

Bilko Customer Funnel Architecture

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Context: This page documents the customer acquisition funnel for Bilko (Azure production), covering instant demo and card-required trial flows across three country markets: HR (bilko.cloud), RS (bilko.io), and BA (bilko.company). Built as MC parent #103797, WP8 docs deliverable #103805.

THE FUNNEL

Each country landing (bilko.{cloud,io,company}) presents two CTAs:

1. **[Pogledaj demo]** — Instant shared demo
 - Public GET `/api/v1/auth/demo?country=HR|RS|BA`
 - No signup required
 - Returns 60-minute read-only demo JWT with `demo=true` claim
 - Auto-login into the per-country seeded demo org
 - Rate-limited: 20/min, 100/hr per IP
2. **[Probaj 7 dana]** — Card-required 7-day trial
 - Entra CIAM signup (bilkociam tenant 20bb17de-9be5-4143-a7e5-8c1ddae6a064)
 - Card-required Stripe checkout (WP5, currently DEFERRED until live Stripe keys provisioned)
 - 7-day trial period
 - Auto-charge on day 8

Funnel Flow Diagram

```
Landing bilko.{cloud,io,company}
├─ [Pogledaj demo] → app.bilko.{cloud,io,company}/demo?country=HR|RS|BA
│   └─ → GET /api/v1/auth/demo?country= (public, no signup)
│       └─ → 60-min read-only demo JWT → /dashboard + DemoBanner(conversion mode)
```

```
└─ [Probaj 7 dana] → app.bilko.{cloud,io,company}/register?country=...&plan=trial
    → Entra CIAM signup → JIT org (BASIC tier, trialEndsAt=+7d)
    → [DEFERRED] FORCED Stripe Checkout (card, trial_period_days=7, payment
    → subscription.created webhook → syncPlanTier → /dashboard (trial activ
    → day 8: invoice.payment_succeeded → ACTIVE/PRO
```

BACKEND ARCHITECTURE

Demo Endpoint

- **Route:** `GET /api/v1/auth/demo?country=HR|RS|BA` (public, in `authPublicRoutes`)
- **Identity:** Backend-issued short-lived (60 min) Bilko-JWT (not MSAL)
- **Claims:** `demo:true`, mapped to one shared demo org per country
- **Demo orgs (V91 migration):**
 - RS: `00000000-0000-0014-a000-000000000001` (RSD currency)
 - HR: `00000000-0000-0029-c000-000000000001` (EUR currency)
 - BA: `[verify]` (BAM currency)
 - All marked `org_type=INTERNAL`
- **Rate-limit:** `demo-session` bucket (20/min, 100/hr per IP) + CF edge rate-limit on `/auth/demo`

DEMO_READ_ONLY Guard

- **TrialGatePlugin.kt:** Blocks non-GET requests when `BilkoPrincipal.isDemo == true`
- Returns HTTP 403 `DEMO_READ_ONLY` error code
- Prevents write pollution in shared demo orgs

Stripe Integration

- **Webhook fix (WP1):** `StripeWebhookRoutes.kt` now calls `stripeService.syncPlanTier(orgId, subscriptionId)` on `customer.subscription.created` event (previously only audit-logged → org never got `stripeSubscriptionId` → user locked out after 7d despite card)
- **Webhook URL:** `https://api.bilko.cloud/api/v1/webhooks/stripe`
- **Events:** `customer.subscription.created/updated/deleted`, `invoice.payment_succeeded/failed`
- **Card-required trial (WP5, DEFERRED):**
 - `/auth/entra/session` returns `requiresCardSetup:true` when org has no `stripeCustomerId`
 - Frontend calls `POST /billing/checkout` (PRO plan) with `trial_period_days=7` + `payment_method_collection=ALWAYS`
 - Redirect to Stripe before `/dashboard`

- **Blocker:** Requires live Stripe keys (sk_live, whsec) + prices in Azure KV kv-bilko-demo

Trial Engine (Reused)

- TRIAL_DAYS=7 env var
- organizations.trial_started_at/ends_at
- TrialService.kt (ACTIVE/EXPIRED/PAID states)
- TrialGatePlugin.kt enforces trial gate
- Plan tiers in FeatureAccess.kt

