



FME – Calendar to Tempo Timesheet

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FME Roadshow – Christchurch (19/08/2026)

KiwiRail 



The Challenge – Manual Timesheet Entry

⌚ Lost Productivity

📄 Tedious & Repetitive Data Entry

⚠️ Prone to Errors & Inconsistencies

📊 Poor Visibility of Time Spent

💼 Inaccurate Project Costing & Resource Allocation



😞 Reduced Employee Satisfaction

DEMO

Your calendar has been synced successfully to Tempo

 Summarize

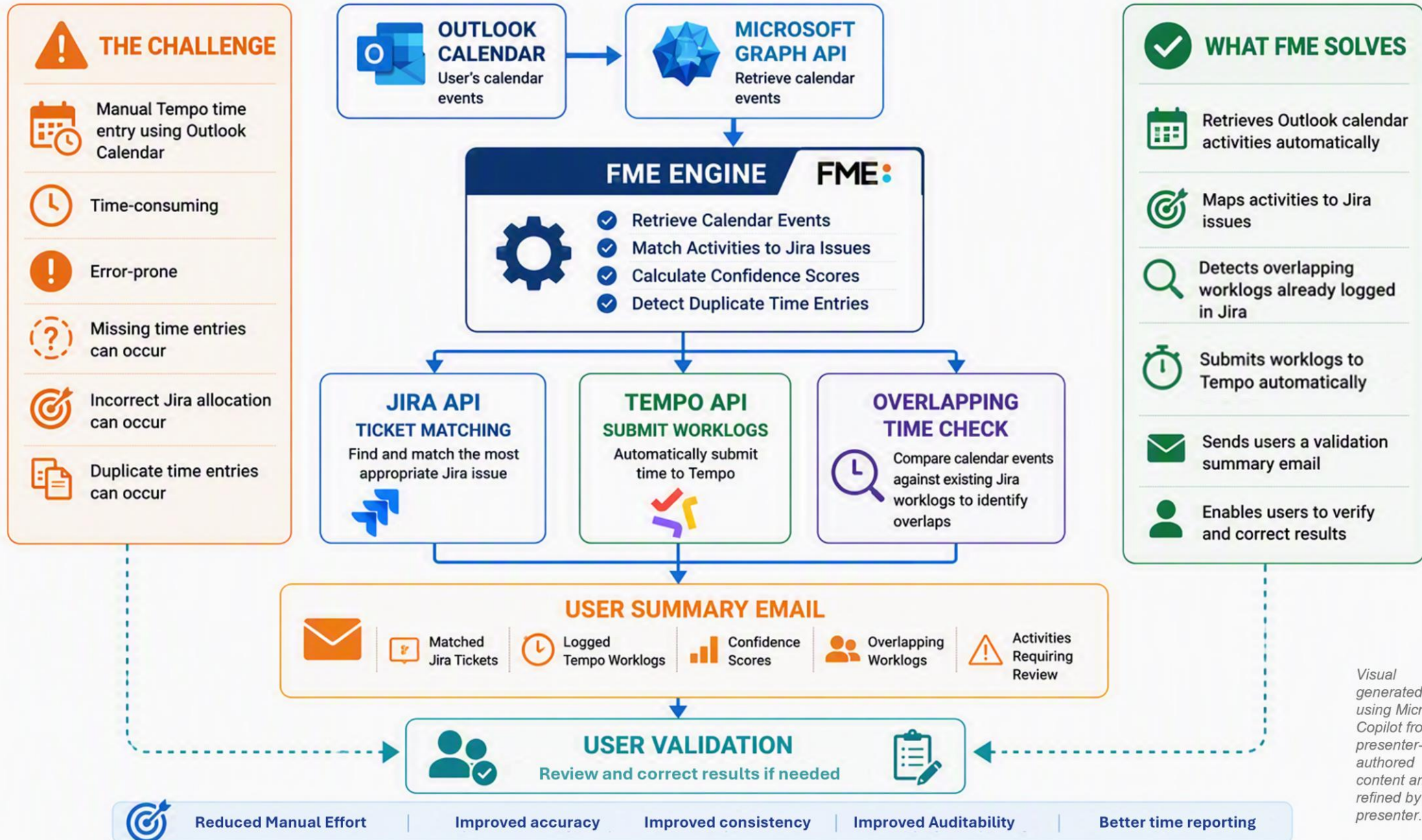
Summary from Calendar	Date	Time	Jira key obtained from Calendar	Jira key submitted to Tempo	Confidence value	Jira Match Method	Overlapping time - need review
KiwiRail/Eagle GMS Monthly Meeting	2026-06-17	10:00:00-10:30:00	None	EAS-347	0	no_match_fallback_generic	Yes (2026-06-17 10:00:00 - 10:30:00)
Morning Fortnightly ICT Call - EAS-346	2026-06-17	10:00:00-10:30:00	EAS-346	EAS-346	Highest	Matched Jira Key obtained from Calendar	Yes (2026-06-17 10:00:00 - 10:30:00)

