# DentalPro Maroc
# Business Plan

Dental practice management software for Morocco · Version 1.0 · October 2026

Confidential · Prepared for internal use and partners

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# 1. Executive summary

**DentalPro Maroc** is complete management software for dental practices, built for the Moroccan market. It covers patients, the agenda, treatments, quotes and invoices, CNSS/AMO forms, imaging, labo, inventory, orthodontics, aesthetics, WhatsApp reminders, a mobile app, and **AI-assisted cephalometry**. It runs in production today on a cloud VPS with its own domain name and an API for the mobile app.

This plan turns the application into a commercial product sold in **two ways, built from one codebase**:

- **DentalPro Cloud (SaaS)**: the main offer, a monthly subscription hosted by us, accessible anywhere.
- **DentalPro Cabinet (on-site)**: installed on the practice's own computer with no public domain or static IP. Mobile access goes through our relay, which gives each practice a fixed address.

| ~6,000 | 600 MAD | 750 | ≈ 5 M MAD |
|---|---|---|---|
| dentists in Morocco (estimate) | average revenue per practice per month | target practices by year 5 | annual revenue by year 5 |

**Funding need:** about **1 M MAD** to reach break-even, expected in **year 3 to 4** (around 300–350 paying practices). Gross margin on the cloud service is about 85–90%.

> Market figures in this plan are estimates to be confirmed (Ordre National des Médecins Dentistes, Ministry of Health, field interviews). The regulatory analysis is not legal advice and must be validated by a Moroccan lawyer specialised in health data.

# 2. Product

## 2.1 Functional scope (existing)

| Area | Features |
|---|---|
| Patients & records | Patient file, history, documents, consents, treatment plans, quotes |
| Agenda | Appointments per practitioner, statuses, room profile, J-1 WhatsApp reminders |
| Finance | Quotes, invoices, credit notes, payments, payment schedules, receipts, reports, reconciliation |
| CNSS / AMO | Care forms (feuilles de soins), NGAP/TNR codes, declarations |
| Imaging | X-rays and photos, panoramic tools, secure storage |
| Cephalometry | Landmark tracing, analyses (SNA, SNB, ANB, FMA, IMPA…), AI landmark detection |
| Orthodontics & aesthetics | Ortho file, aesthetic treatments and injection mapping |

| Area | Features |
|---|---|
| Labo & inventory | Prosthetic orders (kanban), laboratories, stock, consumables per treatment |
| Mobile | Mobile area for agenda, patients, invoices, PDFs; Android app |
| Administration | Users, roles and granular permissions, audit logs, demo instance, QA tools |

## 2.2 Competitive advantages

- **Built for Morocco**: CNSS/AMO, NGAP codes, ICE/IF on invoices, MAD, French (Arabic planned).
- **WhatsApp reminders**, which reduce missed appointments, the most visible pain point for practices.
- **AI cephalometry** for orthodontists: our own ONNX model, trained with the CephTrainer tool, runs in about 0.1 s on an ordinary CPU. Rare in this price range.
- **Cloud or on-site** choice, which answers the data-sovereignty objection that many local dentists raise.
- Complete scope in one tool: practices otherwise combine Excel, paper agendas and separate invoicing software.

## 2.3 Prerequisites before sale

The fixes from the third technical review (REPORT_v3_2026-10-31) are assumed to be applied. In particular:

- The TLS key has been revoked and reissued.
- The SQL injection and XSS are fixed.
- The notifications endpoint and schema migrations are fixed.
- The web root has been cleaned up.
- The regression checklist passes.

# 3. Market analysis (Morocco)

## 3.1 Market size

| Segment | Estimated size | Comment |
|---|---|---|
| Dentists (total) | 5,000 – 6,500 | Concentrated in Casablanca, Rabat, Marrakech, Tanger, Fès, Agadir |
| Private practices (target) | ≈ 4,000 – 5,000 | Mostly solo or two-practitioner practices |
| Orthodontists | a few hundred | Prime target for the Expert plan (cephalometry) |
| Clinics & dental centres | ≈ 100 – 200 | Several practitioners, higher revenue per account |
| Dental schools & new graduates | ≈ 500 graduates / year | Entry channel (free or low-cost plan) |

**Serviceable market:** at 600 MAD/month, 4,500 practices represent about **32 M MAD of recurring revenue per year**. Capturing 10–15% in five years is the target in this plan.

