## **Memorandum of Understanding for DHDB Project**

Version 1, 2008-04-23

### Introduction

DHDB (Domain Name System History DataBase) is a project originated at and organised by the University of Auckland. Its goal is to collect, distribute and analyse bulk data about DNS name resolution requests and responses observed at multiple points on the Internet. As a fundamental principle these data are collected in such a way that the originator of a specific request cannot be identified individually.

The data are intended for use in scientific, engineering and operational analysis of Internet traffic and for detecting suspicious patterns of activity that may indicate security problems or fraudulent usage.

This Memorandum of Understanding (MoU) is between \_\_\_\_\_ as a project participant and the University of Auckland as the project coordinator.

Appendix A specifies what facilities the project coordinator will initially provide.

### **Participants**

Participants must be represented by legal entities performing educational, research or operational functions in the Internet on a commercial, non-profit or governmental basis.

By signing this MoU a participant accepts all of its conditions and applies to join the project. The University of Auckland makes the final decision to admit or reject a new participant subject to its own legal review and to consultation with some or all existing participants. A participant is formally admitted when the University of Auckland also signs this MoU.

#### Collectors

Each participant will operate or have access to at least one DHDB sensor and collector, a system that passively senses DNS traffic at a major site or network, collects data, and stores it in a database without the address of the originator of any DNS request. Some participants will also provide and operate database services for the project as a whole, and/or a web interface. Appendix B specifies what facilities the signatory participant will initially provide.

### Software

The DHDB software is made available as-is without warranty or liability to all participants. It is also released under an open source licence (TBD - probably BSD-like) and all participants are invited to submit modifications and extensions to the project under the same licence. The project coordinator will maintain a reference version of the software including such modifications and extensions as are considered of general value.

# Data sharing and publication

Each participant is free to use the data it collects in any way legally permitted, always subject to the principle that the originator of a specific DNS request cannot be identified individually. However, data collected by other participants is subject to the following rules:

1. Data must be assigned by the participant collecting it to one of three categories: Public, Project, or Private.

- 2. Public data are available to all project participants and may be made available to the public without further agreement being necessary.
- 3. Project data are available to all project participants but may not be made available to the public without permission from the participant collecting them.
- 4. Private data are only available to the participant collecting them, unless that participant makes an explicit exception.

The normal category is Project and participants are expected to announce a good reason for classifying data as Public or Private.

Participants may also contribute Project or Public data whose site of origin is rendered anonymous (but is known to the project coordinator).

All participants may publish results of data analysis of any DHDB data to which they have access. However, such publications must include acknowledgement to the project, the University of Auckland, and any other participants whose data was used and who do not object to being acknowledged. Participants shall diligently avoid publishing information that threatens the security of the Internet or the privacy of its users. Additional guidelines will be developed among the participants to indicate what type of information might fall into this category.

The project coordinator may authorise the release of Project data to researchers, teachers or students who are not associated with a participant, for purposes of research or study.

### **Advisory Committee**

The project coordinator will generally be guided by the rough consensus among participants in taking decisions about the project. The project coordinator may convene an advisory committee with representatives from at least five participants, and may rely on this committee in evaluating the consensus of participants about any contentious issues.

## Term of this agreement

Signatures

The signatories recognise that this project may provide long-term operational value to the Internet technical community. The intended minimum duration of this MoU is three years from the date of signature, with tacit annual renewal thereafter. However, either party may withdraw for good reason with written notice. A participant providing project resources such as shared storage shall give at least three months notice. In the event of withdrawal, the DHDB software will remain available to the parties under its open source licence, and Project and Public data existing at the date of withdrawal will remain available to all remaining and future participants and to the public respectively.

In addition, this MOU will be reviewed from time to time; any changes to it will only be made after they have been discussed among its current signatories.

Oigilatai co	
Signed foras a project participant	Signed for the University of Auckland as project coordinator
	A.V.
Name:	Name:
Signature:	Signature:
Date:	Date:

## Appendix A

The project coordinator (i.e. The University of Auckland) will initially provide the following facilities:

- maintenance of a reference version of DHDB software under a suitable open source licence;
- maintenance of information resources such as a project web site and mailing list;
- continued development of the database schema and web interface, so as to meet reasonable requirements of participants may have;
- help to understand and correct any bugs in the system as they come to light, as needed by participants;
- continued academic research on DNS behaviours, as revealed by mining the database (for postgraduate thesis work and other forms of research).

# **Appendix** B

The participant signing this copy of the MoU will initially provide the following facilities to the project:

#### SAMPLE:

- servers and disk space for the complete project database, along with whatever licenses are needed for the database software itself;
- sys-admin support for the servers and database;
- support in getting new collectors (sensors) installed and running at the participant's own members' sites;
- two machines (one production and one development) to be available by <date>;
- approximately 10 additional collectors by <date>.