Patient Communication Platform

Prepared by Sonia Neary
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EXECUTIVE SUMMARY

The Wellola (www.wellola.com) team believes only the sickest of the sick should be hospitalised and that the future of healthcare is preventative, community-based and supported by digital tools. Ensuring high quality care that is effective, efficient, equitable, accessible and acceptable to patient users underpins all that we do.

Wellola's software revolutionises the way hospitals & community-based clinics care for and communicate with their patients. Service users can now self-manage and schedule online appointments, securely receive real-time care via messaging and video consultation, or avail of the other communication tools within Wellola's customer-branded patient-facing platform.

Wellola enables connected care through our integrated technology solution. Our patient-facing solution adds value by personalising & enhancing the patient experience, empowering self-management and ensuring care is delivered in the right place, at the right time, by the right person.
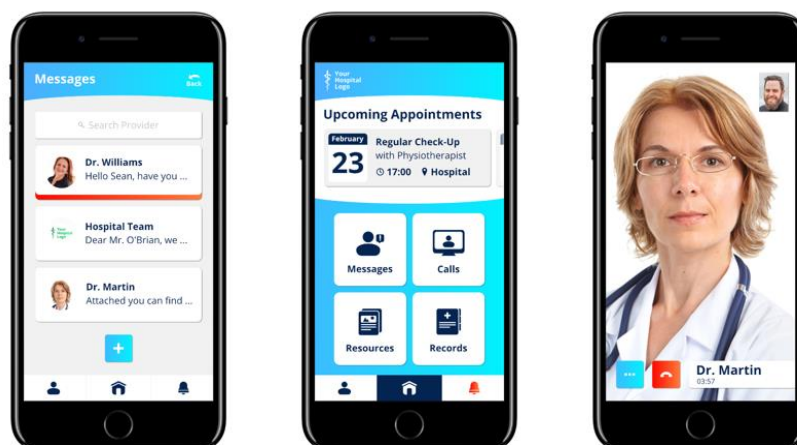
Supported by Enterprise Ireland, Wellola is a proud client of the Health Innovation Hub at St James's Hospital, and winner of the Irish Medical & Surgical Trade Association's "Integrated Care" Award 2019. We currently service over 750 healthcare organisations across Ireland and the UK. Having worked closely with our customer base, our solution is strongly user-focused. Our emphasis is on simplicity and our mission is to create easy-to-use, secure software, that maximises resources and reduces waste in our health systems. At Wellola, we support customers & partners that are aligned with our vision of accessible healthcare. These fall primarily into these categories:

- Governments
- Hospitals and their community-based counter-parts
- Professional networks of allied healthcare providers and their members
- Clinics and Practices looking to enhance patient service provision

OUR LEADERSHIP TEAM

Our team includes staff based across Ireland and the UK in management, operations, tech, sales and service delivery. Wellola's head office is based in Dublin; our UK subsidiary was set up in 2016 and we are set to have a UK base in Leeds in 2022.

Sonia Neary	Dr Greg Martin	Criostoir O'Codlatain Lachtna	Martin Bell
CEO	CMO	CTO	Strategic Advisor

Dr Greg Martin

Dr. Greg Martin is co-founder and CMO at Wellola. He is a medical doctor with an MBA & Masters in Public Health. Dr Martin is on the board of trustees for IFGH & CBM (Irish healthcare non-profit organizations) and is one of the founding partners of Cornerstone consulting, the founder of the academic journal Globalization & Health, the founder of the charity Books for Africa & a co-founder of the Radio HIV Initiative in South Africa. Among Greg's many achievements, the following are most pertinent to our enterprise customers:

Awarded 5th most influential voice in healthcare by LinkedIn 2018; has over 20 published works.

