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Alpha Project Workshop #1

28th August 2018

Online Identity Assurance Programme

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Agenda

- Welcome and introductions
- Introduction to the Online Identity Assurance Programme
- Service Design Discovery Outputs
- Further Work
- Output of Technical Options Discovery Project
- Proposed Alpha Project
- Q&A
- Next Steps

Welcome and introductions

Attendees:

- <list of attendees>

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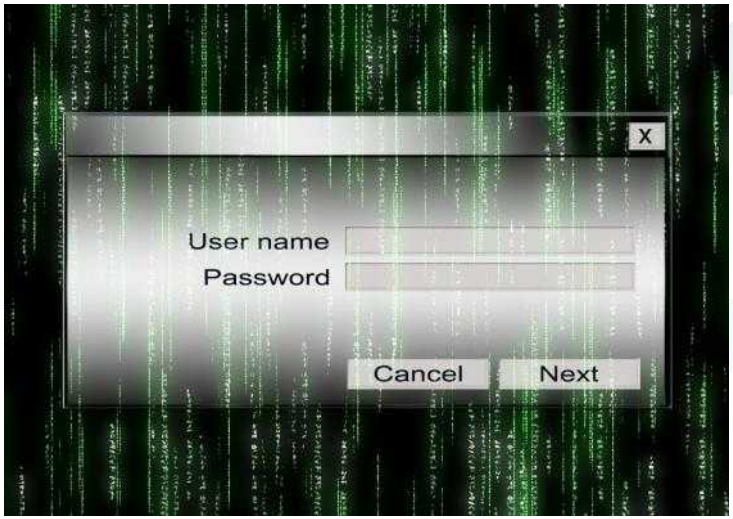
Introduction to the Online Identity Assurance (OIA) Programme

What is Online Identity Assurance?

When you use online services, you want to be confident that someone else can't sign in pretending to be you, see your sensitive personal records or use your identity to make fraudulent claims.



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Commits to work with stakeholders, privacy interests and members of the public to develop a robust, secure and trustworthy mechanism by which an individual member of the public can demonstrate their identity online.

Published 22 March, 2017

What kinds of public services?

- Arranging a GP appointment
- Paying for kids school dinners
- Applying for a social security benefit
- Managing a student loan
- Applying for a disclosure check

What might this mean?

- Safe, secure, accessible and convenient access to services
- People can trust that their personal data is private and is used proportionately

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What's been happening?

- New team and work programme established
- Programme Plan shared in December 2017
- Initial 'Discovery' phase ran January to May 2018, aimed at understanding the 'problem' and exploring potential solutions
- Scottish approach to service design – informed by people's experiences
- Programme Board, National Stakeholder and Expert Groups

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Open Government

All work is being conducted in the spirit and practice of Open Government – a growing worldwide movement aimed at promoting transparency and making the work of Governments more accessible to citizens.

‘Discovery’ Work

2 components:

- Service design research looked at the problem an online identify assurance programme might address and explored what people think about digital identity for accessing public services

- Technical discovery looked at the delivery options, how this fits with existing services and providers, and how a new approach could be implemented

What's happening now?

- Discovery findings discussed at Expert Group, Programme Board, National Stakeholder Group, and with Scottish Ministers

- Team is currently in 'pre-alpha' – working to ensure that we have robust governance and processes in place, and establishing the partnerships with Scottish public services and identity providers needed to enter Alpha

- Team is also developing a new overarching communications and engagement plan, including Open Government commitment

Next Steps – ‘Alpha’ phase

- ‘Alpha’ is our proof of concept phase, where a prototype solution is developed and tested
- Planned for October 2018 to March 2019
- Explores interaction of technical infrastructure, public service providers and identity provider solutions
- Continues to embed the Scottish approach to service design and involves ‘user testing’

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Aims for ‘Alpha’

- To build a long term business case, including understanding costs and benefits
- Help us decide if the programme should continue, stop, or if should be re-structured
- Inform the approach to a future ‘Beta’ phase, taking us closer to providing a live service

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Service Design Outputs

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Service Design

“gather insights about user experiences related to digital identity”

“identify the problem that an online identity assurance programme might address… and identify user concerns and needs.”

