

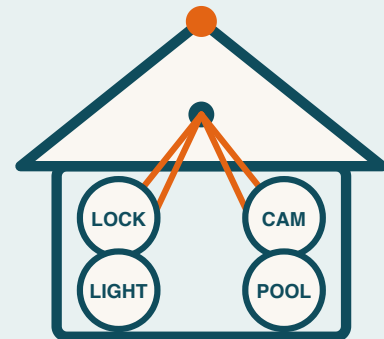


SETUP CHECK

A whole-home plan that works **together.**

Entry, cameras, lighting, pool and voice control for a 5,000 sq ft home on mixed iPhone + Android — with recordings that stay inside the house.

Report SC-QA3-001 · Prepared 2026-08-23 · Facts verified 2026-08-07 to 2026-08-22



5,000 sq ft

3 floors



**iPhone +
Android**

Nobody switches



30+ devices

Mesh already installed



\$1,200–2,500

Target hardware budget



Local footage

No China cloud storage

YOUR SITUATION

A family in a 5,000 sq ft house on three floors, which they own. Phones are mixed — iPhone and Android — and nobody is switching. A mesh WiFi system is already installed and already carries more than 30 devices. The doorbell position is wired with an indoor chime, there are outdoor outlets, and the outdoor lighting is on a switch. Someone in the household has no phone but can use their voice on a speaker. There are pets. They own some Govee lights and nothing else smart. They will work behind a faceplate but won't go further into the walls. Monthly fees are acceptable if they earn their keep. They expect to spend \$1,200 to \$2,500. Their one written exclusion: no cloud storage in China. Their own words for done: "Everything is automated and minimal maintenance."

YOUR QUESTION

"Six areas, whole home: get in without keys and let people in remotely, see who's at the door, keep an eye on the property, smart lighting, the pool, and voice control with one app for all of it. Entry, cameras and voice first; lighting and pool this year. What should we buy, and in what order?"

HOW TO READ THIS

- 2 minutes** Page 2 — the answer, what to buy, and the two free checks to do first.
- 10 minutes** The shortlist matrix and the six area pages: one page per decision, with the facts that decided it.
- Everything** The architecture, what survives an outage, the five-year money, and every source with its verification date.

The customer in this sample is fictional. Every compatibility fact is real, sourced from our product records; your report covers your setup.



What makes this different: every load-bearing compatibility claim traces to a primary source or certification record, with its verification date, in the appendix.

Build the spine first. Then add devices that can move with you.

Your constraints point to a local-first, Matter-heavy system. The spine is the only real fork: Alexa for simplicity and coverage, or SmartThings for deeper automation and broader radios.

Our lean: the Alexa spine

It is cheaper, puts the doorbell on a kitchen screen, and has the strongest verified coverage in the six areas you are buying first. SmartThings remains a valid choice if deeper routines matter more.

BUY NOW

1

Spine

Echo Show 8 + two Dots, or Aeotec hub + voice speakers.

2

Lock

Thread-first deadbolt with keypad + fingerprint access.

3

Doorbell

Wired, local 24/7 recording to storage inside the house.

4

Cameras

Start with two plug-in cameras: front approach + back yard.

THIS YEAR

Lighting

Do one free neutral-wire check, then choose Cync for value or Lutron for zero WiFi load and local reliability.

Pool

Add WaterGuru for chemistry. Equipment-pad automation depends on what your pad holds — read the labels, then pick your case in the pool section.

Before spending \$1: confirm whether one switch box has a neutral wire, and read the labels on the pool equipment pad (pump type, heater, chlorinator, any controller box). Those two facts turn the only remaining guesses into decisions — each branch is already in this report.

FULL PLAN HARDWARE

≈ \$1,501 – \$1,964

\$0/month required

Your target: \$1,200 – \$2,500

\$0\$3,000

☒ plan ☐ your band

IN FULL — THE ANSWER AS WE'D SAY IT TO YOU

Three of the things you told us decide most of this report. Your phones are mixed, which rules out building the house on Apple's system — though Apple users in the house lose nothing that matters. Your WiFi already carries more than 30 devices, so new gear should join the house through a hub's own radios — Zigbee and Thread — rather than pile onto WiFi; only the cameras have a real reason to use it. And your no-China-cloud rule is best satisfied by construction rather than by trust: we lean toward cameras and a doorbell that record to storage inside your house, so the question of whose cloud holds your footage mostly stops existing. What your answers do not decide is the one thing most guides would pretend they do: whether the spine of the house should be Alexa or SmartThings. Both fit you. **the spine** lays out the differences that matter and leaves the choice with you — and because nearly everything we picked speaks Matter, the choice is reversible either way. One conflict to know about up front: you asked for everything automated, and the pool is the one area where the market can't deliver that yet without professional equipment-pad work — **the pool** says what's real today. Start with the two free checks in **the two free checks** , then buy in order: spine, lock, doorbell, cameras now; lighting and the pool monitor this year.

YOUR SHORTLIST AT A GLANCE

Every product in this plan, against the five ecosystems

Read from our product records at the time this report was drafted. ✓ works fully · ◐ partial · ✗ no documented path · ? not established. Radios show which devices stay off your WiFi.

PRODUCT	ROLE	ALEXA	GOOGLE HOME	APPLE HOME	SMARTTHINGS	HOME ASSISTANT	RADIOS	PRICE*
SPINE — PICK ONE								
 Amazon Echo Show 8 (2025) Alexa spine · with two Echo Dots	OUR LEAN	✓	✗	✗	?	?	WiFi Zigbee Thread Matter	\$179.99
 Aeotec Smart Home Hub v3 SmartThings spine · with three Echo Dots	ALTERNATIVE	✓	✓	✗	✓	◐	Zigbee Z-Wave WiFi Thread Matter	\$134.99
 Amazon Echo Dot (5th gen) × 2 two on the Alexa spine, three on SmartThings	EITHER SPINE	✓	✗	✗	✗	◐	WiFi Matter	\$49.99
ENTRY — PICK ONE OF THREE								
 ULTRALOQ Bolt Fingerprint (Matter) Thread-only; needs the spine first	PICK	✓	✓	✓	✓	✓	Thread Matter	\$199.99
 Kwikset Halo Select Plus Matter over WiFi or Thread · Home Key	ALTERNATIVE	✓	✓	✓	✓	✓	WiFi Thread Matter	\$309
 Schlage Encode Plus BHMA Grade 1 · no Matter	ALTERNATIVE	✓	✓	✓	✗	✓	WiFi Thread	\$329
FRONT DOOR								
 Aqara Doorbell Camera Hub G410 + microSD card, not included	PICK	✓	✓	✓	◐	◐	WiFi Zigbee Thread Matter	\$144.99
 Reolink Video Doorbell (PoE) cable run required	ALTERNATIVE	◐	◐	✗	✗	✓	WiFi PoE	\$101.99
 ecobee Smart Doorbell (wired) cloud-only storage	ALTERNATIVE	✓	✓	◐	✗	✗	WiFi	\$159.99
CAMERAS								
 Aqara Camera Hub G5 Pro × 2 WiFi model — mind the SKU fork	START WITH 2	✓	✓	✓	?	?	WiFi Ethernet Zigbee Thread Matter	\$199.99
 Tapo C660 KIT only where no outlet reaches	ALTERNATIVE	✓	✓	?	?	?	WiFi	\$118.99
LIGHTING — AFTER THE NEUTRAL CHECK								
 GE Cync Paddle Dimmer (Matter) neutral wire required	BRANCH A	✓	✓	✓	✓	✓	WiFi Matter	\$25.99
 Lutron Caséta Diva + Smart Hub works without a neutral	BRANCH B	✓	✓	✓	✓	✓	Clear Connect	retailer-priced
 Govee COB Strip Pro (yours) stays — the accent layer	YOU OWN IT	✓	✓	◐	◐	✓	WiFi Matter	\$74.99
POOL — THIS YEAR								
 WaterGuru Sense + cassettes ≈ \$120–240/yr	MONITOR	◐	✗	✗	✗	◐	WiFi	\$349
 Aiper Scuba S1 read its risk profile first	ALTERNATIVE	✗	✗	✗	✗	✗	WiFi	\$499.99
 Dolphin Premier not a smart device at all	ALTERNATIVE	✗	✗	✗	✗	✗		\$2,499

*Price at time of research on the vendor's own page — never a live quote. Ecosystem levels are the records our product profiles publish; a ✓ is a documented path, not a promise of a good one — the area pages say which are cloud-dependent. This report carries no affiliate links — every link is

our own product profile, where the sources live. Ubiquiti's UniFi system and the equipment-pad controllers have no record in our library yet, so they are absent from this table; their facts are quoted from the vendors on the area pages.

\$2 WHY THE PLAN LOOKS THIS WAY

Your answers did more work than the product names.

Every ranking in this report is against these — never against our opinion of the products. If one is wrong, the plan changes with it.