- Editor-in-chief: Globalization and Health (2005-2015)
- Visiting fellow/ Guest Lecturer: London School of Economics (2008-2012)
- Visiting fellow/ Guest Lecturer: Kings College London, (2008-2015)

Sonia Neary

Sonia Neary is co-founder, CEO & is a chartered physiotherapist (MISCP) with 15 years' clinical, managerial & service development experience in both HSE (Ireland) & private clinic settings. Having successfully developed PhysioLinked Sonia now works closely with and manages Wellola's talented IT and Sales & Marketing teams and is involved in the daily administration of the company.

RECENT ACCOLADES:

Secured a position on the NHS DFOCVC Framework to service primary care
Secured ISO27001:13 and compliance with DCB0129, DCB3051
Delivered COVID-19 portal for Irish Health Service Executive (2020)
Winner of Health Innovation Hub Ireland call (2020)
Winner of the Irish Medical & Surgical Trade Association's "Integrated Care" Award (2019)
Runner-up at Irish Med Tech Association's "eHealth Innovation of the Year" Award (2019)

COMPANY & CONTACT DETAILS

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UK Company Number 11899432
DUNS Number 224940872

1. SERVICE OVERVIEW

PORTAL FEATURES

- Secure Patient Portal- accessible via desktop or app
- View Patient Record: Integrated with Electronic Patient Record via FHIR APIs
- Secure Messaging (1:1, Broadcast, Automated, Manual)
- Appointment management (View, Cancel, Reschedule, Book)
- Customiseable Educational Resource Library
- Online Forms & Assessments
- Symptom Tracker
- Device/ Wearables Connectivity
- Video Consultations

BENEFITS

- Improved patient education, engagement & empowerment
- Ability for patients to self-manage their care and administration
- Increased perception of high-quality care
- Enhanced patient-to-provider communication
- Improved adherence to prescribed treatments
- Digital access to communication via portal systems has been shown to reduce the number of appointments missed by almost 33% & reduce postage costs by more than 25%
- Accessing advice and care via smart phone can facilitate marginalised or socially disadvantaged groups.
- Reduction in patient waiting times
- Reduction in patient 'no shows'
- Cost savings (postage, no shows, compliance with treatment)

VIDEO FEATURES

- Secure, Scalable, End-to-End Encrypted GDPR-compliant Video Consultation Portal
- Scheduled or on-demand video consultations
- Optional online booking & appointment management for video consultations
- Seamless Video Consultation via SMS or email link or in-app
- Appointment reminders via SMS, email or in-app push notification
- 1:1 & Group calls available
- In-video Screenshare/ Presentation capability
- In-video White-boarding
- In-video Chat
- In-video Emojis
- Choice of front & back camera on mobile devices
- Capacity to mute/ hide screen for clinician & patient
- Available as a Stand Alone or Integrated with Electronic Patient Record/ PAS/ Scheduling system via FHIR APIs or Trust Integration Engine

Feature Summary

| Core Portal	Scheduling & Payments	Video Consultations	Additional Modules- Coming Soon
Supports Patients To			
Access Portal Online via Website or via App	View Appointments	Secure Video via SMS or Email Link	**Virtual Assistant:-**
Captures Communication Preferences	Ammend/ Cancel Appointments	Secure Video in App	Available in 99 languages
Receive Clinical Resources	Receive Appointment Reminders	1:1 & Group Calling	Increase accessibility
Receive Marketing Content	Book An Appointment	Screenshare	Reach to social media platforms
Send/ Receive secure messaging		Whiteboard	
Send/ Receive secure mail	**Fully Stripe connected:-**	In-screen Chat	
Input Symptoms	appointment pre-pay	Pre-scheduled and ad-hoc telehealth	
Complete Forms, publish to EPR	e-invoicing		**Medical Device Connectivity:-**
Complete Assessments, publish to EPR	payment in video screen		Heart Rate
View Care Summary	ePOS		Blood Pressure
			Pulse Oximetry
Supports The Trust To:			With compined Early Warning Scores
Share Resources for individual care	Reduce Postage Costs	Triage Remotely	
Share Resources for entire population care	Reduce No Show Costs	Remote Care Delivery	**Shared Care:-**
Support Remote Pre/Post Op Care	Support ease of payment	Facilitate Early Discharge	Connectivity to NHS Login
Support Self Management of Care	Reduced administrator for finance team	Include Care Givers in Care Delivery	Connectivity to NHS IM1
Share Clinical Data Remotely			