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age Scotland

Alzheimer Scotland
Action on Dementia

National Records of Scotland

Experience Panels

eVoting

EDINBVRGH
THE CITY OF EDINBURGH COUNCIL

YOUNG SCOT

NHS SCOTLAND

pamis
promoting a more inclusive society

Registers of Scotland

Disclosure SCOTLAND

SAAS
Studer
Award
Agenc
Scotla
unding your future

DIGITAL OFFICE
WE ARE THE DIGITAL OFFICE FOR SCOTTISH LOCAL GOVERNMENT
Scotland's centre for digital excellence

SCOTTISH FINANCIAL ENTERPRISE

the trussell trust

Service Design Discovery Findings

Recurring themes

Convenient

people looking for an easier way to transact with public services,

particularly related to benefit applications.

Cautious

concerns about data privacy and security.

Barriers to Access

requirements for assisted digital and mobile-first solutions.

Convenient: simplification

"Why can't we learn from banking services? Years ago you had to go into your branch, arrange an appointment and fill in lots of forms. Now you can manage your account online and even apply for an overdraft online. The public sector needs to wake up and move on."

(Dundee interviewee)

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Convenient: consistency

"It feels like they're trying to trick you.

They keep asking the same questions

again and again."

(Forth Valley Group)

Convenient: reducing duplication

"Conditions don't change but still people need to reapply. They panic if they can't remember what they wrote last time – they are worried that they are going to be accused of fraud."

(PAMIS Group)

Convenient: share data

"I have whole files full of documents from all the different agencies. The biggest bugbear for me is that the council can't just access benefits agency records so you have to keep sending them the letters you get and it's back and forth, back and forth and you're just the piggy in the middle."

(Angus interviewee)

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Convenient: store data

"I would rather they stored than asking me for it 10 times, I know some people are paranoid but they know everything about us anyway."

(Social Security Experience Panel)

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Cautious: reliability of organisations

"I'd love it. Would just need to make sure it's really secure. I think the reason why so many people use Facebook or Google to log into things is because they're so easy... and yet I feel uneasy about letting private companies have so much access."

(Online survey response)

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Cautious: access and control

"Make sure information is stored securely without being accessed by people not entitled to see it."

(Social Security Experience Panel)

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Cautious: security of data

"Standard concerns in respect of how secure the system was, what happens if it is compromised, what visibility I have on how the data is used as well as the number of services I can use it for to justify the effort."

(Online survey response)

Accessibility :

"Some people will go without claiming for benefits because they have been told they have to apply online. People don't have the IT skills to do this or access to computers or internet at home. Out of the 50 people we support only 2 people have home broadband wifi, although half of the young people have data on their smartphones."

(Support worker)

Mobile accessibility

"70% of people in Scotland now own smartphones and for 41% of the population their smartphone is the most important device for accessing the internet."

(https://www.ofcom.org.uk/__data/assets/pdf_file/0020/105194/cmr-2017-scotland-charts.pdf)

Who are our users?

Citizens who value ease of access

Citizens who value high levels of privacy

Who are our users?

Providers of Assisted Digital

Citizens under 18

Citizens with specific communication needs

Non-UK Citizens

Citizens with Accessibility needs

Executor of a deceased person

Citizens who value ease of access

Citizens who value high levels of privacy

Who are our users?

Providers of Assisted Digital

Citizens who lack access to common proofs of ID

Citizens under 18

Citizens with specific communication needs

Citizens who are not digitally connected or lack digital skills

Citizens with a formal proxy such as a legal guardian or Appointee

Citizens who are a formal proxy such as a legal guardian or Appointee

Non-UK Citizens

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Social Security's users

Citizens who value ease of access

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Non-UK Citizens

Citizens with Accessibility needs

Executor of a deceased person

Citizens who value ease of access

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Local Authority users

Providers of Assisted Digital

Citizens who lack access to common proofs of ID

Citizens under 18

Citizens with specific communication needs

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Non-UK Citizens

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No access to any digital devices at home

Only has access to one type of digital device (most likely to be a smartphone)

Not confident about the process of creating and using a Digital Identity and needs support from another person to do so

No access to broadband or WiFi at home, and likely to be using a mobile data network

Citizens who are not digitally connected or lack digital skills

Needs to create and use a digital identity in a public space eg. library, local authority building

