

An aerial photograph of the Indianapolis skyline, showing various skyscrapers and buildings under a blue sky with scattered white clouds. The Indiana State Capitol building is prominent in the foreground, surrounded by a green lawn and walkways.

# Regional ITS Architecture Update Project: Draft Architecture Review

Indianapolis Metropolitan Planning Organization

July 11, 2023

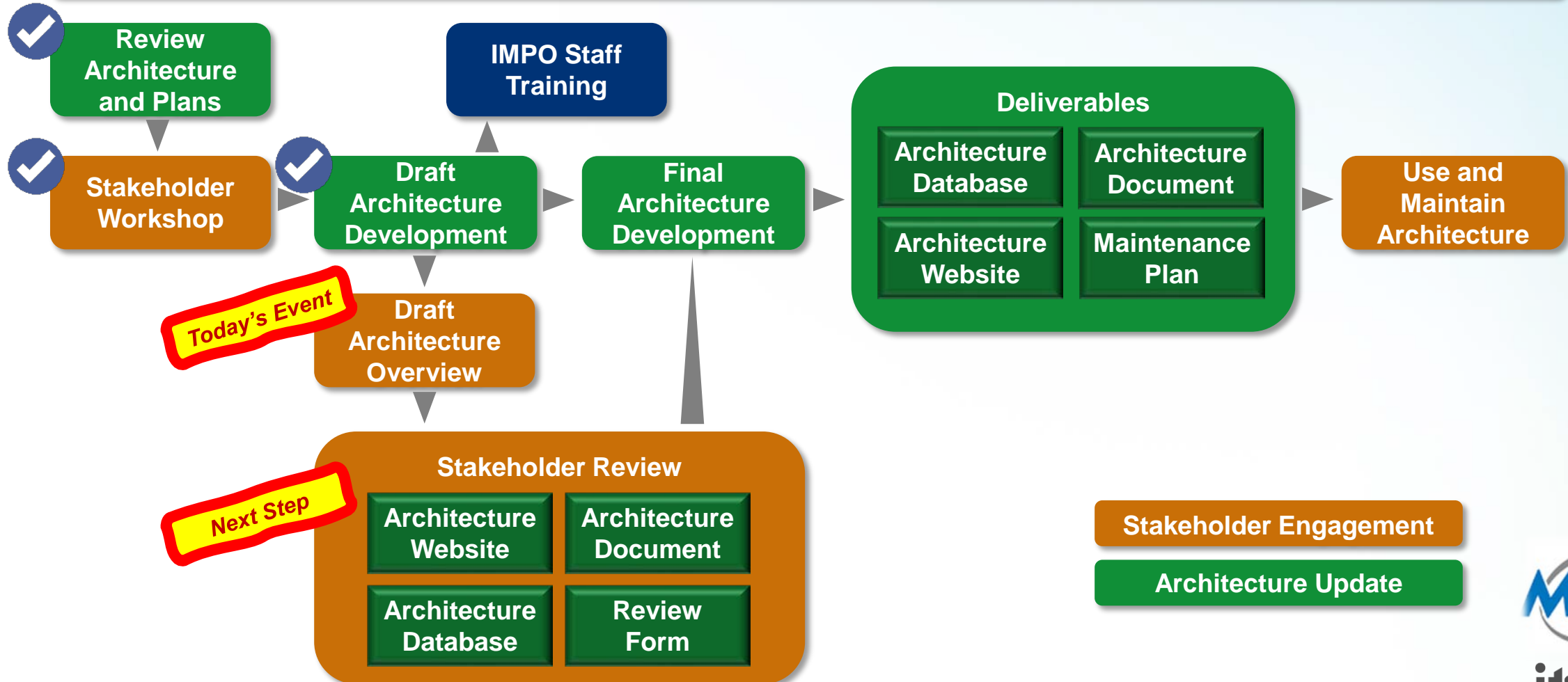


# Agenda

1. Architecture Update Project Status
2. Architecture Review
3. Project Website, Database, Document
4. Stakeholder Review Actions
5. Next Steps

