
SUIT Practitioners' Opinion on *Role of a CTO*

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ABSTRACT

These days there are a lot of discussions on the role of the Chief Technology Officer (CTO), especially as large and small organizations are planning to leverage Information Technology in a strategic manner. As technology is changing at a very rapid pace, enterprises now have a unique ability to leverage them for providing innovative solution to leapfrog their competition. As the role of the CTO is relatively new, there are various roles CTOs play in an organization resulting in many senior executives expressing confusion about what is and should be the exact role of the CTO.

ROLE OF THE CTO

The objective of this paper to briefly describe my views on the role of the Chief Technology Officer and is roughly based on the white paper *Role of the CTO: Four Models for Success by Tom Berray (Primary Author) and Raj Sampath (Secondary Author)*. Unlike their white paper in 2002 where they categories the CTO's into four categories, my opinion is that in this current age CTOs need to have all these attributes.

THOUGHT LEADER

The CTO spends time at looking at new technologies and ways of exploiting them to create new products and services

- Develop the strategic technology plan for the organization by identifying, tracking, and experimenting with new and potentially disruptive technologies.
- Enable new business models and business lines to Increase Revenues. Achieve this by identifying potential business opportunities by leveraging technology in a strategic manner. Rapidly developing prototypes and frameworks to demonstrate and validate it with their key customers.
- Pre-empt a competitor's attempt use of technology to disrupt or dislodge the CTO's company's position.

TECHNOLOGY VISIONARY AND OPERATIONS MANAGER

The CTO is responsible for determining how technology can be used to implement the business strategy. This means that the CTO is responsible for introducing and implementing the technology for the enterprise.

- For a Services Company the CTO would be responsible for developing the plan of creating new services products and frameworks and work with the various delivery organizations to take this to market. The CTO could potentially be responsible for the P&L for the newly introduced products and services until it meets a critical mass, at which point the P&L responsibilities would be transferred to the regional or other specialized delivery organizations. In cases where the services company develops and provide technology products, the CTO would be responsible for the P&L for the products. The product could either be delivered as a typical software solution or Software as a Service
- For a Product Company the CTO would be responsible for the technology strategy and also an evangelist for the company. In addition, the CTO's office may develop a prototype to validate a new technology or product before handing it over to the Product Engineering organization. The

CTOs office shall also be responsible for participating in the standards organizations and some industry forums/organizations. It is very unlikely that the CTO would be responsible for P&L for any products. Very rarely, the CIO reports to the CTO of a technology company.

- For an IT Organization, the CTO is responsible for the IT Strategy and Architecture which includes responsibilities such as Business Architecture, Technology Architecture, Business Solution Lifecycle and Application/Technology procurement. In most cases the CTO reports to the CIO and recently there is a trend in some companies where the CTO also acts as the CIO (but with a CTO title). For large enterprise, the CTO's office also participates in various standards bodies and industry forums/organizations.

INFRASTRUCTURE MANAGER

Due to the rapid technological changes in the industry enterprises many companies are starting to allocate some of the IT responsibilities (such as Architecture and Strategy) of the traditional CIO to the CTO. The CIO is still responsible for the "staff" role at IT and depending on the type of the organization, the one would report to the other.

- Responsible for the IT Strategy and Architecture.
- Business Architecture – developing the Business-Driven planning framework based on the value discipline of the company.
- Standards and frameworks such as Architecture, Outsourcing, BPO, Technology introduction and business solutions.
- Organization and Governance.
- Provide leadership for Program Management as well as strategic projects.

TEAM MANAGMENT

Enable the company to recruit and retain very highly skilled and talented resources

- Ability to manage large teams
- Partner with the Human Resources organizations to establish mentoring program for highly skilled technology team
- Establish a virtual team that includes key technology resources from various other delivery organizations to share best practices, key learning's, use cases and patterns.
- Participate or fund research projects with academic institutions.
- Enable innovation by sponsoring / becoming the "Idea Mentor" for the company

CTO PRIORITIES BASED ON VALUE DISCIPLINE OF THE ENTERPRISE

To get the true perspective it is important to compare the CTO's priorities for companies with different value discipline.

Activities / Tasks	Services Company	SaaS CTO	Product Engineering	Traditional IT
Identify new technology	Medium	High	High	Low
Exploit new technology	High	High	Medium	Low
Integrate new technology	High	Medium	Medium	Low
Drive the business strategy	High	High	High	Low
Drive Revenues	High	Medium	Medium	Low
Reduce Cost	Low	Medium	Low	High
Enhance Client Relationship	High	Medium	Medium	Low
Enhance (internal) communications and collaboration	High	Medium	Low	High
Build out or leverage existing IT infrastructure	Medium	Low	Low	High
Recruit and retain talented resources	High	Medium	Low	High
Identify and create new products and services	High	High	Medium	Low
Participate in standards body	Low	Medium	High	Low
Participate in industry forums	High	Medium	Low	High

CONCLUSION

The Chief Technology Officer plays multiple roles in an organization and based on the market realities and priorities of the organizations the CTO would focus on one or more aspects of the above mentioned responsibilities.

REFERENCES

The Role of the CTO: Four Models for Success by Tom Berray and Raj Sampath available at http://www.brixtonspa.com/Career/The_Role_of_the_CTO_4Models.pdf