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Thai Holiday Data API: Correctness Against Official Holiday Calendars, 2022–2027

Production service (version 2.1.0) measured 29 October 2026 · Reference: Bank of Thailand calendar and published Cabinet holiday lists · iApp Technology Co., Ltd., Bangkok, Thailand

Executive summary. The iApp Thai Holiday Data API returns Thai public holidays and financial-institution holidays for the years 2020 to 2030. We compared every holiday it returned on 29 October 2026 with the Bank of Thailand's official holiday calendar for 2022–2027 and with the government-only holidays in the published Cabinet holiday lists. **Public holidays:** all 110 national holidays of 2022–2027 and all 15 government-only weekday holidays of 2022–2026 are present on the right date, and every one of the 159 entries returned as a day off is an official holiday (precision 100.0%, exact 95% CI 97.7–100.0). The 36 observances the list also carries — Chinese New Year, Valentine's Day, Christmas Eve and Christmas Day — are all marked as observances, not days off. **Financial-institution holidays:** all 111 holidays on the Bank of Thailand calendar for 2022–2027 are returned on the right date, with no extra date and with the Bank's own names. All 10 everyday queries we tested succeed, including the documentation's examples; a query that reaches 2028, for which no official list exists yet, returns the published part and names the missing year. Through the public API the median response time is 82 ms.

1 Introduction

The Thai Holiday Data API answers one question for scheduling, payroll, logistics and settlement software: is a given date a holiday in Thailand? It returns two types of holiday — *public* and *financial* (the days on which financial institutions close) — for a year, a date range or a window around today, each with its date, weekday and name, whether it is a day off, and the area it applies to when it is not nationwide.

A holiday calendar is only useful if it is complete, contains nothing that is not a holiday, and is current. This paper measures those three properties against official sources, year by year, and reports every discrepancy found, including those that do not favour the service.

This paper measures version 2.1.0 of the service, deployed on 29 October 2026. A measurement of the previous version on 28 October 2026 found that financial-institution holidays were served for 2026 only, that observances were returned as public holidays, and that four government-only holidays were missing. Version 2.1.0 corrects these; observances are still returned, but marked as such, so that existing clients lose no entry.

2 Reference Data

Bank of Thailand holiday calendar

The Bank of Thailand (BOT) publishes the holidays of financial institutions and specialised financial institutions for each year, including substitution days and the special holidays added or cancelled during the year, on its website in English and Thai [1]. We retrieved the machine-readable lists behind that page on 28 October 2026. Complete lists exist for 2022–2027; BOT holds only 3 entries for 2021 and none for 2028. The BOT calendar lists working days only: a holiday that falls on a weekend appears as its weekday substitute. It is the reference for financial holidays and, since it covers every national holiday that closes banks, for the national part of the public calendar.

Government-only holidays

Government offices also close on Royal Ploughing Ceremony Day and Khao Phansa Day, and the Cabinet sometimes grants special or substitution days to government offices only. No official machine-readable list exists. We compiled the 16 such days for 2022–2026 from the published annual holiday lists and reports of the Cabinet resolutions that set them; each entry carries its source in the reference file. The 2027 government list was not available when the benchmark ran.

Regional holiday

The Cabinet made 16 October 2026 a special holiday for Bangkok only (resolution of 19 May 2026 [2]); BOT applies it to financial institutions in Bangkok. It is reported separately.

Table 1: What the service returns for each year it accepts, and whether an official reference list exists. Days off and observances are the two kinds of entry in a public-holiday response; status is the HTTP status.