troubleshooting/fixing external identity GCE02 - GS1922	2026-06-22	14:00:00-16:00:00	None	GS-1922	0.7	assignee_match_owner	No
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Summary from Calendar	Date	Time	Jira key obtained from Calendar	Jira key submitted to Tempo	Confidence value	Jira Match Method	Overlapping time - need review
Archive CLOG	2026-08-03	08:00:00-10:00:00	None	GS-1715 CLOG Archives - Arnold requested	0.8	assignee_match_owner	No
Update Geocortex time RailView (Culvert layer)	2026-08-03	13:30:00-14:30:00	None	GS-1953 Update Geocortex time for RailView	0.8	assignee_match_owner	No
FME TSR report automation - setup to use prod lib	2026-08-03	10:30:00-11:00:00	None	GS-1926 FME TSR report automation update	0.76	assignee_match_owner	No
FME TSR report automation - updated new Drive ID	2026-08-03	14:30:00-15:30:00	None	GS-1926 FME TSR report automation update	0.76	assignee_match_owner	No
Qonda report setup	2026-08-03	07:30:00-08:00:00	None	GS-1963 Qonda Reports Setup	1	assignee_match_owner	No
Qonda reports setup	2026-08-03	11:00:00-12:00:00	None	GS-1963 Qonda Reports Setup	1	assignee_match_owner	No
Kelly Locus FME form expiry date confirmation	2026-08-10	07:30:00-08:00:00	None	GS-1957 Kelly Locus - FME form expiry date confirmation	1	assignee_match_owner	No
ArcGIS enterprise document review	2026-08-10	08:30:00-09:30:00	None	GS-1747 ArcGIS Enterprise document review / meeting	1	assignee_match_owner	No
track's update Ivy request	2026-08-10	09:30:00-10:00:00	None	GS-1950 track's update - Ivy's request	1	assignee_match_owner	No
Shapefile viewing in GIS	2026-08-03	15:30:00-16:00:00	None	GS-1954 Shapefile viewing in GIS	1	exact_recent_and_owner	No
ArcGIS Enterprise: Administration Workflows - Virtual Training	2026-08-04	09:00:00-17:00:00	None	EAS-377 ArcGIS Enterprise: Administration Workflows - Virtual Training	1	exact_recent_and_owner	No

