IRWIN v12

Business Plan

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Executive Summary (holding for consensus)

New System Integrations:

FBMS

- Business Need: Federal contracting and financial management systems must comply with the Digital Accountability and Transparency Act of 2014 (DATA Act), Public Law 113-101. The DATA Act requires federal agencies to collect, structure, and report financial, procurement, and award-related data in standardized, transparent, and machine-readable formats. To meet these obligations, the system must support government-wide data standards, ensure the accuracy and completeness of financial and award information, and enable timely reporting to government reporting platforms such as USAspending.gov.
- Requestor/Rational: Digital Accountability and Transparency Act of 2014
  *Will likely require a new API or significant updates to the Contracts API
- Impacted Systems: FBMS, IFPRS, e-ISuite, FireCode, Fire Reporting

IIPA/ViPR Next Generation (Integrated Internal Procurement Application) cont'd

- Business Need: As a connected system, I need an established system of record for agencies' contracts and associated resource data so that the latest authoritative data is shared with the resource ordering system for users to fill capability requests appropriately. Phase two to add Land Use Agreements and EERAs
- Impacted Systems: IROC, HEMS, e-ISuite

IFPRS

- Business Need: As a fuels or post-fire staff member, I want to pull resource and incident info from IRWIN into IFPRS for better situational awareness of workload and financials.
- Requirements: Additional incident elements, connecting to the financial systems, and reading resource requests data for prescribed fires. Will necessitate Federal CAD to read Prescribed from incidents created by system IFPRS via IRWIN.
- Impacted Systems: IFPRS, FBMS, CAD(s), IROC

California Counties (CAD)

- CONFIRE (San Bernardino) Central Square
- Impacted Systems: CAL FIRE (incident conflict detection), WildCAD, IROC, FireCode

Additional Learning Management Systems

- IRWIN is working with the learning management systems to facilitate the connection between LMS and the qualifications systems. IRWIN implemented the learning API in v9 and will support the systems to connect v10.
- Business Need: As a user, I need responder training to come into IRWIN and subsequently into the qualification systems.
  - IAT

        - CF QMS
        - Fire Engineering Training & Journal of Emergency Medical Services (FET & JEMS)
    - Impacted Systems: IQS, IQCS, CAL QMS, EDG

*CAD – Louisiana Department of Ag and Forestry

*Incident/Fire Reporting System

- First Due CAL FIRE Incident Reporting Platform (?)

Importance: Will be established in coordination with Extended Teams

Importance: Highest

AVL/Resource Location Integration

- Business Need: As a connected system, I want to be able to update resource location, either with coordinates or through a duty location. I also want the integration system to automatically set a resource location based on business rules so that I can securely have a better understanding of where my dispatch's resources are at a given time.
- Requirement(s): Assign IRWIN IDs to each resource to be tracked. Determine which systems should send location updates and potentially assign a relevant ADS. Determine a default initial location (e.g. Duty Station) so each resource automatically has a starting location, as well as handoff and fallback rules for when precise GPS coordinates are unavailable. Determine minimum number of location updates to meet the needs of dispatchers without putting excessive load on the system.
- Data elements include:
    - IsLocationTrackingEnabled
    - LocationTimestamp
    - Shape
    - DutyStation
- Requestor/Rationale: Dingell Act Resource Tracking federal requirement to keep track of resource locations with more granularity; will provide significant value to systems that need to know where resources are in real time. CAL FIRE has asked how often they can send requests to IRWIN because their feed is currently 'streaming.' Real time resource location and seamless data sharing strengthen every layer of emergency response.
    - Faster mobilization
    - Improve cross agency coordination
    - Deliver a clearer operational picture during rapidly evolving incidents
    - Support the overarching mission emphasized in response planning: enabling dispatchers and responders to protect firefighters and safeguard the public
- Impacted Systems: CADs (CAL FIRE< WildCAD-E), IROC, DART

*NERIS Integration

- Business Need: The National Emergency Response Information System (NERIS) is the nation's primary source for comprehensive fire and all-hazards emergency post-incident data. It is designed with the fire service to make reporting easier, reduce duplication, and provide departments with actionable insights and information to inform decisions. Each department

owns its own data, while contributing to a larger national picture that helps local, state, tribal, and territorial agencies improve prevention, response, and firefighter safety.

