

# ALM Release Checklist

Deployment standards, governance baseline, and quality gates for managed solution releases - Access Request & Approval Agent.

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CORE PRINCIPLES

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

<b>Unmanaged = Build</b> Dev environment only. Never deploy Unmanaged to UAT or Production.	<b>Managed = Deploy</b> UAT + Prod only. Managed solutions are locked - no editing flows post-import.	<b>Dataverse = System of Record</b> Every lifecycle event stored as structured data, not in email threads or run history.
<b>Config Externalised</b> Env Vars + Connection Refs. No endpoints, keys, or IDs hard-coded in flow actions.	<b>Watchers = Idempotent</b> State flags prevent duplicate cards, double-fulfilment, and SLA counter runaway.	<b>No Prod Hot Fixes</b> 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):** lai\_AccessRequestAgent

**Export filename:** lai\_AccessRequestAgent\_1.1.0.0\_managed.zip

**Publisher:** Your owned publisher - never the Default publisher

**Prefix:** lai\_ applied to all tables, columns, choices, relationships, and flows

Solution Contents

✓ Must be inside the solution	✗ Must NOT be inside
<ul style="list-style-type: none"> <li>- Copilot Studio agent (Access Request bot)</li> <li>- Dataverse table: Access Requests + choice sets</li> <li>- Flow A – Create Request (Copilot → Dataverse)</li> <li>- Flow H – SummariseCase (BYOM child flow/tool)</li> <li>- Flow B – Approval Watcher</li> <li>- Flow C – Fulfilment Watcher</li> <li>- Flow D – SLA Reminder Watcher (scheduled)</li> <li>- Model-driven app: app, forms, views</li> <li>- Security roles + Field Security Profile</li> <li>- Environment variables + connection references</li> </ul>	<ul style="list-style-type: none"> <li>- Transactional data (live Access Request rows)</li> <li>- Personal maker connections - use connection references</li> </ul>

## 02

## CONFIGURATION RULES

No endpoint, key, channel ID, or recipient address may be embedded in a flow action. Every configurable value must be externalised before export.

### Environment Variables

Variable Name	Purpose
<b>lai_BYOM_Endpoint</b>	Azure OpenAI endpoint URL
<b>lai_BYOM_DeploymentName</b>	Model deployment name
<b>lai_BYOM_ApiVersion</b>	API version string
<b>lai_BYOM_ApiKey</b>	Secret ★ - store in Key Vault, not plain text
<b>lai_BYOM_SystemPrompt</b>	Optional override for the summarisation prompt
<b>lai_SLA_ReminderHours</b>	Hours between SLA reminder triggers
<b>lai_SLA_MaxReminders</b>	Maximum reminders before escalation
<b>lai_EscalationRecipient</b>	Escalation target - email or Teams UPN
<b>lai_ApprovalChannelOrMailbox</b>	Channel or mailbox for approval cards

### Connection References

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

Connector	Usage
<b>Dataverse (Current Environment)</b>	All table read/write operations
<b>Microsoft Teams</b>	Approval card and message delivery
<b>Approvals</b>	Native approvals connector (if used)
<b>Office 365 Outlook</b>	Email notification fallback

#### ALM CONFIGURATION RULE

If you cannot change an endpoint, key, or channel at import time without editing a flow action, the release is not done.

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## VERSIONING RULES

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

## Version Tiers

Version Tier	Applies When
<b>PATCH · 1.0.0.1</b>	Bugfix or logic tweak. No schema change. Deploy: Update (overwrite in place).
<b>MINOR · 1.1.0.0</b>	New capability or new column/watcher branch. Deploy: Update or Upgrade.
<b>MAJOR · 2.0.0.0</b>	Breaking change to state model or architecture. Deploy: Upgrade (staged release).