Mixed phones

Every core device must work for both iPhone and Android. Apple Home stays a participant, never the foundation.



Someone has no phone

Every area keeps a voice path; the lock keeps a keypad and fingerprint, because voice unlock is restricted on every major platform.



No cloud storage in China

Satisfied by construction: the doorbell and cameras record to storage inside your house, so their footage has no cloud jurisdiction at all.



Busy WiFi: mesh, 30+ devices

New devices join through Zigbee and Thread; cameras are the deliberate exception, because video needs bandwidth only WiFi or a cable can carry.



5,000 sq ft, three floors

Above ~2,600 sq ft a single hub is not safe to assume — radio coverage is placed on more than one floor.



Monthly fees: whatever works best

Nothing was cut for having a plan; the five-year table shows what each optional plan actually gates. It happens that nothing recommended needs one.



\$1,200–2,500 expected

The main plan lands inside the band; exactly one labelled option sits above it, with the reason it costs more.



DIY up to a faceplate

Everything in the now-phase is screwdriver work or less. Pool-pad automation is explicitly out of DIY scope.



Pets

Motion alerts without pet filtering are out; both recommended cameras and the doorbell detect people (and pets) on-device.



You own Govee lights

They stay. What they lock you into, and what they don't, is in the lighting area.

\$3 WHAT YOUR SITUATION RULED OUT

✗ An Apple-built house

Half your household would be running a second-class citizen's app. Apple Home stays available as a participant for the iPhone side — several picks here (the lock, the doorbell) are fully in Apple Home via Matter — but nothing in this plan depends on it.

✗ A Google-built house, today

Three sourced facts, not a quality judgment. The Nest Hub (2nd gen) — Google's Thread border router display — has been listed at \$99.99 but out of stock in all four colours since at least 2026-07-19, with no end-of-life notice: availability is unresolved. Google's own documentation says switching a home to Gemini for Home cannot be reversed. And no current Google display carries a Zigbee radio, which your busy WiFi makes useful. If Google resolves these, the Matter-native gear in this plan moves with you.

✗ Ring doorbells

Ring's own page: 'a Ring Protect plan is required for video recording' — a \$249.99 doorbell records nothing without a subscription, there is no local storage option, and Alexa is the only platform Ring documents. Cloud-only recording is also the shape your no-China-cloud rule exists to avoid — you'd be trading storage you control for storage you rent.

✗ eufy cameras

On paper a fit: local storage, no fees. Ruled out by your own exclusion's logic: in early 2023 Anker admitted eufy cameras had sent video streams to its web portal without end-to-end encryption, contradicting its marketing. Anker states it has since encrypted portal streams and commissioned audits — but it does not claim end-to-end encryption across the board today. You wrote a rule about who holds your footage; this is the shelf's documented cautionary tale.

✗ Wyze cameras

The cheapest way to watch a garage, and our record carries the reason we won't put it on your house: the 2024 security-incident history is the asterisk on the price.

✗ A Home Assistant house

The most capable version of 'everything automated' — and the one that flunks your other words, 'minimal maintenance.' It is a hobby that rewards tinkering, not an appliance. Because this plan is Matter-native, you can add Home Assistant later without rebuying hardware; we simply won't start you there.

✗ Pool-pad automation, for now

Controllers that automate pumps and heaters (Hayward OmniHub and similar) are sold through dealers, priced on quote, and installed at the equipment pad — past your faceplate line. Which controller fits depends on your pad — pump type, heater, chlorinator, an existing controller — so **the pool** gives the direction per case rather than a product.

These are fit eliminations against this household's requirements, decided on documented facts — never product-quality rankings.

The order matters more than any single pick.

It is what keeps an early purchase from constraining a later one — the part of the plan that is ours to give you rather than yours to decide. Prices are research-time snapshots; each link is our product profile, where the current record and its sources live.

1

This week, free: two checks

Have a qualified person kill the breaker and pull one switch plate: a bundle of white wires joined at the back means you have a neutral, and your lighting plan is decided ([lighting](#)). And read the labels on your pool equipment pad: pump (single- or variable-speed), heater, chlorinator, and whether a controller box already exists — [the pool](#) turns each answer into a direction. Neither check costs anything, and both convert a guess into a plan.

2

The spine, now

Pick [the spine](#) 's Alexa or SmartThings spine and place its pieces: the main unit on the kitchen counter or wall, voice endpoints on the other floors for the person without a phone. Everything after this step clips into it.

3

The lock, now

One of three in [the lock](#) . Keypad codes for the cleaner and guests arrive the same day. If you pick the Thread-only lock, it needs the spine from step 2 already in place — that's why it's step 3.

4

The doorbell, now — wired

Your chime wiring is the reason this is simple: wired install unlocks 24/7 recording and removes battery maintenance from a device you'd otherwise climb a ladder for. Recordings land on a card in your hallway, not in anyone's cloud.

5

Cameras, now

Start with two: front approach and back yard, on outdoor outlets where one reaches the spot — the solar option in [cameras](#) carries any corner where none does. See how far two go before buying more — camera counts are the most over-bought line in home security.

6

This year: lighting by tranche, then the pool monitor

Lighting waits only on the step-1 neutral answer, then goes room by room — high-traffic rooms first. The pool monitor makes sense at the start of your season; the robot cleaner is a separate call in [the pool](#) .

\$17 YOUR STARTING LIST

	Your spine: pick one of two (the spine) Now — pick one · smarthomeworkflow.com/category/hubs	\$279.97 (Alexa) or ≈ \$284.97 (SmartThings + three Dots)
	Amazon Echo Show 8 (2025) — Alexa spine Now (Alexa) · product profile	\$179.99
	Aeotec Smart Home Hub v3 — SmartThings spine Now (SmartThings) · product profile	\$134.99
	Amazon Echo Dot (5th gen) × 2 — voice on the other floors Now · product profile	\$49.99 each
	Your lock: pick one of three (the lock) Now — pick one · smarthomeworkflow.com/category/locks	\$199.99–\$329
	Aqara Doorbell Camera Hub G410 (+ a microSD card, not included) Now · product profile	\$144.99
	Aqara Camera Hub G5 Pro (WiFi model — mind the SKU fork) × 2 Now · product profile	\$199.99 each
	Lighting, after the neutral check: GE Cync dimmer × 8 (branch A) After the check · product profile	\$25.99 each
	...or Lutron Caséta Diva + Smart Hub (branch B) After the check · product profile	retailer-priced
	WaterGuru Sense (season start) Season start · product profile	\$349 + cassettes

Now phase: \$944–1,354. Full plan as specced: ≈ \$1,501–1,964 hardware, \$0/mo required — inside your \$1,200–2,500 band, with the UniFi system as the single labelled option above it. Prices are at-time-of-research; links go to our profiles where every claim carries its source. Prices vary by retailer and seller.

Prices move; compatibility facts change. Each product page keeps the current record: sources, subscription status, lifecycle warnings, and where-to-buy options as they come online. Bookmark your list.



Design principle: nearly every expensive purchase in this plan is Matter-native or otherwise movable. If you change the spine later, you mostly lose setup time — not hardware.

Alexa vs. SmartThings: the decision that shapes the rest

Both work on iPhone and Android and both keep most new devices off your WiFi. The practical difference is simplicity vs. automation depth.

-  Spine
-  Entry
-  Doorbell
-  Cameras
-  Lighting
-  Pool

You own no speakers or displays yet, so this decision is genuinely open — a rarer luxury than it sounds. Your constraints eliminate two of the four possible spines (Apple and Google, [what we ruled out](#)) and leave a genuine tie between the remaining two. Both work fully on iPhone and Android. Both give the person without a phone voice control on every floor. Both carry the radios that keep new devices off your busy WiFi. They differ in where devices live, and in whose uncertainty you'd rather hold.

AT A GLANCE — AGAINST YOUR CONSTRAINTS

	 Alexa spine	 SmartThings spine
Categories with a verified fully-working path	14 of 21 in our library	12 of 21 in our library
Your six areas: cameras+doorbells · locks · lighting · switches · hubs · pool	21 · 12 · 24 · 14 · 13 · 1	3 · 8 · 15 · 14 · 4 · none verified
Radios that take devices off your WiFi	Zigbee + Thread + Matter (Echo Show 8)	Zigbee + Z-Wave + Thread + Matter (Aeotec hub)
Voice for the person without a phone	✓ native — it is the voice platform	✓ via Alexa or Google speakers linked on top (cloud-to-cloud)
Where paired devices live	In Alexa only — the Echo is a Matter controller, not a bridge	In SmartThings; Alexa AND Google can both see them via linking
Known forward uncertainty	Alexa+ pricing after Early Access is unpublished	Samsung puts its open API behind a paid plan from Oct 2026 (\$4.99/mo) — app control unaffected

Every count is of products we have verified (278 records, 21 categories, computed 2026-08-23 by our expansion-outlook tool from the records themselves) — a measure of our library's coverage, never proof that nothing else exists. 'None verified' for SmartThings-pool means exactly that: none of the 13 pool products we researched documents a SmartThings path — not that none ever will.

