The Connected Republic
Changing the Way We Govern

AUTHORS:
Mark Badger, Ph.D.
Paul Johnston, D.Phil.
Martin Stewart-Weeks
Simon Willis

Internet Business Solutions Group
Point of View

Cisco Systems

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Management Team

Michael Astle	Program Manager
Mark Badger, Ph.D.	Project Manager
Gilad Fishman	Content Manager

Preface

For some time, governments worldwide have used interactive and networked information and communications technologies—especially Web-based solutions—to improve the quality and efficiency of the services they deliver to their constituents. These collective efforts are commonly called the "e-government project." There have been many significant successes over the years, as well as some disappointments. But enthusiasm for moving forward is now tempered by the growing realization of the difficulty of combining the organizational change, policy reform, and technology investment that successful e-government requires.

Now is the time to broaden the e-government project so that it contributes to the modernization of government, the transformation of the public sector, and the development of new models of citizen participation and engagement. The focus of e-government needs to shift now to how the business of governing is changing, especially as it integrates the effects of interactive and networked information and communications technologies.

Three trends support this conclusion. First, e-government is becoming less about the "e" and more about the "government." A recent study published by the Organisation for Economic Co-operation and Development (OECD) states, "the impact of e-government at the broadest level is simply better government."[1] Instead of simply offering another way to provide what government has always done, new interactive and networked information and communications technologies provide the tools to transform government itself.

The second trend is the growing recognition that a crucial test of e-government is the impact it has on the quality of the relationship that government has with people. Although underplayed in the earlier phases of e-government, issues such as legitimacy and trust are now critical measures of success.

Third, the e-government project has uncovered the value and power of networks. The ability to intimately connect people, government agencies, and private or community sector organizations in new patterns and combinations is now a defining characteristic of e-government's true potential. These trends share a common focus: putting people firmly at the center of any e-government solution.

By some measures, the e-government project has already enjoyed considerable success. It has reformed—in some cases quite radically—the organization and

delivery of public services. Those who are looking for a return on the money invested as a measure of success are also seeing the value of the new programs.

But for all that, e-government can sometimes look like an exotic and peripheral experiment. It is not yet an integral part of how government operates. E-government is still often seen as "risky, futuristic, and expensive—it has yet to become sufficiently invisible or normal."[2]

Of course, the technological dimension cannot eliminate the complexity intrinsic to governance, public policy, and public management. The skeptics were right to discount some of the predictions of the revolutionary potential of these new technology-enabled approaches. Still, e-government is a powerful force for change, especially when it engages the difficult issues of cultural, institutional, and process change.

E-government finds itself perched somewhat awkwardly between its patchy, though unquestionable, performance and its persistent promise. The project demands a fresh dose of what is always a prerequisite for success: a strong and clear shared vision, considerable political and management leadership, and a commitment to invest, innovate, execute, and then track and measure the results and benefits.

This book is Cisco's contribution to the e-government project. It describes the next phase of transformation—what we call the "Connected Republic." This vision puts people and communities at the center of new networks of knowledge, service, trust, and accountability. This approach locates e-government at the intersection of three larger endeavors: defining the role and purpose of government in the Information Age, modernizing and reforming the public sector, and strengthening democracy. From this vantage point, e-government can reach its much-anticipated goal, moving beyond information and transaction and toward genuine transformation.

Working with our government and public sector partners, we want to encourage thinking in this area and the exchange of best practices. We look forward with great interest to the discussion that follows.

1 "The E-Government Imperative," OECD E-Government Studies, August 2003.

2 SmartGov: Renewing Electronic Government for Improved Service Delivery, by Noah Curthoys and James Crabtree, Work Foundation, iSociety Program, July 2003.

CONTENTS

CHAPTER FOUR

CHAPTER FIVE

CHAPTER SIX

CHAPTER ONE

The Challenges of Modern Government

"Twentieth Century collective power was exercised through the Big State. Their welfare was paternalistic, handed down from on high. That won't do today. Just as mass production has departed from industry, so the monolithic provision of services has to depart from the public sector. People want an individual service for them. They want Government under them, not over them. They want Government to empower them, not control them … Out goes the Big State. In comes the Enabling State."[1]

British Prime Minister, Tony Blair

Government today faces three primary challenges:

- Delivering public services more quickly, efficiently, effectively, and flexibly
- Transforming public services to offer what citizens want while keeping taxes down
- Building trust and accountability with a skeptical and often cynical public

These large, complex challenges require multifaceted solutions. A crucial part of any solution is the intelligent use of interactive and networked information and communications technologies. To date, e-government has largely been seen as an add-on—a few Websites that offer Internet users a more convenient way of accessing existing information and services.

The significant benefit of these new technologies—their potential to change the way government operates—is only now being explored. New interactive and networked information and communications technologies provide government with the tools to transform itself, to create more efficient, citizen-focused services, and to build new ways in which citizens and leaders can interact.

The ideas in this book are derived from the years of experience Cisco has accumulated while working as a trusted advisor to governments around the world. The goal is to help describe and launch the next phase of e-government—what we call the Connected Republic. The term "Republic" does not refer to a specific form of government but rather to Plato's ideal of a state where citizens are fully engaged in, and control, the management of public affairs.

The Connected Republic strives to secure the legitimacy of government by putting citizens and communities at the center of new networks of knowledge, service, trust, and accountability. This transformation affects the people who work with and for governments, as well as the people for whom governments exist.

We are not suggesting that technology provides a magic answer to the problems government faces. The Connected Republic is a far-reaching and difficult goal, involving a demanding combination of policy reform, organizational change, and radical process improvement. The main enabler for change, however, is understanding and making use of the transformation potential of interactive and networked information and communications technologies.

Government in the Information Age

Government faces a common challenge: how to respond to the significant increase in citizen expectations. It is not just that citizens want more; they are also more sensitive about how government delivers its services. Individuals expect their local hospitals not only to know what they told their doctors six months ago, but they expect that information to remain private and secure, and to be used only in appropriate ways. Nonprofit organizations want to find ways to work more closely with government agencies to deliver much-needed services, such as those for the homeless. The business community wants to find ways to partner with government as well; to take over tasks that the public sector wants to outsource, or to help improve essential services such as education.

Traditionally, government solves these problems by using command-and-control solutions. A new central agency with a single focus gets formed, supported perhaps by new management imported from the private sector. These new agencies are often buttressed with new standards and targets, using performance management techniques in hopes of eliminating failure.

But command-and-control solutions are too inflexible to deliver what people want today, and they are too inefficient to deliver it at low cost. Every modern politician's nightmare is to create a bigger and more expensive government without increasing popular buy in or delivering improved public services.

Responding to increased citizen expectations is just part of the challenge. Twenty-first century government must also find new ways to deliver services in an increasingly complex world. Government must deliver economic growth without causing further congestion and pollution. It has to mend a divided society without resorting to social engineering or patronizing the poor. And government must create real social and economic opportunities for individuals and businesses without ignoring the hard to reach.

Social exclusion is one of the most difficult challenges facing government. Despite economic and social advances, a significant segment of society remains marginalized and faces poor health, education, job prospects, and life chances. This is a problem for those on the political right just as much as for those on the left, whether it is a matter of political and economic expediency or one of social justice.

It is clear that the traditional approach of creating separate agencies based on discrete functions (education, health, roads, trains, and so on), also known as a "silo" approach, is not the way to make progress. Educational policy that looks only at what happens in school will not significantly improve the educational performance of socially disadvantaged low achievers. A criminal justice policy that focuses only on getting tough with criminals will deliver a large prison population but is unlikely to deliver low levels of crime.

Government has to learn to operate across silos and develop new tools to tackle the multifaceted problems they face. It must bridge the traditional public-private sector divide. People do not want a large bureaucratic state. The right kind of partnership with the private sector can bring skills, ideas, and investments that can help create more effective ways of delivering public services.

But here, as elsewhere, change brings added complexity. Public-private partnerships have not been uniformly positive. Government needs to think hard about how to structure a partnership to bring the best from both sides. Who should do what and under what circumstances? How can you build in the necessary element of control without turning a dynamic relationship into a legalistic one?

Similar challenges arise within government itself. Society is entering a multitiered world, where government power needs to be distributed across different regional, subregional, and local levels. But operating in this multitiered world requires a different kind of government, one that can balance freedom and control and that can create processes for sharing power that are dynamic and creative rather than static and confrontational.

The Information Age has created other challenges for government. The speed at which capital flows around the world in search of higher returns is now nearly matched by the speed at which nonmanual labor is shifted from one country to another. The most obvious example is how developing countries are attracting call centers that serve customers in developed countries. But the scope of change is even broader. Because of advances in interactive and networked information and communications technologies, much of the intellectual work that creates value in modern society can be based almost anywhere in the world.

To respond to these challenges, government must become more agile and innovative. It must know how to help citizens succeed in the Information Age. It must know what role to play in creating the physical and virtual networks businesses need to stay competitive. And it must know how to

The Connected Republic and Public Safety and Security

Nowhere does the concept of the Connected Republic matter more than in the design and delivery of effective public safety, defense, and security. From the theoretical debates about network-centric defense to the practical and urgent search for better ways to police local communities, the central focus is the same. How can governments and government agencies—working across different jurisdictions and with the commercial sector and local communities—share and apply knowledge quickly to ensure the defense and security of the citizenry?

A common solution is to create an underlying technology architecture that creates information flows around people—be they victims, first responders, police, medical resources, or intelligence agencies. In all instances, the goal is to create an architecture that breaks down the functional divisions between these organizations.

change to make sure its citizens live, work, and do business in the best place in the world.

Twenty-First–Century Public Services

Heightened citizen expectations are most obvious in the area of public services. People used to dealing with their banks at any hour or getting text alerts when their bank accounts might be overdrawn are not prepared to put up with public services that work only nine to five and take weeks to inaccurately process lengthy and repetitive forms. They do not want to have to inform 10 different government agencies when they move. They are frustrated when every interaction with the state involves repeating information that they have already given the government. People want a public sector that is aligned around them; an organization that remembers who they are, delivers what they want, and maybe even goes one step further and draws their attention to related services or information in which they might be interested.

People also expect government to operate more effectively even when it is not dealing directly with them. Citizens expect different law enforcement agencies to share information quickly and effectively, so that one organization does not

Technical solutions by themselves are not enough. Also required is a political and social solution, one that often involves the entire community. Take, for example, the decision by a school not only to install IP video surveillance equipment, but also to make those images available to the local police department. The ensuing debate about that approach brings with it complex and sensitive tradeoffs, such as, what is the appropriate balance between the desire for security and the need to protect people's privacy and confidentiality?

What starts out as a technical challenge to provide better public safety suddenly takes on important dimensions of community engagement and trust. This is just one illustration of the way in which questions about how to more effectively deliver services become tied up with questions about democracy. The discussion is no longer about e-government but is instead about the larger issue of governing.

end up releasing an individual just as another tries to track that person down. And if several different public sector organizations suspect that a child is being abused, people expect this evidence to be put together and turned to action.

But citizens want these much-improved services without tax increases. After all, if businesses can deliver a vastly more convenient and personalized service with no obvious increase in cost, why can't the state?

The challenge of doing more with less cannot be met by simply sharpening performance management systems or by tinkering with organizational structures. What is needed is a fundamental change in the government's culture and the way it approaches problems. Traditional silo-based solutions must give way to citizen-focused services delivered through flexible and dynamic groupings of appropriate agencies, whether public, private, or voluntary; controlled or independent; local or central. The best governments now recognize that they should focus on what they do best, while handing over other tasks to partners better suited to perform these functions. Doing this, however, requires strengthening government's ability to manage network-based collaboration, supervision, and control.

Building Trust and Re-engaging the Public

Creating better public services is a straightforward task when compared to the less tangible and more difficult issue of creating trust and legitimacy. The gulf between government and the people seems to be widening. Citizens are entrenched in a world of cynicism and disenchantment that is only reinforced as they watch their leaders imprisoned in the media-driven world of confrontational politics. Forward-thinking politicians know they need to reconnect with their constituents, and they are experimenting with ways of doing so, but it is not obvious if any of these experiments is succeeding.

One conclusion most governments draw is that they need to improve their presentation and communications strategies. If only citizens were more aware of what their government was doing for them, the thinking goes, trust and engagement would quickly return. In practice, of course, it is not that simple. The moment government tries to claim credit for anything, the media rush in to probe and question. If they can show (or even suggest) that the actual achievement is only 90 percent of what was claimed, a potential success story instantly becomes a story about government spin.

This media cynicism is supported by citizens' own sense of distance from much of what happens in a large, modern society. How meaningful is a decline in the national crime rate when what matters to most people is whether there is any crime on their own streets? How believable is the claim that public services are getting better if someone does not experience this in everyday life?

For government to build trust and engagement, it needs to find new ways of entering into relationships with its citizens in ways that are meaningful and valuable to the citizen. The best time to do that is at the moment of truth when citizens receive services and support from government.

