esper

MDM Buyer's Guide

A start-to-finish guide on researching MDM solutions, evaluating vendors, overcoming roadblocks, successful deployments, and tips for post-deployment optimization

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CHAPTER 1

Getting Started: What You Need to Know About MDM

MDM, or mobile device management, is necessary for organizations of all sizes to manage their digital devices like smartphones, tablets, computers, and beyond. “MDM” is a broad term that encompasses a plethora of different use cases and functions — everything from hardware tracking to software configurations.

While researching different MDM options, you’ll likely run across a variety of terms, like MAM, EMM, and UEM. While each focuses on different aspects of device management, they’re all loosely related and were originally different parts of the MDM paradigm. Today, most MDM providers cover MAM, EMM, and UEM applications under the MDM umbrella.

MAM

MAM (Mobile Application Management):
This is used to secure, update, and monitor applications.

EMM

EMM (Enterprise Mobility Management):
This was born from the need for more control than original MDM offerings. Modern MDM and EMM are nearly identical.

UEM

UEM (Unified Endpoint Management):
MDM was initially designed for employee-owned smartphones. UEM brought MDM functionality to laptops and desktop computers. Again, many modern MDM offerings cover UEM use cases.

MDM

MDM (Mobile Device Management):
This was originally designed for employee smartphones on company networks but has since branched out to cover nearly all types of digital devices.

While MDM is a blanket term for all device management applications, not all MDM services are created equal. There are a number of considerations beyond just hardware to weave into your thought process when researching MDM software.

Operating System Considerations

While the type of hardware you need to manage is undoubtedly important (and we'll get to that!), you should start with the operating system(s) your devices run. Some MDM providers cover the gamut of operating systems — Android, Linux, iOS, macOS, Windows, etc. — while others might focus exclusively on a single OS or support a few from the list.

For example, let's say you have a fleet of primarily Android tablets but a small number of iPads in the mix. You'll want to ensure that any MDM you consider not only supports both operating systems, but also gives the control you need for each. Each OS has its own nuances and specific device management needs, so make sure yours are covered!

Further Reading

MDM is a complex topic with a lengthy history and many evolutions. We covered the highest-level version of that story here, but we have an additional resource that goes into much greater detail on everything you need to know about MDM.

Download the Guide

Step by Step

- [ ] Understand the different types of MDM, especially for your use case
- [ ] Outline different hardware types and operating systems
- [ ] Pinpoint feature gaps with your existing solution (if applicable) and establish technical requirements
- [ ] Determine current fleet size and build scalability into the process

CHAPTER 2

Why the MDM Status Quo Isn't Good Enough

Mobile device management was born from the need to manage employee devices on corporate networks — smartphones originally (remember Blackberries?!), but later laptops. That type of device management falls into two categories: BYOD (bring your own device) and COPE (corporate owned, personally enabled). These scenarios map users to devices on a 1:1 ratio, where every device has a user, and every user has a device.

However, a new use case has emerged in recent years: single-use, one-to-many company-owned devices. Think digital kiosks and signage, point of sale systems, barcode scanners, rugged tablets and smartphones — stuff like that. These types of devices don't have a single specific user, are owned and managed by the company, and require a very different set of management tools compared to BYOD or COPE scenarios.

This is important to note because it's where choosing the right MDM is critical. If you want to manage employee owned or assigned devices, a "traditional" MDM is the right choice. But if you need to manage a fleet of company-owned, business-critical devices, this type of MDM will leave you wanting.

Here's a quick and dirty comparison if you're not sure where your devices fall.

COPE/BYOD	Dedicated
User-owned smartphones, tablets, laptops, etc.	Customer-facing check-in terminals, ordering tablets, etc.
Company-provided smartphones, laptops, etc.	Digital signage, ad displays, or pricing labels
	Point of sale systems, self-ordering kiosks

