

Integrated Identity Management

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Implementation Approach Guide

Document Control

Document Reference	IIM_0015
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Date Created	12 June 2009
Date Last Updated	20 August 2009
Version	1.0
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Contents

Contents	2
1. Introduction and Purpose	3
2. Integrated Identity Management Implementation Scope.....	4
3. Implementation Approach.....	5
3.1. Strategic Decision Making	5
3.2. Pre-Implementation	7
3.3. Integration between HR, RA and Wider Business Processes.....	9
3.4. Position Based Access Control (PBAC) & Position Mapping.....	10
3.5. User Identity Manager (UIM)	11
3.6. ESR Interface Implementation.....	12
3.7. Post Implementation Activities.....	15
4. Timing & Phasing of the Implementation	16
4.1. HR/RA and Wider Business Process Integration	16
4.2. Move of ESR to NHS CRS Smartcard access	16
4.3. PBAC and Positions Mapping	16
4.4. UIM Implementation	16
4.5. ESR Interface Implementation.....	17
5. Milestone Checkpoints (MC) and progress monitoring.....	18
6. Support.....	19
Appendix A – Glossary of Key Terminology	20

1. Introduction and Purpose

Purpose

The purpose of this guide is to provide an understanding of the proposed approach to a local implementation of the Integrated Identity Management initiative within an NHS organisation.

It is recognised that some of the component workstreams of Integrated Identity Management may already be complete or in progress at any given NHS organisation.

The guide is part of a suite of toolkits and guides listed below:

- a) Developing a Strategy for Integrated Identity Management
- b) HR and RA business process integration toolkit for identity capture and management, along with the possible further integration of related business processes
- c) Position Based Access Control (PBAC) Toolkit
- d) M-3970 ESR NHS CRS Smartcard Login Implementation Guide
- e) M-3980 NHS CRS to ESR Data Matching User Guidance
- f) UIM online Implementation Guide (available to pilots August 2009 and to other NHS organisations later in 2009)
- g) ESR Interface Implementation Guide (available to pilots August 2009 and to other NHS organisations later in 2009)

Readership

This guide is aimed at trust project managers, implementation managers and workstream leads responsible for the delivery of HR and RA who need to understand the approach to integrating identity management in order to plan for a local implementation.

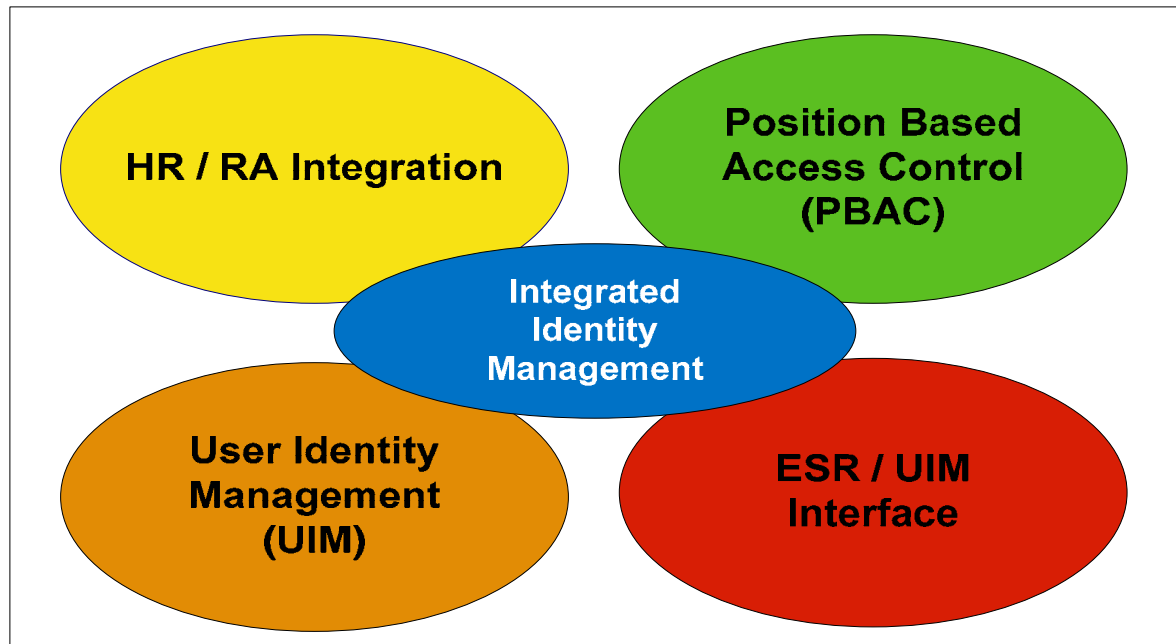
Guide Components

This guide: provides an introduction to each workstream within the Integrated Identity Management project. The milestone tasks required to be completed for each are given and reference to further information and implementation guides is also provided. It includes the following components:-

Item	Description	Link
Glossary of terms	Key references and an associated spreadsheet listing all relevant terms used in Integrated Identity Management	Appendix A
Project Roles and Responsibilities	A list of the suggested roles that may be required to support the local implementation of Integrated Identity Management. Depending on the complexity of the implementation individuals may undertake multiple roles.	Attached file: Roles and Responsibilities.doc
Work Packages	These provide a 2 page 'at a glance' reference to the main activities for each workstream. They are not intended as a substitute for the more detailed steps contained in the implementation guidance provided in the toolkits and guides relevant to each workstream	Attached file: Work Packages.doc
Milestone project plan	A generic milestone plan listing the key tasks for each workstream. This plan can be used as a template for developing local plans in conjunction with more detailed project plans for each workstream	Attached file: Milestone plan.xls

2. Integrated Identity Management Implementation Scope

The key workstreams for Integrated Identity Management are represented as follows:



The scope of implementation of Integrated Identity Management is defined by the above four separate but related workstreams for organisations who are intending to implement UIM and additionally may make use of the ESR Interface between ESR and UIM.

