

Register and Master Data

Texuna's Data Register and Master Data Management framework maintains, reconciles, stores and distributes a canonical data source as a register service.

Enforcing data governance and data stewardship workflows helps safeguard data quality and integrity.

Secure version control with unique hash and publish to blockchain distributed ledger as audit trail.

Features

Texuna provide a component-based framework of open source software to provide a flexible service platform that can be easily customised via user interface to suit unique implementations.

If you need support to modify or customise workflow and business logic you can avail of Texuna's Cloud Support services. Our data register and master data management solution is delivered either as SaaS or PaaS offerings, leveraging free open source operating systems and databases to give high cost effectiveness. A bespoke implementation based on other proprietary platforms is also possible, and we can provide cloud support services to help you achieve this if you need support.

Texuna's Data Register and Master Data Management Framework ensures consistent and accurate management and dissemination of identified datasets to data stakeholders.

- Enforce governance process to ensure single authoritative data register.
- Coordination and publication workflow management including full audit controls.
- Google, AWS, Azure cloud hosting, data migration, cleansing and re-engineering.
- Open source components, open data standards, with flexible data model.
- Assurance through cleansing, transformations and sophisticated configurable data validation rules.
- Assure data quality via profiling, cleaning, transformation, matching and reconciliation.
- Integration with Identity Assurance and Access Management (authentication/SSO).
- Publish and subscribe, enterprise service bus (ESB) and middleware messaging.
- ESB and messaging support: Biztalk, Mulesoft, RabbitMQ, Tibco, Websphere, JBoss.
- Integrate with Texuna's ETL, EDW, OLAP and Reporting services.

Benefits:

- Tailored solution to exactly fit business needs.
- Agile incremental delivery to reduce time to deploy custom configurations.
- Cost effective to implement and change business rules and data.
- Vendor neutral solutions - no vendor lock-in.
- GDPR-compliant Information security via UK/EEA hosting, encryption and obfuscation services.

- Fully managed service with helpdesk and enterprise support optional add-ons.
- Ability to deliver unique hash to distributed ledger or Blockchain.
- Future-proof cloud components are responsive, mobile and digital ready.
- Team of data and cloud experts (AWS and Azure Partners).
- Start with basic MDM and move to enterprise features gradually.

Solution architecture

The following represents some additional detail as to the solution architecture:

- Solution architecture services to generate conceptual, logical and physical data models to support operational services and full data analysis.
- Robust Three-Tier Architecture to separate functional components and avoid business logic going to the database. Metadata driven to make configuration changes easier.
- Ability to support 2-tier mobile web architecture with responsive app making asynchronous calls to the microservice style backend.
- Platform independence - works on any relational database management system (RDBMS).
- Application layer to encode all business rules and application logic.
- Presentation layer look and feel can be readily customised and changed to fit organisational policy and promotional changes. Brand management includes support for client supplied cascading style sheets (CSS file).
- Integration with existing front end solution fully supported, so that the presentation layer is designed and managed separately.
- Multiple portal approach to enable different views to be presented by stakeholder type.

Data Security and Encryption

- EEA based cloud hosting in private or on Amazon Web Services (AWS) or Azure.
- 256-Bit Encryption is implemented for sensitive and personal data as a default.
- Encryption keys are stored separately to minimise risk of fraudulent use.
- Data transmission uses HTTPS protocol for secure transmission, and underlying data can also be separately encrypted during transfer.
- Data at rest and Off-site backups are encrypted at database level.

Workflow Management and Audit Trail

- Complex record support including field level controls governing access and editing rights.
- Full business rule support, field level validation and sanity checks to verify data quality.

- Data collection mechanisms to engage end users with provision of their own data.
- Authorisation workflow to approve data changes prior to publication.
- Full auditing is provided so that every edit action is stored to the history file with the user/source details and date/time stamp.
- The audit history is accessible so that there is transparency over changes made to data.

Rule Creation and Management

- Creation and management of business rules from within the application (filter, transform, validate).
- Rules application to acquisition, dissemination and display.
- Easy management through an intuitive user interface, without the need for complex programming or scripting language knowledge.
- Rules structuring to allow comprehensive and diverse sets, whilst minimising management overheads and complexity.

Data Management

- Data models can be managed and update without service interruption or input of development or technical staff.
- New attributes may be added, or existing modified or archived.
- All modifications are fully audited, versioned and may be rolled back.

User Access and Authentication

- User authentication and access control can be via integration with Texuna's Identity Assurance and Access Management service on G-Cloud.
- Support for Single Sign-On.
- User access may be controlled at field level - so that sensitive data within a record may be suppressed from all but senior authorised users.

Data Register

- Canonical register maintained in a central data store to be a single source of truth, with control over other attributes and alternative aggregation hierarchies for drilling up and down the data.
- Data and records may be published to, queried by or synchronised with third party authoritative source to avoid replication and duplication of data.
- Public data available via API to external users.
- Public data accessible online via web portal for search and discovery.

