



# National Livestock Identification System (NLIS) Database Uplift Project TECHNOLOGY SOLUTION PROVIDERS and API INTEGRATORS

10 February 2025



# Agenda

- Introduction
- Project Overview
- Developer Portal
- Integrator Transition Support
- Q&A
- Wrap up



# NLIS Database Uplift Project Overview

# Why an uplifted NLIS Database is needed

- The NLIS underpins Australian red meat market access
- Key pillar of defence against disease and food safety issues
- Ageing - 24 years old
- Uplift is needed to ensure it is future-proofed and easy to use
- Tracking for a 30 June 2026 completion
- The project is supported by a \$22.5 million funding grant by the Australian Government.



## The RoadMap – When we will deliver

We are here



01

**JUL – OCT 23**

**What does the uplifted NLIS database need?**

Extensive stakeholder engagement to identify must have features



02

**JUL 23 – MAY 24**

**What will the uplifted NLIS database look like?**

NLIS users engaged to ensure the new platform is easy to use



03

**JUN 24 – SEP 24**

**Platform design begins**

Software designers draw up plans for the new platform

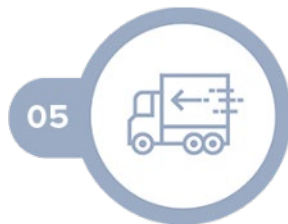


04

**OCT 24 – DEC 25**

**Time to build**

Regular showcases held to gather feedback during build

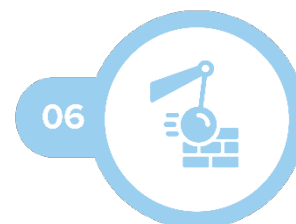


05

**JAN 25 – JUN 26**

**Staged transition**

Data migrated to uplifted NLIS database and features progressively rolled out



06

**JAN 26 – JUN 26**

**Closing the old NLIS database**

Original NLIS database decommissioned in tandem with new platform release

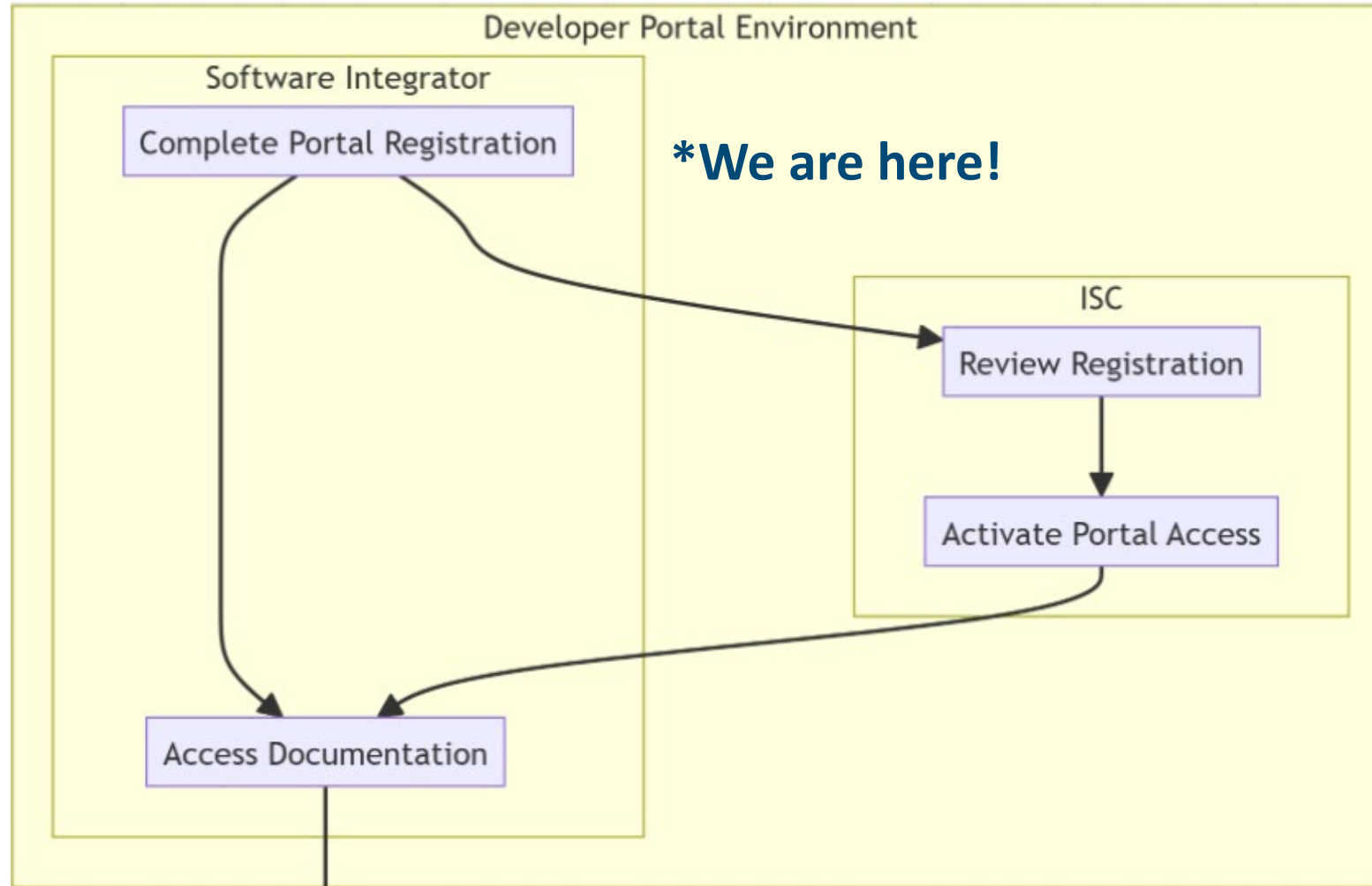


**JUL 26**

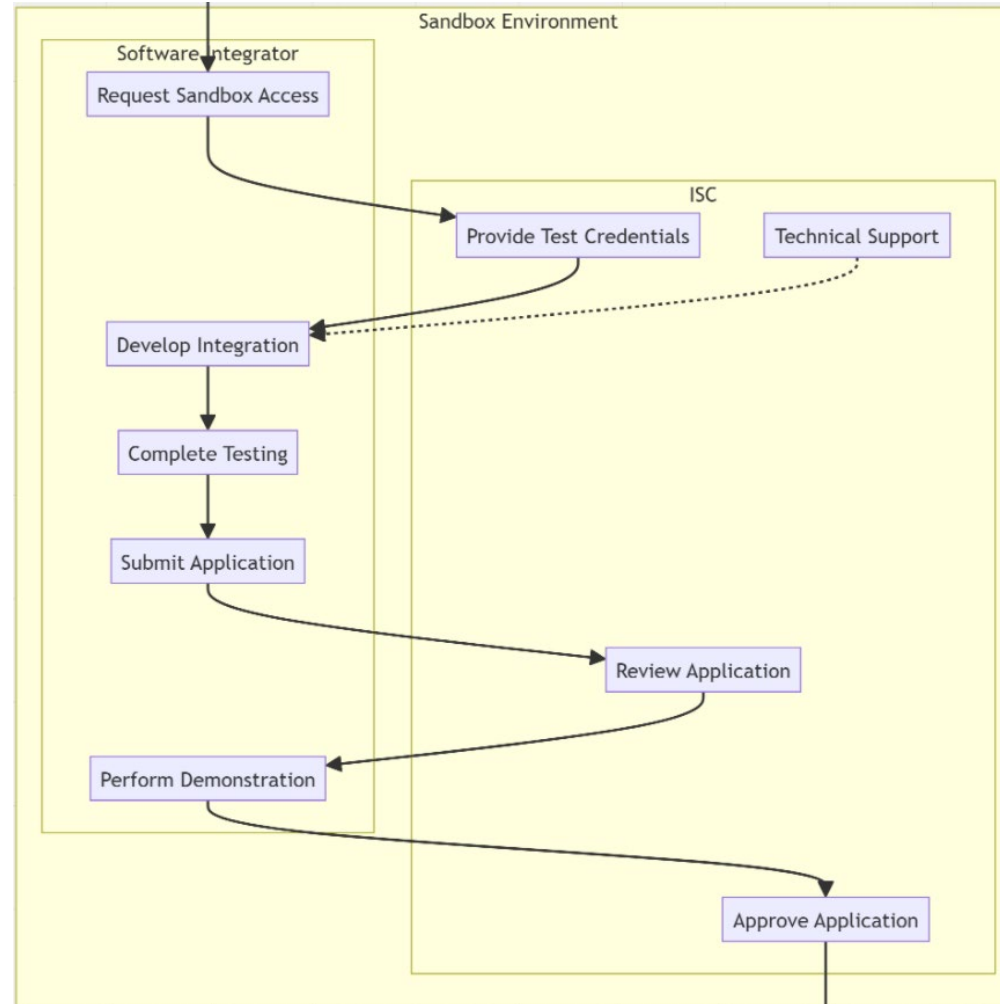
**Uplifted NLIS database fully operational**

