

Supercharging Your Containers Migration:

5 Questions to Ask Before You Make the Move

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Ever since Kubernetes brought its open-source container system to the Cloud Native Computing Foundation (CNCF) in 2016, organizations around the world have been jumping on the containers bandwagon. Containers, bundles of software that contain all the coding necessary to run apps anywhere, allowed companies to move their apps easily across platforms and infrastructures, bug-free. In a [2021 CNCF survey](#), a staggering 96% of organizations said they were either using or evaluating Kubernetes – and that was two years ago.

Today, many organizations aspire to move their entire operations to containers. But how to make it happen? Because some apps are harder to containerize than others, and because there is no easy way to do it all at once, the process often gets bogged down before it even starts – leading to paralysis.

Never fear. In this e-book, we'll help you move past this paralysis. By asking – and answering – only five questions, you will understand how to start the operational move to containers, and what your team needs to do to prepare.

1 What business outcomes are you hoping to solve with containers?

It's impossible to move your entire organization to containers in one fell swoop – but that's okay. Identifying what you are hoping to achieve will help you prioritize the order of migrating your apps. To do this, ask yourself: what are your business goals? And more specifically, what outcomes are you seeking to achieve? Here are a few examples:

Faster time to market

Is it important for your company to get a product to market faster? If you produce software, for example, this will likely be one of your higher priorities. How much is that worth to you and what level of resources are you willing to invest?

Lower operating costs

Everyone wants lower operating costs, and that's where containers excel, freeing you up from patching and other costly expenses for underlying software and hardware. Where do operating costs land in your list of priorities?

More standardization

In traditional operations, the development and operations teams are often at odds with each other, leading to ambiguities and redundancies. Containers break down these barriers, allowing everyone to find their ideal role—decreasing redundancies and increasing standardization.

Greater security

Security is a key concern for everyone, but especially for financial organizations and other businesses that handle sensitive personal data. If your organization stores sensitive customer data, this factor will move higher on your list.



② How much can you invest in containers migration?

Once you have identified your desired outcomes, it's time to quantify them. Create a matrix and determine how much each of the factors is worth – in real dollars. Calculating the value-add gained by each of the factors in your list will help you clearly identify and understand your org's priorities.

Now you're armed with both a list of priorities and the real value of each one. The next step is to compare this list against your budget. How much can you invest – and what is lost by **not** containerizing? Operating in containers will become easier over time, but as it represents a completely different operational skillset, there will be an initial learning curve. Some of your staff will need to be retrained, and some of your internal processes brought up to date. But with a clear matrix of the expected savings and benefits, these costs will be easier to visualize, place in context, and justify to decision-makers.



3 How ready is your team?

All change implies a transition period: both for your people and for your systems (more on this in #4). In practice, this will mean determining readiness across relevant departments, especially your security, development, and operations teams. Here are some of the questions you should be asking:

- » What skillsets do your people already possess? What will they need to learn or adjust?
- » Are you already using higher-level services? If so, which ones? What experience do you already possess that will be useful in making this transition?
- » Do you have proper definitions of new roles and team responsibilities?
- » Once the migration is complete, is your team prepared to operate a containerized system? Do you have a plan for training programs in place for them?

Your assessment will provide you with a complete panorama of what skills you possess in-house. Based on this, it will be easier to choose your pilot application. Ideally, this will be an internal, stand-alone app that your staff fully understands, that is easy to modify, and which won't affect too many other systems or departments. With one app under their belt, your team will then have the confidence to scale up to more complex apps.



4 How ready are your systems?

Staff readiness is half of the migration equation, but you will also need to evaluate your systems. The process of determining readiness for your technological infrastructure should include the following questions:

- » How automated is your organization, already? Are you equipped with configuration-management tooling? This is a process by which, if you make one adjustment, corresponding changes are automatically configured across all of your apps. If you have this in place already, it shows a level of maturity across your system that bodes well for containers.
- » How uniform and well-documented is your system? In other words, how autonomous is it? This point is important, as it speaks to the degree to which your system can run on its own. If it depends on the personal knowledge of one or several people, this would be considered a **low level** of system maturity. If your procedures are written down and documented, that could be described as a **medium level** of system maturity. And if your system is automated through the use of configuration management tools, this brings you to a **high level** of system maturity.

How Mature Is Your Tooling?

Cloud providers like AWS offer a wide range of tooling for apps, allowing you to plug and play with little need to write code. How experienced is your organization with these technologies? The maturity of your existing tooling is an indication of how ready you are to move to containers. The greater the degree of tooling you are using already, the easier the transition will be.



5 How will the migration to containers affect your organizational structure?

The final question to consider is how the move to containers will change your organizational structure. Ironically, the fact that roles will become easier for your operations personnel may be perceived as a threat, as they might not see a role for themselves in the new structure. It is important to underscore, then, that everyone is an integral part of the overall team, regardless of how their individual roles evolve.

Instead of tinkering with the old team structure, create a new one. Not only will this help people understand their places, but it will also help them feel invested in the new reality and less prone to doubts and resistance that could create obstacles to change. Retooling your org structure should take place through three key steps:

1. **Present** a draft organizational structure to your team, laying out how you see team members' new roles going forward.
2. **Invite** feedback. It is fundamental to create feedback loops throughout the containerization process so that all teams have a chance to provide input and make their voices heard.
3. **Finalize** your new chart, taking this feedback into account.

Achieving DevOps Nirvana

“DevOps” is a philosophy designed to automate and integrate processes across the development and operations teams, with a goal of increasing the ability to deliver applications and services with speed and quality. But this is easier said than done, and many organizations that say they have “DevOps” in place really don’t. Containerizing spurs DevOps into action. Simply giving new titles to people will no longer be enough without a change of roles, an obtaining of new skills and perspectives. You can’t fake it – which is a wonderful side effect of containerizing.



Choosing a Project Lead

In a fantasy world, you could wave a magic wand and your entire org would migrate to containers. But in the real world, it's a little more complicated. Choosing a person to lead the effort is essential. This "internal champion" will take ownership of the process, communicating their knowledge and enthusiasm regarding containers and ensuring the project stays on track.

When looking for your point person to champion the process, we recommend not choosing someone from the development or operations teams, the two areas that are often the most difficult to reconcile. Rather, you should look for someone elsewhere in the organization who can bring those teams together. Sometimes, that person may even need to come from the outside. And that's okay: an experienced, neutral third party can create a framework, provide reassurance and guidance, and help the team move through potential sticking areas, like proof of concept.

If you are considering an outside expert, Enquizit's long experience in cloud migration and human-centered design makes us an ideal partnership candidate. We take the time to understand your unique business challenges, and how containers can help solve them. We can also help with training your team members, empowering them to play a positive role in the change.

Containers can be a force multiplier for your organization – and we can make it easy for you. To learn more about how Enquizit has been helping organizations and government agency free up their operations via containers, visit our [app-development page here](#).

