

The Scottish Assessors' Portal – A Property Information Network for Government, Citizen and the Professional

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Abstract

As part of the existing Scottish Executive Modernising Government agenda, the fourteen regional assessors in Scotland are working together to develop and deliver the Scottish Assessors' Portal. For the first time this will provide single point Internet access to the Valuation Roll and Council Tax information on a Scotland-wide basis sourced from regionally managed and maintained databases held by each of the 14 Assessors.

The Scottish Assessors' Portal is part of the Definitive National Addressing for Scotland (DNAS) initiative and establishes a comprehensive Scottish land and property information network for sharing and exchange of data between three broad categories of user: the Assessors themselves, government users and the citizen and property professional. Back office integration between each regional assessor's property database and local Corporate Address Gazetteers (CAGs) will ensure over time that addressing at the Portal is BS7666 compliant and provide the basis for a joined-up and definitive national address infrastructure. The assessors' information is key to this success.

Version 1 of the Portal is now 'live' with further improvements to the portal scheduled for later this Autumn and by the end of March 2005. This paper will detail the partnership approach in developing the portal between the 14 regional assessors as well as with local authorities and other government agencies. Also discussed will be the future direction of the project and how the Assessors' Portal may contribute to Scotland's national information infrastructure.

Introduction

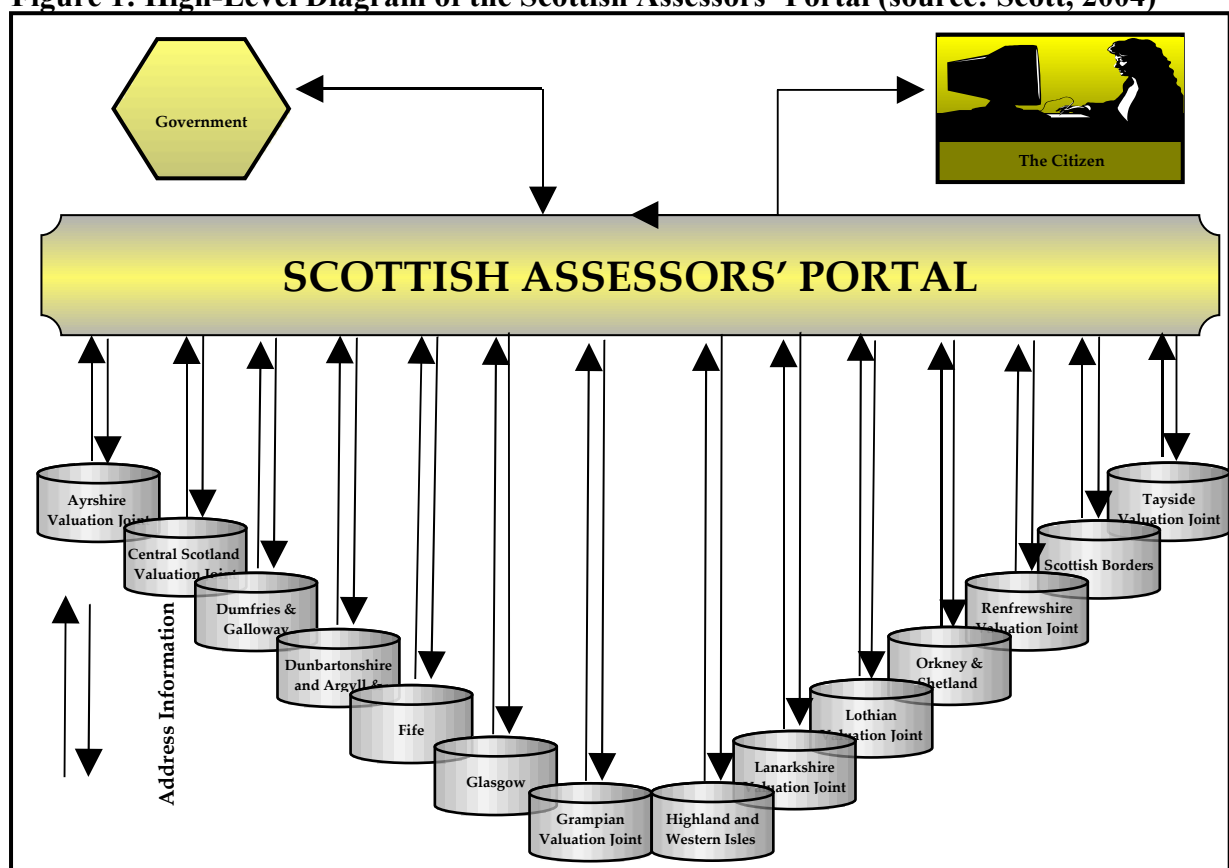
In August of this year, the Scottish Assessors Association (SAA) launched the Scottish Assessors' Portal website (saa.gov.uk) and citizens, their professional agents and government agencies now have online access to Scotland-wide information about council tax banding and non-domestic rates. This has been a major step forward in the area of address management and e-government and will provide a strong foundation for the development and maintenance of a national information infrastructure for Scotland. Simply put, for the first time, an all-Scotland address dataset is now available tagged with valuable attribute information about these properties.

The collaborative effort to-date has proved essential to the success of the project. At the forefront of this partnership approach are the fourteen regional assessors in Scotland, all of whom have contributed significantly to the project. There has also been considerable involvement from local authorities who are at various stages in the process of creating and maintaining Corporate Address Gazetteers (CAGs). The CAGs will eventually become a primary source of address-based information and intelligence for the assessors. Other government agencies such as the Scottish Executive (SE) and General Register Office for

Scotland (GROS) have contributed to defining the requirements of the portal and are key users to the more advanced functions.

