



Current data flows and processes supporting the exchange of data between local authorities and VOA

Andrew Harrison
LandInform / ConsultingWhere

Background and context

- VOA are in the early stages of a Business Systems Transformation (BST) involving updates to several major systems including their central property database developed almost 40 years ago
- The aim is to introduce a new property database and underpinning data model to support future adaptation and change - the new data model will ingest AddressBase Premium and adopt the BS7666 table structure
- Crucially VOA are interested in a strategic shift away from address creation and to instead consume Local Authority (LA) authoritative addresses based on LLPG creation and maintenance processes
- GeoPlace are working with VOA to understand these proposed changes to data management and how changes to workflows and data exchange could be optimised in future
- To support this work, GeoPlace initiated a pilot project in October last year with a small group of local authorities to review the current process and data models that underpin the flow of data between local authorities and VOA

Previous research - ValueBill

- The Valuebill Project ran between November 2003 and July 2004 and was designed to develop and test both the business case and the operational exchange of property tax information
- The project developed four XML schemas for exchange of information between the VOA, Local Billing Authorities (BAs) and LAs to support collection of Council Tax (CTAX) and Non-Domestic Rates (NDR) revenues
- Three areas requiring special attention to realise the benefits of XML data exchange were identified:
 1. Consistent use of identifiers to ensure unambiguous identification of properties and transactions i.e. BAREF, UPRN and transaction reference
 2. Process improvement recommendations - to implement consistent use of these identifiers by VOA, BAs and LLPG data custodians i.e. ensure referential integrity by avoiding re-use, re-processing and duplication of identifiers
 3. Role of gazetteers - to ensure that (i) all taxable dwellings/hereditaments are held in the LLPG, and (ii) there is robust maintenance of the LLPG together with links to the revenues and other application systems
- Although a full national roll-out of Valuebill was not realised, work undertaken to comply with Valuebill laid a foundation for good practice in many LAs and the XML schemas are still in use by several suppliers
- Development of the LLPG Data Entry Conventions (DECs) to define the scope and content of gazetteers to include addressable objects to align with VOA occupancy level property descriptions has paved the way for closer integration
- High match rates to VOA are maintained by LLPG custodians with mandatory application cross-referencing between BAREF and UPRN supported by a national NAG-VOA match

Information gathering and process modelling

Approach

- Information gathering was based on User Research (UR) with a small sample of LAs followed up by an online survey issued to all English and Welsh LAs
- Seven LAs were carefully selected from a long list of 18 based on level of system and data integration, location and characteristics of their property base
- Each UR session comprised a one-hour interview with a contact identified by GeoPlace
- Contacts were offered the opportunity to invite Revs & Bens colleagues - several took up this offer
- We received 165 responses to the follow-up online survey
- The key findings from the research have been validated with the participating LAs

Participating LAs

- Camden London Borough Council
- Portsmouth City Council
- Conwy County Borough Council
- Rushmoor Borough Council
- Leeds City Council
- Derby City Council
- Blackburn with Darwen Borough Council

Selection of Local Authorities

- LAs were selected from a combined CTax system and UPRN integration data dashboard prepared by GeoPlace
- This shows a high degree of variation in terms of system suppliers, reliance on UPRN and address update method and frequency
- The aim was select a sample of LAs to include a representative range of billing systems and level of integration with LLPG / UPRN

Authority Details			Ctax System Info			Level of Integration with the UPRN						
Authority Code	Authority Name	Region	CTAX Service Provided	CTAX System Supplier	Address Data Source	System Reliance on the UPRN	Reliance Score	Method of Updating Address Data	Method of Update Score	Address Data Update Frequency	Currency Score	Overall CTAX Integration Score
		Greater London	Yes	Other	LLPG data	Yes	10	DB link / API	10	Daily	9	9.7
		Greater London	Yes	Civica Open Revenues	LLPG data	Yes	10	Custom processes	5	Daily	9	8
		Yorkshire and the Humber	Yes	Northgate Revs & Bens	LLPG data	Partly	5	System utility	9	Daily	9	7.7
		Wales	Yes	Northgate Revs & Bens	LLPG data	Partly	5	System utility	9	Daily	9	7.7
		East Midlands	Yes	Civica Open Revenues	LLPG & OS AddressBase	Partly	5	Manual Entry	0	Real-time	10	5
		Greater London	Yes	Northgate Revs & Bens	LLPG data	Partly	5	Custom processes	5	Weekly	8	6
		South West	Yes	Capita Academy	LLPG data	Partly	5	Custom processes	5	Daily	9	6.3
		North East	Yes	Northgate Revs & Bens	Service not provided	Partly	5	Custom processes	5	Daily	9	6.3
		North West	Yes	Capita Academy	LLPG data	Partly	5	Custom processes	5	Daily	9	6.3
		North East	Yes	Other	LLPG data	Yes	10	Manual Entry	0	Daily	9	6.3
		Wales	Yes	Capita Academy	LLPG data	Partly	5	Custom processes	5	Daily	9	6.3
		Yorkshire and the Humber	Yes	Northgate Revs & Bens	LLPG data	Partly	5	Custom processes	5	Weekly	8	6
		South East	Yes	Northgate Revs & Bens	LLPG data	Partly	5	Manual Entry	0	Daily	9	4.7
		North West	Yes	Northgate Revs & Bens	LLPG data	No	0	Custom processes	5	Weekly	8	4.3
		Yorkshire and the Humber	Yes	Capita Academy	LLPG data	Partly	5	Manual Entry	0	Monthly	6	3.7
		South East	Yes	Northgate Revs & Bens	LLPG data	No	0	Manual Entry	0	Weekly	8	2.7
		East Midlands	Yes	Capita One Revs & Bens	System not updated	No	0	System does not utilise UPRN	0	Service not provided	0	
		Yorkshire and the Humber	Yes	Other	System not updated	No	0	System does not utilise UPRN	0	Daily	9	

