

UMUC Business and Executive Programs Podcasts

**Executive MBA Education in the Global World**

**Interviewer:** Pat Spencer, Manager of the Executive MBA Online Team Coaching Program

**Interviewee:** Dr. Steve Knode, Program Director CIO Program

**Podcast Title:** Why a CIO Certificate?

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**Spencer:** Welcome to Executive CIO Education in the Global World, a weekly podcast that features highlights of the Executive Chief Information Officer program and discussion of how the program prepares executives for Technology Leadership in today's global business environment. I'm Pat Spencer, manager of the Executive MBA online team coaching program, your host for the day.

Our guest today is Dr. Steve Knode, Program Director, Chief Information Officer Program.

The topic for today's show is Why a CIO Certificate. We will be discussing how this certificate program helps prospective Chief Information Officers learn how to leverage technology strategically to create competitive advantage for their organizations.

Dr. Knode, what is a Chief Information Officer, and what does he or she do in an organization?

**Knode:** Well, that's a good question, Pat. We go back about 10 to 15 years ago and you find that hardly anybody had ever heard of a Chief Information Officer, and then as information technology became more and more important and more and more expensive in organizations, they created this position called the CIO, Chief Information Officer. Now, previously the CIO was mostly a technical position. This was in the days when servers were crashing all the time, PCs were new, email was a relatively new thing, and the organization needed somebody just to keep this technology working on a day-to-day basis. These people, the CIOs and their staff, would install software updates; they'd provide basic instruction in using programs, because the technology was so fragile and so new that you needed somebody who knew the technical side. And so the CIO was really more of a technician than a decision-maker, and these technical skills were very important.

Now, if we move the clock ahead to today's environment, we find, first of all, the technology is much more stable. We don't have the server crashing problem, we have PCs on everybody's desk, we have notebook computers, we have ubiquity of technology and we have people who have had, oh, anywhere from 5 to 15 years of experience in using it, so we really don't have the same kind of a need for a technician that we did 10 or 15 years ago. So now the CIO position has really migrated into a wholly different kind of job. The Chief Information Officer now is more of a key decision-maker in the organization on how to leverage technology for a strategic advantage. In other words, how do I take the technology that we now have that's fairly stable and fairly known and how do I leverage that? So the CIO really has to be much more knowledgeable about the business organization, how it works, and how technology can be used to improve operations. Further, the CIO is kind of the main person in the organization that they count on to not only keep track of what's going on now, what we call the as-is environment, but also thinking seriously about the to-be environment -- what's right around the corner, what's coming next? -- because, as you know, technology is evolving so quickly now that the CIO is really the person they count on to keep up with what's coming. So now we have a person who ideally would be part decision-maker, still part technology guru because they've still got to understand the technology, but they also have to be an innovator, a strategist, and a leader. And in many cases the CIO has now migrated up the chain in terms of level. Instead of reporting

to one of the other senior officers, the CIO often is taking a place right at the senior table of decision-makers.

**Spencer:** Can you tell us the origin of the CIO certificate and what it is designed to accomplish? And why is it important?

**Knode:** Yes. It goes back to 1996 when we passed something called the Clinger-Cohen Act, which--its real title is really the Information Technology Management Reform Act of 1996. At about that time, the federal government realized that the investment that organizations and agencies were making in information technology was becoming huge and it was being done, I'd say, more or less haphazardly. In other words, there was no interoperability, no standardization of practices, no commonality, no sharing of best practices, none of these things. So the Clinger-Cohen Act of 1996 provided that the government information technology shop should be operated exactly as an efficient and profitable business would be operated. In other words, things like acquisition planning, management of technology, would be treated as capital investment. Now, this was a complicated law and still somewhat misunderstood in some cases, but that basically led to the creation of the Federal CIO--Chief Information Officer Council, and the Council tried to add some specificity to what was really meant by the Clinger-Cohen Act, and so they developed 12 major areas for concentration in terms of competency -- policy, leadership, change management, information resources management, performance measurement, program and project management, capital planning, acquisition, e-government, information security, enterprise architecture, and technology management -- and I wanted to recite that list to give you a feel for how comprehensive this is. You can see that in those 12 major areas, we're covering a wide, wide range of information that the CIO is supposed to be knowledgeable about. So that was the set of broad competencies created by the Federal CIO Council, and that is reviewed every two years by the Council and updated. Some areas get more emphasis, some areas get less, some areas are added. For example, Web 2.0 has been added in the last few years because a lot of these newer Web 2.0 strategies like wikis, blogs, et cetera, didn't really exist when the act was created.

