# Monthly PR & Impact Summary — September 2025

🚀 **Core Feature Work**

1. **Refactor ICM Enrichment Pipeline to Resolve Kusto Query Failures**
   * **Type:** Refactor / Reliability Improvement
   * **Date:** 1 September 2025
   * **Summary:** 
     1. Modularized the ICM enrichment file to improve maintainability and fault tolerance.
     2. Introduced new modules under icm\_processing/\* for various analyses including endpoint data, container errors, capacity checks, and LM-Clip GPU ratio.
     3. Implemented custom exception handling in clients/kusto.py to standardize Kusto failure management.
   * **PR link:** [**Commit 8167b1d2: Merged PR 51664: Kusto failure in Enrichment... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/8167b1d217df4ea65719822e7b8f89a718bca6e4?refName=refs/heads/main)
2. **Integrate RAPI Error Logging into Sample Request Investigations**
   * **Type**: New Feature
   * **Date:** 2 September 2025
   * **Summary:**
     1. Added end-to-end integration of RAPI error logs into sample request investigations.

* **PR link:** [**Commit 1595ac5e: Merged PR 51928: added rapi logs... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/1595ac5e5dac0be46e12e4b278e3cb4285b3b99c?refName=refs/heads/main)

1. **Add PLB Routing Checks for Load Balancer Pod Health**
   * **Type:** New Feature
   * **Date**: 3 September 2025
   * **Summary:**
     1. Enhanced pod health assessments and capacity reporting by incorporating PLB routing checks, improving proactive issue detection.

* **PR link:** [**Commit 4727b28e: Merged PR 51914: Added PLB Routing check... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/4727b28e5a6f894fad9533e5d4133930128f45e2?refName=refs/heads/main)

1. **Add Dashboard Link to Analysis Agent Output**
   * **Type:** Analysis Agent Improvement
   * **Date:** 4 September 2025
   * **Summary:**
     1. Updated deep\_analysis.py to generate a dashboard URL based on time and endpoint parameters.

* **PR link:** [**Commit b9029282: Merged PR 52167: Add dashboard in analysis agent... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/b902928297c76c15fa1f01e1afaa8fb18a7137a7?refName=refs/heads/main)

1. **Prevent KeyError by Adding Checks for "Title" Key in ICM Investigation**
   * **Type:** Bug Fix
   * **Date:** 5 September 2025
   * **Summary:**
     1. Resolved potential KeyError exceptions during ICM investigations by ensuring safe access to the "Title" field.

* **PR link:** [**Commit 7523998c: Merged PR 52184: Add checks for Title key in investigate\_icm to prevent KeyError... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/7523998cd60c1ae056886a174c3c51dfc2545d60?refName=refs/heads/main)

1. **Added New ICM Analysis Tool for Runtime Bot**
   * **Type**: New Feature
   * **Date:** 11 September 2025
   * **Summary:**
     1. Implemented icm\_analysis.py to perform ICM analysis based on endpoint, request ID, or incident ID.
     2. Modified icm\_enrichment.py and investigate\_icm.py to accept analysis\_endpoint and analysis\_request\_id, enhancing report extraction and enrichment.
     3. Integrated ICM enrichment support through RuntimeBot, enabling automated and comprehensive report generation.

* **PR link:** [**Commit bb740a5a: Merged PR 52554: Add ICM analysis tool and enhance investigation capabilities... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/bb740a5afc90e004d9b4588440dde7b98dd1b9f6?refName=refs/heads/main)

1. **Enhance Known Errors Processing with Title-Based Filtering**
   * **Type:** Enhancement
   * **Date:** 15 September 2025
   * **Summary:**
     1. Updated find\_known\_errors to accept a title parameter and apply the new filtering logic.
     2. Modified investigate\_icm.py to pass icm\_data["Title"] when calling find\_known\_errors, ensuring proper error filtering during investigations.

* **PR link:** [**Commit 0e45cf34: Merged PR 53371: Enhance known errors processing by adding title filtering... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/0e45cf3452e93ae2793f4b8e01f16381a9b8887c?refName=refs/heads/main)

1. **Fix Deployment and Dashboard link Issues in “OpenAI deployment capacity below threshold”**
   * **Type:** Bug Fix
   * **Date:** 16 September 2025
   * **Summary:**
     1. Improved sample\_req\_processing.py by replacing basic string splitting with regex matching to reliably extract endpoint and deployment values.

* **PR link:** [**Commit 0034d566: Merged PR 52841: Fix deployement Bug... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/0034d566242c22f96c672a5adf2bd2dd51aa9d32?refName=refs/heads/main)

1. **Enhance Region Lookup with APIM Query Fallback**
   * **Type:** New Feature
   * **Date:** 16 September 2025
   * **Summary:**
     1. Improved endpoint region resolution by adding a fallback mechanism using APIM logs.