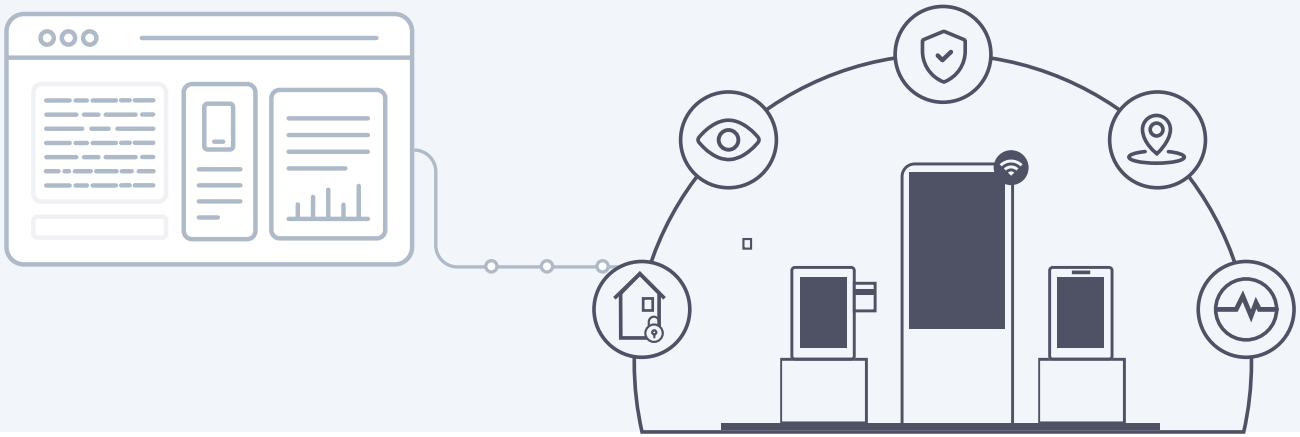
Additional Resource

That's just the tip of the iceberg. Use this 10-question checklist to help you decide if traditional MDM is right for your use case or if you need something more.

Download the Checklist

Step by Step

- [ ] Determine your use case (COPE/BYOD vs Dedicated)
- [ ] Decide whether traditional MDM is suitable or if you need something more



CHAPTER 3

Researching with a Holistic Mindset

Once you know where your devices fall (or the type of devices you plan on using if you're still building out your fleet) and what type of MDM you need to shop for, it's time to think about the future — you have to know where you want to go to know where you should start. There are a number of critical considerations when thinking about the future of your device fleet and how you plan to scale.

One of the most important is holistically thinking about your MDM, software, and hardware. On one hand, you have a set of devices — perhaps from different vendors or running different operating systems — and need to manage those devices. You need to ensure compatibility with your device management tools across all of your current and future devices.

On the other hand, you can go with an "all-in-one" solution — a vendor that offers device management software and its own hardware. This should ensure seamless integration between your hardware, software, and device management tools (since they're one and the same).

For some users, that might be the way to go. You may only need one very specific device type (all 8-inch tablets, for example), and you find a provider that offers what you need with a baked-in device management solution. For most, however, this won't be the case. Vendor lock-in is real and can be detrimental to a growth strategy.

That's why finding an MDM provider with a vast hardware partner catalog is best. Or a reseller that can set you up with devices and MDM altogether to maximize compatibility. Or even work with an OEM that offers direct integration with an MDM partner. There are a lot of options here, but the end goal is the same: to have your hardware, software, and MDM all work in concert. This strategy also allows you to add new hardware form factors as you see fit and avoid being told, "Sorry, we don't support that" by your MDM.

This gets you the best parts of an all-in-one solution without vendor lock-in headaches.

Defining Your Software Experience

You can even take this a step further with a customizable operating system. If you have a specific vision in mind and don't know how to execute it or don't want to hire a dedicated dev team to manage a custom OS, there are solutions. For example, Esper Foundation for Android is an enterprise-grade enhancement to the Android platform, allowing you to fully define a custom experience. In this scenario, Foundation is deeply integrated with our device management service, so you get guaranteed compatibility.

Further Reading

If you can dream it, you can build it with Foundation. Based on Android, built for ARM or x86, and fully customizable. It's your gateway to the custom experience you've always dreamed of.

Learn more about Esper Foundation for Android

Step by Step

- [ ] Consider your technical requirements, operating systems, and hardware types
- [ ] If building a new fleet or expanding your existing fleet, decide on hardware types
- [ ] Weigh the pros and cons of an all-in-one solution vs. piecemeal hardware + software + MDM solutions
- [ ] Define your software experiece and the need for a custom option

CHAPTER 4

Vendor Evaluation: How to Get it Right

Okay, so you have your hardware strategy on lock. You know your MDM needs. You defined your software requirements. Now, the real work begins — it's time to evaluate vendors. This is probably the most important part of the entire process because failing to do your due diligence at this step could be detrimental to your future plans.

The first step here is to identify leading vendors for your use case. Depending on where you landed in the above checklist, that might be an all-in-one vendor, a traditional BYOD MDM, or a vendor designed specifically for dedicated use cases. With the list of top vendors in hand, you need to establish ROI (cost vs. functionality) for each one. Compare the cost of the management solution against your required features and technical requirements.

