

What to Demand From a Charging Platform

An evaluation checklist written from the buyer's side

A hundred and ten questions to put to any charging platform, including the ones vendors would rather you did not ask. Ours included.

FOR Anyone running a platform selection or renewal

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WHAT YOU GET

- The questions that separate real protocol support from a compliance claim
- How to test data portability before you sign, not after
- Commercial terms that quietly create lock-in
- A scoring sheet that weights what actually matters at your scale

How to run the evaluation

Most charging platform evaluations are run as a feature comparison. A spreadsheet is built, vendors fill it in, every row comes back green, and the decision is made on price or on who was most responsive. Eighteen months later the operator discovers that "OCPI supported" meant a partial implementation, that the tariff engine cannot price a fleet differently from a walk-up driver, or that getting a year of session data out requires a support ticket and a fortnight.

This document is the other kind of evaluation. It is a list of questions whose answers are hard to fake, arranged so that a vendor who is strong in one area cannot use that strength to obscure a weakness elsewhere. A hundred and ten of them, grouped into five areas. You will not ask all of them — the scoring chapter says which ones matter at your stage, and which three answers should end the conversation whatever the rest look like.

Who needs to be in the room

Three people, and the evaluation is materially worse if any of them are missing.

- Whoever will run operations. They are the only person who will notice that the fault list cannot be filtered by site, and they are the one who lives with it daily.
- Whoever owns the money. Settlement, refunds and reconciliation are where platforms differ most and demos cover least.
- Whoever holds the site agreements. Half the questions in the Money chapter are really questions about what your contracts already promise.

A purely technical evaluation reliably picks the platform with the best API and the worst commercial model, because the person who would have noticed was not asked.

The test that beats every question here

BRING YOUR WORST CHARGER

Not your newest unit from your best vendor. The one that behaves oddly, the one nobody supports properly, the one that drops off the network every Tuesday. Point it at the platform and run a full session. Thirty minutes of that tells you more than a day of demonstrations, because it is the only part of the evaluation the vendor cannot prepare for.

Watch four things while it runs: does the connector state track reality, do meter values arrive at the interval you configured, does a remote stop actually stop it, and does the fault the unit reports appear in a form your technician could act on. If any of those fail on your awkward charger, they will fail on the twelve more of them you buy next year.

How long to take

Two weeks of elapsed time, perhaps three days of actual work. Longer than that and the evaluation becomes its own project; shorter and you will not have completed the export test in the Data chapter, which needs a vendor to actually do something rather than answer a question.

STAGE	WHAT HAPPENS
Days 1-2	Send the questions in writing. Written answers are quotable later; a call is not.
Days 3-5	Demonstrations, against your own scenarios rather than their tenant.
Week 2	A charger connected to a trial tenant, and a full data export requested.
End of week 2	Score, then negotiate the two or three answers you did not like.

The export request in week two is deliberately placed where a slow answer still leaves you time to notice. A vendor who cannot produce your own data during a sales process will not be faster once you have signed.

Protocol and hardware

Every platform claims OCPP support. The claim is close to meaningless on its own, because OCPP is a large specification with optional profiles, and because a charger that connects is not the same as a charger that is manageable. These questions separate the two.

Certification

- 01 Is the platform OCPP certified, or self-declared? Ask for the certification record, not a logo on a slide.
- 02 Which versions — 1.6J, 2.0.1, both? If both, is it one codebase with a translation layer, or two products?
- 03 Which OCPP 1.6 feature profiles are implemented: Core, Firmware Management, Local Auth List, Reservation, Smart Charging, Remote Trigger? Name each one.
- 04 For 2.0.1, is the device model implemented, or only the messages that resemble 1.6?
- 05 What happens when a charger speaks a version the platform does not? Does it refuse the subprotocol cleanly, or accept and then misbehave?

WHY LOCAL AUTH LIST MATTERS MORE THAN IT SOUNDS

It is the profile that lets a charger authorise a known tag when the network is down. Without it, a connectivity outage at a site means nobody charges. Vendors rarely volunteer that it is missing, because it never comes up in a demonstration with working internet.

Your actual hardware

- 01 Which of my specific charger makes, models and firmware versions are already in production on this platform? Not "we support all OCPP chargers" — which of mine, and at which customer.
- 02 How are vendor quirks handled? Ask for two concrete examples of a quirk they have accommodated. A platform that has never met a quirk has never met enough hardware.
- 03 How long does it take to onboard a model nobody has seen before, and who pays for that work?
- 04 Is there a hardware compatibility list, and is it dated?
- 05 Can a charger be moved between tenants or sites without losing its session history?