Video Feature Set
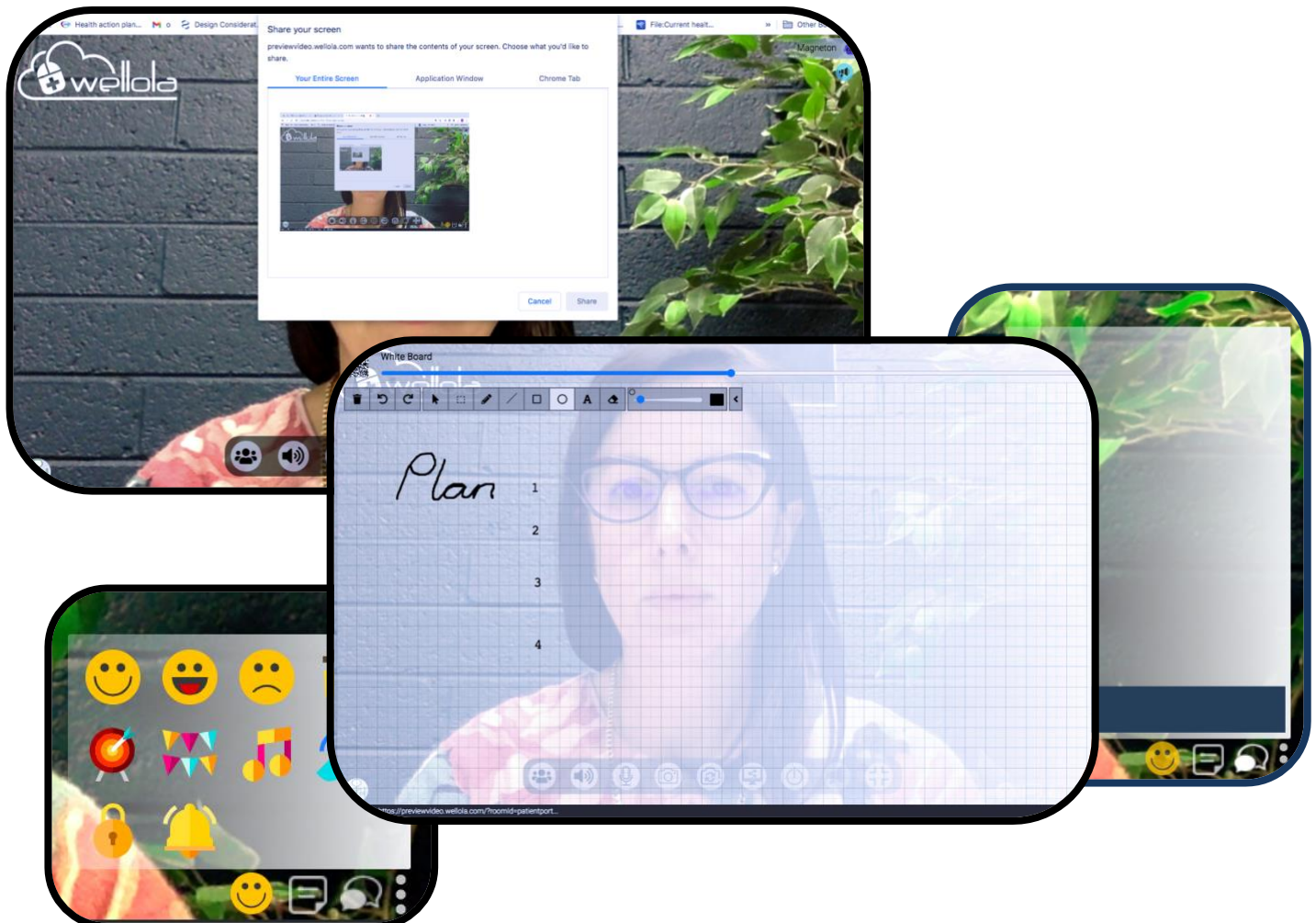