We made it. The uplifted NLIS database delivering vast efficiency and traceability benefits

# The Integrator Onboarding Process – Where are we?

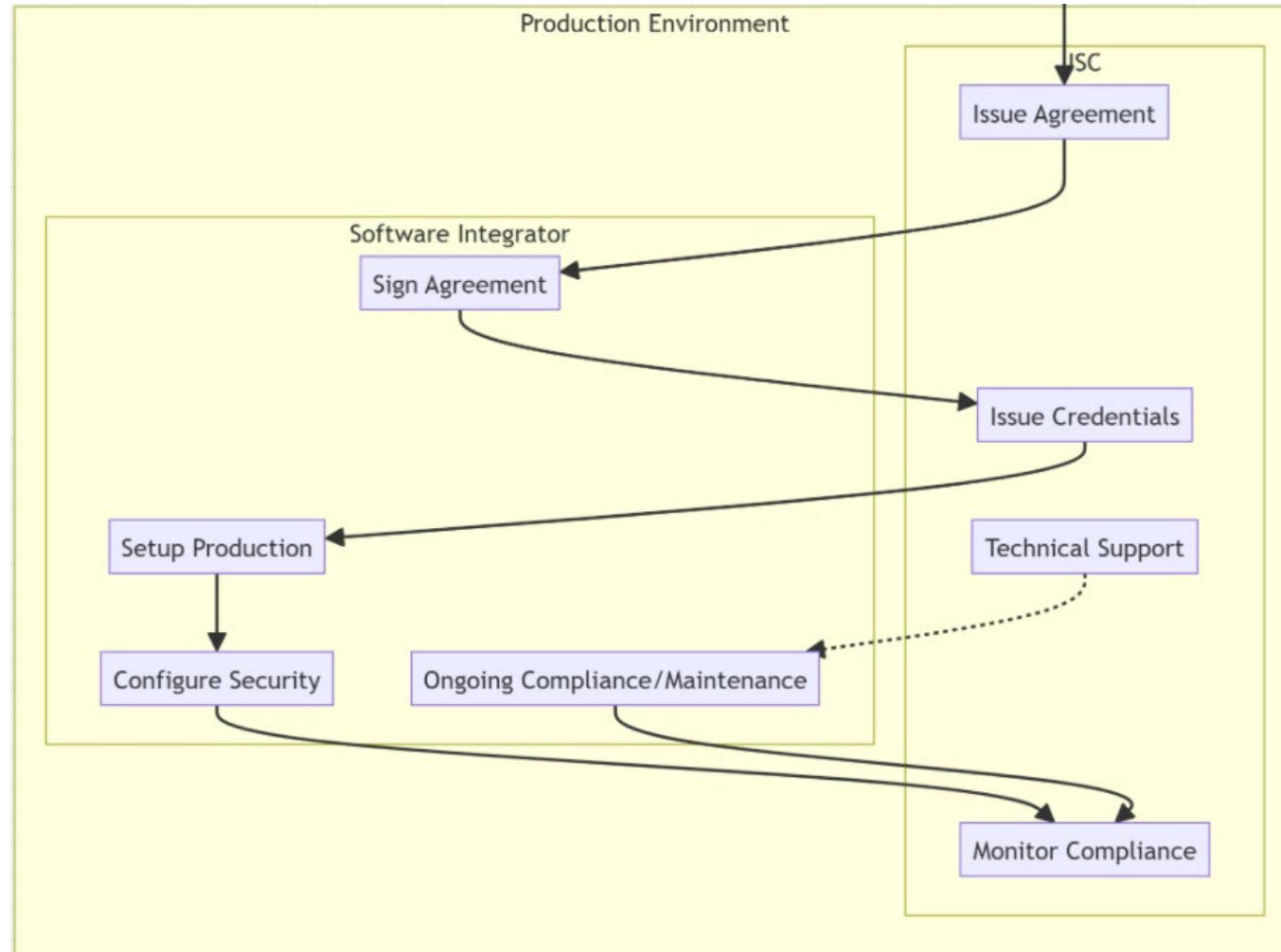


# The Integrator RoadMap – Where are we?





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# The Integrator RoadMap – Documents to be aware of