- Requirement(s): Integrate NERIS and IRWIN. The solution currently consists of a bi-directional data flow: IRWIN will pull data from NERIS and NERIS will pull data from IRWIN as needed.
  - New IRWIN username: neris
  - IRWIN development team will create an ETL to pull NERIS data in.
  - New data elements: NERIS ID
  - New Incident Kind and Category: Mutual Aid - this may not be in the first iteration
  - New Incident Relationship to reflect mutual aid incident / WF relationship
- Requestor/Rationale: Systems connected to IRWIN (primarily InFORM) would like to have access to this data so that users do not have to utilize bulk uploads in Inspector. Additionally, with these two separate data sets left unconnected, there is no single source of truth for fire occurrence data.
- Impacted Systems: Fire Reporting (InFORM), Incident Read/Write, State Fire Reporting Systems

*Suppression Strategy – Direct/Indirect/Both

- Business Need: A need was identified to update the terminology used to describe wildland fires and the strategies used to manage them. This change reflects current federal policy, which recognizes only two types of wildland fire: prescribed fire and wildfire. It also replaces outdated or confusing terms such as “full suppression,” “less than full suppression,” and “managed fire” with clearer descriptions of how firefighters are working on the ground.
- Requestor/Rationale: FMB Memorandum No. 26-001 Direction
- Requirement(s): Suppression Strategy Types – Wildfire suppression is the extinguishing or confining of wildfire.
  - Direct Extinguishment Strategy: Firefighters engage the active flame front directly to stop fire spread.
  - Indirect Confinement Strategy: Firefighters work away from the active flame front to steer or contain the fire
- Expecting further direction

Importance: High

*Data Clean-up / Resource fall-off rules

- Business Need: The system is less efficient when resources and associated capabilities linger in the integration databases beyond their usefulness.
- Requirement(s): Determine cleanup rules, while identifying any downstream impacts, so resources and associated capabilities can be offloaded from the integration database, resulting in reduced database size so the system can be kept efficient.

For example, when an overhead resource retires, their resource capability should be automatically archived after 5 years (suggestion) or set to IsValid = 0 and removed from the system. There are requests in Production, many of which haven’t been touched since 2023. The team discussed the need for integrated systems to do period/regular cleanup. All connected systems will benefit from more performant integration databases.

- Impacted Systems: CADs, IROC, IQS, IQCS

Resource Operational and General Status Alignment

- Business Need: As a connected system utilizing resources, I need to evaluate current data exchange of resource status between my system and the integration as well as other connected systems so that the user community can maintain resource status in one system rather than having to maintain status in multiple systems and identify gaps where additional statuses are needed.
- Business Need: Standardize CAD Resource Status i.e., Out of Service
- Business and system requirements to support "Available At-Incident"
- Impacted Systems: CADS, IROC, ICS 209

Validation

Unit ID

- Business Need: Currently there isn't validation in place to prevent connected system's end users from creating Incident records outside of business rules and recommended business practices. Implementing validation for IRWIN unit IDs will significantly improve data accuracy and quality, resulting in more reliable and precise reporting of the operational landscape.
- Requirement(s): IRWIN will validate Unit Identifiers used for incident record creation supporting wildland fire roles
  - DispatchCenterID and POODispatchCenterID may only be populated with units whose wildland fire role is Dispatch/Coordination Center.
  - 'Dispatch/Coordination Center' cannot be a Protecting Unit or Jurisdictional Unit on a WF
  - Dispatch/Coordination Center can be incident host for Preposition or Support Event Category
  - Resource Provider Only unit identifiers cannot be utilized to create incident records
- Impacted Systems: All Integrated Systems