Tackling the Challenges

The common thread linking the three main challenges to government is the growing complexity and interconnectivity of modern relationships. Today's world is one of networks, where everything seems connected to everything else. Hoarding information or insisting on top-down communications creates inefficiency, frustration, and failure. Twenty-first century government needs to respond to this change by finding new ways to work more closely with all parties.

Government needs to connect differently with its citizens, with people who work in the public sector, and with all of the organizations—public or private—that contribute to the delivery of public value. Furthermore, if government wants to foster economically and socially flourishing societies, it needs to promote networks that allow two-way connections between people and communities, and between businesses.

To create this interconnected society, government needs to make intelligent use of interactive and networked information and communications technologies. It must maintain its commitment to better policy, process reform, and organizational change. The key is to combine choice, integration, and new networks of connection and collaboration to create more responsive services and a new capacity for citizen engagement and participation.

1 Tony Blair, October 1, 2002.

CHAPTER TWO

The Connected Republic

The Connected Republic is a vision of how the state can evolve as it confronts the interaction of three significant endeavors: defining the role and purpose of government in the Information Age, modernizing and reforming the public sector, and strengthening democracy. It involves combining organizational and policy innovation and the application of interactive and networked information and communications technologies, with the goal of putting people and communities at the center of responsive networks of knowledge, service, trust, and accountability.

The Connected Republic vision rests on four central values:

- Putting citizens at the center
- Connecting people
- Empowering citizens
- Delivering public value

Any one of these values is by itself worthy of pursuit, but it is the combination of all four values that comprises the Connected Republic vision. This is the vision against which government should increasingly assess its own vision, strategies, and results. Together, these values speak to the search for legitimacy that lies at the core of achieving better government. Legitimacy is a compact between citizens and their government: people willingly cede power to governments with the promise that in return, governments will deliver benefits that people value. Legitimacy is not an unintended consequence of the Connected Republic—it's the whole point.

Putting the Citizen at the Center

The heart of the Connected Republic is a commitment to organizing government around the citizen. It must extend to all aspects of government, including the political, organizational, and operational. This commitment to a citizen-centric model is similar to the kind of shift that is implied in the transition to a "support economy."[1] A citizen-centric model of government is not simply about achieving better customer satisfaction scores. It is about making the needs and expectations of citizens the pre-eminent design principle in all programs, solutions, and initiatives.

Putting the citizen at the center of the process is different from, and much more than, simply putting everything online. That view of e-government is too narrow and too focused on a particular technological solution and channel. Indeed, the most exciting thing about e-government may end up being that people will be empowered to deliver services face to face, in housing estates, from book vans, or even in people's front rooms.

The promise of citizen-centric government has been part of the e-government vision from almost the beginning. But ongoing cultural, operational, and management obstacles have made it difficult to create the types of change that a true citizen-centric government requires. Overcoming these obstacles requires strong leadership and a clear idea of what citizen-focused government really requires.

To become citizen-centric, government must focus on three things. First, it needs to develop the capacity to act as a single enterprise, so citizens feel they are being served by one organization rather than many. Next, it needs to organize itself around citizens' needs rather than convenience or history. Finally, it needs to be more flexible so it can deal with and respond to complex problems as citizens' needs change.

Acting as a single enterprise requires government agencies to break out of the traditional model of service delivery (separate, functionally based agencies) and create networks that connect government departments and programs. This is only possible if new models of governance are created, and interactive and networked information and communications technology architectures and standards are unified across all government agencies and activities. This is not easy to do. It is a balancing act that requires a strong framework coupled with an approach that permits innovation and creativity to flourish.

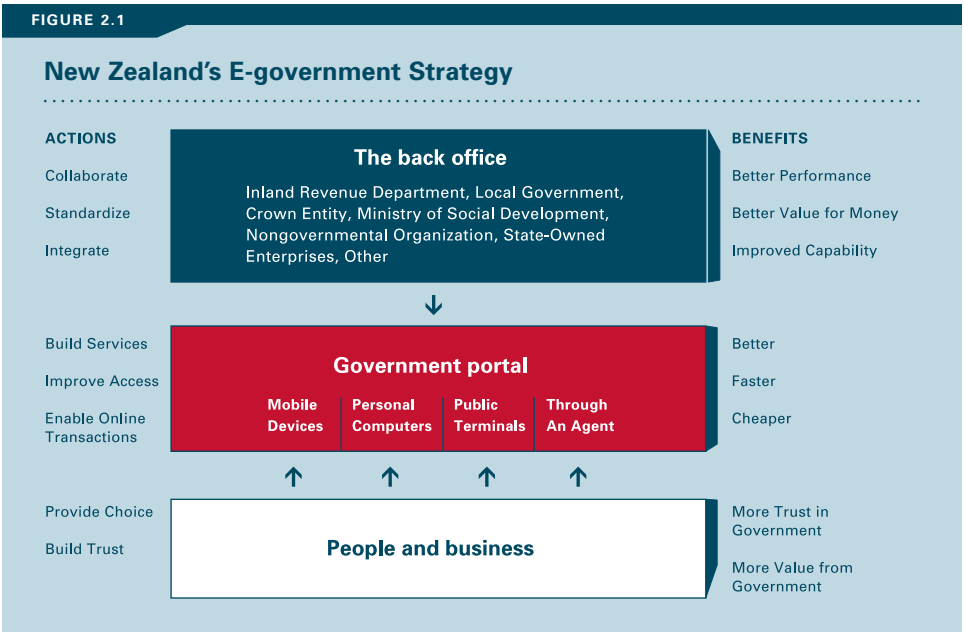
Once the design of the structures, processes, and information flows of government shifts to focus on the needs of citizens and communities, many questions may arise about traditional government processes. Without the discipline of citizen centricity, there is the danger that government ends up automating processes but not really changing what remains an essentially 19th-century model of public sector management.

A recent analysis by Gilles Paquet and Jeffrey Roy points out that the governance model has to reap the rewards of a more integrated view of government without cutting across the localization, proximity, and devolution that forms the crucible for innovation, growth, and sustainable prosperity.[2] But there are risks in this development:

"As the Internet grows as a platform for governance, there is a growing contradiction between the service delivery and connectedness agenda…and the local systems of innovation and collaboration that seem to be at the core of competitiveness and economic progress…."[3]

The same analysis notes that the interactive and networked information and communications technologies that have created this tension also provide the means of resolving it. What the authors describe as the "meta-technologies of cooperation" are the tools that will sustain and direct the network models of governance that the Connected Republic requires.

FIGURE 2.1



Getting different government agencies to work cooperatively is an important start, but this needs to be coupled with the principle that services must be organized around the citizen's needs, not the government's. Imagine how much easier life would be for an unemployed person if all of the needed services were available in one location. Currently, this person often has to visit multiple agencies to get all of these services—and some services may be missed entirely due to lack of knowledge of the service or of eligibility. Adopting the citizen's perspective can lead to the provision of new types of services, as well as better provisioning of existing services.

There are different ways of integrating services. An analysis by the European Institute of Public Administration identified three types of program integration: front-office–driven integration, resource-driven integration, and process-driven integration.[4] "The resource-driven and process-driven integration of back offices has an enormous potential. But this potential will only materialize if there is enough trust in the structures of public governance. The necessary level of trust in government requires not only a satisfactory level of protection of personal privacy, but also open and transparent government whereby citizens would be given a large freedom of information, in particular the possibility to track their own files and dossiers within public databases."[5]

The report cited the example of obtaining a building permit, a process that requires input and sign-off from numerous agencies. A process-driven integration of this task would integrate all of the steps so the citizen did not have to go from agency to agency, but instead would interact with the process as if it were being administered by a single agency. The state government of Victoria, Australia, is creating just this kind of online service. Called Streamlining Planning Through Electronic Approvals and Referrals (SPEAR), it is a wholesale reform of the urban planning and approvals process. SPEAR links all relevant agencies in a robust network that uses the Internet to share knowledge community-wide about development proposals as well as online progress tracking, assessment, and approval. In other words, the government is creating a Connected Republic that forms a new network of knowledge, service, trust, and accountability.

It is not hard to imagine other ways that integration could better serve citizens. Consider a social security beneficiary who needs to contact the benefits agency, tax department, and employment agency to inform them about a change in status due to illness. Wouldn't it be much easier to interact with a single system that was capable of processing the new information, calculating the impact on tax and benefit status, and then communicating the result? In the field of child welfare, think of how much easier it would be if the police, local authorities, social security, community service, and nongovernment community organizations were able to work as if they were one, using a single, integrated system that shared knowledge, insights, and expertise?

Providing this kind of service requires governments to evolve toward a new model of organization, one that Cisco calls a "Networked Virtual Organization" (NVO). The NVO approach recognizes that an organization can be dramatically more effective if it breaks down the barriers between itself, its partners, and its customers, and instead connects all stakeholders together in a network focused on making the best use of common resources to deliver a shared goal. This organizational model is the key to the Connected Republic framework. It creates the organizational and technical architectures around which the Connected Republic can become a functional reality.

There are three basic requirements of a successful NVO. The first is a relentless pursuit of customer or citizen value and service. The second is the ability to dscriminate between tasks and functions that are core to the main business of each organization, and those that are context (noncore functions) and can be performed by an organization for which they are core. The third requirement is a commitment to creating simpler and more standard systems and business processes that flow not just across functional boundaries within an organization, but across and between different organizations whose resources, skills, and expertise are increasingly integrated into the virtual organization. (More detailed information on the NVO model is provided in Chapter 3.)

One of the challenges the government faces when agencies become more integrated is that information about citizens potentially becomes more widely available, raising legitimate concerns about privacy and security. Strict policies must be adopted and implemented to protect privacy and help ensure security. These provide the basis for an accountability framework that not only lifts confidence in the integrated systems but also helps increase citizens' levels of trust and legitimacy in the government as a whole.

Privacy concerns are real but should not be overstated or seen as insurmountable. Similar issues have been successfully dealt with by the private sector. The financial services industry, for example, has moved quickly to establish huge information networks containing highly sensitive personal information that is shared through one or two clearing houses per country. Customers have not complained about this—and there have been virtually no breaches in trust.

It is possible to overcome security and privacy concerns in ways that citizens can accept. One approach that government might take is to leave the decision about sharing information in the hands of the individual citizen, who could choose whether to let that information be shared among different agencies. Alternatively, if people do trust banks more than the government to handle information, why not partially outsource the job to them? Banks might be willing to do this in return for government help on identity compliance. Ultimately, this is an issue of trust. Government will be trusted when it provides real benefits to citizens in a trustworthy way.

Bringing the Connected Republic vision to life requires a systematic and consistent approach to designing, testing, executing, and evaluating proposals to integrate

an online dimension to government services and programs. The overriding goal should be to focus on the services that citizens want and to make them accessible in ways that are convenient and easy to use.

Connecting People

The second value for the Connected Republic is connecting people. The goal is to connect people and organizations into networks of expertise and skills that are capable of tackling the policy and program challenges facing communities and governments. This ambition has been a rhetorical staple of e-government advocates for some time. But like the goal of creating a citizen-centric government, it has not yet been achieved.

Connecting people extends beyond government to include civil society itself. In most countries, traditional ties of family and community are weakening. Society is becoming more fragmented as the connections between people become less predictable and more dynamic. In place of formal, static relations, people today link up in informal, personal networks. These networks are often mediated by new interactive and networked information and communications technologies such as SMS and instant messaging.

This "social software" is being widely used to connect people together in "swarms" or "smart mobs" capable of forming and disbanding to suit changing needs, preferences, interests, and opportunities.[6] These informal networks can take place at work, in personal and social lives, or in pursuit of beliefs and values. The environmental movement and the antiglobalization protests in recent years are good examples.

As these examples suggest, we are witnessing the working out of a new accommodation between the traditional arenas in which we construct our social identities and obligations—which are proving to be both more enduring and significant than was thought in the early days of the Internet revolution—and the less structured and often invisible networks in which tentative new social or public demands are being confronted.

This phenomenon can create some difficulties for government. As these informal networks develop, formal bodies and structures experience a further erosion of trust and find it harder to secure the necessary commitment to larger projects of public value and social change. The risk is that trust and confidence in traditional

structures and institutions erodes, replaced by scattered, less visible types of social organization that grow in power, but not in authority.[7]

This trend brings with it opportunities as well as threats. One way government can tap into this new social reality is by recognizing that these new communities have the same right of access to government as traditional communities. Government can then reach out and build links to these new networks. Creating virtual communities also applies within government. Government can encourage collaboration, and build the human and technological networks that support collaboration.

Traditionally, government has been built around discrete issues and groups. But issues and groups are not discrete, and they are not fixed. It is futile to keep remaking government in the hope of finally finding the perfect organizational structure. Instead, government needs to connect internally in multilayered ways that can change as conditions change, always using the needs of citizens as the organizing principle.

