

CIO VS CTO: WHAT'S THE DIFFERENCE?



As technology has become imperative to businesses large and small, two executive-level roles have become standard: chief information officer and chief technology officer.

But the distinction between the two can be confusing, as “information” and “technology” typically go hand-in-hand. So, what is the difference between these two roles? How does one focus on technology while the other focuses on information?

A simple distinction is that the CIO typically looks inward, aiming to improve processes within the company, while the CTO looks outward, using technology to improve or innovate products that serve the customers.

Let's take a look at the difference between CIO and CTO roles as well as whether your company should employ one or both.

WHAT IS A CIO?

Short for chief information officer, the overall role of the CIO is ensuring business processes run efficiently, with a goal of promoting the productivity of individual employees and business units as a whole. The CIO is responsible for managing and ensuring [ongoing operations, mission critical systems, and overall security](#), from help desks and enterprise systems to service delivery and program management. The explicit impact of a CIO can be determined with a variety of metrics, though improving the company's bottom line is a must.

The CIO can be seen as the ultimate cheerleader for all in-house technology and digital processes. IT traditionally has a nebulous reputation with other business units – so it is the role of the CIO to improve the image and reputation of IT services within the company.

But the CIO isn't only tech-focused: a good CIO integrates the entire IT department with other business units, so knowledge of the common as a whole is imperative. For example, if a business unit seeks technology to digitize, improve, or even automate processes, the CIO is responsible for managing these processes, even if a specific IT team performs the actual implementation.

Responsibilities of a CIO

Some [responsibilities of a CIO](#) include, but are certainly not limited to:

- Managing all technology infrastructure
- Overseeing IT operations and departments
- Aligning and deploying technology to streamline business processes
- Increasing the company's bottom line
- Focusing on the requirements of internal employees and internal business units
- Collaborating with ISPs and vendors to drive productivity

For a CIO to be successful in the role, general knowledge of a wide variety of technology is essential, though a CIO can't be expected to have expert knowledge of every system. Management and communication skills are also essential: a CIO can oversee dozens of IT employees and a variety of IT teams, but the CIO must also be able to communicate needs and strategies with other executives and department managers.

What is a CTO?

The chief technology officer focuses on creating and using technology in order to help the business grow – typically improving offerings that the company's customers purchase with the help of new technologies.

The CTO focuses on external customers: those who are buying your company's products, even if the product itself isn't digital or technology-based. As customers become savvier and more knowledgeable about the products they use, the CTO must stay innovative and on the cutting edge of technology to ensure the company is offering the best products.

To that end, the CTO is often responsible for the engineer and developer teams who focus on research and development to improve and innovate company offerings.

Responsibilities of a CTO

A CTO may be responsible for the following:

- Owning the company's tech offerings and external products
- Using and reviewing technology to enhance the company's external products
- Managing the engineering and developer teams
- Understand and touch all technologies the company deploys
- Increasing the company's top line
- Aligning product architecture with business priorities

- Collaborating with vendors on supply solutions

Though a CTO is tech-focused, staying abreast of tech developments and relying on a background in computing or software engineering, a successful CTO must also embrace right-brain skills like creativity. Innovation might start with a simple question of “How can I use this technology differently from everyone else?” Collaboration is also an essential skill, as a CTO will need to partner with in-house engineers and external vendors to achieve something that hasn’t been done before.

CIO and CTO: Do you need both?

Though CIOs and CTOs may be confused by less tech-minded people, both roles are vital to your company's success. It can be tempting to think of one role as superior or more of a priority – especially for smaller companies lacking the funding for both. As chief-level positions, one is generally not more senior or junior than the other. In fact, successful companies are often marked by strong presence from both the CIO and the CTO. Do what you can to make both positions a reality as soon as possible.

If you're looking to hire or create the position of a CTO or CIO, [consider these guiding questions](#) to determine which role you're actually in need of:

- Are you aiming to improve or digitize a business process or a product?
- Are you catering to your organization or to external customers?

Importantly, from the individual's perspective, these are independent career paths: you don't train for years towards a CIO role and switch to a CTO position on a whim. CIOs may come more from the IT operations side of the business, where CTOs may have more software engineering experience.

Companies need one person to support and promote productive employees and business processes just as much they require an innovator and creative solver who can leverage technology to improve business offerings.