Dashboards and Reporting

- Data analytics are fully integrated to enable information on database usage.
- Dashboard support for common reports using selection of widgets for presentation.
- Data is fully accessible via custom reports or by OLAP reporting module.

Integration Services

Texuna recognise that integration with other systems, both external and internal, is a key part of the delivery requirement for many data and cloud migrations - especially around identity and access management to keep environments secure and data encrypted for all but the authorised users.

Texuna is an experienced integrator that offers:

- Web services based API development using standards:
 - RESTful; or
 - SOAP.
- Web services may be unidirectional or bi-directional.
- Data import routines are driven by business rules, will match on existing data and may either:
 - Insert new records only;
 - Overwrite existing records with new;
 - Merge records (to an agreed specification).
- Bespoke customised API development can also be supported through our Cloud Support services.

Our Approach to Delivery

Texuna has a strong track record on client partnerships which achieve project objectives for operational requirements, timeliness and budgetary targets. We typically quote a fixed price around a reasonably defined set of outcomes to keep the process as agile as possible. Where possible and available, a defined scope of work is agreed. Changes to scope is always via a formal change control procedure. Active management means minimising risks at the earliest possible opportunity. This is achieved through agile sprints, deliveries and feedback on a regular basis.

Texuna minimise development costs through innovative engineering. We use a combination of internal and external 3rd party cloud resources, our own data management platform tools, open source software components and tools from respected open source custodians like Apache.

Texuna combines an Agile application development methodology with an iterative timebox approach to project management and deployments. This enables priority functions to be released early, process refinements to be continuous and has enabled us to quickly deliver complex solutions to tight timelines and to budget for the past 18 years.

The involvement of our clients operational staff and their customers is at the heart of our design thinking and project partnership philosophy. We are keen to engage and empathise at all levels so that we reach a deep

appreciation of the pain points in the current operation and senior business stakeholders as well as end users expectations on the outcomes of each project.

Pricing

Pricing for this service is provided in our separate pricing document in this catalogue entry.

Any customisation or in-house implementation charges and change control items may be purchased through Cloud Support Services. The Texuna SFIA rate card day rates will be applied. Discounts may be possible for large projects.

General Terms

Information Assurance and ISO 27001

Texuna have a strong focus on high quality delivery and implement rigorous Quality Assurance processes and procedures:

- ISO 9001 certified with BSI as external auditors.
- Cyber Essentials and IASME Governance Standard compliant.
- ISO 20000-1 certified with BSI as external auditors.
- ISO 27001 certified with BSI as external auditors.
- ISO 14001 by QMS International.
- Our project managers are PRINCE2 certified.
- Developers are certified under Brainbench and Sun standards (amongst other accreditations).
- We are an Amazon Web Services (AWS) cloud hosting certified partner.
- We are a Pentaho partner authorised to resell licences for big data, ETL tools and analytics.

Government Classification Scheme (GCS)

Texuna solutions are in use for 'official' level data systems. We ensure that your personal and sensitive data items are identified, encrypted and shown only to those users who have a need to see them. All sensitive and personal data is protected by stringent access control mechanisms. Data in transit and at rest is also encrypted as are all data backup files.

Comprehensive support of good data governance will often underpin data migration as well as best practice data warehouse management. We have a strong track record in migrating legacy systems to create a unified data store while improving the quality and integrity of the data held (as well as in reducing duplication). This can also be done during data migration.

- Texuna can deliver a metadata rich data warehouse which incorporates best practice design, so that management and maintenance, is cost effective and efficient.
- Texuna will ensure that client data, and especially any personal and sensitive data is:
 - Protected by encryption in transit and at rest.

- Protected by stringent access control.
- Guarded from improper use through sophisticated access and authentication controls.
- Tracked using a comprehensive audit trail that can be reported on.

Invoicing

Online services are charged monthly in advance with 30 day terms. Any invoices for specialist resources utilised are normally charged monthly in arrears unless agreed otherwise. In some cases of fixed scope and scheduled deliveries, Texuna will agree to staged payments based on delivery phases. Payment terms are always within 30 days of invoice date. A signed contract and/or purchase order for change controls will be required in order for Texuna to commit to starting a work package.

Contract Term and Conditions

Typically the contract term will be based on the scope of work and agreed schedule between Texuna and the customer, and subject to standard g-cloud contract terms. A definitive contract will be put in place to govern all related terms and conditions. Texuna's standard contract is attached.

Time to Provision/De-Provision

Please check with Texuna for lead time, if any, required to deploy people and skilled resources on a project during negotiations over scope and price. A schedule of availability should be formalised if appropriate. Although typically many projects are established, implemented and deployed remotely across Texuna's office, the contract manager, project manager and business analysts will usually be available on site with the customer from time to time. Should you require specific commitments of different skills on site for prolonged periods please outline this as part of the scope of work.

Service Level Agreements

Bespoke levels of service and support can be negotiated. This includes the ability to define alternative severity levels and response times as well as financial recompense are only available under an enterprise support package for a bespoke cloud solution.