Figure 1 below provides a high-level schematic diagram of the Assessors' Portal. At present, there are, in effect two views – one for the citizen and the other for government users. The citizen view or 'Public interface' provides online access to the assessors' information queried by address, street name, postcode and other mainstream search tools available elsewhere. The general public can therefore find out about the council tax banding for any domestic property in Scotland or the rateable value, general description and other supporting information for all non-domestic properties. In the past, this information was published as paper-based registers available to the public in government buildings. Typically, only local information was available, however, now citizens are able to access this information online and on a national basis.

Figure 1: High-Level Diagram of the Scottish Assessors' Portal (source: Scott, 2004)



The government view or 'Admin interface' is more sophisticated. Users are able to conduct and refine searches using other attributes (such as classification code, council tax banding, rateable value) and download this information for use locally. The benefits are immense. In the past, GROS and SE had requested information separately from all fourteen assessors – which arrives in various formats and varying degrees of quality. These government agencies are now able to go to a single source and obtain data that available in a more structured and consistent manner.

While this initial version of the Portal has been targeted for use by the citizen and only GROS and SE at this stage, a programme of work is already timetabled to extend the Portal for use

by other government organisations in the near future. This work will be initiated by a stakeholder requirements' workshop involving agencies such as Registers of Scotland, Electoral Commission, Utilities, Emergency Services, GROS, Scottish Executive and others. This extension may also include access to the Electoral Register; however, the extent to which this information can be made available will largely depend on forthcoming guidance specific to data protection and electoral registration legislation.

Services provided by the Scottish Assessors

Before an explanation on the genesis of the Assessors' Portal project and its role within the Definitive National Addressing for Scotland (DNAS) initiative, it is first useful to describe the services provided by the regional assessors as well as introduce the SAA. The assessors are responsible for three main functions:

- 1) the maintenance and production of a Valuation Roll setting out the values of all non-domestic properties for rating purposes;
- 2) the maintenance and production of a Council Tax Register or list in which is shown the Council Tax band of each dwelling for Council Tax purposes; and
- 3) the maintenance and production of the Register of Electors (commonly known as the "voter's roll").

The assessors have been responsible for the valuation of all properties for local taxation purposes since the enactment of the Lands Valuation (Scotland) Act in 1854 (SAA, 2004) within their respective valuation areas. Currently all rateable properties are shown in the Valuation Roll and domestic subjects are contained within the Council Tax Valuation List. These documents form the basis for levying Non-Domestic Rates and Council Tax by Scotland's 32 local authorities.

As such, the regional assessors provide the same core services as the Valuation Office Agency (VOA) in England and Wales but are funded through local government and are not a central government organisation. This is an important distinction as the respective regional assessors are local government departments delivering local government services. There are a total of fourteen regional assessors throughout Scotland, five of which provide services as part of a single local authority and the other nine who provide services as a joint board to two or more local authorities (see Appendix A for the full list of regional assessors and their corresponding local authorities).

The SAA is an organisation that represents the needs of all fourteen regional assessors in Scotland. Although a voluntary organisation, all senior staff are members of the Association. One of the principal functions of the Association is to facilitate a consistency of approach in the administration of the valuation, council tax and electoral registration services. The policies and decisions of the Association have a bearing on how individual assessors carry out their statutory duties, but each assessor is an independent official (SAA, 2004).

Each of the three core services described earlier are based on legislation and, in supporting these statutory requirements, the assessors themselves have become experts at managing information about addressing. The 'address' is a fundamental building block in support of Scotland's vision for delivering e-government services in the 21st century. One of the key programmes in establishing the framework for this work is the DNAS initiative.

The DNAS Initiative

In early 2002, the Scottish Executive invited proposals from local government to the Modernising Government Fund (2) (MGF2) set up to help take forward projects involving the innovative provision of improved public services (Scottish Executive, 2004). Improved management of land and property information was considered an important priority and, in response, a consortium of all 32 local authorities and fourteen regional assessors was formed under the banner now referred to as DNAS. The submission was successful and in December 2003 the Scottish Executive awarded funding for DNAS along with a number of other MGF2 projects on citizen accounts and e-Care. The funding is for a period of two years ending in March 2005.

The central principle of DNAS is a simple one, yet rarely achieved in UK Local Government. Local authorities create and maintain a wealth of data about addresses, land and property and the majority of this data is central to the core business of local authorities. However, much of this information is held in different Services and often duplicated many times over across an organisation. DNAS aims to integrate this data for use both within the council and for frontline service delivery by the establishment of a single property information point that adheres to common and agreed standards (Keith and Moore, 2003). At its core, DNA-Scotland is a national project with national deliverables but with immense benefits at a local level for councils and regional assessors.

Fundamental to the success of DNA-Scotland will be the creation *and management* of a CAG within every local authority. The fourteen regional assessors are also important partners as they bring to the consortium additional expertise in address management and are already committed to working closely with individual local authorities. The vision is that a national 'Definitive National Address Dataset' will be created and maintained through a controlled extraction of entities contained in local CAGs. This broadly parallels the LLPG/NLPG approach in England and Wales but with the distinction that the regional assessors are a key contributing stakeholder at both a local and national level.