The same point applies to policy-making processes. As more complex coalitions of interests, expertise, and values need to be incorporated into policy, it becomes crucial to make it easier to collaborate with more people in more diverse networks. The aim of the Connected Republic is for policy to be created through a dynamic and open, networked community rather than being the exclusive product of a fixed and highly segmented bureaucracy.

Recent government initiatives to create new national security and antiterrorism programs are good examples of the need for networked policy making. Consider the complexity of developing homeland security policy in the United States, where the national government, despite the creation of a new integrated agency, has to coordinate the activities and input of numerous other agencies, layers of government, and the private and not-for-profit sectors.

Recent initiatives in Australia to upgrade maritime security have encountered similar difficulties. Connecting governments, port authorities, private sector transport and shipping operators, international operators, and the local communities in which ports and other installations are located is a huge and complicated task. A sensible and effective policy will only be developed if all are involved.

The Connected Republic's commitment to connecting people delivers three primary benefits. The first benefit is enhanced collaboration. In the Information

Age, real achievement, whether in business, government, or in the community sector, can only be attained by exploiting new tools and processes of collaboration between more complex networks of people and organizations.

The second benefit is enhanced communication. Building trust involves finding citizen-friendly channels for keeping people informed about what is happening in their neighborhoods, in the organizations in which they work, and in the wider regional, national, and international communities of which they are a part.

The third benefit is enhanced community. Creating a real sense of legitimacy and fostering a flourishing civil society requires governments to maximize the opportunities for citizens to link up with others and create new sources of meaning, solidarity, opportunity, and action. For these three reasons, connecting people is the iconic concept of our time, both because it is central to achieving the things we want in society, and because it has proven to be so elusive.

Empowering Citizens

The third value for the Connected Republic is empowering citizens by maximizing their role in decision making. Many of the best e-government initiatives already do this by shifting the locus of control over what is decided and what is done toward citizens and consumers. Whether it is in education, healthcare, or community safety, citizens and consumers want to be more engaged in shaping and delivering the services they want. We expect to be asked for our views and preferences, and we assume that they will then have some impact on what is produced and offered. In some cases, we want to regain the capacity for social or collective action that does not involve the government at all. We tend to be less inclined to accept authority in any guise.

Where there is a strong sense of connection, there is often a strong underlying sense of autonomy and personal control as well. The Connected Republic seeks to build on this. Not only does it respect the autonomy of individuals and communities, but wherever possible, it also seeks to base its processes on the principles of self-government and self-direction. This approach empowers citizens by giving them choices that allow them to design their own services and solutions.

A good example of empowering citizens is an educational program in the Netherlands called Kennisnet. The term Kennisnet is Dutch for “knowledge

network." As an agency of the government's department of education, Kennisnet orchestrates connectivity and learning tools for schools, teachers, parents, and communities by bringing together public and private organizations. A private consortium of cable companies called NLTree provides broadband connectivity to the country's 12,000 schools.

Kennisnet provides a toolkit of applications that enable individual teachers, students, and groups to create, present, and store their own educational content. It also administers learning-related activities and collaboration between different schools. The government does not mandate these tools. Instead, individual schools and area governing boards can choose to access them when creating their own learning environments (www.kennisnet.nl or www.nltree.nl).

Networks can empower citizens in two ways. First, networks can put information into the hands of people to help them exercise their own personal choices. Second, networks can connect people into communities that can decide how they want to operate. Consider how this might apply to healthcare. At the moment, health records are owned in fragmented and sometimes inconsistent form by different organizations: doctors, hospitals, and insurers. If individuals owned their own electronic health records, they would be empowered to make their own choices about how information is used, what kind of health treatment they receive, and who delivers the treatment.

The other main aspect of empowerment is the democratization of public administration. In most countries, e-democracy has been a neglected part of the e-government project, but even the limited steps that have been taken are of huge potential significance. Indeed, one senior public sector leader has suggested that the widening circle of democratic involvement has already "shaken irrevocably the old bureaucratic structures and, with it, the unchallenged authority wielded by its mandarins."[8] The reason to pay attention to empowerment is that there is little value in making the machinery of government run faster and leaner if people do not trust or accept the legitimacy of what is being done, no matter how much more efficiently or productively. It is dangerous to focus only on how government works and not on what it does, why it does so, or how those questions are determined in the first place. (E-democracy is explored in greater detail in Chapter 5.)

It is important to create opportunities for citizens to have direct political influence upon public bureaucracies in ways that have not existed before. This means a change in culture, mindset, and policy.[9]

Engaging citizens in this manner requires significant changes in the way government is structured, the way it interacts with entities inside and outside of government, and the way it creates and uses knowledge. Sustained, highly distributed systems of learning are incompatible with traditional approaches that make a strong distinction between policy and operations. The new operating model calls on government to abandon these kinds of distinctions.

"… 'governance as learning' implies a more direct and interactive relationship between state and citizen, diffused across a much wider and continual range of activities. To be capable of responding and adapting across our complex, mass-scale societies, governments need more than strategic brilliance and sophisticated networking. They must also rely on new methods of deliberation and legitimization, both to draw on the ideas and innovations generated by citizens and to make new priorities, tools and responsibilities acceptable."[10]

As these comments suggest, e-democracy is an integral part of the Connected Republic. Citizen empowerment is more than simply letting the citizen shape the services he or she receives. It also means engaging citizens as fully as possible in the policy-making process itself, by opening it up so that all different types of stakeholders can intervene at all stages of the process.

Delivering Public Value

The fourth value of the Connected Republic is delivering public value. The success of the Connected Republic is not measured solely in terms of gains in work processes, results, and efficiency. It is also measured by how well e-government helps enhance governance, transparency, and accountability—all issues of public value.

As the European Institute of Public Administration notes, "…modern governance is not just about delivering services. The notion includes democratic and cooperative policy formulation, citizen and civil society involvement, transparent and participative implementation of policies…although these aspects are still terra incognita for the vast majority of eSolution providers, they are at the very heart of the future development of e-government."[11]

The concept of public value has been developed in the United Kingdom by the Cabinet Office's Strategy Unit.[12] Public value refers to the value created by government through services, laws, regulation, and other actions. In a democracy, it

is determined by citizens' preferences, expressed through several means and refracted through the decisions of elected politicians. The value added by government is the difference between the benefits it creates and the resources and powers which citizens give to their government.

According to the Cabinet Office, value in the modern world arises from a combination of four factors: the quality and responsiveness of services, whether they deliver the outcomes people want, the underlying sense of trust in government, and, increasingly, a sense of security and public/community safety. Technocratic efficiency by itself is not sufficient. Governments need to assess their actions against a broader framework. A crucial dimension to this is building trust and engaging with the citizen.

If the Connected Republic is the framework within which to integrate organizational, policy, and technology reform to improve the efficiency and legitimacy of government, public value describes what governments should be focused on delivering. The Connected Republic answers the "how" question. Public value addresses the "what."

There are many examples of governments using interactive and networked information and communications technologies with the aim of enhancing public value. For example, the New South Wales state government in Australia recently held a major summit to consider various approaches to the problem of alcohol abuse. The Cabinet Office organizers included a significant online dimension to the summit, to make it easier for those unable to attend the physical meeting to participate. These initiatives extend the reach and impact of these important policy deliberations. As a recent Canadian study notes, "There is a simple but powerful connection between government's willingness to give citizens more say in the policy process and the credibility of its claims to want to serve them better."[13]

The notion of public value also underlines the idea that what is important in the Connected Republic is the benefit to the citizen, not who created that benefit. Today, much of what government wants or needs to do cannot be done by government alone. It requires the active and sometimes leading contribution of organizational, institutional, and social skills and expertise from outside government. This leads to the growing phenomenon of partnership or collaborative government in which public, private, and not-for-profit organizations and interests are stitched together in new networks of influence and practice.

As we increasingly get used to the idea of "governing without government," we recognize that the collective work that still needs to be done as a society no longer needs to be consigned to the exclusive preserve of government or what is traditionally considered to be the public sector. That same collective work needs new spaces and new processes, created from unusual combinations of people, interests, and resources across public, private, and community boundaries.[14]

Some of the more obvious examples of this phenomenon are contracting out, outsourcing, or out-tasking of whole functions or activities. It includes the emergence of public-private partnerships or initiatives that combine private investment with public purpose. But an even broader transformation than this is beginning to emerge. It is moving beyond the traditional view of government and the public sector as something distinct and hermetically sealed from the rest of society. In its place is the notion of a "public purpose" sector[15] or, more generally, the recognition that different entities can contribute to creating and delivering public value. This vision fits naturally with the move toward an NVO approach in the public sector: NVOs that deliver public value do not need to consist exclusively of public sector organizations. On the contrary, in most cases one would expect the opposite.

Focusing on delivering public value involves a new approach to government. Looser networks of organizations whose focus is creating value for the citizen replace the traditional notion of a centralized, top-down government. In the words of Geoff Mulgan, senior advisor to the prime minister in the United Kingdom, the traditional DNA of government is changing from "we know best" to "we learn best," implying a more agile business model for government fashioned around the ability to learn and change quickly.[16]

The Connected Republic is a new way of thinking about the role of government. It means moving toward the concept of the enabling or adaptive state, in which the primary role of government is to create a framework, and to then coordinate or facilitate public-value-creating networks within that framework. It is a new form of governing, one in which the frame of reference shifts to embrace a more collaborative, networked model.[17]

This new model is centered on the citizen, and committed to connecting and empowering people. It aims to facilitate the creation of networks that deliver public value, and it recognizes that trust is a critical dimension. For this reason, the Connected Republic is likely to involve "flatter hierarchies of more creative

and cooperative officials, permanently plugged into wider informational networks that organically include the online presence of citizen groups and affected interests…"[18] From this perspective, the Connected Republic is a project to recover and strengthen the sources of legitimacy on which open and effective democratic governance depends.

The Connected Republic Has Already Begun

The Connected Republic may seem an impossible goal, but some governments have already embarked on programs that point in its direction. The progress of these efforts is not uniform or consistent; the values and ideas that inform the Connected Republic resonate differently around the world, causing individual governments to adapt them in ways that best suit their unique needs.

Already, many governments and communities around the world are entwining the e-government project with the continued reform of public services. These efforts form part of an ongoing attempt to "reinvent the state fit for the network society."[19]

As is often the case, good theory lags good practice: innovative government leaders have been experimenting with ways to better meet the demands for

The Fundamental Propositions of the Connected Republic

Focus on governing. The Connected Republic shifts the debate away from e-government and toward a concern with the business of governing. It offers a view about the impact of interactive and networked information and communications technologies on the tools, techniques, processes, and behavior of governing.

Use technology intelligently. The Connected Republic does not assume that technology strips away the inherent context and complexity of public policy and management. Nor does it argue that technology alone is the answer. The Connected Republic does assume that without the intelligent application of technology, changing the business of governing will be difficult.

Create public value. Underlying the concept of the Connected Republic is an assumption that the role of government in the Information Age is to create, join, support, or lead networks of public value creation.

Rely on informal structures. The Connected Republic assumes that people are changing the way they relate to governments, relying less on formal structures, organizations,

reform and improved performance that press upon them. To that extent, the Connected Republic is an attempt to describe what is already happening, and thereby underline both its significance and its potential.

One of the best examples of a government program that exhibits the traits of the Connected Republic is Centrelink, the Australian national social security and welfare benefits payment and services agency. Centrelink orchestrates a comprehensive network of federal, state, local, and municipal agencies, as well as not-for-profit community organizations. These agencies and organizations all play a role in providing support, information, payments, or other services to people needing social support and welfare assistance. An Australian needing help calls one telephone number, or accesses one Website, and is virtually connected to all of these services—information on the services and the client is readily available to all of the networked organizations. (Centrelink is discussed in more detail in Chapter 3.)

Also in Australia, another government program is moving in the direction of the Connected Republic. The Royal Children's Hospital in Melbourne has unveiled Australia's first online personal patient record for children with diabetes. BetterDiabetes.com is an Internet-based personal patient record that allows

and institutions and more on new social networks and informal structures.

Create networks of influence. The Connected Republic is as much about the new networks of influence and practice that cross the boundaries between the public, private, and community sectors as it is about the way the more traditional public sector itself works and performs.

Build e-democracy. In the Connected Republic, e-democracy becomes central to delivering better services and raising levels of trust.

Create an NVO. The operating model in the Connected Republic is the NVO business model, drawing together clusters of resources and expertise to secure shared results that require common business processes and consistent standards.

Effect system-wide change. Creating the Connected Republic is an exercise in large-scale, system-wide change. Success is determined by effective transition management, leadership, governance, and sustained investment and technology.

patients to more proactively interpret and act upon their own blood sugar measurements. The online record includes current issues, test results, glucose readings, and insulin dosage. Using BetterDiabetes.com, patients with Type 1 diabetes can load glucose readings directly into their health records, track and graph all measurements and test results, send a secure message to diabetes educators asking for help, and authorize the educators to view agreed-upon parts of their records.