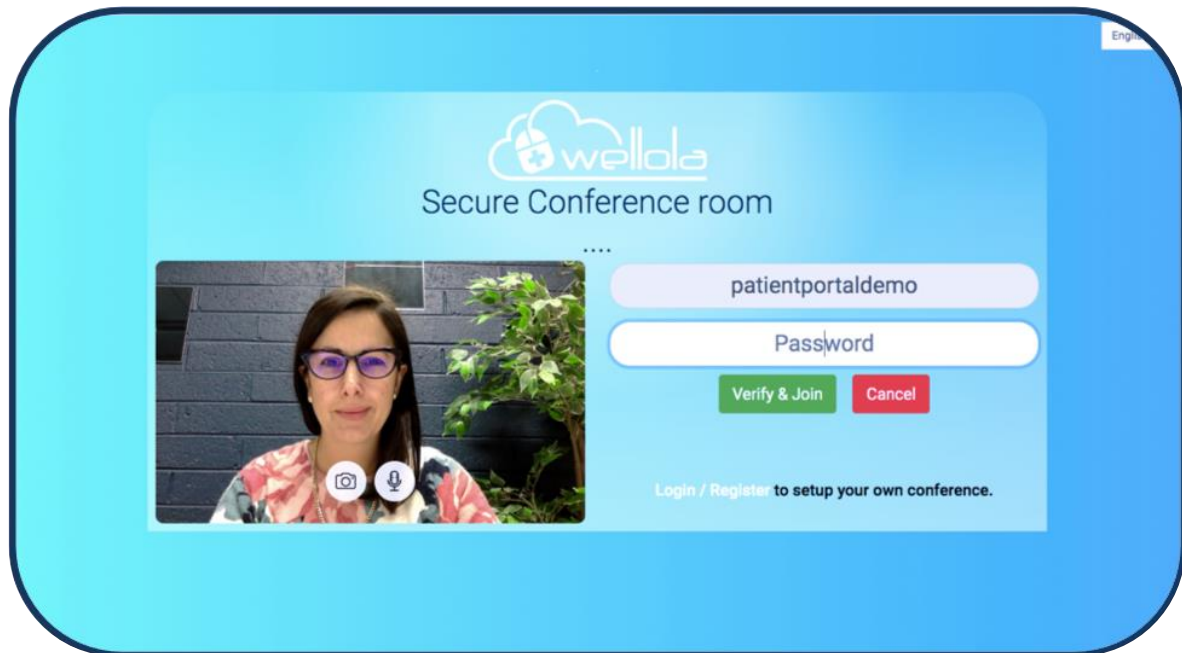
2. ON-BOARDING AND OFF-BOARDING

