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Infrastructure Audit – Pt1

“Without truly understanding what you have, it is very hard to make good decisions about the what to do in the future.”

Robert Belgrave



Infrastructure Audit

Transcript

Part 1

Hey, I'm Robert Belgrave, CEO and founder of Wirehive and I'm here today to talk to you about how you audit that all important thing you call infrastructure, which is at the heart of every business.

Why might you undertake an infrastructure audit? Well, there are a number of different reasons, but often it starts with cost. Businesses over time costs start to increase. They're not quite sure what they're spending their money on, auditing everything that you've got and understanding how it all fits together helps you get a handle on that all-important cost base, but there are other key reasons too, such as compliance. Compliance can be seen to be a bit dull, but it's a huge risk to a lot of businesses and particularly again, over time as things spread out you start to lose track of what's in place where and with things like GDPR around the corner, cybersecurity essentials, and some really high profile data breaches over the last few years, getting a handle on that all important compliance element of your business is really important too.

One other really common thing that comes up is around staff turnover. Maybe you had a great technical leader in your business who used to have a great handle on everything and has moved on. Maybe the documentation wasn't quite as good as it could have been. Maybe they used to carry some of that around in their heads. Undergoing an audit is a great way to just kind of go through that check and balance you need to make sure you understand what you've got, where it is, and how it's been used and ultimately to protect your business from outages, cybersecurity disruption, and all the other negative stuff that can happen as a result of not knowing exactly what you've got.

Something that's really valuable as part of a process like this is asking yourself the question, how would you solve this problem if you were starting from scratch today? In doing that you often kind of allow yourself to think in an unconfined way and ultimately find the best solution to the problem. If you do that at the start then you kind of go and undertake an audit, often when you come back together at the end you'll be amazed how much of what you set out in that kind of perfect solution is plausible and you can apply to where you are today.

So you've decided you want to do an infrastructure audit. How you do it? The first



thing to think about is the approach and there's kind of two key approaches to doing these audits, which is the top down versus bottom up conversation. Top down as it sounds you start with your leadership team, you start with your strategic goals for your business, and you kind of work your way down through the organization. That might be thinking about what your business plan looks like for the next three years. It might be looking at where your product road map's going. It's kind of starting with the bigger kind of more holistic side of things. Then maybe you filter down to the detail and you start to look at what you've actually got and how it all fits together. This is quite common. These processes tend to get triggered by leadership teams and so often the natural way you might approach this is top down, but the alternative is bottom up.

What does bottom up look like? Bottom up audits tend to happen as a result of maybe a manager or an individual working within one of your technical teams deciding that they want to drive some change and understanding that to do that they kind of need to build the case. They tend to approach these things bottom up and what does that look like? It looks like starting with the ones and zeros and the low-level detail. Fixating on the finest minutiae of what you've got, how it's all put together, and then kind of building up from there. Rather than thinking bigger picture about business case, you tend to start thinking about how many servers have I got? Which cloud providers am I using? What are the business applications I have in place? Maybe thinking about things like service desks and all the kind of technical integration side of your business as well and then building the case up from there.

I don't think there's a right answer to this. I think it depends on the problem you're trying to solve, what type of business you've got, and often who's leading that process as well because I think it's very hard if you're coming top down to think in the detail and equally as hard if you spend your life in the detail to think bottom up.

How do you do that? I often recommend stakeholder interviews as a really a place to start. Talk to all of the different people involved in technology within your organization individually. Listen to their point of view. Understand their history, the context of the role that they do, how they approach the systems that you've got. You'd be amazed what comes out of it. I've always found when you go through this process and then you kind of collate the feedback that you get at the end you start to see the patterns and actually from that alone you can often paint quite a clear picture about where an organization is with their technology.

Make sure that you manage the hearts and minds piece carefully. Explain to people why you're doing what you're doing, whether you're doing this internally within



your own organization or helping someone as a contractor or consultant, setting the scene early on with people is very important. Making sure that you're facilitating that change carefully and ultimately take people on the journey with you and then you'll get the best value from them.

Another really interesting question is whose version of the truth is the right one. Is it what finance tell you or is it what your technical leaders will tell you? Often there's some discrepancy between the two. Clearly both views are important, but you can learn a lot from reconciling both positions together. Have a look at what you're paying for. Very important. Have a look at your contracts, the terms of them, the termination dates, things like that, but then also look at your technical documentation. What your tech team think you've got in production. Where it is, how it all fits together. Try and marry the two up and reconcile them and you'll find some very interesting outliers in the data.