THE OPTIONS


Alexa spine

\$279.97 Echo Show 8 + two Echo Dots

Lowest cost · widest verified coverage of your six areas

YES

Zigbee + Thread + Matter in the Show 8

YES

Native voice, and a kitchen screen for the doorbell

YES

14 of 21 categories with a verified full path

GAP

Paired devices live in Alexa only — a controller, not a bridge

GAP

Alexa+ pricing after Early Access is unpublished

The catch. The Echo is a Matter controller, not a bridge: Zigbee and Thread devices you pair to it land in Alexa and are not re-exposed to any other ecosystem. Your escape hatch is buying Matter-native devices — which this plan does — since those can re-pair anywhere later. Second, Amazon's Alexa+ pricing after Early Access is unpublished ([open questions](#)). Third, Alexa routines largely run through Amazon's cloud; the outage table in [the outage table](#) shows what that means.

[product profile](#) ↗


SmartThings spine

≈ \$284.97 Aeotec hub v3 + three Echo Dots

Most room to grow · all four radio families

YES

Zigbee + Z-Wave + Thread + Matter in one hub

YES

Deeper local Routine engine

YES

Visible to Alexa AND Google via linking

GAP

Voice is cloud-to-cloud; no built-in screen

GAP

Open API behind \$4.99/mo from Oct 2026 (app control unaffected)

The catch. The voice layer is cloud-to-cloud: Alexa or Google control of SmartThings devices stops if the account link or Samsung's cloud is down (the hub's own local Routines keep running). It has no screen — the doorbell shows on your phones, not a kitchen display. And the uncertainty you'd hold: from October 2026 Samsung's open API — the basis of third-party integrations like Home Assistant's — goes behind a \$4.99/mo plan. Ordinary app and Routine control is unaffected, but it is a sign about which way the platform's openness is heading.

[product profile](#) ↗

→ **Your constraints don't break this tie, so we hand it back with the differences that matter.** Pick the **Alexa spine** if the doorbell-on-a-screen moment and one-app simplicity are worth more to you than radio breadth. It is also the cheaper option, and in our library the better-covered one for the areas you're buying first. Pick the **SmartThings spine** if deeper automations and never choosing between Alexa and Google matter more. Because the lock, doorbell, dimmers and bulbs in this plan are Matter-native, a household that picks wrong loses setup time, not hardware. If you take our lean: you defined 'automated and minimal maintenance' as six areas, two phone platforms, one app. Against that, the Alexa spine's coverage of your shopping list is the stronger fit today — by the numbers in the matrix, not by anyone's brand preference.

\$6 02 · ENTRY

Keyless entry that still works for the person without a phone

All three finalists support both phone platforms and keypad access with no subscription. The choice is about locality, transport flexibility, or a published physical-security grade.

Spine Entry Doorbell Cameras Lighting Pool

You own the house, so replacement deadbolts are on the table — the widest and most secure end of the category. Your real requirements: codes or credentials for a spouse, family, guests and a cleaner (your C3 answers), something the phone-less person can use, and no reliance on your busy WiFi. That third one means a keypad or fingerprint rather than voice — every major platform restricts voice unlock as a security surface. Three locks fit completely. All three have keypads, work on both your phone platforms, and carry no subscription.

AT A GLANCE — AGAINST YOUR CONSTRAINTS

	ULTRALOQ Bolt Fingerprint (Matter)	Kwikset Halo Select Plus	Schlage Encode Plus
Price (at time of research)	\$199.99	\$309	\$329
Both phone platforms, fully	✓ via Matter over Thread — Alexa, Google, Apple, SmartThings, HA	✓ via Matter over WiFi or Thread	✓ Alexa, Google, Apple, HA — no SmartThings; no Matter
Keypad codes for cleaner & guests	✓ keypad + fingerprint	✓ keypad; app guest sharing, no plan	✓ keypad; app codes, no plan
Off your WiFi?	✓ Thread-only — no WiFi radio at all	Either: WiFi or Thread	✗ WiFi (or Bluetooth); Thread serves Matter it doesn't have
Published security grade	✗ none published	not stated on the page we read	✓ BHMA Grade 1 (manufacturer-declared)
Published support commitment	✗ none — 18-month electronics warranty only	✗ none — 1-year electronics warranty	not stated on the page we read

Every cell is from the vendor's own published pages as captured in our records (verification dates in [the sources appendix](#)). 'Not stated' means we did not find it — not that it does not exist.

THE OPTIONS

RECOMMENDED FIT

ULTRALOCK Bolt Fingerprint
\$199.99
Lowest cost · most local

YES

 Matter over Thread; no WiFi radio

YES

 Keypad + fingerprint

GAP

 No published BHMA grade

GAP

 No published security-update period

The catch. Buy the right box: ULTRALOCK sells this and a WiFi/Apple-Home lock under one name at one price, and this Thread variant cannot work without a border router — on its own it is a fingerprint deadbolt and nothing more. You have the border router; just don't buy it before the spine. The gaps, stated: no ANSI/BHMA grade published, no security-update period published — the 18-month electronics warranty is the only written commitment.

product profile ↗

Kwikset Halo Select Plus
\$309
Flexible transport + Apple Home Key

YES

 Matter over WiFi or Thread

YES

 Apple Home Key on the Plus model

YES

 Guest sharing; no plan named

GAP

 1-year electronics warranty

The catch. Kwikset publishes no security-update period at all, and the electronics carry a one-year warranty against a lifetime mechanical one — the shortest written commitment on a \$309 lock's connected half. And the near-identically-named Halo Select (no 'Plus') is a different lock without Home Key: check the box.

product profile ↗

Schlage Encode Plus
\$329
Published physical-security grade

YES

 BHMA Grade 1 (manufacturer-declared)

YES

 Apple Home Key + keypad

NO

 No Matter

NO

 No SmartThings path; WiFi-dependent

The catch. No Matter and no SmartThings path — its ecosystem reach rides Schlage's cloud and per-platform integrations, so it is the least reversible of the three if you later change spines. WiFi mode is also the battery-hungriest connection type on this shelf, and it adds one more device to the network you're trying to keep clear.

product profile ↗

→ **All three clear every constraint you gave us, so the choice is about which written fact you value most.** The lowest price and fullest locality: ULTRALOCK, accepting that it publishes no security grade or update commitment. Transport flexibility plus Home Key: Kwikset, accepting the one-year electronics warranty. A published BHMA Grade 1: Schlage, accepting no Matter and a WiFi dependency. There is no quality ranking hiding in that sentence — these are different bets, stated in each vendor's own paperwork. One platform note that applies to all Matter locks including two of these: Google disables voice unlock entirely and restricts remote unlock unless a PIN is mandated — locking by voice works, unlocking by voice does not. That is Google's security posture, not a defect, and your keypad-and-fingerprint habit makes it moot.

Security behavior: voice unlock is deliberately restricted across major platforms. Keypad and fingerprint access make that restriction mostly irrelevant for this household.

\$7 03 · DOORBELL

A wired doorbell that records inside the house

Your existing chime wiring is an advantage: it removes battery maintenance and unlocks 24/7 recording on the recommended option.

- Spine
- Entry
- Doorbell**
- Cameras
- Lighting
- Pool

Your wired chime position is the quiet advantage here: a wired doorbell means no battery on a ladder, and on our recommended pick it also unlocks 24/7 recording. Your no-China-cloud rule shapes this area more than any other — so the first question we asked of every candidate was not how sharp its camera is, but where its recordings sleep at night.

AT A GLANCE — AGAINST YOUR CONSTRAINTS

	Aqara Doorbell G410	Reolink Video Doorbell (PoE)	ecobee Smart Doorbell (wired)
Price (at time of research)	\$144.99	\$101.99	\$159.99
Recordings stay in your house	✓ microSD in the indoor unit (to 512 GB); NAS documented; cloud optional & E2E-encrypted	✓ SD card or NVR; no cloud required at all	✗ cloud-only — no card slot, no NAS path

	Aqara Doorbell G410	Reolink Video Doorbell (PoE)	ecobee Smart Doorbell (wired)
Works fully on both phone platforms	✓ Alexa, Google and Apple all full	partial Alexa & Google: live view + chime; history stays in Reolink's app	✓ Alexa & Google full; Apple partial (no HomeKit Secure Video)
24/7 recording	✓ when wired (your case)	✓ to NVR	✗ event clips, 30-day history on the \$5/mo plan
Person detection without a fee	✓ on-device, including faces	✓ person detection built in	✓ person detection with activity zones, free
Bonus infrastructure	✓ indoor unit is a Zigbee hub AND Thread border router	✗	✗

All cells from vendor documentation as captured in our records; dates in [the sources appendix](#) .

