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NRL Phase 2 Onboarding Guide for Providers / Consumers using Direct API Integration

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# Summary and Document Purpose

This guide outlines the key tasks required for a new provider (e.g. LHCR/Shared Care Record/Trust) to integrate with the NRL (National Record Locator), implementing phase 2 functionality. It also acts as a guide for a new consumer that wishes to connect to the NRL from their own system (e.g. an EPR) via direct API integration. For organisations wishing to consume from the NRL via the SCRa, please see “NRL Onboarding Guide for SCRa-only Consumers”. Also included are key supporting links, reference material and associated guides that provide more detail for each step where necessary.

Some sections will be more relevant to a supplier (such as the technical specification) and some sections will be more relevant to the end user organisation (such as the Provider Guidance). Where an end user organisation is developing an in-house solution for deployment, they are both a Supplier and EUO (End User Organisation) and must complete all the required onboarding steps in both capacities.

Some sections of the guide will only be relevant to Consumers and some will only be relevant to Providers - in such cases this distinction will also be indicated in red text.

# Introduction to NRL

An introduction to NRL can be found on the NHS Digital website at the following address:

<https://digital.nhs.uk/services/national-record-locator>

The below presentation provides a visually rich companion to the introduction:



## Existing Connecting Parties

Phase 1 of NRL went live as a Beta service on 30th November 2018. It was restricted to Mental Health Trusts publishing pointers either directly onto the NRL or via Shared Cared Records, indicating the presence of a Mental Health Crisis Plan for a given patient, such that Ambulance Trusts can view these pointers using the SCRa or their own system (via direct API integration). The below diagram shows the connecting parties that went live with NRL on 30th November 2018.



# Roadmap & Current Eligibility Criteria

NHS England have provided a steer that, going forward, a policy of “LHCR first” should be adopted. LHCRs form the cornerstone of the strategy for national rollout of the NRL service beyond the Beta stage. As such, the NRL should only onboard additional trusts and Shared Care Records where they have written consent from the LHCR within which they sit, or where there is not currently LHCR coverage. This is often the case where a LHCR has not sufficiently matured in their development and is not yet able to integrate with the NRL within a reasonable timescale (thereby acting as the hub by which all trusts and Shared Cared records within their area can interact with the NRL).

A second element to Phase 2 (a.k.a. Phase 2b) sees the introduction of two new use cases: Digital Child Health and Maternity, due to go-live alongside the phase 2a enhancements to the core NRL service (pointer model update and retrieval). NHS Digital is currently in the process for agreeing the governance process to decide which other additional use cases will be added to the NRL and the timescales for doing so.

# Pre-requisites

All pre-requisites are covered in detail within the SCAL/business requirements. However, key items have been summarised here to help connecting parties identify potential showstoppers at an early stage.

1. A valid ODS code is required for the connecting party (whether it be for a LHCRE, Shared Care Record or Trust). You can check if your organisation already has a code registered by using the ODS (Organisation Data Service) Portal:

<https://odsportal.hscic.gov.uk/Organisation/Search>

1. Consistent use of NHS number to identify patients. (A connecting party must be fulfilling their duties under the NHS Standard Contracts to use the NHS number as a 'consistent identifier')
2. The ability to verify NHS numbers via any of the following mechanisms:

* Full PDS Spine compliant system
* Spine Mini Service PDS (SMSP)
* Demographics Batch Service (DBS) (Providers Only)

If your system achieves this via an indirect method (e.g. PAS) then it is recommended to contact NHS Digital to confirm that the method is acceptable.

1. N3 or HSCN connection. This is required for both live service and the online testing process.
2. For Providers who are exposing contact details via their pointers (Mental Health Providers):
   1. Any links to contact details for the specific crisis team caring for any given patient should be available on a publicly available website.
   2. A dedicated team should be available to be contacted directly via telephone (as opposed to a general switchboard).
3. A valid NHS Smartcard for all users or a system that uses an authentication method supported by NHS Identity (Consumer requirement only). For more information about SmartCards, please see <https://developer.nhs.uk/apis/spine-core/smartcards.html>
4. Your organisation must have completed the DSPT (Data Security Protection Toolkit) within the last 12 months (<https://www.dsptoolkit.nhs.uk>).
5. Consumers and providers should support PDF as a minimum for unstructured retrieval. There is a restricted set of data formats allowed for NRL retrieval. Details of the requirements can be found here:

<https://developer.nhs.uk/apis/nrl/retrieval_formats.html>

1. Clinical Safety – Connecting parties must have an appointed Clinical Safety Officer and undertake a Clinical Safety Assessment prior to going live.