This part can get a little tricky. Most MDM providers use a per-unit model, charging between $2 and $10 per device. But that's not where costs start and end because time plays a big role here. How much time will this solution save you with software features? For example, if the provider offers remote control, how much time (and money) will that save over on-site troubleshooting? Probably a lot. Another key consideration here is with support — a reliable support model is critical because you want to know your MDM provider has your back if something goes wrong.

While remote control and support are both important, one of the most important considerations is provisioning. You will need to provision every device in your fleet (including all new ones), so an MDM that saves time on provisioning is a boon for your IT team. This is a great area for comparison, too — if you have a current MDM, look at how many steps (or, perhaps more accurately, pages of steps) your current provisioning process is. Then find a vendor who can help you cut that down to as few as possible. Spoiler: templatized provisioning is the winner here.

For complex device fleets or those onboarding an MDM for the first time, technical implementation is another key consideration. Many MDMs will offer basic support for implementation, but finding one that offers a more white glove approach can be worth its weight in gold. These professional implementation teams can help you plan your rollout and create a pathway to

success with fewer roadblocks, then sit alongside you during implementation, fleet onboarding, and more. It's worth noting that this is usually an added cost, but the time saved and frustrations avoided typically make this a worthwhile value add.

And those are just a few examples! There's no one-size-fits-all solution for calculating MDM ROI — it's all about the features you need, where you'll save time, and how the MDM solution enables that. This is critical for your bottom line (CFOs will love you for considering this, I promise), but also your sanity — the more time your MDM can save you, the fewer headaches you have to deal with.

At this point, you should have a shortlist of vendors that you're interested in checking out. To simplify your evaluation, I highly recommend using an MDM request for proposal (RFP). This will allow you to submit your background information, technical requirements, budget, and timelines to prospective vendors and invite them to bid on your project. It's a great way to make your life easier and quickly weed out any mismatches. As a bonus, MDM providers will appreciate the transparency and straightforwardness!

Finally, it's time to vet top candidates. You have a few options: either set up demos with the companies you're interested in or sign up for a free trial. Or, better yet, both! I highly recommend both. A free trial is a great way to dip your toes into a new piece of software, but you should set up a demo after you've been testing for a couple of weeks to see the platform's most powerful features, get your questions answered by a real human, and all that fun stuff.

For free trials, it's good to have a small set of test devices for each. This will allow you to try different solutions side by side without affecting your device fleet at large.

Free Download

Looking for a streamlined RFP template for MDM? Look no further. This MDM RFP template is designed to simplify the evaluation process by letting you easily define your needs, ask the right questions, and avoid common pitfalls.

Download this MDM RFP Template

Step by Step

- [ ] Identify the leading vendors for your use case
- [ ] Compare features and technical support requirements
- [ ] Establish ROI
- [ ] Send an RFP to vendors
- [ ] Set up a demo/free trial on small groups of test devices

CHAPTER 5

Overcoming Internal Roadblocks

As with any change, there is the unfortunate side effect of dealing with internal roadblocks. This comes in many forms — gatekeepers, objections, rejections, etc. — but preparing yourself for the inevitable pushback will help ease the transition. Here are some tips to ease the pain.

First, identify key stakeholders and decision makers. If this is your project and you know exactly what you need, you're the champion here, so you must be prepared to justify your decisions and rally the troops in your favor. Identifying key stakeholders — others who will use the product, the IT person or team who manages your tech stack, etc. — will help you spot potential questions before they come up.

The same goes for decision makers. It's unlikely that you're the one who finds the product and approves the purchase, but there's a good chance you'll know what questions the decision maker(s) will ask. You can use that to your advantage and be ready to address any concerns proactively before they come up.

Lastly, you'll want to identify any potential gatekeepers. These people will push back on whatever you bring to the table for one reason or another — maybe they think your current solution "works fine," don't like change, or just don't like you (hey, it happens to the best of us — it's them, I promise). Either way, pinpointing the gatekeepers is critical to successful change.

Tips for Handling Objections/Rejection

If you anticipate potential objections, you can proactively prepare for ways to address them. In some cases, you can even address objections before they have a chance to surface! Here are some pointers for preventing resistance:

- **Start early:** Bring in key stakeholders and decision makers early. Include them in discussions, gather feedback, and address concerns quickly.