## Dev Portal and Sandbox

- NLIS Dev Portal and Test Environment Terms of Use and Privacy Policy

## Production

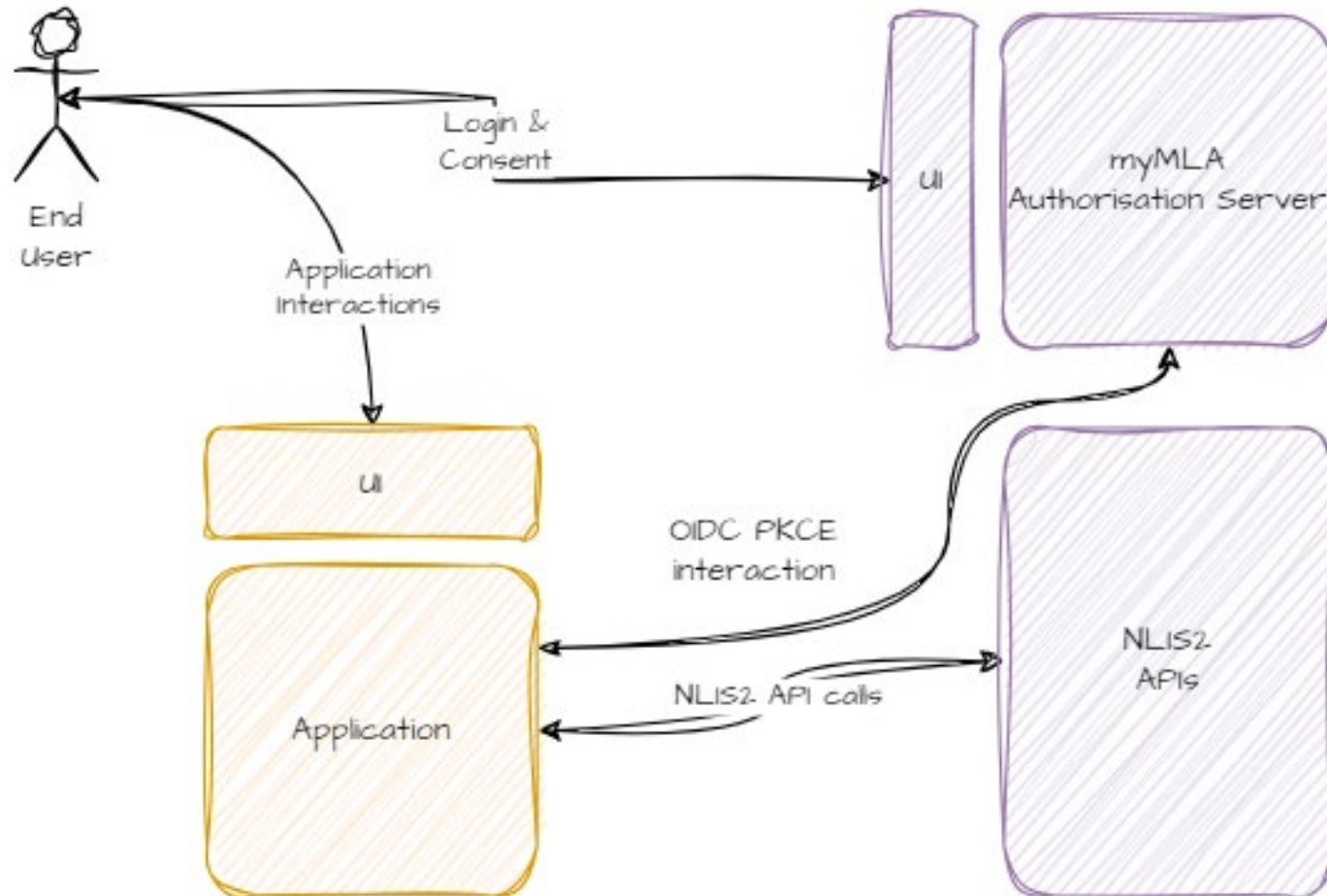
- NLIS API Application Form (currently under development)
- NLIS API Systems Access Agreement
- NLIS API Standard