## Version Impact Reference

Change Type	Version Impact	Example
<b>New column used by flows or views</b>	Minor → 1.1.0.0	Added lai_EscalationCount column
<b>Rename/remove a column referenced by flows</b>	Major → 2.0.0.0	Renamed lai_ApprovalSent to lai_ApprovalDispatched
<b>Idempotency behaviour or state machine change</b>	Major → 2.0.0.0	Changed when ApprovalRequestSent flag is stamped
<b>Bugfix to watcher logic, no schema change</b>	Patch → 1.0.0.1	Fixed SLA counter not resetting on approval

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
<b>Use Update for</b>	Patch releases and most Minor releases - safe, straightforward, no parallel solution required.
<b>Safe for Update</b>	Improvements to watcher logic (state model unchanged); performance fixes; new optional notification types.
<b>Use Upgrade for</b>	All Major releases - a parallel solution is created during import; the old solution is removed only after validation.
<b>Required Upgrade</b>	State/status model change; idempotency flag behaviour change; approval routing changed; column names renamed or removed.

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: request → Dataverse row → approval card → decision → FulfilledOn stamped
- ✓ Failure path: Force BYOM failure - confirm fallback activates, error fields populate, no loop or duplicate
- ✓ Idempotency flags: ApprovalRequestSent prevents duplicate cards; FulfilmentStarted prevents double-fulfilment
- ✓ No hard-coding: no endpoints, keys, channel IDs, or addresses in flow actions
- ✓ All connectors abstracted behind connection references - no personal maker connections

B

**Export** · Dev environment

- ✓ Export Managed solution only - never export Unmanaged for deployment
- ✓ Increment version before export (MAJOR.MINOR.PATCH.BUILD)
- ✓ Filename: lai\_AccessRequestAgent\_1.1.0.0\_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 (BYOM + SLA + routing)
- ✓ Bind all Connection References to appropriate service identities
- ✓ Assign Security Roles and Field Security Profiles to test accounts
- ✓ Enable environment-level and table-level auditing

D

**UAT Smoke Tests** · UAT environment

- ✓ Create one request via Copilot conversation
- ✓ Approval card created exactly once (idempotency confirmed)
- ✓ Approver decision recorded back to the Dataverse row
- ✓ Fulfilment watcher stamps FulfilledOn - no duplicate runs
- ✓ SLA watcher increments ReminderCount, respects MaxReminders threshold
- ✓ Forced error writes to ApprovalError/FulfilmentError 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 refs, role assignments)
- ✓ Repeat smoke tests: one request, one approval card, one fulfilment stamp

- ✓ Retain the previous managed zip as the rollback artefact

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GOVERNANCE

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

Security Roles

Role	Permissions
Access Request – Requester	Create + Read Own. No delete. Fields locked once Status ≠ Draft.
Access Request – Approver	Read/write decision fields (ApproverDecision, ApprovedOn, RejectionReason).
Access Request – Fulfilment/Ops	Read/write fulfilment fields (FulfilmentNotes, FulfilledOn, FulfilmentError).
Access Request – Admin	Full control. Assigned to service accounts and platform admins only.

Controls, Auditing & Observability

Control	Details
Draft-Only Editing Guardrail	Requester fields are locked once Status moves out of Draft - enforced at the column level via Field Security Profile.
Audit Fields	ApproverDecision, ApprovedOn, FulfilledOn, ApprovalError, FulfilmentError, and all SLA counters are audited at the table level.
CorrelationId	A GUID set at request creation - present on every row, used to correlate all flow runs to a single request lifecycle.
CATCH Scope Pattern	Every flow writes failures to dedicated error columns. Error fields are never left blank on failure - no silent errors.

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## DEFINITION OF DONE

A release is not done until every criterion below 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	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 + table auditing enabled; at least one audit record captured	Audit log screenshot
6	Happy path verified end-to-end: request, approval, fulfilment	Flow run history
7	Idempotency proven: no duplicate approval cards, no duplicate fulfilment stamps	Flow run history + row state
8	BYOM summarisation returns output; fallback summary confirmed on simulated failure	Flow run output + fallback 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.