veris

Health Check

Legacy systems

Like a trip to the GP, but for your code

At Veris, we find ourselves regularly working with smart, creative, driven individuals who work in government or private companies where tech budgets are tight but tech dreams are big. Sometimes they come from a technical background, but often they don't.

If you're reading this, chances are you've got legacy systems. You may have been the one who helped fund it or run it in the first place, or, as is often the case, you've inherited someone else's implementation and now they're no longer with the organisation. For digital businesses, (which, let's face it, it's pretty hard not to be these days), the software and technical infrastructure underpinning your organisation is critical to its success. It needs to be sound enough to last over time, but flexible enough to allow new capabilities without breaking anything as your organisation and technology evolve.

If you're not technical, it can be difficult to be sure if what your development team is producing is actually giving you what you need. We hear this a lot! It can feel a bit like getting your dream house built if you're not a qualified builder yourself; how do you make sure it won't fall down in the first big storm?

If you *are* technical, you may have a good handle on where things are at and what fires are burning but sometimes, it can be difficult to see the forest for the trees when you're in the thick of things.

We created Health Check to help non-technical and techincal people alike. You might be a business manager for a department that's got an old legacy system that needs modernising, or you might be a CTO who wants extra help to comprehensively assess a legacy system that your existing IT team hasn't got time for.

Health Check is a fast, low-cost way to give you a bias-free review of the infrastructure and technical quality of your product. Shall we take a look under the hood?

Health checks for legacy systems are the first port-of-call for any business manager who thinks that modernisation is too big or gnarly to tackle.

What's a Health Check for a legacy system?

The Health Check for Legacy Systems is for those classic cases where some technical system in your organisaiton is on its last legs but it's still critical to the day-to-day operations so you can't just put it out to pasture. It's normally locally hosted (i.e. not in the cloud) and, with everyday that passes, the risk (think cost, resources and skillset) of trying to keep it alive and working is growing.

Often, these legacy systems are on technology that is no longer supported by the original supplier (and in many case not even truly supported by the organisation's own internal IT teams). It can also be difficult to hire someone to help because most tech people want to work on the latest and greatest stuff.

Despite a legacy systems' technical age, there's often a bigger problem with them and that's that they no longer fit the needs of the organisation. Often, it either needs to be 'brought back up to scratch' or, potentially, re-designed from the ground up while salvaging as many of the useful bits as possible in order to keep costs down.

The Health Check is designed to keep all of this in mind. We start by understanding the goals of the business and then, we assess the ability of the legacy system to help you achieve those. We get a deep understanding of where it's falling short for the organisation and which bits of it could be salvaged (if any). We don't stop there, though. We're also able to provide recommendations on what your technical infrastructure needs to be and *how* you can go about implementing it to support your goals now, and into the future.

Typical problems with old technology

We've worked with legacy systems so often, we'd love to tell you we could count the problems and risks they cause on one hand. But, we need two. This isn't all about a fear campaign, it's just what we've come across as the most common issues while conducting a Health Check.

Single point of failure

Often, legacy systems are so old that they're embedded in many parts of the organisation. Ironic, isn't it, to think that the most integrated systems often are the closest to failure? Because of the age of the system there's often only one, maybe two, people left in the organisation who could fix something if it went wrong. That's what we call a single point of failure and it's an easy thing to fix.

Old technology

It's not easy for any organisation to 'invest' in old technology. It's a hard sell when, every year, departments want to take advantage of new technology. We don't mean to scare you but often, this means legacy systems are simply being patched to stay operational which means they're also only one update or two away from total system failure.

Slow business processes

Legacy systems are often forced to integrate with newer ones but don't have the functionality that allows proper integration. This means organisations invent and add business processes to compensate for the technology. Because of the larger amount of manual intervention, there's also a greater risk of a system being prone to errors and rework making it less efficient and more frustrating for everybody.

Higher operational costs

Technology is often built to improve efficiency and so, when the technology itself becomes the work, it makes it less efficient for everyone.

Cyber security risks

Typically, over time, some software components (things like frameworks) lose their long-term support. This can result in software libraries that are no longer updated with latest security patches leaving your systems exposed to cyber-security incidents.

Feeling left behind or stuck

Legacy systems also have the pesky habit of making their owners look bad, especially if those owners are non-technical. It's difficult to know where to start to make it better, but our health check is designed as an easy first step in your modernisation journey.

What's the process?

To understand and recommend improvements to your legacy system, there are a few things we need to cover:

Understanding key organisational workflows

Normally, legacy systems support vital (and often highly-integrated) business functions. Before we deep-dive, it's important we're aware of what those business functions are, who they affect, and what happens when they go wrong.

Once we know this vital information, we'll work to understand a bit about your desired state – what should this technology support and what does success look like.

Technical deep-dive

Once we're clear on the ways that the legacy system is being used and what success looks like, we'll take a look under the hood to understand where the gaps are.

Other activities

All of this means that there are set of typical activities we do, working alongside you and key stakeholders, to ensure the Health Check is money well-spent. An example of things we do include:

- **Project initiation:** Or, in other words, a kick-off. We'll set strategic context, roles and responsibilities and create a project schedule.
- **Business workflow and technical meetings:** Based on the current role of the legacy system within the organisation, these meetings will vary in time, subject, and frequency. The goal here is to make sure we understand the relationships that exist between the humans and the technology.
- **Weekly progress meetings:** We'll keep you updated with how we're progressing and any blockers we might encounter (and can work through together)
- **Documentation:** This can take various forms but often involves a mix of visual documentation (workflows etc), and written documentation (like requirements lists).

We try to keep your involvement as light as possible (we know you're busy after all) but we often require about 1 week of engagement with you across the 4-6 week period of the check. This is mostly for attending meetings, and keeping up to date with the progress of the project.

What do I get at the end?

It's different for every Health Check because every organisation has different needs but, typically, within 4-6 weeks, you'll get a series of artefacts that describe the situation in a clear and concise way so that any vendor, be they external or internal, technical or non-technical has a good starting point for moving things forward.

Normally, the artefacts at the end of a Health Check include:

- **A roadmap** that details a plan to address the painpoints we've collectively identified where the legacy system is a primary concern.
- **A 'modernisation' plan** for the legacy system. Modernisation is a fancy word we use for a series of artefacts which may include technical diagrams, business workflow diagrams, solution architecture plans and requirements lists that paint a clear and practical picture of what needs to be done to meet your business objectives for the system.
- **A risk report** of the technical componentry - a prioritised list of components at high to low risk of failure to help you and your team sequence the work in a way that time and budgets allow.

Does this all sound good to you?

If you think you'd like to go ahead with a Health Check or want to find out more about the service, please get in touch with us by contacting Imran via email at i.qazi@veris.com.au