The Scottish Assessors' Portal

The Scottish Assessors' Portal project is one of the key 'themes' of the DNAS initiative. The Portal will provide single point access to assessors' information on electoral registration, council tax banding and non-domestic rates on a Scotland-wide basis and in a consistent manner. In making this happen, there are a number of supporting objectives including:

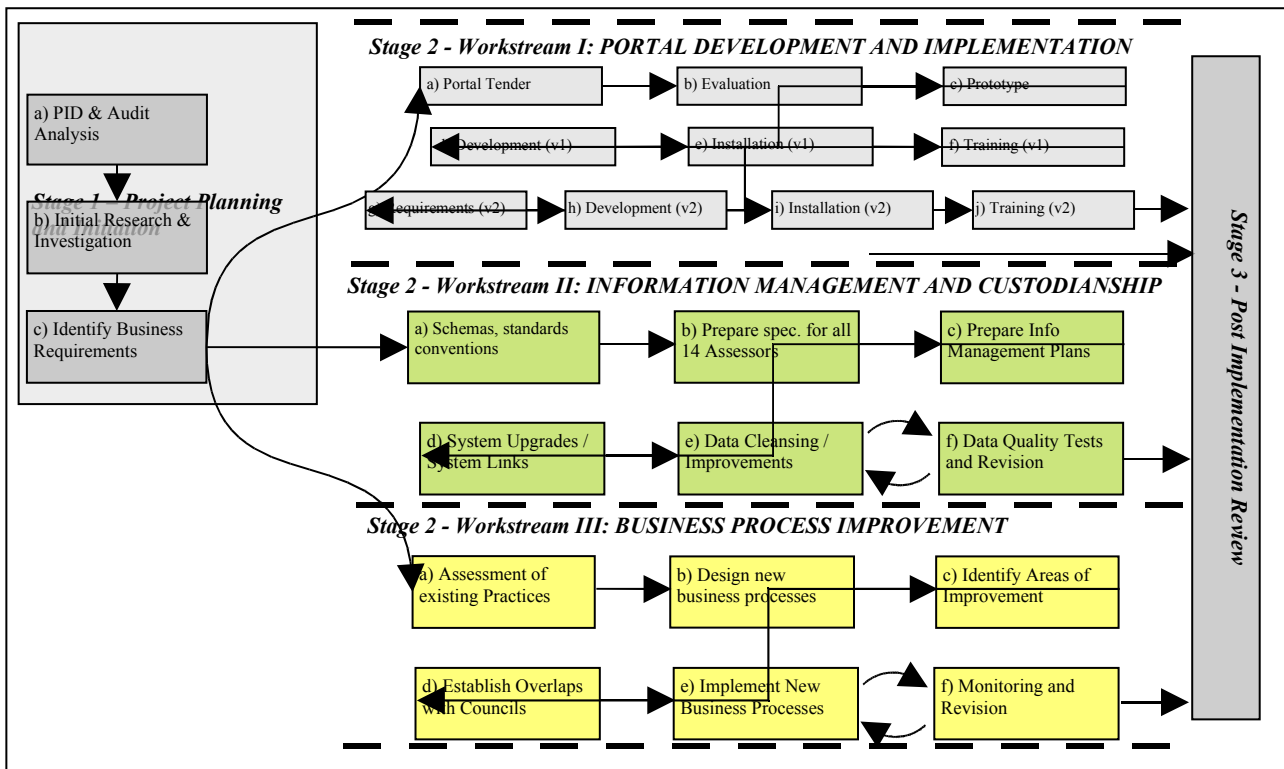
- Ensure the information is made available to the citizen, central government, local authorities and other public bodies;
- Establish information management and back office procedures;
- Adopt national standards such as BS7666 and e-GIF; and
- Establish formal links between assessors' primary databases and local authority corporate address gazetteers.

Since work on the Scottish Assessors' Portal project was initiated in April 2003, significant progress has been made. All fourteen regional assessors are now actively involved, a strong and effective governance structure is in place (see Appendix B) with frequent Project Board and Project Team meetings, a project management team has been secured for the duration of

the project and a supplier – Connect Internet Solutions – was selected to develop and host the portal.

A PRINCE2 project management methodology has been adopted with the project organised into three main ‘workstreams’: information management and custodianship, portal development and implementation, and business process improvements. Within this context, project activities are organised by discrete stages as illustrated in Figure 2 below.

Figure 2: Staged-Approach to the Assessors Portal Project (source: Keith & Harrison, 2003)



The approach has proved successful with most milestones met within agreed timescales and performance thresholds. However, this achievement is more attributable to clearly defined roles and responsibilities and the ongoing commitment from the assessors’ staff themselves - at all levels. The subsequent sections will provide further details on the approach taken and the progress made within each of the three workstreams.

Portal Development

Development of the Portal started long before the purchase of any hardware or software. The assessors conducted a number of workshops directed specifically to identifying business requirements. This information was then incorporated into a comprehensive tender document that was issued in October 2003. Using a formalised tender evaluation and benchmarking process, the assessors were in a position to select Connect Internet Solutions as the preferred supplier by Christmas with Portal development work starting early in the New Year.

A Portal Design Working Group (PDWG) was created to oversee all design and development activities and ‘Work packages’ generated to structure the work in manageable chunks to oversee developments on the search engine, Public Interface and Admin Interface and content

management. The search engine was seen as a vital component as it is, in effect, the gateway to the assessors' information. It was developed to allow for various types of searching including that by address, street name, postcode and other typical means of standard querying such as locality or town. The search engine has already gone through a thorough testing process with further refinement expected in the future as it becomes used regularly on an operational basis.

