

## Stepwise to Utility Computing – A Pragmatist's Approach

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### The Goal Is the Utility

If you believe in delivering information technology as a shared service – in a dynamic, measured, business-aligned, and cost-effective manner – then you believe in *utility computing*. You may call it one of a dozen other monikers or look at it from a particular angle or with a special twist, but you fundamentally think that the isolated boxes and rigid silos of computing should give way to something more cohesive, fluid, and efficient. In fact, the IT industry broadly agrees on this point. Utility computing is the next evolutionary phase – a higher optimization point of computing cost, benefit, and positive impact on the business. **So, if you agree utility computing is a good thing, or are at least reasonably convinced, then the next question is how to implement it.** *I like the idea, but how do I get there?*

Therein lies the challenge because utility computing is a work-in-progress. It is a strategic vision for computing that will unfold over a period of years. While we can describe utility characteristics and architecture with broad brushstrokes today, we do not yet know its final form and associated options. It is a moving target. From an enterprise perspective, the implementation journey is like that of the early American pioneers who traveled by horse and wagon to settle in the West. They did not exactly know their final destination or what life would be like at the other end. However, they held to a hope and expectation of a better future. Utility computing is bit tamer than the Wild West, but it holds out a similar sense of both anticipation and ambiguity.

That said, there are IT products and solutions available with utility characteristics that are worth considering today. Moreover, the gap between vision and reality will steadily and incrementally close as vendors innovate and refine technologies for delivering on the utility promise. **The heart of the utility implementation challenge is this: When the end goal is known only in general terms, and in an environment of continuous change and diverse options, what do you do?** Do you freeze like a deer in the headlights and wait for things to settle out? Do you try to construct a plan and begin executing on it now?

### A Stepwise Approach

Take a stepwise approach to utility computing. This avoids the extremes of (1) doing nothing or (2) attempting to develop and implement a *grand plan*. The do-nothing option is shortsighted because it will eventually cost your enterprise in terms of IT efficiency, service levels, and business advantages that smart competitors will have. (There is no standing still in the game of information technology – you are either moving forward or falling back.) The other problematic approach is creating a detailed grand plan, where the end goal is clearly described, steps to attain it are mapped with estimated completion times, and responsibilities are assigned.

This sounds thorough and professional and even implies that one could identify the critical path and say when and how the enterprise would achieve the utility goal. However, it does not square with the ambiguous nature of the unfolding utility vision. It presumes a level of detailed understanding that does not yet exist. While many individuals and organizations think of planning primarily in grand-plan terms, this is not appropriate for projects like utility computing because of their inherent uncertainty.

**A realistic, stepwise approach would be to:**

- **Keep the end goal in mind** – A utility will have virtualization, automation, centralized management, adaptability, and the ability to provision IT resources as measured, tiered services.<sup>1</sup> You know generally that it will exhibit these characteristics, so keep them in mind as you build upon and refine your enterprise's IT infrastructure.<sup>2</sup> It should look and act more like a utility over time. It would also be helpful to develop a plan or guideline for moving toward a utility, though it will undoubtedly change and lack the specificity of a grand plan.
- **Take incremental, opportunistic steps** – Start with an assessment of your IT infrastructure. *Where is the infrastructure in the evolution toward utility computing? What are the areas of greatest need?* Then, choose a “bite-size” project that addresses obvious needs and infuses utility characteristics. Go for a return on investment (ROI) in the near- to mid-term. A big solution with a big impact may worth doing, but a smaller project and corresponding impact is more manageable and provides encouragement and proof

<sup>1</sup> For details, see *Shining the Light on Utility Computing – A Business Perspective* in **The Clipper Group Explorer** dated October 31, 2003, available at <http://www.clipper.com/research/TCG2003057.pdf>.

<sup>2</sup> An enterprise can operate an internal utility for its own purposes, and an independent service provider can operate a utility for delivering services to multiple customers. This report is aimed at whoever intends to deploy and operate a utility, whether an enterprise or a service provider. The question of outsourcing vs. insourcing is a separate issue not addressed here.

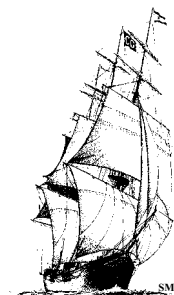
that the path is worth going down. Sometimes smaller, faster wins are better for building morale and getting and keeping stakeholders on board.

- **Learn as you go and iterate** – Continue to implement projects incrementally while actively learning and adjusting the course as you go. Study the successes and failures of internal projects for lessons learned and stay on top of technology developments and trends in the industry. When forging new ground, experimentation and learning are an indispensable part of the process. Embrace the uncertainty and keep moving forward. The idea is to stay nimble and build momentum through a series of successful projects.

## Conclusion

If you are waiting for the perfect strategy to implement utility computing, that day may never arrive, and you will miss a hundred opportunities for incremental success. **Take a stepwise approach, and you will wake up one day to find your enterprise's IT infrastructure is indeed a utility!** It will just happen slowly over time.

**The utility vision promises real business rewards, even if the journey toward it is uncharted territory. The key is to choose action over inaction, small steps over big ones, learning over planning, and go for smaller, nearer-term payoffs.** Good technology and solutions are available today. This is an entrepreneurial process – one that may be a challenge for organizations that are used to operating with more control and structure. **But don't be afraid to start – just take one step at a time!**



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