Generation Modes and Triggers

E-Invoice Documentation

Guide for Magento administrators, technical project owners, and implementation teams.

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Magento 2 Extension E-Invoice

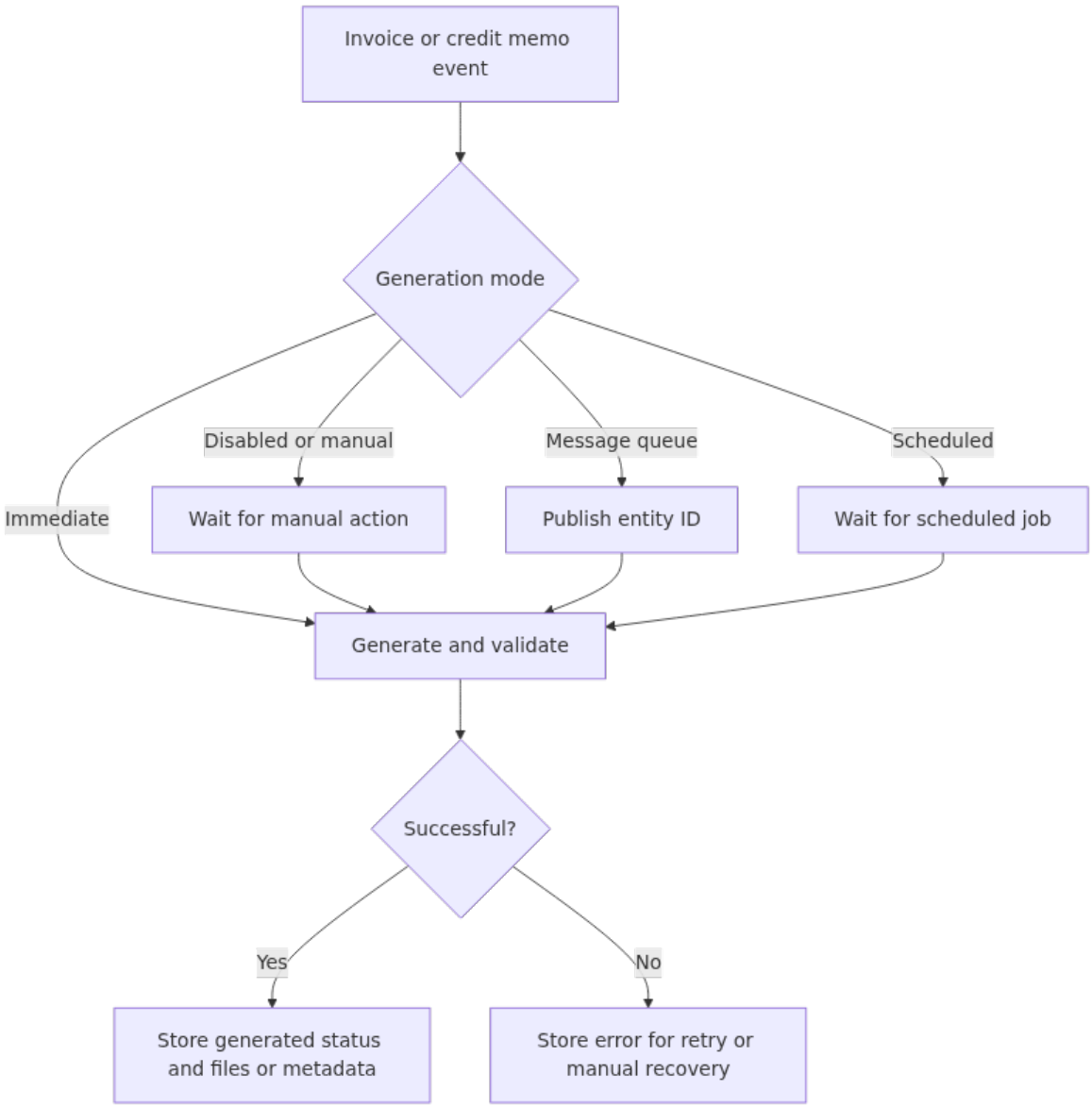
Generation Modes and Triggers

The generation mode answers **how the work runs**. The trigger answers **which sales event is meant to start it**. Configure and test both for invoices and credit memos; they are separate settings.