INTEGRATION & IMPLEMENTATION

Wellola works as a stand-alone solution but can also integrate via APIs. Minimal development time is required to brand, personalise and deploy for customer usage.

Our solution is designed to synthesize and integrate data from multiple sources and across multiples areas of the health service. Wellola is fully interoperable with an onsite PAS/ Electronic Healthcare Record via APIs or Trust Integration Engine. The system utilizes Fast Healthcare Interoperability Resources (FHIR) application programming interfaces (API) for exchanging data with electronic health record (EHR) systems.

Wellola's implementation approach provides clearly defined team roles, sharing responsibilities according to each skill set required for successful project roll-out. We offer business continuity for our clients and provide effective end-to-end service management. Critical to Wellola is ensuring a 24x7x365 service without interruption delivered in a manner that minimises unplanned interruptions for our customers. Planned interruptions are kept to a minimum and effectively devised to ensure the least possible impact on service users.
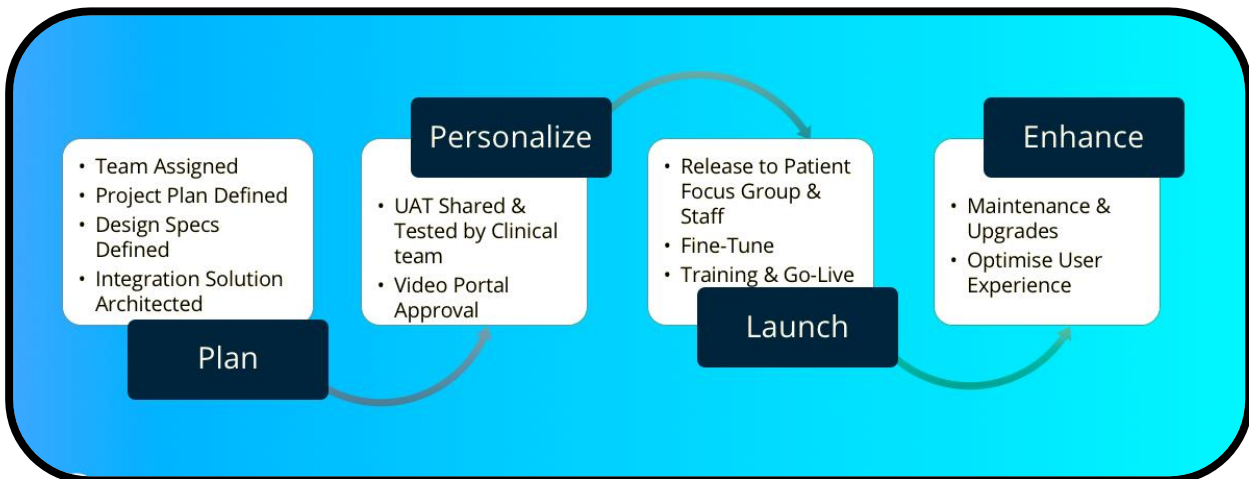
SAMPLE ONBOARDING PROCESS

- Engagement with Provider & Contract finalisation
- Discovery workshop with all key stakeholders – Wellola aims to capture all configuration data at this stage
- Where integration to a third party system is required, a formal introduction to the supplier/ IT team is required if not already established
- System configuration- agile approach taken
- 'Sandbox' test portal launch, in conjunction with the buyer IT team
- Client testing and acceptance
- On-site and off-site training of key staff
- Final feedback and enhancement updates incorporated
- Go live on an agreed launch date
- Ongoing training & support as required

SAMPLE OFF-BOARDING PROCESS

- In the event that the client wishes to terminate the service (and in accordance with the agreed contract terms) Wellola can be decommissioned in a matter of days.
- We would seek a feedback workshop to understand the reasons for the decision to cease use of the platform. This workshop would also cover any data extraction requirements and delivery timescales.
- Wellola commits to hold all platform and patient data for a period of 30 days post termination. Beyond this Wellola has no further obligation to hold or make available any data.

3. TRAINING

STAFF TRAINING

Throughout the implementation phase, we service our customers with a dedicated customer success manager to offer training at agreed intervals to staff; these include 'train the trainer' and group and 1:1 sessions. With each deployment Wellola provides 2 person days of training time as part of the set-up fee. Post implementation, onsite or screenshare demonstrations can be reserved Mon-Fri 9-5 with our dedicated customer training team. Further training days are available upon request at a rate of £750 per day + VAT. All rates are listed in our SFIA Rate Card (available on request).

