

CLOUD FOR INTEGRATION HUB

Adopt the appropriate Enterprise Application Integration strategy and capability.



The maturity of public cloud platforms such as Microsoft Azure has truly democratised application and system development. The ability to create automated business processes that allows data to flow from one application to another, whilst being coordinated centrally is now available on truly massive scale.

Constructing robust business workflows that deliver real business benefits requires both business acumen and IT engineering ability to ensure that the numerous sub-systems operate as a complete stable and reliable system. To do this IT departments need to ensure that they have an appropriate enterprise application integration (EAI) strategy and capability.

BENEFITS

Implementing an EAI strategy will ensure that business:

- Is able to react quickly to the many and varied challenges including: shifts in market trends, regulation compliance, market reputation and disruption from other sources
- Is able to respond to new opportunities, reducing time-to-market by utilising current investments and IPR
- Provide a consistent and reliable view of their data, reducing data replication and providing current more accurate data
- Become more efficient, able to provide complete end-to-end management of processes rather than operational silos

USE CASE

Integrated systems are always challenging, but when the system needs to connect to all of Europe’s pharmaceutical manufactures, their parallel trader companies, medicine wholesalers and every pharmacy outlet in 33 countries, integration takes on a whole new meaning!

Falsified medicines; that is medicines that are counterfeit and not from a bona fide source, have been infiltrating the supply chain across the world for years.

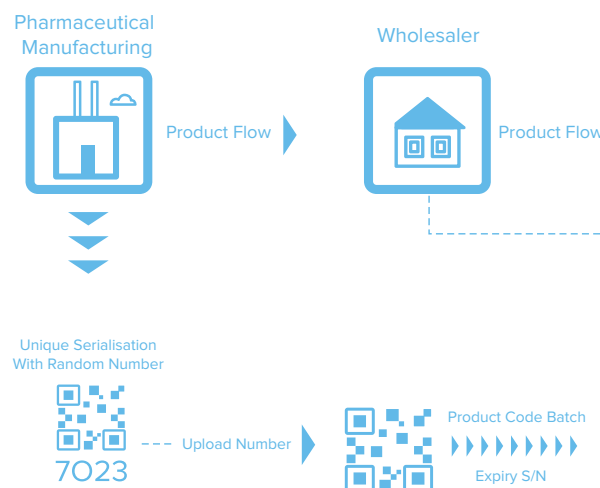
Their presence represent a serious threat to public health and target those in society who are already in need. The pharmaceutical industry in Europe have decided to fight back and have created a stakeholder model architecture that has been enshrined in law.

The European Union’s Directive 2011/62/ EU places a number of obligations on all stakeholders in the supply chain, including the requirement to add tamper proof safety features to all prescription medicine packaging and to establish a European wide verification system that will allow the authenticity of the medicine to be determined before dispensing to the public.

Reply successfully tendered to build the European Hub; a data hub that medicine manufactures and parallel traders upload their product, batch and pack data to.

The Hub’s responsibility is to route the data to all the connected national systems for which the product is licenced to be sold in. Reply are also one of three National Blueprint System providers that have been endorsed by the European Medicines Verification Organisation (NMVO) are able to provide the National Repository systems to the individual EU nation states.

The hub alone has to process over 10 billion packs of medicine per year along with associated product and batch data. Via a combination of distributed national systems and the central hub thousands of systems will be integrated.

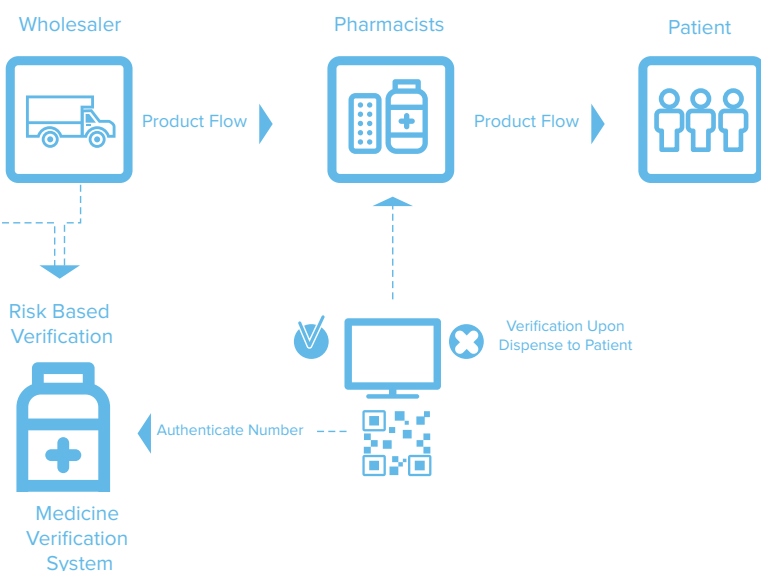


Reply's European Hub and National Blueprint systems have been built to run on the Microsoft's public cloud platform; Microsoft Azure. The application exploits the enterprise class features using Platform as a Service (PaaS) functionality.

In addition the system uses:

- Azure Service Fabric
 - Utilising distributed, clustered VMs
 - Providing high availability with automatic elastic scaling
 - Combining both stateless and stateful micro services
- Azure Event Hub
 - Processing streaming event data
 - Providing extremely low-latency transactions on a massive scale
 - Allowing observation and collection of event data in real time
- Azure DocumentDB
 - Providing a schema-free NoSQL data store
 - Resulting in a very fast and predictable performance
 - Providing high availability with automatic elastic scaling
 - Allowing the management and query of product and pack data
- Azure Storage
 - Simple blob and table storage
 - Storage of transaction, event and audit logs

The Reply hyper-scale integration architecture for the Europe Medicines Verification system has been designed with re-use in mind. The Reply layered architecture takes advantage of Azure's geo-replication features and defence in depth security implementation.



WHY REPLY

Reply has companies dedicate to Microsoft Solutions, as Solidsoft Reply.

Solidsoft Reply have been producing bespoke applications on Microsoft platforms for over 23 years. For over 17 years now, since the launch of BizTalk; Microsoft's original integration platform, Solidsoft Reply has been producing enterprise strength, integration solutions. More recently, Solidsoft Reply have been pioneering the use of Logic Apps, API Management and Service Bus on the Azure platform as well as utilising BizTalk 2016's Azure capability to create hybrid solutions.

Solidsoft Reply's Microsoft Certified engineers have produced hundreds of Integration Solutions for some of the world's largest businesses. Solidsoft Reply is recognised leader in the UK and have won numerous awards for our solutions.

At Solidsoft Reply integration is more than a technology; it's a mind-set.

REPLY specialises in the design and implementation of solutions based on new communication channels and digital media. Reply is a network of highly specialised companies supporting key European industrial groups operating in the telecom and media, industry and services, banking,

insurance and public administration sectors in the definition and development of business models enabled for the new paradigms of big data, cloud computing, digital media and the Internet of Things. Reply services include: Consulting, System Integration and Digital Services.