Does not have Essential Digital Skills

Needs to create and use a digital identity using a mobile phone

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Hold paper ID documents

Hold few ID documents and are therefore nervous of posting them or handing them over eg. biometric cards for asylum seekers

Do not have a permanent address

Citizens who lack access to common proofs of ID

Have changed addresses multiple times in recent years

Do not use bank accounts, credit cards, etc. and have a small or no financial footprint

Need to verify their identity using other sources of data

Do not hold, have not renewed, cannot afford or are not entitled to proofs of ID such as passport, driving licence, birth certificate

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Need a proxy to create and use a digital identity on their behalf

Citizens with a formal proxy such as a legal guardian or Appointee

Need to verify citizen's proxy and give access to the citizen's personal data. This could be via all channels – online, by phone or in person

Need to know that only the citizen and their proxy can access the citizen's personal data

Need to remove a citizen's proxy and stop access to the citizen's personal data

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Need information about how to create a proxy Digital identity

May have caring responsibilities which make it difficult for them to travel

Citizens who are a formal proxy such as a legal guardian or Appointee

Need to communicate with public bodies about the citizen they care for without the need for face to face meetings

Further Discovery Work

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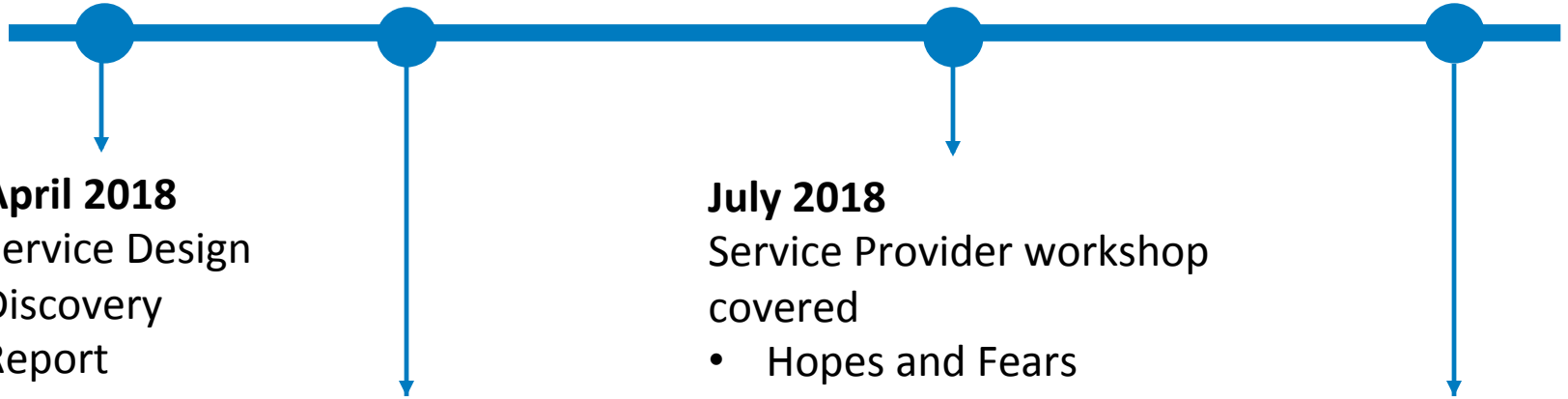
What we've done so far



April 2018
Service Design Discovery Report

May 2018
Expert Group and SG URSD identify need for research into Service Provider needs

July 2018
Service Provider workshop covered

- Hopes and Fears
- Customer matrix
- Skeleton journey maps

August 2018
Further analysis on the materials gathered at the workshop, and next steps

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What we've learned – Hopes and Fears – Themes

- Will OIA be adopted by public sector bodies?
- "One size does not fit all"
- OIA solution must integrate into service providers' services
- Balance of privacy concerns with other user needs
- Clear, shared scope and vision needed soon
- Reuse and future development of services
- OIA timeline and solution fit with service providers'
- Something which "just works" for users and service providers
- Cannot exclude those who can't or won't use Digital
- Positive user experience encourages uptake of digital services
- Take account of the existing OIA landscape and learn from others
- Articulate the benefits of a Digital Identity

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What we've learned – Hope and Fears – Tech Actions