# Delivery Options / Approach

New parties wishing to connect to the NRL have the following two options:

1. **Pointers Only** – in this case pointers will only expose a link to a static web page (in phase 1 this was the contact details page of the Mental Health Crisis associated with the patient).
2. **Pointers and Record Retrieval –** providers will make their records available for direct retrieval by Consumers via the NHS Digital SSP (Spine Secure Proxy).

In most cases the full benefits of NRL can only be realised through delivery of both pointers and record retrieval. The option chosen impacts which of the full set of requirements and tests that need to be implemented and this delineation is represented in the SCAL.

Given that some connecting parties will already have integrated with the NRL in previous phases, this gives rise to the following 5 categories of delivery path:

|  |  |  |
| --- | --- | --- |
| **Delivery**  **Path** | **Description** | **Comments** |
| 1 | A combined route for NEW connecting parties wishing to implement the latest pointer model and retrieval at the same time. | This is the recommended option for all new trust/suppliers as it is the most cost/time efficient, with an outcome that provides the most benefit. |
| 2 | A route for NEW connecting parties wishing to deliver “pointers only” (to include the latest pointer model but NOT retrieval). | Not recommended unless suppliers/trusts have good reason not to implement retrieval at the same time. |
| 3 | A route for EXISTING connecting parties who have already implemented the latest pointer model and now wish to add retrieval | Only applicable to connecting parties who have already completed route (2). |
| 4 | A route for EXISTING connecting parties that have already delivered the old pointer model under phase 1 to **uplift** to phase 2 functionality (i.e. including both retrieval and pointer model updates). | This is the most appropriate route for connecting parties that went live with Phase 1 in November 2018 and phase 1b in April 2019. Becomes redundant once all existing connecting parties are uplifted |
| 5 | A route for EXISTING connecting parties that have already delivered the old pointer model under phase 1 to **uplift** to the new pointer model but NOT retrieval | Like route 3, this addresses the “breaking changes” introduced for phase 2. All existing connecting parties must undertake this as a minimum in order to continue being able to post pointers to the NRL following Phase 2 go live. |

# Onboarding Task Checklist

The following activities are listed in an approximate chronological order as a guide only, to be tailored according to local working practices and processes:

1. Assign key resources to the project including:
   1. Primary Contact (e.g. project manager)
   2. Technical lead and/or developer(s)
   3. IG lead
   4. Clinical lead
2. All key resources to Review Onboarding Documentation.
3. Confirm Delivery Approach.
4. Commence Product Development.
5. Commence activities listed in SCAL
6. Commence any applicable local clinical safety assessments / processes.
7. Test development against reference implementation.
8. Complete TKW.
9. Complete Conformance Testing (NHSD Test Environment).
10. Update Business Processes and Train Users.
11. Obtain all necessary local approvals for go-live (e.g. clinical safety, board approvals).
12. Sign NHS Digital EUOD (End User Organisation Declaration)
13. Undertake implementation with NHS Digital.
14. Provide Benefit Realisation feedback

# Business Requirements

The purpose of this document is to define the business requirements that need to be satisfied for Consumer and Provider systems wishing to connect and use the National Record Locator (NRL).



# Provider / Consumer Guidance

The NRL Provider and Consumer Guidance documents outline how to use the NRL from an operational perspective. Of key importance is the pointer lifecycle and its relationship with the patient journey. It is recommended that Consumers and Providers read both documents to obtain a holistic knowledge of the NRL.

 

# Technical Specification and Development Resources

## Technical Specification

The technical specification is a one stop shop for all technical personnel looking to integrate with the NRL using the NRL FHIR API (Fast Healthcare Interoperability Service, Application Programming Interface). It is a “must read” before attempting any development.

<https://developer.nhs.uk/apis/nrl/>

## Online Reference Implementation

There are some online resources that can aid in early development against the NRL API specification which are detailed below.