## 3.2 Competition

| Type | Examples | Strengths | Weaknesses vs DentalPro |
|---|---|---|---|
| French/international software | Large European dental suites | Mature, complete | Expensive, not adapted to CNSS/AMO and MAD, support abroad |
| Local Moroccan software | Several local publishers | Local presence, price | Older interfaces, often on-site only, little mobile/WhatsApp/AI |
| Generic tools | Excel, paper agenda, generic invoicing | Free, familiar | No patient record, error-prone, no CNSS, no reminders |

> Competitor names and prices should be collected during the pilot phase (field survey of 20–30 practices).

## 3.3 Customer needs (to confirm in interviews)

- Fewer missed appointments (WhatsApp reminders).
- Faster invoicing and CNSS/AMO forms with no errors.
- Access to the agenda and patient files from a phone.
- Data safety: backups, confidentiality, data staying in Morocco.
- Simple pricing, local support in French/Darija, help migrating existing data.

# 4. Offer and deployment options

## 4.1 Option A: DentalPro Cloud (SaaS)

This is the current architecture (VPS, domain name, API for the mobile app), made multi-practice.

- **One database per practice** (already supported by `tenant_db` and the `saas_*` tables). Needs: automatic sign-up that creates the practice database, one subdomain per practice, limits per plan.
- **Billing**: card subscription through CMI, plus bank transfer with manual approval.
- **Practice identity**: logo, ICE, INPE, invoice numbering, WhatsApp number.
- **Operations**: automatic backups per practice with restore tests, monitoring and a status page, support tooling, data migration tool.

| Advantages | Weaknesses |
|---|---|
| Mobile works anywhere; one update for all; cephalometry on our server; recurring revenue | Needs internet at the practice; trust objection about the cloud; hosting outside Morocco needs CNDP approval |

## 4.2 Option B: DentalPro Cabinet (on-site, no public domain, no static IP)

The application is installed on one computer in the practice (Apache, PHP, MariaDB as Windows services, built from the existing `Dist/` installer). The difficulty is mobile access, which needs a fixed address.

| Option | How it works | Mobile access | Complexity | Verdict |
|---|---|---|---|---|
| B1. Local network only | Server on the practice PC; other devices use the practice Wi-Fi | Inside the practice only | Low | Entry level |
| B2. Local server + our relay | The practice server opens an encrypted outgoing tunnel (frp, WireGuard or Cloudflare Tunnel) to our relay, which gives it cabinet-x.dentalpro.ma | Anywhere, at a fixed HTTPS address | Medium | **Recommended** |
| B3. Local data + cloud sync | Local database, synchronised with a cloud copy | Anywhere, even when the PC is off | High (conflicts) | Later, if needed |
| B4. Dynamic DNS + port forwarding | DDNS name and router ports opened | Anywhere | Fragile, risky | Avoid |

### How each feature works in option B2

- **Mobile app**: always uses `https://cabinet-x.dentalpro.ma`; the relay provides the certificate. Phones are paired by scanning a QR code shown in the desktop app.
- **Cephalometry**: the ONNX int8 model runs on the practice PC. Minimum 4 CPU threads and 8 GB RAM (0.1–0.3 s per X-ray). The installer checks the CPU; weaker PCs use the paid Ceph Cloud service, which sends only the image and returns only the points.
- **WhatsApp reminders**: one central gateway on our VPS serves all practices through the relay, or the WhatsApp Business API with one account per practice.

- **Backups**: encrypted automatic backup to our cloud. This is the biggest risk of an on-site install, so it is strongly recommended.
- **Updates**: signed automatic updates; database migrations run automatically (`migrate.php`).
- **Licence**: signed licence file tied to the PC, check-in every 30 days, 30 days of offline grace before features are restricted.

### Keeping one product

- One setting `DEPLOY_PROFILE=cloud|onprem` and one feature list per profile and per plan.
- Same code, same migrations, same regression checklist; every release is tested in both profiles.
- The mobile app only knows one base URL (the practice subdomain), so it behaves the same in cloud or on-site mode.
- The same ONNX cephalometry model in both modes.

# 5. Pricing

## 5.1 Cloud plans (MAD excluding tax)

| Plan | Target | Includes | Monthly | Annual |
|---|---|---|---|---|
| Essentiel | Solo general dentist | Patients, agenda, treatments, quotes, invoices, CNSS/AMO, 1 practitioner | 390 | 3,900 |
| Pro | Established practice | Essentiel + imaging, labo, inventory, WhatsApp reminders, mobile app | 690 | 6,900 |
| Expert / Ortho | Orthodontists, multi-chair practices | Pro + AI cephalometry, orthodontics, aesthetics, advanced reports | 990 | 9,900 |
| Extra practitioner | — | Per additional practitioner | 190 | 1,900 |
| Setup & migration | — | One-off: configuration, data import, training | 1,500 – 3,000 | — |

Annual payment gives **2 months free**. A **30-day free trial** and a demo instance are offered. Students and new graduates get a free or reduced plan for their first year.