# Authentication and authorisation

# NLIS 2.0 – the APIs

- Adopting an “API First” system where all interactions with the NLIS 2.0 are via Rest APIs (both NLIS 2.0 web app or 3<sup>rd</sup> party integrators)
- Each API interaction with NLIS 2.0 needs an authenticated access token to proceed.
- Supporting existing use cases, mostly human interactive for integrators to query NLIS and record data on users’ behalf with the ability to be extended to support emerging use cases.
- The introduction of “Service Account” implemented with the principle of least privilege to enable other use cases when human interaction is impractical or not possible.

# Authentication Approach – Human Interactive



The “Application” will obtain via OIDC PKCE flow an **ID** token, which is used to then obtain one or both of the following tokens

- a **Refresh** token
- an **Access** token



# Authentication Approach – Other Use Cases

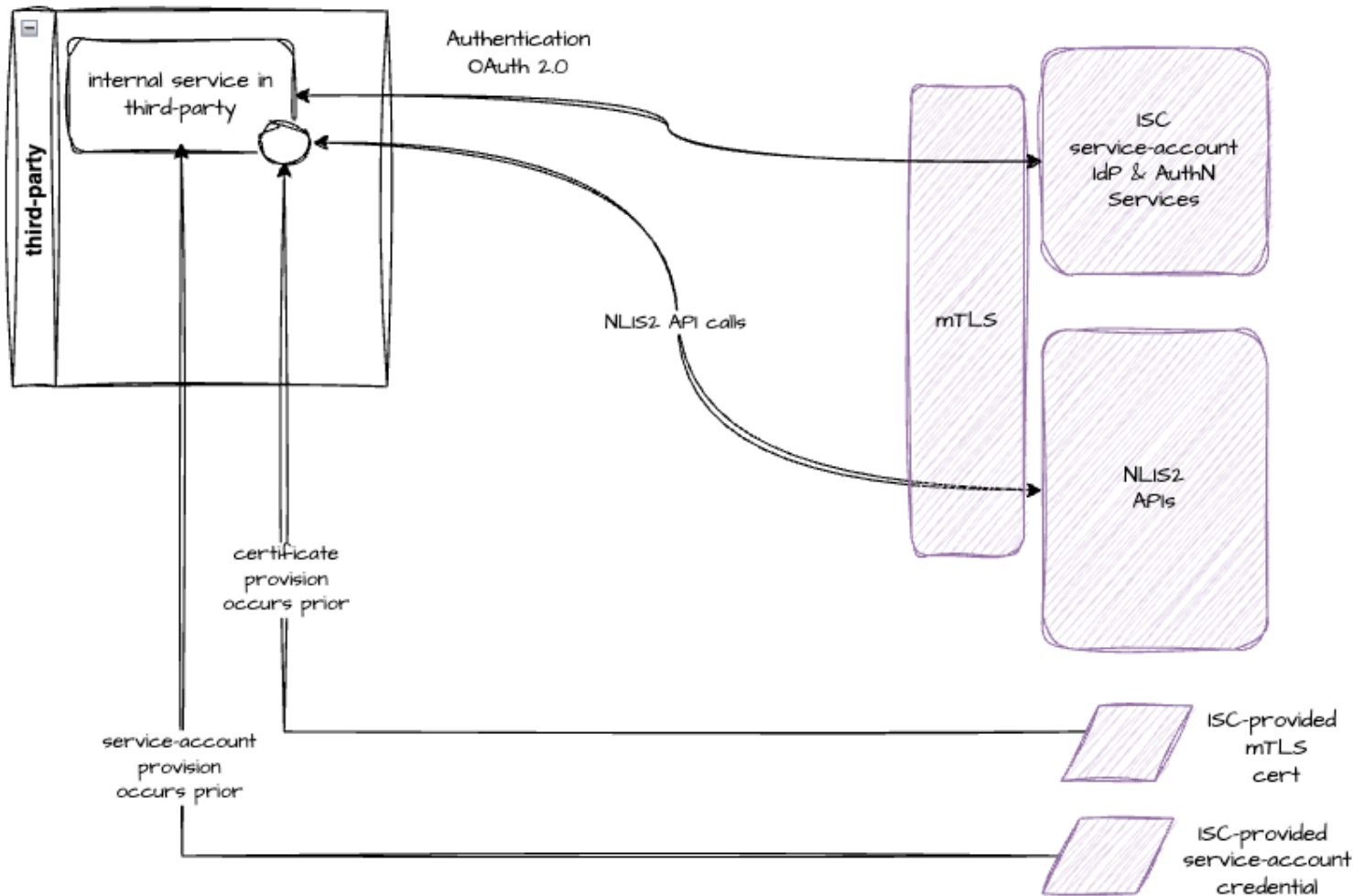
There are few cases where acting 'as' a specific NLIS user is not appropriate:

- When the service is providing a B2B service to an NLIS organisation or entity: that is, when the third-party integration is providing a service to another business, as opposed to a specific or small set of users.
- When the service is recording data (movements, device status updates, etc) where it is difficult or impractical to originate as a specific user of NLIS.

In these cases, the third-party integrator will need to request 'service-account' credentials from ISC. The OAuth2 PKCE flow will result in an access token that can be used when sending API requests.

ISC will issue TLS client-side certificates to integrators for such use cases (and indeed for myMLA 'offline' use-cases as well). Such TLS certificates will be used with the mTLS connectivity (illustrated in the next drawing) to give an extra security defense against stolen JWT tokens.

# Authentication Approach – Services

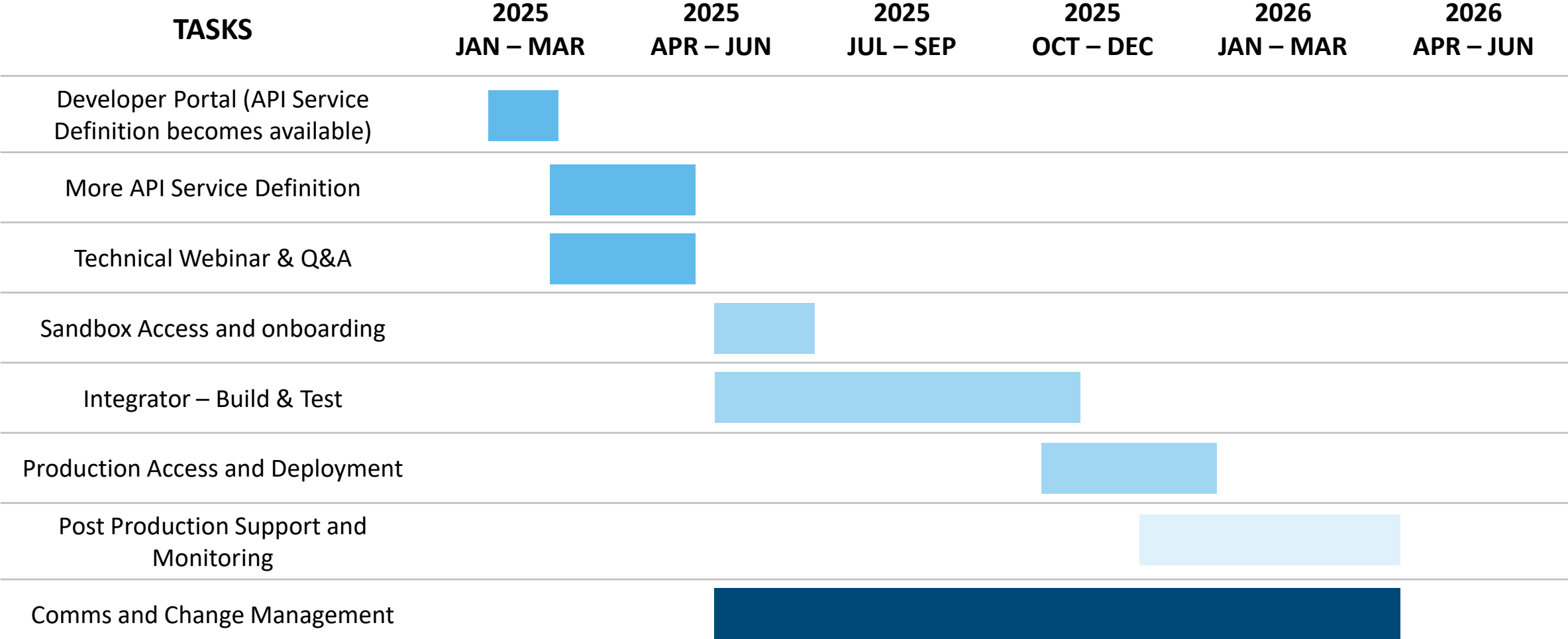


The integrator's "Service" will obtain a JWT access token via OAuth 2.0 PKCE flow

The "Service" will then use a mTLS client-side cert to communicate with the NLIS 2.0 APIs. Each API call will need to have a 'Bearer <jwt-token>' header filled in by the Service just like the myMLA/human case

# Developer Portal demonstration

# Integration timeline





# NLIS Database Uplift Transition Support for Integrators

# NLIS Uplift Transition Support

- Administering a \$3.9m (ex GST) Commonwealth funding Grant
- To ensure API connections are in place
  - Limit service outages