These steps should be preceded by a project initiation phase to establish the project.

Additionally the ESR / UIM interface workstream must be preceded by the move of user access for ESR to NHS CRS Smartcard. All other workstreams must have been completed before the implementation of the ESR / UIM interface begins.

The key benefits to organisations implementing an Integrated Identity Management strategy are expected to be:

- Improved information governance of both patient and staff data
- Cost savings and efficiency gains
- More robust control of who has access to the NHS Care Records Service applications
- More streamlined employment pathway

3. Implementation Approach

This section introduces each of the workstreams for Integrated Identity Management. The key activities for each workstream are described along with references to the more detailed implementation documentation. The sections are presented in an expected order of implementation. **It should, however, be noted that HR/RA process integration and the introduction of Position Based Access Control, if not already introduced or in progress, can be commenced immediately and can be run in parallel with each other (see also chart on page 6).**

3.1. Strategic Decision Making

The first step in determining the implementation approach to the integration of identity management for all NHS organisations is a strategic level decision based on the 'Developing a Strategy for Integrated Identity Management' toolkit (provided jointly by NHS CFH and ESR, issued April 2009). Three scenarios are offered:

a) Integrating HR and RA process and utilising ESR to manage access to NHS CRS applications

This approach is likely to be the preferred option for NHS organisations where:

- The majority of staff who deliver care on its behalf are directly employed
- These organisations have a range of temporary staff (e.g. students, locums) and might conclude that they can be managed through their Integrated Identity Management approach.

b) Integrating HR and RA business processes or RA and other business processes¹, and utilising ESR to manage access for employed staff, and UIM to manage access for staff employed by others

This approach will suit organisations who:

- Provide RA services to GPs, community pharmacists and local independent healthcare providers
- Have a sizeable number of directly employed staff e.g. provider organisation of community services staff.

c) Integrating RA and other business processes and utilising UIM to manage access to NHS CRS applications

This approach will suit organisations who:

- Provide RA services to GPs, community pharmacists and local independent healthcare providers
- Have a small number of directly employed staff.

The decision about which option to choose should be made at Board/Executive level in-line with the recommendations in the 'Developing a Strategy for Integrated Identity Management' toolkit.

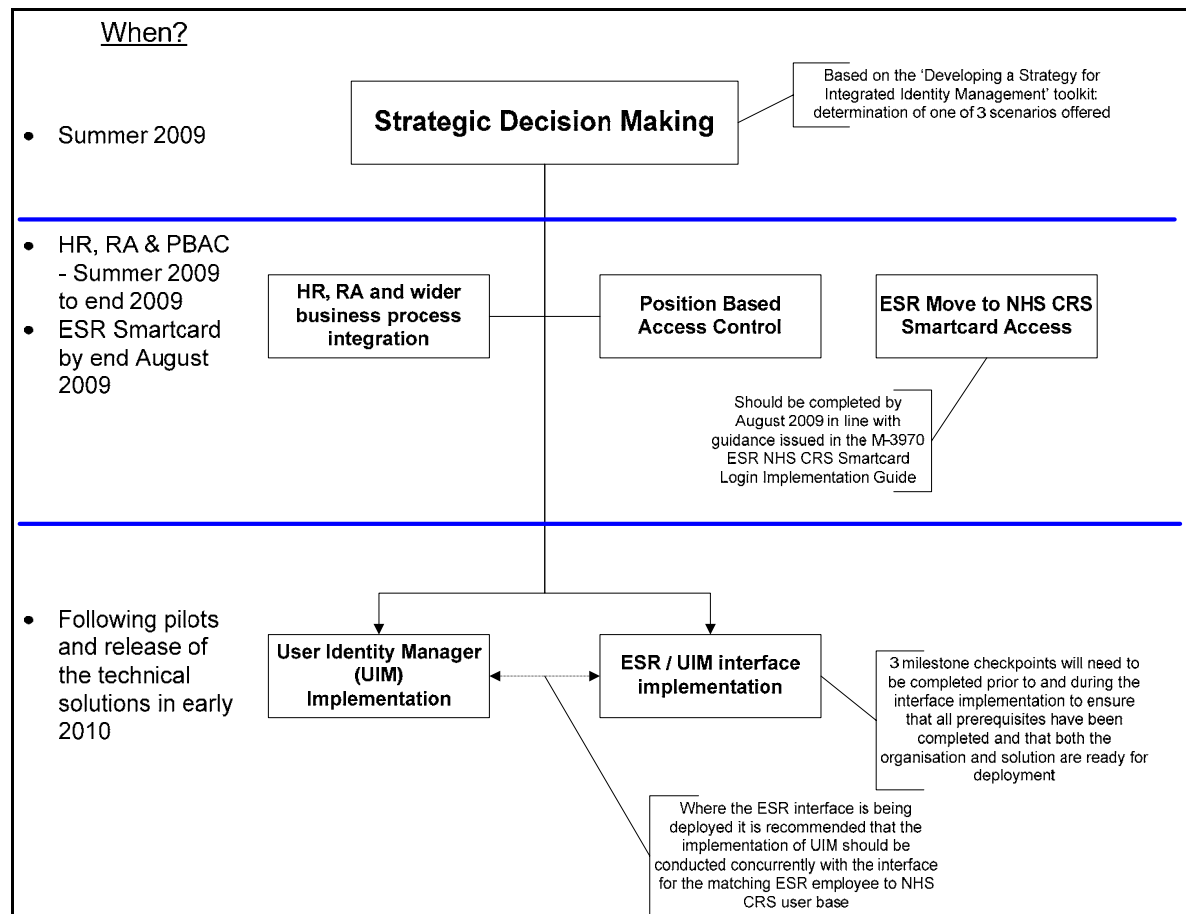
The applicable scenario(s) for each workstream will be noted in italics in the section headings below.