One of the developers of the BetterDiabetes.com program commented that the concept of an electronic health record, which is by definition consumer-centric, was quite new to the mainstream medical community. Here, in its own small way, a solution creates a Connected Republic between patient, doctors, and clinicians. The focus is on the patient, not on the provider, as so many other health programs are.

A different example of a Connected Republic is in the United Kingdom, where there is growing use of online consultation and citizen engagement to enhance democracy. There are early signs that this can have a significant impact on the quality of the deliberative process.[20] When technology gives people the opportunity and convenience to contribute at a time and in a way that suits them, more people get involved in the political process. Different voices get heard, often taking the discussion beyond the usual and sometimes dispiriting cacophony of the noisy and the angry.

Reflecting on one of these experiments, in which an online component formed part of the scrutiny of the Communications Bill in the British Parliament in June and July 2002, Graham Allen, a Member of Parliament for Nottingham North, commented that "online prelegislative scrutiny is potentially the most important advance enabling wider participation in our democracy since the extension of the franchise. The executive allowed us to vote. Now they can allow us to participate."[21]

In these examples, government and public sector organizations are responding to what citizens desire: the values that inspire the Connected Republic vision. Citizens reward institutions and organizations with their money, loyalty, or time, which in turn offers them a form of connection and community. People look for institutions that provide support and mutual commitment, not control and manipulation. People enjoy forms of connection that are loose and informal, driven by cooperation and coproduction, not coercion. They search for some

degree of control and autonomy in at least some parts of their lives. The challenge for government institutions is to harness these instincts for connection to a larger public purpose, for commitment to shared values and the common good.

These are the reasons why e-government must change. At the moment, it is a bit adrift, unclear about how it should evolve. The original promise of e-government included the possibility of dramatically re-engineering the layers and silos of government to create more streamlined and connected organizations. It isn't the first time that promise has been made, or the last time it has been resisted. With some notable exceptions, e-government's promised structural shakeup has been neither as comprehensive nor as dramatic as had been hoped.

The Connected Republic vision seeks to overcome these disappointments by galvanizing the e-government project around a renewed statement of what is possible and what needs to be achieved. It speaks to the risk that the e-government project will fail to secure the political, managerial, policy, and financial investment needed to move on to the next phase of innovation. Failing to continue would be an enormous waste—and worse, would deprive the project of the support and leadership it needs, just when it seems most likely to deliver on its promise of transformation and renewal.

We recognize the considerable barriers toward moving in the direction of the Connected Republic. Negotiating the politics of change, a torrid task in every part of society, is certainly no simpler and often more testing in government. The challenge is even greater when this new way of governing changes the way power is distributed in society. Because the Connected Republic vision calls for a more open, collaborative, and innovative way of operating, delivering on this vision will not be easy.

On the contrary, initiatives like this raise numerous issues. For example, conducting effective online consultations with citizens raises issues of governance as well as difficult policy issues about privacy and security. Creating an online self-service tool that allows social security beneficiaries to calculate the impact on benefits of changes to their employment and income status brings with it technical issues, regulatory implications, and governance challenges. Providing a single, electronic patient record that can track individuals as they navigate through the healthcare system, or creating new bedside, mobile applications to improve the speed and quality of patient-focused healthcare, create new policy demands as well as security and privacy questions.

As these examples suggest, it will not be possible to create the Connected Republic using simple or singular solutions. In fact, it is a daunting agenda, but this is what we should expect. We are talking about nothing less than a fundamental transformation of government on a scale not witnessed since the inception of the Industrial Age.

A few years ago, one leading analyst thought that asking what it takes to become an e-government was akin to asking in the 1950s, "What does it take to become an industrial state?" The answer is not simple. By that analogy, "those who attempt to simplify [e-government's] meaning may create enduring setbacks in the race for competitive advantages in a digital age and society."[22] The Connected Republic vision takes that challenge head on.

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CHAPTER THREE

The New Public Sector: Elements of an Emerging Transformation

The public sector is, of course, already engaged in transformation. Most governments today can point to some form of change program within their own organizations, some of which are quite profound, and all of which demand a set of skills, a culture, and resources that are quite different from those that were needed 20 or even 10 years ago. But some things will not change. No one expects the public sector to abandon its core commitments to integrity, fairness, openness, and transparency. The challenge is to marry these timeless values with a profound transformation in the shape and functioning of the public sector.

Clearly, there are huge cultural and historical differences between the public sectors in different countries that will cause transformation to take many different forms. But there are also certain common factors that promote movement toward the Connected Republic. These can be grouped under three headings:

- Moving away from traditional static and silo-based models of public sector services toward a business model that builds Networked Virtual Organizations (NVOs)
- Changing the design and structure of the public sector to connect disparate organizations and focus on delivering value to the citizen
- Changing the culture of the public sector, including what it is like to work in the public sector

Networked Virtual Oganizations[1]

With the rate of change in the modern world, agility has become an important trait for individuals, businesses, and public sector organizations. Interactive and networked information and communications technologies not only serve as a catalyst for rapid change but also provide one of the keys to responding to change. Technology makes it possible to decentralize management structures and tie together traditional, vertically organized agencies so they can provide services that a single government department could not deliver using its own internal resources.

Agility is important but means little on its own. What matters is that it informs and enables the NVO operating model. The NVO has three characteristics. The first is "customer centricity," or in the case of the public sector, "citizen centricity." It calls for putting people and communities at the center of any policy or program and designing services around what people need and use.

The second characteristic of an NVO is "core versus context." It requires an organization to discriminate between which activities it does best, and which are best done by other organizations. Organizations should concentrate on those activities that are "core" to their missions, leaving others to contribute their own expertise in the "context" activities.

The third characteristic of the NVO model is "continuous standardization." This requires organizations to adopt consistent standards whenever possible. These include technology standards as well as standard business processes that stretch across and between government agencies and private and community sector partners.

Combining those three characteristics creates an NVO operating model, one that has the strengths, values, and expertise of clusters of organizations, whose combined resources are well beyond anything that any of the individual players could contemplate on their own.

FIGURE 3.1

Becoming a Networked Virtual Organization

Traditional		Leading		NVO
Centralized	→	Distributed	→	Collaborative
Organizational size	→	Organizational value	→	Constant core focus
Positional power	→	Information power	→	Intellectual power
Vertical integration	→	Extended integration	→	Virtual integration
Predictability	→	Responsive/flexible	→	Proactive
Long-Term planning	→	Near-term planning	→	Adaptive planning
Labor/management	→	Workforce	→	Intellectual capital

Citizen Centricity—Reversing the Order of Importance

In a citizen-centric NVO, the citizen is at the center of the network, effectively becoming a partner in the process. The citizen could be an individual, a business, or in the case of a public school, a child and the family.

A good example of this is an idea from the Canadian province of Ontario called "My Lost Wallet." The goal is to develop a service that allows a person who has lost a wallet to make a single filing with the government: This then prompts all relevant agencies to issue important documents such as a police report and an application for a new driver's license, without the citizen having to visit or file a request with each respective agency. This will speed up the process and reduce the hassle the customer goes through to replace official documents. A logical expansion of such a service is to broaden it to include nonpublic sector agencies, such as credit-card companies. This expanded service could be managed by a public sector agency, a private company, or an amalgam of the two. What is important is not who manages the service, but whether it best meets the citizens' needs.

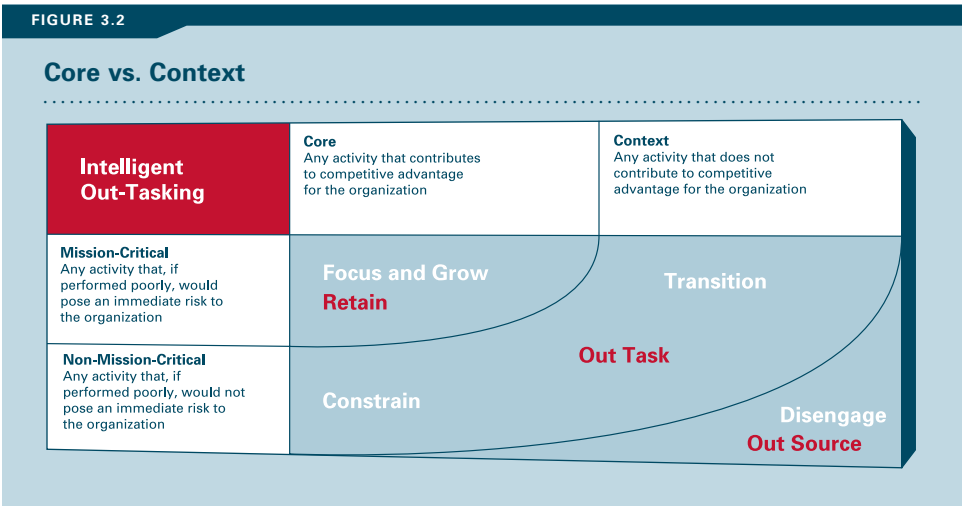
In a citizen-centric model, organizations continually ask the questions, "What does the citizen need? How can we respond rapidly to those needs? What can our organization do that is unique to add value for the citizen?" This frame of reference plays a critical role in helping organizations chart their strategies and decide which tasks they are best at performing and which would be better handed over to partners.

Core versus Context—What Can Others Do Better?

The second characteristic of an NVO is to concentrate on functions where it adds the most value because it has the most expertise or capability. In this model, each organization concentrates on what it does best. One organization concentrates on its "core," outsourcing its "context" functions to other organizations for whom those functions are core.

For some governments, providing an easy and convenient access point for people to obtain a business permit has become a context function. In that situation, there is no reason why office furniture stores couldn't be granted franchises to issue business licenses. Using customer satisfaction scores to examine which business is performing better in meeting citizen or government needs can lead to renewal of these public/private franchises. This in turn leads to higher value for citizens.

FIGURE 3.2



Continuous Standardization—Connect, Collaborate, Innovate

The third characteristic of an NVO is to adopt standard business processes, sets of data, and IT systems—in short, to steadily drive for continuous standardization. These standards allow government to operate much more efficiently, and allow the cluster of organizations in the networked model to more easily work together. From the perspective of the citizen, these organizations operate as if they were a single enterprise.

NVOs need to establish standard business processes inside their organizations as well as with outside partners. Some agencies, for example, might have different ways of handling citizen requests depending on whether they came in over the Internet, over the phone, in the mail, or in person. An agency operating alone might be able to reconcile these different ways of handling citizen requests. But when the agency is part of a network of organizations working together and sharing information, this way of operating will no longer work. Instead, the agency and its partners all have to handle citizen requests the same way.

Applying the NVO Model to Government

A prerequisite for NVO success is a highly visible leadership team—a steering committee driven to achieve the organization's goals. The steering committee should be selected early in the creation process, and roles and responsibilities should be clearly assigned. The steering committee must develop the overall objectives, goals, and strategies to realize the fulfillment of the virtual government mission; workshops are a good way to achieve consensus. The steering committee also needs to set a clear vision for the NVO. This may sound easy, but it often proves to be difficult—each contributor has its own perspective about why the NVO is being formed.

When groups of organizations work together, they can form an "ecosystem" of organizations, or a network virtual ecosystem. Because each organization retains a high degree of autonomy, governance is critical. One organization has to take a lead role as the facilitator or coordinator of the other organizations in the network. Part of this is securing agreement on a governance model that

CASE STUDY: Texas Integrated Information Response

Texas was faced with a legislative mandate that called for the Health and Human Services Commission (HHSC) to provide easy-to-use, one-number, toll-free phone access to health and human services to 80 percent or more of Texas citizens. HHSC elected to use the national approach to providing these services by implementing 2-1-1 call centers. In Texas these are called Area Information Centers (AICs). Like 9-1-1, the phone number 2-1-1 is a number reserved by the U.S. Federal Communications Commission for a specific purpose—in this case, providing non-emergency health and human services assistance.

Today, an individual can dial 2-1-1 from anywhere in Texas and get help from numerous public and private social service providers that may be based anywhere in the state.

Texas is one of the first states to launch 2-1-1 as a statewide virtual government. Helping citizens negotiate the growing maze of health and human service providers, government agencies, and community-based service organizations has required the integration of services from nonprofits, the private sector, and state government.

Other states are deploying 2-1-1 call centers as well, but the service is available in only select communities, not statewide.

establishes levels of organizational performance, specifying service delivery, training, legal, and other obligations that the participants have to one another and to their constituencies. (Many of these same issues—leadership, governance, and infrastructure—will be explored in greater detail in Chapter 4.)

After a vision for the new business model has been articulated, the virtual organization should align interactive and networked information and communications technology projects and resources with the business objectives of the NVO enterprise. Business processes within the NVO need to be standardized, and standard protocols need to be established to make it easier to link systems together. The model requires a significant improvement in areas such as interoperability, security, and common business rules—and above all, a common and consistent focus on customer needs and values.

