* Product: Maarch Courrier (electronic correspondence management, includes email sending)
* UI: Angular SPA served from dist/
* API: PHP Slim 4 REST API under /rest
* DB: PostgreSQL

**Technologies**

* Backend (PHP 8.1+)
  + Slim 4 + PSR-7 (slim/slim, slim/psr7) composer.json:1
  + Email: phpmailer/phpmailer composer.json:1
  + Auth: JWT (firebase/php-jwt), Keycloak OAuth2 (stevenmaguire/oauth2-keycloak), CAS (apereo/phpcas), SAML (SimpleSAML) src/core/controllers/AuthenticationController.php:16
  + PDF/Docs: tecnickcom/tcpdf, setasign/fpdi, smalot/pdfparser, tinybutstrong/opentbs composer.json:1
  + Search: zf1/zend-search-lucene composer.json:1
  + Logging: monolog/monolog composer.json:1
  + Misc: endroid/qr-code, tc-lib-barcode, php-ews/php-ews composer.json:1
* Frontend (Angular 17)
  + Angular 17 + Angular Material, Bootstrap 3, jQuery, TinyMCE 6 package.json:1
  + Tooling: Angular CLI, ngx-build-plus, ESLint, Prettier, Karma/Jasmine, Cypress angular.json:1
  + Node requirement: node >= 20.9.0 package.json:1
* Routing/Serving
  + SPA and API rewrite rules .htaccess:1
  + UI redirect index.php:1 → dist/index.html

**App Structure & Base URLs**

* UI entry: index.php:1 redirects to dist/index.html
* Rewrites:
  + /dist/\* → static SPA files
  + /rest/\* → PHP API
  + all else → index.php for SPA routing .htaccess:1
* API bootstrap:
  + Slim App + dynamic base path /rest rest/index.php:35, rest/index.php:43

**Key API Routes (main ones)**

* Auth
  + GET /rest/authenticationInformations rest/index.php:89
  + POST /rest/authenticate rest/index.php:91
  + GET /rest/authenticate/token rest/index.php:93
  + GET /rest/authenticate/logout rest/index.php:92
  + GET /rest/validUrl rest/index.php:90
* Branding/Assets
  + GET /rest/images?image=logo|onlyLogo|loginPage rest/index.php:96
    - Served from custom/<id>/img if present; else dist/assets src/core/controllers/CoreController.php:127
* Emails
  + POST /rest/emails (send) rest/index.php:289
  + GET /rest/emails/{id} rest/index.php:290
  + PUT /rest/emails/{id} rest/index.php:291
  + DELETE /rest/emails/{id} rest/index.php:292
  + GET /rest/resources/{resId}/emails rest/index.php:474
  + GET /rest/resources/{resId}/emailsInitialization rest/index.php:492
  + GET /rest/currentUser/availableEmails rest/index.php:682
* Configuration
  + GET /rest/configurations/{privilege} rest/index.php:173
  + PUT /rest/configurations/{privilege} rest/index.php:174
  + Common privileges: admin\_email\_server, admin\_sso, admin\_document\_editors, admin\_mercure, admin\_shippings src/app/configuration/controllers/ConfigurationController.php:90
* Users/Resources/Attachments (examples)
  + Users: /rest/users, /rest/currentUser/\* rest/index.php:620
  + Resources: /rest/resources/\* rest/index.php:658
  + Attachments: /rest/attachments/\* rest/index.php:115

**Customization For Your Company**

* Multi‑tenant/custom selector
  + Map tenant(s): edit custom/custom.json (array of { id, uri?, path? }) custom/custom.json:1
  + The app computes customId by host or first path segment src/core/models/CoreConfigModel.php:29
* Company config (do this per customId)
  + Create custom/<yourId>/config/config.json (copy from config/config.json.default) config/config.json.default:1
  + Key fields: applicationName, timezone, maarchUrl, customID, privateKeyPath, database block custom/barid/config/config.json:1
  + Encrypt key: point privateKeyPath to your mc\_secret.key and place that file securely
  + Core reads custom/<id>/config/config.json automatically src/core/models/CoreConfigModel.php:73
* Branding
  + Place images in custom/<yourId>/img/:
    - logo.svg, logo\_only.svg, bodylogin.jpg src/core/controllers/CoreController.php:127
  + Frontend theming (colors/SCSS): update src/frontend/css/vars.scss and rebuild the SPA angular.json:1
* Authentication
  + Choose login mode via config/login\_method.xml (or per‑custom override at custom/<id>/config/login\_method.xml) config/login\_method.xml:1
    - Options: standard, ldap, cas, sso (SimpleSAML), keycloak, openam
  + Provide corresponding config files if used:
    - Keycloak: config/keycloakConfig.xml
    - CAS: config/cas\_config.xml
    - OpenAM: config/openAM.json
* Email server (SMTP)
  + API config is stored under privilege admin\_email\_server
  + Retrieve current: GET /rest/configurations/admin\_email\_server rest/index.php:173
  + Update: PUT /rest/configurations/admin\_email\_server with JSON body rest/index.php:174
    - Required fields: type (smtp or mail), from (email), for SMTP: host, port, auth (bool), user/password if auth=true, secure (ssl/tls/``), charset default utf-8 src/app/configuration/controllers/ConfigurationController.php:136
  + Example PUT body:
    - {"type":"smtp","from":"noreply@yourco.com","host":"smtp.yourco.com","port":587,"auth":true,"user":"noreply","password":"<secret>","secure":"tls","charset":"utf-8"}
* Email signatures/templates
  + User signatures via /rest/currentUser/emailSignatures\* rest/index.php:673
  + Merge email templates: POST /rest/templates/{id}/mergeEmail rest/index.php:602
* Database
  + Set your PostgreSQL endpoint/credentials in your custom config.json (database array) config/config.json.default:1
  + Use the provided migration/ SQL to align schema if needed
* Outlook add‑in
  + Angular project addin-outlook in plugins/addin-outlook (build with package scripts) angular.json:1

**Sending Email Programmatically**

* Auth:
  + POST /rest/authenticate → returns JWT; include as Authorization: Bearer <token> rest/index.php:91
* Send:
  + POST /rest/emails with body like:
    - {"status":"EXPRESS","isHtml":true,"sender":{"email":"noreply@yourco.com"},"recipients":[{"email":"user@yourco.com"}],"object":"Subject","body":"<p>Hello</p>"}
  + Server validates sender against allowed emails and config src/app/email/controllers/EmailController.php:1065

**Run/Build Notes**

* Backend: composer install (PHP >= 8.1) composer.json:1
* Frontend: npm ci && npm run build-prod (Node >= 20.9) package.json:1
* Web server must route /rest to PHP and serve /dist statics per .htaccess .htaccess:1

{

    "config": {

        "lang": "fr",

        "applicationName": "Barid",

        "cookieTime": 10080,

        "idleTime": 10080,

        "timezone": "Europe/Paris",

        "maarchDirectory": "/var/www/html/MaarchCourrier/",

        "customID": "barid",

        "maarchUrl": "https://barid.anam.dz",

        "lockAdvancedPrivileges": true,

        "privateKeyPath": "/var/www/html/MaarchCourrier/custom/barid/config/mc\_secret.key",

        "plugins": [],

        "newInternalParaph": false

    },

    "database": [

        {

            "server": "maarch-db",

            "port": "5432",

            "type": "POSTGRESQL",

            "name": "maarch-db",

            "user": "gtxhrtaw",

            "password": "pDlGQSsfw63m9ggS"

        }

    ],