CHEATSHEET

The Top Challenges with Rapid Adoption of Cloud Native Technology

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As more and more companies move towards implementing cloud native and open source technology solutions to enable agility and increased time-to-value, the operational impacts to the business can be significant.

Before we discuss how to ensure a successful technology implementation, let's take some time to address the most common challenges companies face.

Intense Competition and Market Pressure Drive Rapid Innovation

Every business wants to remain competitive and there is significant pressure to adopt new initiatives to achieve greater business velocity. Initiatives like "data analytics", "data science", "cloud", "IoT devices", and more are being leveraged by organizations to gain an advantage while disrupting how business has traditionally been performed.

Rather than getting the right people, process, and technology in place to ensure success, many companies jump head-first into these initiatives without understanding the potential impacts of a cloud native transition.

Rushing to the finish line can cause productivity disruptions, lost revenue, employee turnover, security deficiencies, and more.

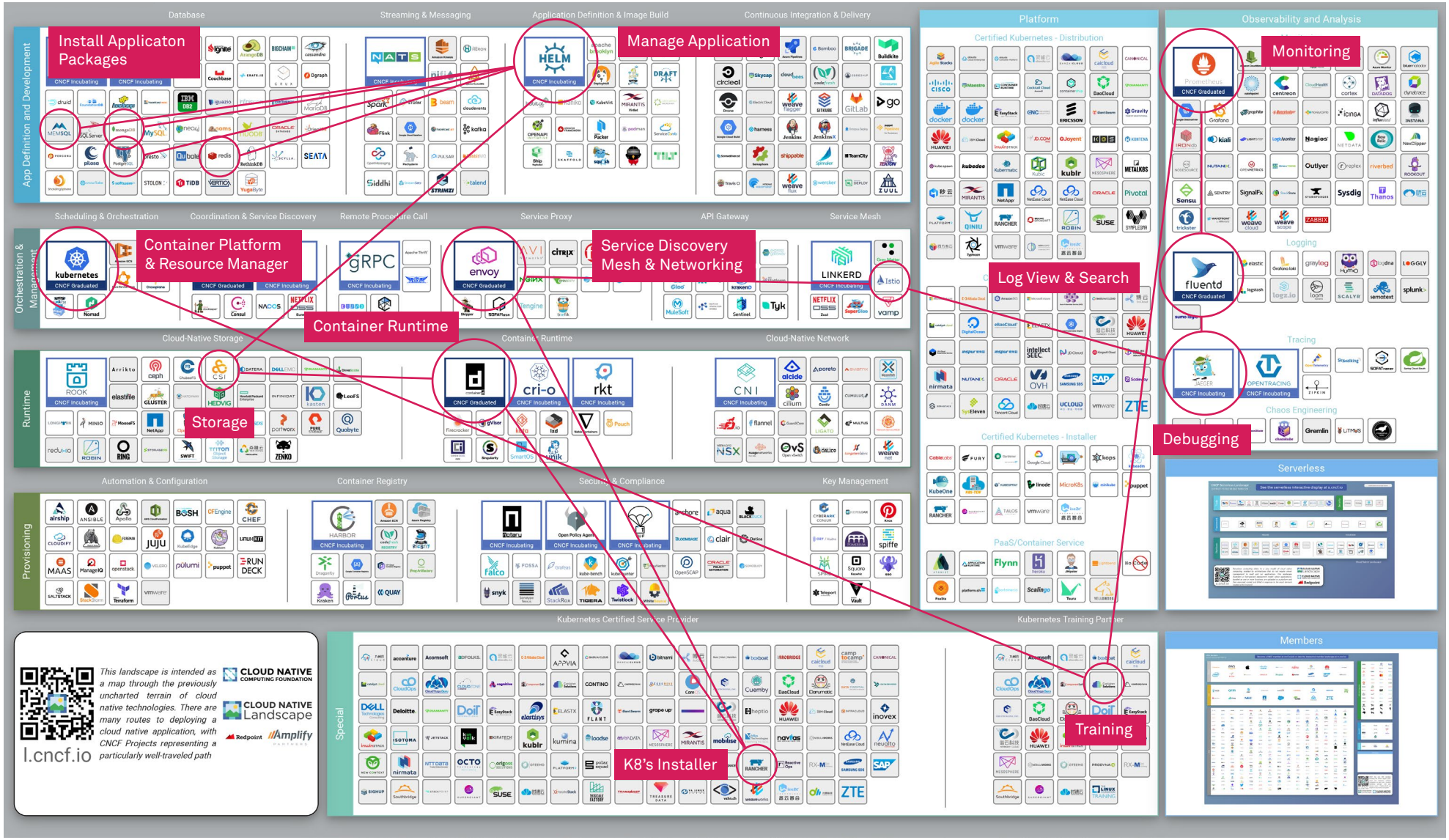
Lack of Maturity and Interoperability of Many Open Source Technologies

Understanding the cloud landscape is a critical component for kicking off any digital transformation project, but the state of each technology varies significantly. Because so many of these technologies are open source, getting a true understanding of maturity can be challenging.

Some solutions are in very early stages with low commercial adoption and support, while other solutions are later stage and much more mature. Unfortunately, most of these technologies were not built to ensure interoperability from the beginning and the efforts of jamming together multiple disparate solutions from the cloud native landscape is complex and rife with challenges—making science projects out of organizational initiatives. Modern organizations need to ensure that their solutions are enterprise-grade and ready to scale.

CNCF Cloud Landscape

Take a look at the following image from CNCF showing the cloud native landscape. As you can see, there are so many options to choose from...



“Implementation is just the beginning, what really enables your business to be successful with any digital transformation initiative is tackling ongoing Day 2 operations.”

No Clear Best Practices or Architectural Standards

Because many of these new technologies lack maturity, as stated in the previous section, the right information and proper documentation is scattered and difficult to distill. How can you truly trust if an application is safe to include in your implementation if you have no idea whether or not the documentation is correct and up-to-date? And if you do implement that application, how do you know it complies with your business’ standards?

Because many of these open source technologies do not have well-defined best practices or architectural standards, implementing these solutions can be a huge business risk.

Limited Choices for Leveraging External Domain Expertise and Support

In order to ensure that your Day 2 operations go smoothly, you need the right expertise to provide guidance and support. Unfortunately, because so many of these technologies are new, there is a very limited pool of talent—both internally and externally—you can pull from.

You need the right technical support and services to operate and scale effectively, and with limited options available, the complexities of long term success can be a huge barrier.

The Complexity of Managing Ongoing Operations and Overhead on Day 2

Implementation is just the beginning, what really enables your business to be successful with any digital transformation initiative is tackling ongoing Day 2 operations. This means ensuring that all of your technologies work well together, your team knows how to leverage the technologies, and you have an operational readiness plan for continued development and ongoing improvement. So many businesses focus their attention on what happens before production and as a result, success is not always achieved.

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