ETA and ETD

- Business Need: Some systems are setting the ETD values on capability requests to be after the ETA values, which is causing validation issues in IROC as it violates business rules.
- Requirement(s): Overall validation proposal: ETD <= ETA <= DemobETD <= DemobETA; Essentially, IRWIN validates that ETD cannot be after ETA, DemobETD cannot be after DemobETA
- Requestor/Rationale: This was requested from IROC during a Tech Talk meeting on April 1, 2026.
- Impacted Systems: Related Stakeholders: IROC, CADs

*Prevent WF names from containing the word "complex"

- Business Need: WF names can currently include the word "complex," which is undesirable for clarity/business rules.
- Requirement: Add validation logic in WF creation/editing to reject names containing 'complex' (case-insensitive), with a clear error message to the user.
- Impacted Systems: CADs, Read/Write

Importance: Medium

Additional Frequency Integration

- Business Need: As an end user of frequency data, I need the data exchange to make frequency data available for the:
  - NWCG Aircraft Dispatch Form, PMS 250 & California FC-106
  - Incident Radio Communications Plan (ICS 205)

*Additional Data Element(s)

ResourceIdentifier" field and a "ResourceIdentifierType"

- Business Need: Ability to determine the authoritative field for uniqueness where multiple values are present but only one required.
  - "VIN" or
  - “SerialNumber" or
  - "ServiceID"
- Requestor/Rationale: IROC and IIPA (during contract work conversations)
- Impacted Systems: IROC, HEMS, IIPA, IRWIN

Integration of Supplies

- Business Need: As a connected system, I need an established system of record for agencies’ contracts and associated resource data so that the latest authoritative data is shared with the resource ordering system for users to fill capability requests appropriately
- Requirement(s): IROC and IRWIN ingest contract data from IIPA and E-ISuite groups. Addressing this gap will require adding supply catalog entries in specific cases and differentiating between traditional catalogs (e.g., OH), where resources associated with a CRID may not be unique and available quantities may be undefined.
- Requestor/Rationale: The integration of Supplies is important because accurate, authoritative contract and resource data is critical to fulfilling capability requests effectively. Establishing a system of record and integrating contract data from IIPA and e-ISuite into IROC and IRWIN ensures users have reliable information, while addressing catalog gaps and non-unique resources improves accuracy and consistency in resource ordering.
- Impacted Systems: IROC, IIPA, E-ISuite, FBMS

Kneeboard Capability

- Business Need: As an aircraft dispatcher, I need to be able to give timely, accurate, consistent data the pilot’s incident and resource information so that they can complete their mission. Currently, CADs do not store this information in a way it can be shared with IRWIN, and IRWIN does not support certain data elements needed for the Kneeboard.
- Requirement: IRWIN adds new incident data elements (e.g., Sunset+30, Elevation, Distance, Bearing, From-VOR, Initial Point details, Ground Contact, Other Aircraft, Aircraft Hazards, MTR/SUA, TFR, Reload Bases, Additional Information) and integrates smoke checks from CADs so information is timely.
- Requestor/Rational: National Coordination System Committee
- Impacted Systems: CADs, IROC, Incident Read/Write

Integrate Smoke Check Category

- Business Need: As an internal or external data consumer, I have a common operating picture need to understand possible new, yet unconfirmed wildfires on the landscape.
- Impacted Systems: CADs, IROC (?), FireCode(?)