These requirements demand considerable changes in the culture of the participants. The best way to achieve these changes is by setting achievable goals and moving toward them, not by attempting massive organizational change. Developing an

If HHSC had taken a standalone community-based approach, it would have had to deploy 25 local AICs and employ up to 1,000 new government employees to staff these facilities and deliver social service support 24 hours a day, every day of the year. The money was not available, so HHSC teamed up with the nonprofit sector to develop an alternative approach.

Instead of staffing the call centers itself, HHSC turned this over to nonprofit organizations, which provided the staff to the state of Texas at no charge. In return, the nonprofit organizations are provided at no charge with call center software, database technology, and access to a converged, Internet-based voice, video, and data infrastructure. Incoming calls are automatically routed to the call center best equipped to handle the question.

In this win-win approach, the nonprofits provide staffing for the virtual organization and the state provides the technology backbone. The 2-1-1 backbone uses the Texas State intranet backbone, appropriately called "TEX AN." A private sector company that participates in the NVO maintains the call center software and the system-wide database. The 2-1-1 database provides access to information on both local and statewide health and human resources.

NVO is about organizational evolution, not revolution. The steering committee should be prepared to market the success of new projects to the rest of the parent organizations.

Even as the NVO matures and becomes successful, it should always be ready to change, adjusting responsibilities or bringing in new partners as circumstances demand. The goal is not to move toward an ideal structure but to create a culture and a network infrastructure that can adapt continually to changing

What's Flexible and What's Not—Where to Draw the Line

There is an interesting dichotomy emerging in the design and delivery of Connected Republic solutions: that the best way to provide greater flexibility and empowerment to those delivering government services is to allow less flexibility in the design and architecture of the technologies that connect and support these same services.

Take education as an example. One of the goals is to give teachers greater flexibility to access online curriculum materials and resources and empower them to integrate these into their teaching strategies. To achieve this, teachers must be able to communicate easily, reliably, and securely with other people inside and outside of their schools. The best way to do this is to have standardized systems that can connect across organizational, jurisdictional, and geographical boundaries by limiting the type of technologies and applications that can be used within the educational system. Standardized systems will also be less expensive to implement and support—an important consideration in cash-strapped schools.

A similar phenomenon is happening in healthcare. Clinicians need rapid access to reliable, secure, and relevant knowledge on which to base healthcare decisions. Patients need easy access to information on which to base important decisions about their own health-related actions. The best way to provide the level of flexibility and responsiveness that patients, doctors, and other healthcare professionals need is to use an underlying IT infrastructure that is simple and robust: a standardized architecture.

What we are learning in large, highly distributed, and complex systems such as education and healthcare is that simpler is better. No single part can be successful unless the entire system is successful. Simplification and standardization are critical.

Where should the line be drawn? How far up the "stack" of infrastructure and

demands. This will only happen if there are incentives to reward citizen centricity over a silo mentality.

At the moment, public servants are generally rewarded for their performance within agency-specific programs and services. Few public servants, especially as they become more senior, get a clear and unequivocal career boost by connecting up with other agencies. If the connected outcome is a success (satisfied citizens, solved problems) but the benefit for an individual manager

systems (hardware, software, and network systems) should the search for standardization and simplification reach? What decisions have to be dealt with centrally and without much variation, and what decisions can be left to the customer or citizen? These are not easy questions to answer, and they are usually fraught with some measure of contest and controversy.

Based on years of working with many different kinds of customers, Cisco has found that the following elements are likely to need some amount of standardization:

- The overall architecture and system planning, including aligning information management and technology to the business or policy vision
- The design and delivery of network connectivity, ideally on the basis of a single converged network capable of integrating data, voice, and video traffic
- The core data standards, especially for data that needs to be exchanged across systems and between players
- The core business processes and systems that are used to manage the organization
- Some of the core applications, such as databases, financial management, and human resources

This list does not begin to deal with the complex issues that confront every organization. Each situation is unique, with its own answers to questions such as the following: What types of applications are core and need to be standardized, and what types of applications can be left up to individuals to choose based on their own needs? What business processes can be standardized without impinging on individuals' abilities to creatively deal with their unique situations? In the end it is a delicate balancing act, one that must be continually adjusted as technology, conditions and people change.

is either unclear or missing altogether, it is unlikely the behavior will last. When it comes time to submit the work of the NVO to the scrutiny of the audit process, it is crucial that the audit focus on the effectiveness of the whole and not just the individual parts.

Adopting an NVO approach means that in the Connected Republic public sector organizations are characterized by three competencies:

- The ability to connect increasingly complex networks of interests, expertise, and resources across public, private, and community sectors to improve service, trust, and accountability
- The ability to share information and create practical knowledge from systems of open innovation and constant experimentation
- The ability to track, respond to, and in some circumstances anticipate changing conditions and demands

Changing the Design and Structure of the Public Sector

The previous section explored how the NVO model can be applied to delivering a particular public service, but the capacity of networks to link organizations has wider implications for the design and structure of the public sector. This applies both to the front-end systems that interact directly with citizens and to the back-office systems that manage processes such as finance, procurement, and human resources. As technologies continue to develop and, more importantly, as cultures change, there will be increasing pressure—and increasing capacity—to escape the constraints of traditional, function-based structures to build more flexible networks of organizations that link across organizational and functional boundaries.

Typically, governments recognize the case for restructuring. They understand that citizens and stakeholders are arranged in interest groups that do not neatly align with existing institutional structures and that this hampers the provision of citizen-centric services. The first hurdle that governments face when trying to rectify this is cultural. Most public servants are recognized and promoted based on the rewards they bring to their own organizations or agencies. Public employees are usually not rewarded if they refer a citizen to another agency for help. Instead, that agency gets the credit, not the person who made the referral.

Ministers and senior managers have generally responded to this dilemma by trying to align the structure of the bureaucracy with groups of citizen interest: the "Machinery of Government" response. This confronts them with the second hurdle: citizens do not arrange themselves into mutually exclusive groupings of need or interest that fit nicely with the functional focus of most government agencies. The homeless may need education; some in need of education will be seeking employment; some who are seeking employment will need social security support; some in need of social security support may also be taxpayers; and some taxpayers will have pension entitlement.

The Machinery of Government approach to this dilemma can lead to major disruptions ("Let's take employment out of education and put it with social security"). It can also lead to the redundant proliferation of agencies and units. Instead of creating citizen-focused services, responsibility for addressing a particular problem becomes contested, leading to inefficiency and confusion.

A radically different approach to solving the problem is to be more holistic, to create a robust infrastructure and interoperable systems using online technology as the fundamental organizing principle. This frees data and knowledge from the confines of particular places or organizations and makes it both visible and accessible to people, regardless of institutional or physical location. This approach asks a series of questions:

- Where is there an unmet or poorly met customer need?
- Which agencies have the information that could help meet this need—or which are best placed to gather it?
- Which existing processes inside or outside the public sector are most like those needed to support the meeting of this need?
- What legislative, data protection, and security requirements stand in the way?

The answers to these questions can be used to design a fast, cheap pilot project that meets citizens' needs. This is likely to involve different public-sector and perhaps private sector organizations. It requires these organizations to deliver a particular service, rather than restructuring them in the mistaken hope that each can be the exclusive provider to a well defined and homogenous client group within the populace. Leaders of these transformation programs have to devise ways to reward people who work across boundaries and in ways that

focus on citizen needs. This has to be systematic, credible, and visible if behaviors further down the organization are going to change.

The challenge is that the leadership will have to rely for change on the very people who have benefited from the "old way" of doing things. As Machiavelli noted in *The Prince,* "there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things, because the innovator has for enemies all those who have done well under the old conditions and lukewarm defenders in those who may do well under the new."

Another obstacle to redesigning public services is ensuring security. Protecting information provided by the public is the necessary foundation upon which

CASE STUDY: CentreLink

Over the years, Australia had created what seemed to be an endless array of government agencies, each charged with providing one piece of the social services to which citizens were entitled. It was a disconnected array of services that became increasingly frustrating for Australians.

This presented a challenge for the Australian government, which, like many private sector organizations, had grown in silos over the years. What the government needed was a way to link up its disparate agencies, consolidate its disconnected information sites, and offer a single, easy-to-understand contact point that linked customers to the right agency or agencies for their individual needs.

The solution was to create Centrelink, an NVO that orchestrates and links the services of diverse organizations. With Centrelink, Australians can access numerous government services using just one Web portal or telephone number. These include the Department of Employment and Workplace Relations; the Department of Transport and Regional Services; the Department of Veterans' Affairs; the Department of Health and Aging; the Department of Immigration, Multicultural and Indigenous Affairs; and the New South Wales State Government and Territory Housing Authorities.

Today, "We are the human face of government in Australia," says Jane Treadwell, Centrelink's deputy CEO of Digital Business. "Our goal is to make life easier and better for our customers." Treadwell explains, "Being a networked organization means you don't need to have everything inside, because you're linked to many

acceptance of the Connected Republic is based. Government leaders recognize that having multiple agencies within the connected enterprise seriously complicates security and authentication procedures. The numerous business applications associated with these agencies typically require separate authentication actions.

A more realistic way of overcoming the labyrinth of security activities is to centralize the security function, offering security and authentication as a shared service across the connected enterprise. Moving security and authentication into a shared service environment provides more robust and consistent security services that will lead to less exposure and greater assurances of protection.

In many countries, movement toward shared security services is being slowed by battles over who will be responsible for unique citizen identity. For the citizen,

organizations that have extended capabilities. If you can share resources, know-how, and capabilities, you can make a huge difference. Our job is to hide the complexity of government and other organizations behind our Website and make life easier" for constituents.

Centrelink is now Australia's largest statutory authority and the country's third-largest public sector employer. It provides the technology infrastructure that allows the virtual organization to quickly draw on one anothers' capabilities, sharing resources and knowledge.

Centrelink's customers include families, students, retirees, veterans, job seekers, people with disabilities, single parents, and primary caregivers. Centrelink comprises more than 27,000 staff members and agents and 300 customer-service centers and hosts the second-largest call center network in Australia, handling more than 60,000 customers a week. Through a philosophy of "No Wrong Door," Centrelink opens the government's shared information resources to citizens, communities, and service providers across the Australian continent.

Australia is now taking Centrelink one step further by developing a concept it calls "Lego®" government. The vision of Lego government is to craft information flows that provide an integrated set of services. It achieves this by creating standard IT and information building blocks that can be locked together and unlocked in varying sets of new services. The concept of Lego government begins to push the limits of the traditional business of governing.

it does not matter whether it is the ministry of administration or the criminal justice agency or a new agency that acts as the central data store. What does matter is that the state is able to remember who the citizen is and can support a "No Wrong Door" policy at the same time that it ensures citizens' security and privacy.

Citizens will demand secure operating environments or they will refuse to participate. Like online banking, people expect political officials to be accountable for the protection of personal data and private financial and health records. This will require government leaders to invest authority in nontraditional offices such as a Chief Information Officer (CIO) who will have enterprise-wide responsibilities. The decisions made by this central authority will directly affect citizens; it is crucial that the governance model includes direct participation and influence by citizens. Trust and dialogue are closely connected. The aim should be to create networked communities of interest that are capable of engaging in digital conversations that will guide the centralized offices.

Whose Information Is It Anyway?

The Connected Republic requires dramatic improvements in the level of trust that exists between citizens and government. Achieving this trust requires ongoing work on the mundane services constituents need frequently and often on the more difficult parts of the reform process, areas such as privacy, authentication, confidentiality, and identity.

Developing a deeper level of trust between citizens and government also requires a societal debate about the creation, ownership, and control of information and to what extent that process can be shifted away from the government and put in the hands of citizens and their communities. This will be a difficult and protracted debate, as those that want to give citizens more control over information, enabled to some extent by the new technologies, clash with old-fashioned notions of political and bureaucratic control, often enabled by the very same technologies.

The Connected Republic sets a clear vision and direction, but it doesn't by itself solve some of these profound, underlying contests. The resolution of these issues will only come after a determined dialogue has begun and new policies are developed with the full input of the citizens themselves.

The more this happens, the more we are likely to witness an important convergence of the service delivery and citizen participation dimensions of e-government. Dialogue by Design, the UK online consultation company, has put these dimensions together, fired by the catalyst of the Internet, and notes what can happen as a result:

The advent of the Internet means that all organizations, including government, can treat citizens as individuals in the same way that successful businesses treat customers as individuals. Not only can citizens be provided with public services on an individual basis, but also the opinions of individuals in relation to such services can be collected, acknowledged, and responded to. Every opinion poll shows that it is public services that most exercise voters, and therefore if one were looking for an arena from which to strengthen democracy, it would make sense to start by giving people more say, more frequently, in the provision of public services. The opposite is also true: the failure to involve people in how their money is used will lead to a progressive de-legitimizing of public services. This is where the parallel worlds of e-democracy and e-government need to become thoroughly intertwined, with each strengthening the other.[2]

Changing the Culture of the Public Sector

Any attempt to make significant changes in a public or private sector organization has to confront that organization's own internal culture. New technologies can be deployed and new structures created, but significant change will only happen if the people in the organization change the way they think and act. New skills such as collaboration, team building, and project management have to be nurtured. New attitudes have to be encouraged so that government employees continually ask the question, "How can I make it easier for the citizen to deal with me and my organization?"