The NRL Reference Implementation UI can be found at:

<https://data.developer.nhs.uk/nrls-ri/index.html>

Within this UI there are “GET”, “POST”, “PATCH” and “DELETE” features that provide example data sets that all­­­­­ow you to quickly run and review calls to, and responses from, the NRL Reference Implementation. Clicking each of these features will expand to provide more details and then a “Try it out” button that will show you the example data.

When you are ready to send your own requests to this tool, the end-point that you will need to point your request at is:

<https://data.developer.nhs.uk/nrls-ri/DocumentReference>

For quick start information and example data, please see the NRL Reference Implementation quickstart guide:

<https://github.com/nhsconnect/nrls-reference-implementation/wiki/1.-Quick-Start-guide>

## Local Reference Implementation

This reference tool is open source and can be downloaded, built and ran locally. A benefit of this would allow you to utilise your own data. You can download the code and access the wiki for instructions and installation requirements here:

<https://github.com/nhsconnect/nrls-reference-implementation>​

Alternatively, if you are familiar with Docker you can utilise that to run a version of this tool locally within just a few minutes.

## Other Key Design Decisions (Providers Only)

Before the NHS Digital Solution Assurance Team can finalise your formal testing scope, you will need to confirm the following:

**Will you be implementing the MasterIdentifier?** For details, please see the following section on the technical spec:

https://developer.nhs.uk/apis/nrl/pointer\_identity.html#master-identifier

**If not, you must use the NRL-generated Logical ID** (please note: if you use the pointer’s Logical ID then you need to store the pointer’s Logical ID that is returned in the HTTP location header in the response to a CREATE).

All existing providers currently taking part in the NRL Beta, carried out a bulk upload of pointers during the implementation. After go-live, the two main approaches taken to add and maintain pointers are:

* Nightly bulk maintenance job to create, supersede, update and delete pointers where required.
* Real-time create, supersede, update and deletes as and when changes are made to patient’s records (e.g. care plans).

Any alternative approaches should be discussed with NHS Digital.

# Testing and Technical Conformance

## Technical Conformance Testing Guidance

When you are ready to begin formal testing you need to engage directly with Solution Assurance team ([itkconformance@nhs.net](mailto:itkconformance@nhs.net)) who will guide you through the process.

Upon request, [interop.mgmt@nhs.net](mailto:interop.mgmt@nhs.net) will issue you with the latest version of the SCAL that is tailored to reflect any previous conformance testing undertaken with NHS Digital. Also provided, will be a “Scoped Test Cases” document that describes which tests within the SCAL are required to be undertaken, based upon the scope of your delivery (see Delivery Options / Approach and Other Key Design Decisions sections).

A full step-by-step conformance testing guide is included below. This is another **essential read** for all connecting parties:



## Connecting to the NHS Digital Integration (INT) Environment

It is recommended to connect to the INT environment in advance of completion of TKW testing to ensure seamless progress without potential delays associated with connection issues.

Once the TKW has been submitted and verified by the Solution Assurance team, connecting parties will be able to proceed with testing on the NHS Digital INT environment which is the PTL (Path to Live) environment that hosts the instance of NRL most representative of the Live environment.

### Instructions for End Point Registration (EPR) in the INT environment

The following section provides the basic steps for connecting to the INT environment for the specific purpose of undertaking conformance testing with NRL.

Further levels of detail, including generic guidance for how to connect to the NHS Digital INT environment can be found in the following location:

<https://digital.nhs.uk/services/path-to-live-environments/integration-environment>

However, the following should be noted when reading the above linked guidance, specifically for the purposes of Conformance Testing with NRL:

* Requesting access to test data is not required for conformance testing with NRL.
* Whilst Smartcards are a requirement to consume NRL as a user in the Live environment, they are not necessarily required to complete conformance testing with the NRL in the INT environment. Similarly, Identity Agent client software is not necessarily required to complete conformance testing with the NRL in the INT environment.