# Architecture Update Process

ITS Working Group



# Architecture Update Status

- Stakeholder Workshop conducted on May 4, 2023
- Stakeholder Feedback received through Workbook responses
- Draft Architecture Update has been completed
  - Architecture Website
  - Architecture Database/RAD-IT File
  - Architecture Document
- Architecture Update Report documents changes made
- Next important effort: Stakeholder Review

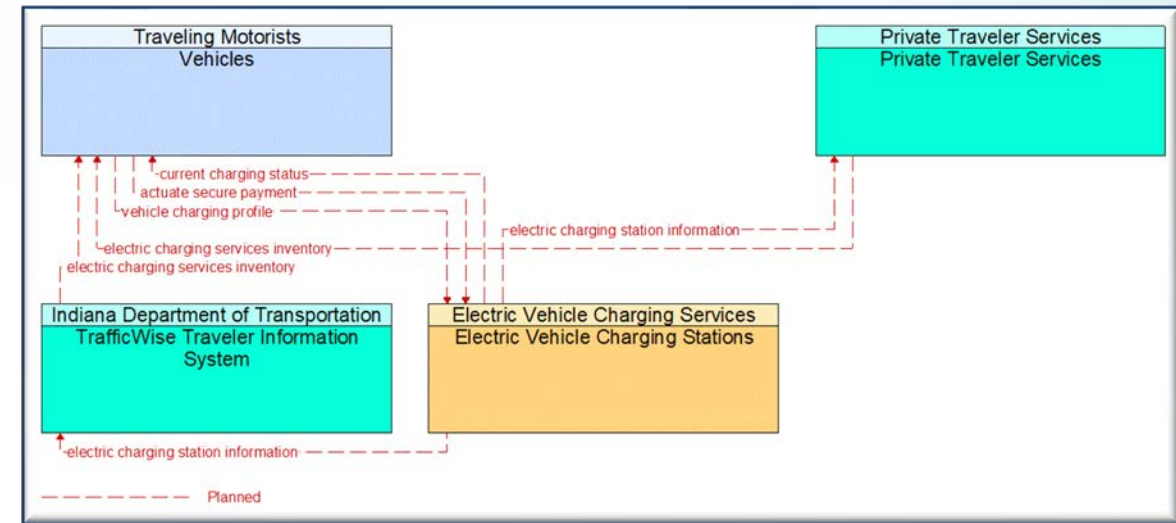
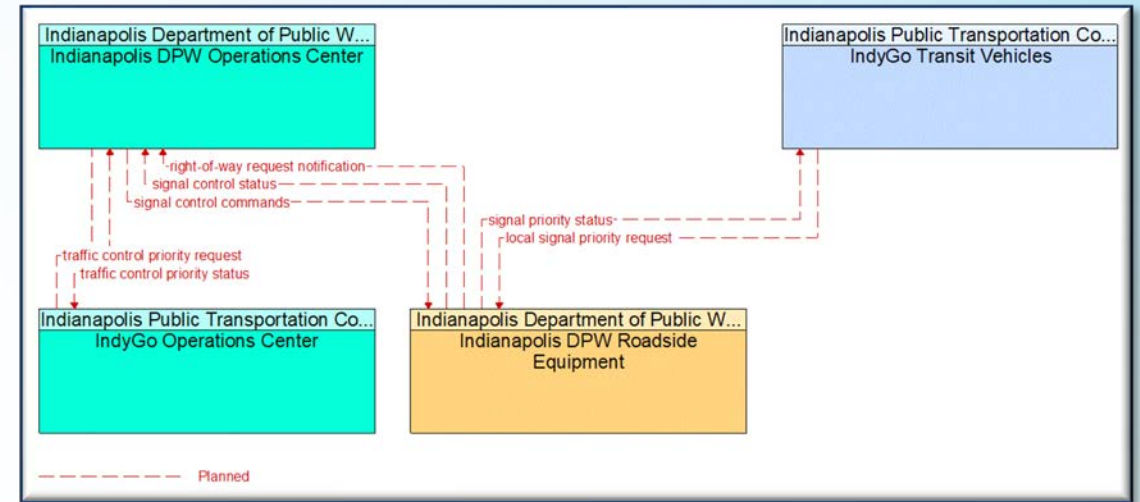