Now, having created the areas and the competencies, we sort of had to figure out how we were going to administer this, and so the Chief Information Officer University was created. It's not a brick and mortar university; it's really a coordinating agency over in the General Service Administration. The Chief Information Officer University then took the initiative to go out and find schools that were willing to tailor programs to produce CIOs via a certificate program that would have these requisite competencies, and UMUC is one of the six universities currently approved to award the CIO certificate. So we've come a long way in just a relatively short period of time, in the 13-year or so period since 1996, getting to where we are today, where we now have this certificate program that's recognized certainly in the federal government and even in the civilian industries as meaning that the people who have the certificate have achieved a certain level of competence on all of these 12 areas.

**Spencer:** What makes the CIO certificate program at UMUC unique?

**Knode:** Well, Pat, I think we have several unique things. As I mentioned earlier, we're one of only six universities in the United States that has been approved to award the CIO certificate, and further, we have a few things that make us even more unique than the others. First, we are the only one of the six that has our entire CIO certificate program online. In other words, our entire program is done via online. And what this does for us, of course, is allows us to broaden the appeal. We can get enrollees from not just the local area of the University but also across the country and, in fact, globally, and we have had some outside the area. Since we're a new

program, only a couple years old, we're still evolving into this, but we do have an entirely online program. A second unique feature, in my opinion, is that we are using a lot of advanced technologies to actually deliver our program, things like online synchronous meetings, collaborative technologies, web conferencing, audio and video feedback, et cetera. What this allows us to do is not only maintain our leadership in terms of our delivery approach, but it gives the students some experience in using technologies that they can then go back and use in their organizations to show how technology is being leveraged, so I think that's a key feature. A third key interesting unique feature that we have is, in our program -- and again, this is alone of the six -- we have a leadership assessment and development module included in the program. What this allows us to do is, first, a complete assessment of the students who are enrolled in our program, and then we provide coaching throughout our program to help them improve their leadership and team skills. We find that many people going into the CIO program are coming from a technical background and may not have had much of an opportunity to get in some of the softer skills and some of the leadership aspects, and that's going to be very important, given the change in what the CIO has to do. And finally, I would mention a unique feature, and that is, once you have completed the CIO certificate program, which takes about one year, you can then take an additional 12 credit hours and get a master's degree in either information technology or technology management. Now, having completed that, you could then take an additional three courses and get an MBA, a master of business administration, as part of UMUC's dual degree program. So we have kind of a unique stepping-stone approach which lets you have a certificate after one year, a master's degree after about another year, and then an additional master of business administration degree shortly thereafter. So if a person went through that entire program, not only would they have all of the CIO competencies covered, but they would have a lot more business skills and business acumen to bring to the table. So I think it makes our program unique.

**Spencer:** And finally, Dr. Knode, what are the main challenges facing a Chief Information Officer today?

**Knode:** This is one of the more interesting areas. In other words, people always ask me, what's coming up for the CIO? What are the main challenges facing the CIO? Well, we still have some of those technical challenges remaining. We still do have a lot of money being spent on information technology infrastructure, on providing additional bandwidth, on upgrading and things like that. But I would say that the bigger challenges are in a couple of areas. First, the pace of technology change has definitely accelerated, so it's not like you have years and sometimes not even months or weeks to deal with a new change, whether it's a software development, whether it's a change in a business model, whether it's some kind of a competitor, whether it's something new that you want to provide to your client. The pace of technological progress is just so rapid now that the CIO has to spend more and more of his or her time trying to understand what's coming and how fast and when is it reaching a tipping point, and when am I going to be able to successfully incorporate this or should I incorporate this into my agency. So that's a big challenge. So we have the technical challenge, which is continuing. We have this rapid change in the acceleration pace of technology. And then a third major area that's not thought of too much is what I call the changing of the culture. Most of the people running organizations today are in their 50s and 60s and did not grow up with any of this technology available to them, so that means they've not grown accustomed to how technology cannot be just a sort of satisficing thing but can actually be leveraged for global improvement in the global productivity arena, and so changing the culture and getting people to think much more on innovation, getting people to think much more about how we can change the way we do business. And in a lot of cases, that means doing more with technology and reducing the number of human people involved in the sense it's providing these services, and I think that's a big one. I think more organizations now are looking towards the Chief Information Officer to be the leader in this area. In other words,

the CIO is the one who looks ahead, says here's what's coming, and here's what the so-what aspect of that is. It's not enough just to know what's coming; it's equally important to deal with the so-what. How will this change the way we do business? How will this affect us pro and con? What will be the cost? How should we start? Where should we begin? How soon will it happen? How far into the organization should it reach, et cetera? How will we provide training, education, the new skill sets? So changing the culture to deal with information technology, I think, is probably the biggest challenge of those three.

**Spencer:** This is Pat Spencer, and I'd like to thank Dr. Steve Knode for helping us understand the Chief Information Officer Certificate Program and its importance. Thank you, listeners, for joining Executive Education in the Global World.

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