TOOLS & TROUBLE-SHOOTING MATERIALS

The user documentation components that Wellola provides include an online video tutorial library, softcopy manuals, quick reference guides and an online trouble-shooting FAQs section for clinical, administrator and IT staff. Please advise if specific tutorial information is required for your team, clinicians or patients and we will do our best to facilitate.
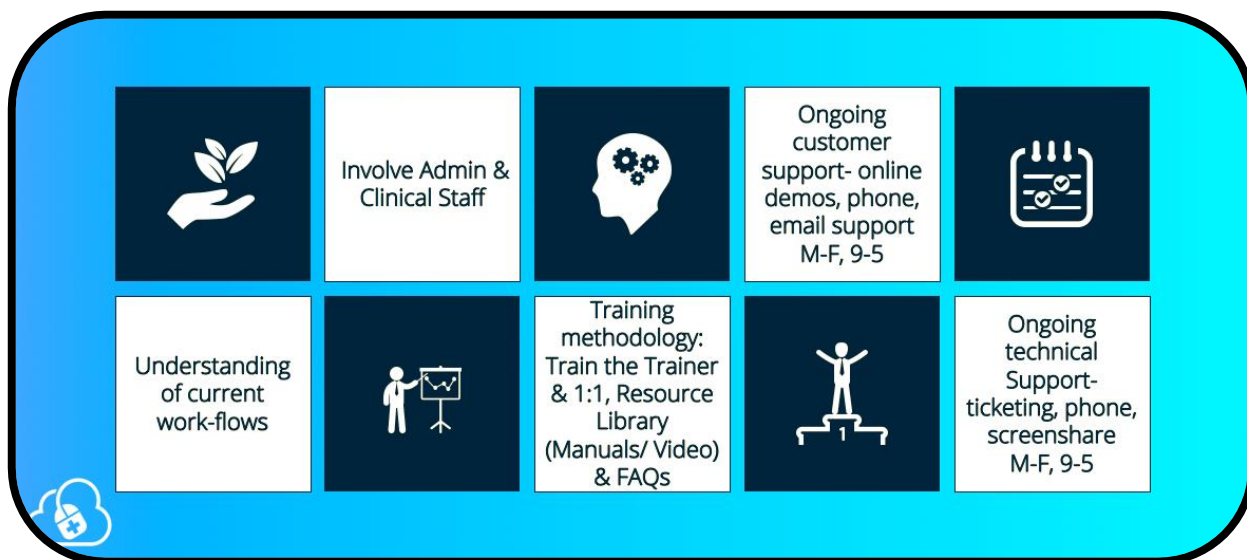
PATIENT SUPPORT

For patients, we also offer a simple user guide, trouble-shooting documents and FAQs section, a support ticket logging system and ChatBot facility for anyone requiring assistance.

4. SERVICE INFRASTRUCTURE & TECHNICAL REQUIREMENTS

OPERATING ENVIRONMENT

Wellola is written in PHP (programming language) using a Laravel framework. The Wellola app has been built using the Flutter framework. The environment in which the software operates is on AWS ECS (in the UK for our UK customers).

DATABASE

Wellola provides an enterprise solution that completely separates and securely stores each customers' database and server, using GDPR-compliant practices and Aurora Mysql DB.

ENCRYPTION

Wellola uses Hyper Text Transfer Protocol Secure (HTTPS)- the secure version of HTTP, using a 256-bit Secure Socket Layer (SSL) certificate all throughout the site ensuring a 2048-bit encryption in transit so that data is always safe when being transferred from your device to our servers. Wellola uses Real-Time Communications (WebRTC) for all video and voice calls made within its platform. WebRTC is often described by the industry professionals as the most secure VoIP solution. VoIP is the technology that converts your voice into a digital signal, allowing you to make a call directly from a computer, a VoIP phone, or other data-driven devices.