The two primary 'views' of the portal – the Public Interface and Admin Interface - were developed concurrently. An important factor of the Public Interface is the approach taken to content management as there are designated areas for each of the fourteen regional assessors, all of whom have identified a content manager and technical staff to publish and manage information specific to their area. The homepage is, in effect, a shared area with resources allocated from one of the regional assessors specifically for the management of the common information to the entire assessors' community. This includes downloadable forms, FAQs, news items and background information about the assessors.

The Admin Interface is a private view of the assessors' information that is password protected and restricted for use to government organisations who have registered. It provides advanced functionality and allows for sophisticated querying based on any elements of the Portal database (see Appendix C, Tables 1 – 3 for full list). Government users are then able to download this information for use and analysis of the information locally.

Importantly, the assessors have only engaged with two government users in this initial phase of the project. This approach has delivered dividends in that the tendency for scope creeping was minimised and the assessors were able to manage expectations to a realistic level. The next stage of the project will be critical as the assessors expand this user base to upwards of ten government users.

Information Management and Custodianship

The key requirement to present assessors' information at the Portal in an up-to-date, complete and standard form provides the foundation for the Information Management and Custodianship workstream. Similar to portal developments, there was a Working Group created to oversee activities – all with four specific objectives:

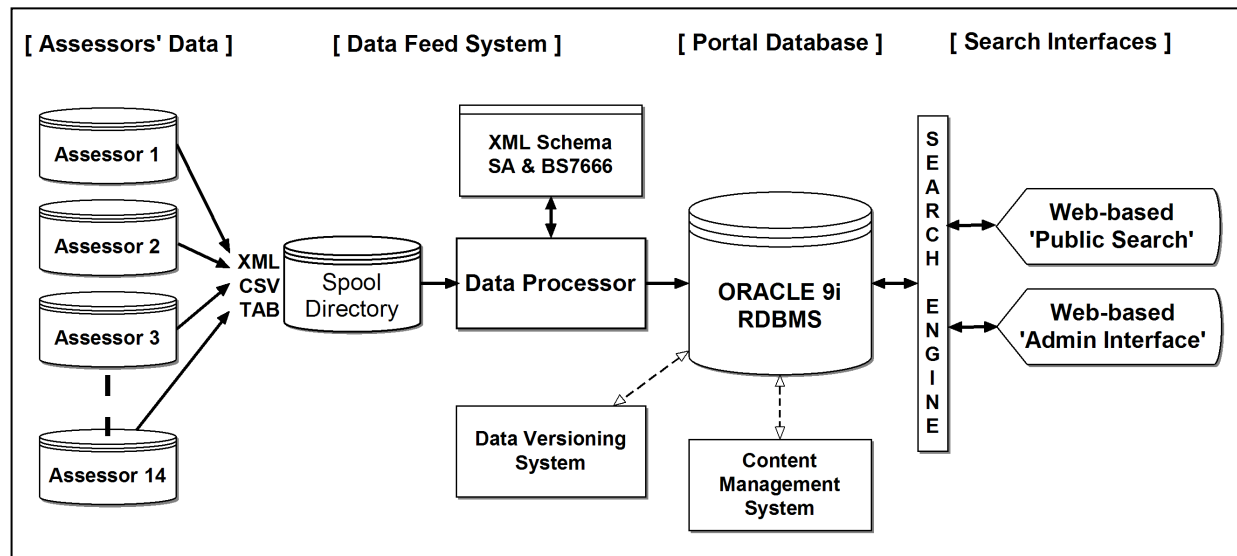
- to establish a method to routinely transfer Valuation Roll and Council Tax data to the Portal from the fourteen 'live' database systems maintained by each regional assessors;
- to present information in a complete and consistent form at the Portal through the design and implementation of standards for identifiers, addresses and property codes;
- to initiate good practice and planning in information management and back office procedures to support Portal data management and transfer; and
- to design data quality criteria to promote continuous improvement of data transferred to the Portal and enable publication of quality reports.

An audit was conducted at the outset of the project to assess the variability of assessors' data and systems and provide a starting point for the design of a Portal data standard and transfer specification (Harrison and Keith, 2003). While each assessor operates under the same statutory and regulatory framework there are differences in the structure of local databases and the way they are managed and maintained. Eight of the assessors use either a Progress or

Corona Database Management System (DBMS). The remainder use ‘in-house’ developed software across a range of third-party DBMS products.

Nearly all assessors update their databases on a continual or weekly basis. However, given the significant differences in update and maintenance procedures and data versioning methods across the assessors, it was decided to use a ‘snapshot’ process to upload data to the Portal. In this way the Portal database effectively holds a copy of each assessor’s ‘live’ database at an instance in time. The Portal data feed system, comprising upload, validation and database load, is presented in the diagram of the Portal database in Figure 3 below.

Figure 3: Components of the Assessors’ Portal database



Data are uploaded by each assessor using either a standard ASCII-text delimited file or as XML data. A check is performed to determine which format the data has been sent, non-XML formats are converted to XML. Multi-part files are concatenated, to form a single unified XML data structure, if required. The resulting XML data is run through a validation process against the defined schema. Validation failure results in ‘Standard’ and /or ‘BS7666’ error reports being emailed to the assessor responsible for the data feed. Upon passing validation, existing data are deleted from the database. The XML data are translated into database updates, which are then committed to the live data. In this way the update replaces the existing data. A report confirming successful validation and load is emailed to the assessor responsible for the data feed.

Note that Portal database incorporates a data versioning system (Oracle Workspace Manager) both for backup / rollback and for querying archiving copies of the Portal data at key dates for generating historical trends.