¹ For example building access systems, car parking access, other computer systems.

The chart below shows the relationship of the various workstreams that will be needed in order to deploy your integrated identity management strategy.

Notes:

- HR/RA process integration and Position Based Access Control workstreams may be initiated independently either prior to or following strategic decision making in which case the savings and benefits can be realised in advance of the technical solutions.
- The move of ESR to NHS CRS Smartcard access must be completed before the implementation of the ESR interface and it is expected that all NHS organisations in England will complete this move by the end of August 2009.



3.2. Pre-Implementation

3.2.1. Project Initiation and Support

*Applies following strategic decision making to **all scenarios** when Integrated Identity Management is being undertaken as a complete project by an organisation, and where few or none of the component workstreams have yet been completed.*

The NHS ESR Operations and Benefits Team, specifically the ESR Registration Account Managers, supported by the SHA RA leads, will be tasked to support your organisation if you intend to deploy the ESR Interface as a result of your strategic decision. The teams will guide and support you through the following key aspects of project initiation:

- Gaining Trust board support and the nomination of an executive sponsor
- Determining the choice of scenario and implementation model based on the information provided in the Developing a Strategy for Integrated Identity Management
- Set up of a project steering group and the determination and allocation of local resources to form a project team.
- Standard project initiation activities including a Project Initiation Document (PID), communications approach, management of risks and issues, production of a local project plan etc.
- Engagement and communications with the NHS ESR Data Team and other central resources as required.
- More detailed decision making regarding implementation and deployment activities relating to tasks involved for both UIM and the ESR interface to NHS CRS.
- Milestone Checkpoint 1 (see Section 4 below for more information relating to this).
- Access to and monitoring of progress using the NHS CFH tracking database.

For further information refer to:

1. Developing a Strategy for Integration of Identity Management Toolkit
2. Work Package 1
3. Project Roles and Responsibilities
4. Milestone Project Plan (Stage PE)
5. Milestone Checkpoint 1.

3.2.2. Move of ESR to NHS CRS Smartcard Access

This section applies to all NHS organisations which use ESR regardless of the strategic decision making relating to Integrated Identity Management.

ESR is moving to NHS CRS Smartcard facilitated access as part of the drive to improve information governance for all personal identifiable data held by the NHS. This will provide ESR with the e-GIF Level 3 security required to effect changes on the NHS CRS through the forthcoming interface between both systems. It will also ensure staff data is secured to the same level as patient data.

The move of ESR to NHS CRS Smartcard access is to take place between May and August 2009 as communicated in April 2009. The RA is pivotal to this locally in an organisation with support provided by your local ESR Administrators, IT, SHA RA leads, and the NHS ESR data team. Key tasks include addition of all ESR users on to NHS CRS and production of NHS CRS Smartcards for them; the extract and data load of the unique user identifier (UUID) from NHS CRS into ESR and IT set up on end user PCs. The data matching and cleansing activities will be supported by the NHS ESR Data Team where necessary. In some organisations where the number of ESR users is small, the NHS CRS UUID maybe typed into ESR, although the guidance outlines the importance of quality assurance of the data entered for Information Governance reasons. Full details are contained in the M-3970 ESR NHS CRS Smartcard Login Implementation Guide.

It should be noted that a key pre-requisite to the deployment of ESR access via NHS CRS Smartcard is the installation of Sun JRE (Java Runtime Environment) on end users' computers. This activity will need the full support and involvement of your local IT department.

For further information refer to:

1. Work Package 2
2. Milestone Project Plan (Stage S)
3. Move of ESR to NHS CRS Smartcard Access – letter sent to ESR Executive Sponsors in April 2009.
4. M-3970 ESR NHS CRS Smartcard Login Implementation Guide
5. M-3980 NHS CRS to ESR Matching User Guidance
6. M-0250 JRE Deployment Guide
7. ESR User Notices UN957 and UN996 – Notification of JRE deployment

3.3. Integration between HR, RA and Wider Business Processes

*This section applies following strategic decision making to **Scenarios A and B** and is a suggested good practice step for **Scenario C**.*

This work has already been piloted by over 120 NHS organisations across England to date and has shown that process integration between these two functions delivers significant benefits in terms of efficiencies in time and cost saved. These savings can be achieved in advance of the delivery of the technical solutions.

A toolkit outlining the activities required to achieve process integration has already been released to the NHS and a significant number of organisations have either completed or are in progress with this work. Pilot organisations have proven that there significant benefits to be gained from conducting this work in terms of productivity and improvements in Information Governance.

