



DNS Naming Schema for EndPoint Sites

Amendment History:

| Version | Date | Amendment History |
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| 0.1 | 26/01/06 | First draft for comment |
| 0.2 | 02/02/06 | Various Typos/Syntax amended |
| 0.3 | 10/02/06 | Significantly slimmed down |
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| 1.1 | 28/02/06 | Included updated guidance for trusts as well as information on application tags |
| 1.2 | 01/03/06 | Final Version for Release |
| 1.3 | 26/07/06 | Amendments to include consistency on the mandatory application of the schema |
| 1.4 | 05/03/09 | Added additional schemas for both the SUS and PBS services. Also information for third party users. Change in approver to document. |

Forecast Changes:

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Reviewers:

This document must be reviewed by the following. Indicate any delegation for sign off.

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| Navin Solanki | | Infrastructure Addressing Manager | 05/03/08 | 1.4 |

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Related Documents:

These documents will provide additional information.

| Ref no | Doc Reference Number | Title | Version |
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1. Overview

1.1. Purpose

This document aims to provide a clear DNS naming policy which will provide clarity and continuity to all who register sites perform diagnostics and will aid engineers in identifying who has ownership of specific domains. The intention is to provide a mandatory schema that is to be applied for all domains, regardless of the organisation type.

The intended audience for this document is anybody who is involved in registering or processing Spine EndPoints, specifically, the service providers and any registering organisation.

1.2. Summary

To connect to the Spine, each registering organisation must have an appropriate DNS 'A' record registered on the NHS DNS servers. This is required, along with other factors, to allow access to services supplied by the SPINE. Sites must use the NHS DNS servers as local lookups are not allowed.

To ensure uniformity and order, a mandatory naming schema is outlined in this document which provides registering organisations a set of guidelines by which they can work with.

2. DNS

2.1. What is DNS

DNS is short for **D**omain **N**ame **S**ystem, a network protocol that translates *domain names* into IP addresses. Because domain names are alphabetic, they are easier to remember. A DNS server provides this translation service by returning the appropriate IP address to the requesting site.

DNS allows the use of alphanumeric characters (0-9 and a-z) and the ' - '(dash) symbol. It does not use ampersands and underscores. It is **not** case-sensitive.

2.2. DNS in the N3 environment

The core NHS DNS service, which provides name resolution services for all domains within the 'nhs.uk' namespace, is currently run by N3SP. The service comprises two virtual DNS Name Servers, the primary being *cns0.nhs.uk* and the secondary being *cns1.nhs.uk*, which provide authoritative locally held 'A' records, and recursive forwards to records held on delegated servers (such as the SPINE DNS servers).

Changes are made by the DNS registration team at NHS Connecting for Health, who control the *.nhs.uk* namespace. The registration team makes changes on the NHS DNS servers using software provided by BT.

The NHS DNS servers were recently upgraded to support national applications in addition to normal web browsing functionality but their virtual IP addresses remain the same:

cns0.nhs.uk 194.72.7.137

cns1.nhs.uk 194.72.7.142

To enhance resolution times, it is iterative to nearly all non-*.nhs.uk* domain names.

2.3. DNS and the National Applications

All access to National services must be accessed via DNS, through the N3 DNS name servers. It should be noted that though some services have delegated domain names for business continuity purposes (e.g. *lon.ncrs.nhs.uk*), the primary lookup is sent to the national servers as mentioned above.

2.4. IP addressing

When requesting an EPR, the IP address must be routable within N3. The following ranges will be rejected:

- Internal LAN ranges such as 192.168.x.x
- Internet routable IP addresses.
- IP addresses routable on other private networks (unless agreed upon by the DNS Team and N3SP).

3. Naming Schema

DNS names must contain an organisations NACS code or similar unique identifier. This prevents naming overlap and aids identification for diagnostic purposes. Correct naming schema will also aid correct targeting of certificate expiry notifications.

3.1. GP sites

3.1.1. Standalone GP Sites

These sites must adopt the following convention:

<Application Name>.gp-<ODS code>.nhs.uk

Some examples include:

ebxml.gp-y12345.nhs.uk
mhs1739.gp-d87654.nhs.uk

This schema takes advantage of being sub-domains of the existing email domains which are well known throughout the NHS.

3.1.2. GPs Using Hub Solutions

Hub solutions make it difficult for unique identifiers to be provided. Where possible, a mutually agreeable solution will be agreed on a case by case basis with local NHS providers and clinical systems suppliers where appropriate.

3.2. Acute/Secondary Care Trusts

Acute Trusts must use the NACS code as it is unique and aids identification, especially for certificate expiry notices. Pre-existing third-level domain names should be used when available.

Acute/Secondary Care and other trusts with pre-existing domains must adopt the following convention:

<Application Name>-<ODS Code>.<Organisation name>.nhs.uk

An example:

Ebxml-RZZ.anytowntrust.nhs.uk

3.3. Pharmacies

A new schema was required for pharmacies as they have never previously been connected to either NHS*net* or N3 and so no organisational domains exist.

3.3.1. End Site Pharmacies

These sites must adopt the following convention:

<Application Name>.<ODS Code>-pharmacy.nhs.uk

Some examples include:

etpservers.fgr10-pharmacy.nhs.uk
Exchangeanyco.ftr65-pharmacy.nhs.uk

3.3.2. Pharmacies Using Hub/Aggregate Solutions

Many pharmacies connect to N3 via an aggregate connection from their own corporate network. They must adopt the following convention:

<Server name>.<ODS Code>.<Company/Aggregator Name>-pharmacy.nhs.uk

Some examples include:

Epharm-server.Ftr12.anyco-pharmacy.nhs.uk
Etpserver.frg73.anyco-pharmacy.nhs.uk

3.4. Secondary Uses Service

Secondary Uses Service (SUS) is the single source of comprehensive data to enable a range of reporting and analysis. It should use the following convention:

SUS-<ODS Code>.<Organisation name>.nhs.uk

An example:

SUS1-RZZ.anytowntrust.nhs.uk

To differentiate between local Endpoints, a numbering scheme may be used.

3.5. Demographic Batch Service

The Demographics Batch Service (DBS) is a process that allows NHS and other organisations to submit files of patient information to the Spine for tracing against the [Personal Demographics Service \(PDS\)](#). This is a replacement for NSTS batch trace and PKI. It should use the following convention:

DBS-<ODS Code>.<Organisation name>.nhs.uk

An example:

DBS2-RZZ.anytowntrust.nhs.uk

To differentiate between local Endpoints, a numbering scheme may be used.

3.6. Third Party Suppliers

As use of the SPINE and its associated services goes beyond NHS sites and into the commercial sector, there is a need for a uniform schema to encompass them. They should use the following convention:

< Application Name >-<ODS Code>.<Organisation name>.thirdparty.nhs.uk

An example:

ebxml-RZZ.anymedicalco.thirdparty.nhs.uk

Please note that should these end points correspond to services which have an existing convention (such as SUS or DBS), then one should include the relevant application name in the schema.

3.7. Application Tags

Application tags should be:

- Descriptive.
- Meaningful.
- Convey a sense of permanence.

NHS CFH reserves the right not to register any EndPoints that have tags that appear spurious or use test domains on live systems. 'Test', 'sandpit' and other temporary-sounding domains are to be actively discouraged as application tags.

4. Further Advice and Guidance

For any clarification on any issues related to this document please contact the DNS Registrations Team at DNSTeam@nhs.net .