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Chapter XXII

The Future of Digital Government

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ABSTRACT

This chapter explores the challenges that we will collectively face as we make choices about the use and implementation of enabling technology for e-government. "The construction of informed government policy that protects citizens' freedoms while accomplishing the critical work of a professional civil service within a democratic government," will be the central theme of public administration in the next decade. This chapter focuses on the target date 2012.

> "Advanced applications of information technology in government are well-integrated combinations of policy goals, organizational processes, information content, and technology tools that work together to achieve public goals." (Dawes, Bloniarz, Kelly and Fletcher, 1999)

DIGITAL GOVERNMENT — WHERE ARE WE?

In February 2002, the White House released the President's E-Government Strategy (U.S. Government, 2002). The document noted that in 2002, the United States' government spending on information technology was 48 billion dollars. This spending would increase by more than eight percent to 52 billion dollars in 2003. There can be no dispute

that the United States Government is taking digital government seriously. If this spending trend by government were to continue, the expenditures in 2012 would be approximately 106 billion dollars!

However, in terms of prioritizing digital government, the United States Government is not unique. Around the world, significant resources are being devoted to digital government, aiming toward similar goals. These goals have been articulated in the "White House E-Government Strategy" document. Primary goals are to:

- Make it easy for citizens to obtain service and interact with the federal government;
- Improve government efficiency and effectiveness; and
- Improve government's response to citizens.

To implement these goals, managers must take into account six critical factors that form the backbone of e-government strategic planning.

Factor One: Moore's Law

Moore (1965) speculated that the speed of microprocessors would continue to double every two years, while the price remained the same. Nearly four decades later the trend continues, perhaps because Moore's law is in part self-fulfilling in that it tends to set expectation within the microprocessor industry and among consumers.

Significance: The lowering cost of computational power and memory is a significant factor shaping the future because it leads to the pervasiveness of computing devices. Further, the increasing capacity of desktop computing will increase the processing capability of professional groups and organizations toward whom e-government is directed. However, the combination of these two factors will not have an impact on the digital divide if government e-service providers do not ensure that their citizen-focused information and service sites are consistently accessible to citizens using very basic (often older) equipment with minimal bandwidth.

Factor Two: Metcalf's Law and Kelly's Extension

Metcalf's Law states that the usefulness of a network increases exponentially with the number of users. At the time Metcalf made his observation he was considering proprietary organizational and inter-organizational networks. Kelly's (1999) extension extends Metcalf's Law by holding that the value of the Internet increases to the power of the number of users.

Significance: Metcalf and Kelly emphasized the impact of changes that come with an increase in the number of participants on a network, particularly the impact on work functions. Metcalf's law is related to the e-government concept of universal service, lessening and eventually eliminating the need for agencies to maintain expensive paper processes in parallel to e-processes. As computer networks have shifted from a proprietary network standard to an open standard like TCP/IP, it has been increasingly possible to envision the sort of e-government portals which cross agency lines and even unite similar functions across levels of government or even internationally.

Reflecting Moore's and Metcalf's laws, the growth of participation on the Internet has made impressive gains just from 1997 to 2002. From a review of a number of the Nielsen-Net Ratings on the NUA website (http://www.nua.ie/surveys/about/index.html),