

Title	Role based Data Sharing
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Purpose	To propose an approach to systematically sharing personal data between public sector organisations.
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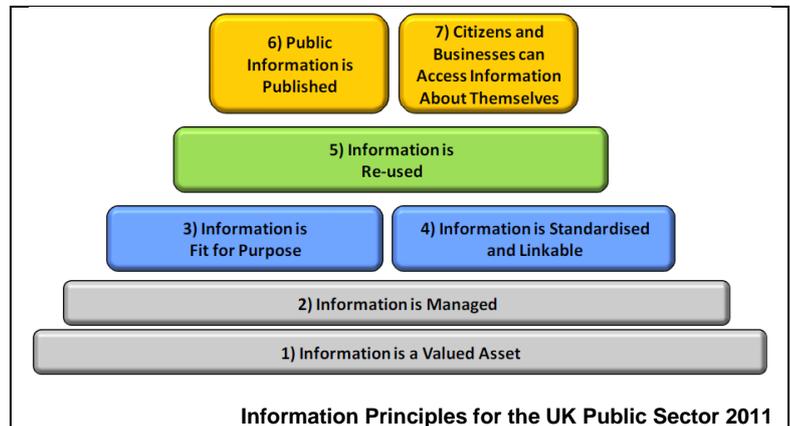
Revision	Date	Author	Notes
1	01/03/2012	Paul Davidson, for LeGSB	

This document

1. This LeGSB¹ White Paper proposes a systematic approach to sharing personal data between public sector organisations.

Background

2. A deliverable from the Government ICT Strategy² (March 2011) has been a set of 'Information Principles for the UK Public Sector'³. These seven principles emphasise that, whilst data may be collected by an agency of the public sector for a primary purpose, it may be valuable for re-use by another agency for another purpose. This would naturally reduce the need to collect and manage the same data again, improve accuracy, provide a better service, and reduce costs.



3. As an example, the DWP collect and manage data to calculate awards of Social Security benefits. Local Authorities already have access to some of that DWP data when calculating Housing and Council Tax benefit for the same household. The Welfare Reform Bill⁴ will make way for many other purposes for which this information can be shared and re-used.

4. Typically, data is currently shared by

- Providing a web portal where information can be viewed by those with a security credential⁵
- Transmitting a formatted message to a defined endpoint over a secure network.

... with associated information governance undertakings agreed within a data sharing protocol.

5. For each purpose for which data can be re-used, only certain data elements will be relevant. Other purposes will require different subsets of these elements.

6. While this approach is proven and effective, it can lead to

¹ <https://knowledgehub.local.gov.uk/group/localegovernmentstandardsbody>

² <http://www.cabinetoffice.gov.uk/resource-library/uk-government-ict-strategy-resources>

³ http://www.cabinetoffice.gov.uk/sites/default/files/resources/Information_Principles_UK_Public_Sector_final.pdf

⁴ <http://www.dwp.gov.uk/policy/welfare-reform/>

⁵ <http://en.wikipedia.org/wiki/Credential>

- many separate data sharing solutions and infrastructures, sometimes between the same agencies;
- lengthy change control for message formats and portal contents;
- reduced 're-use' as a message or portal for one purpose is not suitable for another purpose.

A Role based approach to Data Sharing

7. For data to be shared, the data controller⁶ needs to be assured that

*A **user** is able to **assert** that they are empowered by their **organisation** to act in a **role** that has a **right** to a set of **data items** for a **purpose**, and agrees to the **terms** by which the data is to be used and handled.*

8. So, rather than 'hard-wiring' a solution for a specific data sharing scenario, standards can be employed to support a generic data sharing facility that is configurable to meet many needs.

9. A data controller should be able to configure

Purpose	The ' <i>purpose</i> ' for which data can be shared. This can be drawn from a list of public sector services and activities.
Data Items	The set of ' <i>data items</i> ' that support the ' <i>purpose</i> ', drawn from a data catalogue.
Right	The legal basis for the disclosure of the set of ' <i>data items</i> ' being shared. This may refer to defined legal gateways.
Organisation	The actual, or types of ' <i>organisations</i> ', that have the ' <i>right</i> ' to the ' <i>data items</i> '.
Role	The ' <i>role</i> ' that a ' <i>user</i> ' must be in to have a ' <i>right</i> '.
Assert	The strength of the <i>assertion</i> necessary.
Terms	The Information Governance undertakings necessary

10. There will be occasions when the user does not need the actual data items, but wants information that is derived from one or more data items. This may be because

- The detail of individual data items is too complex for a person who is not a professional in that discipline;
- The requirement may be for less sensitive data.

11. Examples of Derived Data may include.

Data Item	Derived Data
Date of Birth	Person is over 65 years of age.
In receipt of Jobseekers Allowance (Income Based)	On a passported benefit
Has had an epileptic fit in the past 12 months.	Unfit to drive

12. It should therefore be possible to define business rules acting on the data catalogue, to produce intermediate results. This derived data may

- require a lower strength of assertion;
- require less controls to handle and protect;
- require less interpretation as it is used on other disciplines.

Re-using existing capabilities

⁶ http://www.ico.gov.uk/for_organisations/data_protection/the_guide/key_definitions.aspx

13. A systematic approach to data sharing will require the re-use of standards, assets, and facilities.

Capability	Standard / Asset / Facility
Secure Network	The public sector is now converging on a standards based 'Public Sector Network'.
Employee Authentication	The Employee Authentication Scheme (EAS) is in general use within Local Authorities gain access to certain DWP data services.

'Handshaking' on an exchange of data

14. A configurable data sharing service should be able to offer an api⁷ to potential consumers that demands

- Credential for the role/organisation/right/purpose/terms assertion
- Data Set requested

... and reply with data in a machine readable form that can then be transformed or embedded within a local application.

⁷ http://en.wikipedia.org/wiki/Application_programming_interface