Products and Product IDs

API Management

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1 Overview

Managing API Consumers and their access to data and APIs is complex, and involves many teams. The term "Product" is used to help multiple teams, both technical and non-technical to work together and help everyone understand who has access to what system and data.

A Product is:

- · An application or solution to be assured by NHS England
- · Systems uses all sort of terms for this this introduces consistency
- Loosely defined the application owner's definition, and what it means to NHS England will change over time
- · A way to talk about granted authorisation between stakeholders



At present, ProductIDs cannot be issued until further work is completed by CPM. A manual workaround has been provided for certain early adopters but is not sustainable for a wider release. If this causes any inconvenience, reach out to us via the platforms-apim-producer-support¹ channel for further discussions.

¹ https://nhsdigitalcorporate.enterprise.slack.com/archives/C016JRWN6AY

2 Global Product ID

Each Product will be issued a Product ID, and is defined as:

- · Human readable easy to spot matches
- Randomly generated
- · Available instantly
- · Stays the same in all environments
- · Stays the same from inception to decommissioning
- · A way to audit and support traceability for compliance you should log it everywhere
- · Loosely coupled, but acts as unique key across system boundaries
- · Use to unambiguously attach:
 - · Authorisation settings
 - Configuration settings
- · Centrally manage settings at a "coarse" grain simple rules:
 - · Locally (e.g. API Producer) manages complex settings
 - · Use the identifier to link between central and local
- For more complex solutions you will have to manage your own unique identifier, but must always have a traceable route to the Product ID

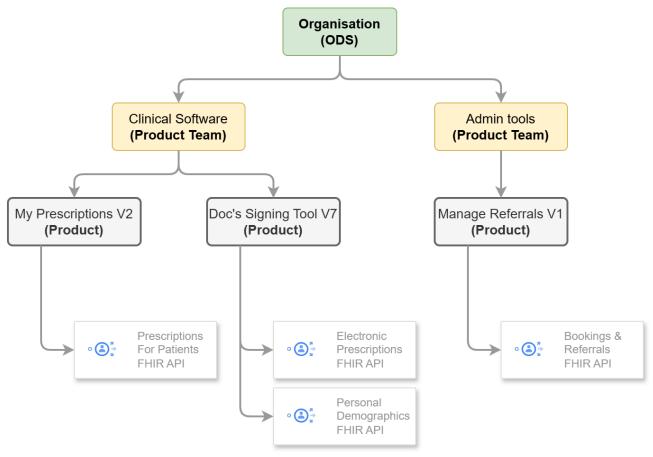
2.1 Identifier format

- Six alpha numeric digits format: "P.GH7-4TY"
 - "P." is fixed suffix, just for when the ID is being used without context (P = Product)
 - · "-" to visually split up the digits
- · Case insensitive, but the default is to display as all caps
- · No confusing characters e.g. only allow either letter "O" or number 0 (probably allow digits)
- Can be used in a URL without encoding see RFC3986²

² https://datatracker.ietf.org/doc/html/rfc3986#section-2.3

3 Organisations, product teams and products

Developing software is complex, especially in large organisations where ownership can change over time even early on. The relationships are:



The Product Team is:

- · Always owned by one organisation / ODS code
- · Can me moved to a different organisation
- · Informal grouping / membership it can include members from other organisations

4 Products, assurance and connection agreements

The term "product" has been used for many years in NHS England, mostly in the onboarding and legal teams.

All electronic connections to NHS England must be traceable to a legal entity, and this is the entity that signs a "connection agreement" - see the public facing onboarding documentation: https://digital.nhs.uk/services/partner-onboarding#how-this-service-works

5 Versions of products

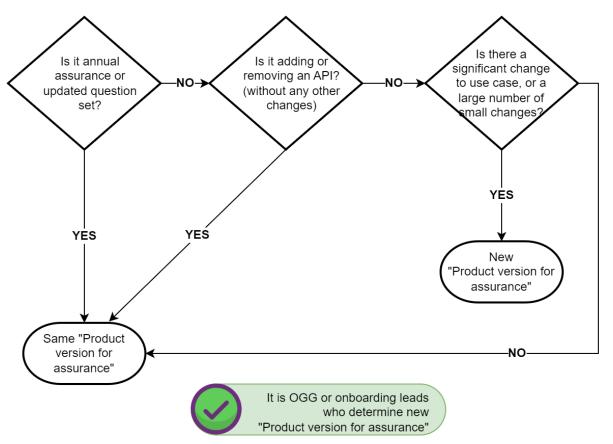
There are many complexities around this, and to make that more complex NHS England doesn't own many of the products. Every time a third party changes their version, they won't want to update NHS England.