The important difference between assessors from the point of view of the Portal relates to the structure and organisation of their data. The fundamental entity is the *Unum quid* (or single unit of occupancy for valuation) which defines the basis of the non-domestic or domestic property record or subject with the assessors’ database. Each subject is identified using a textual description which takes the form of an address and a functional description. Currently five assessors also provide a National Grid reference for locating subjects. The specific data held for each subject varies between the Valuation Roll (for non-domestic subjects) and the Council Tax list but includes the rateable value (band on Council Tax list) with effective date

and supporting technical data. In addition, a set of categorical data are used to further classify the status of the subject (e.g. occupancy status, subject under appeal).

However, although each assessor uses the same single unit of valuation there are significant differences in the way property-based data are recorded from one assessor to the next.

To develop a coordinated approach to data management each Assessor has appointed a Portal Data Custodian. The first task of the Data Custodian was to prepare a detailed database specification which documented the structure of local addresses and methods for describing and coding property. These enabled a harmonised specification to be drawn up which was used to define the Portal data standard and Data Transfer Format (DTF). Test data extracts were prepared by four assessors as a pilot exercise prior to finalising the specification. The Portal DTF incorporates this standard and defines record types and structures for ASCII-text CSV and Tab-delimited formats. Connect Internet Solutions have developed the XML version of the transfer format based on the DTF specification.

The Portal database comprises three main tables for Council Tax, Valuation Roll and Proprietor, Tenant and Occupier (PTO) entries (See Tables 1-3 in Appendix C). Each Council Tax and Valuation Roll entry is uniquely identified using a composite primary key based on the numeric Assessor ID number and the Unique Assessor Reference Number (UARN). The PTO table is linked to the Valuation Roll table to model the one-to-many relationship between a non-domestic property and the names and addresses of Proprietor, Tenant and Occupier as appropriate. These tables also show the full range of assessors' data uploaded to the Portal for non-domestic and domestic properties. Note that not all of this information is available through the 'Public' Search Interface at this stage.

The Portal database is designed to be BS7666: 2000 compliant and uses the standard address fields. This address can be regarded as effectively defining a Basic Land and Property Unit (BLPU) defined by identified occupancy. Although most of the assessors at the outset of the project had started work to clean and rationalise their subject addresses to conform to BS7666, none have incorporated the BS7666 standard address fields into their database systems at this stage. Currently all assessors systems use address fields based on some variant of the postal address model. Therefore each assessor has developed a translation built into their data extraction routine to convert their native addresses into BS7666 addresses. The current 'Standard' level of validation which is enforced by the Portal Data Processor defines an 'interim' address standard based on the corrected UK GovTalk BS7666 XML v1.2 schema. The 'Standard' validation allows non-compliant elements of addresses to be submitted in the text part (Characters 11-100) of the Secondary and Primary Addressable Object Name (SAON/PAON) fields. It is intended that over time – and with the integration of local authority-sourced CAGs - the level of address validation will be more rigorous and ultimately compliant to BS7666.

The first complete load of data by assessors' from their local databases to the Portal was achieved in early July. A database comprising entries for c. 2,690,625 domestic and non-domestic properties has been created and is now updated on an ad hoc basis primarily to address data quality issues while testing of Version 1.0 of the Portal is underway. The aim is for all assessors to submit a minimum of fortnightly updates once the Portal goes 'live' this Autumn. Work is now underway by Portal Data Custodians to complete local Data Management Plans to document local procedures and identify steps to improve data quality. Version 1.1 of the Portal will provide tools to assist in the preparation of data quality

indicators. These indicators will be published as a formal Portal Data Quality Report, on a bi-annual basis in the first instance, but will also be used by Data Custodians to measure data quality and develop local data quality improvement plans.

Business Process Improvements

As discussed above, it is important to note that, while the portal database will be compliant to BS7666, the data itself will not be compliant until such time as there is full integration between assessors' information and the CAGs at a local level. To plan for this, most Assessors are also working with their partner local authorities to integrate systems, information flows and business processes so that assessors' regional databases – and, in turn the portal itself – will be supplied with BS7666-complaint address information from the local authority CAGs when they are ready.

A pilot Business Process Mapping (BPM) exercise has been recently completed by the Assessors to assess current processes for address data management. This work has developed a generic business process model based on four pilot Assessors and will be evaluated and extended to all Assessors over the coming months (Forth Valley GIS, 2004). The intention is to use this model as the basis for a joint BPM exercise with local councils later this year that will start to investigate methods for linking assessors' databases to local CAGs and to identify the joined-up address data management processes to support such linkages. This approach recognises that the joint development of assessors' databases and CAGs must be defined and informed by a proper understanding of business processes and requirements.

