

ODiSI Overview and Customer Case Study

v1.3

ODiSI Overview

Open Standards Diagnostic Systems Integration

Are you getting the most out of your current diagnostic systems investment?

- Or do you suffer from fragmented workflows, having to enter the same data into multiple applications, costly manual work arounds or having data trapped in isolated siloes?
- Are your systems integrated in a way that adds value or do they restrict your ability to change, innovate and deliver the best possible care for your patients?

If any of these challenges sound familiar, then we are here to help. ODiSI offers diagnostic services providers powerful, flexible and cost-effective integration solutions aimed at increasing efficiency and throughput, reducing costs and improving patient outcomes.

Every ODiSI solution includes solution design, installation and configuration based on your specified integration needs, along with optional hosting and the opportunity to choose from a range of service management packages to meet your support needs.

- ODiSI solutions are built on the solid foundations of the Mirth Connect integration engine, providing you with unlimited messages, interfaces and throughput for connecting your systems.
 - This, combined with our flexible hosting and support, and emphasis on healthcare data standards, aims to put you in control of your integration solution allowing you to manage and extend it as you choose.
 - Whether you are looking to integrate your systems internally, link externally with partner systems or connect to national or regional services, ODiSI can offer you a solution that is
 - **Highly cost-effective**, beginning with a low-cost platform suitable for internal systems integration
 - **High-quality**, using our proven ISO 9001 accredited and model-based design process
 - **Secure and robust**, whether self-hosted or hosted as a managed service
 - Delivered to **minimise time-to-value** without compromising quality using our quality managed, agile delivery approach.
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Why integrate?

Integration has the potential to offer diagnostic services providers significant clinical benefits.

- Making your service easier and more attractive for customers to access and use.
 - Reduced turnaround time and increased efficiency – with electronic order processing, appointment scheduling and results reporting:
 - all orders reach the provider's system in seconds,
 - all reports are sent to referrers without delay,
 - all results are stored against the right patient record.
 - Improved continuity of care by extracting relevant medical history from patient's electronic care record to include in electronic orders, reports and handovers.
 - Improved clinical decision making and patient safety by having access to imaging results as part of patient's shared electronic care record.
 - Improved BI reporting and analytics by integrating imaging results with shared care record.
 - Support organisational change and transformation initiatives such as creating single view of patient, delivering patient-centred integrated care, and integrating with telehealth and digital medicine.
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Why Open Standards?

Our aim is to provide our customers with solutions and appropriate levels of support to allow them to reap the benefits of open standards, including:

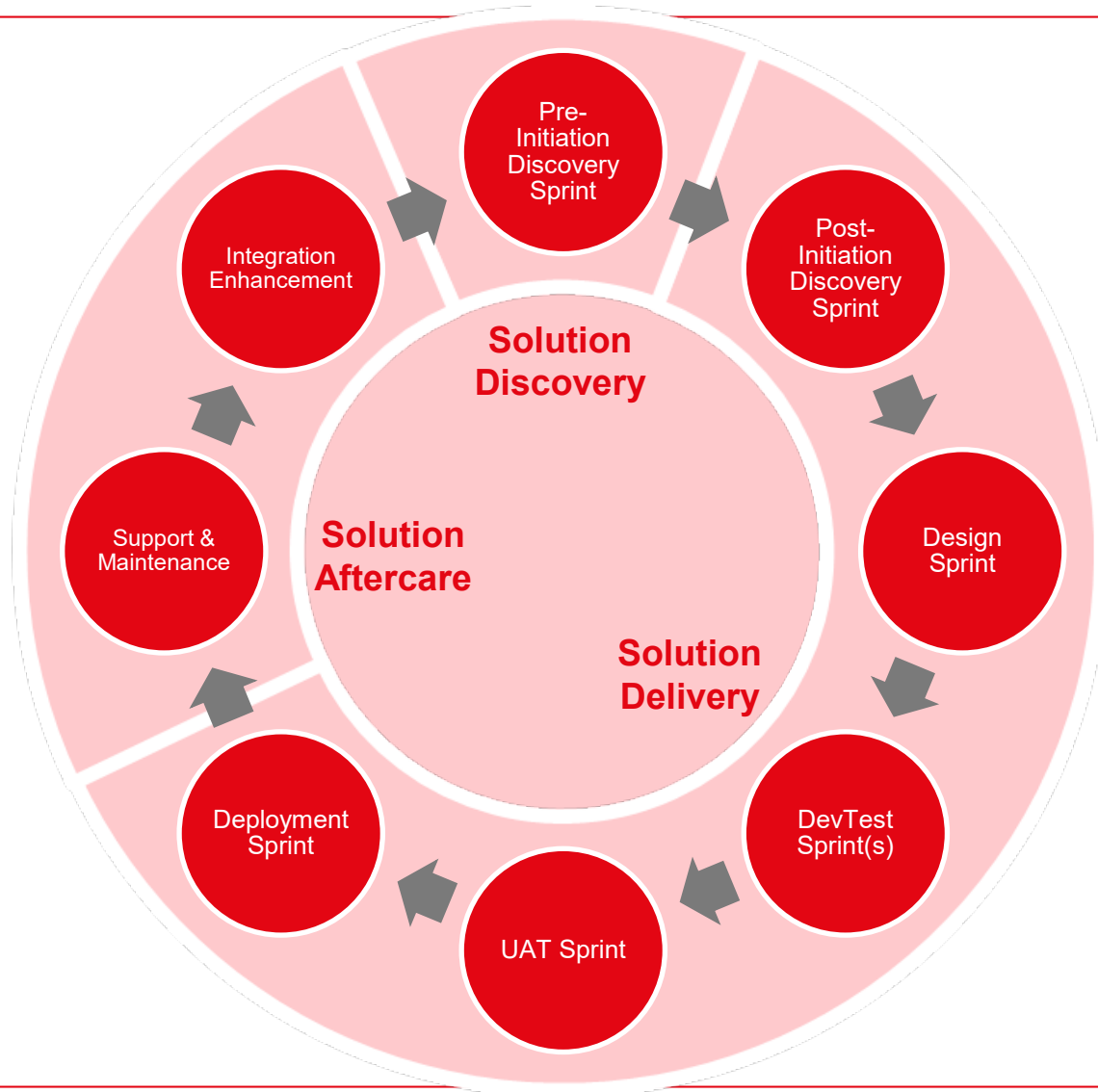
- reduced cost of ownership
 - increased ROI
 - freedom from restrictive vendor lock-in
 - Our aim is to forge partnerships by adding value openly and collaboratively, not by locking our customers into proprietary black box solutions
 - greater agility for growth and innovation
 - 24x7 hands-on technical support if needed
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Why ODiSI?

ODiSI offers diagnostic services providers,

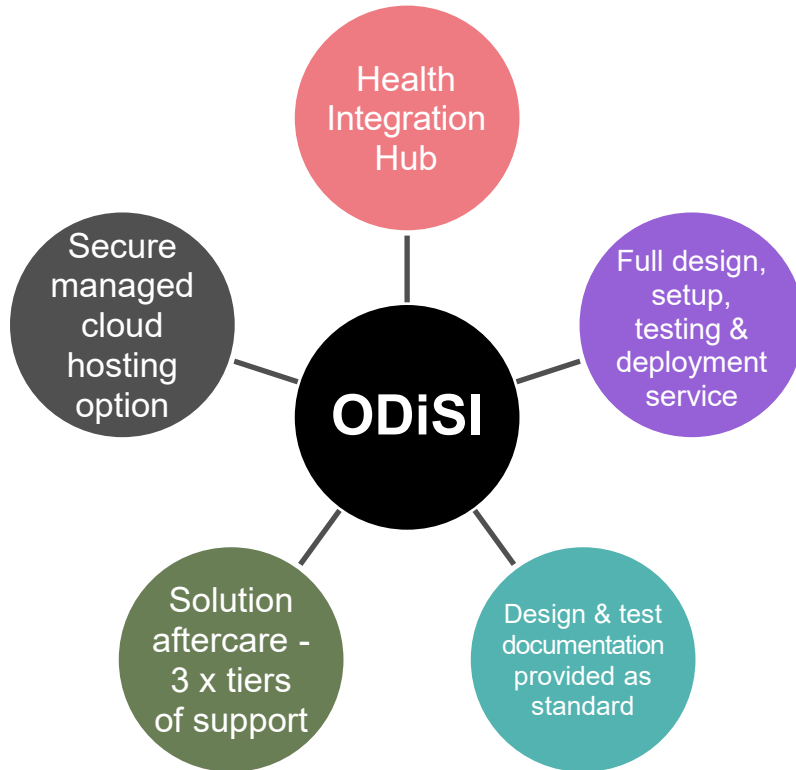
- Flexible, scalable and affordable integration solutions that are fully designed and configured to meet your organisation's data exchange needs.
 - Interoperable data exchange by default using
 - standard healthcare data formats: HL7 v 2.x, FHIR, v3 CDA, DICOM, XML, JSON, delimited text, raw binary
 - industry standard transport protocols: TCP, MLLP, HTTP, FTP, DICOM, SQL, JMS, File System
 - RESTful and SOAP web services
 - No software licensing limits on interfaces/connections, allowing you to scale more freely
 - Range of support and hosting options
 - Option of advanced plugins and Enterprise extensions, incl. alerts, RBAC, advanced clustering to help drive affordable and effective health data exchange.
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Our process



