Facility Manager's Plug-and-Play Guide
to IoT, AI, and Remote Equipment Monitoring

Three steps to take before you buy - plus a comprehensive evaluation checklist for any existing or proposed building automation solution.

Why this guide exists
The building automation industry is full of promises, but most facility managers have no way to cut through the noise and know what's worth buying. This guide walks you through exactly what to do before you talk to a vendor, the questions every vendor should be able to answer, what to demand from any solution you deploy, and finishes with a 35-point checklist you can use right now to evaluate anything you already have or are being pitched. The only thing worse than not having smart technology is paying for it and not knowing if it's working, so FTL and Impact Service Group are here to help you avoid that.

STEP 1: Know What You Actually Need Before Talking To Any Vendor

The single biggest mistake facility managers make is letting a vendor define the problem for them. Answer these questions before you talk to a vendor:

1. **Do you need monitoring only, or monitoring plus control?**
   Monitoring gives you visibility - temperatures, runtimes, alerts when something begins to malfunction. Control lets you remotely change setpoints, override equipment modes, and adjust schedules remotely. Start with monitoring. It's simpler, cheaper, and delivers immediate value. If you think you may need control later, there are vendors that sell monitoring equipment that can be upgraded to controllers.
   Tip: Retail FM teams can see significant ROI with monitoring only before they ever need remote control capability.
2. **How many data points do you actually need?**
   You don't need 200 data points per unit. You need the 5–10 readings a technician checks when they first arrive on a service call - temperature, pressure, runtime, error codes. That's it. Any vendor trying to sell you more is selling complexity you don't need and won't use.
   Tip: Ask yourself what a tech checks first when they walk up to a unit. That's your monitoring scope. The goal of your system is to answer a single question: should I roll a truck or not?
3. **Which building systems should you start with?**
   Prioritize by failure cost and service call frequency. For most retail chains, that means HVAC (and refrigeration) first. Prove your ROI there before expanding to lighting, plumbing, elevators, or other systems.
   Tip: Pull your last 12 months of emergency service call invoices. The top three systems by cost are where you start.
4. **Do you have a baseline to measure against?**
   Without a baseline, you can't prove ROI. Before any deployment, document your current emergency call frequency, average repair cost, mean-time-to-repair, and any unplanned closures. This data becomes your before/after comparison - and your business case for expansion.
   Tip: Even a rough 12-month summary from your work order system is enough. Don't let perfect be the enemy of good here.
5. **What does success look like at 6 months and 12 months?**
   Define this before you sign anything. Fewer emergency calls? Reduced overtime? A specific payback period? If you can't articulate what success looks like, you won't be able to evaluate whether the technology is delivering - and you won't be able to justify renewal or expansion to leadership.

Monitoring only - start here	**Monitoring + control - add later**
☐ You need visibility into equipment health	☐ You need to remotely adjust setpoints
☐ You want early warning before failures	☐ You want to override equipment modes
☐ Simpler installation, lower cost	☐ Complex HVAC with multiple zones
☐ No remote setpoint changes needed	☐ Pre-conditioning stores before opening
☐ Best starting point for most FM teams	☐ Requires higher investment

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STEP 2: Questions To Ask Every Vendor (don't skip any)

Use this as your cheat sheet whether you're evaluating a new solution or reviewing a contract renewal. A vendor who can't answer these clearly is a red flag. It will be rare to find a vendor that can do all of these, so figure out which points are most important to you before the conversation.

1. **Does it give me asset-level alerts - not individual sensor alarms?**

   If every sensor fires its own alarm, you'll receive hundreds per day and start ignoring them. That creates alarm fatigue, and results in real problems getting buried. You want the system to consolidate sensor data into a single diagnosis: “RTU-3 low refrigerant charge” is more actionable than "supply air temp 2°F above setpoint."

2. **Does it use trend analysis, or just rigid setpoints?**

   Rigid setpoints fire when a single reading crosses a line. Trend analysis catches equipment that's slowly degrading - days or weeks before it fails. The difference is reactive vs. predictive.

3. **Does it automatically create work orders, or does it just show me a dashboard?**

   If the system ends at a dashboard and you still manually create work orders, you're the bottleneck. Technology should do that for you - enriched with sensor data and equipment context - and simply ask for your approval.

4. **Does it integrate with my existing CMMS or work order system?**

   Another disconnected data island is the last thing you need. Ask for a live demo of the integration before you sign anything. "We can integrate" and "here's the integration working right now" are very different answers.

5. **Can any technician install it in under 30 minutes, without special certifications?**

   If it requires a certified controls engineer to install, the labor cost and scheduling complexity will kill your ROI before you even start. Wireless, modular installation is the best path forward for all but the most complex buildings.

6. **Does it use AI or machine learning to spot issues before they become failures?**

   This is the difference between a monitoring tool and a predictive maintenance platform. Ask specifically: does it learn what normal looks like for each unit, and does it flag degradation trends - or just threshold violations?

7. **Can you show me a reference customer with a similar portfolio - same industry, similar site count?**

   Case studies from hospital systems or single-location warehouses don't tell you anything useful about multi-site retail performance. Push for a reference you can actually call.

8. **Is the contract month-to-month, or does it lock me in before I've proven ROI?**

   A vendor confident in their product should be willing to earn your long-term commitment. Locking you into a multi-year contract before you've seen results is a red flag.

9. **Who owns the data - and can I export it if I switch vendors?**

   Some vendors lock your historical performance data inside their platform. That data belongs to you. If they won't output data into a database you manage, walk away.