Connection behaviour

- 01 What is the heartbeat interval, is it configurable per model, and what does the platform do when heartbeats stop?
- 02 When a charger reconnects mid-session, is the session recovered or orphaned? Ask them to demonstrate this by pulling the SIM.
- 03 Are offline transactions accepted and replayed on reconnect?
- 04 Is there a message log per charger, retained for how long, and can operations staff read it without a support ticket?
- 05 Are WebSocket connections secured, and with which security profile?

The message log is the one to insist on seeing rather than hearing about. A log operations can read themselves is the difference between diagnosing a fault in four minutes and raising a ticket that comes back in two days saying the charger looks fine.

Smart charging

- 01 Are charging profiles supported, and which purposes — ChargePointMax, TxDefault, Tx?
- 02 Can the composite schedule be read back to verify what the charger will actually enforce?
- 03 Is a profile re-applied automatically after a charger reboots? If not, every power cut silently removes your load limit.
- 04 Is dynamic load sharing across a site supported, or only static allocation?
- 05 What happens to load sharing when the platform loses contact with one charger at the site?

That last question — what load sharing does when a charger goes unreachable — is a safety question dressed as a feature question. The correct answer is that the platform assumes the missing charger is drawing its full profile. Any other answer means an optimistic assumption can trip your main breaker.

Money

This is the chapter most evaluations skip and most regrets come from. Charging platforms differ far more in how they handle money than in how they handle protocol, and the differences are structural rather than cosmetic.

Whose money is it

- 01 Does driver payment land in my merchant account, or in the platform's? This single answer changes your risk profile more than any other in this document.
- 02 If it lands in theirs, what is the settlement cycle to me, and what happens to my drivers' money if the platform has a bad quarter?
- 03 Which payment gateways are supported, and can I bring my own?
- 04 Who holds the commercial relationship with the gateway, and who negotiates the rate?
- 05 Is card data ever stored by the platform? The correct answer is no, and it should be immediate.

THE QUESTION BEHIND WHOSE MERCHANT ACCOUNT

A platform that collects your revenue and remits it to you is, in effect, extending you credit risk in the wrong direction. It may be entirely fine. It is not fine to discover it at contract signature.

Pricing

- 01 Can different drivers pay different rates at the same connector? A fleet contract needs this and it is where simple tariff engines stop.
- 02 Are time-of-day windows supported, and are they defined per site or network-wide?
- 03 Is the tariff snapshotted onto the session at start? Ask them to change a tariff and then open an old session.
- 04 Can a price be changed with an effective date, or only edited in place?
- 05 Are idle fees supported with a grace period, a cap, and an overnight exclusion?
- 06 Is GST handled as inclusive or exclusive, and is it configurable?
- 07 Does the receipt show energy, rate, duration and tax as separate lines?

Effective dates are what catches people. A system that lets you edit a tariff in place will eventually be used to restate an invoice already settled with a site partner, and there is no clean recovery from that.

Refunds

- 01 Can a refund be issued from the session record, or only from the payment gateway dashboard?
- 02 Are partial refunds supported?
- 03 If a session was paid partly from a wallet balance and partly from a card, does the refund split proportionally?
- 04 Is the refund capped at the amount collected, in software rather than by policy?
- 05 Are refunds permissioned separately from ordinary operations?

- 06 Is a refund idempotent — does a double-clicked button refund twice?
- 07 Is the reason for each refund recorded, and can refunds be reported on by reason?

Refund reasons, aggregated, are the most honest quality signal an operator has. A platform that does not capture them is throwing away your best diagnostic.

Settlement with site partners

- 01 Is revenue share computed automatically from the session records, or exported for someone to calculate?
- 02 Which components can be included or excluded from the revenue base — GST, gateway fees, discounts, idle fees, roaming revenue?
- 03 Can a partner see their own statement, in a portal, without me sending it?
- 04 Is each statement line traceable back to the sessions that produced it?
- 05 Can a settled statement be edited? The correct answer is no.
- 06 Are multiple structures supported — percentage, per-kWh, fixed rent, minimum guarantee?
- 07 What happens when a contract is renegotiated mid-month?

Reconciliation

- 01 Can I reconcile energy delivered against revenue collected, for any period, without building it myself?
- 02 What happens to a session where the charger delivered energy but the payment capture failed? Where does that session appear?

03 Is there a report of sessions that could not be billed, and does anybody see it?

That last question — whether unbillable sessions are surfaced to anyone — is the single best predictor of whether a platform was built by people who have run a charging business. Sessions that deliver energy and collect nothing are inevitable. A platform that puts them in front of someone has thought about your revenue; one that writes them to a log has not.