The Next Steps – Future Commitments

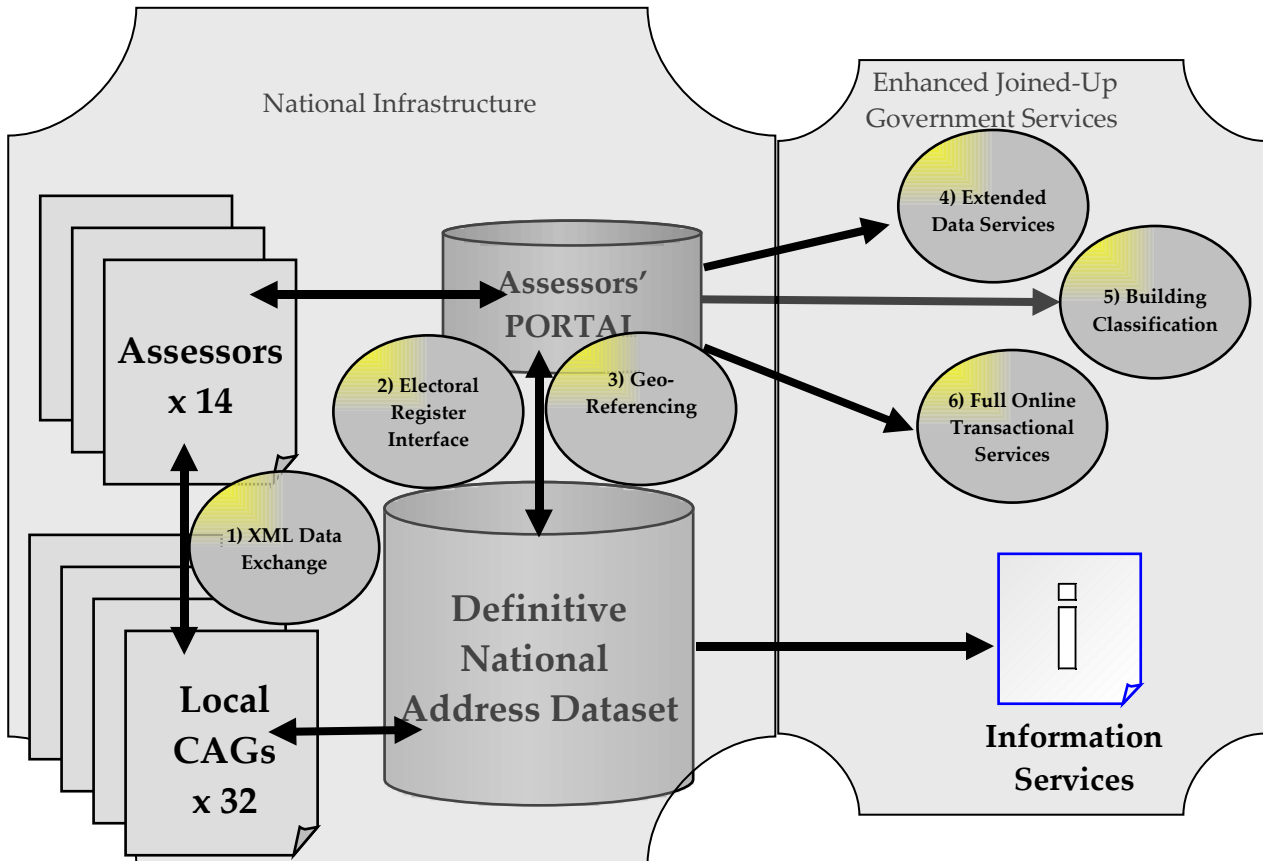
In a relatively short space of time the assessors have successfully implemented a fully searchable national property database sourced from locally managed and maintained databases and in so doing have introduced a new element to the Scottish property information network. As it stands the Portal now provides a strong foundation both for remaining activities in the current project as well as future development, refinement and collaboration.

The Scottish Executive is extending the Modernising Government Programme and recently invited proposals for 'MGF3' projects. The SAA have responded and submitted a proposal that will build upon the existing accomplishments by extending this work with the development of six 'data and electronic interface modules' directed to both supporting the national infrastructure as well as enhancing joined-up government services as illustrated in Figure 4 below and described as follows:

- 1) Design of a national XML Schema to exchange data between Assessors and the Corporate Address Gazetteers;
- 2) Create an electronic interface to the Electoral Register structured to support the national infrastructure in improving access to users who have legitimate access to this information;
- 3) Deliver on a programme of geo-referencing improvements to provide spatial data for all assessors' information as well as the development of web-based GIS tools to enhance the display and analysis capabilities of this information;
- 4) Provide extended data services to deliver more comprehensive joined-up government services in the provision of assessors-based information to other government agencies;

- 5) Standardise existing building classification property descriptions enabling an all-Scotland dataset on the ‘use’ of properties; and
- 6) Develop full online transactional services that can handle both single and bulk enquiries from citizens, agents and other government agencies.

Figure 4: Proposed Scottish Assessors’ Portal Data and Electronic Interface Modules



While it will be important to direct this work towards the national infrastructure, it will be equally significant that this work is scoped such that it is complimentary to work scheduled for local authorities as part of their back office integration activities. The emphasis is on improving access to – and the quality of - address-based information for government and the citizens of Scotland by delivering interoperable solutions to support the national infrastructure – at all levels. This will require involvement at a local level and, as such, the fourteen regional assessors are likely to be committed to a programme of work targeted to improvements in information management, interoperability and online service delivery improvements that will benefit both the government and citizen alike.

Conclusions

The SAA Portal is one of the key deliverables of the DNAS initiative and the Modernising Government Programme in Scotland. It provides Scotland-wide access for the citizen and other central and local government agencies to all domestic and commercial properties and, as such, supports the overall e-government agenda. There is now single point access to addressing information from Lerwick to North Berwick.

However, in many respects this project is only at the beginning of the journey and there is clearly much to do in the months and years ahead. Future development of the Portal will build upon four broad themes identified in this paper:

- Commitment to portal development and design activities targeted to ease of access for the citizen while currently increasing the government user base. This will include access to the Electoral Register to be made available as dictated by data protection and electoral registration legislation.
- Ongoing commitment to Portal data quality improvement through a coordinated approach to data management by all assessors. The assessors recognise the extent to which the Assessors' Portal will be successful will depend largely on the quality of information and the assessors are committed to a programme of continuous improvement.
- Continued development of a business process-led approach to Portal developments, particularly to contribute to the integration of local authority CAGs and assessors' databases. Business process improvements are seen as fundamental to the direction of the Assessors Portal (and the DNAS initiative as a whole) and will be at the core of future activities.
- Development of electronic interfaces between government bodies and other agencies, property agents and professionals and citizens to deliver a joined-up property information service that is needs led and contributes to the future national information infrastructure for Scotland.