THE OPTIONS

RECOMMENDED FIT

Aqara Doorbell Camera Hub G410
\$144.99 + microSD card
Local 24/7 · both phones · bonus radios

YES

Recordings to microSD in the indoor unit; NAS documented

YES

Alexa, Google and Apple all full

YES

24/7 recording when wired — your case

YES

Indoor unit is a Zigbee hub + Thread border router

The catch. Aqara is a Chinese company; the construction answer is that with the card in the chime unit, its optional HomeGuardian cloud (end-to-end encrypted, one-month trial in the box) simply never needs to be turned on. The microSD card is not in the box — add one to the order. The Zigbee/Thread hub lives in the indoor unit, so keep it plugged in where it has coverage, not buried behind the TV.

product profile ↗

Reolink Video Doorbell (PoE)
\$101.99

The most cloud-independent device in this report

YES

SD card or NVR; no cloud required at all

GAP

Alexa and Google partial: live view + chime

NO

No Apple Home

GAP

PoE is a cable run, not a faceplate

The catch. Alexa and Google both sit at partial: live view, notifications and chime work; two-way talk and event history stay in the Reolink app. No Apple Home. For the person without a phone, 'someone's at the door' still reaches the house speakers — but the richer doorbell moments live on your phones. PoE is also real installation work: a cable run, not a faceplate.

product profile ↗

ecobee Smart Doorbell (wired)
\$159.99

Generous free tier · cloud-only storage

YES

Free person detection with activity zones

YES

3-year warranty; published update commitment

NO

Cloud-only: no card slot, no NAS path

GAP

Apple partial — no HomeKit Secure Video

The catch. There is no local storage: no card slot, no NAS path — nothing but ecobee's cloud, so the free tier alerts you well but keeps no clip you can go back to without the \$5/mo plan. Your footage existing only in someone's cloud is the shape your written rule points away from, which is why this is third.

product profile ↗

➔ **The G410 is the rare case where one product wins your constraint set outright.** It gives you local 24/7 recordings, full support on both phone platforms plus Apple, free on-device person detection, and a border router your floor plan wants anyway — at the middle price of the three. Pick the Reolink instead if you want the doorbell fully out of every cloud and can live with app-first viewing. Pick the ecobee only if you're comfortable moving your footage to a Canadian company's cloud. What you get for that: free person detection, which competitors on this shelf paywall, and the longest written support commitment.

Important nuance: Aqara is a Chinese company. This recommendation satisfies the written rule by keeping recordings local. If your rule is really "no Chinese-company hardware," the finalist that remains is the ecobee (Canadian) — accepting cloud-only storage, the trade your written rule pointed away from.

Start with two. Add coverage only after you see the blind spots.

Video is the one category that legitimately belongs on WiFi. Plug-in power wherever an outlet reaches the spot; the solar option carries the corners where none does.

- Spine
- Entry
- Doorbell
- Cameras
- Lighting
- Pool

Cameras are the one area where using your WiFi is legitimate — video needs bandwidth that Zigbee and Thread can't carry, and your mesh is built for exactly this. Where an outdoor outlet reaches the spot you want covered, plug-in power removes the battery-camera compromises; where none does, the solar option below carries that corner. We did not assume your outlets sit where the cameras should — check each spot before you order. Your rules did the filtering: pets ruled out dumb motion alerts, and your China-cloud rule ruled the field down to cameras whose footage stays in the house. We priced two cameras; [open questions](#) explains why the count is yours to set.

AT A GLANCE — AGAINST YOUR CONSTRAINTS

	Aqara Camera Hub G5 Pro	Tapo C660 KIT (solar)	UniFi G6 Pro system — the labelled step-up
Price (at time of research)	\$199.99 (WiFi model)	\$118.99	\$479 per camera + ~\$279 console + PoE + disk
Recordings stay in your house	✓ encrypted local storage, NAS documented; cloud optional	✓ microSD; plan optional	✓ your own disk; 'licensing is still \$0' — Ubiquiti's words
Person vs pet told apart, without a fee	✓ on-device: faces, vehicles, pets, sounds — works during internet lapses	✓ on-device AI detection, free	✓ local AI engine, no paid tier
Both phone platforms	✓ Alexa, Google, Apple all full	✓ Alexa & Google full; not for Apple households	app-first (excellent apps, both platforms); spine integration not established
Power	plug-in — needs an outlet at the spot	battery + included solar panel	PoE — cable runs, pro-recommended
Install	screwdriver	screwdriver	past your faceplate line — this is a system build

The UniFi column is the one deliberate over-your-number option in this report, kept because it is the strongest possible version of your own no-China-cloud rule (see below).

THE OPTIONS

START WITH TWO

Aqara Camera Hub G5 Pro

\$199.99

each · WiFi model

On-device AI · local footage · everyone's phone

YES

Detects people, faces, vehicles, pets and sounds on-device

YES

Encrypted local storage; NAS path documented

YES

Alexa, Google and Apple all full

GAP

Mind the SKU: the \$229.99 PoE version has no WiFi radio

The catch.

The name hides a fork: the \$229.99 PoE version of the G5 Pro has no WiFi radio at all — buying it commits you to a cable. For outlet-powered spots, the WiFi model is the right SKU. Like the doorbell, Aqara's optional cloud exists; with local storage on, it stays off. Aqara's platform list for this camera also omits SmartThings and Home Assistant — a fact about this camera, not the brand.

product profile

Tapo C660 KIT

\$118.99

For the spots with no outlet

YES

Solar + battery; local microSD; free detection

YES

Alexa and Google full

GAP

Its "24/7" is interval stills, not continuous video

NO

No RTSP — it can never join an NVR later

The catch.

Battery-camera physics still apply: its '24/7' is interval stills, not continuous video — TP-Link's own description. And TP-Link documents no RTSP for this model, so it can never join an NVR/Home Assistant setup later; it is a Tapo-app camera with voice viewing on top. Fine as a perimeter extra; wrong as the backbone.

product profile

UniFi G6 Pro system

~\$1,100+

before cabling

The labelled step-up — above your band

YES

Your own disk; "licensing is still \$0"

YES

Local AI detection, no paid tier

GAP

Spine integration not established

NO

Past your faceplate line — a system build

The catch.

It exceeds your stated band on day one: ~\$1,100+ before the first cable is run. The console handles five 4K cameras, so plan the count before the pipe. And installation is genuinely past your faceplate line — this is the one purchase in the report we'd point at a pro or a very committed weekend. That is the reason it costs more, stated per your own ground rule.

➔ **Two G5 Pros — front approach and back yard, on your existing outlets — are the plan.** Add C660s only where no outlet reaches. The UniFi system is not this year's answer. It is the documented path if camera count or the ownership instinct grows, and because the G5 Pros and the Reolink doorbell keep local recordings, nothing you buy now is thrown away by that move. What we did NOT pick, and why, is in **what we ruled out** : eufy and Wyze on their incident histories, Arlo because 2K recording there is a subscription feature and its storefront refused to quote us a price at all.

Why only two now: camera counts are easy to overbuy. Front approach + back yard gives you real-world evidence before you spend on corners you may not need.

\$9

05 · LIGHTING

One free wiring check decides the branch

At this house size, switches-first is the cleaner architecture: every existing bulb becomes smart at the wall, guests still understand the controls, and you avoid putting dozens of bulbs on a network.

Spine

Entry

Doorbell

Cameras

Lighting

Pool

This is the area your unknown wiring fact holds hostage, so it is structured as a decision tree rather than a verdict — and either branch is good. At 5,000 sq ft the right architecture is switches-first: smart switches make every existing bulb smart at the wall, keep working like normal switches for guests and the phone-less person, and don't put forty bulbs on any network. Your Govee strips stay for the color moments; the tree below is about the rooms.

AT A GLANCE — AGAINST YOUR CONSTRAINTS

	If you HAVE neutrals: GE Cync Paddle Dimmer (Matter)	Either way: Lutron Caséta Diva	Accent layer: your Govee + Philips Hue
Price per switch (at research)	\$25.99	unpublished — Lutron sells via retailers; hub extra	\$54.99/bulb (Hue A19); you own the Govee
Needs a neutral wire	X required — the Matter refresh dropped Cync's no-neutral trick	✓ works without one — the category's no-neutral signature	n/a — plugs and lamps

SmartHomeWorkflow.com Setup Check · SAMPLE · fictional customer

12 / 24

	💡 If you HAVE neutrals: GE Cync Paddle Dimmer (Matter)	💡 Either way: Lutron Caséta Diva	💡 Accent layer: your Govee + Philips Hue
All five ecosystems	✓ full on every one	✓ full on every one (via its hub)	Govee: Alexa+Google full, Apple partial · Hue: all full via Bridge
Off your WiFi	✗ WiFi (2.4 GHz) per switch	✓ own Clear Connect radio — zero WiFi load	Hue: ✓ Zigbee via Bridge · Govee: ✗ WiFi
Works when internet is down	partial — local Matter control	✓ fully local	Hue: ✓ local · Govee: partial (LAN control exists)

The neutral check ([the two free checks](#)) picks your branch. 'Unpublished' on the Lutron is literal: Lutron puts no price on an official page; retailers set it — we do not quote retailer prices.