  - Maintain traceability continuity and regulatory function.
- Will offset some costs of transitioning
- For:
  - Integrators currently using the NLIS API for traceability purposes
  - State and Territory Departments of Agriculture (SDAs)
- In collaboration with DAFF, we have developed funding framework that aims to support as many integrators as possible

# Who is eligible to apply for the grant funds?

- Existing integrators:
  - NLIS API approved tag manufacturers
  - Existing software providers for feedlots, saleyards, and processors
  - on-farm management systems,
  - livestock agents systems
- Not eligible:
  - Recipients of other Commonwealth traceability grants
  - NLIS users upload data via the web



# How does the funding work?

Integrator Type	Development costs available	Support costs available	Total Allocation	Integrator 20% contribution
“I am a ...”	“I can receive up to...”	I can apply for up to...”	“I am eligible for up to...”	“I need to contribute \$... to satisfy funding amount”
Tag manufacturer	\$14,400	\$5,000	= \$19,400	\$3,880
Feedlot integrator	\$34,800	\$20,000	= \$54,800	\$10,960
Processor integrator	\$54,000	\$20,000	= \$74,000	\$14,800
Saleyard integrator	\$32,400	\$20,000	= \$52,400	\$10,480
All other integrators	Up to \$15,000		= \$15,000	\$3,000

- Distribution of the funding amount per integrator is dependent on the number of applicants received
- Calculation of each Integrators 20% contribution will be calculated by ISC and shown in each Integrators Funding Agreement