Year	Public status	Days off	Observances	Financial status	Financial entries	Official reference
2020	200	0	0	503	0	none published
2021	200	27	5	503	0	BOT, partial
2022	200	29	6	200	19	BOT
2023	200	28	6	200	17	BOT
2024	200	29	6	200	18	BOT
2025	200	26	6	200	19	BOT
2026	200	24	6	200	20	BOT
2027	200	23	6	200	18	BOT
2028	200	19	6	503	0	none published
2029	200	20	6	503	0	none published
2030	200	20	6	503	0	none published

3 Method

For each year from 2020 to 2030 we requested the public, financial and combined lists from the production service, and repeated every request through the public API endpoint; all 33 responses were identical on both paths (33 of 33), compared on date, name, type, day-off flag and region. A public-holiday response holds two kinds of entry: days off (type `public`) and observances (type `observance`, with `day_off` false). Each day off returned for 2022–2027 was classified by its date:

- **National**: on the BOT calendar for that year.
- **Government-only**: in the government-only reference list.
- **Regional**: the Bangkok holiday of 16 October 2026.
- **Official, weekend**: an official holiday that falls on a Saturday or Sunday (the date a BOT substitution day replaces, or a fixed-date holiday on a weekend). These are correct but are not working days off.
- **Not official**: none of the above.

National recall is the share of BOT holidays present among the days off on the same date; **government-only recall** the same for the government-only list; **precision** the share of returned days off that are official holidays. Each observance was checked separately: it must carry the observance type and `day_off` false, and must not fall on the date of an official holiday. For the financial type, date recall and precision are measured against the BOT calendar directly, and each name is compared with BOT's. A returned public-holiday name is counted as right when it names the same holiday as the reference, and the same substitution status. Headline proportions carry a seeded bootstrap 95% confidence interval (2,000 resamples, seed 1337); for

a proportion of 100% we report the exact Clopper–Pearson interval instead. We also sent the 4 example queries from the documentation page and 6 other everyday queries (defaults, windows that cross into 2027 and into 2028, and the first accepted year).

4 Results

Table 2: Results per year. National and government-only columns count reference holidays found on the right date among the days off; the next four columns classify every day off the service returned (the official weekday column includes the Bangkok holiday in 2026); observances are the entries marked as not days off; the last column counts BOT holidays found in the financial list.

Year	Days off	National found	Gov.-only found	Official, weekday	Official, weekend	Not official	Precision (%)	Observances	Financial found
2022	29	19/19	4/4	23	6	0	100.0	6	19/19
2023	28	17/17	4/4	22	6	0	100.0	6	17/17
2024	29	18/18	2/2	20	9	0	100.0	6	18/18
2025	26	19/19	3/3	22	4	0	100.0	6	19/19
2026	24	19/19	2/2	22	2	0	100.0	6	20/20
2027	23	18/18	–	18	5	0	100.0	6	18/18
2022–2027	159	110/110	15/15			0	100.0	36	111/111

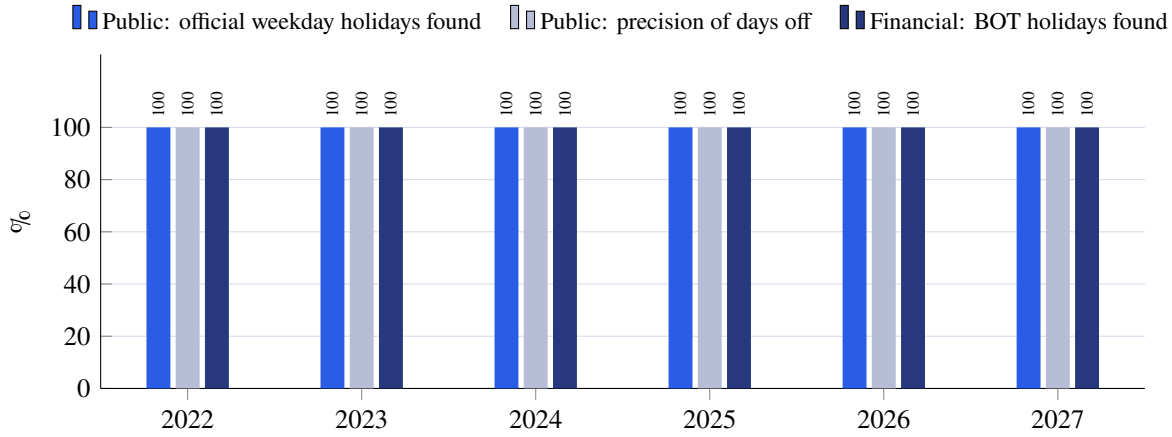


Figure 1: Per year: the share of official weekday holidays (national and government-only; national only for 2027) present among the days off, the share of returned days off that are official holidays, and the share of BOT holidays present in the financial list.