Theme	Action
Reuse and future development of services	Involve OIX
Reuse and future development of services	Test with users and service providers
Reuse and future development of services	Modular design
Something which "just works" for users and SPs	Iterative development
Something which "just works" for users and SPs	Rigorous technical testing
"One size does not fit all"	Explore multiple prototype options
OIA solution must integrate into service providers' services	Be clear about integration and integration responsibilities
Balance of privacy concerns with other user needs	Ensure secure, robust technical platform

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Next steps

- Finalise work on aspects of OIA which are in and out of scope
- Journey mapping based on service provider workshops
- Contextual research with staff in service provider organisations
- Paper prototyping

Output of the Technical Options Discovery Project

Initial Options Assessment

Approach:

- Workshops with the OIA programme team
- Conversations with stakeholders
- High level scoring
- Nothing was off the table

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Initial Options Assessment

What we found:

- Broad range of services with differing requirements
- Broad range of customer needs with geography being a significant factor
- No fixed view on level of assurance
- In some cases, may need to leverage relationship public services have with customers (similar to Etive-led OIX projects)
- Need may be for identification or authentication, or both
- Consistent desire to address customer needs / be customer centred
- Digital identity will only be one part of digital transformation but will be a key enabler in helping organisations integrate services that are currently siloed
- Some good examples to learn from (e.g. North Lanarkshire)

Initial Options Assessment

Generic models

Priority Requirement	Rationale
Identity Functionality	Utility functions to enable many services
Demographic Coverage	Customer base includes harder to reach
Ease of use	Simple trusted services key to adoption
Privacy protecting	Customer must be put at centre
Time to market	Easy to lose momentum
Public perception	Solution must be transparently good

Additional Requirement	Rationale
Attribute Exchange Functionality	Longer term future value
Channel Coverage	Primary need is to support digital*
Level of Assurance	Do not want to limit solutions
Commercially attractive	Likely to become more important later
Maturity	Do not want to limit solutions

Option	Score
5. Personal Data Store	47
4. Single IDP without Hub	47
3. Single IDP with Hub	43
1. Multiple IDPs with Hub	38
2. Multiple IDPs without Hub	37
6. Distributed Ledger Technology	35

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Initial Options Assessment

Existing Digital Identities

National Entitlement Card
- 1.5m contactless cards (ITSO CMD2)

MyAccount
- 2m dormant accounts as a result of NEC issuance
- 500K active accounts

GOV.UK Verify
- Number of Scottish customers with Verify account unclear (pro rata figure would be 165K)

GSMA Mobile Connect
- Published figures do not represent UK usage

PSD2 / Open Banking
- Potential in future to leverage account & transaction data from open APIs

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Initial Options Assessment

Key Questions:

- Is it necessary or desirable to allow same digital identity to be used for central and local government?
- Could the government be a digital identity provider?
- How can we achieve a separation between identity providers and relying parties (to maintain acceptable levels of privacy)?
- Are precise levels of assurance too restrictive?
- How to best serve geographically remote citizens
- How to best serve excluded (e.g. thin file, disabled)

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Solutions Characteristics

Approach:

- Key considerations
- Existing digital identity services
- Existing pools of identities
- Conceptual architecture / integration

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Solutions Characteristics

Key Considerations:

- **Solution Choice**: Should the user be able to choose between multiple solutions?
  - Give choice but limit it, to keep it simple for users for initial rollout
- **Segregation Choice**: Should the user be able to segregate different aspects of their digital life?
  - Prefer decoupled solutions that avoid ability to track. Educate users.
- **Data Choice**: How much control should the user have over the sharing and use of their personal data?
  - Make solution “attribute” rather than “identity” based.
- **Sources Choice**: How much choice should be given to users about where identity attributes are sourced from?
  - Seek to protect user from complexity. E.g. allow RPs to interrogate if user has attribute before requesting – only ask for what the customer can actually give.
- **Attribute Storage Location Choice**: How much control and choice should users have over where their Attribute data is stored?
  - Prefer solutions including PDS and consider how to differentiate solutions.