Product features

An ODiSI solution consists of:



- Installed production and test instance of integration hub software linking the customer's chosen set of IT systems to allow information to flow between them
- Full design, installation, configuration and testing service
- Full design and test documentation
- Option of customer on-premise hosting or secure managed cloud hosting
- Optional solution aftercare service

Customer Case Study

The customer

Healthshare is a leading independent provider of consultant-led musculoskeletal treatment, diagnostic imaging and physiotherapy services. Founded by a group of expert NHS clinicians, with a passion for empowering people to get the treatment they need, the way they want it, Healthshare has been a trusted partner of the NHS for over ten years, and the provider of choice for countless private patients.

Healthshare has a patient population coverage of 7.2 million and is responsible for managing 500,000 patient episodes per year.

The challenge

Healthshare's diagnostic imaging request and order fulfilment workflow is underpinned by Clinisys ICE Order Communication System (OCS), used by GPs in two large geographic regions, and Soliton Radiology+ Radiology Information System (RIS)

The company had previously tried to integrate the two systems to enable imaging orders and results to flow seamlessly between them, used their own expertise and help from the vendors.

Despite best endeavours, their integration resulted in only 25% of requests and results messages being delivered successfully, with time consuming, expensive and error-prone manual intervention required to ensure delivery and processing of the remaining 75%.

Healthshare then approached Applied Informatics to deliver a flexible, scalable and cost-effective solution that was fully designed and configured to meet their needs.

What we did

Following our proven approach, an initial Discovery sprint was performed to identify Healthshare's integration requirements. This involved identifying and understanding the business processes to be supported; the interface behaviour of each system; and non-functional and infrastructure requirements to enable solution sizing and technical architecture design.

A series of Design and DevTest sprints were then undertaken to implement the solution within Mirth Connect. This included adding custom capabilities such as enhanced alerting, database backup and message logging. We then assisted Healthshare in designing and performing successful User Acceptance Testing (UAT), prior to setting up and deploying the integration solution seamlessly into live operation.

Finally, we provided a period of Solution Aftercare to support live operation of the integration solution prior to final handover to Healthshare.

Customer feedback

“The solution that Applied Informatics recommended, architected, developed, tested, and delivered to Healthshare has fully automated the ordering, updating and resulting IT systems across the two largest diagnostics patches in which we work. The solution successfully processes many thousands of messages a day, relentlessly delivering reliability and efficiency benefits throughout, all in a way that matches precisely the nuances of our business requirements. Furthermore, the solution is also a platform for further development – as business or clinical rules and realities evolve, the solution can be developed to match such changes.”

Tom Chivers, IT Applications and Data Lead at Healthshare

What we achieved

We successfully integrated Clinisys ICE and Soliton Radiology+ using Mirth Connect. Messages now flow freely between the two systems, with enhanced alerting and message logging solutions identifying, and enabling troubleshooting of, the unlikely occasions when exceptions occur.

As a result of deploying an ODiSI solution, Healthshare are pleased to report:

- An increase in GPs signing up for their Radiology services – improved bottom line and market presence.
 - GPs who were previously creating ad-hoc referrals or sending requests directly to NHS Trusts, have now signed up for electronic requesting via the ICE Order Comms Systems.
 - This has enabled Healthshare to gain an established presence in those geographic regions.
 - The ability to extend Healthshare's services and tests offered due to the flexibility of the solution.
 - Improved clinical safety of information exchanges due to improved patient matching and removal of typos etc.
 - Improved operational, software and hardware performance due to the removal of processes previously impacted by the use of PDF files.
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Next steps?

- Download our free whitepaper from <https://www.applied-informatics.com/resources/2023/03/10/how-to-achieve-diagnostic-imaging-systems-integration-success> to learn more about diagnostics systems integration, including best practice approaches and tips for making your integration journey successful.
 - Call or email us today to arrange a free, no obligation consultation with one of our specialists.
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