# Architecture Review: Summary

- Architecture converted to ARC-IT Version 9.1
- 47 primary changes have been incorporated
  - Comments/inputs from stakeholders
  - Findings from initial assessment
- Numerous changes to address consistency in content definition
- Refinements to architecture stakeholders, elements, services, such as:
  - TrafficWise and 511 systems were combined into TrafficWise Traveler Information System element
  - INDOT District Level stakeholder was changed to INDOT
    - INDOT Arterial Traffic Management System
    - INDOT Arterial Traffic Management Roadside Equipment
    - INDOT Hoosier Helper Vehicles elements
  - Numerous services from the original architecture containing no interface definitions, were properly defined

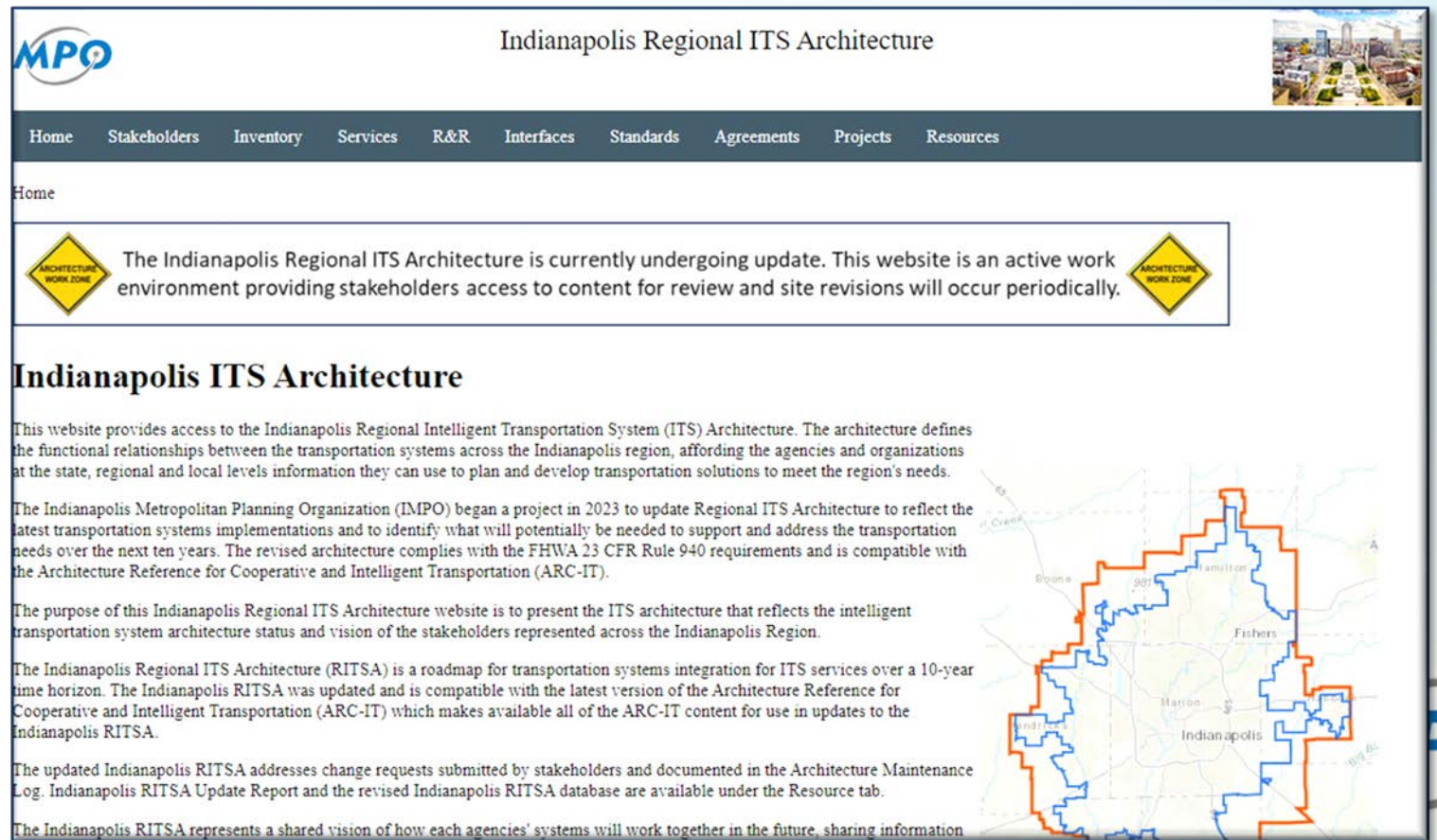
# Architecture Review

- 13 new projects added
  - City of Carmel Fiber Installation
  - City of Greenwood Signal and Detection Implementation
  - City of Greenwood Signal Preemption
  - City of Greenwood Traffic Flow and Queue Mitigation
  - Electric Vehicle Charging Stations
  - Indianapolis Transit Signal Priority
  - INDOT Automated Work Zone Speed Limit Enforcement
  - INDOT I-465 Hard Shoulder Running
  - INDOT I-465 Ramp Metering
  - INDOT Marion County Signal and CCTV
  - INDOT Truck Parking Information Management System (TPIMS)
  - INDOT Variable Speed Limit Enforcement
  - IndyGo Bus Rapid Transit System



# Architecture Review: Website

- Review of Architecture Website at <https://local.iteris.com/indyarch/index.html>
  - Familiar navigation
  - Dynamic content access
- Same content/3 formats
  - Website
  - RAD-IT file
  - Document