Current 'as-is' model and process domains

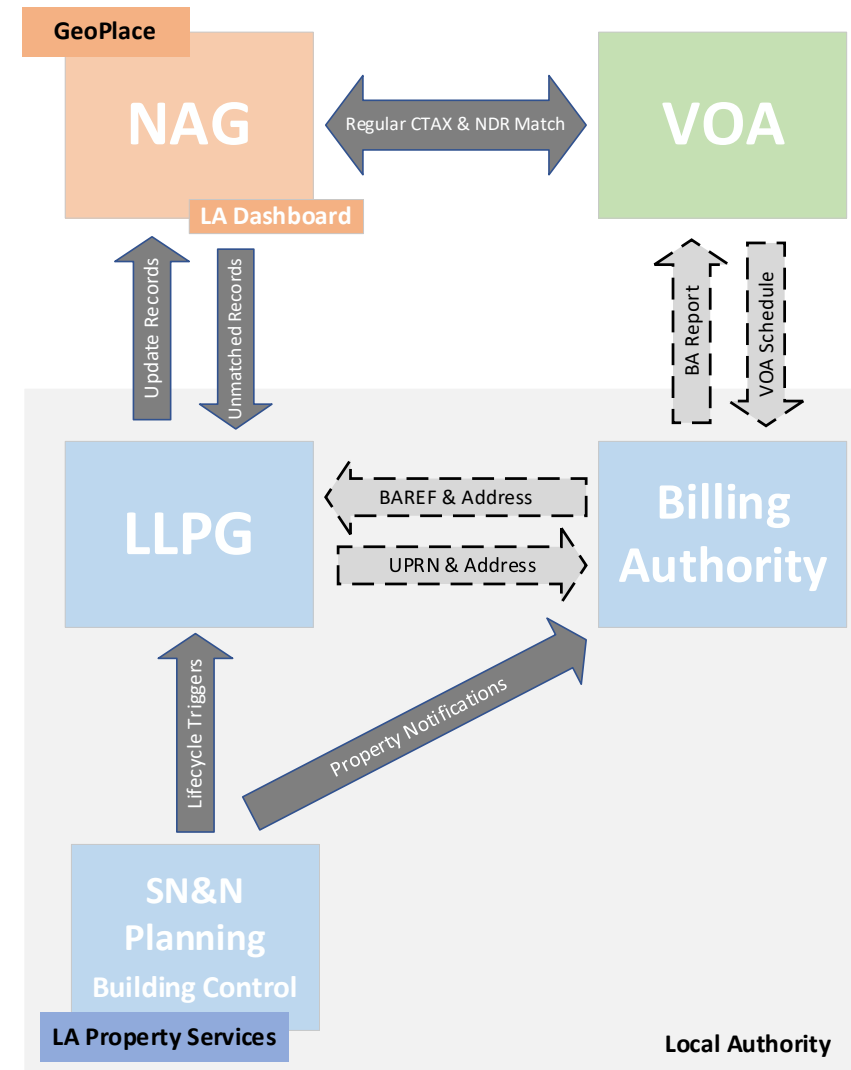
The current 'as-is' process model is made up of 3 process domains supporting interfaces for exchanging property information between VOA and Local Authorities

VOA - BA interface was established in late 1980's based on VOA core system and has not significantly changed since - it is based on a standard set of reports for exchanging property updates

BA - LLPG interface has developed in conjunction with the maturing of LLPGs starting in the early 2000s - there is no single or standard model of interaction

VOA - NAG interface is based on a regular CTAX and NDR national match that was established by the ValueBill project