The Connected Republic helps public servants get back to the core values that first motivated many of them to get elected or join the public sector, such as commitment to openness and accountability, ethical behavior, and the pursuit of the public interest. This occurs because the Connected Republic allows employees to break out of the old organizational structures that constrain their work, allowing them to instead focus on meeting citizens' needs.

In the 1980s and 1990s, governments attempted to change the public sector culture. In response to concerns that the culture was too inward focused and bureaucratic, government introduced competition, thinking that the missing ingredient was something that looked like a market. This may be appropriate in certain contexts, but the Connected Republic provides a more general solution to the problem.

A transformed public sector requires employees to have a different mix of skills. Gone are the days when an elegant memorandum or a clever piece of policy writing constitutes sufficient public sector performance. Now, the demand is not just for good ideas but for the ability to deliver results that demonstrably have the intended impact on people and communities. As the leaders of public services in both the United Kingdom and Australia have recently made very clear, the new public sector holds execution and results as high in value.

Public sector workers must also get used to working across organizational boundaries and within informal networks rather than in rigidly defined hierarchical structures. Flexibility and the ability to collaborate with others will become critical skills. In some countries, the point may even come when individuals no longer define themselves as employees of a particular department. Instead, they will see themselves as public servants engaged in a series of projects that may have a common theme but that span the traditional responsibilities of several different departments.

The tools available to public sector workers will also be very different in the Connected Republic. Governments are only now beginning to recognize the extent to which Internet tools can replace routine, paper-based activities. Travel and expense reporting, governmentwide directories, self-service selection of health benefits, and payroll deductions are just a few areas that will change. These Internet-based tools do more than make workers more productive, they also contribute to a Web-enabled culture that cuts across departmental silos, reduces cultural distinctions of departments, and creates a more unified culture capable of adapting more quickly to changing demands. This can be further reinforced by developing:

- Network-based collaboration tools that bind project participants more closely, creatively, and effectively and lead to better results

Changing the Civil Service Culture in the United Kingdom

The United Kingdom is committed to making profound changes in its Civil Service culture. The depth of those changes was outlined in a September 2003 letter written by Sir Andrew Turnbull, the head of the Civil Service. The letter was addressed to the entire staff and called on the need to do four things:

"Put our customers first: We must improve the use of customer feedback to inform our work from policy through to delivery, and use this to look at the way services are delivered to the public. Through informed changes, we will make it easy for our customers to access all of our services quickly and to improve their experience of dealing with government. We need to consider the scope for re-engineering our back-office functions—such as finance and HR, to harness e-technology, take advantage of the best public and private sector practice, and reduce the administrative burden on our staff.

Improve and develop a wider range of delivery skills: We need specific skills to provide customer-focused services and to re-engineer the back-office functions. These include programme and project management, which is an increasingly core requirement in getting policies to implementation.

Continue to develop our relationship with local public services: We have to devolve more decision making to local managers, increase incentives for high performance, allow the best local leaders to use their expertise to improve other institutions and reduce bureaucracy on local services.

Develop strong leadership: A group led by Permanent Secretaries, and including people from the public and private sectors, has developed new proposals for improving leadership in the Civil Service. These will help us to create visible leaders who inspire trust and take personal responsibility for delivering results effectively and swiftly. We will make sure that we identify and develop our future leaders early, to lead the public services of the future through gaining a range of experience from across the public and private sectors."

- Integrated and multiple communications channels between different levels and parts of organizations to tighten organizational focus and effectiveness
- Network-delivered learning that can develop skills for all types of workers, from policy makers to front-office assistants

The U.S. National Aeronautics and Space Administration (NASA) took this approach when it initiated the "One NASA" program. The goal was to find ways to get myriad public and private organizations that work with NASA on complex programs such as the Space Shuttle to operate as if they were one company. One of the ways that One NASA is doing this is by deploying Internet-based applications and tools that cut across departments, agencies, and the public-private sector divide. These tools are helping NASA create more unified business processes and a more unified culture.

Tough Work, Huge Rewards

Delivering the kind of transformation that has been described will not be easy. Even countries that are widely considered to be e-government leaders are finding implementation to be difficult. A November 2003 report by Canada's Auditor-General provides one example. It noted that four years into the six-year Government Online strategy, there were still important risks that, if left unattended, would render the entire program "an expensive and underused vehicle." The Auditor-General added that outcomes and results were insufficiently defined, and that there was an insufficient focus on governance and leadership to give "greater direction and leadership" to the overall program.

A recent report by the IT research firm International Data Corporation (IDC) on the Nordic countries' e-government programs arrives at similar conclusions. The report argues that before the Danish government can claim to have an efficient digital administration, it has to confront the persistent challenges of integrating applications, developing internal organizations and work processes, and getting more Danes to use digital signatures. The same report points out that Finland needs to focus on integration of applications supporting different public services, pending political decisions on standards and more work on service automation. Sweden faces similar challenges: data standardization, redesign of applications, automation, and procedure change. In a reference

likely to resonate strongly around the world, the IDC analysts note that Sweden has concentrated on IT implementation but now has to confront the challenges of organizational development.[3]

The challenges of implementing major changes such as these are huge, but so are the rewards. The financial benefits, for one, can be significant. The French government announced in February 2004 a new multibillion euro investment in its e-government program. It expects to save between 5 and 7 billion euros a year from 2007 onward. This would represent a savings of 7 to 10 percent of the French central administration's yearly running costs. The savings would put the French on track with similar initiatives at its European counterparts: 1.65 billion euro savings over four years in Germany, 1.42 billion euro savings over four years in the United Kingdom, and approximately 2 billion euro savings in Italy and Spain.

Transforming the public sector is not just about saving money. It is also about transforming the relationship between the state and its citizens. It is about creating a new vision—the Connected Republic—which actively involves citizens in the creation of public policy. It is a vision that can renew the public's trust in the process, and renew the legitimacy of the state. It is a grand vision but one that the emerging evidence suggests is not only possible but also vital.

1 This section is based on *The Bridge: Making Money the NVO Way,* Cisco Internet Business Solutions Group, 2003

2 *E-participation and the future of democracy.* Andrew Acland, February 2003. Dialogue by Design, http://www.interactiveweb.org.uk/papers/E-Participation%20and%20the%20future%20of%20Democracy.pdf

3 *Nordic countries lead Europe for e-government, finds new research,* eGovernment News, February 11, 2004, http://europa.eu.int/ISPO/ida/jsps/dsp_showDocument.jsp?printerVersion=1&documentID=2141

CHAPTER FOUR

Building Trust and Engaging the Citizen[1]

To understand how technology can fundamentally change the democratic process, imagine a community where the entire political process caters to citizens, from the initial agenda setting, to the policy discussions, to the final decision making as a continual process of democracy. This is made possible by interactive and networked information and communications technologies, combined with more traditional methods of engaging citizens. Using these new techniques, individuals are not only able to express their views about policies that have already been determined but are also able to help determine what those priorities should be. What's more, because the new technology is easy to use and readily available, citizens find it easier to get involved. This leads to a significant increase in the numbers and types of people who become involved in the political process.

When people e-mail their local representatives in this imaginary community, they get a response. Having registered their interests, they are automatically notified about new documents or events that relate to those issues. People can easily access the information they need on any topic. The online discussions are well designed and expertly moderated, and the purpose of the discussions is clear in scope and intended outcome. People see the impact of their contributions on government and the programs and services it offers. Because of this, successive rounds of consultation pull in even more citizens and create even greater enthusiasm for the technologically enabled process. In this community, a virtuous circle of participation and democracy has developed.

The preceding description may seem utopian, but many aspects of this scenario are taking place in different communities around the world today.[2] There is

mounting evidence that interactive and networked information and communications technologies are playing an important part in increasing the reach, quality, and impact of citizen engagement and participation.

Technology is playing a greater role in the search for legitimacy, a quest that lies at the heart of the democratic renewal. This new form of democracy is a crucial part of the Connected Republic.

While progress is still limited, the direction of e-democracy is clear. It is hard to find a contemporary analysis of the future of e-government that doesn't at least partially acknowledge its potential for improving the quality and effects of citizen participation and engagement.

This is not a "business as usual" notion of democracy. Just as the Connected Republic points to a new way of governing, e-democracy involves new forms of engagement and participation. Tom Bentley, the director of Demos,[3] refers in a recent study to a "broader challenge…to define a form of 'distributed democracy' in which people's own direct participation in producing public goods such as health, education, and community safety is expressed through the way they deal with local institutions and help create local public value…."

How Digital Technologies Enhance Democracy[4]

There are four main attributes of a successful and engaging democratic process. It should be **close to people,** not just in terms of distance and access but in terms of cultural relevance. It needs to reflect a **sense of mutuality,** a recognition that the problems facing government and communities can only be solved together. It must find a way of distilling all of the varied voices of a democratic conversation into a **coherent view** about how to deal with challenges and which priorities to follow. And finally, it has to ensure that government representatives exhibit **empathy toward the people** they govern.

If these four dimensions—closeness, mutuality, coherence, and empathy—are the attributes of a truly connected democracy, what do the new interactive and networked information and communications technologies contribute to the process?

When it comes to the idea of closeness, the digital world offers unprecedented opportunities for copresence—the ability for many people at different times and

In Bentley's concept of a distributed democracy, there is "…a more direct and interactive relationship between state and citizen, diffused across a much wider and continual range of activities. To be capable of responding and adapting across our complex, mass-scale societies, governments need more than strategic brilliance and sophisticated networking. They must also rely on new methods of deliberation and legitimisation, both to draw on the ideas and innovations generated by citizens and to make new priorities, tools, and responsibilities acceptable."

The analysis goes on to suggest that within that framework, "the very meaning of democracy starts to shift: from choosing between simplified alternative programmes of policy 'commitments' to a more continuous exchange of ideas and experience and a public weighing of the costs and risks of alternative options."[5] These are startling possibilities, but they also represent a natural evolution in the democratic experiment—in large measure driven and facilitated by the new interactive and networked information and communications technologies.

So how can the democratic conversation—which relies on people and communities being actively engaged in the deliberations and decisions of government—be

places to essentially be in the same space at the same time and to be part of the same conversation. The concept of mutuality is mirrored exactly by the pervasive power of the network: to connect people and information faster, more reliably, and safely.

If we want a level of coherence from our democratic conversations, we need a tool that allows many voices to be heard and distilled. We need, in other words, the Internet's capacity for dialogue or, as Stephen Coleman describes it, "polylogue": many voices, one conversation. And finally, the exploding phenomenon of blogging and the associated rise of reality TV illustrate the Internet's capacity for self-disclosure: the ability to quickly, cheaply, and effectively present who you are and what you believe to the rest of the community.

- Closeness requires co-presence.
- Mutuality relies on the network.
- Coherence draws on dialogue.
- Empathy assumes the capacity for self-disclosure.

refreshed? How can societies reverse the erosion of confidence and trust and start to build a robust platform from which to confront and resolve the complex and demanding challenges that society faces?

The starting point is to recognize that, despite the disaffection that seems to plague society, people still retain an instinct for engagement and participation in the issues that affect their lives and the communities in which they live, work, and play. There isn't a clamor for direct democracy or to take over the administration of every aspect of government. People do want to be involved, however, and government has to find effective ways to respond.

The way government responds to citizens' demands for greater input and control over the public sector will be broad and varied. It will include how people contribute their views, ideas, insights, and concerns, and how the decision-making process responds to these inputs. It will include the formal structures of public policymaking, from legislative processes through to the structures of advice and implementation on which they rely. It will also include the way the decision-making process is held accountable, not just at the ballot box, but as part of a continuing drive to make the entire process more transparent, legitimate, and understandable.

Responding to these challenges for increased democracy is just as important in the Connected Republic as meeting demands for more efficient and citizen-centric services. In fact, the two are inextricably linked. Both help achieve the underlying goal of building trust and communication between government and the citizen. To succeed, both require the intelligent integration of new interactive and networked information and communications technologies.

While it is easy to dismiss the more extreme claims of the earlier digital democracy movement, one should not underestimate its true potential. These technologies are already making a difference. They are affecting every stage of the policy and governance process, including listening to citizens, identifying problems, collecting and sifting evidence, selecting and implementing a preferred solution, and evaluating the results. The very things that inform the democratic renewal project—transparency, wider and more persistent engagement and participation, and better-informed and more active citizens—are either impossible or much harder without harnessing these new technologies.