- Update Report
  - Provides list of changes



**MPO** Indianapolis Regional ITS Architecture

Home Stakeholders Inventory Services R&R Interfaces Standards Agreements Projects Resources

Home

**ARCHITECTURE WORK ZONE** The Indianapolis Regional ITS Architecture is currently undergoing update. This website is an active work environment providing stakeholders access to content for review and site revisions will occur periodically. **ARCHITECTURE WORK ZONE**

## Indianapolis ITS Architecture

This website provides access to the Indianapolis Regional Intelligent Transportation System (ITS) Architecture. The architecture defines the functional relationships between the transportation systems across the Indianapolis region, affording the agencies and organizations at the state, regional and local levels information they can use to plan and develop transportation solutions to meet the region's needs.

The Indianapolis Metropolitan Planning Organization (IMPO) began a project in 2023 to update Regional ITS Architecture to reflect the latest transportation systems implementations and to identify what will potentially be needed to support and address the transportation needs over the next ten years. The revised architecture complies with the FHWA 23 CFR Rule 940 requirements and is compatible with the Architecture Reference for Cooperative and Intelligent Transportation (ARC-IT).

The purpose of this Indianapolis Regional ITS Architecture website is to present the ITS architecture that reflects the intelligent transportation system architecture status and vision of the stakeholders represented across the Indianapolis Region.