# Application and Project requirements

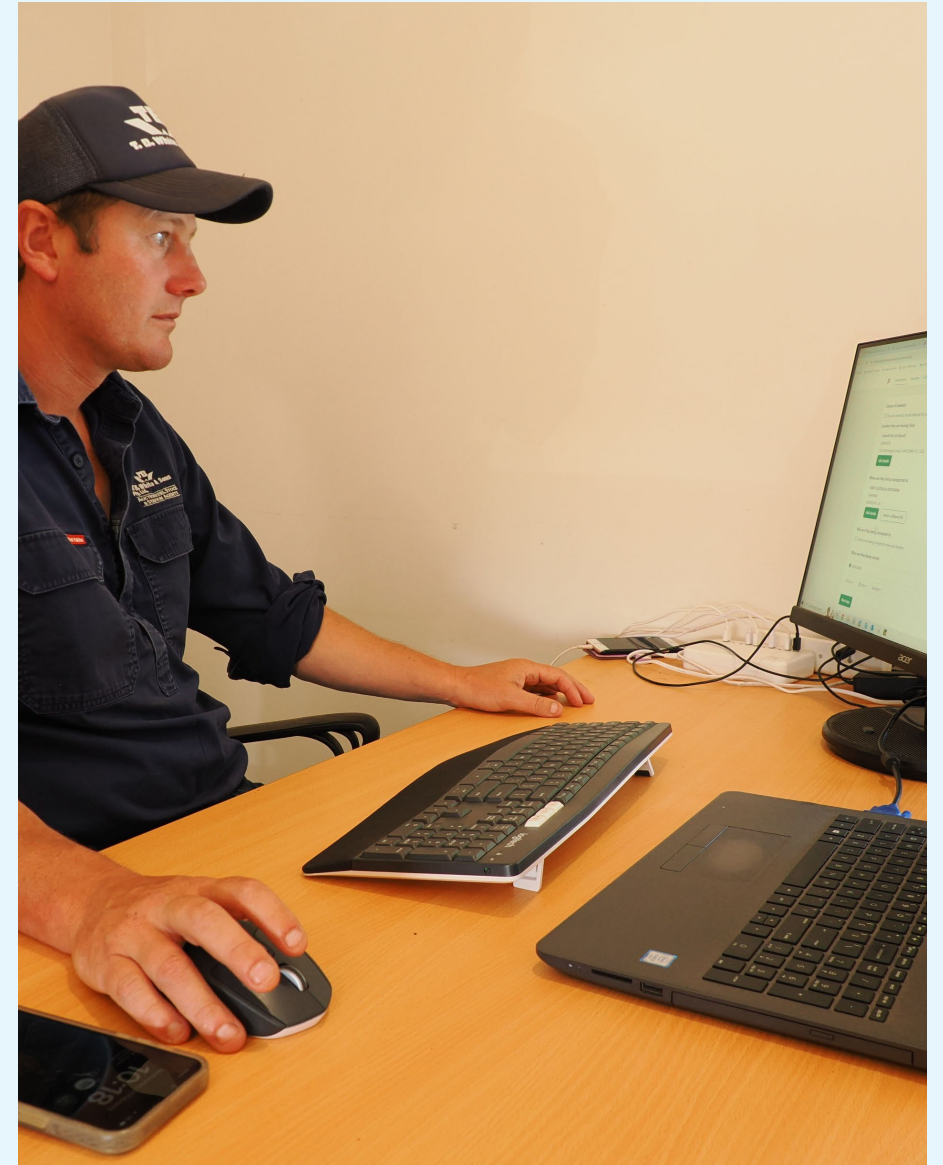
**Request for Proposal:** Open 12 February – Close 12 March 2025

## Projects to be complete by Feb 2026

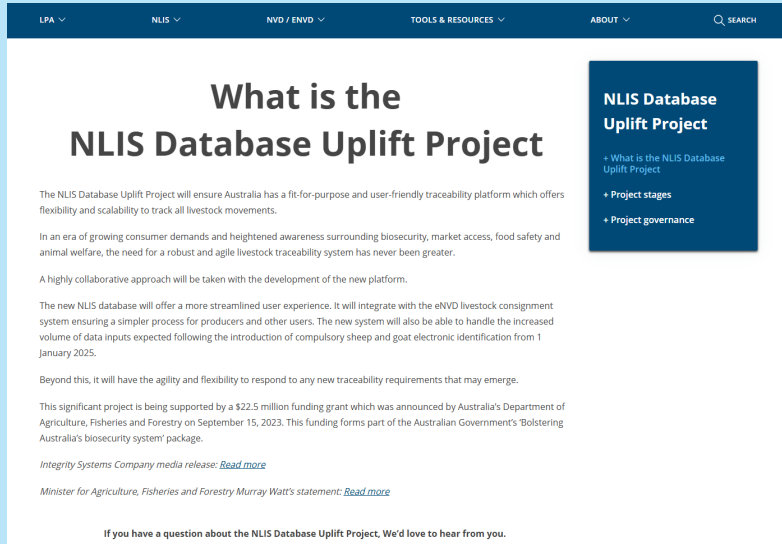
- Demonstrate your implementation to ISC
- Execute NLIS API System Access agreement
- Provide ISC with summary of change (template to be provided)
- Provide a Financial Statement demonstrating Integrators 20% contribution to the project
  - ISC / MLA will not be invoicing you for this contribution
- All Integrators are responsible for communications, training and technical support of their clients / customers

# Timeline

- Applications will open 12 February 2025
- Details about how to apply will be available on the MLA Current Tenders webpage.
- Download the application form and return to ISC by 12 March 2025
- Integrators advised of outcome by April 2025



# More Information and Support



**NLIS Uplift [webpage]**  
(general info, FAQs & updates for all end users)

**Integrators [webpage]**  
(FAQS)

ISC website

If you have any questions, please email us



NLIS Database Uplift team:  
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Peter Quigley  
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