Need a flexible architecture but reduce the complexity for users

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Solutions Characteristics

Existing Digital Identity Services

Characteristic	GOV.UK Verify	GOV.UK Verify IDPs	Fintech	MyAccount
Level of Identification	H	H	M	M
Level of Authentication	H	H	M	L
Independently certified	H	H	M	M
Supports unlinkable identifiers	M	L	M	L
Supports flexible Attribute exchange	L	L	M	L
Includes Personal Data Store	L	L	M	L

Different players solving different problems

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Solutions Characteristics

Existing Pools of Identities:

- Identity Providers:
  - GOV.UK Verify
  - Individual GOV.UK Verify Providers
  - Fintech providers
  - Myaccount
- Identity Sources
  - NEC
  - Local Authority Data (including schools data and in-person contact)
- Summary
  - No single pool that meets the majority of needs today
  - Situation is evolving

How to balance flexibility with letting people use existing identities

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Solutions Characteristics

Some key questions

- Where is the system of record for the customer account?
  - With the RP or with the IDP?
- Do identification and authentication need to be tightly coupled?
  - E.g. could I use IDP to onboard but then have different authentication “identity”
  - What about customers who start at a low LoA and build up over time?
- Do we always need matching?
- How can RP knowledge pass back to IDPs?

How to balance flexibility with letting people use existing identities

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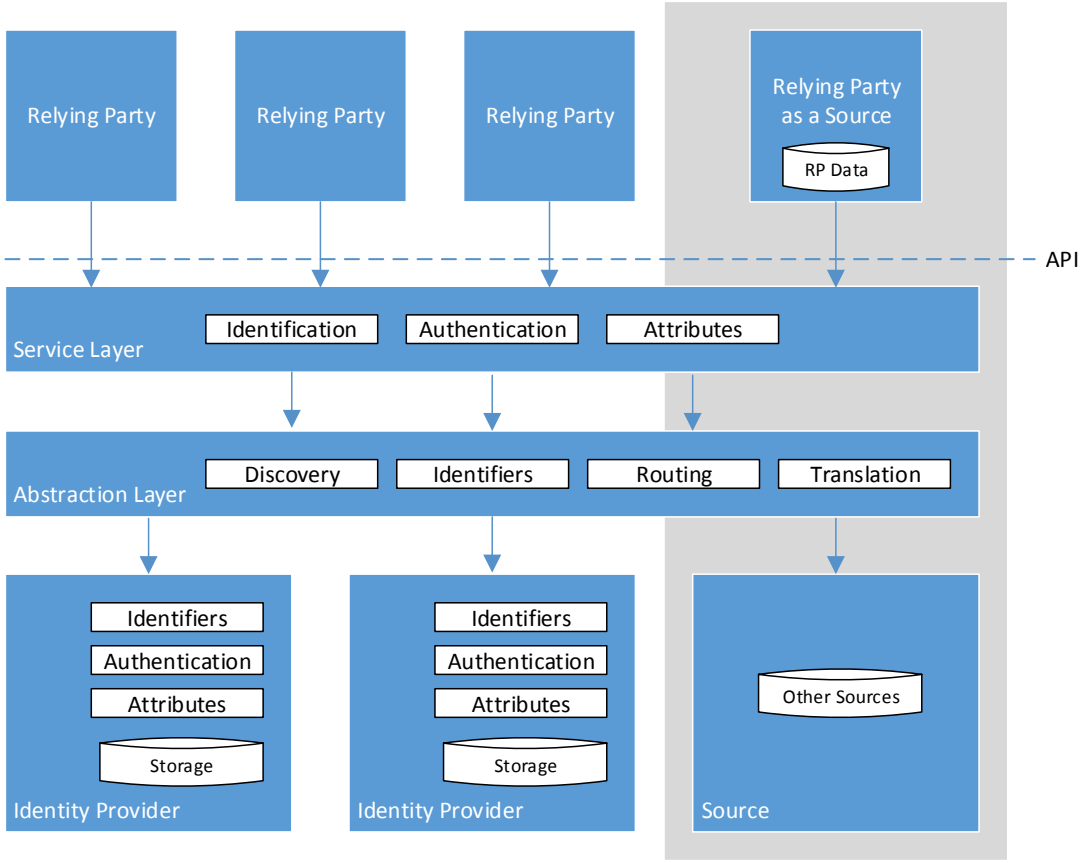
RP driven
Use discovery to improve UX
Build flexibility