10. **Does it require changes to my network or IT infrastructure?**

    Solutions that require VPN access, on-premise servers, or IT involvement dramatically increase complexity and cost. Cellular-connected, cloud-native systems deploy without touching your network.

11. **What does onboarding look like - and how long until I see my first alert?**

    "Weeks" and "months" are very different answers. A good solution should have your first sensor data flowing within hours of installation.

12. **How do you measure and report outcomes - and will you put that in the contract?**

    If the vendor won't commit to reporting on measurable outcomes - emergency call reduction, MTTR improvement, energy savings - they're not confident their product delivers.

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STEP 3: Demand Action, Not Just A Dashboard

The end product of smart building technology should be a work order - not another screen to watch. Here's what to demand, and the red flags that tell you a vendor isn't there yet.

1. **Automated work order creation**

   The system detects an issue, auto-generates a work order enriched with sensor data and equipment context, and routes it to the right tech - with your one-click approval. You should never be manually typing out a work order based on phone calls or a long email chain, while having to reference a BAS dashboard to include any sensor data.

2. **Native integration with your WO system**

   Your monitoring platform and your CMMS should talk to each other. Not via a spreadsheet export. Not via a manual copy-paste. Ask for a live demo of the integration working in real time before you sign.

3. **Techs arrive prepared, not blind**

   Every work order should include the equipment readings that triggered the alert, the equipment's recent performance history, and likely cause. A tech who arrives knowing the problem fixes it faster and costs you less.

4. **AI-driven insights, not just setpoint alarms**

   Trend analysis that detects degradation weeks before failure - not a buzzer that fires when a single reading crosses a line. Ask the vendor to show you a real example of a predictive alert vs. a reactive alarm from a live customer.

5. **Remote resolution capability**

   Some issues should be fixable without rolling a truck. You should be able to perform setpoint adjustments, equipment overrides, and schedule changes remotely. Every unnecessary truck roll is money you don't need to spend.

6. **Measurable, reported outcomes**

   The system should provide you with monthly reporting that you can use internally to justify the value and spend of your new smart buildings solution. Some examples include: Monthly reporting on emergency call reduction, MTTR improvement, energy variance, and avoided costs. If the vendor can't tell you what you saved last quarter in dollars, they're not doing their job.

7. **Remote firmware updates and no engineering labor contracts**

   Systems that are too complicated for you use case will often include a contract where you prepare for 100 (or more) engineering hours annually to maintain the system. Modern REM and control systems allow for remote updates and management, meaning these hours should be removed from contracts.

8. **Asset management, not just monitoring**

   Every unit should have a full record - location, make, model, serial number, runtime hours, performance history, maintenance log, and end-of-life forecast. This is the foundation that makes budget analysis and capital planning possible.

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STEP 4: Plug-And-Play Evaluation Checklist

Section 1: Before You Buy - Do You Know What You Need?

Category	Y/N	Question
Baseline data		Do I know which of my systems has the highest emergency call frequency?
Cost baseline		Do I have a baseline cost for emergency service calls in the last 12 months?
Current visibility		Does my current vendor give me visibility into equipment health between service visits?
Monitor vs. control		Do I know whether I need monitoring only, or monitoring plus remote control?
Priority systems		Have I identified which systems to start with based on failure cost and call frequency?

Section 2: Vendor Due Diligence - Before You Sign Anything

Category	Y/N	Question
References		Can the vendor show me a reference customer with similar portfolio size & building type?
Contract terms		Is the contract month-to-month, or does it lock me in before I've proven ROI?
Data ownership		Who owns the data if I switch vendors - and can I export it?
IT requirements		Does it require IT approval or changes to my existing network infrastructure?
Onboarding timeline		What does onboarding actually look like - days or months?

Section 3: Operational Value - Does It Actually Do What It Claims?

Category	Y/N	Question
Asset-level alerts		Does it give asset-level alerts - not individual sensor alarms?
Multi-site access		Does it work across all my sites from one dashboard?
Anywhere access		Can I access data from any device, anywhere, without a VPN or direct IP connection?
Auto work orders		Does it automatically create work orders when issues are detected?
System integration		Does it integrate with my existing CMMS or work order system?
Easy installation		Can any technician install it in under 30 minutes, without special certification?
Predictive alerts		Does it flag issues before failures occur - not after?

Section 4: Efficiency Gains - Is It Changing How Your Team Works?

Category	Y/N	Question
Emergency calls		Has it reduced the number of emergency service calls?
Tech preparedness		Are your techs arriving on-site already knowing the problem?
Repair time		Has mean-time-to-repair (MTTR) improved since deployment?
Manual monitoring		Has it reduced time spent manually checking equipment status?
Data entry		Does it eliminate manual data entry between systems?
Portfolio scale		Can one person now manage more locations than before?
Unplanned downtime		Has unplanned downtime or store closure frequency dropped?

Section 5: Return On Investment - Can You Prove It's Worth The Money?

Category	Y/N	Question
Failure cost tracking		Do you know the cost of the last 3 equipment failures it prevented?
Labor savings		Can you calculate avoided emergency labor costs per quarter?
Energy costs		Has energy consumption trended down since deployment?
Vendor accountability		Is your vendor tracking and reporting measurable outcomes for you?
Payback period		Did it pay for itself within 12–18 months?
Business case		Can you justify expansion to leadership with hard numbers?
Recommend it?		Would you renew or recommend this solution today?

For each answer that is Yes give it a score of 1. Add your score up.

25–31 High performing: Document your results and plan to expand to more sites and systems.

16–24 Working - push harder: Identify the gaps and schedule a vendor conversation. You're leaving value on the table.

0-16 Reassess or replace: Use this checklist as your brief when evaluating alternatives.