THE OPTIONS

💡 Branch A · GE Cync Paddle Dimmer (Matter)

\$25.99

 per switch · needs a neutral

Value branch — if the neutral is there

YES

 Full on all five ecosystems; no hub required

YES

 Eight rooms cost about \$208

NO

 Neutral wire required

GAP

 Each switch is a 2.4 GHz WiFi client

The catch.

 Each switch rides your 2.4 GHz WiFi — the one material argument against it in YOUR house. Twelve switches is twelve more WiFi clients on a network at 30+. If that number makes you wince, the Lutron branch removes it entirely; that trade, not price, is the real decision on this branch.

product profile ↗

💡 Branch B · Lutron Caséta Diva

retailer-priced

 + Smart Hub

(separate)

Reliability branch — works with or without a neutral

YES

 Works without a neutral

YES

 Own Clear Connect radio — zero WiFi load

YES

 Fully local; keeps working offline

GAP

 Proprietary radio; hub required

The catch.

 The Smart Hub is required and separately sold, and Lutron publishes no official prices — retailers set them, typically at the premium end of the shelf. Clear Connect is also proprietary: its service life is entirely Lutron's to decide, with no open-standard fallback the way Matter devices have. One more hub joins the closet either way.

product profile ↗

💡 Accent layer · your Govee + Philips Hue

\$54.99

 per Hue A19 bulb (retailer-priced; the Govee strips you already own stay)

Best use of what you already own

YES

 Govee stays: Alexa and Google full, Matter over WiFi

YES

 Hue: Zigbee via Bridge, all five ecosystems, local

GAP

 Govee's effects engine stays app-only

GAP

 Hue's premium adds up at scale

The catch.

 Govee's effects engine lives in Govee's app — ecosystems get basic control only, so the fancy animations remain an app moment. And Hue's premium pricing adds up fast at scale; that's why the room plan above runs on switches, not bulbs.

➔ **Do the neutral check first — it's free and it picks your branch.** With neutrals: Cync dimmers room-by-room is the value play, accepting the WiFi-client count; the Lutron is the premium escape from exactly that trade. Without neutrals: Lutron, and the decision makes itself. Either way, start with one high-traffic floor rather than the whole house — lighting is the easiest category to buy in tranches, and the first tranche will teach you what the second should be.

💡 **Rollout:** start with one high-traffic floor, then use that experience to choose the second tranche. Lighting is the easiest part of this plan to buy incrementally.

\$10 06 · POOL

The one category where "everything automated" hits the market limit

Water chemistry can monitor itself today. A robot can clean on schedule. Pump, heater and valve automation is real, but it is equipment-pad work — the direction depends on what your pad holds, and each case is below.

The honest opening: pool tech is the least integrated area you picked, and the place where 'everything automated' meets the market's actual state. Nothing here joins your spine in any meaningful way today — our library's computed outlook found exactly one pool product with any verified voice path, and it is partial. What IS real today: water chemistry that watches itself and tells your phone, and a robot that cleans on schedule. Equipment-pad automation — pumps, heaters, valves — is dealer territory; the direction below depends on what your pad holds, which the section-4 label check tells you.

AT A GLANCE — AGAINST YOUR CONSTRAINTS

	WaterGuru Sense — \$349	Ondilo ICO — \$449	iopool EcO Start — \$359
Subscription	none — vendor states it outright; cassettes are a consumable	none — 'No subscription fee' printed beside the price	none — vendor denies it twice, explicitly
Real recurring cost	cassettes ≈ \$120–240/yr	consumable reagents/electrode care	test strips & chemistry consumables
Any smart-home path	partial Alexa; partial Home Assistant — the only one with any	✗ names no platform at all — a customer asking for Google is the page's only mention of one	✗ names no platform at all
Buyable today	✓ shipping	✓ shipping	✗ pre-order — vendor states delivery 'by September-2026'
Warranty as published	stated	⚠ stated two incompatible ways on one page: '1 Year' in the spec table, '2-year' in the FAQ	2 years on the probe, stated precisely

A category note that earns its place in a report about lifecycle: the Sutro monitor — a direct competitor — shut its servers in October 2025 and every unit is now inert. It is why 'still operating' is a research finding in this category, not a pleasantry.

THE OPTIONS

MONITOR PICK

WaterGuru Sense

\$349 + cassettes

The only monitor with any verified smart-home path

YES No software or service subscription — the vendor's words

YES Partial Alexa · partial Home Assistant

GAP Cassettes ≈ \$120–240/yr — \$600–1,200 over five years

NOTE Sutro, a competitor, went inert in Oct 2025 — WaterGuru is still operating

The catch. The cassettes are the real cost of ownership: roughly \$120–240 a year, depending on cassette and season length. Over five years that is \$600–1,200 — more than the device — and we'd rather you hear it from us now than from your cart later.

product profile ↗

The robot: Aiper Scuba S1 — or the Dolphin Premier

\$499.99 Aiper · Dolphin Premier \$2,499

Lowest cost that cleans itself vs. the reliability reputation

GAP Aiper: CPSC recalls on two other models; BBB F rating

GAP Recurring owner reports of battery death near the warranty line

NOTE Dolphin: no app, no WiFi — not a smart device at all

NOTE No middle pick among our 4 researched cleaners

The catch. There is no middle pick in our library between these today — that is a coverage statement about our 4 researched cleaners, not proof none exists. If you buy the Aiper: authorized channel, keep the receipt, calendar the warranty date.

product profile ↗

Equipment-pad automation

dealer-priced parked, deliberately

The automation you asked for — direction by pad type, not a product

NOTE Variable-speed pump + controller box already: check that brand's app and voice paths first

GAP Single-speed pump on a timer: retrofit controller (OmniHub class), dealer-quoted

NO Installed at the pad — past your faceplate line, a pool professional's job

NOTE Heater / chlorinator automate through the same controller, not a separate product

The catch. Recommending specific pad hardware without knowing your pad would be a guess wearing a confident font, so here is the direction by what the label check finds. A variable-speed pump with a controller box already on the pad: the automation layer exists, and the question becomes that controller's app and voice paths — check its brand against our hub records before buying anything. A single-speed pump on a mechanical timer: a retrofit controller of the Hayward OmniHub class — dealer-quoted, installed at the pad, and the one purchase in this report we'd route through a pool professional. A heater or chlorinator is automated through that same controller, not by a separate smart product. Whichever case you are in, it sits past your faceplate line and changes nothing about the monitor pick.

→ **This year: the WaterGuru, timed to your season's start, and a decision on the robot after you've read the Aiper paragraph above twice.** The pad automation waits on your label check, not on the market — and whichever case it lands in, it is the one part of this report executed by a pro. We'd rather under-promise here than sell you the version of pool automation that exists only in ads.

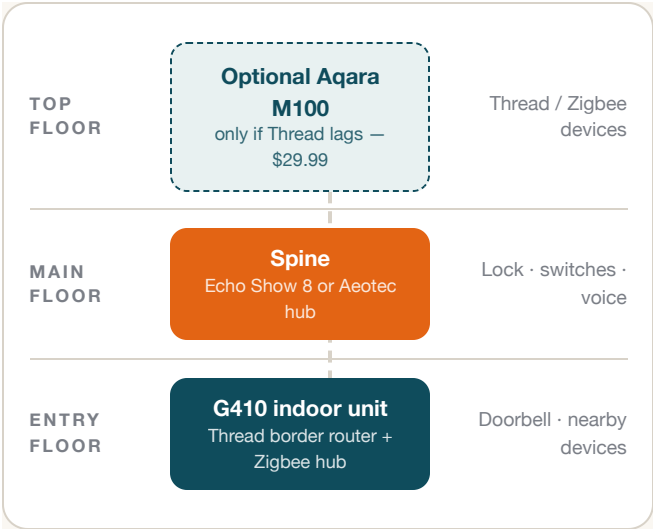


Lifecycle matters here: Sutro shut its servers in October 2025 and every unit became inert. "Still operating" is part of the product research in this category, not a pleasantry.

\$11 SYSTEM ARCHITECTURE

Keep the mesh you have. Give new devices their own radios. Let only cameras use WiFi.

This section is about the shape of the system rather than the products in it. Two of your answers drive everything: a mesh network already carrying 30+ devices, and 5,000 sq ft on three floors. Every recommendation names the rule behind it and the answer of yours that fired it. Where we don't have evidence, we say so.



