



***Mouseclick Technologies***

***Enterprise Data Management***

***EDM - Financial***

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# **ENTERPRISE DATA MANAGEMENT**

**Enterprise data management =**

- **Service Level Agreement +**
- **Outsourced data management +**
- **Outsourced process automation +**
- **Hosted infrastructure +**
- **Data monitoring +**
- **Alignment on the product delivery roadmap**

**We automate data procedures, guarantee infrastructure stability, and deliver new features on the agreed release dates.**

# ENTERPRISE DATA MANAGEMENT

**Low level requirements are handled by Mouseclick Technologies. Service implementation is based on the Client requirements. Final data format and access is tuned to the Client's needs.**

End user requirements: data format, process, access

Integration

Service Integration requirements

Synthetic data services

Synthetic data requirements

Open Standard private cloud data storage, backups

Resilient infrastructure, connectivity, 99.9 uptime

# ENTERPRISE DATA MANAGEMENT

**Most of the operations are handled by Mouseclick Technologies.  
User access management remains with the client**

User access operations

User access  
management

Final data delivery operations

Data services operations

Cloud operations

Infrastructure operations





## ***BASED ON BEST PRACTICES***

### **Open source software**

- **Ubuntu**
- **PostgreSQL**
- **Python**
- **Javascript**
- **Nginx**
- **SSL**

### **Hardware vendors:**

- **Cisco**
- **IBM**
- **Supermicro**

**We use open standards and follow recommendations of TOGAF, ITIL, direct vendor recommendations, and extensive own experience in systems design.**

## **Governance**

- **Data delivery process is transparent**
- **Historical values are timestamped and tagged**
- **Data quality validation is automated**
- **Manual data validation is complementary**

## **Process Automation**

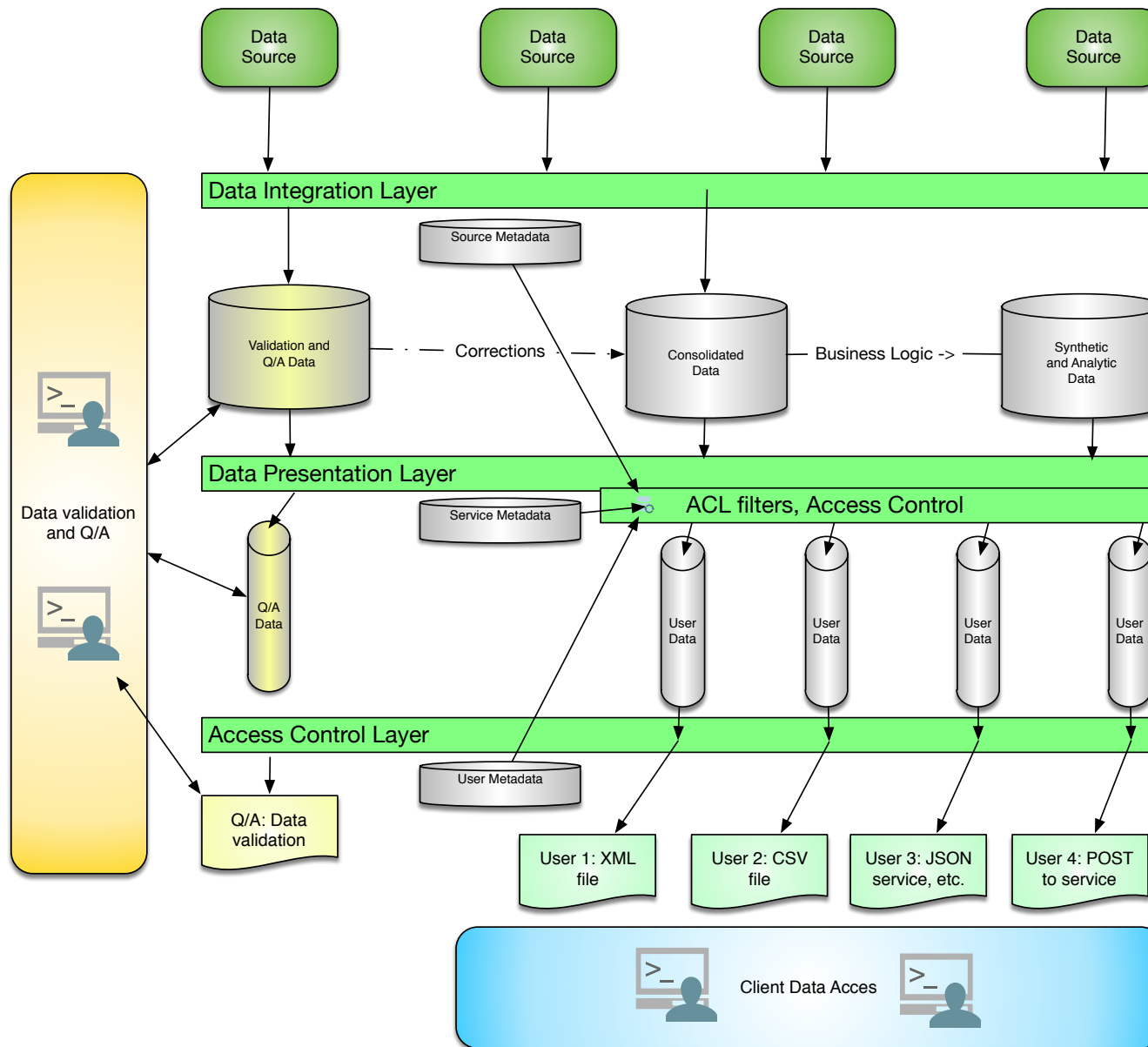
- **ETL**
- **Analytic Data**
- **Content Merging**
- **Derived Data**
- **Symbology mapping**