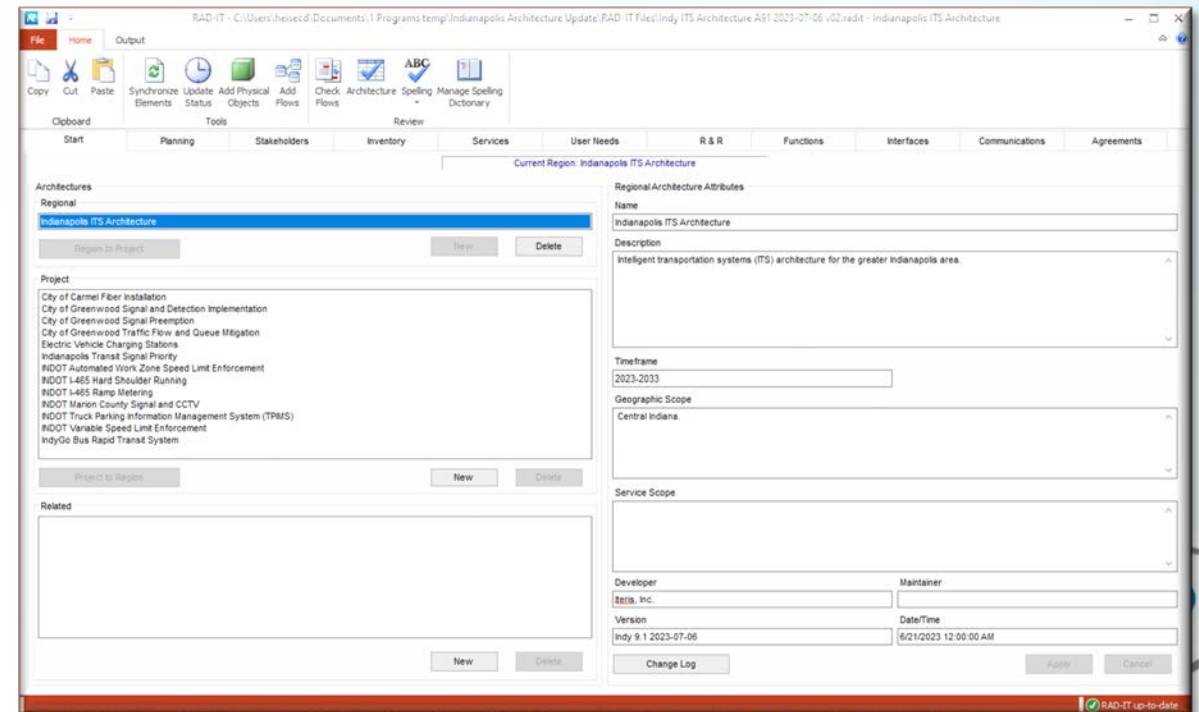
The Indianapolis Regional ITS Architecture (RITSA) is a roadmap for transportation systems integration for ITS services over a 10-year time horizon. The Indianapolis RITSA was updated and is compatible with the latest version of the Architecture Reference for Cooperative and Intelligent Transportation (ARC-IT) which makes available all of the ARC-IT content for use in updates to the Indianapolis RITSA.

The updated Indianapolis RITSA addresses change requests submitted by stakeholders and documented in the Architecture Maintenance Log. Indianapolis RITSA Update Report and the revised Indianapolis RITSA database are available under the Resource tab.

The Indianapolis RITSA represents a shared vision of how each agencies' systems will work together in the future, sharing information

# Architecture Review: Database

- Architecture Database RAD-IT File
- Download RAD-IT Software from ARC-IT website
  - <https://www.arc-it.org/html/resources/radit.html>
- Defines entire Indy ITS Architecture
- Supports tailoring and project definition