4.1 Public holidays

National and government-only holidays are complete. All 110 national holidays of 2022–2027 appear on the right date, including every substitution day and the special holidays the Cabinet added during the year (100.0%, exact 95% CI 96.7–100.0). So do all 15 government-only weekday holidays of 2022–2026 (100.0%, exact 95% CI 78.2–100.0): Royal Ploughing Ceremony Day in all 5 years, Khao Phansa Day in 2022–2026, and the government special and substitution days. The Bangkok holiday of 16 October 2026 is present and carries its area (`region`: Bangkok). For 2027 the list holds no government-only day yet, as the Cabinet had not published its 2027 list.

Observances are marked. In each of the 6 years the list also carries 6 observances: 3 days of Chinese New Year, Valentine's Day, Christmas Eve and Christmas Day (18, 6 and 12 entries over 2022–2027). All 36 of the 36 are returned with type `observance` and `day_off` false, and none of them falls on the date of an

official holiday. A client that keeps the entries with `day_off` true therefore gets the official holidays only: of the 159 days off returned, 159 are official holidays (precision 100.0%, exact 95% CI 97.7–100.0). 25 of the observances fall on working days; a client that ignores both the type and the flag would treat them as closures.

Names. Of the 126 official weekday entries, 115 (91.3%) name the right holiday. 8 special holidays carry a generic name meaning only "public holiday" or "December government holiday"; 3 carry a wrong one: special holidays where 5 May 2023 is named Coronation Day; 12 April 2024 is named Songkran; 2 January 2026 is named "December government holiday". The date is right in all of these cases. No name contains an invisible character or the misspelt New Year name found in the previous version.

4.2 Financial-institution holidays

The financial list matches the BOT calendar for every year from 2022 to 2027: 111 of 111 dates (100.0%), no extra date, and 111 of 111 Thai names and 111 of 111 English names identical to BOT's apart from spacing and BOT's notes in parentheses (the original date of a substitution, or "added"). Every entry carries the Thai Buddhist-era date and the Thai weekday (111 of 111). A substitution day that BOT cancelled after announcing it is not returned. The Bangkok-only holiday of 16 October 2026 carries `region` Bangkok, so a client outside Bangkok can keep the day as a banking day. Requests for a year without an official list (2020, 2021 and 2028–2030) return HTTP 503 with a message naming the years that are available.

Table 3: Everyday queries on 29 October 2026: HTTP status on the production service and through the public API.

Query	Service	API	Result
Docs example: public, next 30 days	200	200	0 holidays
Docs example: financial, next 90 days	200	200	4 holidays
Docs example: both types, year 2025	200	200	51 holidays (19 financial, 26 days off, 6 observances)
Docs example: public, Jul–Dec 2025	200	200	12 holidays (10 days off, 2 observances)
No parameters (public, next 365 days)	200	200	29 holidays (23 days off, 6 observances)
Financial, default 365-day window	200	200	18 holidays
Both types, default 365-day window	200	200	47 holidays (18 financial, 23 days off, 6 observances)
Financial, 1 Dec 2026 – 31 Jan 2027	200	200	4 holidays
Financial, 1 Dec 2027 – 31 Jan 2028 (2028 not yet published)	200	200	3 holidays; marked: no financial data for 2028
Year 2020 (accepted range starts 2020)	200	200	0 holidays

All 10 everyday queries succeed (Table 3). Windows that cross into 2027 return 2027's holidays, the documentation's 90-day example among them. A financial window that reaches 2028, for which BOT has not yet published a list, returns the holidays of 2027 and names 2028 in `date_range.financial_years_unavailable`, so a partial answer is never presented as a complete one. From 1 January 2027 the default 365-day financial window reaches 2028 and is answered the same way until BOT publishes its 2028 list.