Your network already works — the architecture mistake available to you is drowning it. So the plan adds almost nothing to WiFi: the lock is Thread-only, the doorbell records to its own indoor unit, lighting's branch B has its own radio entirely, and sensors you add later ride Zigbee or Thread. The cameras are the deliberate exception because video genuinely needs the bandwidth — and a mesh at your scale is built for a handful of cameras. Radio coverage is placed, not hoped for: the spine unit mid-house, the G410's chime unit covering the front as a second Thread border router and Zigbee hub, and — if the top floor ever feels laggy on Thread devices — a \$29.99 Aqara M100 up there closes the triangle. One more principle did quiet work throughout: nearly everything here is Matter-native, which means the spine you pick in **the spine** is a preference, not a marriage. That is deliberate future-proofing for a household whose exclusion list may grow.

THE RULES BEHIND IT — EACH ONE NAMES THE ANSWER OF YOURS THAT FIRED IT

R1**Above ~30 WiFi devices, new always-on gear joins through hub radios (Zigbee/Thread), never WiFi**

⚡ *Because you said:* Mesh system, more than ~30 things on the WiFi already — your exact network answer.

The lock is Thread-only, lighting's branch B has its own radio, the doorbell's hub unit carries Zigbee and Thread for everything you add later. Only the cameras use WiFi, because video is the one load that needs it.

Evidence: Radio inventories are each vendor's own spec pages as carried on our records: Echo Show 8 (Zigbee+Thread+Matter, Amazon's developer documentation), Aeotec GP-AEOHUBV3 (Zigbee+Z-Wave+Thread+Matter, Aeotec tech specs), Aqara G410 indoor unit (Zigbee 3.0 hub + Thread border router, Aqara's documentation), ULTRALOQ Thread-only transport (its Matter certificate). The ~30-device congestion threshold itself is our published editorial line, not a lab measurement — stated as judgment, not vendor fact.

Exception:

A future device that only ships in WiFi (some appliances) joins WiFi; the rule shapes preference, not possibility.

R2**Above ~2,600 sq ft, radio coverage is placed per floor, not hoped for from one box**

⚡ *Because you said:* House · 5,000 sq ft · 3 floors.

Spine unit mid-house; the G410's chime unit gives the entry floor its own Thread border router and Zigbee hub; if Thread devices on the top floor ever lag, a \$29.99 Aqara Hub M100 up there closes the triangle. Three radio points, none bought solely for the purpose.

Evidence: The G410 indoor unit's border-router and Zigbee roles are Aqara's own documentation (verified 2026-08-17); the M100's radios and \$29.99 price are Aqara's page (verified 2026-08-11). The 2,600 sq ft threshold is our own single-hub caution line from the intake's design, applied as stated there — no vendor publishes a coverage number for your floor plan, so no coverage figure appears here.

Exception:

Thread meshes strengthen with every mains-powered Thread device you add — the third radio point may never be needed; buy it on observed lag, not on this report.

R3 A data-jurisdiction exclusion is satisfied by construction — local storage — never by a vendor's promise

🔒 *Because you said:* "No cloud storage in china" — your written exclusion, and we read it as being about where recordings live.

Every recording device recommended stores footage inside your house (doorbell and cameras to card/NAS; the step-up option to your own disk). Optional vendor clouds exist on the Aqara gear and simply stay off. Where a candidate was cloud-only, we said whose cloud and it lost points for exactly that.

Evidence: Storage paths are documented vendor facts on each record (Aqara microSD/NAS 2026-08-17; Reolink SD/NVR 2026-08-11; Ubiquiti own-disk with '\$0 licensing' 2026-08-17). What our records do NOT carry is any vendor's data-residency jurisdiction — so no sentence in this report claims one, and the construction approach is what makes that gap not matter for you.

Exception:

If you meant the rule more broadly — no Chinese-company hardware at all — it removes Aqara and Govee from this plan. Three things move. The doorbell finalist that remains is the ecobee (Canadian, cloud-only storage, [the doorbell](#)). The Govee strips become a keep-or-retire call rather than a constraint. And the cameras area loses its primary pick, so the remaining candidates need the same company-origin check before one stands in. The plan holds its shape; those three lines move.

R4 'Minimal maintenance' selects for fewer apps, on-device intelligence, and Matter-native reversibility

🔒 *Because you said:* "Everything is automated and minimal maintenance" — your own definition of done.

On-device AI, so cameras keep thinking through internet lapses. A lock that is a normal deadbolt when everything else fails. Switches that are still switches for guests. And Matter certification on nearly every purchase, so the section-5 spine choice can be revisited without rebuying hardware. Maintenance includes never paying twice for a change of heart.

Evidence: Per-product: Aqara's 'functioning independently during connectivity lapses' (its own description, 2026-08-17); ULTRALOQ/Kwikset/Cync Matter certificates; Lutron's fully-local operation per its own docs (2026-08-10). Which products satisfy the preference is documented; the preference itself is yours.

Exception:

Home Assistant would automate deeper at the cost of exactly the maintenance you excluded — the trade is named in [what we ruled out](#), not hidden.

RULES THAT DID NOT FIRE — AND WHY

- **No-neutral lighting restriction** — unknown until your section-4 check; the lighting area branches instead of assuming.
- **Renter restrictions** — you own the house; permanent changes stayed on the table and widened the lock field.
- **Thermostat C-wire gate** — you didn't pick heating and cooling; if you add it later, 12 thermostat products carry verified paths on the Alexa spine (8 on SmartThings) in today's library.
- **Hard no-subscription filter** — you said 'whatever works best', so fees informed the five-year table instead of cutting the field. It happens that nothing recommended needs one.



This is research from vendor documentation and our verified records — not network engineering, not an electrical assessment, and not hands-on testing. The neutral check and any wiring work belong to a qualified person. Coverage statements ('none of the N we verified...') describe our library — 278 records across 21 categories on 2026-08-23 — never the whole market.

RESILIENCE · FEES · EXIT COST

What survives an outage — and what survives a change of mind

Three views of maintenance that a normal buyer's guide skips, derived from each product record's own facts.

§12

The monthly-fee ledger — what's optional, what it gates

AUTO

You didn't ask us to cut on fees, so here is the full ledger instead: every recurring cost this plan can touch, from each record's subscription field. The pattern: nothing in the recommended plan requires a plan.

PRODUCT	PLAN	WITHOUT IT	WHAT THE RECORD SAYS
Echo Show 8 / Echo Dot	Alexa+ optional	Full smart-home function	Alexa+ ships as Early Access 'out of the box'; what happens after is unpublished — recorded short because Amazon's own page doesn't say and the help page 503'd (2026-08-18)
Aeotec SmartThings hub	None for the home	Full	The Oct 2026 \$4.99/mo plan gates the open API (third-party integrations), not app control or Routines (2026-08-07)
All three locks	None	Full	No plan named anywhere on ULTRALOG's, Kwikset's or Schlage's product pages — codes, app control and history included (2026-08-08–14)
Aqara G410 doorbell	HomeGuardian optional	Full — local microSD	24/7 recording when wired needs only the card; the cloud is the optional alternative, E2E-encrypted, one-month trial in the box (2026-08-17)
Aqara G5 Pro cameras	HomeGuardian optional	Full — local AI + storage	Detection runs on-device; 'functioning independently during connectivity lapses' is Aqara's own description (2026-08-17)
Tapo C660	Tapo Care optional (\$3.49/mo)	Full to microSD	Live view, alerts, AI detection, local recording all free — the plan adds cloud history and rich notifications (2026-08-14)
GE Cync / Lutron / Hue / Govee	None	Full	No paid tier in any of the four lighting ecosystems for the functions this plan uses (2026-08-07–17)
WaterGuru Sense	None — but consumables	Full	'No subscription fees' in the vendor's words; cassettes ≈ \$120–240/yr are the real recurring line (2026-08-10)

Optional plans are listed so a future 'why is this app upselling me' moment has a written answer. Nothing above is required for anything this report promised.

§13

What keeps working when the internet is down

AUTO

You skipped this question, so it filtered nothing — but at 5,000 sq ft it's worth knowing what you get for free. From each record's local-operation facts:

LAYER	INTERNET DOWN: WHAT STILL WORKS	WHAT STOPS
Lock (ULTRALOG, Thread)	Keypad, fingerprint, and local Matter control from in-house controllers	Remote access from outside the house
Doorbell (G410, wired)	Recording to the card continues; the chime rings	Phone notifications; remote live view
Cameras (G5 Pro)	Recording and on-device AI detection continue — Aqara's own claim	Phone notifications; remote live view
Lighting — Lutron branch	Everything: wall control, scenes, schedules (fully local)	Remote access; voice via cloud assistants
Lighting — Cync branch	Wall paddle always; local Matter control from in-house controllers	Cloud voice; remote
Alexa spine	Limited: most routines run through Amazon's cloud	Most voice control — the weak spot of the cheaper spine
SmartThings spine	Local Routines on the hub keep running	Alexa/Google voice layer (cloud-to-cloud); remote
Pool monitor	Sensing continues; readings sync when back	The app's view of them, until it returns

If outage resilience ever becomes a stated requirement rather than a curiosity, say so — it changes the spine recommendation's weighting (SmartThings and the Lutron branch strengthen).