The backdrop against which this agenda is developing is captured in the recent Organisation for Economic Co-operation and Development (OECD) report

titled *Citizens as Partners*. The report notes that highly educated, well-informed citizens expect governments to take their views and knowledge into account when making decisions. The report outlines five reasons why government should strengthen its relationship with its citizens:

- To improve the quality of policy by allowing government to tap wider sources of information, perspectives, and potential solutions at a time when policymaking is more challenging because of increasing complexity, policy interdependence, and time pressures
- To meet the challenges of the emerging information society, prepare for greater and faster interactions with citizens, and ensure better knowledge management
- To integrate public input into the policymaking process and meet citizens' expectations that their voices be heard and their views be considered in government decision making
- To respond to calls for greater government transparency and accountability, as public and media scrutiny of government actions increases and standards in public life are codified and raised
- To strengthen public trust in government and reverse the steady erosion of voter turnout in elections, falling membership in political parties, and surveys showing declining confidence in major public institutions[6]

This analysis underlines the importance that new technologies can play in not only making government services more efficient and accessible, but in also enhancing the way citizens participate in the democratic process itself. While people are undoubtedly happy that e-government has brought them choice, they are searching for the same technologies to give them voice. The two things are not to be confused.

E-Democracy's Potential

E-democracy can be defined as the use of interactive and networked information and communications technologies to engage citizens in public policy discussion and decisions. Looking back over its short history, e-democracy has evolved through three phases. It began with an initial burst of hyperbole and technopopulism, with early ambitions for new forms of direct democracy and

the radical transformation of politics. It gave way to a more settled search for ways to integrate an online dimension into the conversation between politicians, policymakers, and the wider community. That led to a period of adaptation, fueled by a more pragmatic search for ways to improve how governments and citizens debate, deliberate, and decide.

The term e-democracy has in some ways been both a misnomer and a barrier to its more widespread and enthusiastic adoption. The focus on electronic voting in particular—an important but not transformational issue—has been a distraction. It has obscured more significant questions such as how online technology could be used to bring more people into the process of developing public policy. The e-democracy debate is not about direct democracy or the disintermediation of the political, policy, and representative democratic processes. Rather, it is about exploring the significant potential that new technologies offer to address the critical challenges of engaging citizens in the development of policy and the democratic process. The underlying challenge is not only to increase the extent to which citizens are involved, but also the extent to which they feel involved. Citizens are looking for evidence that their views and preferences are being taken into account in the policy process.

The term e-democracy covers numerous possible initiatives. A recent Australian study identified the following types of activities:[7]

Webcasting government activities and debates have been conducted in Europe and North America, as well as the Parliament of Australia, and the Queensland, New South Wales, and Western Australia Parliaments.

E-petitioning has been part of government processes in Scotland, the United Kingdom, the United States, and the Philippines.

E-voting has been explored in Europe, the United States, and Australia.

E-polling to gauge public opinion on specific issues has been used in the United States, Singapore, and the Philippines and considered in Europe.

Online consultation has been conducted in New Zealand, Canada, Sweden, Denmark, and Australia.

Public net-work, or e-public work, involves government facilitating the reciprocal exchange of information to provide information for government decision making and to implement policy change.

Other electronic participation methods include referenda, public hearings, opinion surveys, negotiated rule making, consensus conferences, citizens' juries and panels, public advisory committees, focus groups, and electronic town halls. These have been used in the United Kingdom, Europe, and the United States.

The most developed of these activities is online consultation. As one recent review has noted[8], online consultation offers governments and citizens several benefits. The most obvious benefit is that it transcends time and space. Participants can discuss subjects over a period of hours, days, weeks, or months in an asynchronous fashion, and they can be located anywhere. Like many radio phone-in programs, online discussion tends to be closer to the language of ordinary people. It also builds connections between groups that would probably not have communicated otherwise. Politicians, who do not ordinarily interact directly with citizens, find themselves in a position of connectedness with people who had been a passive audience.

Online civic engagement often begins by focusing narrowly on a local issue but tends to broaden into wider issues involving online and offline connections between people who would not have otherwise met. This virtual community can be enriched by deliberately recruiting people to online discussions whose specific experiences and expertise can inform policy discussions. This can help bring in disadvantaged or marginalized groups and can help make policy formation more inclusive and reflective of real problems. Online discussions can also help educate participants in political debate, bringing them into contact with new ideas, new sources of information, and new ways of thinking about issues.

Creating a Successful "Digital Dialogue"[9]

When creating or evaluating online consultations and other forms of online political discussion, it is useful to ask these questions:

- Do the citizens know these online forums exist?
- Do they have ready access to them?
- Does the technology work properly?
- Do the topics that are discussed interest the citizens?
- Are the topics presented in an enticing way?
- Is it clear to citizens what kind of influence they have on the decision-making process?
- Are citizens comfortable about expressing their opinions in writing in an online forum?
- Do the politicians put forward political issues in an early stage in the decision-making process?
- Do the online moderators have the necessary skills and time to prepare a meaningful debate?
- Do the online moderators have the freedom to edit the material delivered by politicians and administration in order to present it in an enticing way?

E-democracy is about more than changing how government interacts with citizens. It is also about bringing people together outside of traditional government structures to tackle issues of public concern. Activist and researcher Steven Clift uses interactive and networked information and communications technologies to facilitate action by citizens and communities. One of his goals is to move away from an advocacy or petitioner model—where government sets the terms and people get invited in to participate and be consulted and toward a model where citizens control the agenda. Clift calls his approach *E-Public Work*.[7] He envisions government shifting its role from sole provider of public services to facilitator of those working to solve similar public problems.

"Stakeholders include other government agencies, local governments, non-governmental organizations, and interested citizens. Essentially any individual or group willing to work with the government to meet public challenges may be included. In a time of scarce resources, E-Public Work is designed to help governments more effectively pursue their established missions in a collaborative and sustainable manner."

One of the ways Clift does this is by creating E-Public Work Websites, which bring together quality information resources on a timely basis. Finding what you need when you need it is more likely to occur when a community of interest helps create a comprehensive resource. A similar effort was launched recently by the iCAN Website, hosted by the BBC in the United Kingdom. The Website (http://www.bbc.co.uk/dna/ican) describes the initiative in these terms: "iCAN is a new BBC service that aims to help people start doing something about issues in their life. You can find advice, inspiration, and a growing number of people able to help you." The iCAN Website focuses on local affairs, connecting people and resources, and creating awareness and knowledge about issues that affect communities, such as traffic, development, environment, and social care.

The goal of these kinds of initiatives is to build communities of interest by involving individuals and organizations in the development and everyday use of a collaborative Website. The biggest challenge is not constructing the sites or compiling the e-mail lists; it is sustaining interest in the community and its Website. Clift cites the CommunityBuilders Website run by the Premier's Department in New South Wales, Australia, as an example of a Website that effectively sustains citizen involvement by incorporating online deliberation and

information exchange. Like others, Clift concludes that providing connections to decision makers and government authorities is crucial to success.

Paradoxically, Clift notes that when an effective online involvement program on the implementation side of government is connected to agency leaders, it may reduce the need for online consultation on the input side of policymaking. This is because the exchange of experiences, ideas, and feedback on government work by stakeholders early in the implementation process allows the agency to make midstream corrections. It functions like an early-warning system on future policy issues, allowing agencies to make changes incrementally rather than waiting for future political battles that require major reforms.

E-Democracy in Action

E-democracy is more than a theory. Many communities around the world have already deployed various forms of e-democracy that we can analyze and build upon. There is the impact of blogging (using the Internet to write and share personal, diary-style commentary), whether it is used by journalists, legislators, or ordinary citizens facing extraordinary circumstances. And there are many examples of online consultation. In the United Kingdom the Hansard Society, a nonpartisan body that works closely with Parliament, has facilitated numerous online consultations in association with different Parliamentary inquiries. It recently reviewed these projects and concluded that e-democracy presented opportunities to strengthen and add value to representative democracy but not to replace it.

The Hansard Society report warned that governments needed to be aware of three dangers. One is that the Internet is still not used by all segments of society. Projects should not be built around the assumption that people own their own computers and can access the Internet in their homes. The Internet is also a largely monolingual medium. In a multilingual society such as the United Kingdom, efforts need to be made to provide content that can be understood by everyone, regardless of native language.

A second pitfall of e-democracy efforts has been a tendency to invite members of the public to participate online and then to ignore them.

A third danger is that the discussion of e-democracy tends to become technical—focusing on Website broadband and the like. In the end, this debate will not

be won or lost on the technical issues. As the report noted, the agenda for e-democracy must be set by people who want a more effective democracy, not by those who want to create bigger text files or fancier online graphics.

The United Kingdom offers some good examples of how network technology can bring citizens together in virtual communities that can better make their voices heard. In 2002, a group of mothers in Harrow set up an online forum called Netmums (http://www.netmums.com) to provide local information and discussion groups about childcare issues. The service has blazed an impressive trail, attracting corporate sponsors such as BT and spreading across the country to local groups of mothers who have launched their own local Websites.

The Netmums group has grown so large that it now holds meetings with industry bodies and members of parliament (MPs) about issues such as food labeling. It has attracted the patronage of famous names such as businesswoman Anita Roddick, founder of the retail chain The Body Shop. "The online community means that we are now taken seriously," said Netmums cofounder Sally Russell. One example of the group's work is its current campaign, "Stop Pushing Junk Food to our Children." This initiative involves collecting the views of mothers on this issue and feeding the results into the work of the Food Standards Agency.

There have also been numerous e-democracy initiatives in Australia. At the federal level, the Senate was one of the first legislative chambers in the world to grant electronic petitions the same status as those signed by hand. Desktop access to e-mail and the Internet was established for all parliamentary offices in 1997, and the parliamentary Website has established standard home pages for all members. The decision to make the written transcript of Australian parliamentary proceedings (Hansard) available online has drawn considerable praise from the academic and activist communities for the transparency it has brought to the legislative process. Parliamentary sessions and committee hearings are regularly Webcast, and the House and Senate committees of the federal government allow for e-mail submissions from their Web pages. The mailboxes are checked daily and are reported to be increasing significantly.

In the past two years, there has also been some notable innovation by Australian states. In 2001 the Queensland government, for example, issued its "E-Democracy Policy Framework," a three-year commitment to offer additional ways for citizens to provide input into the policy process. In the state of Victoria in 2002, a parliamentary inquiry was set up under the Scrutiny of Acts and

Regulations Committee to find ways in which technology could be harnessed to give Victorians a more active role in the decision-making process.

Both states have taken practical initiatives to promote e-democracy: inviting feedback on issues posted on the state government Website, providing access to Government consultation documents relevant to these issues, Webcasting parliamentary debate, facilitating the submission of electronic petitions, and providing e-mail and SMS alerts about upcoming parliamentary business. In establishing these new mechanisms of participation, both state governments have stressed that the goal is to enhance the representative system, not to introduce direct democracy. E-democracy is clearly seen as a supplementary tool, not a replacement.[11]

During a review, the state of Victoria found[12] that local governments were increasingly using the Internet to engage citizens. Almost all were using their

Guidelines for Effective Online Consultation[13]

Create a purpose for the deliberations: a role within the government or legislative consultation process that adds value for citizens and policymakers. Make sure there is a feedback mechanism to the users.

Provide a list of questions or starting points to trigger debate in specific areas. These should be set by legislative committees or government departments during consultation periods.

Aim for active and transparent moderators. Always forewarn users when a comment is going to be removed, and offer them a chance to resubmit the amended message. Make the rules of discussion and moderator decisions transparent to everyone. The moderator should be proactive, posting messages that probe and ask questions.

The moderator should assume the role of seminar leader rather than referee. Positive interruptions, such as offering additional information or links to relevant Websites, should be encouraged. The moderator should build rapport with all users, making sure that no single participant or group of participants dominates the discussion, and that new entrants feel secure and confident to enter the discussion. Creating an inclusive atmosphere is vital.

Invite representatives from government to moderate relevant discussions. The presence of a moderator with real credibility enhances the quality of the discussions, encourages more civilized deliberation, and allows for greater control over the direction of the discussion.

Websites as a place to provide basic information on the local council and its services, announcements, and agendas of upcoming meetings; the minutes of previous council meetings; and contact information for councillors and the mayor. A handful of local governments had gone even further, using network-based tools to facilitate regular communication with their constituencies. These tools included online feedback or forms, real-time forums or chat rooms, public message boards and the Webcasting of council meetings.

The review by the state of Victoria noted that as the use of the Internet grows, there will be opportunities for local governments to engage larger numbers of citizens. Consultation has always been an important part of engagement and good governance practices, but network technologies allow this to be taken a step further. The review concluded, "there is emerging practice and terrific potential for e-consultation to become part of an effective consultation approach for the local government sector."