Solutions Characteristics

Conceptual architecture



Example APIs:

- Identification
  - Discover if IDP can do ID&V on user
  - Ask for ID&V
- Authentication
  - Get authenticated identifier
  - Request Authentication for user with specified identifier
  - Discover if IDP can step-up user
  - Ask user to step-up
- Attribute Request
  - Discover if Authenticated user has required Attribute
  - Ask for Attribute (once discovered)
- Attribute storage
  - Discover if IDP can store Attribute for user
  - Ask user if they want to store Attribute
  - Store Attribute

Example Scenarios:

- Migration of known user to new authentication credential
- Growing identity assurance over time
- Risk based approach
- Assured identity from day one

Architecture Principles - Scotland's Digital Future: High Level Operating Framework

Customer and citizen focus	Digital Standards
	Multi-channel
	Verification and easy sign-in for citizen access
Privacy and openness; using data appropriately	Data Management – Open Data
	Data Management – Data Sharing
A skilled and empowered workforce	ICT Workforce Capability
	ICT Workforce Capability – Enterprise Architecture Skills
Collaboration and value for money	Reuse, before buy, before build
	Collaboration
	Use of Open Standards in Software
	Use of Open Source Software
	Single approach to identity & access management for public sector employees
	Enterprise architecture approach to ICT planning
	Service Oriented Approach (SOA) to Design of ICT Solutions

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Architecture Principles

Business Principles – User Related	Trusted, Transparent and Open
	Citizen Control
	Citizen Access
	Worthwhile [Citizen-Centric]
	Easy to Use
	Proportionate
	Single Identity [Tell us Once]
	Accessible and Available
	Usage Optional
	Limited Scope
Business Principles – Data Related	Ownership & Control
	Data Standards
	Legislative Compliance
Business Principles – Commercial Related	Compliant with Procurement Regulation
	Intellectual Property Rights
	Participation Agreement
Technology Principles – Standards	Scottish Government Standards
Technology Principles – Sustainability	Flexibility
	Scalability
	Lifecycle Costs
	Continuous Improvement
	Supportability
Technology Principles – Management	Audit
	Management Information

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Proposed Alpha Project

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Proposed Alpha – Objectives

- Develop Outline Business Case
- Test hypotheses from Discovery Project
- Work with relying parties and end-users to test what works / does not work
- Identify risks for the subsequent roll-out
- Work with providers to better understand capabilities in the market
- Determine the speed with which services can be rolled out.

What the Alpha project is **not**:

- Procurement of the long term solution. That will be the subject of a future procurement.