§14

Exit cost — what each purchase locks you into

AUTO

The section your future self reads. For each purchase: if you left its ecosystem, what moves with you and what doesn't. This is the derivation your 'minimal maintenance' answer quietly asked for — maintenance includes never rebuying hardware out of regret.

PURCHASE	IF YOU SWITCH SPINES	IF YOU LEAVE THE VENDOR ENTIRELY
ULTRALOCK lock (Matter)	Re-pairs to any spine — certificate lists all majors	It's a normal deadbolt with fingerprint/keypad; smart features need SOME Matter platform
Kwikset lock (Matter)	Re-pairs — WiFi or Thread transport both certified	Same shape: keypad deadbolt stands alone
Schlage Encode Plus (no Matter)	Partial — per-platform integrations, no SmartThings	The most locked-in pick in the report; stated in the lock
Aqara G410 / G5 Pro	Full on all majors via Matter/native paths	Recordings are yours (local card/NAS) — the footage never had a landlord
GE Cync dimmers (Matter)	Re-pair to any spine	Still working paddle dimmers on the wall
Lutron Caséta	Full on all five today	Proprietary radio: service life is Lutron's to decide — the one non-Matter bet, taken knowingly for its reliability record
Govee strips (kept)	Alexa/Google full, Apple partial via Matter	Effects engine is app-only — the strips were always most themselves in Govee's app
WaterGuru	No spine to exit — app-standalone	The Sutro precedent is the category's warning label; WaterGuru is post-that-shakeout and says so

Matter-native purchases are why the section-5 tie is safe to hand you: the expensive parts of this plan survive a change of heart.

§15

BEFORE YOU FINISH

Six things we could not settle from documentation alone

A recommendation should never sound more certain than the evidence under it. These are the places where the evidence runs out, where we assumed something you didn't state, or where only you can check.



Whether your switch boxes have neutral wires.

Unknown until someone looks, and it decides roughly \$200 versus an unpublished-but-higher number across your lighting plan (**lighting**). The check is in **the two free checks** ; 'no neutral' does not shrink what your lights can do — it changes which hardware does it.



What's on your pool equipment pad.

Pump type, heater, sanitizer, valves, and whether a controller box already exists — the labels answer it in five minutes. **the pool** gives the direction for each case; we don't guess at \$1,000+ dealer-installed hardware, so the specific controller is a conversation with a pool professional once you know which case you are in.



How many cameras 'keep an eye on the property' means.

We priced two and the plan holds to four; past that, the above-budget UniFi option in **cameras** stops being a luxury and starts being the cheaper five-year answer. This is a count only you can set.



What Alexa+ costs after its Early Access ends.

Amazon's own announcement says new Echos include Alexa+ Early Access 'out of the box' and does not say what the device is like when that ends. The help page that would have settled the tier price refused our read (HTTP 503). Nothing in this plan depends on Alexa+ — but if conversational Alexa matters to you, get the price in writing before you rely on it.



Your deadbolt's geometry, if you pick the retrofit-friendly lock.

The Ultraloq replaces your deadbolt entirely (standard prep), but if you'd rather keep your existing keyway, measure before ordering anything — retrofit fit depends on the deadbolt you have.



Internet-outage behavior — you skipped that question,

so we did not filter on it. The derivation table in [the outage table](#) shows what keeps working anyway, because at this house size it's worth knowing what you're getting for free.

NEXT 3 ACTIONS

1

Check one switch box

Confirm a neutral wire — breaker off, qualified person.

2

Read the pool-pad labels

Pump type, heater, chlorinator, any controller box — then pick your case in the pool section.

3

Choose the spine

Alexa for simplicity and coverage; SmartThings for automation depth.

\$16 WHAT IT COSTS, OVER FIVE YEARS

The hardware lands inside budget. The pool consumables create the five-year spread.

Nothing in the recommended plan requires a monthly subscription. The major recurring line is WaterGuru cassettes.

DAY-ONE HARDWARE

≈ \$1,501 – \$1,964

inside your \$1,200 – \$2,500 target

REQUIRED MONTHLY FEES

\$0 / month

optional cloud plans exist; none are required

Now phase		\$944 – \$1,354
This-year phase (Cync branch)		≈ \$557 – \$610
Whole plan		≈ \$1,501 – \$1,964
Five-year total		≈ \$2,100 – \$3,160
Step-up: UniFi, 2 cams + console		~\$1,100+ before cabling

PATH	HARDWARE*	REQUIRED FEES	FIVE-YEAR TOTAL
Now phase (spine · lock · doorbell · 2 cameras)	\$944 to \$1,354 depending on the lock and spine you pick	None required anywhere in it	\$944 to \$1,354 — the number doesn't move
This-year phase (lighting tranche 1 + pool monitor)	≈ \$557 to \$610 on the Cync branch (8 switches + WaterGuru); Lutron branch is retailer-priced	None — but WaterGuru cassettes ≈ \$120–240/yr, a consumable	≈ \$1,160–1,810 including five years of cassettes
The whole plan, your band	≈ \$1,501 to \$1,964	\$0/mo required	≈ \$2,100–3,160 — the spread is almost entirely pool cassettes and camera count

PATH	HARDWARE*	REQUIRED FEES	FIVE-YEAR TOTAL
The same house, the advertised way	Ring 4K doorbell \$249.99 + subscription cameras + a paid alarm tier	From \$4.99/mo per Ring device; \$10–20/mo Nest tiers	Hardware + \$300–1,200 in fees — and recordings stop existing when you stop paying
The labelled step-up (cameras)	UniFi: ~\$1,100+ before cabling, for 2 cameras + console + disk	\$0, in Ubiquiti's own words	What you paid on day one — the only row where five-year equals day-one at any camera count

Every hardware figure is a price at time of research from the vendor's own page (dates in the source table) — never a live price; check before you buy. The five-year column is arithmetic on published prices and published fees, not a forecast. What we deliberately did NOT do: pretend the pool cassettes aren't the biggest recurring line in the plan. They are. Prices also vary by retailer and seller: the figures here are the vendor's own published prices on the dates in the source table, and a shop may charge more or less on the day you buy. *Prices as researched on the verification date, never treated as live. Current details on each product page.

\$1 QUICK REFERENCE

The technical terms used in this report

This report uses a handful of technical words. You do not need to know them in advance. Each one is explained below, and the guides are free to read on our site if you want more detail.

the spine

Our word for the hub-and-voice layer everything else plugs into — the display or hub that carries the radios, plus the speakers that hear you. We call it the spine because the lock, doorbell, lights and cameras all reach the rest of your house through it, so it is the one choice that shapes every later one.

Matter

A standard that lets one device work in Alexa, Google Home, Apple Home and others, instead of just one of them. If a product says Matter, it is unlikely to strand you when you change your mind — which is why most of this plan is Matter-native.

Thread

A low-power wireless network used by some Matter devices. It matters to you specifically because Thread devices don't touch your WiFi — and your WiFi is already carrying 30+ devices.

Thread border router

The box that connects Thread devices to your home network. Some displays and doorbell hubs include one. In a 5,000 sq ft house on three floors you will want more than one, placed apart.

Zigbee

An older low-power wireless standard, still common in sensors, bulbs and switches. Like Thread, it needs a hub — and like Thread, it keeps devices off your WiFi.

Z-Wave

Another low-power standard, used mostly in alarm and sensor gear. Only one of the two spine options in [the spine](#) includes a Z-Wave radio.

Matter controller vs. bridge

A controller brings other products INTO its own ecosystem; a bridge also re-shares them outward. An Echo is a controller: what you pair to it lands in Alexa, and is not re-exposed to Apple Home or Google. This is the fine print of the cheaper spine option.

neutral wire

An extra wire inside a light switch box that many smart switches need in order to power themselves. You told us you don't know if you have one; [the two free checks](#) tells you how to have it checked safely. It is the single fact that decides your lighting plan.

PoE

Power over Ethernet — one cable carries both power and network. The most reliable way to run a camera or doorbell, and the most installation work.

local storage / NVR

Recordings kept on a memory card or a recorder box inside your house instead of a company's cloud. For your no-China-cloud rule this is the clean answer: footage that never leaves the building has no cloud jurisdiction to worry about.

BHMA grade

The security grading residential locks carry, published by the Builders Hardware Manufacturers Association. A manufacturer-declared rating from a recognised standard — not something we tested.

Matter controller

The device that brings Matter products into one system — an Echo, a HomePod, a SmartThings hub. It is not the same as a bridge, which also re-shares them outward; that difference is the fine print of the cheaper spine option below.

Apple Home Key

Tapping your iPhone or Apple Watch on the lock to open it, the way a transit card works. Only the iPhone half of a mixed household gets it, which is why no plan here depends on it.

Home Key

Apple's tap-to-unlock feature, the same thing as Apple Home Key — you will see it written both ways on lock packaging.