Data and exit

Portability is the cheapest insurance you can buy and the easiest thing to be reassured about verbally. Every vendor says your data is yours. The question is whether you can get it without their cooperation, and the only way to find out is to try before you sign.

What you can get

- 01 Which entities are exportable — sessions, meter values, drivers, tariffs, partner contracts, settlements, payment references, audit logs?
- 02 Are meter values exportable, or only session totals? Totals are not enough to defend a disputed invoice.
- 03 Are driver identities and wallet balances exportable in a form another platform could import?
- 04 Is historical data included, or only from the point of export?
- 05 In what formats — CSV, JSON, API? Is there a row limit?

How you get it

- 01 Can I trigger an export myself, from the console, without asking anyone?
- 02 Is the same data available programmatically, so I could run a nightly copy into my own warehouse?
- 03 Is there an additional charge for export, at any volume?
- 04 How long does a year of session data take to produce?

- 05 On termination, how long do I have to retrieve data, and in what state is the account during that window?

DO THIS DURING THE EVALUATION, NOT AFTER

Ask for a complete export of the trial tenant on day one of week two. What comes back, and how long it takes, is a fact rather than an assurance. A vendor who is slow or evasive while trying to win your business is telling you exactly what termination will feel like.

Lock-in that is not about data

- 01 Are the chargers configured to point at an endpoint I control, or one only the vendor can change?
- 02 Who holds the SIM contracts, and can they be transferred?
- 03 Is the driver app my brand or theirs? If theirs, my drivers are their customers.
- 04 Who owns the QR codes on my hardware, and what happens to them if I leave? Physical stickers are a real migration cost.
- 05 Is there a minimum term, an auto-renewal, or a notice period longer than ninety days?
- 06 Are there per-charger de-provisioning fees?

The QR codes are what people underestimate. Re-stickering four hundred chargers across three states is a field operation, not an administrative task, and it can cost more than the software did.

Operations

The marginal cost of running a charging network is field dispatches. Everything a platform does to reduce them pays for itself immediately, and everything it fails to do you will pay for in vans.

Remote control

- 01 Which remote commands are available: start, stop, unlock, soft reset, hard reset, change availability, trigger message, get diagnostics?
- 02 Is a command's result reported back, or is it fire and forget?
- 03 Can commands be permissioned separately, so a site host can reset but not reconfigure?
- 04 Is every command recorded against the person who issued it?
- 05 Can a command be issued in bulk across a site or a group?

Faults and diagnosis

- 01 Are vendor error codes decoded into an action, or shown raw?
- 02 Can I see the OCPP message log around the moment of a fault, myself?
- 03 Is there an alert for a charger that is online, available, and has delivered no energy for N days? This catches the faults the protocol cannot express.
- 04 Are alerts routed to a queue with an owner, or only to an email?
- 05 Can a fault be closed with an outcome code, so repeat causes become visible?

- 06 Is there a per-charger history: faults, resets, firmware changes, parts replaced?

THE ALERT NOBODY ASKS ABOUT

A charger that reports itself as Available while delivering nothing is the longest-running fault on most networks, because every dashboard shows it as healthy. Ask whether the platform can detect it. Most cannot.

Firmware and configuration

- 01 Can firmware be pushed remotely, per model, in cohorts rather than all at once?
- 02 Is the current firmware version of every charger visible in one list?
- 03 Can configuration keys be read in bulk and compared against a standard?
- 04 Can a configuration correction be pushed to many chargers at once?
- 05 Is there a rollback path, and has the vendor confirmed the hardware supports one?

Uptime measurement

- 01 How is availability defined — connected, or serviceable? They are not the same number.
- 02 Is it measured per connector or per station?
- 03 Can maintenance windows be excluded, and is the exclusion visible in the report?
- 04 Can I produce an availability report for an arbitrary period with the outage list attached? This is what a tender or a lender asks for.

- 05 Is the underlying state history retained, so a report produced next year covers this year?

Access control

- 01 Can staff be restricted to particular sites or regions?
- 02 Are view, operate and manage separable permissions?
- 03 Is the restriction enforced in the API, or only hidden in the interface? Ask them to prove it with a direct API call.
- 04 Can a site partner have a login that shows only their own sites and revenue?
- 05 Is there an audit trail of who changed what, and how long is it kept?

Security and compliance

A charging platform holds money in motion, driver identities, and remote control of physical equipment in public places. Any one of those would justify the questions below; together they make them mandatory, and they are the questions enterprise and public-sector procurement will put to you about your own operation.