It is suggested that process integration between HR and RA should be adopted by all NHS organisations. At the same time it is a pre-requisite for the adoption of the interface between ESR and UIM, which is a logical conclusion to business process integration. Whilst the toolkit contains a proven methodology, and NHS organisations are responsible for resourcing this work at a local level, facilitation at a regional level will be provided.

The lead for this activity is Lynda Scott, Business Development Consultant with NHS Employers (Lynda.Scott@nhsemployers.org) who will:

- Promote the use of the HR and RA business process integration toolkit to NHS organisations.
- Provide an SHA based facilitation to oversee the HR/RA integration project.
- Run local workshops, to share experience and develop local project plans for integration.
- Work on a per SHA region with the RA leads, supported by the NHS ESR Operations and Benefits team, to ensure that each has a plan for their trusts and PCTs to develop their approach to HR, RA and business process integration. This approach may include information on the wider business process integration of access control solutions to other systems such as car parking, building entry mechanisms and the introduction of 'a single signon' to all these systems as required on a per organisation basis.
- Monitor progress within each SHA and escalate issues where necessary.

For further information refer to:

1. Work Package 3
2. Milestone Project Plan (Stage B)
3. HR and RA business process integration toolkit for identity capture and management, along with the possible further integration of related business processes (available at <http://www.connectingforhealth.nhs.uk/implementation/registrationauthorities/governance/ra-guidance/hrra-business.pdf>).

3.4. Position Based Access Control (PBAC) & Position Mapping

*This section applies following strategic decision making to **Scenarios A, B and C**.
Positions Mapping also applies to **Scenarios A and B** only.*

PBAC simplifies how access rights are initially approved and granted to a new employee, or someone moving into a new job. Instead of these rights having to be identified and approved for each member of staff individually, they will be granted 'automatically' according to the access position to which their job is assigned. PBAC builds on the existing Role Based Access Control (RBAC) security model. This is based on the provision of access to NHS CRS compliant systems appropriate for the job that you do. PBAC provides the ability to link the job a person does to the access rights they need, thereby reducing the need for access rights to be assessed on an individual basis.

Key activities for this exercise, which are covered in the PBAC toolkit include: gaining board level endorsement for PBAC implementation; establishing a project team including representatives from RA, IG, IT, ESR and staff side; designing the access control positions based on one of the implementation models given in the toolkit and including the access rights for each. Access control positions can then be set up as part of the UIM implementation. The mapping of access control positions to ESR positions is a required step where the ESR interface is to be deployed.

Note that the project governance and project team for PBAC could be done in conjunction with that for HR/RA integration as the resources are likely to be the same. It is also recommended that organisations combine the work for PBAC and mapping to ESR positions where they intend to implement the ESR to UIM interface.

For further information refer to:

1. Position Based Access Control Toolkit
2. PBAC information already available at http://www.connectingforhealth.nhs.uk/implementation/documents/position_based_access_control.doc.
3. Work Package 4
4. Milestone Project Plan (Stage P)

3.5. User Identity Manager (UIM)

*This section applies following strategic decision making to **Scenarios A, B and C.***

User Identity Manager – UIM is the replacement for the current registration software and will remove the majority of the paperwork involved in the current NHS CRS registration process. UIM will introduce the use of electronic forms and digital signatures, and it will support PBAC and the ESR Interface. The User Identity Management (UIM) solution will be available to NHS organisations from late 2009 following a pilot phase.

Key components of the UIM solution are:

- Positions Management – facilitates the definition of access control positions (as defined by the PBAC work) and the association of employees to those positions.
- Request Management. A form based approach to managing the Smartcard and access requirements for users. Action queues, called 'Worklists' are defined in UIM to collate all actions for particular activities to allow online approval and granting of relevant access rights for starters / leavers / changes etc. This will replace the current paper based system of RA forms.
- NHS CRS Smartcard Terms and Conditions Management. Online management of terms and conditions related to patient and systems access.

UIM will therefore need to be implemented locally in each NHS organisation. The following are the key set up steps that will need to be conducted:

1. Review all existing RA processes
2. Implementation of any new RA roles in UIM (including additional sponsor types)
3. Define and set up worklist(s) in UIM (associate roles to these if there is more than 1)
4. Build or load access control positions into UIM (based on output of PBAC)
5. Associate employees to access control positions based on access requirements.¹
6. Implementation of revised RA processes, including re-training, guidance etc. Note Sponsors will require training, as they need to sign on to UIM to approve requests.
7. Review of terms and conditions management (optional).

It is recommended that UIM preparation and implementation steps relating to the matching employee / user base are done concurrently with those for the ESR interface. Steps 3 and 4 must be completed in order for the interface to operate.

For further information refer to:

1. Work Package 5
2. Milestone Project Plan (Stage U)
3. Online guidance from NHS CFH which will contain full information regarding the implementation of UIM.

¹ Note that when using the ESR interface to NHS CRS that this association takes place automatically when an ESR position is linked to access control positions (based on the selection of an access control position from a list in the ESR positions editor) for all employees assigned to the ESR position. Note that no changes to user profiles in NHS CRS occur until this takes place in order to preserve existing access rights until ESR takes control.

3.6. ESR Interface Implementation

*This section applies following strategic decision making to **Scenarios A and B**.*

The final step in Integrating Identity Management is the activation of the interface between ESR and NHS CRS. This requires all the above activities to have been successfully completed.