FROM MANUAL TIMESHEETS TO AUTOMATION

Automate Calendar → Jira → Tempo with validation & duplicate prevention

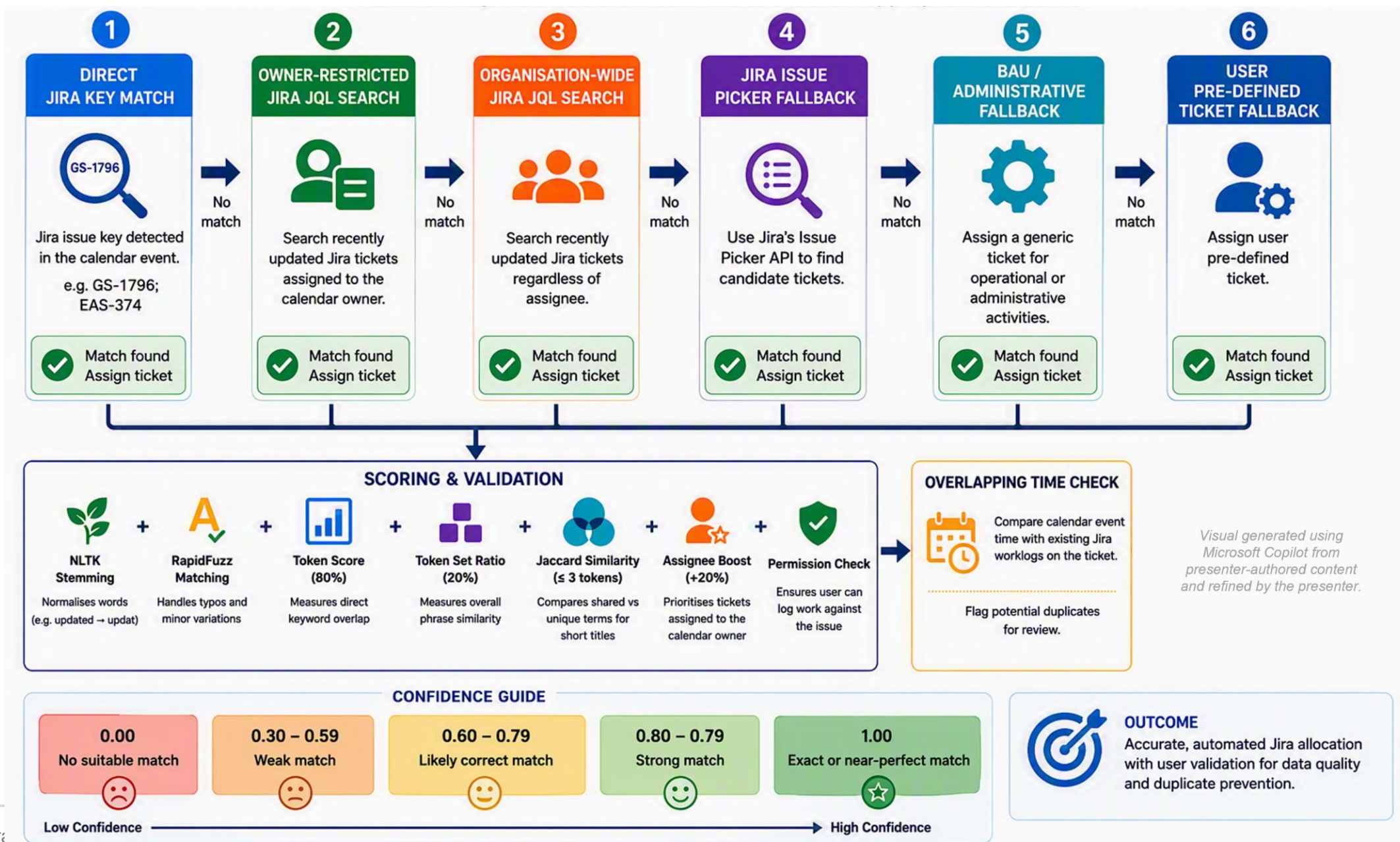


Visual generated using Microsoft Copilot from presenter-authored content and refined by the presenter.

Matching flow & Scoring logics



Matching Flow - Scoring & Validation





Scoring Logic Techniques

Technique	Purpose	Formula	What It Solves	Limitations
Exact Match	Finds identical summaries after normalisation	Summary A = Summary B	Highest-confidence match with no ambiguity	Too strict. Small wording, punctuation or spelling differences prevent a match.
NLTK Porter Stemming	Reduces related words to a common root	<code>updated</code> → <code>updat</code> <code>updating</code> → <code>updat</code>	Matches different grammatical forms of the same word	Does not understand meaning. Can produce stems that are not real words and cannot handle synonyms.
RapidFuzz Token Matching	Handles spelling mistakes and minor variations	<code>fuzz.ratio(token1, token2) >= 85</code>	Matches typos and misspellings	Only compares individual words. Does not understand context or sentence meaning.
Token Score	Measures direct keyword overlap	Matched Tokens ÷ Calendar Tokens	Rewards shared business keywords and direct keyword matches	Penalises summaries that contain additional context words even if they refer to the same work.
RapidFuzz token_set_ratio()	Measures overall phrase similarity	<code>fuzz.token_set_ratio(summary1, summary2) / 100</code>	Handles extra context words and different phrasing	Can sometimes over-score summaries that share relatively few but important keywords. Less effective for very short summaries.
Jaccard Similarity (≤ 3 tokens)	Compares shared vs total unique words	Shared Terms ÷ Total Unique Terms	Prevents false positives on short titles by penalising unrelated words	Can be too strict for longer summaries and may under-score valid matches that use different terminology.
Assignee Boost	Prioritises tickets assigned to the calendar owner	Score × 1.2 (max 1.0)	Favours tickets already owned by the user	May increase the ranking of an assigned ticket even when another ticket is a slightly better textual match.

