

ALM Release Checklist

Deployment standards, governance baseline and quality gates for managed solution releases — Engagement Hub, the Client Project Intake & Delivery Prep multi-agent system.

Companion to the Engagement Hub case study · 2nd Place, Microsoft Agent Academy Live Hackathon

7

SECTIONS

9

DOD CRITERIA

5

RELEASE STAGES

3

ENVIRONMENTS

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PR Core Principles

Six rules that govern every build, release and deployment decision on this project.

Unmanaged = Build

Dev environment only. Never deploy an Unmanaged solution to UAT or Production.

Managed = Deploy

UAT and Prod only. Managed solutions are locked — no editing flows or agents post-import.

Dataverse = System of Record

Every submission, analysis and automation event stored as structured data, not in chat or run history.

Config Externalised

Environment Variables and Connection References. No channel IDs, site URLs or template IDs hard-coded in flow actions.

Notifications = Idempotent

State flags and Automation Log event checks prevent duplicate Teams cards for the same business event.

No Prod Hot Fixes

Fix in Dev → version → redeploy. There are no exceptions to this rule.

01 Solution Identity

The solution is the unit of deployment. Everything that ships must be inside it; everything that shouldn't ship must be excluded.

Solution Naming

- **Unmanaged (Dev):** `eng_EngagementHub`
- **Export filename:** `eng_EngagementHub_1.0.0.0_managed.zip`
- **Publisher:** an owned publisher — never the Default publisher
- **Prefix:** `eng_` applied to all tables, columns, choices, relationships, flows and agents

Solution Contents

✓ MUST BE INSIDE THE SOLUTION

- Engagement Hub Agent (parent) + Contract Analysis Agent + Delivery Prep Child Agent
- Controlled topics: Capabilities, Legal-Advice Guardrail, Analyse & Store Context, Engagement Request Confirmation
- 7 Dataverse tables + choice sets and relationships
- EH AF – Analyse Contract Document
- EH AF – Resolve Service Offering
- EH AF – Create Engagement Request
- EH AF – Generate Discovery Brief (+ Word generation)
- EH – Notify Delivery Triage Channel
- EH – Notify Human Review Channel
- Model-driven app: forms, views, governance charts
- Security roles · environment variables · connection references

✗ MUST NOT BE INSIDE

- Transactional data — live Submissions, Analysis Results or Engagement Request rows
- Personal maker connections — use connection references instead
- Environment-specific values — externalise as environment variables
- Test or debug topics and superseded legacy tables

02 Configuration Rules

No channel ID, SharePoint URL, template ID or recipient address may be embedded in a flow action. Every configurable value is externalised before export.

Environment Variables

VARIABLE NAME	PURPOSE
eng_TriageChannelId	Teams channel for delivery-triage adaptive cards
eng_HumanReviewChannelId	Teams channel for human-review alerts
eng_SharePointSiteUrl	SharePoint site that stores generated documents
eng_DocumentLibraryName	Library for Word handoff documents
eng_DiscoveryBriefTemplateId	Word template used for the discovery brief
eng_HumanReviewThreshold	Confidence threshold below which review is required
eng_AnalysisPromptRef	Reference to the document-analysis prompt configuration
eng_NotificationFromName	Display name applied to outbound notifications

Connection References

All connectors are abstracted behind connection references — resolved by the importing admin at import time, never pre-bound to a maker account.

CONNECTOR	USAGE
Dataverse (Current Environment)	All table read/write operations
Microsoft Teams	Triage and human-review adaptive cards
SharePoint	Store generated Word handoff documents
Word Online (Business)	Populate the discovery-brief Word template
Office 365 Users (optional)	Resolve consultant and contact details

ALM CONFIGURATION RULE

If you cannot change a channel, site URL, template or threshold at import time without editing a flow action, the release is not done.

03 Versioning Rules

Use MAJOR.MINOR.PATCH.BUILD format. Every release increments the version before export. Versions are immutable — never re-export the same version with different content.

Version Tiers

TIER	APPLIES WHEN
PATCH · 1.0.0.1	Bugfix or logic tweak, no schema change. Deploy with Update (overwrite in place).
MINOR · 1.1.0.0	New capability, column or notification branch. Deploy with Update or Upgrade.
MAJOR · 2.0.0.0	Breaking change to the state model or architecture. Deploy with Upgrade (staged).

Version Impact Reference

CHANGE TYPE	IMPACT	EXAMPLE
New column used by flows or views	MINOR	Added <code>eng_BriefGeneratedOn</code>
Rename/remove a column referenced by flows	MAJOR	Renamed <code>eng_TriageNotificationSent</code>
Idempotency or event-taxonomy change	MAJOR	Changed when <code>human_review_notification_sent</code> is stamped
Bugfix to a flow, no schema change	PATCH	Fixed the duplicate-check filter on Automation Logs

04 Update vs Upgrade

Choosing the wrong deployment strategy risks data loss or broken solutions in Production. Apply this decision every time.