5 Discussion

What the evidence supports. For 2022–2027 the service returns every official holiday in our reference on the right date — national, government-only and financial-institution, substitution days and mid-year special holidays included — and nothing it presents as a day off is anything else.

What a client must still handle. (1) A public-holiday response also carries observances; for working-day calculations, keep the entries with `day_off` true. (2) 8 special holidays carry a generic name and 3 a wrong one; their dates are right. (3) A regional holiday carries its area in `region`; a client outside that area should not treat it as a closure. (4) A year's data appears only after its official list is published: financial-institution holidays for 2028 and the government-only days of 2027 are not yet available, and a window that reaches them says so. (5) The service accepts 2020 and returns an empty list with HTTP 200, and returns 59 days off for 2028–2030, years for which no official list has been published, without marking them as provisional.

Freshness. Holidays that the Cabinet adds or moves during the year are the part of a holiday calendar that customers cannot easily maintain themselves. Every such day in our 2022–2026 reference, the Bangkok holiday decided on 19 May 2026 included, is now present, and the BOT calendar for 2027, published by 5 August 2026, is served.

6 Production Performance

Table 4: Latency of seeded year queries (seed 1337), 3 concurrent clients, 29 October 2026, sent from a server in Bangkok about 2 ms from the API endpoint. The last row is the time the API gateway recorded for every answered request of the benchmark, which excludes the client's network. Failed requests: 0 direct, 0 through the API.

Path	Requests	p50 (ms)	p90 (ms)	p95 (ms)	Max (s)
Production service, direct	200	13	21	430	0.59
Public API (end to end)	200	82	97	100	0.12
Public API, recorded at the gateway	439	11	16	18	0.46

The service caches each year's list for an hour. The first request for a year after the cache has expired builds the list again and is slower, which accounts for the tail of the direct path (p95 430 ms, slowest 0.59 s); the slowest request through the public API took 0.12 s. A first latency sample, sent from our office connection while it was congested, gave a median of 518 ms end to end, against a gateway median of 11 ms over all requests of the benchmark; it was set aside and repeated from the Bangkok server.

7 Limitations

- **Government-only reference.** There is no official machine-readable list of government-only holidays. Ours was compiled from published annual lists and reports of Cabinet resolutions; a government-only day absent from those sources would be missing from both our reference and our recall denominator. No 2027 list existed when the benchmark ran.
- **Weekend holidays.** BOT lists working days only. An official holiday on a weekend that the service omits is not detected; one it returns is counted as correct.
- **Scope.** Provincial holidays, including Eid days observed by financial institutions in the southern border provinces, are outside this evaluation. 2021 was not scored, as no complete official list was available, nor were 2020 and 2028–2030.
- **Latency.** Response times depend on the client's network; ours were measured from one server in Bangkok.
- **One snapshot.** The service and BOT's calendar were read on 29 October 2026 and 28 October 2026 respectively; either may change afterwards.

8 Reproducibility

The BOT calendar files, the government-only reference with a source for each entry, every raw response, and the scripts that fetch, query and score them are kept with this paper. The public-API runs made 444 requests, including the 200 of the latency sample that was set aside, and were charged 43.8 IC. The files are available from iApp Technology on request: sale@iapp.co.th.

References

[1] Bank of Thailand. *Financial Institutions Holiday*. https://www.bot.or.th/en/financial-institutions-holiday.html, retrieved 28 October 2026.

[2] Royal Thai Government. Cabinet resolution of 19 May 2026 on the special holiday of 16 October 2026 in Bangkok. https://www.thaigov.go.th/th/news/164228

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