Any questions or request for support should be addressed to the NHS Digital Platforms Support Desk: [platforms.supportdesk@nhs.net](mailto:platforms.supportdesk@nhs.net)

1. **Register Messaging Product**

<https://digital.nhs.uk/forms/manufacturer-product-version-registration-request>

Use the above link to provide your product name and version, organisation name and ODS code, which will be registered in the INT environment. Also confirm which message sets you will be using:

|  |  |
| --- | --- |
| **Message Set** | **Description** |
| NRL Provider Core | Enables providers to publish pointers to the NRL index |
| NRL Provider Patch | Enables providers to update pointers on the NRL index |
| NRL SSP Retrieval | Enables consumers to retrieve records using the SSP as a proxy |
| NRL SSP Retrieval Providers | Enables providers to make records available for retrieval via the SSP |

1. **Create endpoint and certificate:**

<https://digital.nhs.uk/forms/combined-endpoint-and-service-registration-request>

In order to complete your End Point Registration to the Integration (INT) Sandpit Environment, please produce a Certificate Signing Request (CSR) containing the following details:

* Keylength: 2048
* CN (Common Name): ***your FQDN***
* Country Code:GB

All other details should be left blank.

We have experienced problems in the past when creating a CSR using SSL Win-32 so it is recommended that SSL Win-64 is used. All certificates that are to be used to connect to the spine must have a distinguished name that contains a CN, or Common Name.

1. **Register your Fully Qualified Domain Name (FQDN) with the NHS DNS team:**

<https://digital.nhs.uk/forms/dns-request-form-for-path-to-live-environments>

Provide your HSCN-facing IP address, (with an appropriately formatted test FQDN), so that it can be registered on the NHS Digital DNS.  
Note that the following requirements for endpoints must be met:

* 1. The FQDN must end in nhs.uk
  2. Endpoints must be on port 443
  3. Endpoints must not include explicit port declarations (e.g. :443)

1. **Configure Firewalls:**

Make sure firewalls allow appropriate inbound and outbound messages. The next section (INT Environment Connection Details for NRL) will be of assistance.

1. **Complete Local Environment Setup:**

Once we have the CSR and the Service Registration has been completed we will send you the Party Key, ASID and digital certificate to enable your connection to the INT environment for the final tests.

### INT Environment Connection Details for NRL

•           NRL URL: <https://msg.int.spine2.ncrs.nhs.uk/STU3/DocumentReference>

•           IP Address: 10.239.14.26

•           Port: 443 TCP

•           Spine Party Key: YES-0000806

•           NRL ASID\*: 200000000370

•           SSP Proxy URL: proxy.int.spine2.ncrs.nhs.uk

•           IP Addresses:  10.239.14.31

•           Port: 443 TCP

•           LDAP URL\*\*: ldap.nis1.national.ncrs.nhs.uk

•           IP Address: 10.196.94.141

•           Port: 636 TCP

\* LDAP information may not be required, depending upon local implementation differences)

\*\* The value 928942012545 can also be used for the NRL ASID in the INT environment, although generally the 928942012545 value is reserved for PDS messages and the 200000000370 value is reserved for NRL interactions

Further information regarding all NHS Digital Path-to-Live environments is available at:  <https://digital.nhs.uk/services/path-to-live-environments>

## Onboarding Artefacts

There are 3 key artefacts that support Technical Conformance and the integration with NHS Digital Services.

### Supplier Conformance Assessment List (SCAL)

* Maps all the requirements needed to interface with a specific service and the evidence required during technical conformance process and is Supplier/Product focussed.
* Within the SCAL, the Connecting Party logs where a product meets the technical, IG&S and Clinical safety requirements in a technical and business context.
* Many sections of the SCAL can be completed in parallel to the testing so it is recommended that all connecting parties familiarise themselves with the SCAL as early in the process as possible.

(The SCAL replaces the TOM that was used for the initial NRL Beta in November 2018)

Note that the NRL is a generic capability provided by NHS Digital. As such, it is designed to be used as a tool to support multiple use cases (e.g. Digital Child Health, Maternity, End of Life, Cancer care etc). It is likely that each new use case will present additional requirements, pre-requisites and eligibility criteria. Where this is the case, they will be included as a separate tab within the SCAL for suppliers to complete and adhere to.