Findings from the user research are structured by these process domains



Findings: VOA - BA interface

- VOA - BA interface was the focus of ValueBill but within pilot LAs there is very little awareness of ValueBill and associated schemas
- VOA processes are manual, slow and inconsistent and result in errors and waste work
- Lack of interoperability and automation result in BAs being reluctant or unable to resource correction of errors - so thousands of errors remain in data
- Creation of addresses by VOA is a major issue as it is usually carried out without consultation with BA or LLPG custodian - no formal channel or protocol exists for VOA and LAs to communicate on address creation or exchange data
- Many report significant delays in VOA responses to BA reports (response rates have not recovered from suspension of 90-day response due to COVID)
- Lack of awareness of VOA information sharing agreement - LAs report that VOA is not willing to share plans or other information to help validate addresses

Findings: BA - LLPG interface

- All pilot LAs reported a good working relationship with their BA colleagues - this is essential to make process work and often facilitates access to key data extracts and reports
- Levels of interoperability between LLPG and BA systems is low - most processes are manual
- CT and NDR processes at the BA - LLPG interface are often different
- All pilot LAs demonstrated a good working knowledge of what VOA is trying to achieve - they see interactions with VOA as a key source of property intelligence. However, direct communication with VOA is poor - VOA ignores information provided on address updates
- Majority of pilot LAs are achieving 1:1 match with CT and NDR addresses
- All LLPGs in pilot LAs are maintaining BAREF in application cross-reference record
- Creating NDR addresses in accordance with LLPG DEC's can be challenging - some concerns raised over force fitting of addresses into LLPG
- Completeness and currency of LLPG is paramount to efficient data exchange and matching to BA system and processes - where BAs see LLPG as 'single source of truth' for addressing then address creation and matching processes are usually highly effective and efficient

Findings: VOA - NAG - LLPG interface

- The national CTAX and NDR match undertaken by GeoPlace completes and compliments the data matching by LLPG custodians at the LLPG-BA-VOA interface - it provides a nationally consistent 'top-down' matching process that is resolved by LLPG custodians
- GeoPlace would like to understand better how the national match is used internally by VOA and opportunities for UPRN adoption
- Pilot LAs find the GeoPlace LA Dashboard a useful tool to support their matching to CTAX and NDR
- Interviews with pilot LAs show that LLPG custodians are not fully aware of matching and acceptance process underpinning the LA Dashboard - most pilot LAs interviewed observed that they have already created and pre-matched >90% of notified unmatched records
- The UR and survey results validate that the VOA address matching process continues to be a major burden on LLPG custodians - there is general recognition that the wider benefits of maintaining this level of integration are important

General observations and conclusions

- VOA - Billing Authority data flows and processes pre-date the development and maturation of Local Authority LLPGs over past 20 years and have not changed in response
- Significant effort has been expended to date and continues to be required to maintain an alignment between the VOA hereditament addresses and the authoritative LA address
- Most of the data entry and exchange processes between VOA, Billing Authorities and LA LLPGs are manual and create waste work
- There are multitude of BA systems from different suppliers - few rely on the UPRN for property identification and in the main integration with LLPGs is maintained via the application cross reference record
- Different levels of integration with LLPG exist across LAs - there are many exemplars of good practice for maintaining LLPG-BA system integration however local practice is highly divergent
- It is therefore unlikely that a single homogenous set of processes for interactions between VOA, local authorities and GeoPlace can be defined

In principle solution options

Guidance and governance

- Sponsor a whole systems approach based on LLPG as the single source of truth for addressing
- Introduce joint ways of working, supporting governance and best practice guidance for VOA offices, Billing Authorities and LLPG / SN&N functions

Technical address process and standards

- Promote interoperability and automation between systems and services for use of the UPRN through the whole process
- Undertake process mapping with LAs and their SN&N, Planning and Building Control system providers, to identify and specify property lifecycle triggers which translate to valuation triggers and provide a detailed framework for implementation
- Investigate potential for a candidate address process that operates across VOA-BA-LLPG processes and systems - if feasible explore and develop this as part of the VOA Business Systems Transformation
- Develop technical guidance and standards (including possible extension to BS7666 standard) for linking VOA hereditament descriptors to core LLPG addresses based on UPRN / BLPU for 1:N, N:1 and N:N relationships

GeoPlace and VOA collaboration

- Work with VOA to promote benefits of the national CTAX and NDR match in support of address data improvements and adoption of UPRN as part of VOA Business Systems Transformation

Candidate 'to-be' process model

Key Features

- Reinforces LLPG as single source of truth for UPRNs and addressing
- Introduces candidate address process VOA-LLPG and optionally BA-LLPG
- Complete process model is based on authoritative addressing (UPRN & Address)
- Builds on emerging API / data connectors for exchanging data with key services
- Feeds address intelligence locally (LLPG) and nationally (NAG) into VOA-BA processes
- Opportunity to incorporate VOA/BA property pipeline / lifecycle triggers from CTAX and NDR into LLPG update and maintenance