INSTALL TIME

As our system is cloud-based, there is no need for installation or uploading of our software on to a hardware device. The application downloaded from the Google Play or Apple iOS store is dependent on local Internet download speed & bandwidth.
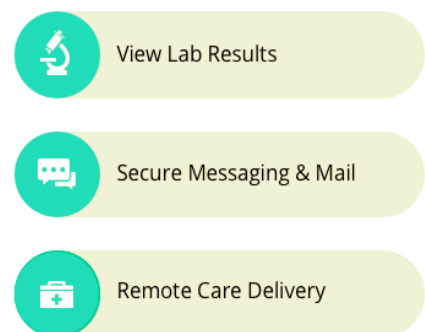
TESTING & WORKING ENVIRONMENTS

Wellola offers fully separate environments for testing, training, and production with Non-production environments maintained in a manner that reflects their use
Infrastructure. Wellola offers a robust infrastructure with pro- active monitoring, management and reporting methods.

DEVICES & HARDWARE REQUIREMENTS

The proprietary video consultation aspect of our tool leverages WebRTC and the following requirements are needed to facilitate secure video calls:-

Desktop		Chrome version 80 and up	Edge version 80 and up	Firefox version 72 and up	Safari version 11 and up*
	Windows 10 minimum required	✓	✓	✓	
	MacOS Catalina minimum required	✓			✓
Mobile		Chrome version 79 and up**	Safari version 12 and up**		
	iOS 11 minimum required		✓		
	Android 7 minimum required	✓			

- Manage Appointments
- Forms, Assessments
- Manage Medications

- View Lab Results
- Secure Messaging & Mail
- Remote Care Delivery

5. SERVICE MAINTENANCE, BACK UP & REDUNDENCY

From a service provision perspective, Wellola recognises the importance of clinical risk management, continual operational improvement through ongoing monitoring of activities and outcomes against defined targets and goals.

MAINTENANCE

Our standard service includes customer and technical support Monday to Friday 08.00-18.00 and regularly scheduled maintenance to maintain Hosting Service Levels. This includes Technical refreshes performed in a manner which minimise business disruption. We also offer technical support out of hours 24/7/365. This Managed Service layer is provided by DNM/ Deloitte (AWS Premier Partner).

AVAILABILITY / RESILIENCE

The solution is built on an environment that uses 2 AWS availability zones to provide full resilience at the datacentre level. To provide maximum availability :

- traffic is loadbalanced over at least two hosts with health checks that will stop sending traffic to hosts that are not responding
- web server docker containers are running under the ECS scheduling service that will automatically restart containers if they fail
- singleton containers will be automatically moved to another host if the host fails
- the docker containers are deployed to 2 hosts, one in each availability zone
- the database is replicated between two availability zones, with automatic and transparent failover
- static content is hosted using S3 storage which keeps mulitple copies of the data replicated over all availability zones in the region

DISASTER RECOVERY PLAN

At Wellola, we understand that a solid disaster recovery (DR) plan should be a critical part of every hospital's data management strategy. Wellola would work with the on-site in-house IT team to implement our DR strategy in alignment with that of each hospital & community-based site. Our DR plans aims to achieve a recovery point objective (RPO) of less than 24 hours and a recovery time objective (RTO) of minutes. Wellola is a cloud-based solution, therefore our DR plan has been architected with the cloud in mind, leveraging the advantages of the public cloud in terms of instant availability and long-term retention, while being optimized for bandwidth reduction and minimizing the impact on end users.

REPORTING TOOLS, MONITORING & BACKING UP

Wellola avails of third party 24/7 monitoring that takes advantage of the latest statistical mechanisms and machine learning to provide a premium quality control & risk management service. As such, we are able to identify abnormal patterns of behaviour quickly and take the appropriate action, thanks to our heterogeneous monitoring and logging systems.

Wellola offers an extensible, scalable, redundant, and resilient infrastructure with pro-active monitoring for mutually agreed upon events, alerts, alert thresholds, monitoring event reports, and the management and reporting of monitoring related incidents. Wellola currently takes backups of data daily on Amazon Web Services servers for maximum physical security. Wellola uses several monitoring systems so that our IT team would instantly be made aware of any faults should they need to be addressed. We also monitor our servers is using AWS Cloud Watch. Website uptime/downtime is currently monitored by Pingdom.com.