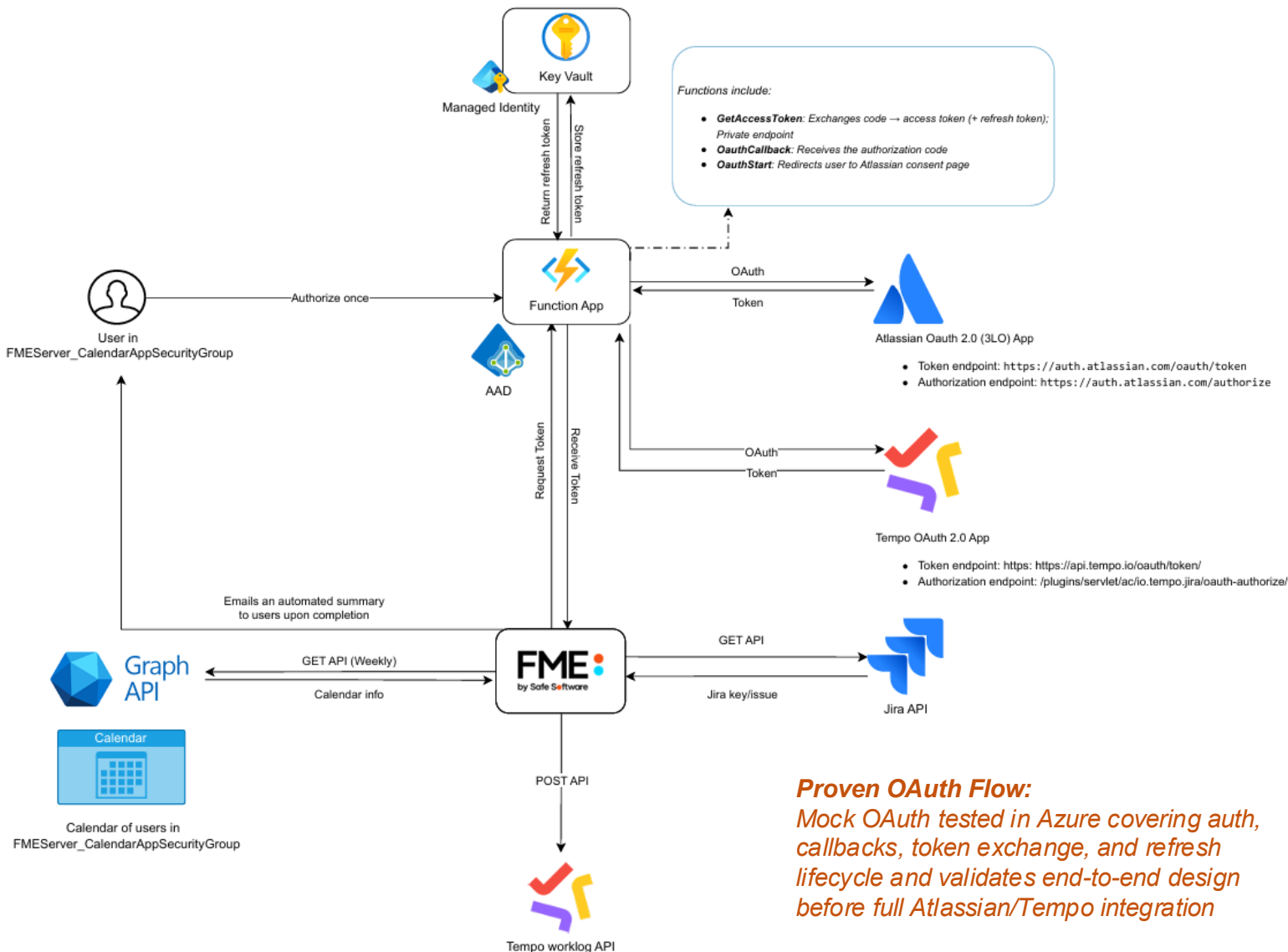
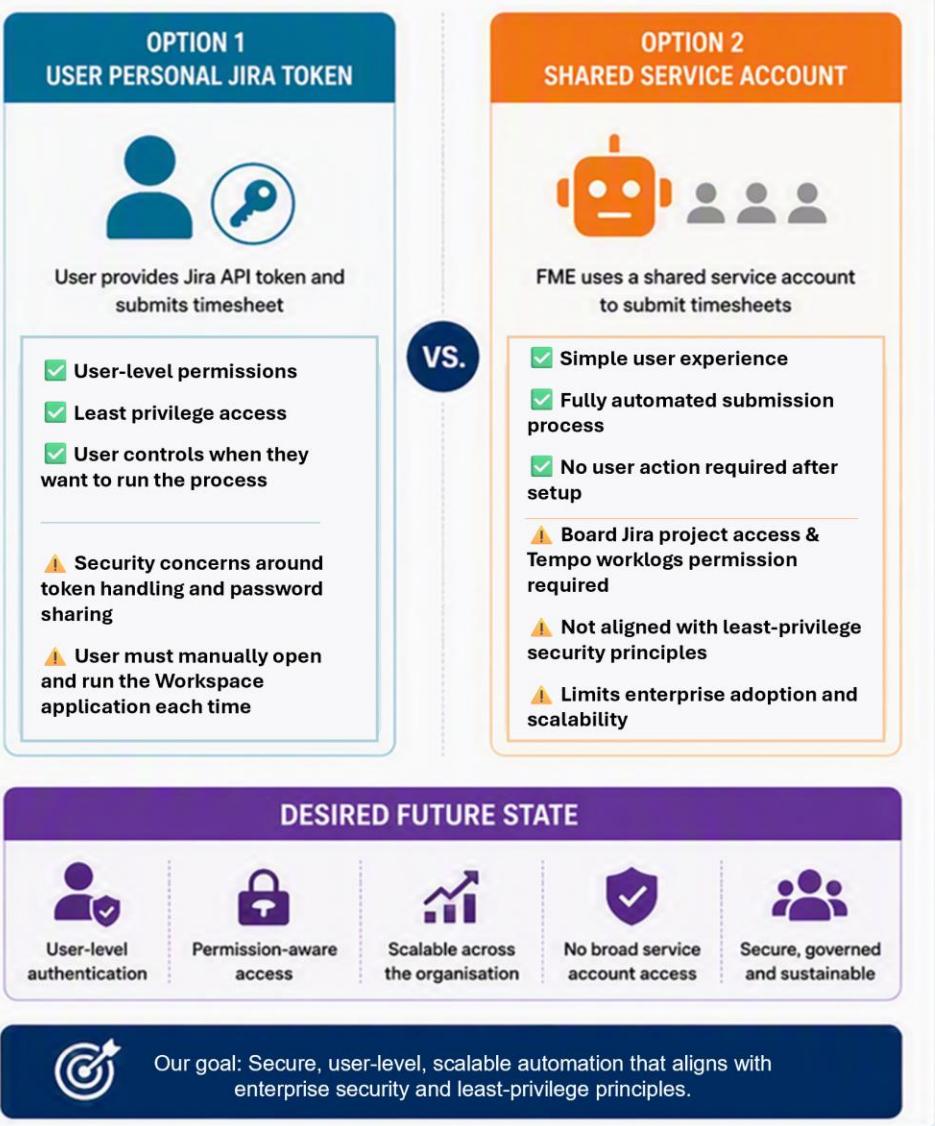
Solution Architect