The decision was made that a Product would be loosely connected to versions. For some products it would be one version, others it might be many.

The critical factor was the impact on NHS England assurance, did we need to do more:

- · Changes that impact assurance:
 - · Use case changes
 - · Legal entity changes (e.g. taken over by another company)
 - · Moving processing outside of the UK, or a change to an existing exception
- Adding / Removing APIs will require additional assurance, but it does not change the existing assurance

That makes the decision arbitrary, so it was agreed with the Onboarding governance group (OGG) that a decision process they and onboarding leads own will decide if a new Product is needed:



^{** &}quot;Product version for assurance" is the short hand definition of "Product"

6 API Producer pages

Passing information to your API backend³
Configuring target attributes⁴
HTTP headers for your API⁵

Access modes - compliance - security and simplifying running your API⁶

³ https://nhsd-confluence.digital.nhs.uk/display/APM/Passing+information+to+your+API+backend

⁴ https://nhsd-confluence.digital.nhs.uk/display/APM/Configuring+target+attributes

⁵ https://nhsd-confluence.digital.nhs.uk/display/APM/HTTP+headers+for+your+API

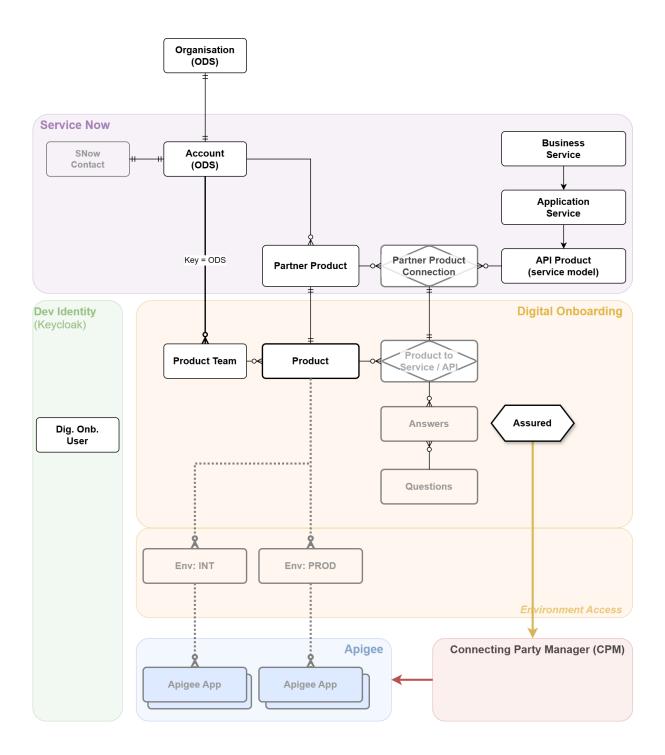
 $^{6\} https://nhsd-confluence.digital.nhs.uk/display/APM/Access+modes+-+compliance+-+security+and+simplifying+running+your+API$

7 Bigger picture

The Product ID is just one aspect of the wider NHS England ecosystem to onboarding teams, assurance and managing the security of the data we hold.



What the bigger picture looks like has **not** been agreed, however this picture should provide a feel for what that eco system **might** look like.



If you want to see some background, and more technical definitions of how this ecosystem data model **might** work:

- Data model for Product assurance ecosystem⁷
- Lifecycle Product and Product Version⁸

⁷ https://nhsd-confluence.digital.nhs.uk/display/APM/Data+model+for+Product+assurance+ecosystem 8 https://nhsd-confluence.digital.nhs.uk/display/APM/Lifecycle+-+Product+and+Product+Version

- Lifecycle Organisation⁹
- Lifecycle APIs and services 10

7.1 Approvals and agreements for this approach

The global product ID has been agreed by a number of groups Onboarding governance group (OGG), Sarah Wraith - key onboarding lead, Service Now (SNow) team, Digital Onboarding Service (DOS).

Technical Review Group (TRG) approved KAD-10012 21st July 2023 - for links and other approvals see D063 - Identifying and managing connecting applications¹¹

⁹ https://nhsd-confluence.digital.nhs.uk/display/APM/Lifecycle+-+Organisation

¹⁰ https://nhsd-confluence.digital.nhs.uk/display/APM/Lifecycle+-+APIs+and+services

¹¹ https://nhsd-confluence.digital.nhs.uk/display/APM/D063+-

⁺Identifying+and+managing+connecting+applications#D063Identifyingandmanagingconnectingapplications-Reviewsandapprovals