Importance: Low

*InFORM FODR Integration and Splicing Records

- Business Need: As an IRWIN connected system, I need to have access to the Fire Occurrence Data Record (FODR). Community has asked to consider related incident records in InFORM and how that translates back to IRWIN. There could be many-to-many relationships between InFORM and IRWIN records which could be a high lift for systems.
- Impacted Systems

Request Status

- Business Need: As a connected system that manages resource requests, I need to be able to have an indicator if a request is:
  - At Preposition Committed
  - At Preposition Available
- Impacted Systems: CADs, IROC

UTF Capability Request Workflow

- Business Need: As a participating system, I need systems exchanging resource requests that perform an action that would change the Selection Area for a resource request to update the Selection Area with appropriate dispatch center so that requests are routed to the appropriate dispatch center to action on. Currently, the UTF workflow between CAL FIRE and IROC is not working according to business rules defined by the resource ordering system. The issue is that IRWIN does not store previous values for capability requests records, particularly selection area and origin dispatch center. Additionally, 'UTF' is not a fulfillment status in IROC, and so that domain value in IRWIN does not translate.
- Requirement(s) Add new Capability Request data elements:
  - Origin Dispatch Center
  - Action (null, Unable to Fill, Retrieve, Place)
    Remove "Cancel UTF" from Fulfillment Status domain.
    IRWIN tracks capability request history to capture placement history.
- Requestor/Rationale: Request from CAL FIRE; an initial solution has been white-boarded but is not finalized.
- Impacted Systems: CADs (CAL FIRE),

Update Dispatch Center ID (intersystem)

- Business Need: As a user, I need an established workflow within incident integration to facilitate transferring an incident from one dispatch center to another where the application managing the incident is different from the origin application.
- Requirement(s): IRWIN can add additional incident data elements to facilitate the transfer, primarily a signal to indicate that the record is ready for handoff and the target system. IRWIN

will also have to 'clear' or release ADS on fields where the origin system may have a higher value than the target system.

- This may be OBE due to the intrasystem workflow of incident transfer was established in v10 along with a "Request Managing Dispatch Center ID" data element for IROC to use when another center is managing resource requests but are not the origin center.
    - Impacted Systems: CADs, IROC, Incident Read/Write

Update Unit ID fields to include Country Code

- Business Need: Business Need: As a connected system that adds or updates incidents, I want to be able to send in UnitID with the country code included to comply with the NWCG standard.
    - Clarify with systems if IRWIN corrected the way it handles Unit ID fields if they would be impacted. Systems have already accounted for this within data exchange.
- Impacted Systems: All Resource and Incident Read/Writes currently integrated.

Resource Overhead Incident Type Endorsements

- Business Need: As a qualification system, I want to be able to assign capabilities that are endorsed by the National Incident Management System Integration Committee (NIMSIC) so that I can assign overhead resources who have this qualification to appropriate resource requests. WF and All Risk need to be addressed here.
- Business Need: As a resource ordering system or a CAD, I want to know what qualification endorsement types can be assigned to what incident types so that I can follow the appropriate business rules and present users with the correct qualification(s) at the time of assignment.
- Requirements: Determine rules for Dispatch Levels, Endorsements, Capacity and what incidents (WF/AH) a responder can go out on, as well as limitations on who or what can be ordered based on location and endorsed capabilities. Potential for multiple routes: either add additional capability types and base them on endorsements, or IRWIN can change the validation to allow the same capability type with a different endorsement for the same responder.
- Requestor/Rationale: The need to better understand how endorsements are being applied and how to assign relevant qualification endorsement types for AH and WF incident types was discussed in Tech Talks and other conversations. Ensuring overhead capabilities have the appropriate qualifications will enhance accuracy of capability assignments and result in proper Experience records.
- Impacted Systems: CADS, IROC, IQS, IQCS(OBE?), CFQMS

New Environments:

Integrated Training/Practice Environment(s)

- Longstanding request to have an integrated environment where systems can train users. Discussions need to be had on what the ask is for IRWIN as well as members who are connected to IRWIN higher environments.
- Business Need: As an extended system, I want to be able to have an integrated environment with all extended systems connected with the production version (higher environment) of their software so that users can learn how to operate in the integrated environment without disturbing production data.

**The creation of integrated training and practice system will allow users to train and practice in an end-to-end incident lifecycle workflow utilizing all the IRWIN integrated functionality and data without impact on the production systems. **
Impacted Systems: All integrated systems.