The ESR interface, utilising links between ESR positions and access control positions, automatically updates an individual's access rights to NHS CRS systems. A change of ESR position will result in a change of access rights (where applicable) for all employees in ESR who:

- Are identity checked to e-GIF level 3;
- Have an NHS CRS unique user identifier (UUID) loaded against their record and
- Are assigned to an ESR position which is linked to an access control position.

Where these conditions are true ESR will be deemed to have 'control' of the organisation person in UIM. This means that a user in UIM cannot make any changes to the organisation person in UIM; that any name changes in ESR overwrite those in UIM and that inheritance of access rights to NHS CRS is controlled by the access rights defined to the access control position which is linked to the employee's assigned ESR position.

The interface is expected to be available for deployment from early 2010 onwards, following a successful pilot phase.

Key activities for implementation of the ESR interface, which will be covered in detail in the ESR Interface implementation guide, include:

1. A review of the set up of workstructures, especially positions and the employees assigned to those positions to ensure that they correctly reflect the organisational structure and the job roles that staff perform. Special consideration needs to be given to those employees with multiple assigned positions which may require differing access rights. Any corrections arising from this need to be made in advance of position linking¹.
2. Set up in ESR is required to:
 - Define the links between organisational units in workstructures and worklists in UIM (action queues) so that when transactions take place across the interface the system knows where to send the information.
 - Establish who the RA sponsors are and for which section of the organisational hierarchy they are responsible.
3. An optional data load into ESR employee records from the NHS CRS Spine User Directory (SUD) of UUIDs for all employees who have a record. This process will be supported by the NHS ESR data team following successful data extract, matching and cleansing. Where there are only a small number of existing users of NHS CRS the addition of the UUID can be performed by means of manual entry of the UUID into

¹ It is recommended that this work be carried out at the same time as PBAC and positions mapping.

ESR (prior to interface activation) or by means of a lookup on the SUD from ESR (following interface activation)¹.

4. Request for interface to be turned on by organisations when ready and following completion of Milestone Checkpoint 3.
5. The interface enablement will:
 - Lock the UUID field on the employee record in ESR such that manual entry is no longer possible,
 - Enable SUD lookup facilities from ESR to link employee records to NHS CRS users and
 - Allow ESR positions to be linked to access control positions by means of a new field. The user is presented with a list of values showing all valid access control positions and is required to select one of these.
6. Two key data links between ESR and UIM need to be established in order for the interface to operate:
 - Between ESR positions and access control positions as described above and;
 - Between ESR employee records (where these are assigned to a linked ESR position) and NHS CRS user records in the SUD: the UUID must be entered or loaded on the relevant ESR record.
7. Organisations may choose to either load or enter UUIDs first and then link their positions or to link positions first and UUIDs subsequently. The act of linking an ESR position to an access control position means that all employees assigned to it will inherit access rights automatically based on the definition of the access control position if they have a UUID on their record and have their e-GIF flag set for level 3.
8. This can be done as quickly or slowly as is required, allowing for a phased introduction of the interface and of ESR control of access to NHS CFH applications. Whilst a phased approach (say by staff group/department/division) may be more manageable for your organisation, consideration should be given to the point made above regarding employees with multiple assignments, especially where these are in different functional areas which may have different launch dates in your rollout plan.
9. Some key points to note:
 - It is recommended that the UIM preparation and implementation steps relating to the matching employee / user base should be done concurrently with those for the ESR interface. This will ensure that the definition and mapping of relevant worklists, sponsor roles and positions correctly reflects the requirements for successful operation of the ESR interface to UIM.
 - Manual load of UUIDs,² by means of keying the UUID into the relevant field in the employee record of ESR prior to the activation of the interface, may apply in situations where there are few matching records between ESR and NHS CRS. Following manual load a request can be made for the interface to be activated after which further linking of employees must be done by the lookup facility from ESR¹.

¹ The lookup facility is a key part of the interface functionality. It allows the user in ESR to view a list of up to 10 possible matches (based on a combination of name and NI number) on the SUD and to select the exact match. Where no match is found a request can be made to add a new user to the SUD. It is therefore important to ensure that National Insurance numbers are entered against SUD entries in advance of the lookup and linking to ensure that a correct match can be found.

² Please note that the guidance outlines the importance of quality assurance of the data entered for Information Governance reasons.

- A data load of UUIDs for all matching employees on ESR and in NHS CRS can be conducted on your behalf by the NHS ESR data team using the same data matching / cleansing process used for the move of ESR user login to NHS CRS Smartcard. It may be possible to conduct more than one data load by arrangement depending on the number of records to be loaded. When using the data load facility, it is expected that the interface will not be activated until at least the initial tranche of records is loaded. In this scenario the linking of positions will then enable interface activities and ESR control of organisation person records in UIM.
- It is the choice of the organisation as to whether UUIDs are loaded first (manually¹ or by data load) and then positions subsequently linked, or, whether you link positions first and UUIDs subsequently. Please note that the interface must be activated first in order to populate the positions list of values, this will mean that the UUID field will then be locked and manual entry will no longer be possible after this point (data load or SUD lookup for individual entries being the alternative options²).

For further information refer to:

1. Work Package 6
2. Milestone Project Plan (Stage I)
3. ESR Interface Implementation Guide (available to pilots from August 2009 and to other NHS organisations later in 2009)
4. M-3980 NHS CRS to ESR Matching User Guidance

¹ Please note that the guidance outlines the importance of quality assurance of the data entered for Information Governance reasons.