Proven POC Solution Architect

Azure Function App and Key Vault - Secure token broker

Visual generated using Microsoft Copilot from presenter-authored content and refined by the presenter.



Future Enhancements



Future Enhancements & AI-Driven User Experience

MCP-driven natural language configuration

- Users could describe their requirements in **plain English**.
- User-defined **exclusions** and **stop words** or **context terms/ synonyms**.



"Treat ArcGIS, GIS, Geospatial, ArcGIS Pro, ArcGIS Online, EGIS, Geocortex and FME as related terms."

"Ignore words such as update, meeting, review and discussion."

Personalised/team matching profiles

- Allow users or teams to maintain their **own matching preferences**.
- Improve matching accuracy by department.



GIS team: ArcGIS, GIS, Geospatial, FME, AGOL, ArcGIS Pro
Project Manager: Project, Programme, Portfolio, Delivery, Governance, Risk, Steering Committee, Workshop

User feedback learning

- Allow users to **approve** or **correct** suggested Jira Tickets from the summary emails.
- **Continuous improvement** without code changes.



Suggested Jira Ticket: GS-1926 (76%)

User corrected: GS-1945

Future matching improved

Semantic AI matching (Azure Open AI, Semantic Kernel, Embeddings)

- Better understanding of **intent** and **meaning**.



"GIS Upgrade Workshop" ≈ "ArcGIS Enterprise Modernisation"
Different wording - Same intent



Key takeaways



✓ Automated Outlook Calendar → Jira → Tempo workflow



✓ User validation improves Accuracy & Confidence



✓ Smart matching engine combines NLTK, Fuzzy matching, Jaccard similarity and Confidence Scoring



✓ Azure Token Broker architecture proven through Azure OAuth POC



✓ Roadmap supports AI-driven matching and Continuous learning

Thank you!