Generation modes

Mode	What happens after the sales document is saved	Additional service required
Disabled	Automatic processing is disabled and the status becomes `disabled`	No
Immediate	Generation runs in the Magento request	No
Message Queue	The document becomes `queued` and its entity ID is published	Matching queue consumer
Scheduled	The document becomes `scheduled` until the hourly cron worker picks it up	Magento cron

Choose based on failure handling and operational ownership, not just invoice count. Immediate mode gives quick feedback but adds work to invoice creation. Queue mode separates the work cleanly but requires monitored consumers. Scheduled mode is a simple batch workflow but intentionally delays the file.



The scheduled worker

One cron job handles both document flows:

Job	Schedule
`einvoice_process_scheduled`	minute `00` every hour

The job runs in Magento's `default` cron group. For each store it processes up to the flow's **Scheduled Batch Size** (default `100`, allowed range 1–1000) of due `scheduled` rows — invoices and credit memos each have their own setting.

The same worker also performs **stale-claim recovery**: `queued` or `processing` rows that have not finished within the flow's **Recovery Timeout (Minutes)** (default `30`, allowed range 5–1440) are claimed again and reprocessed. This recovery covers interrupted workers; it does not retry documents already marked `error`.

Queue consumers

Queue mode uses two consumers:

```
php bin/magento queue:consumers:start mageb2b.einvoice.generate
php bin/magento queue:consumers:start
mageb2b.einvoice.generate.creditmemo
```

Run them under the same process supervision you use for other Magento consumers. Starting the invoice consumer does not process credit memos.

Generation triggers

Invoice options are:

- **On Invoice Creation**
- **On Invoice Payment**
- **Manual Only**

Credit-memo options are:

- **On Credit Memo Creation**
- **Manual Only**

Trigger behavior

The configured trigger must match the actual sales event, otherwise nothing is scheduled. With **Manual Only**, saving an invoice or credit memo never starts automatic processing — generation is only available through the manual paths below. To stop automatic invoice processing entirely, combine **Manual Only** with generation mode **Disabled**.

Immediate mode

Immediate mode is the easiest workflow to observe:

1. Magento commits the invoice or credit memo.
2. The extension claims the document and sets `processing`.
3. It generates and validates the selected format.
4. Permanent storage writes files; on-demand storage keeps only generation metadata.
5. The status becomes `generated`, or `error` with the last message.

Because invoice generation is attached to an after-commit event, **Block Invoice on E-Invoice Error** cannot safely promise that a failed e-invoice prevents the Magento invoice from existing. It can propagate an immediate failure to the request. It cannot roll back async failures, and an already committed sales entity may remain.

Start with this setting disabled. Treat e-invoice failure as an operational status that must

be recovered, not as a transactional substitute for Magento's invoice lifecycle.

Queue mode

Queue mode stores `queued` with a claim token before publishing a message containing the numeric entity ID, store ID and selected context. The consumer loads the document, generates it and writes `generated` or `error`.

Monitor all three parts:

- `queued` and `processing` rows in the Magento grids;
- consumer process health;
- queue backlog and failed messages in your queue backend.

If a row stays `queued`, confirm that the matching consumer is running before regenerating manually. Rows stuck beyond the flow's **Recovery Timeout** are picked up again by the scheduled worker.

Scheduled mode

The hourly `einvoice_process_scheduled` job processes due `scheduled` rows per store, up to each flow's **Scheduled Batch Size**. It also reclaims `queued`/`processing` rows whose claim is older than the flow's **Recovery Timeout (Minutes)**, so a crashed worker or consumer does not strand documents.

Cron must run frequently enough for Magento to execute the schedule. Running `php bin/magento cron:run --group=default` once is a diagnostic step, not a production scheduler.

Manual generation

Manual generation remains available through:

- **Generate E-Invoice** on the admin invoice or credit-memo view;
- grid mass actions;
- `php bin/magento einvoice:generate`;
- the authenticated REST generation endpoints.

The management service skips documents already marked `generated`. Deliberate regeneration uses `force`: the REST endpoints accept `force: true`, and the admin detail-page action automatically applies it when the current status is `error`. Grid mass actions and `einvoice:generate` run without `force` — they skip `generated` documents and cannot retry an `error` document.

Recovering a failed document

There is no automatic retry for `error` documents; recovery is a deliberate manual step:

1. Open the invoice or credit memo and read the stored error.
2. Correct the source or configuration problem.
3. Regenerate once through the detail-page **Generate E-Invoice** action (it applies `force` for `error` rows) or the REST endpoint with `force: true`.
4. Download and validate the result before sending it.

Repeated attempts cannot fix missing VAT IDs, wrong buyer references or a format that is not configured correctly. Fix the cause first.

Related

- Status Tracking
- Document Storage, Email and Downloads
- Error Handling
- Go-Live Checklist