Additional IRWIN Improvements

Handing off maintenance of Data Mapping Workbook Domains

As an integration service, the IRWIN team is working to take advantage of existing data standards applications so that SMEs can better manage their data without having to wait for the integration service to make changes.

- Capability Type
- Frequency Inventory
- Learning Catalog
- Lookup Layers

Enhanced Reporting "Wildfire IQ"

- Business Need: As an integration service, I want to implement AI-enhanced reporting to deliver clearer, more actionable insights and produce reports that are easily understandable and accessible to leadership and non-technical audiences.
- Requirement(s): Implement AI-enhanced reporting starting with a review of the proof of concept, followed by conceptual architecture definition (data sources, pipelines, analytics, security, outputs).
  - Solution components (AI models, data integrations, dashboards, services) with ongoing model retraining.
  - Conduct beta testing for real-world feedback, run community engagement to build trust and adoption, and produce comprehensive documentation for design, operations, governance, and user guidance.
  - AI Enhanced reporting transforms complex integrated data into clear, actionable insights for leadership and non-technical audiences. The structured approach—from PoC validation through architecture, implementation, testing, continuous improvement, engagement, and documentation ensures a technically sound, business aligned, sustainable capability rather than a one-off effort.
- Impacted Systems/Stakeholders:
  - All connected system, DOI Leadership the IRWIN team is working to implement AI-enhanced reporting so that I can provide better insights and reports that are more easily accessible to leadership and non-technical staff.

Transition from Windows to Linux

IRWIN is transitioning our system from Windows to Linux to reduce costs and simplify maintenance. Transitioning from Windows to Linux reduces operating costs while simplifying system maintenance and long-term support. By modernizing infrastructure, standardizing development environments, and adopting open-source and cloud-native technologies, the solution improves system reliability, scalability, and sustainability while positioning IRWIN to better leverage platform upgrades, security enhancements, and future growth.

Disposable Prototyping

The IRWIN team will continue the longstanding design approach that emphasizes quickly creating low-fidelity prototypes to explore ideas, test concepts, and gather user feedback without the commitment to perfection. This technique supports the iterative design and development process by helping teams move swiftly and efficiently through the conceptualization phase for proposed new integration patterns demonstrating how integration might work and discover additional business requirements.

Reporting Views and Services (Data Flattening)

Users connecting to the read-only services for dashboards and other reporting have a hard time traversing and joining the many tables needed in order to answer the questions they intend to answer with IRWIN data. IRWIN team will create a discrete number of views that can be repurposed for many stakeholders. Due to the size of some data (ex. Resources) these views may not be able to be hosted as live, but rather updated at certain intervals - nightly, hourly, weekly, etc.

Tentative V12.0 Milestones and Dates

- Business Requirements Drafted Friday, April 23, 2026
- Business Requirements Community Review (Spring Data Summit) Thursday April 30, 2026
- Release of Business Plan Friday, May 8, 2026
- Project Management Plan Published Friday, May 8, 2026
- Release Management Plan Published Friday, May 8, 2026
- Testing Plan Published Friday, May 8, 2026
- IRWIN “Feature Complete” Friday, August 28, 2026
- Integration Specifications Published Friday, August 28, 2026
- Data Mapping Workbook Published Friday, August 28, 2026
- Initial API (Incidents and Resources) Build to TEST/Next Tuesday, September 15, 2026
- Initial API Build (Incidents and Resources) to OAT/Next Thursday, September 17, 2026
- Build Freeze Friday, December 18, 2026 - Sunday, January 3, 2027
- Integration Testing Monday January 25, 2026 - Friday January 29, 2026
    - New Systems and high transaction systems
- IRWIN “Code Freeze” Friday, February 19, 2027
- IRWIN Production API Release Wednesday, March 3, 2027
- IRWIN Observer Production Release Wednesday, March 3, 2027