² It is important to ensure that National Insurance numbers are entered against SUD entries in advance of the lookup and linking to ensure that a correct match can be found

3.7. Post Implementation Activities

Following the completion of a local Integrated Identity Management project, organisations should aim to assess the results and effectiveness of the changes to process, procedure and the use of the technical solutions. Some suggestions are given here:

- Conduct a lessons learned exercise to document the pluses and minuses of the project.
- Assess the benefits. Expected benefits templates will be made available based on the benefits of the whole of the integrated identity management initiative and some specifics relating to each of the workstreams. Metrics to calculate savings should be used to compare the situation prior to the project and that afterwards. It is suggested that measurement of the benefits be reassessed at several points following completion in order to determine the progress that has been made.
- Work with other organisations in your region to share learning and to use this information to improve your own deployment of the chosen strategy.
- Where the initial 'go live footprint' of the technical solutions was for a limited part of your organisation ensure that the initiative is maintained to complete the rollout for the remainder.
- The central teams will endeavour to provide support post implementation but it should be noted that there are contracted end dates for the NHS CFH Access Control team (date to be confirmed), ESR registration account managers (January 2011) and the ESR data team (date to be confirmed). As such they will not be available beyond these dates. You should therefore aim to complete all key activities before these times.
- Both the toolkits for HR, RA integration and PBAC also contain suggestions for post implementation activities to consolidate the work undertaken and to ensure that benefits are realised and assessed.

4. Timing & Phasing of the Implementation

4.1. HR/RA and Wider Business Process Integration

This approach has been a core part of the strategic direction for Access Control, where the service configuration supports it. There is recognition that many organisations have taken a wider approach to business integration and this approach is outlined in the toolkit. The Business Process Change Lead, Lynda Scott and the SHA RA community with the assistance of the NHS ESR Operations and Benefits team are providing support for this work. Over 200 organisations have already commenced or completed this work and those NHS organisations who have not yet embarked on this work are asked to review the opportunities and benefits it provides and begin process integration as soon as possible. Events have been and are being organised regionally during Spring / Summer of 2009, in order to promote and support this initiative.

4.2. Move of ESR to NHS CRS Smartcard access

The intention is for ESR Smartcard access to be fully rolled out to the NHS in England by the end of August 2009. A pilot phase completed in March 2009 and lessons learned for this have been incorporated into supporting documentation. A letter was issued to ESR executive sponsors in April 2009 informing them of the move to ESR access via NHS CRS Smartcard. A number of data loads will be conducted, on a monthly basis between May and August 2009. Your organisation will need to commit to one of these dates if the NHS ESR data team is to load your data into ESR or indicate your commitment to a completion date for manual data entry. The request for a load slot should be made to esr.smartcard@nhs.net.

4.3. PBAC and Positions Mapping

The move to Position Based Access Control has been supported by NHS CFH Access Control team since 2008 and a number of organisations are already using this approach. The PBAC toolkit contains further strategy and guidance on both the methodology to define access control positions, as well as position mapping to ESR. Support for PBAC will be provided by the SHA RA leads and NHS CFH. Assistance, as required, from the NHS ESR Operations and Benefits Team will relate to the position mapping exercise. Organisations are encouraged to begin this work as soon as possible. It is possible, depending on local resource availability to run both the PBAC and HR/RA workstreams concurrently. PBAC is included in Milestone Checkpoint 2 and as such the ESR interface implementation cannot commence without evidence of the definition of both access positions and a mapping spreadsheet.

4.4. UIM Implementation

UIM is planned to be available from the end of August 2009 to a small number of early adopter organisations (pilots). These early adopters are expected to have completed both PBAC and, ideally, HR/RA and wider business process integration in order to proceed to UIM implementation. They will prove both the solution and the implementation methodology prior to full rollout. Following the pilot phase in late 2009, a full rollout can commence. The implementation model allows for organisations to implement within their own timescales with an expectation for these to be completed within 6 to 12 months of the

solution being available. It is recommended that the UIM implementation steps relating to the matching employee / user base should be done concurrently with those for the ESR interface. Road shows took place in June 2009 to promote UIM, the ESR interface and the wider Integrated Identity Management initiative and associated benefits.

4.5. ESR Interface Implementation

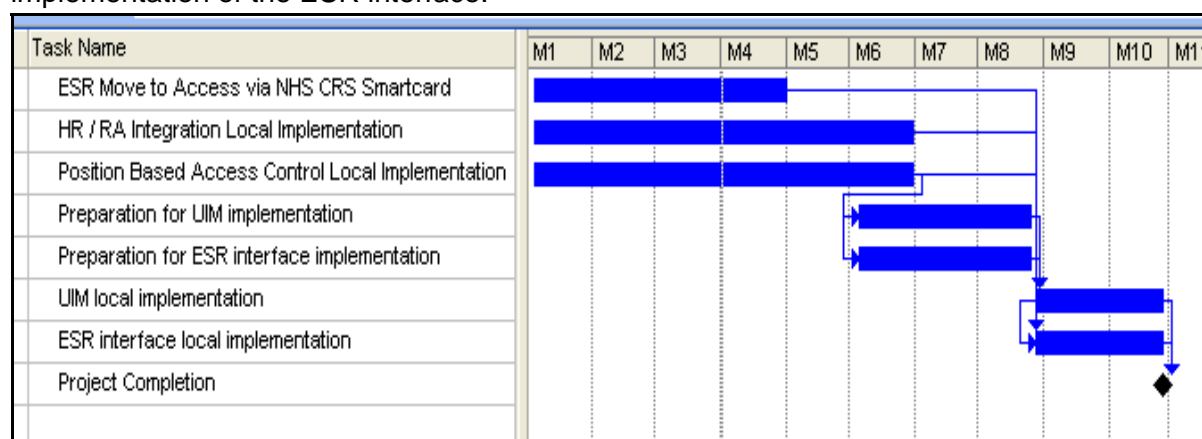
The ESR interface between ESR and UIM is planned to be available to a limited number of pilot organisations following release in October 2009. These pilots will need to have completed HR/RA Process integration, PBAC and positions mapping, ESR Smartcard access and also be early adopters of the UIM system. These sites will prove the solution and implementation methodology. Once the pilot phase completes in early 2010 the lessons learnt will be incorporated into the implementation approach in preparation for rollout of the solution to the NHS in England.