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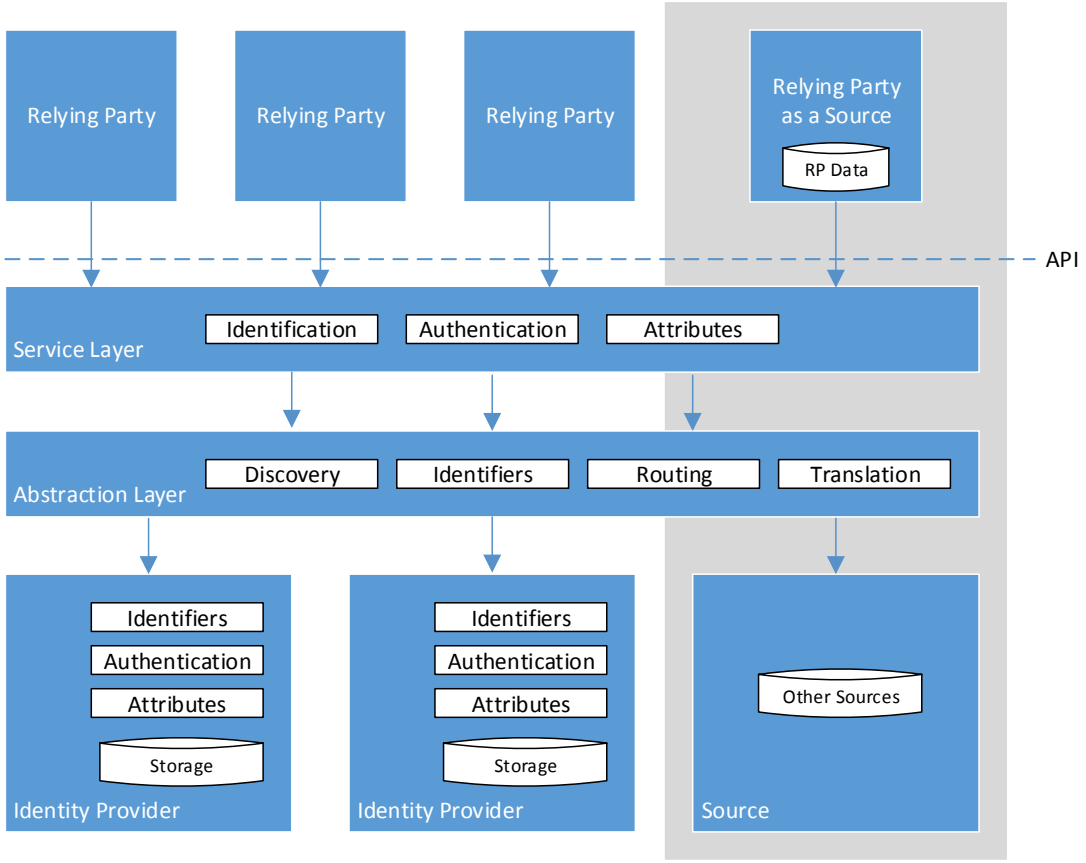
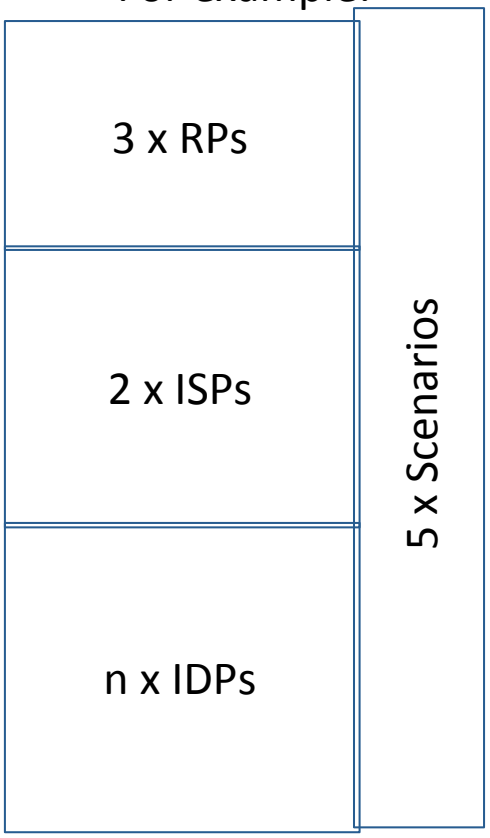
Proposed Alpha – What do we want to do?

Simplification of full solution



For example:



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Proposed Alpha – When do we want to do it?

- Have scope, participants and plan agreed in principle by 7th September
- Why 7th September?
- How will we achieve that:
    - Define principles of engagement (today)
    - High level request for information (today)
    - Responses within one week (by 4th September)
    - Second workshop to present options and obtain agreement (in principle)

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Proposed Alpha – Principles of engagement

The principles we will use to put together proposed projects

- **Transparency** – be clear about who is being suggested, for what and why
- **Objective** – be impartial in recommending approach / make-up of project.
- **Pragmatic** – take into account obvious synergies, to maximize chance of success
- **Responsive** – listen to what you suggest and do our best to take your concerns into consideration. Allow participants to form own projects.
- **Inclusive** – allow observers as well as active participants.

We hope to be able to involve everyone that is interested. Depending on the number of responses this may not be practical. If we need to say “no” this will have no bearing on any future procurement.

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Proposed Alpha – What will the Scottish Government provide?

- Business owner
- Coordination
- Participant
- Facilitation of User Research
- Escalation point

Assumption is that technical solutions can be developed / tested in appropriate collaborative environment.