Most businesses are already working with some sort of cloud service and what that means is that you probably already have some physical equipment still on premise in your business, but also some equipment is virtualized either on premise already in the cloud. Just understanding the difference between the two can be very helpful when approaching this audit. You probably won't be able to go and touch all of the equipment that you're using. Some of it may not actually be a physical piece of equipment at all. On that note however, there will be physical pieces of equipment that you may simply not consider. One of the areas that we sometimes touch on with people is things like door furniture, so the swipe card readers for security-controlled doors. Pretty much every single one of those probably has a small computer buried in the roof or the wall. If you're doing a true infrastructure audit and you want to understand all the technology in your organization you need to consider those sorts of edge case options as well.

You've done your audit, what you do next? Time to assess your output and the data that you've got. A couple of different areas that I focus on personally. Normally the first one is cost. I think when people go through an audit often they're looking for some cost saving and normally there is some to be found. Cost really, make sure you're paying fair market rate for the things that you've got, but also look at some of the other areas like duplication. More often than not you'll find some duplication of systems. Perhaps you're paying for the same service twice and only one of those instances being used. Perhaps two different departments in the business have kind of gone off in different directions and actually could consolidate their estate, and achieve some cost savings that way.

Another key area is around legacy systems. Often as businesses grow, the legacy



systems tend to be left in place. It's difficult to replace them, inconvenient to rip them out, but actually, particularly through the lens of compliance and security maybe not the best thing to leave those in place. Legacy system is another key area to focus on. Last, but by no means least, is everything you've got truly fit for purpose? I think if you approach these questions through that sort of clean slate mentality that I mentioned before, if you started today with a blank piece of paper would you put that system in place? Is it truly fit for purpose? In evaluating that you need to think about what's the actual cost to the business of not having the more up-to-date system that might do things more efficiently, faster, or maybe even for a lower cost?

What are some of the pitfalls you might face as you go through the journey of doing an infrastructure audit? A few that we've learned from our time doing them on behalf of other businesses, legacy bias is a really key area. People often favor what they know. Humans don't like change and so you'll find, particularly in the technical areas of a business, often there's this kind of propensity to stick with the status quo and what you've got when actually something new and innovative might be a better choice. A similar kind of trap is this sunk cost fallacy. People sort of feel like because they've made significant financial investment in something, surely it must be a more cost-effective answer to stick with that. Very rarely is that the case actually, and although there might be a capital expenditure cost of changing something, often over a three or five-year period the ROI more than pays for itself along with the increased efficiencies that you might get.

Again in that similar sort of trap, there's often an emotional investment in what you've got today. Technical people, really people of all different departments can have a kind of emotional investment in the way things are done today, particularly if they don't feel like something's broken. That tends to be a bit different if you've got a burning problem and everyone's kind of rallied around change, but more often than not some people will have a kind of emotional attachment to doing things as they have done up to that point. Ultimately change is often big and scary, right? People can be intimidated by it. This is where it's really important to help facilitate that change and to make it clear to people that you're not just trying to tear up the rule book and make things difficult for them. Whatever you change in your organization you're going to do so in a measured and facilitated way. Give people the support they need, whether it's training or otherwise to make it as smooth as possible.

Let's summarize the process of an infrastructure audit because I think often people fixate on what value am I going to get from it? Am I going to save money? You probably are. Am I going to improve the documentation to mobilization? Almost



certainly you will. Am I going to help people feel more aligned with each other and understand the pros and cons of different departments' decisions? In my experience you do, but actually even if you didn't do any of that, this is still a really valuable exercise because without truly understanding what you have in your business when it comes to technology, it's very, very hard to make good decisions about what to do in the future.

A word of caution, I've always found that it's very important that the person who runs this process is seen to be truly objective. Now, many people have big enough organizations that you can find somebody within your kind of frame that can fill that role, but if not I always recommend finding a great third party who you can trust to help run this process for you as a truly objective person, particularly from the areas of things like stakeholder interviews where that lack of personal relationship can be very powerful.

Thanks for watching the first video in our infrastructure audit series. We'd love to send you the second one, but because of how GDPR works now we can't do that unless you open the email we've sent you and click the link to opt in, so please do that now if you'd like to receive more videos in this series.