HomeKit

Apple's older name for what is now Apple Home. Product pages still use it, and 'HomeKit Secure Video' is the paid-storage version for cameras.

C-wire

A common wire at the thermostat that gives a smart thermostat constant power. Its absence rules out most of the category, and you cannot tell from the front of the thermostat.

border router

The box that connects Thread devices to your home network — see 'Thread border router' below. Some displays and doorbell hubs include one.

ONVIF

An open standard that lets cameras from different makers record to the same recorder box. A camera without it can generally only be recorded by its own maker's app.

RTSP

The plain video stream a camera can hand to other software. Its presence is what lets a camera join a recorder or Home Assistant later; without it the camera is tied to its own app for life.

BHMA

The Builders Hardware Manufacturers Association, whose grades rate a lock's physical security — see 'BHMA grade' below.

FREE GUIDES ON OUR SITE, IF YOU WANT MORE

- Which smart home system should you pick?
- What is Matter?
- Thread border routers, explained
- Building a smart home with no subscriptions
- Smart Home for Beginners — how to start

WHAT THIS REPORT IS (AND ISN'T)



What this report is: a fit-based recommendation from vendor documentation, certification registries and our maintained product records. **What it is not:** hands-on testing, an electrical assessment, or a network-engineering survey.

§18 APPENDIX · SOURCES

Primary-source verification

Every load-bearing claim in this report traces to a primary source — manufacturer documentation or a certification registry — with the date we verified it. This is the same discipline as our public product library.

CLAIM	SOURCE	VERIFIED
Expansion outlook and all matrix coverage counts: which categories have at least one product verified fully working per spine	computed by tools/build-expansion-outlook.mjs from our own product records (278 records, 21 categories) — a coverage measure of our library, not of the market	2026-08-23
Echo Show 8: \$179.99; Zigbee + Thread + Matter radios; Alexa-only (a Matter controller, not an accessory); Alexa+ Early Access included with post-trial terms unpublished	Amazon's own launch announcement and product documentation; the help page that would settle Alexa+ tier pricing returned HTTP 503 and the price is deliberately not carried	2026-08-18
Echo Dot 5th gen: \$49.99; no Thread radio; Sidewalk ships on-device (disableable)	Amazon's own listing, browser-rendered	2026-08-17
Aeotec hub v3: \$134.99; Zigbee + Z-Wave + Thread + Matter; Alexa/Google are cloud-to-cloud linked skills; open SmartThings API goes behind \$4.99/mo from Oct 2026, app control unaffected	Aeotec tech specs (model GP-AEOHUBV3); Samsung's announced API pricing change; Home Assistant's own integration docs	2026-08-07

CLAIM	SOURCE	VERIFIED
Nest Hub 2nd gen: listed \$99.99 but out of stock in all four colours 2026-07-19 through 2026-08-13 with no EOL notice; Gemini-for-Home switch is home-wide and irreversible in Google's words	Google Store US configure page; Google's own Gemini-for-Home documentation ('it can't switch back')	2026-08-13
ULTRALQ Bolt Fingerprint (Matter): \$199.99; Thread-only with no WiFi radio; requires a Thread border router; all five platforms via Matter certificate; no BHMA grade or security-update period published; 18-month electronics warranty	ultralq.com storefront structured product endpoint + the lock's Matter certificate	2026-08-14
Google disables voice unlock entirely for Matter locks and restricts remote unlock unless the lock mandates a PIN	Google Home's own Matter-lock documentation, as carried on our lock records	2026-08-11
Kwikset Halo Select Plus: \$309; Matter over WiFi AND Thread per certificate; Home Key on the 'Plus' only; no security-update period published; 1-year electronics warranty	Kwikset's own product page	2026-08-14
Schlage Encode Plus: \$329; BHMA Grade 1 manufacturer-declared; no Matter (Schlage's newer Sense Pro carries it); no SmartThings path	schlage.com product page and spec documentation	2026-08-10
Aqara G410 doorbell: \$144.99; microSD to 512 GB in the indoor unit (card not included), 24/7 recording when wired, NAS documented; indoor unit contains Zigbee 3.0 hub + Thread border router; full Alexa/Google/Apple; HomeGuardian cloud optional and E2E-encrypted	Aqara's own storefront structured data and product documentation for the G410's SKUs	2026-08-17
Ring Battery Doorbell 4K Pro: \$249.99; 'a Ring Protect plan is required for video recording'; no local storage; Alexa is the only documented platform	Ring's own product page, quoted directly	2026-08-17
ecobee doorbell: \$159.99; free tier includes person detection with activity zones; cloud-only storage (no card slot, no NAS); 3-year warranty and published ongoing-software commitment; Apple footnote: no HomeKit Secure Video	ecobee's own US product page including its spec footnotes	2026-08-17
Reolink Video Doorbell PoE: \$101.99; SD/NVR local storage with no plan; Alexa and Google partial (live view + chime; history in-app); no Apple Home	reolink.com product and support documentation	2026-08-11
Aqara G5 Pro: \$199.99 WiFi model (\$229.99 PoE variant has no WiFi radio); on-device AI identifying faces, vehicles, pets and sounds, 'functioning independently during connectivity lapses'; encrypted local storage with NAS; full Alexa/Google/Apple; -22°F rating	Aqara's own storefront structured data (SKUs DTC-US-CM-G5PR...) and product description, quoted	2026-08-17
Tapo C660 KIT: \$118.99; free on-device detection and microSD recording; '24/7 Continuous Capture' is interval stills on battery models, TP-Link's own description; no RTSP for this model	us.store.tapo.com structured product data + TP-Link's own feature and RTSP documentation	2026-08-14
UniFi G6 Pro Bullet: \$479 (against a struck-through \$550); requires a UniFi Protect console (~\$279 Cloud Gateway Max) + PoE + storage disk; 'no hidden or recurring fees... licensing is still \$0' — Ubiquiti's words; console capacity five 4K cameras	Ubiquiti's own US store and tech-spec pages, quoted	2026-08-17
eufy 2023 encryption history: Anker admitted eufy cameras sent video streams to its web portal without end-to-end encryption, contradicting marketing; has since encrypted portal streams but does not claim E2E across the board today	Anker's own press admissions as documented on our eufy SoloCam S340 record	2026-08-12
GE Cync Paddle Dimmer (Matter): \$25.99; neutral wire required (the Matter refresh dropped the no-neutral design); full on all five ecosystems; no paid tier	GE Lighting's own product page	2026-08-08
Lutron Caséta Diva: no official published price (retailer-sold); works without a neutral; requires the separately-sold Smart Hub; fully local Clear Connect radio; full on all five ecosystems	casetawireless.com and support.lutron.com documentation	2026-08-10
Philips Hue A19: \$54.99; local Zigbee via Bridge; Bluetooth-direct capped at 10 lights/basic timers — the Bridge is the real system	Signify's own product and FAQ pages	2026-08-08
Govee COB Strip Pro (your kept gear's family): full Alexa/Google, Matter over WiFi, Apple partial; effects engine app-only; local HA route requires enabling LAN control in the Govee app	Govee's own product pages and Matter FAQ	2026-08-07
WaterGuru Sense: \$349; 'WaterGuru does not charge subscription fees' — vendor's words; cassettes ≈ \$120–240/yr; operating post-Sutro-shutdown	WaterGuru's own store and FAQ (support subdomain 403'd on the research pass and is noted, not guessed at)	2026-08-10
Ondilo ICO: \$449; names no smart-home platform anywhere on its page; warranty stated two incompatible ways on the same page ('1 Year' spec table vs '2-year' FAQ)	Ondilo's own US storefront, both statements quoted	2026-08-22
iopool Eco Start: \$359; explicit vendor denial of subscription (twice); PRE-ORDER with vendor-stated delivery 'by September-2026'	iopool's own structured storefront endpoint (SKU ECO-PREMIUM-US)	2026-08-22

CLAIM	SOURCE	VERIFIED
Sutro: service shut October 2025, all devices inert; both vendor domains now return HTTP 522	our lifecycle re-check of mysutro.com / my.mysutro.com	2026-08-08
Aiper Scuba S1: \$499.99; CPSC recalls on two other Aiper models (2023; 2025, ~32,660 units, 19 melting/smoking/fire reports); BBB F rating, 58 of 59 complaints unanswered	Aiper's own store price; CPSC recall records; BBB profile — as carried on our record	2026-08-09
Dolphin Premier: \$2,499; not a connected device (no app/WiFi/Bluetooth)	Maytronics' own US store page (Product No. 99996339-SPL)	2026-08-09
Tier-1 freshness: no record this report relies on carries an open change-detection alert; 22 of 33 candidate records sit in the automated fingerprint baseline (819 URLs), the remainder were manually verified 2026-08-17-22	company-os/change-detect-state.json + change queue, checked at drafting time	2026-08-23

Research prices are snapshots on the listed verification date, not live quotes. Compatibility and subscription terms can change; the product profiles carry the current record.