- **Find your champions:** You can be an army of one, but you don't have to be. Pinpoint influential folks who support the new tool and can advocate for your cause.
- **Make them the hero:** Tech decisions often mean replacing an existing system — one that a team or team member may feel ownership over. Show them how they'll benefit and be able to have even more business impact.
- **Prove the tool's effectiveness:** Set up a pilot program to test the new tool. Use the results to build confidence in the product.
- **Communicate regularly and often:** It's important to keep this transition top-of-mind for everyone involved, and transparency throughout the process can help alleviate concerns.

Just know that no matter how proactive you are, you might still have to deal with some resistance. Here are some tips for combatting objections:

- **Actively listen:** Pay close attention to specific concerns and repeat them to confirm that you fully understand the objections. For example, "I'm hearing that there's a concern with deployment at scale. Is that correct?"
- **Identify the root issue:** People don't always say exactly what they mean, so you may have to dig in to find the real reason for the objection. Maybe it's fear of change, maybe it's cost, but maybe it's something else.
- **Validate concerns:** Acknowledge that their concerns are valid. You don't have to agree with them, but a little empathy goes a long way.
- **Provide evidence to support your case:** Countering objections with cold, hard facts is tried and true. Build a dataset to back your claims, reference case studies that align with your goals, and get testimonials from other customers of the new tool. Clearly articulate the benefits and how this new software can solve problems, improve efficiency, reduce costs, etc.
- **Own the risks:** Acknowledging potential risks related to implementation builds trust through transparency. A plan to mitigate those risks demonstrates that you've thought this through.

Ultimately, there's no win-all solution to handling objections, rejections, or gatekeepers. But these tips can give you an edge

Step by Step

- [ ] Identify internal stakeholders and decision makers
- [ ] Indentify potential gatekeepers
- [ ] Proactively prepare to handle rejections and gatekeepers

CHAPTER 6

Considerations for a Successful MDM Deployment

Wow, look at you! You found your tool, put it to the test, and overcame all the internal roadblocks. Congratulations! Now there's only one thing left to do: deploy it. Dare I say that now is when the real work begins? Nah. If you're prepared, this part is a breeze.

A successful deployment isn't a one-and-done thing — it takes patience and planning to execute. Fortunately, you're the savvy one reading this guide, so you know what's happening. Here are some tips from us to you on how to successfully onboard your new MDM:

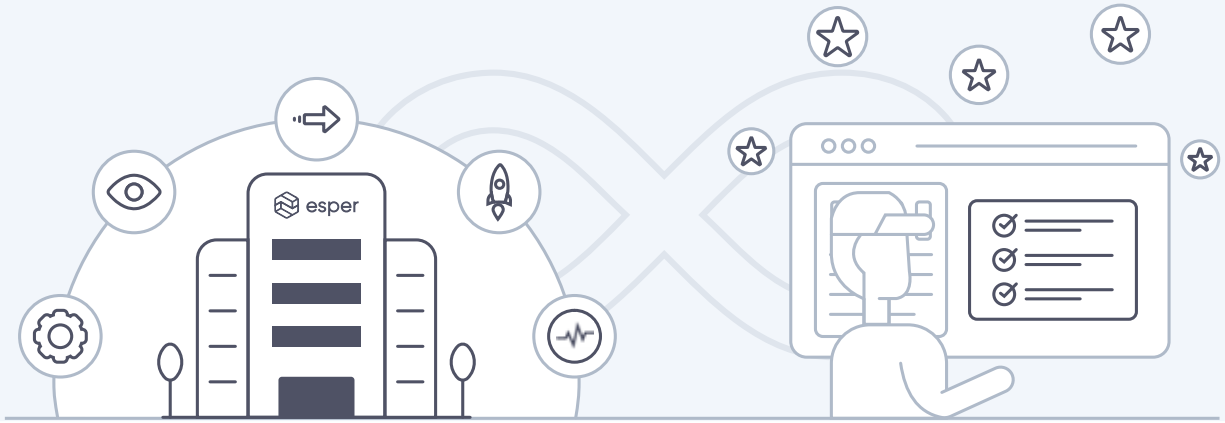
- **Start with a phased rollout:** When onboarding a new tool, the best approach is a slow one. By using a phased rollout, you can start small, deal with any issues that arise, and expand the deployment as time goes on. Each phase should be bigger than the last until you've deployed the new MDM to your entire fleet.
- **Communicate, educate, validate:** As you start your phased rollout, communicate deployment plans to affected users (like on-site employees who use the devices) and relevant teams (like IT and dev) to make sure they know what's happening. Let them know what to expect and how to address potential issues. Validate that everyone is on the same page!
- **Monitor and manage:** Keep a close eye on the rollout process. Ensure all devices onboard properly, show up in the MDM console, and all features are functioning.
- **Test, test, test:** Gather feedback from users and other stakeholders as the deployment progresses. Test every feature to ensure functionality, then use this feedback to identify areas of improvement or issues. Adjust as necessary. Season to taste.