The implementation model will allow for sites to implement the ESR to UIM interface within their own timescales, with an expectation for these to be completed within 15 months of the interface being available in early 2010. The only constraints will be:

- The availability of a slot for data load of SUD UUIDs into employee records in ESR (if the data load option is selected).
- Support available from the NHS ESR Operations & Benefits Team until early 2011.
- It is recommended that the UIM implementation steps relating to the matching employee / user base should be done concurrently with those for the ESR interface.

This process will be supported by the NHS ESR Operations and Benefits team which has been augmented by an extra Registration Account Manager role per SHA region. This team will be tasked to assist organisations going live with the interface as quickly as possible to maximise benefits realisation, whilst balancing the availability of resources.

An example high level plan is given below showing the dependencies of the key workstreams and using a suggested timeframe for completion of each of the main tasks. Local implementation timescales may vary from those suggested. The plan shows the timeline in months from the start of the project and assumes that all technical deliverables and pilot phases have been completed. Note that the local implementation of ESR access via NHS CRS Smartcard, HR / RA Integration and UIM are all pre-requisites to the implementation of the ESR interface.



5. Milestone Checkpoints (MC) and progress monitoring

Applies to Scenarios A and B.

A series of 3 milestone checkpoints will need to be completed successfully by all organisations to ensure readiness for the safe activation of the ESR Interface. Your local project team, in conjunction with the ESR Operations and Benefits team will be responsible for the update of these checkpoints. Documentary evidence will need to be given for key criteria in order to be able to proceed from one stage to the next.

- I. MC-1 – ‘Integrated Identity Management Project Initiation’. This applies following strategic decision making where Integrated Identity Management is being undertaken as a complete project by an organisation and should be in conjunction with existing arrangements for HR/RA integration and / or PBAC where these workstreams have already been initiated. MC 1 will include the completion of the following tasks:
 - Strategic Decision Made based on guidance contain in the Decision Making Toolkit
 - Project Initiation (PID and Kick off Meeting)
 - Project Governance arrangements defined and agreed
 - Project resources in place
 - Project plans in place
- II. MC-2 – Completion of pre-requisite activities prior to start of ESR interface to UIM implementation. Including the following tasks:
 - Covers key points from MC 1 to ensure project can be successfully managed
 - HR / RA process integration
 - Access to ESR for all users moved to NHS CRS Smartcards
 - PBAC implemented and HR positions mapped to RA positions
 - Preparation tasks for the ESR interface implementation including determining a data load slot; defining mappings between ESR and UIM; agreeing a deployment strategy and agreeing a strategy for user training.
- III. MC-3 – Readiness to activate the ESR interface to UIM. This will cover confirmation of completion of the following tasks before the interface can be turned on:
 - Confirmation that all preparation activities including definition of mappings between ESR and UIM have been completed.
 - Confirmation that UIM set up has been completed successfully.
 - Confirmation that data set up in ESR has been completed successfully as well as data matching and cleansing if the data load option is to be used.
 - Revision of process, procedure, roles and responsibilities as required.
 - Communication regarding changes of working practices to all users and managers impacted by the use of ESR to control access rights.
 - Key decisions made regarding how the ESR interface is to be deployed and used.

Further monitoring of progress will be via the NHS CFH Tracking Database and assessment with your local ESR Operations and Benefits Account or Registration Manager. The tracking database is available to the NHS organisation and is a self assessment tool. Local project team members / leads are therefore expected to regularly update the information in this database. The database is to be updated to include key tasks in the Integrated Identity Management initiative. Central team members, SHA RA leads and ESR operations and benefits team account managers will have access to the tracking database from a reporting perspective.