### Connection Agreement

* Agreement formed between the Supplier (connecting party) and NHS Digital. comprises of a set of terms and conditions, links to the SCAL, and any Special Terms for a service and exists as an agreement for the duration of connection to the service.
* References End User Organisations and Individual End User obligations.
* Only needs to be completed by organisation directly connecting to NHS Digital systems.
* Example: 

### End User Organisation Declaration (EUOD)

* Agreement formed between the End User Organisation and NHS Digital. Comprises of a set of terms and conditions, any Special Terms for a particular service and exists as an agreement for the duration of connection to the service.
* Outlines key End User Organisational local responsibilities including Clinical Safety, IG and Security and local assurance and risk assessment.
* References End User Organisations and Individual End User obligations
* The End User Organisation Declaration (EUOD) must be signed by the End User Organisation (EUO) i.e. the organisation (Trust/Shared Care Record/LHCRE) that will deploy the supplier product or implement the in-house solution, for use in patient direct care.
* The below is an extract of the draft questions contained in the online portal and can be used as an example of the questions that need to be answered in advance of completing the online form itself.
* Example: 

## How to complete a SCAL

* **Initiate:**

1. Complete blue tabs in the new or current SCAL – identifying which service you wish to implement.
2. Submit for initial assessment and Technical Conformance kick off to [itkconformance@nhs.net](mailto:itkconformance@nhs.net). Where a ‘yes’ conformance is noted on the IG and clinical safety questions, we do not need any further information. Should the answer be ‘No’ and will remain ‘No', this is where some additional information would be required for us to assess and agree a way forward.

*?New to NHS Digital? (step 3)*

1. Send SCAL to [ssd.nationalservicedesk@nhs.net](mailto:ssd.nationalservicedesk@nhs.net) for service desk account creation to enable the ability to raise incidents in Live.

* **‘Test’ Technical Conformance:**

1. During the technical conformance work with the Solution Assurance team to validate requirements conformance providing evidence where required and continue to log progress in SCAL.

* **Finalisation - Go live Preparation:**

(Once technical conformance has been completed successfully and your Technical Conformance certificate TCC has been provided please follow the next steps)

1. SCAL - please ensure that the TCC or statement is embedded in your final completed SCAL.
2. Please use the following naming convention

SUPPLIER NAME\_NHSD SERVICE/S\_SCAL\_Vsn(X)\_Final.

e.g. ‘H&SCsuppLTD\_’the Service’\_SCAL\_vsn 2.0 FINAL’

1. Along with the SCAL please submit a signed Supplier Connection Agreement to [interop.mgmt@nhs.net](mailto:interop.mgmt@nhs.net).

!! Ensure that the correct service/s are selected and provide a **signature, position and date of the signatory**. Again using the same naming convention (with the service). This just aids logging and cataloguing.

1. Submission of the SCAL and CA enables product/client to be created on the NHS Digital database or uplift of any current product with the new service.

(Once the above has been received by the NHS Digital Operations team, you will be provided with an EUODT link for your end users to complete)

Send EUOD link to **EACH EUO** for completion - this enables endpoint messaging creation with Live certs and credentials issued for each site as they sign the EUOT’s.

# Live Service Implementation

## Implementation Pre-requisites: Go/No go criteria

Before any activity can take place on the Live Service, approval must be granted via a Go / No-Go assessment (usually undertaken as a teleconference). The following checklist must be completed and returned in advance to provide a basis for the assessment:



## Requesting a live connection

Once the following activities have been complete, live connection details can be requested from the onboarding lead ([interop.mgmt@nhs.net](mailto:interop.mgmt@nhs.net)):

1. Technical Conformance Testing Completed by Supplier.
2. SCAL completed by supplier and accepted by NHS Digital.
3. Connection Agreement signed and returned by Supplier.
4. Online End User Organisation Declaration completed by End User Organisation.

The onboarding lead will instruct the NHS Digital DIR team to configure endpoints in the live environment. A 12-digit ASID will be registered for the connecting party and attached to their Party Key.

## RBAC (Consumers Only)

To use the NRL, users will need to have Role Based Access Control (RBAC) codes added to their Smartcard (or equivalent). There are different RBAC codes applicable to the NRL, giving different levels of access. The codes that should be added will depend on the level of access that an individual user needs access to. For full details on the activity codes required to access the NRL and which record types they give access to, see the [RBAC mapping table section](https://developer.nhs.uk/apis/nrl/explore_rbac_mapping.html%20) of the NRL technical specification.