Isolation

- 01 Is the platform multi-tenant? If so, how is one operator's data separated from another's — at the row level, the schema level, or the database level?
- 02 Is the separation enforced in one place that every query passes through, or added per query? The second answer means it depends on nobody ever forgetting.
- 03 Are there tests that assert cross-tenant access returns nothing, and will you show me one?
- 04 Do caches include the tenant in the key?
- 05 Has there ever been a cross-tenant data incident, and what changed afterwards?

That last question — whether there has ever been a cross-tenant incident — is worth asking plainly. An honest yes with a clear remediation is a better signal than a no, because every system of any age has had a scare.

Credentials and access

- 01 How are staff authenticated? Is multi-factor available, and can it be enforced?
- 02 How are API keys issued, scoped and revoked?

- 03 Are secrets held in environment configuration rather than in the database or the repository?
- 04 Who at the vendor can access my production data, under what process, and is that access logged?
- 05 What happens to access when one of their employees leaves?

Data protection

- 01 Where is operational data physically stored? For an Indian operator this is increasingly a contractual matter rather than a technical preference.
- 02 What is the retention period for session data, meter values and audit logs, and is it configurable?
- 03 Is data encrypted in transit and at rest?
- 04 How are backups taken, how often are restores tested, and what is the recovery point objective?
- 05 What is the process if a driver asks for their data to be deleted?

Certifications and claims

- 01 Which certifications are actually held, with a certificate and a date, versus in progress?
- 02 Has a third party tested the platform, and will you share the summary?
- 03 Is there a documented vulnerability disclosure process?
- 04 What is the incident notification commitment, in hours, and is it in the contract or the marketing?

ON "IN PROGRESS"

A vendor saying a certification is in progress is not a red flag; saying it is held when it is not is disqualifying. The reason to ask precisely is that the difference is invisible on a slide and very visible in your own procurement questionnaire eighteen months later.

The scoring sheet

A hundred and ten questions produce a hundred and ten answers and no decision. The weighting below turns them into one. It is deliberately different by stage, because the failure modes are different: a first-site operator is at risk of never going live, and a multi-state network is at risk of not being able to leave.

Score each area out of five

Not each question — each area. Five means every question in the area was answered convincingly and at least one was demonstrated. Three means the answers were satisfactory but nothing was shown. One means an answer was evasive or a capability is on a roadmap.

AREA	FIRST SITE	GROWING (10-100)	SCALE (100+)
Protocol and hardware	25%	20%	15%
Money	30%	25%	20%
Data and exit	5%	15%	25%
Operations	15%	25%	25%
Security and compliance	10%	10%	15%
Support and responsiveness	15%	5%	0%

Two of those numbers usually get an argument, so here is the reasoning.

Why exit is worth five percent on your first site

Because at one site you have almost nothing to take with you, and your real risk is not going live at all. Migrating four chargers and thirty drivers is a weekend. The calculation inverts completely by a hundred chargers, which is why it climbs to a quarter of the score at scale.

Why support is worth nothing at scale

Not because it stops mattering, but because at that size you have your own operations team and the platform's responsiveness is no longer on your critical path. On your first site, a vendor who answers on a Sunday is genuinely the difference between charging and not.

The three disqualifiers

Some answers should end the evaluation regardless of the total. Weighting cannot rescue them, because they are structural.

- 01 You cannot export your own data without asking. Everything else is negotiable; this is not, because it removes your ability to ever act on any of the other findings.
- 02 A settled statement can be edited. It means your financial history is not a record, and it will eventually be restated in a way you cannot reconstruct.
- 03 Ground faults can be cleared remotely without friction. It means nobody on the product side has thought about what the platform is physically connected to.

What to do with a close result

Two platforms within a few points of each other are, for practical purposes, tied — and the tiebreaker is not in this document. Ask each for a reference customer running hardware like yours at a similar scale, and call them without the vendor present. Ask that operator one question: what do you wish you had known.

SCORE US TOO

This checklist was written by a platform vendor, and it would be a poor document if it were arranged so that we won. Put zevOS through it. Where the honest answer is that something is not built yet — OCPP 2.0.1 is in progress, plug-and-charge is not implemented, we run in a single region — that is what we will tell you, and you should score it accordingly.

About this document

Written by the team building zevOS, the charge point management platform. We publish this kind of thing because operators who understand utilisation, demand charges and settlement make better decisions — including about us.

Corrections and disagreements are genuinely welcome. If something here is wrong, or true in most states but not yours, write to support@zevos.ai and we will fix it in the next revision.

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