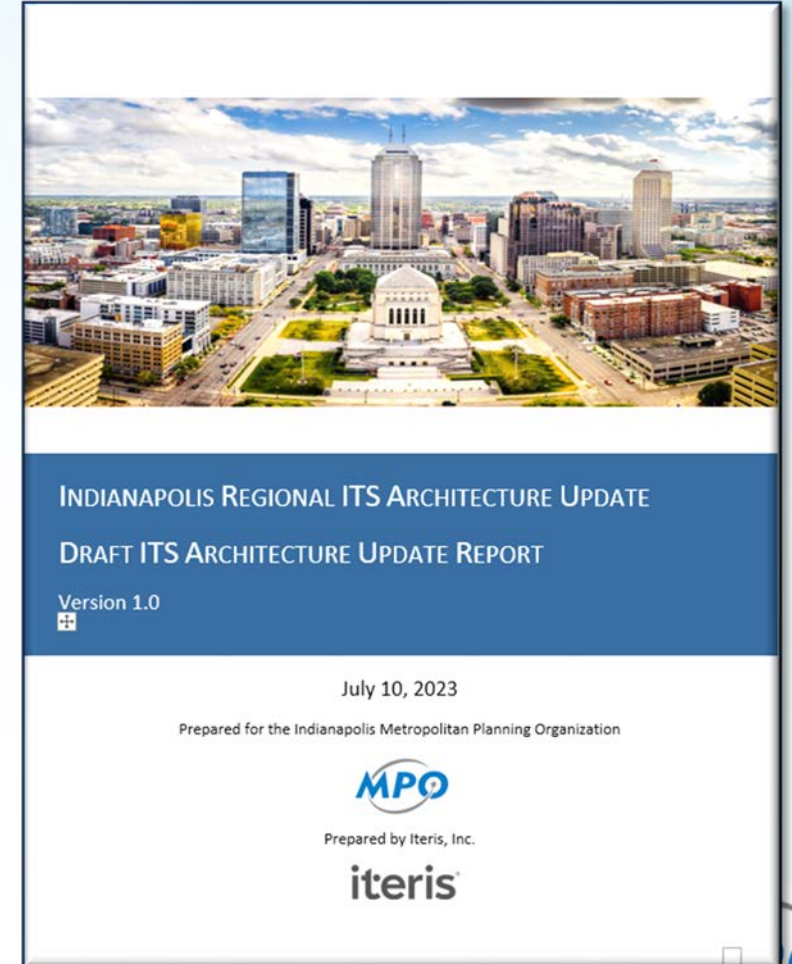
# Architecture Review: Document

- Architecture Document
  - Will be emailed to stakeholders today
- Download from Resources tab on Indy Architecture Website
  - <https://local.iteris.com/indyarch/html/resources/resources.html>
  - Will be available July 12, 2023
- PDF format
  - 953 pages
  - Primarily tables
    - Stakeholders
    - Inventory elements
    - Services
    - Communications solutions
    - Interfaces including diagrams



# Architecture Review Update Report

- Architecture Update Report
  - Will be emailed to stakeholders today
- Download from Resources tab on Indy Architecture Website
  - <https://local.iteris.com/indyarch/html/resources/resources.html>
  - Will be available July 12, 2023
- Summarizes Architecture changes
- Lists primary changes incorporated



# Stakeholder Review Actions

- Stakeholder Review Period: July 11 – August 1
- Choose Format that works best for you
  - Website
  - RAD-IT File
  - Document
- Use Stakeholder Review Form to document comments
- Look through architecture content
  - From your organization’s perspective
    - Description
    - Inventory elements
    - Services
    - Interfaces
    - Projects
  - Check status values: Existing, Planned, Future



# Stakeholder Review Form

- Download from Resources tab on Indy Architecture Website
  - <https://local.iteris.com/indyarch/html/resources/resources.html>
- Feedback, comments, inputs from review
- Instructions on form

Stakeholder Review Form – Indianapolis Regional ITS Architecture Update DRAFT 2023-06-14

Please enter your name, organization, and email address:

NAME:	ORGANIZATION:	EMAIL:
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Please use the form below to provide your comments, questions, and corrections resulting from your review of Indianapolis Regional ITS Architecture.

Stakeholder Review Form – Indianapolis Regional ITS Architecture Update DRAFT 2023-06-14

\* ARC-IT is the Architecture Reference for Cooperative and Intelligent Transportation formerly known as the National ITS Architecture. ARC-IT can be found at [www.arc-it.net](http://www.arc-it.net) if you need to look-up information.

(X) Select Area of Architecture for Reference									Please Select the reference area for your input and enter your comments below.	
Stakeholders	Inventory	Services	Roles & Resp.	Interfaces	Agreements	Projects	Resources	General	Specific Component (system name, stakeholder name, Report page and section, etc.)	Comments, Questions, Corrections