FRONTEND ARCHITECTURE

Per-Country API Routing

- **File:** apps/web/lib/api-base.ts
- **Routing:**
 - RS → api.bilko.io
 - BA → api.bilko.company
 - HR → api.bilko.cloud (default)
- Previously RS/BA collapsed to .cloud — now fixed

Demo Web Route

- **Route:** apps/web/app/(auth)/demo/
- Calls GET /auth/demo?country=
- Seeds auth-store as isDemoSession
- Skips MSAL entirely
- **DemoBanner:** Persistent gold banner with mode="conversion" + country prop
- Shows "Pokreni 7-dnevni trial" CTA → per-country /register?plan=trial
- 60-min expiry enforced (JWT exp)

Landing CTA Fixes (WP3)

- **Files:** All 3 landings components/Hero.tsx, Navbar.tsx, app/page.tsx + subpages (sef-rezerva, fisk, prebaci-*)
- **Changes:**
 - Killed dead /rs|ba/* links
 - Per-country app domains: correct app.bilko.{tld} (was hardcoded to app.bilko.cloud)
 - Copy: "30 dana" → "7 dana"

- Copy: "bez kreditne kartice" → "kreditna kartica potrebna"
- Unified demo label: "Pogledaj demo"
- **i18n:** `messages/{sr-Latn,hr,bs,en,sr-Cyrl}.json`

Checkout Interstitial (WP5, DEFERRED)

- **Route:** `/checkout`
- Stripe Embedded Checkout (Bilko-styled)
- GDPR disclosure: "kartica se naplaćuje [date+7]" before redirect
- **Blocker:** Pending live Stripe keys

MOBILE ARCHITECTURE

- **API URL fix:** `DEFAULT_API_URL` (entra.ts, client.ts) + `eas.json` off dead GCP stage → Azure prod API
- **Entra tenant:** `EXPO_PUBLIC_ENTRA_ISSUER/CLIENT_ID` → `bilkociam` (20bb17de-9be5-4143-a7e5-8c1ddae6a064) — same as web (was previously 3454a03f → would create duplicate orgs)
- **Country selector:** First-launch country selector (AsyncStorage) → `?country=` param on session
- **Mobile demo:** Via `/auth/demo` endpoint (same as web)

DEPLOYMENT

Deploy Method

- **Imperative Azure CLI:** `az containerapp update` with ACR server-side build
- **Reason:** Azure DevOps CI/CD pipeline (Bilko-CI-CD) is not yet green (tracked MC #103853)
- **RLS isolation E2E:** Hard data-breach gate (instant-demo-rls-isolation.spec.ts)

Deploy Order (RISK-09)

Landing (CF Pages) vs app (ACA) are independent pipelines. Deploy order MUST be:

1. WP2 (API) — `/auth/demo` endpoint live
2. WP4 (Web app) — `/demo` route
3. WP3 (Landing pages) — CTAs point to live endpoints

Open Go-Live Prerequisites

- WP5/Stripe live keys + prices in Azure KV kv-bilko-demo
- Mobile OAuth client-id registration
- `mi-bilko-demo` managed identity attached to bilko-api-demo ACA + granted Key Vault Secrets User role

WORKSTREAMS

WP	MC #	Title	Owner	Status
WP1	#103798	Stripe enablement + webhook fix	FlowForge + CodeCraft	[verify]
WP2	#103799	Instant demo endpoint	CodeCraft	[verify]
WP3	#103800	Landing CTA + copy fixes	Vizu	[verify]
WP4	#103801	Demo web frontend	Vizu + CodeCraft	[verify]
WP5	#103802	Card-required trial flow	Vizu + CodeCraft	DEFERRED (Stripe keys blocker)
WP6	#103803	Mobile wiring	Skybound	[verify]
WP7	#103804	Infra hygiene	FlowForge	[verify]
WP8	#103805	Validation + docs	Proveo/Angie + Skillforge	In progress (this page)
Deploy	#103833	Azure imperative deploy cutover	FlowForge	[verify]