That's pretty much it. Depending on the size of your device fleet, your deployment could take days, weeks, or even months. If this is your first time onboarding an MDM, it will likely go much faster, but if you're replacing an existing provider with a new one, you'll want to take your time and be very methodical with the rollout.

Either way, you got this!

Step by Step

- [ ] Start with a phased rollout
- [ ] Communicate, educate, and validate
- [ ] Monitor and manage
- [ ] Test, test, test



CHAPTER 7

Beyond Deployment: What Happens Next?

The work doesn't stop once your new MDM is deployed — now it's about streamlining and optimizing your entire fleet. Between us, this is my favorite part of the whole process. Understanding the nuances of fleet management and uncovering key optimizations for your specific use case is legitimately fun. Like a video game you can play at work.

I'm going to let you in on a secret: the key to maximizing your devices is minimizing your device management efforts. Of course, I don't mean just forgetting about it or ignoring issues. I'm talking about a concept called managing by exception, where you monitor only the devices that are out of compliance and let those functioning properly keep doing their thing.

You enable yourself to manage by exception through proper drift detection. Basically, when you set your devices up exactly how you want them, this is called your "desired state." And when a device somehow falls out of the desired state, it's called "drift." When a device is in drift, it's out of compliance and out of your desired state. Managing by exception enables you to address these devices and only these devices. Suddenly, your 200,000-device fleet becomes much more manageable, doesn't it?

But good device management is about more than just managing devices. After all, your devices have to do stuff, right? That's where app management comes into play. You also need a streamlined, repeatable way to deploy apps and app updates to your edge devices. Surprisingly, this is one of the biggest challenges many fleet managers face, so a reliable software deployment strategy is critical.

These strategies combined — managing by exception, drift detection, and repeatable software deployments — all go hand in hand when it comes to robust compliance enforcement and security management. Because when your desired state includes various compliance and security settings or an outdated application presents a security risk, you can't afford to let that go.

The best part about device management is that it ebbs and flows with

changes — it modernizes as technology advances, allowing you to modernize your device fleet. Take the recent AI boom, for example — many companies are looking to deploy AI models to edge devices, but if you already have reliable self-service app deployment, you can use this for AI model deployment, too.

And that's just the start. We hope you've found this resource useful in planning your device management strategy and that it helps you uncover the missing pieces to a successful device management strategy.

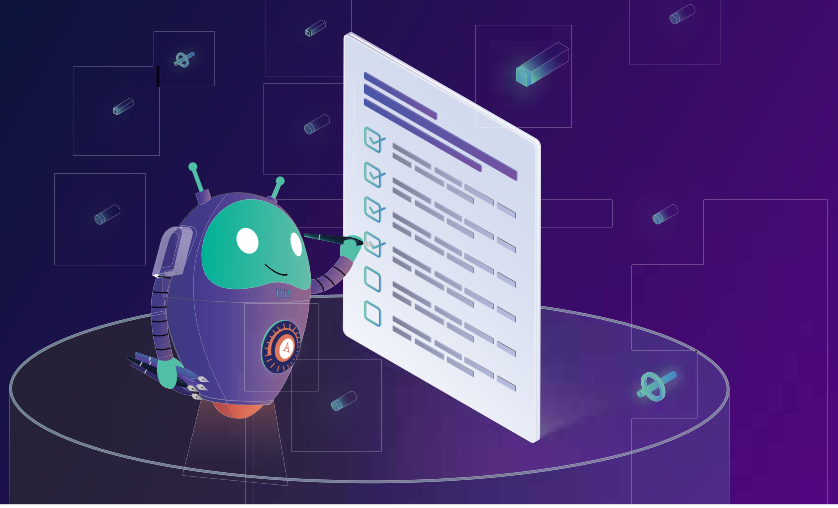
Keep Learning

The concepts outlined above are from The Practical Guide to Preparing Edge Device Fleets for the Future by Esper CTO Sudhir Reddy. Once you've successfully onboarding a new MDM, it's a great read with usable, practical advice for supercharging your device fleet.

Download the eBook

CHAPTER 8

The Checklist



Understanding MDM

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Overcoming Internet Roadblocks

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Successfully Deploy

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