## **Modern And Mature Technology**

- **Modern Scripting Languages**
- **Reliable and Versatile Databases in the core**
- **Modern Versatile and Secure Protocols**



# DESIGNED FOR ENTERPRISE





# ***MAKING THE BEST OF OPEN STANDARDS***

## **Linux KVM**

- **Dynamic resource allocation**
- **Low TCO**
- **Quick and efficient failover**

## **PostgreSQL**

- **PostgreSQL clusters**
- **NoSQL with large datasets**

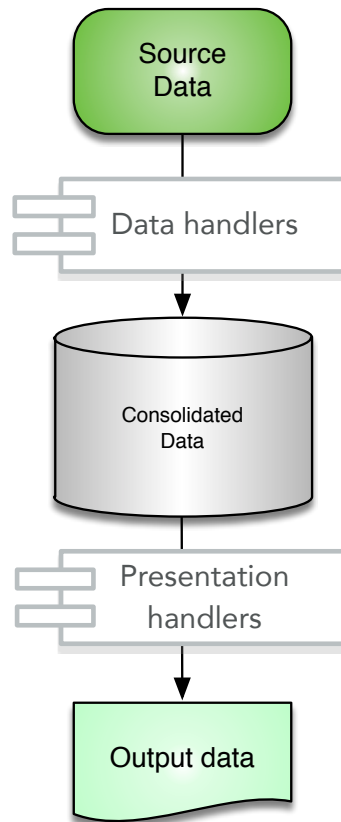
## **Modern languages**

- **C#**
- **Java**
- **Javascript**
- **Python**

**We work with mature modern technology to deliver future-compatible services with minimum development and integration overhead**



# REUSABLE BUSINESS LOGIC COMPONENTS



## Reusable Data Handlers For Feeds

- BBG, RTR, SIX, EOD

## Reusable Data Dictionaries

- ISIN, RIC, BSYM / FIGI

## Reusable Asset Class Handlers

- Currency, Equity, Fixed Income, Fund, Index, Future, Option

## Reusable Presentation Handlers

- XML, TSV, CSV, JSON

**Modular design allows re-deployment of standard blocks of business logic. Major data structures and data dictionaries are already implemented for main asset classes and two major vendor data formats (RTR, BBG).**



## **FOCUS ON DATA CONSISTENCY**

### **Data validation tools and procedures**

- **Data alerts**
- **Management tools**
- **Recovery tools**
- **Data replay tools**

### **Semantic alert engine**

- **Alerts triggered by content**
- **Alerts triggered by time delayed notice**
- **Alerts triggered by time delayed analytic check**

**We implement data services using deep insight into data semantics and lifecycle, to ensure consistency of the dataset delivered to the customer.**



# ***INTEGRATION WITH CLIENT SYSTEMS***

## **Data can be delivered**

- **Plain Text**
- **CSV, TSV**
- **JSON**
- **XML**
- **DB snapshot**
- **SQL**

## **Department ACL definitions allow to personalize**

- **Data format**
- **Accessible Dataset**
- **Presentation Template**

**Last mile delivery is made based on user requirements and may vary between departments and application access profiles.**



## **ROADMAP TUNED TO THE CLIENT NEEDS**

**New data features are delivered in “continuous release” mode**

**Design and feature planning are built around**

- **data consistency,**
  - **continuous development,**
  - **backwards compatibility,**
  - **extensibility,**
  - **modular design,**
  - **test driven development**
  - **Continuous in-dev Q/A**
- 
- **Milestones are synchronized with client’s projects**
  - **Incremental development allows optimizing time-to-market**

**We align our development cycle with the client roadmap to optimize the effort and mitigate the risks related to the product delivery.**



# OPTIMIZED FOR FINANCIAL DATA



- Quick and flexible development cycle
- Custom business logic and dataset integration
- Data automation: pull, push, data alerts
- Enterprise class security: encryption, authentication, access control





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