are enhanced by providing visitors with the option to "opt-in" to the tracking service. Of course users can "opt-out" to the service, too. The "opt-out"-cookie has a lifetime of 10 years. |

| | | |
|---|---|---|
| | | nugg.ad provides transparency features for users in an optimal manner. With the "My Topic Monitor" users are not only provided with further information about predictive behavioral targeting but can investigate which categories of interests have been collected in their browser cookie. |

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# Experts' Statement

We affirm that the above-named IT product / IT-based service has been evaluated according to the EuroPriSe Criteria, Rules and Principles and that the findings as described above are the result of this evaluation.

Flensburg, 23.02.2012          Stephan Hansen-Oest

| Place, Date | Name of Legal Expert | Signature of Legal Expert |
|---|---|---|

Kellinghusen, 23.02.2012     Andreas Bethke

| Place, Date | Name of Technical Expert | Signature of Technical Expert |
|---|---|---|

# Recertification Result

The above-named IT product / IT-based service passed the EuroPriSe evaluation.

It is certified that the above-named IT product / IT-based service facilitates the use of that product or service in a way compliant with European regulations on privacy and data protection.

| Place, Date | Name of Certification Body | Signature |
|---|---|---|