

# Featuring CIO: Roles, Skills and Soft Skills

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## ABSTRACT

*This paper describes how the CIO (Chief Information Officer) position appears as a key role in the organizations and the requirements for candidates. The authors compare the requirements presented in different studies to know what are the most important skills for a successful performance as a CIO. They stress the importance of non technical skills as key factors for professional performance. The authors have compared soft skills for CIO or equivalent positions and other professional profiles like programmers or analysts using data taken from thousands of job ads. An overview of the most valuable skills (especially soft skills) for CIOs is presented.*

*Keywords: Chief Information Officer (CIO), Chief Information Officer Roles, Professional Profiles, Requirements, Soft Skills*

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## INTRODUCTION

The study of human factors in computing tend to be concentrated on the typical analysis of human-computer interaction, usability, analysis of users' behavior, etc. Professionals are not normally attracting the focus of study although they have a primary role in many of the most influencing areas of the different fields of computing and information technology (IT). Fields like software engineering, where the participation of computing professionals as developers determines the main part of the effort and cost, tend to concentrate much more attention on technical topics than human factors. But, at least, there is a recognition of the influence

of professionals' behavior and performance in technical and final results (although still requiring more and deeper analysis): many other areas of computing simply ignore the human side represented by IT professionals, especially in what it is related to qualification, attitude and skills.

Interestingly some studies also reveal that computing professionals frequently lack awareness of the need to develop their own skills as they relate to the business world, such as key aspects of organizational life and the ability to attract managers' support, which can only be acquired by speaking and understanding business language and jargon (Fernandez-Sanz, 2009). In the case of CIO, it is clear that their key role in the IT function and in the business development has attracted more attention to the definition of the roles they play within the IT

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department and the organization, leading to the analysis of corresponding skills (both technical and non-technical) required to reach the goals associated to the position. In the next section, we introduce the definition of the position of CIO as a preliminary step before analyzing roles and skills.

## INTRODUCING THE POSITION OF CIO

The CIO position began to be mentioned in literature in 1980 (Synnott & Gruber, 1981) as a response to the dissatisfaction of CEOs with the results and the productivity of information technology (IT) in the organization as well as to their intention of using information as an strategic asset (Penrod, Dolence, & Douglas, 1990). Since then, organizations have lived significant transformations in the role and context of IT (Smaltz, Sambamurthy, & Agarwal, 2006) so, nowadays, CIOs are playing a more active role in the development and management of the global strategy of the business. Leading organizations are seeing CIOs of today as business strategists, infrastructure developers, organizational architects and company leaders. Future competitiveness of companies depends on the fact that IT top managers have to work in the following lines of actions:

- Sharing their knowledge to improve teamwork;
- Supporting their own business units and/or other companies which require their services;
- Working more systematically to align IT objectives with business strategy;
- Improving management of customers' needs considering the concept of demand life cycle.

Chief Information Officers (CIOs) are organizational leaders that need to carefully consider the future of their business and how to leverage technology to gain competitive advantage and add value to the organization.

Ideally, the CIO reports directly to the Chief Executive Officer (CEO) and has a seat at the table to share in the business strategy and direction of the company. The CIO needs to be familiar with current technology and how it can be applied within the business. However, it is not a requirement that the CIO be a technical guru since the CIO spends the majority of the day speaking to other executives and managers and defining and planning IT strategies to support the organization goals.

For these reasons, the CIO must communicate effectively, build relationships, have a high sense of integrity and ethics, and have the ability to both motivate and influence others. Lastly, the CIO must understand the business and align technology and process choices with the corporate mission and vision. The CIO needs to effectively communicate business strategy, implement IT plans, excel at leadership, and accurately monitor implementation and regular operational progress. And lastly, the CIO has become the agent of implementing technological innovation in an organization.

On the other hand, the most valuable skills clearly depend on the position. Thus for chief information officers or equivalent positions, the required personal skills differ from those for a programmer.

In the following sections, we are going to study which should be the requirements for a successful CIO as well as to check how different studies have confirmed the needs of such requirements. In addition we are going to study a comparison between the personal skills required by a CIO or equivalent position and a programmer.

## ROLES FOR CIO

As stated in job ads, minimum required experience for CIO is in the range of 5-10 years complemented with a set of additional requirements like the following ones:

- Capacity for management and leadership in IT;

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