At the heart of Modernising Government in Scotland is one simple principle: the ability to share and use information more effectively within government organisations and between them. As part of the DNAS initiative, the Scottish Assessors Portal has responded to this vision and, in a relatively short period of time, has become an instrument for joined-up working and electronic service delivery targeted to the citizen and government alike.

References

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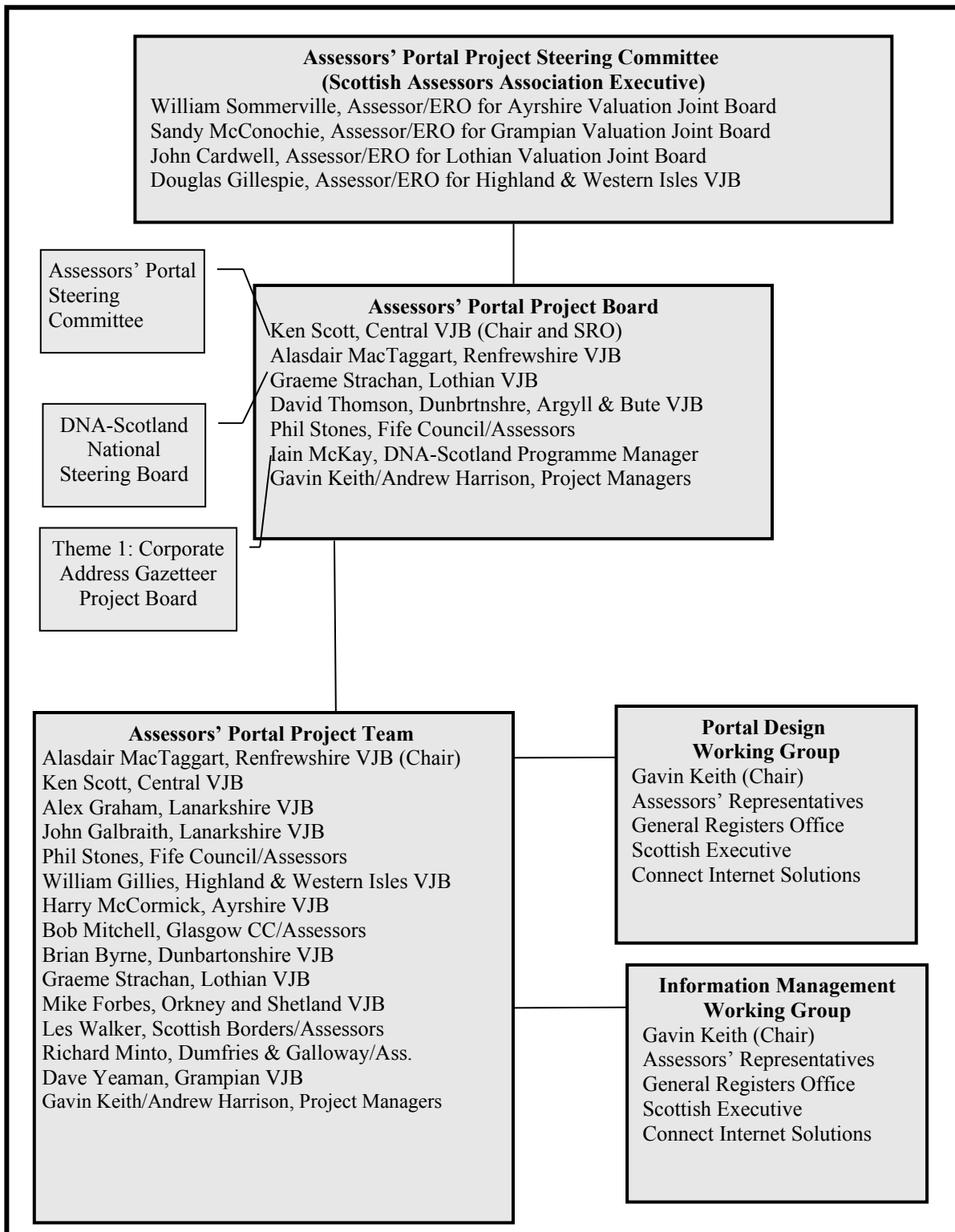
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Scottish Executive (2004) Summary of the Modernising Government Fund – see www.scotland.gov.uk.