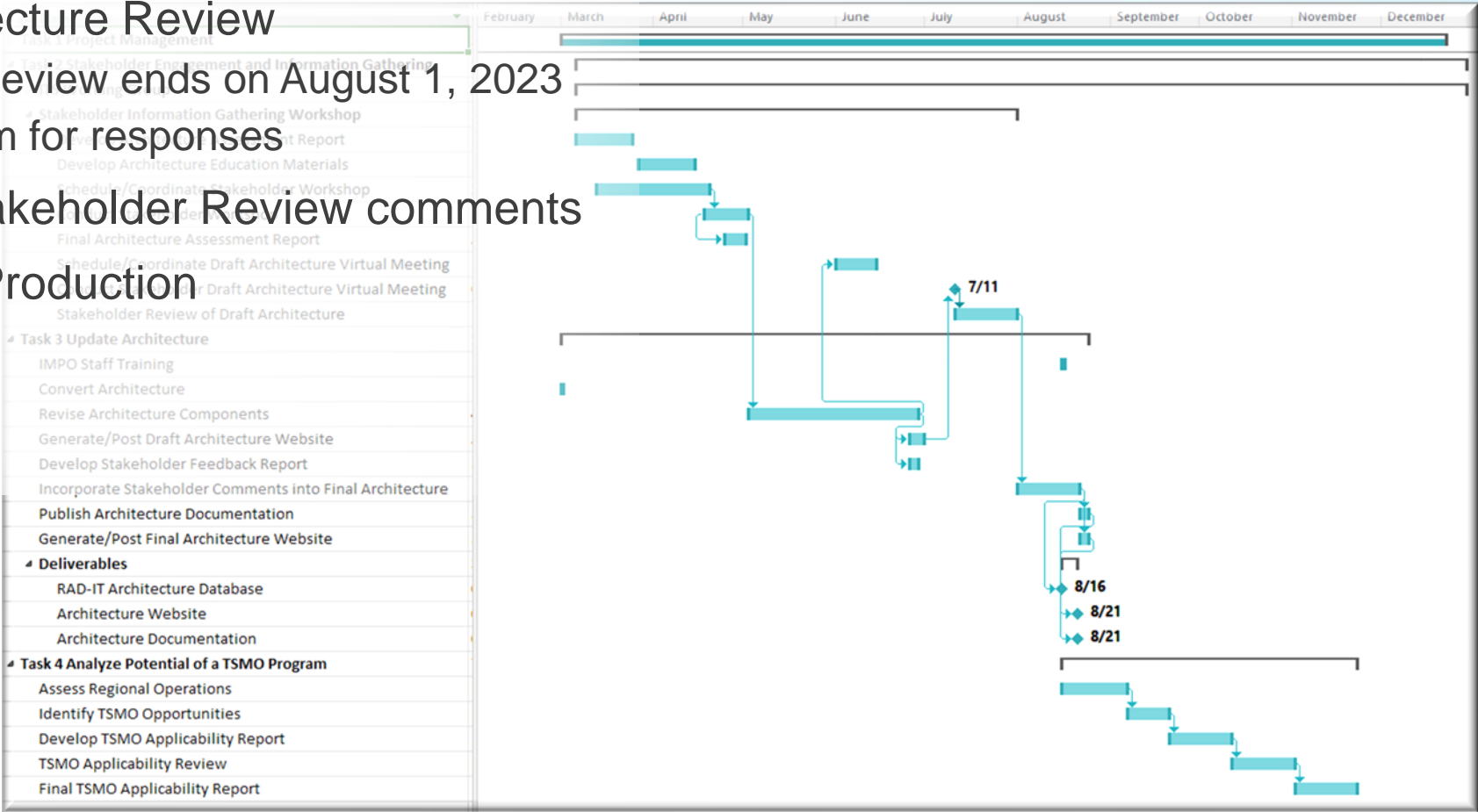
your review, look at the architecture content from your organization’s perspective. Review your organization’s title and description are correct. If you have more information to add, the inventory elements (your systems) for the correct title and description. The inventory elements listed with your organization can be found on the stakeholder page listed. The services listed in the architecture for the ones that apply to your system(s). The information flow diagrams associated with your inventory elements/represent the information flows you expect to see between your system and other systems. Check the roles and responsibilities that have been associated with your organization for your system. Check that the correct organizations are identified in the agreements and elements or needs to be established. Review the systems (elements) and the information flows included in the project and whether other something needs to be changed but you sense it should, provide your thoughts along with that person.

Form to the following email address: [cdh@iteris.com](mailto:cdh@iteris.com) (Cliff Heise/Iteris)



# Next Steps

- Stakeholder Architecture Review
  - Next 3 weeks / Review ends on August 1, 2023
  - Use Review Form for responses
- Incorporation of Stakeholder Review comments
- Final Architecture Production
- TSMO Analysis





Thank You.

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