6. Support

In addition to the documentation and information sources referenced above key resources are available to support organisations through their deployment of the Integrated Identity Management initiative as listed in the following table:

Team	Support for	Role
ESR Registration Account Managers (with support from other regional ESR Operations and Benefits Account Managers)	<ul style="list-style-type: none"> • HR / RA integration • ESR move to Smartcard access • ESR interface 	Progress monitoring
		Provide advice and guidance
		Provide an interpretation of documentation to NHS organisations
		ESR registration project subject matter experts
		Facilitate communication with ESR central team
		Membership of local boards / project team as required
		Attend relevant meetings
		Act as point of escalation for risks and issues
		Organise/attend SHA wide events
SHA RA Leads	<ul style="list-style-type: none"> • HR / RA Integration • PBAC • UIM 	Close liaison with SHA RA Leads
		Provide advice and guidance
		Dissemination of NHS CFH documentation
		RA subject matter experts
		Facilitate communication with NHS CFH access control team
		Act as point of escalation for risks and issues
		Attend all relevant meetings
		Organise/attend SHA wide events
ESR Data Team	<ul style="list-style-type: none"> • ESR move to Smartcard access • ESR Interface 	Close liaison with ESR Account Managers
		Data extracts / cleansing / matching / loads of SUD data into ESR
Business Development Consultant, NHS Employers	<ul style="list-style-type: none"> • HR / RA Integration 	Provide advice and guidance
		Interpret documentation
		Organise SHA wide events
		Close liaison with SHA RA Leads
NHS CFH Access Control Team	<ul style="list-style-type: none"> • HR / RA Integration • PBAC • UIM 	Close liaison with ESR Account Managers
		Provide toolkits
		Provide advice & guidance
		Organisation national and regional events
		Provide strategic decision making support
		Point of escalation for risks and issues
ESR Registration Project Central Team	<ul style="list-style-type: none"> • ESR move to Smartcard access • ESR interface 	Point of escalation for SHA RA Leads
		Provide toolkits
		Provide advice & guidance
		Organise national and regional events
		Provide strategic decision making support
		Point of escalation for risks and issues
Reporting line for Operations & Benefits team and ESR data team		
McKesson	<ul style="list-style-type: none"> • Support solution ESR 	Support for ESR via Service Requests raised on the Remedy system
NHS CFH Service Management	<ul style="list-style-type: none"> • Support solution UIM 	Support for the UIM product
Other organisations (pilots or who have already implemented the interface)	<ul style="list-style-type: none"> • Advice and guidance relative to their chosen solution 	Provide experience, examples, advice and guidance as required to other organisations within their region.

Appendix A – Glossary of Key Terminology

For further details please see the full [Glossary of Terms](#).

- **CMS – Card Management System.** System that manages the creation and update of NHS CRS Smartcards.
- **ESR – Electronic Staff Record.** The Electronic Staff Record (ESR) is the integrated Oracle Human Resource Management System (HRMS) (including Payroll) in use by the vast majority of organisations within the NHS; hosted and maintained by McKesson plc.
- **Integrated Identity Management** – The development of closer integration between the currently separate processes involved in capturing and managing staff identity, and controlling access to the NHS Care Records Service (NHS CRS).
- **NHS CRS – NHS Care Records Service.** The NHS Care Records Service will help NHS organisations in England to store patient health care records on computers that will link information together quickly and easily. An NHS CRS Smartcard will give a user access to the NHS CRS and other National Programme for IT applications such as Choose and Book and the Electronic Prescription Service.
- **NHS CRS Smartcard.** A plastic card containing an electronic chip (like a chip and PIN credit card) that is used to access the NHS Care Records Service (NHS CRS) and other National Programme for IT applications, along with a Passcode. The chip does not contain any personal information. The combination of the NHS CRS Smartcard and Passcode together provide high levels of security and confidentiality.
- **PBAC – Position Based Access Control.** The PBAC concept groups access control requirements by job role allowing for any number of employees to share generic access rights based on what they do rather than who they are. UIM will facilitate the definition of PBAC position profiles which can be associated with ESR positions thus enabling the inheritance of access rights via the ESR position that the employee is assigned to. PBAC can be established independently of either UIM or the ESR Interface but is a pre-cursor activity to both.
- **RA – Registration Authority.** A governance process occurring in all NHS organisations to register users for access to NHS CRS compliant applications. The hierarchy of RA roles and responsibilities within an NHS organisation is tasked with registering and verifying the identity of health care professionals/workers who need access to the NHS Care Records Service (NHS CRS) and other National Programme for IT (NPFIT) applications. Staff need to prove their identity and have their application approved by a Sponsor before being issued with a Smartcard and Passcode by the Registration Authority. The RA grants them an approved level of access to patient information within the NHS CRS and other NPFIT applications. This is essential to protect the security and confidentiality of every patient's personal and health care information. The Executive Management Team of the NHS organisation should embed governance of their Registration Authority in the Information Governance and Performance Management Framework.
- **RA Sponsor.** Sponsors approve access and the issue of NHS CRS Smartcards and are usually the line manager of users. In UIM sponsors will manage approvals via worklists.
- **RPP – The Registration Partnership Project.** Overarching project between DH, ESR and NHS CFH to enable ESR with NHS CRS Smartcard access, to link ESR and CRS and to manage process change.
- **SUD – Spine User Directory.** The Spine User Directory is the repository which stores users' profiles and registration information both current and historic includes roles and organisations that an individual works for.
- **UIM – User Identity Management.** The new software which will provide the electronic management of access control which is replacing the current paper based registration process.
- **UUID – Unique User Identifier.** The User's Unique ID Number is used by all NPFIT applications to uniquely identify the user to the application. The UUID is the number displayed to the left of the photograph on the NHS CRS Smartcard, underneath the chip. Occasionally called the UID (Unique ID Number). ESR will also hold the NHS CRS UUID against employee records so that it can validate that the employee has an active authenticated entry on NHS CRS.
- **Worklist.** Worklists group actions in UIM, users login to their worklists to manage actions and approvals. ESR will automatically access and update worklists for many types of change initiated in ESR such as request for a new user, change access requirements based on positions and changes to personal details.