* **PR link:** [**Commit 24d4a4b1: Merged PR 53383: Add APIM region lookup to get\_region function... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/24d4a4b1f52b6b5d9ab11f73580df4f6c0a4b2f0?refName=refs/heads/main)

1. **Enhance Known Errors Reporting with Error Count**
   * **Type:** Enhancement
   * **Date:** 17 September 2025
   * **Summary:**
     1. Updated render\_known\_errors.py to add a new table header and cell for displaying error counts in the HTML report.

* **PR link:** [**Commit 608ee249: Merged PR 53511: Add error count to known errors rendering and processing... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/608ee249ff2c43ea821c69f41f007d8f49383fc4?refName=refs/heads/main)

1. **Add FD Response Flag Processing and Rendering in Investigation Workflow**
   * **Type:** New Feature
   * **Date:** 19 September 2025
   * **Summary:**
     1. Extended ICM investigation workflow to include FD response flag details, improving insight into FD-related issues.
     2. Enhanced reporting by integrating both counts and detailed information, with direct dashboard links for investigation.

* **PR link:** [**Commit 0d5ce0e1: Merged PR 53888: Add FD response flag processing and rendering functionality... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/0d5ce0e12ed17cc38cbd0c2c796310d3091da80d?refName=refs/heads/main)

1. **Enhance APIM Data Retrieval with Broader RequestId Search**
   * **Type:** Enhancement
   * **Date:**19 September 2025
   * **Summary:**
     1. Improved APIM log data recovery by introducing a fallback search for missing or unmatched RequestIds

* **PR link:** [**Commit 3faff7d0: Merged PR 54069: Enhance APIM data retrieval by broadening search criteria fo... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/3faff7d099f47c31256441a977e3100bb8d68b66?refName=refs/heads/main)

1. **Enhance Report Generation with Additional Source Endpoints**
   * **Type:** New Feature
   * **Date:** 25 September 2025
   * **Summary:**
     1. Enhanced sample\_req\_processing.py to support multiple ADE URLs for improved region extraction.
     2. Expanded endpoint coverage in investigation reports by introducing new source types and improving data processing logic.

* **PR link:** [**Commit 05405596: Merged PR 54670: Add new source endpoints and enhance report generation logic... - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/05405596a218af61cba452fa59cf0525713c0bc0?refName=refs/heads/main)

1. **Add Nimbus API Client and Integrate Engine Details into Investigation Reports**
   * **Type:** New Feature
   * **Date:** 29 September 2025
   * **Summary:**
     1. Implemented nimbus.py client with Azure authentication, token management, and paginated API requests.
     2. Added get\_engine\_definitions.py to retrieve engine definitions and integrated this data into engine feed processing.

* **PR link:** [**Pull request 54981: Implement Nimbus API client and integrate engine details - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/pullrequest/54981)

1. **Add APIM Resource ID Count Processing and Rendering**
   * **Type:** New Feature
   * **Date:** 30 September 2025
   * **Summary:**
     1. Introduced functionality to fetch, process, and visualize APIM resource ID count metrics within investigation reports.

* **PR link:** [**Pull request 55123: Add APIM resource ID count processing and rendering functionality - Repos**](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/pullrequest/55123)

🚀 **Cross-Functional Contribution (Outage Detection Hackathon):**

Assisted Sanjay team that participated in the hackathon and was experiencing issues with agents. Quickly implemented fixes to help them proceed without delays.

**Tool Enhancements:**

* Enhanced the Capacity Availability Data Tool by adding region and engine type checks.
* Updated the Outage Prediction Agent with date handling instructions to improve accuracy and reliability.

**Outcome:** Enabled smooth hackathon participation for the other team and improved data tool reliability for internal and cross-team use.

**PR link:** [Commit 7cf7a3f5: Enhance capacity availability data tool with region and engine type checks; u... - Repos](https://dev.azure.com/project-argos/Sorento/_git/oairt-ai/commit/7cf7a3f514dc79f2aaa4b54bf7dcca164385f405?refName=refs/heads/sanram/clean-hackathon)

🚀 **External Hackathon Participation:**

Actively participated in an external hackathon, solving real-world challenges and experimenting with new technologies, further enhancing problem-solving and collaboration skills.

**Learning and Implementation:**

* Gained deeper understanding of agents and internal tools, applying knowledge to improve workflows.
* Learned and implemented LLM-based techniques including RAG (Retrieval-Augmented Generation) for smarter data processing and report generation.

**Project Link:** [**Innovation Studio - Microsoft Global Hackathon 2025 - AiPayroll**](https://innovationstudio.microsoft.com/hackathons/hackathon2025/project/97614)