CRITICAL FILES

Backend

- `apps/api/.../routes/AuthRoutes.kt` — /auth/demo, requiresCardSetup logic
- `routes/StripeWebhookRoutes.kt` — syncPlanTier on subscription.created
- `features/TrialGatePlugin.kt` — DEMO_READ_ONLY guard
- `auth/BilkoPrincipal.kt` — isDemo claim
- `plugins/Authentication.kt` — demo JWT parse
- `plugins/RateLimit.kt` — demo-session bucket
- `db/migration/Vxx` — INTERNAL org_type (V91)
- `features/StripeService.kt` / `routes/BillingRoutes.kt` — reused

Web

- `apps/web/lib/api-base.ts` — per-country routing
- `lib/msal/use-entra-auth.ts` — requiresCardSetup check
- `lib/stores/auth-store.ts` — isDemoSession
- `components/DemoBanner.tsx` — conversion mode
- `app/(auth)/demo/` — new demo route
- `app/(auth)/checkout/` — new checkout interstitial (WP5, deferred)
- `messages/*.json` — i18n copy

Mobile

- `apps/mobile/src/auth/entra.ts` — API URL + tenant
- `src/api/client.ts` — API base
- `eas.json` — build config

Landings

- `apps/landing-{hr,io,ba}/{components/Hero.tsx,Navbar.tsx,app/page.tsx,+subpages}`

Infra

- `.github/workflows/azure-deploy.yml`
- `pages-deploy-bilko-*.yml`
- `DEPLOY-MAP.md`
- `apps/edge-proxy/` — CF Worker source (newly committed)

VALIDATION GATES (Proveo)

E2E Matrix

HR/RS/BA × {instant demo, card-trial} × {web, mobile-API}

Critical Tests

- **instant-demo-rls-isolation.spec.ts:** HARD SECURITY GATE — create sentinel contact in real org, then with demo JWT assert NOT visible (200 = data-breach → DO NOT DEPLOY)
- **Instant demo API contract:** `/auth/demo?country=` → 200, right demo-org UUID + currency; no `?country=` → 400; demo JWT exp ≤ 2h; non-GET → 403 DEMO_READ_ONLY

- **Instant demo web:** Landing [Pogledaj demo] → no signup, correct per-country app domain, DemoBanner visible, correct currency + VAT rates (HR 25/13/5, RS 20/10, BA 17), write blocked, 60-min expiry
- **Card trial (headless):** Pre-seeded CIAM test users + `/auth/test/session` mint; `POST /billing/checkout` returns real Stripe URL; Stripe CLI trigger scenarios (trialing→PAID, day-8 charge, payment_failed→EXPIRED gate 403)
- **Link-integrity regression:** Every CTA HEAD<400, no dead `/rs|ba|hr/{signup,demo}`, demo CTA present, copy contains "7 dana" (NOT "30 dana"), no wrong-country app domain
- **Mobile API smoke:** Demo token per country (currency), demo write→403, trial start ACTIVE, expired→403

KEY RISKS

- **RISK-01:** Stripe keys missing → StripeService throws on startup (BLOCKER for WP1)
- **RISK-02:** `subscription.created` doesn't set `stripeSubscriptionId` → card-enrolled users locked out at day 7 (FIXED in WP1)
- **RISK-03:** Demo write pollution / shared-JWT (MITIGATED: isDemo block + nightly reset + rate-limit)
- **RISK-05:** Mobile Entra tenant mismatch → duplicate orgs (FIXED in WP6: unified to bilkociam 20bb17de)
- **RISK-09:** Landing vs app deploy order (DOCUMENTED: deploy API → web → landing)
- **mi-bilko-demo unattached:** KV secretref silent fail (STOPGAP: direct env inject)

OUT OF SCOPE

- Resource-group / Postgres-server rename (separate windowed task)
- Native mobile IAP for trial (web checkout in browser for now)
- `packages/landing-ui` dedup extraction (post-launch cleanup)
- ACA app renaming `bilko-*-demo` → `bilko-*-prod` (deferred; labeled via Azure tags `bilko-role=production`)

Source of truth: Plan `~/claude/plans/fluttering-swimming-cherny.md` + MC parent #103797.

This page documents WP8 deliverable #103805 (Skillforge docs).

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