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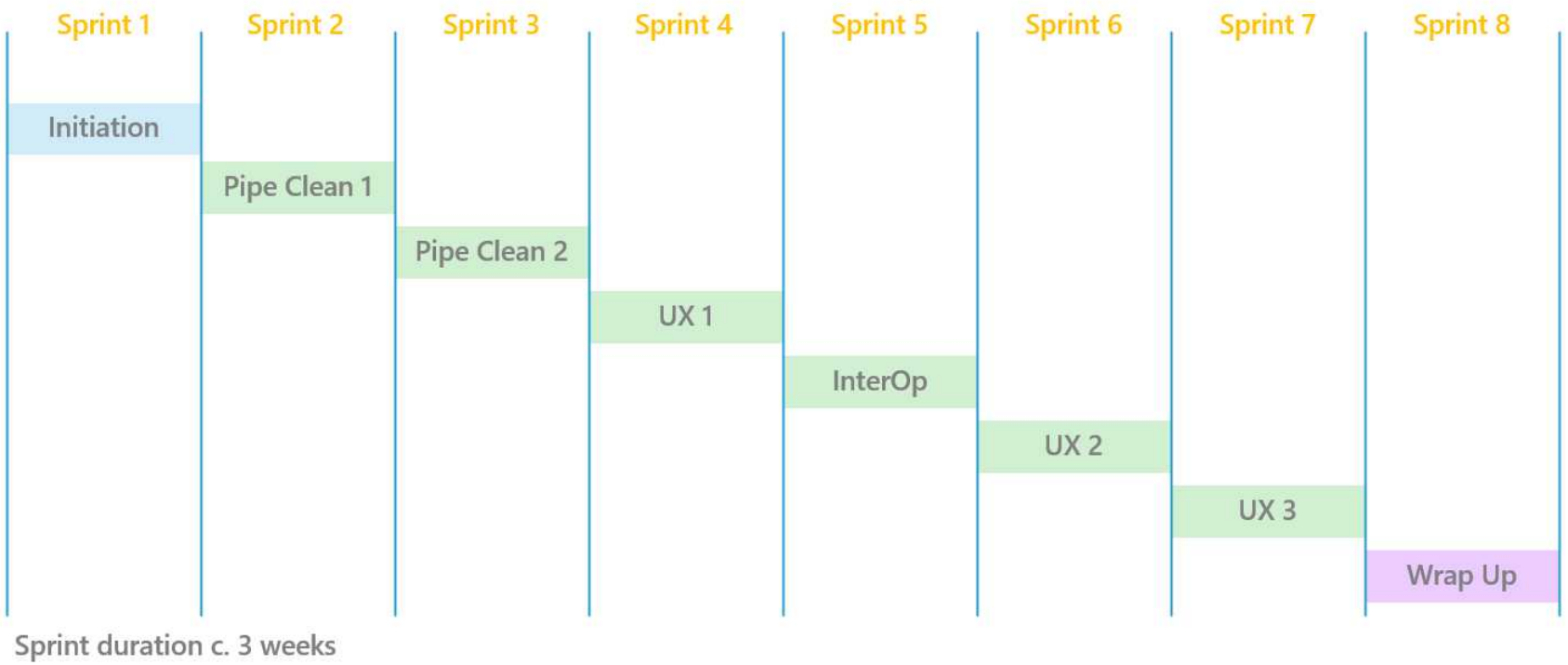
Proposed Alpha – Illustrative Plan



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Proposed Alpha - Outputs

Retained value – sprint 8

- Anything that should be kept for re-use / re-purposing in subsequent stages, e.g. re-usable technical knowledge, refinement of technical architecture, user research findings

- Risk catalogue

    - Design risks

    - Business risks

    - Technical risks

Published report of finding and recommendations.

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Q&A

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Next Steps

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Request for Information

Prospective participants are requested to respond by email to onlineidentityassurance@gov.scot by 4th September with:

- Confirmation of interest in project
- Proposed role – IDP, Data Source, Integration Layer, Relying Party
- Type of involvement –participant or observer
- Description of assets and capabilities you propose to bring to the project
- Indication of level of involvement desired – e.g. leader, active participant, follower.
- Possible locations for collaborative working – space in own office, ability to collocate in Edinburgh, other ideas
- Any restrictions or limitations on what you can do
- Person we can contact to discuss further.

Note, normal OIX engagement rules would apply:

- Project Policy: http://oixuk.org/project-definition/
- Code of Conduct: http://oixuk.org/code-of-conduct/