



Connect your hospital's software to BedKoi

Partner API guide, for hospital management and software developers

bedkoi.com · October 2026

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What it is, and what it gives you

BedKoi shows Bangladesh's hospitals in one place: free beds, the daily price and the number to call, on bedkoi.com and in the app (Google Play, App Store).

If your hospital has its own software (an HMS), it can be connected to BedKoi. Then:

- When a patient is admitted or discharged, the free-bed count reaches BedKoi by itself; no one has to open the panel.
- When a family asks for a bed, the request arrives in your software, and you confirm or decline it there. The family is told by SMS.
- Counts stay current, so families get the right information, and your phones ring less for nothing.
- Connecting is free.

How to switch it on

- 1 Join BedKoi** (if you haven't): apply at bedkoi.com/en/join. Once checked, your hospital's admin account opens.
- 2 Make an API key:** sign in at admin.bedkoi.com, open *Connect software* in the menu, give a name and press *Make a key*. The key is shown once; copy it and keep it safe.
- 3 Give it to your software company:** hand the key and this guide to your HMS company or IT team. Don't send the key in plain email; use a safe channel.
- 4 Booking news address:** the software company gives an https address. Enter it on the same page, save, and press *Send a test*. Give them the signing secret it shows, too.
- 5 Check it:** when every message under *Recent messages* says “Delivered”, the link works. The panel's update history says “the hospital's software”.

Safety

- A key works only on your hospital's data; it can't see or change another hospital's.
- If a key is lost or someone leaves, revoke it at once and make a new one.
- Every booking message is signed with a secret, and goes only to an https address.
- Patients' names and numbers go only to your own software, as you see them in the panel.

The basics

Address	https://api.bedkoi.com/v1
Key	On every request, in the X-API-Key header (or Authorization: Bearer bk_live_...)
Format	JSON (UTF-8); times in ISO 8601, UTC
Limit	120 requests a minute
Testing	dryRun: true when sending counts saves nothing; “Send a test” in the panel for booking news

Endpoints

GET	/partner/hospital	Your hospital and its facilities: id, kind, variant, total, free
PUT	/partner/availability	Send free-bed counts
POST	/partner/availability/confirm	Nothing changed: every count is still right
GET	/partner/bookings?status=PENDING	Bookings (status: open, PENDING, CONFIRMED, closed; q, page, pageSize)
GET	/partner/bookings/{id}	One booking
POST	/partner/bookings/{id}/confirm	Keep the bed: holdMinutes (15–720, 120 if left out), note
POST	/partner/bookings/{id}/decline	Decline: reason
POST	/partner/bookings/{id}/admit	The patient came
POST	/partner/bookings/{id}/cancel	Cancel (the bed is free again): reason

GET /partner/hospital

```
curl https://api.bedkoi.com/v1/partner/hospital \
-H "X-API-Key: bk_live_..."

{
  "hospital": { "id": "01a1...", "slug": "dhaka-medical-college-hospital", "joined": true, ... },
  "facilities": [
    { "id": "01a0...", "key": "icu", "kind": "COUNT", "variantKey": "", "total": 10, "available": 3, ... },
    { "id": "01a0...", "key": "cabin", "kind": "COUNT", "variantKey": "single-ac", "total": 20,
      "available": 7, ... }
  ]
}
```

Sending free-bed counts

- Name each facility by its id (from GET /partner/hospital), or by facility (its kind) and variant. Leave variant out when there is none.

- Counted kinds take available; yes/no kinds take isAvailable. available can't exceed the total; change totals and prices in the panel.
- You may send what didn't change: it counts as “checked just now”. Send at least every 30 minutes even when nothing changed (or call /availability/confirm), or BedKoi shows the counts as old.
- The answer has changes (what changed) and the current state of every facility.

```
curl -X PUT https://api.bedkoi.com/v1/partner/availability \
-H "X-API-Key: bk_live_..." -H "Content-Type: application/json" \
-d '{
  "items": [
    { "facility": "icu", "available": 3 },
    { "facility": "cabin", "variant": "single-ac", "available": 7 },
    { "facility": "oxygen", "isAvailable": true }
  ]
}'

→ { "dryRun": false, "changes": [ { "facility": "icu", "variant": "", "from": 4, "to": 3, ... } ],
  "facilities": [ ... ] }
```