Users will also need to be able to perform a patient trace to use the NRL. If they don’t already have this RBAC code it will need to be added to their Smartcard (or equivalent):

|  |  |
| --- | --- |
| **Smartcard activity code** | **Description** |
| B0264 | Access SCR Application (Perform Patient Trace) |

The addition of RBAC codes needs to be performed by the Registration Authority Manager within your organisation. Guidance for Registration Authority Managers is available on the [NHS Digital website](https://digital.nhs.uk/services/registration-authorities-and-smartcards/care-identity-service/guidance-leaflets), including how to [assign access to users](https://digital.nhs.uk/binaries/content/assets/legacy/pdf/j/8/assigning_access_to_user.pdf) and how to [perform batch updates](https://digital.nhs.uk/binaries/content/assets/legacy/pdf/j/5/batch_management.pdf).

During Implementation it is important that only users that will be involved in the Live Validation have the above codes enabled. Only once the service has been validated and go-live confirmed, should the full user set have the relevant codes added to their Smartcards.

## Pipe Cleaning

Once successfully connected to the NHS Digital Live environment and approved for implementation, all providers and consumers will be required to undertake pipecleaning, as per the below Pipecleaning test plan. Essentially, this is a live validation exercise using fictitious NHS numbers (as defined in the appendix) to create dummy pointers on the NRL that point to dummy records made available on a provider system for retrieval.

The pipecleaning test plan is written from the perspective of at least one provider and one consumer going live at the same time. In circumstances where either a provider or a consumer is not present, then NHS digital will assume the role.



## Bulk Upload of Pointers (Providers Only)

Once pipecleaning is complete, you will be able to commence the bulk upload of pointers. This represents the baseline from which you will begin live service.

1. Prior to commencing the bulk upload, please confirm to the NHS Digital Implementation Lead how many pointers you intend to upload and confirm that both parties are ready to begin.
2. Once the bulk upload is complete, please confirm the exact number of pointers uploaded and any issues/discrepancies encountered.
3. NHS Digital will then run a count directly against the NRL index to confirm that they match
4. If the two counts match, then go-live is complete!

# Post Implementation

## Support Model – Process for Raising Incidents

It’s vital that all incidents or requests for support are raised through the appropriate channels so that they can be investigated and resolved as quickly as possible. This is especially important whilst we are in the beta phase so that we can resolve any issues before going into full national rollout. If there are any incidents that have taken place previously and have not been reported please can you do so.

Attached is the support model for your information. In summary, the key action is that any incident that is raised and can’t be resolved locally must be raised to the NHS Digital National Service Desk:

****

**National Service Desk**

* Tel: 0300 3 035 035
* Email: [ssd.nationalservicedesk@nhs.net](https://hscic365.sharepoint.com/sites/IP/National%20Record%20Locator%20Phase%202/Requirements/Processes%20and%20Guidance/ssd.nationalservicedesk@nhs.net)
* [Weblog](https://nww.serviceportal.digital.nhs.uk/CherwellPortal/NHSD#0) – Account Creation Required (see guide)



Incidents could occur for either NRL Consumer or Providers. A couple of example scenarios are described beneath:

NRL Provider Scenario

No response returned from the NRL after an NRL Provider request e.g. NRL Provider makes a Create request to the NRL but does not receive a Create response

NRL Consumer Scenario

The patient overview screen shows there are records available to view but when a user clicks on the Documents tab there are no records displayed.

## Environment Maintenance

During the onboarding process, all connecting parties will be added to the Platforms Support Newsletter distribution list. The newsletter informs users of forthcoming changes to the NRL Service that are deployed to the NRL test environments (currently “INT”) prior to Live.

If you do not receive these newsletters in the first two weeks following go-live, it is recommended that you contact the Platforms Support Desk ([platforms.supportdesk@nhs.net](mailto:platforms.supportdesk@nhs.net)) who will be able to add you.

## Benefits reporting

It is essential that we are able to quantify and qualify the benefits of using NRL and as such all consumers and providers will be required to provide baseline information in the form of short surveys and questionnaires prior to going live and then again, 1 month, 3 months and 6 months post go live. This information will be used to ensure that NRL is delivering the benefits identified during the discovery phase and to enable future work to be commissioned to continue to increase uptake and provide feedback to the users of NRL and the project board.

Reports will be produced by NHS Digital that will provide the user ID of the staff at consuming trusts along with the date and time a record has been accessed. The consuming trust will be required to provide the names and contact details of the users to NHS Digital staff. This will enable NHS Digital colleagues to contact them at an agreed time to discuss the benefits of using NRL and provide valuable information for management reporting, case studies and benefits realisation.

Example Ambulance Clinician user survey below.