DECISION POINT	DETAILS
Use Update for	Patch releases and most Minor releases — safe, straightforward, no parallel solution required.
Safe for Update	Improvements to notification or analysis logic with the state model unchanged; performance fixes; new optional notification types.
Use Upgrade for	All Major releases — a parallel solution is created during import; the old solution is removed only after validation.
Requires Upgrade	State/status model change; idempotency or event-name behaviour change; engagement routing changed; columns renamed or removed.

WHY IT MATTERS FOR THIS SOLUTION

Engagement Hub's idempotency depends on exact Automation Log event names. Any change to when an event is stamped, or to a column the duplicate check reads, is a state-model change — and therefore an Upgrade, not an Update.

05 Release Pipeline

Five stages, in order, without exception. Do not skip stages and do not re-export between UAT and Production.

A Pre-Export Validation · Dev environment

- ✓ Happy path end-to-end: submission → analysis result → engagement request → delivery handoff → discovery brief saved
- ✓ Business-failure path: an unresolved reference is handled with a controlled response — no Terminate, no duplicate record
- ✓ Idempotency: Triage Notification Sent and the human-review event check each prevent duplicate Teams cards
- ✓ No hard-coding: no channel IDs, site URLs, template IDs or addresses in flow actions
- ✓ All connectors abstracted behind connection references — no personal maker connections

B Export · Dev environment

- ✓ Export the Managed solution only — never export Unmanaged for deployment
- ✓ Increment the version before export (MAJOR.MINOR.PATCH.BUILD)
- ✓ Filename: `eng_EngagementHub_1.0.0.0_managed.zip`
- ✓ Write release notes: what changed, version number, any config changes required

C UAT Import & Configuration · UAT environment

- ✓ Import the managed zip
- ✓ Set all environment variable values (Teams channels, SharePoint site/library, template, threshold)
- ✓ Bind all connection references to the appropriate service identities
- ✓ Assign security roles to test accounts
- ✓ Enable environment-level and table-level auditing

D UAT Smoke Tests · UAT environment

- ✓ Analyse one submission via the agent — structured Analysis Result written to Dataverse
- ✓ Create one Engagement Request; resubmit and confirm the existing record is returned, not duplicated
- ✓ Delivery handoff generates the discovery brief and the Word document lands in SharePoint
- ✓ Human-review alert posts to Teams exactly once (idempotency confirmed on re-edit)
- ✓ Forced error writes to the Automation Log without duplicating work

E Production Promotion · Production environment

- ✓ Import the identical managed zip that passed UAT — do not re-export from Dev
- ✓ Repeat post-import configuration (env vars, connection references, role assignments)
- ✓ Repeat smoke tests: one analysis, one engagement, one brief, one review alert
- ✓ Retain the previous managed zip as the rollback artefact

06 Governance

Must ship with every managed release, without exception. These controls are non-negotiable for production promotion.

Security Roles

ROLE	PERMISSIONS
Engagement Hub – Intake	Create and read own Submissions. No delete. Fields locked once analysis has run.
Engagement Hub – Reviewer	Read Analysis Results and update human-review status and review decision fields.
Engagement Hub – Delivery	Read Engagement Requests and update delivery-prep and discovery-brief fields.
Engagement Hub – Admin	Full control. Assigned to service accounts and platform admins only.
Automation (Service)	Least-privilege service-level access used by the flows.

Controls, Auditing & Observability

CONTROL	DETAILS
State-based edit guardrail	Intake fields lock once a submission is analysed; engagement fields lock once the record is created — enforced at the column level.
Audit fields	Review status, engagement decision fields, Brief Generated / Brief Generated On, and Automation Log links are audited at the table level.
CorrelationId	A GUID set at analysis time, carried through every flow and log row to tie one request lifecycle together.
Try/Catch scope pattern	Every flow writes failures to the Automation Log and error fields. Failures are never silent and never left blank.
Notification idempotency	Triage and human-review flows check a prior successful event before posting, so one business event produces one alert.

07 Definition of Done

A release is not done until every criterion is satisfied and evidenced. Partial completion does not qualify for production promotion. This gate applies to every release — including patches.

#	CRITERION	EVIDENCE REQUIRED
1	Managed solution imports cleanly into Test — no errors, no manual edits to flows or agents	Import log / screenshot
2	All environment variable values configured post-import without touching flow actions	Env var config screenshot
3	All connection references resolved — no personal maker connections in UAT or Prod	Connection ref screenshot
4	RBAC security roles exist and are assigned to test accounts; access validated	Role assignment evidence
5	Environment and table auditing enabled; at least one audit record captured	Audit log screenshot
6	Happy path verified end-to-end: submission → analysis → engagement → discovery brief	Flow run history
7	Idempotency proven: no duplicate Teams cards, no duplicate Engagement Requests	Run history + row state
8	AI analysis returns structured output; business-failure path handled without termination	Flow run output + log
9	Evidence pack assembled: version, env vars, connection refs, roles, audit, run history	Evidence pack document

RELEASE AUTHORISATION

All nine criteria must be met and evidenced before any managed solution is promoted to Production. There are no emergency bypasses — including patches.