Our back-up services include installation and configuration of backup system and supporting software; failure/fix management for the backup environment; monitoring and maintenance of backup processes; and scheduled backups, restores from backups and management of backup media.

6. SECURITY, CONFIDENTIALITY & INFORMATION GOVERNANCE

SECURITY & PRIVACY BY DESIGN

Wellola (www.wellola.com) is deployed under a hospital or Trust's own branding, as a patient-facing platform (online and app-based), on a licenced basis. The platform is available as a cloud-based service via UK Amazon Web Services (AWS) leveraging AWS FHIRworks to securely manage exchange of healthcare data.

Wellola takes the protection of data extremely seriously. We have achieved ISO27001:13 certification and have architected our AWS environments and infrastructure in collaboration with Deloitte- DNM (http://www.dnmgroup.com), who have been accredited as AWS Well-Architected Partners. This is in recognition of their deep AWS knowledge and hands-on experience in architecting, building, migrating, and optimising architectures that follow the AWS Well-Architected Framework. This also enables Deloitte/ DNM to carry out Well-Architected Reviews of Wellola on behalf of our customers. Deloitte/DNM are certified to both ISO27100:2013 and ISO20000-1:2011.This Wellola avails of third party 24/7 monitoring that takes advantage of the latest statistical mechanisms and machine learning to provide a premium quality control & risk management service. As such, we are able to identify abnormal patterns of behaviour quickly and take the appropriate action, thanks to our heterogeneous monitoring and logging systems. Wellola

- has been accredited to ISO 27001:2013 (Security Standard)
- Is working toward ISO 27700 for Q2 2021 (Data Privacy Standard)

The ISO 27001 standard and our Information Security Management System (ISMS) provides a best practice framework that helps Wellola to:
　　✓ Protect client and employee information
　　✓ Manage risks to information security effectively
　　✓ Achieve compliance with regulations such as the European Union General Data Protection Regulation (EU GDPR)

By achieving certification to ISO 27001 our organisation reaps numerous and consistent benefits including:
- A system that keeps confidential information secure
- Reassurance to customers and stakeholders
- The secure exchange of information
- Enhanced customer satisfaction and client retention
- Consistency in the delivery of our services and products
- Management and minimisation of risk exposure
- A culture of security

DATA PROCESSING

As a Data Processor, our operations are acted upon only by documented instructions from the Controller and under Article 28 (3), Wellola as a Data processor will:

- commit to confidentiality
- take all security measures as prescribed by Article 32
- abide by the rules for engaging a sub-processor (DPA in place with AWS) Furthermore, with the support of Deloitte we can
- assist Controller in complying with rights of data subjects (That are hosted on the AWS platform)
- assist Controller with security requirements and/or breach notifications
- delete or return personal data to the Controller where requested demonstrate compliance with the above (through audits and inspections AWS, ISM 27001)

KEEPING ABREAST OF REGULATORY CHANGES

The team and board of advisors at Wellola are extremely experienced and highly cognizant of keeping abreast of all regulatory change with regards the management of protected health information. The C-level team, Clinical Safety Officer and Data Protection Officer are routinely receiving training and updating their continuous professional development portfolio regarding regulatory changes. Wellola is registered with the Data Protection Commission in Ireland and the Information Commissioner's Office in the UK.

We work with our legal and IT governance specialists to advise and support our compliance with data processing and controlling aligned with GDRP and HIPAA compliance. They ensure all legal compliance- SLA, user agreements, privacy policies etc. are up-to-date.

INFORMATION GOVERNANCE FRAMEWORK

Wellola offers an Information Governance Framework that assures GDPR-compliance, robust and auditable privacy and confidentiality data management. Our information governance framework includes provisions for transparency to users regarding the processing involved and for enabling their explicit consent to same.

Wellola's Data Processing Agreement sets out the nature & purpose of the processing, categories of data processed, recipients of data, organisation and technical measures implemented.