## 5.2 On-site plans

| Formula | Price | Comment |
|---|---|---|
| Perpetual licence + maintenance | 15,000 (Pro) / 22,000 (Expert) + 20% per year | For practices that prefer to pay once |
| On-site subscription | Cloud price minus ≈ 15%, relay included | Lower entry cost, recurring revenue |
| On-site installation | 1,000 | Visit, installation, training |

## 5.3 Add-ons

| Add-on | Price |
|---|---|
| Mobile relay (included from Pro) | 99 / month |
| Encrypted cloud backup | 99 / month |
| Ceph Cloud (for weak PCs) | 5 MAD per analysis or 199 / month unlimited |
| Extra storage (imaging) | 49 / month per 50 GB |
| Premium support (same-day call-back) | 149 / month |

# 6. Financial projections (5 years)

> Assumptions: average revenue 600 MAD per practice per month; setup fee 2,000 MAD per new practice; hosting cost 45 MAD per practice per month; reseller commissions included in sales costs. All figures in MAD and are estimates.

## 6.1 Customers

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| Practices at year end | 50 | 150 | 300 | 500 | 750 |
| New practices | 50 | 100 | 150 | 200 | 250 |
| Average practices in the year | 25 | 100 | 225 | 400 | 625 |
| Market share (≈ 5,000) | 1% | 3% | 6% | 10% | 15% |

## 6.2 Profit and loss (thousand MAD)

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| Subscriptions | 180 | 720 | 1,620 | 2,880 | 4,500 |
| Setup fees & licences | 100 | 200 | 300 | 400 | 500 |
| **Total revenue** | **280** | **920** | **1,920** | **3,280** | **5,000** |
| Team (dev, support, sales) | 450 | 900 | 1,400 | 1,900 | 2,400 |
| Hosting & services | 13 | 54 | 122 | 216 | 338 |
| Marketing & sales | 150 | 250 | 350 | 450 | 600 |
| Legal, compliance, other | 120 | 100 | 120 | 150 | 180 |
| **Total costs** | **733** | **1,304** | **1,992** | **2,716** | **3,518** |
| **Result** | **−453** | **−384** | **−72** | **+564** | **+1,482** |
| Cumulative | −453 | −837 | −909 | −345 | +1,137 |

**Funding need:** about **1 M MAD** (lowest cumulative point −0.9 M MAD in year 3), from own funds, partners, or Moroccan startup programmes (for example Innov Invest / Tamwilcom instruments, incubators).

**Lean scenario:** with a team of 3 (≈ 450 k MAD per year), break-even is reached at about **70–100 practices**. The plan above chooses faster growth with a larger team from year 2.

## 6.3 Key indicators to track

- Monthly recurring revenue (MRR) and number of paying practices.
- Trial to paid conversion (target ≥ 30%).

- Monthly churn (target ≤ 1.5%).
- Customer acquisition cost vs lifetime value (target LTV/CAC ≥ 3).
- Support tickets per practice per month, and time to resolve.
- Missed-appointment rate in practices using reminders (sales argument).

# 7. Go-to-market

## 7.1 Channels

| Channel | Action | Expected role |
|---|---|---|
| Dental suppliers | Partnership with sales reps who already visit practices; 15–20% commission | Main acquisition channel |
| Congresses & associations | Stand and live demos at national dental congresses and Ordre events | Visibility, credibility |
| Dental schools | Free plan for students and new graduates (Casablanca, Rabat, Fès…) | Long-term pipeline |
| Referral | 1 free month for each practice referred | Low-cost growth |
| Digital | Website, demo, videos (including the emergency training videos), Facebook/Instagram/LinkedIn targeting dentists | Lead generation |
| Labs | Lab portal: labs invite their client practices | Network effect |

## 7.2 Sales process

1. Lead from a channel → 30-minute online demo.
2. 30-day trial with data import of a sample.
3. On-site or remote training (1–2 hours).
4. Follow-up call at day 7 and day 25; conversion to paid.
5. Satisfaction call at month 3; referral request.