Facility kinds (facility)

icu Intensive Care Unit · counted · available

ccu Coronary Care Unit · counted · available

hdu High Dependency Unit · counted · available

nicu Neonatal ICU · counted · available

picu Paediatric ICU · counted · available

scanu Special Care Newborn Unit · counted · available

cabin Cabin · counted · available

room Room · counted · available

general_ward General ward bed · counted · available

isolation Isolation / dengue ward · counted · available

ventilator Ventilator · counted · available

dialysis Dialysis · counted · available

oxygen Oxygen supply · yes/no · isAvailable

blood_bank Blood bank / platelets · yes/no · isAvailable

dengue_test Dengue test (NS1 / CBC) · yes/no · isAvailable

emergency Emergency department · yes/no · isAvailable

Bookings

- When a family asks for a bed, the booking is PENDING. With no answer in 30 minutes it runs out (EXPIRED) by itself.
- Confirming takes one off the free count, keeps the bed for holdMinutes and texts the family. When the patient comes, admit; if they don't, cancel and the bed is free again.
- Every booking has an id, a reference (like BK7Q2XD), the patient's name, age, phone, a note and the hospitalFacilityId.

```
curl -X POST https://api.bedkoi.com/v1/partner/bookings/<id>/confirm \
-H "X-API-Key: bk_live_..." -H "Content-Type: application/json" \
-d '{ "holdMinutes": 120, "note": "Come to the ICU desk, 3rd floor" }'
```

Booking news (webhooks)

- BedKoi POSTs to the https address set in the panel. Answer with a 2xx within 10 seconds; on any other answer or a timeout it tries 5 more times, over about 15 minutes. Redirects aren't followed.
- The same message can arrive more than once: use X-BedKoi-Delivery to drop repeats.

booking.created	Someone asked for a bed: answer it
booking.confirmed	The bed is kept
booking.declined	Declined
booking.admitted	The patient was admitted
booking.cancelled	Cancelled (by the family or the hospital)
booking.expired	No answer in time, or the hold ran out
ping	“Send a test” in the panel

```
POST https://your-hms.example.com/bedkoi
Content-Type: application/json
X-BedKoi-Event: booking.created
X-BedKoi-Delivery: 01a1...
X-BedKoi-Timestamp: 1760603400
X-BedKoi-Signature: v1=5d41402abc4b2a76...

{
  "event": "booking.created",
  "occurredAt": "2026-10-16T08:30:00.000Z",
  "by": "family",
  "viaPartner": false,
  "booking": {
    "id": "01a1...", "reference": "BK7Q2XD", "status": "PENDING",
    "hospitalFacilityId": "01a0...",
    "facility": { "key": "icu", "shortEn": "ICU", "shortBn": "আইসিইউ" },
    "patientName": "...", "patientAge": 58, "phone": "+8801...", "note": "...",
    "answerBy": "2026-10-16T09:00:00.000Z", ...
  }
}
```

Check the signature

X-BedKoi-Signature = v1= followed by HMAC-SHA256(secret, X-BedKoi-Timestamp + "." + body), in hex. Use the body exactly as it arrived (raw). Drop a message whose signature doesn't match or that is more than 5 minutes old.

```
import { createHmac, timingSafeEqual } from "node:crypto"

export function fromBedKoi(rawBody, headers, secret) {
  const ts = headers["x-bedkoi-timestamp"]
  const sent = headers["x-bedkoi-signature"] ?? ""
  if (Math.abs(Date.now() / 1000 - Number(ts)) > 300) return false
  const expected = "v1=" + createHmac("sha256", secret).update(ts + "." + rawBody).digest("hex")
  return sent.length === expected.length && timingSafeEqual(Buffer.from(sent), Buffer.from(expected))
}
```

```
<?php
$raw = file_get_contents('php://input');
$ts = $_SERVER['HTTP_X_BEDKOI_TIMESTAMP'] ?? '';
$sig = $_SERVER['HTTP_X_BEDKOI_SIGNATURE'] ?? '';
$expected = 'v1=' . hash_hmac('sha256', $ts . '.' . $raw, getenv('BEDKOI_WEBHOOK_SECRET'));
if (abs(time() - (int) $ts) > 300 || !hash_equals($expected, $sig)) { http_response_code(401); exit; }
$event = json_decode($raw, true); // save it, then answer quickly
http_response_code(200);
```

```
// C# (.NET)
using System.Security.Cryptography; using System.Text;

static bool FromBedKoi(string rawBody, string ts, string sent, string secret) {
    if (Math.Abs(DateTimeOffset.UtcNow.ToUnixTimeSeconds() - long.Parse(ts)) > 300) return false;
    using var h = new HMACSHA256(Encoding.UTF8.GetBytes(secret));
    var hex = Convert.ToHexString(h.ComputeHash(Encoding.UTF8.GetBytes(ts + "." +
rawBody))).ToLowerInvariant();
    return CryptographicOperations.FixedTimeEquals(Encoding.UTF8.GetBytes("v1=" + hex),
Encoding.UTF8.GetBytes(sent));
}
```

Errors

400	What you sent isn't right; message says why (e.g. unknown facility)
401	api_key_missing or api_key_invalid (wrong or revoked key)
404	No such booking at your hospital
409	booking_closed (already changed) or no_bed (no bed free)
429	Over the limit; try again shortly

A good way to set it up

- PUT /partner/availability right after an admission, discharge or bed move; and once every 30 minutes.
- On booking.created, show it on the staff's screen; they confirm or decline within 30 minutes.
- Keep the key and the secret on your server, never in a browser or a mobile app.
- Check with dryRun: true first, then send for real.

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