APPENDIX A – LIST OF REGIONAL ASSESSORS AND CORRESPONDING LOCAL AUTHORITIES

REGIONAL ASSESSOR	LOCAL AUTHORITY
Ayrshire Valuation Joint Board	East Ayrshire Council North Ayrshire Council South Ayrshire Council
Central Scotland Valuation Joint Board	Clackmannanshire Council Falkirk Council Stirling Council
Dumfries & Galloway Council Assessors	Dumfries & Galloway Council
Dunbartonshire and Argyll & Bute Valuation Joint Board	Argyll & Bute Council West Dunbartonshire Council East Dunbartonshire Council
Fife Council Assessors	Fife Council
Glasgow City Council Assessors	Glasgow City Council
Grampian Valuation Joint Board	Aberdeen City Council Aberdeenshire Council Moray Council
Highland & Western Isles Valuation Joint Board	Highland Council Comhairle nan Eilean Siar (Western Isles Islands Council)
Lanarkshire Valuation Joint Board	North Lanarkshire Council South Lanarkshire Council
Lothian Valuation Joint Board	City of Edinburgh Council East Lothian Council Mid Lothian Council West Lothian Council
Orkney & Shetland Valuation Joint Board	Orkney Islands Council Shetland Islands Council
Renfrewshire Valuation Joint Board	Inverclyde Council East Renfrewshire Council Renfrewshire Council
Scottish Borders Council Assessors	Scottish Borders Council
Tayside Valuation Joint Board	Angus Council Dundee City Council Perth & Kinross Council

APPENDIX B – ASSESSORS PORTAL PROJECT GOVERNANCE STRUCTURE



APPENDIX C – ASSESSORS PORTAL DATABASE STRUCTURE AND CONTENT

**Table 1: Valuation Roll Database Table Structure for the Valuation Roll
(PK=Primary Key; FK=Foreign Key)**

Key	Field	Description	Type	Entry
PK	ASSESSOR_CODE	Assessor ID	I2	Man
	UARN	Unique Assessor Reference Number	A80	Man
	UPRN	UPRN	I12	Opt
FK	UNITARY_AUTHORITY	Unitary Authority Code	A3	Man
FK	WARD	Ward Code	A4	Opt
	SAON	Secondary Addressable Object Name	A100	Opt
	PAON	Primary Addressable Object Name	A100	Man
	STREET	Street	A100	Man
	LOCALITY	Locality	A35	Man
	TOWN	Town	A30	Man
	ADMIN_AREA	Administrative Area	A30	Man
	POST_TOWN	Post Town	A30	Opt
	POST_CODE	Postcode	A8	Opt
	EASTING	Easting	I7	Opt
	NORTHING	Northing	I7	Opt
	NET_ANNUAL_VALUE	Net Annual Value	I10	Man
	RATEABLE_VALUE	Rateable Value	I10	Man
	RES_APPORTION	Residential Apportionment	I10	Opt
	NON_RES_APPORTION	Non-Residential Apportionment	I10	Opt
FK	MARKER	Apportionment Marker	A1	Opt
	DESCRIPTION	Description	A64	Man
FK	SE_CODE	Scottish Executive Statistical Code	I2	Man
	OCC_STATUS	Occupancy Status	A1	Man
	EFFECTIVE_DATE	Value Effective Date	D7	Man
	APPEAL_FLAG	Subject under Appeal	A1	Man
	REVAL_APPEAL	Subject under Revaluation Appeal	A1	Man
	PNET_ANNUAL_VALUE	Proposed Net Annual Value	I10	Opt
	PRATEABLE_VALUE	Proposed Rateable Value	I10	Opt
	PRES_APPORTION	Proposed Residential Apportionment	I10	Opt
	PNON_RES_APPORTION	Proposed Non-Res Apportionment	I10	Opt

Table 2: Database Table Structure for the PTO (Proprietor, Tenant or Occupier)

Key	Field	Description	Type	Entry
FK	ASSESSOR_CODE	Assessor ID	I2	Man
	ADDRESS_TYPE	Identifies type of address (P,T,O)	A1	Man
FK	UARN	Unique Assessor Reference Number	A80	Man
	UPRN	UPRN	I12	Opt
	NAME	Name of Proprietor, Tennant, or Occupier	A150	Man
	ADDRESS_LINE_1	First line of PTO's address	A130	Opt
	ADDRESS_LINE_2	Second line of PTO's address	A130	Opt
	ADDRESS_LINE_3	Third line of PTO's address	A130	Opt
	ADDRESS_LINE_4	Fourth line of PTO's address	A130	Opt
	ADDRESS_LINE_5	Fifth line of PTO's address	A130	Opt
	ADDRESS_LINE_6	Sixth line of PTO's address	A130	Opt
	ADDRESS_LINE_7	Seventh line of PTO's address	A130	Opt
	ADDRESS_LINE_7	Eighth line of PTO's address	A130	Opt
	POST_CODE	Postcode of PTO's address	A8	Opt

APPENDIX C – ASSESSORS PORTAL DATABASE STRUCTURE AND CONTENT

Table 3: Database Table Structure for the Council Tax List

Key	Field	Description	Type	Entry
PK	ASSESSOR_CODE	Assessor ID	I2	Man
	UARN	Unique Assessor Reference Number	A80	Man
	UPRN	UPRN	I12	Opt
FK	UNITARY_AUTHORITY	Unitary Authority Code	A3	Man
FK	WARD	Ward Code	A4	Opt
	SAON	Secondary Addressable Object	A100	Opt
	PAON	Primary Addressable Object	A100	Man
	STREET	Street	A100	Man
	LOCALITY	Locality	A35	Man
	TOWN	Town	A30	Man
	ADMIN_AREA	Administrative Area	A30	Man
	POST_TOWN	Post Town	A30	Opt
	POST_CODE	Postcode	A8	Opt
	CT_BAND	Council Tax Band	A1	Man
	EFFECTIVE_DATE	Council Tax Band Effective Date	D7	Man
	GARAGE	Garage or Storage	A1	Opt
	EASTING	Easting	I7	Opt
	NORTHING	Northing	I7	Opt
FK	ATTACHMENT	Degree of Attachment	A4	Man
	NO_APARTMENTS	Number of Apartments	I4	Opt
	PROPOSAL	Flag to identify subject under proposal	A1	Man