# 8. Regulatory compliance (Morocco)

| Topic | Requirement | Action |
|---|---|---|
| Law 09-08 / CNDP | Health data is sensitive. Each practice is the data controller and needs CNDP authorisation; we are the processor. | Ready-made CNDP application pack for practices, processor agreement (DPA), patient privacy notice, record of processing |
| Transfer outside Morocco | Hosting with OVH (France) is a transfer abroad and needs CNDP approval. | Get approval, or move hosting to a data centre in Morocco (strong sales argument). On-site version avoids the issue. |
| Cybersecurity (Law 05-20, DGSSI) | Security measures in proportion to the risk | Encryption at rest and in transit, two-step login, audit log, tested backups, incident procedure, yearly penetration test |
| AI cephalometry (Law 84-12) | Diagnostic software may fall under medical device rules | Present it as a measurement aid validated by the practitioner; show confidence; log validations; keep a technical file (training data, MRE/SDR accuracy) |

| Topic | Requirement | Action |
|---|---|---|
| Invoicing & tax | Required details (ICE, IF, sequential numbering); DGI e-invoicing is coming | Lock issued invoices (credit notes only), strict numbering, e-invoicing export when the format is published |
| Medical records | Long retention, patient access rights | Archive instead of delete; per-patient export |
| Contracts (Laws 31-08, 43-20) | Consumer protection, electronic signature | Terms of service, SLA, data return on exit (reversibility), electronic acceptance |

> Have this table validated by a Moroccan lawyer specialised in health data before launch.

# 9. Operations and organisation

## 9.1 Team

| Role | Year 1 | Year 3 | Year 5 |
|---|---|---|---|
| Founder / product | 1 | 1 | 1 |
| Developers | 1 | 2 | 3 |
| Support & training | 1 | 2 | 4 |
| Sales | 0.5 (+ resellers) | 1 | 2 |
| Total | 3.5 | 6 | 10 |

## 9.2 Infrastructure

- Cloud: VPS in Morocco or EU (with CNDP approval), one database per practice, nightly encrypted backups off-site, monitoring and status page.
- Relay server for on-site practices (frp/WireGuard), with a wildcard certificate for `*.dentalpro.ma`.
- Ceph Cloud: ONNX service (`serve_onnx.py`) on CPU, scaled as needed.
- Support: ticket tool, WhatsApp support line, knowledge base, video tutorials.

## 9.3 Service levels

- Cloud availability target 99.5% per month.
- Support response: same working day (standard), 2 hours (premium).
- Backup: daily, 30-day retention, restore test every month.

# 10. Roadmap

| Phase | Timing | Deliverables |
|---|---|---|
| 0. Foundations | Month 1 | Audit fixes applied, automated regression checks, DEPLOY_PROFILE setting, feature list per plan, licence service |
| 1. Multi-practice cloud | Months 2–3 | Automatic sign-up and practice databases, subdomains, CMI billing + transfer, migration tool, monitoring, backups per practice, hosting decision (Morocco or CNDP approval) |
| 2. Pilot | Months 3–4 | 10 practices free for 3 months, feedback, cephalometry model retrained on their X-rays (with consent), testimonials |
| 3. Launch | Month 5 | Plans, website, demo, supplier partnerships, congress presence, CNDP pack, contracts |
| 4. On-site version | Months 5–8 | Installer + Windows services, relay, QR pairing, signed updates, encrypted cloud backup, offline licence |

| Phase | Timing | Deliverables |
|---|---|---|
| 5. Scale | Months 9–12+ | Arabic interface, lab portal, e-invoicing export, Ceph Cloud, partner programme |

## 11. Risks and mitigation

| Risk | Impact | Mitigation |
|---|---|---|
| Slow adoption (habits, paper) | High | Free trial, data migration included, supplier channel, training |
| Data breach | Very high | Security fixes, encryption, two-step login, pen tests, incident plan, insurance |
| Regulatory block (CNDP, medical device) | High | Early CNDP filing, hosting in Morocco, AI positioned as an aid with validation |
| Data loss in on-site installs | High | Encrypted cloud backup add-on strongly pushed, backup health alerts |
| Competitor price war | Medium | Differentiate on WhatsApp, mobile, AI and local support; annual plans |
| Key-person dependency (small team) | Medium | Documentation, automated tests, second developer in year 2 |
| Regressions when shipping two profiles | Medium | One codebase, regression checklist run in both profiles before every release |

## 12. Conclusion and next steps

DentalPro Maroc already has the functional depth of a commercial product. The main work is to make it **safe, multi-practice and easy to buy**, and to add an **on-site version** that keeps the mobile app working through a relay. With realistic adoption (15% of practices in five years), the product can reach about **5 M MAD of yearly revenue** with good margins.

1. Apply and verify the audit fixes (month 1).
2. Decide hosting: Morocco data centre or CNDP transfer approval.
3. Recruit 10 pilot practices, including 2–3 orthodontists.
4. Sign one or two dental supplier partnerships.
5. Validate the regulatory analysis with a lawyer and file the CNDP pack.