The next generation enterprise (NGE) – a virtual organization enabled by the evolving pervasive and mobile information technologies (PMITs) – will bring about a profound change in the way business is conducted and organizations are managed as social systems. Organization structures and boundaries will become more fluid, businesses will operate on a 24X7 basis, cycle times for product development and delivery will shrink further, companies may have more temporary than permanent employees, and distinctions between private and public life may blur further as people may be expected to be “on call” 24 hours a day. For example, PMITs (e.g., the web browser and the Internet) are already creating whole new “virtual environments” that provide a novel way for organizations to sell their goods and services to anyone anywhere anytime, completely breaking down the traditional barriers of space and time in this process.

The CIO panel will address some of the key issues and challenges in the behavioral, organizational, social, economic, and technological domains associated with the emergence of the NGE in the not so distant future. Some of the specific topics (among others) that the panel may address include:

- successful infusion and assimilation of PMITs and “virtual” designs within organizations
- information systems (IS) staffing; procuring and retaining the information technology (IT) “experts” in an increasingly “freelancing” world
- training a mobile and distributed workforce in the design and use of PMITs that are introduced at an ever-increasing rate
- IS outsourcing vis-à-vis knowledge transfer and capability building
- the virtual organizational form enabled by “loose” and “flexible” outsourcing alliances
- the new competitive landscape; competition or coop-etition in the new world of NGEs
- PMIT-enabled dynamic and flexible organizational supply networks
- 24X7 customer service and customer relationship management
- the “quality of work life;” erosion of the boundaries between personal and work lives of a PMIT-enabled workforce
- virtual communities of a mobile and virtual workforce
- the role of PMITs in enabling a real-time cross-functional process organization
scaling up the IT infrastructure to meet increased access and real-time response needs

The CIO panel comprises of leaders and visionaries who have guided their organizations in integrating IT within overall organizational designs to create new business models and to deliver better business value. They continue to do so as PMITs evolve and become viable tools for creating new “virtual realities.” The panel includes:

1. John J. Chiazza, Chief Information Officer and Vice President, Eastman Kodak Company
2. Kevin J. Comerford, Commissioner, Erie County Central Police Services
3. Molly M. Fine, Chief Information Officer, Delaware North Companies
4. Mark Jauquet, Chief Scientist and Co-founder, OpenSite Technologies
5. Francis J. Meyer, Jr., Chief Information Officer, Kaleida Health
6. Brian W. Murphy, Divisional IS&S Operations Manager, Delphi Harrison Thermal Systems
7. William R. Pape, Co-founder and first Chief Information Officer, Verifone
8. Michael Pinto, Chief Financial Officer and acting Chief Information Officer, M&T Bank
9. Cian Robinson, Chief Information Officer, Buffalo Niagara Partnership

REAL PROCESSES IN A VIRTUAL ENVIRONMENT

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"Virtual Enterprise", "Virtual Supply Chain" and "Virtual Business Process" are concepts broadly discussed. However, different approaches have led to different and sometimes conflicting definitions. We think it is necessary to clarify what we mean by "virtual" and where the term is usefully applicable.

Our position is: In the context of business (which we only talk about) "virtual" is something for which a non-virtual (or "real") counterpart exists and which provides non-virtual (= "real") benefits similar to its non-virtual (= "real") counterpart.

Example: A "Virtual Enterprise" is the counterpart of a real enterprise with the property that a) it behaves (to a large extent) —with respect to its customers—like a real enterprise, b) it is not a real enterprise in a legal sense but instead requires special legal constructs for the business entity/set of legal entities that are behaving together as a "Virtual Enterprise". Clearly, also a "Virtual Business" exists. As an example we can e.g. look at the possibilities offered to school classes to virtually sell and buy shares at the stock-exchange with a virtual budget, where the real quotation is used but only virtual transactions are performed: This is not a business but a game. So it depends on the context what is the "real" part.

Taking that working definition and the business context for virtual entities: What then are a "Virtual Supply Chain" and a "Virtual Business Process"? Can we use these in the same way as described for the "Virtual Enterprise"?

Let us first look at a supply chain: A real supply chain is a set of (often sequential) logistics (and sometimes manufacturing) activities to deliver something. What then is a "virtual" supply chain? As we understand the term is used in analogy to "Virtual Enterprise" in the meaning/semantics that the supply chain is executed by the partners in the "Virtual Enterprise".
However, we do not agree with this position: We do not see any "virtual" in the supply chain itself, because it really is delivering what it is going to deliver (if not also the delivery is virtual, which would shift it from a business to a game context) and these activities/steps enacted to deliver are real.

Let us now have a look at "Virtual Business Processes". Recently this term has been introduced by Alonso et al.[1]. They define: "... a virtual business process is a process whose definition and enactment cannot be directly tied to a single organisational entity (be it a department or a company)." Looking at the definition of the Workflow Management Coalition [2] we find: "A business process ... may be wholly contained within a single organization unit or may span several different organizations, such as in a customer-supplier relationship."

As a summary we can state that each "virtual business process" in the definition of Alonzo et al. is a (real) business process in the definition of the WfMC. We think that Alonzos definition (in this context) is misleading, under this argumentation and under the same argumentation as for "virtual" supply chains above. However, we have defined a "Virtual Embedded Process" [3] to model "external" not-real process parts in a Virtual Enterprise E-commerce process, which does not conflict with this argumentation.