Use a registration procedure that is sufficiently detailed to target specific groups that may have relevant experience or knowledge in the subjects being discussed. Registration should also include an "areas of personal interest" field, so that targeted e-mail can be sent to groups of people with similar interests (people interested in consultations on health issues, for example).

Post weekly discussion summaries so that new users do not need to read all of the old messages to find out what has been said. These summaries will also help prevent old ground from being revisited, stimulate new debate, keep lapsed users up to date, and make it easier for people to re-enter the discussion. The summaries can be e-mailed to people who request them or who have demonstrated interest in an area. An archive of all previous summaries should be kept on the Website.

Use reminder e-mail and SMS messages with a click-through to the Website at regular intervals during the consultation.

Create links to as many relevant Websites as possible. These might include governmental, legislative, community, e-democracy, educational, and media Websites. They could also include information sites such as help lines, charities, and citizens' advice bureaus. Doing this provides a service to users and facilitates a more informed debate.

In the United States, Democratic presidential candidate Howard Dean built a substantial organization and fundraising machine, in large measure around the Internet. It was remarkable not only because of the large amounts of money that were raised, but also because it demonstrated how social software can be used to create online connections that spill over into the offline world. Even though Dean's candidacy was ultimately unsuccessful, the lessons learned from his use of the Internet are being studied and built upon for future campaigns.

These examples have been drawn from only three countries, but they could easily be supplemented with examples from very different countries. The point is not to suggest that they are best practices or to claim that the particular countries concerned are world leaders in e-democracy. Rather it is to illustrate the range of possibilities that exist and to demonstrate that many countries are already actively involved in experimenting with them.

Encouraging E-Democracy

After a government has accepted the threshold idea that citizen participation and engagement should be a central feature of the next phase of its e-government strategy, the question then becomes how to move forward. The starting point is to recognize that the purpose of online participation and engagement is to build relationships, not just to provide a space to exchange ideas or collect opinions. Traditional strategies of public opinion polling and consultation are generally about gathering people's opinions about a policy or a decision the

Attributes of Online Consultation Processes that Do Not Work[14]

Don't allow the consultation process to turn into a chat room environment where people ignore one another. It should be an in-depth, deliberative process where there is a considered exchange of ideas.

Avoid "silent moderation," in which the moderator functions mostly behind the scenes. This creates misunderstanding and frustration because contributors don't know if anyone is managing the process. Contributors don't get any feedback, and the moderators, in turn, don't intervene to steer the discussion, appeal for better behavior by participants, or explain deletions of messages.

Don't forget to provide meaningful responses from government officials to the people participating in the consultation.

government has already made. This kind of polling tends to generate considerable cynicism, given the limited scope for any real discussion about the options that are available.

This contrasts with a deliberative, online approach in which citizens are given more time and more information, not just to give their opinion about a particular option or possible government decision, but to fully discuss the issues and play a role in the ultimate decision itself. These initiatives take more time and are often more contentious, involving citizens in a more complex exploration of the pros and cons of a particular public policy dilemma. While the process may be more difficult, it is potentially much more beneficial to both the citizens and the government. When done well, an online process can improve the capacity of citizens to understand and accept inevitable constraints that limit how much of what people may want can actually be delivered.

None of this will work unless the government takes the process seriously. Citizens need to know that their involvement has an impact, and governments need to make sure that they are engaging their entire communities. One has to move beyond relatively simple success metrics such as the number of people involved or the number of hits on a Website and instead confront more complex issues such as quality and effect. Governments need to examine the range and mix of voices and values heard in the online component. They need to consider the extent to which a more deliberative approach helps to change people's views, offering citizens a more balanced and richer understanding of the issues.

If the online forum is linked to a government or a policy issue, people who contribute assume their input will be considered by someone in government, and that their ideas will be responded to.

If the online deliberation lacks a clear purpose or connection to government policymaking, it will be difficult to maintain the quality and sustain the motivation of the participants. Instead, it is liable to become an outlet for ill-informed opinion, prejudice, and abuse.

TABLE 4.1

Actions for Overcoming Barriers to E-Democracy

Element	Main Issues
Purpose	• Secure real commitment and conviction about the value and impact of the process. • Make sure politicians realize the need for their involvement and active participation. • Clarify the policy mission of the initiative, what it is trying to achieve, and the boundaries and expectations for the process.
Design	• Select the right software to support the consultation and engagement process. • Design the appropriate interface for the Websites and other online components; one that matches the purpose of the overall initiative and is attractive and simple to use.
Recruitment	• Use a mixture of outreach strategies and multimedia techniques to actively recruit people to contribute to the online process. • Make sure that the right mix and range of participants is recruited to the discussion. • Ensure that the process is properly managed and that contributors are involved in the evaluation and assessment process afterwards.
Moderation	• Make sure the moderator takes an active role in guiding the discussion, eliciting comments from all participants and moderating any inappropriate behavior. • Provide simple rules for the way people should interact that are fair, open, and inclusive.
Summation	• Give a complete sense of the discussion, not just a summary of who said what. This might include the underlying story that is emerging from the discussion, along with its main themes. • Provide a credible and trusted summary of the discussions so people feel that all views are being properly represented. • Make sure that summaries are provided on a regular basis, especially for longer discussions.
Response and Outcome	• Report back to the participants about what people were expecting, and assess how close the process got to achieving those outcomes and intentions. • Make it clear what actions will occur as a result of the consultation, and explain the reasons for adopting or not adopting the ideas and suggestions from the consultation.

Government needs to consider whether citizens believe their involvement in the process has an effect. Finally, it should assess what value politicians and bureaucrats get from being more widely connected to a range of views and opinions.

Table 5.1 provides a roadmap for governments and communities that want to improve the impact and effectiveness of online consultations. It is based on the experiences of communities that have experimented with different approaches to the issue.[15]

Using this framework, governments should be able to move more confidently toward:

- Setting and managing clear expectations
- Positioning online, deliberative initiatives to clarify what they are intended to achieve and to provide the appropriate policy context within government
- Executing well (including the process, people, organizational, and technology components)
- Evaluating the results

The Connected Republic and E-Democracy

The Cisco Public Services Summit in Stockholm in December 2003 included a robust and wide-ranging debate about the concepts and implications of e-democracy. The discussions were vigorous, reflecting a considerable interest among governments from all parts of the world about what is clearly an increasingly important part of their e-government programs. It also reflected a sense of uncertainty and caution among senior government leaders; they know it is an important topic that needs to be confronted, but they also know it carries risks as well as opportunities.

Two priorities emerged during the discussion. One was to focus on applying the new interactive and networked information and communications technologies to improve the performance and impact of representative democracy. That means working with elected officials and staff to share innovative and practical ways to use these technologies to save time, connect with citizens, and navigate complex policy challenges. The second priority that emerged was to create more opportunities for policy makers, program managers, and citizens or customers to use various online services to share their ideas, knowledge, and concerns.

The Connected Republic is as much about improving the quality and impact of the democratic conversation as it is about securing better services and a more consistent search for public value. What is potent about the emerging contribution of interactive and networked information and communications technology to the Connected Republic is its ability to serve both of these tasks: to enhance the democratic experience while improving the delivery of public services. These technologies can help people give practical effect to an instinct for self-determination and the obligation to take active responsibility for producing collective solutions.

There is never a shortage of things to be done in the public sector. The demands are usually urgent, often contested, and always complex. The new technologies provide both a space and a set of tools that will help the Connected Republic to meet these needs more effectively. This means delivering results and nourishing the sources of trust and legitimacy on which the entire venture rests.[16] Whether or not this potential is realized is at least partly a function of the context and governing model to which one subscribes. If we are indeed witnessing a shift away from command management systems toward more deliberative and participatory processes, the new technologies will not only be useful, but in some cases essential to the process.

Harnessing the Creative Power of Citizens

"The critical shift, which will never be achieved only through smarter policymaking, is to find ways of involving citizens not just in understanding the problems and solutions, but also in contributing to them through their everyday choices and behaviours. A system of governance in which ideas travel faster through lateral networks of exchange has to be a system in which public institutions harness the creative power of citizens to generate solutions. This is where network-based methods for encouraging debate and deliberation intertwine with more distributed organisational structures for service delivery."[17]

Stephen Coleman has identified three trends he believes will affect e-democracy over the next few years:

- The growing use of broadband networks that support richer, more extensive, and easier communication will allow people, wherever they live, to more easily contribute to debates and discussions.
- The technology component of e-democracy will become less exotic and unusual and will focus more on graphic and multimedia forms of communications and exchange.
- A growing interest in the community-building value of many of the online participation and engagement tools and processes and a better understanding of people's capacity to engage and become involved in decisions affecting their communities contributes to a sense of ownership and commitment to those same communities.

These trends should contribute to the progress toward the Connected Republic. But the achievement of this vision will be flawed unless there is a sustained and imaginative commitment to tackling the challenges of citizen engagement and participation. If the e-government project is to mean more than simply improving the cost and convenience of public services, it has to address the larger issues of public sector reform and democratic renewal. Ultimately, the Connected Republic is all about using the network in the service of creating a stronger democracy.

1 This chapter draws on the research and writing of Professor Stephen Coleman, Cisco Professor of E-Democracy at the Oxford Internet Institute.
2 Taken from a survey of European e-democracy initiatives in Scotland, Denmark, Sweden, and Germany, *E-Forum E-Democracy Work Group 4: Initial Results,* edited by Ann Macintosh, Professor of E-Governance at Napier University, Edinburgh; September 2003.
3 http://www.demos.co.uk/aboutus/default.ajpx
4 This analysis draws directly from presentations by, and workshops with, Professor Stephen Coleman, Cisco Professor of E-Democracy at Oxford University.
5 *Governance and learning: The challenge of democracy,* Tom Bentley, DEMOS, OpenDemocracy Netdebates, June 2003
6 *Citizens as Partners: Information, Consultation, and Public Participation in Policy-Making,* OECD, 2001, pp.19-20
7 *E-democracy and public participation: A global overview of policy and activity,* Professor John Gammack and Associate Professor Michelle Barker, School of Management, Griffith University, A research report commissioned by the Community Engagement Division of the Queensland Department of Premier and Cabinet, June 2003
8 Blumler, J.G. and Coleman, S., *Realising Democracy Online: A Civic Commons in Cyberspace,* IPPR/Citizens Online, 2001
9 *E-Forum E-Democracy Work Group 4: Initial Results,* page 31, edited by Ann Macintosh, September 2003
10 *E-Public Work: Online Information Exchange in the Pursuit of Public Service Goals,* an early concept paper written for the OECD E-Government Project, September 3, 2003
11 This descrption is taken from a Salford University (UK) comparative research project, at: http://www.ipop.org.uk/
12 *Use of the Internet as a Consultation Tool for Victorian Local Governments,* Report for VLGA by Jenny Kowalski, RMIT
13 Adapted from recommendations in *New Media & Social Inclusion* Coleman and Normann (2000) and Hall, N., *Building Digital Bridges* (2001), both published by the Hansard Society
14 Adapted from *Hearing Voices, Evaluation of Online Public Consultations and Discussions in UK Governance;* Stephen Coleman, Nicola Hall, and Milica Howell; November 2002
15 This framework is taken from the executive briefing for New South Wales government officials given by Professor Stephen Coleman, June 2003
16 *It's democracy, stupid: An agenda for self-government,* Tom Bentley, Demos, http://www.demos.uk/itsdemocracystupid_pdf_media_public.aspx
17 *Governance as learning: The challenge of democracy,* Tom Bentley, DEMOS, June 2003 http://www.opendemocracy.net/debates/article-8-85-1314.jsp#

CHAPTER FIVE

Implementation Challenges

Earlier chapters of this book set out the vision of how the Connected Republic might develop as government confronts the interaction of three significant endeavors: defining the role and purpose of government in the Information Age, modernizing and reforming the public sector, and strengthening democracy. But a vision by itself is nothing. People need to be convinced that the vision means something. An overall framework for action must be developed around three key areas: organizational governance, Web-based capabilities, and technology enablers. It means tackling the detailed and often difficult work that is required to put in place the necessary governance, policy, and process reforms. The combined effects of these reforms will deliver the desired changes and create a culture of innovation.

It is not possible to detail all of the steps that are needed to implement such far-reaching changes, but this chapter is a start. It gives an indication of the complexity and significance of what in many ways will be a main battleground of the Connected Republic. Much of this work will test the institutional, cultural, and managerial resources in government. It will draw on new ways of thinking about planning, investment, and project management. Without this hard work, the vision of a more connected, productive, and engaged public sector will remain provocative but ultimately unfulfilled.

Provide Leadership

Creating the Connected Republic requires strong leadership at all levels of government, from department managers to the heads of agencies. Leadership has to start at the top, where strategic direction can be set and process reform

can be instituted. The first priority is a clear signal of commitment from top elected officials. Governments have done this in different ways. One approach is for the head of government to create an e-government czar. This official has the authority that comes from reporting directly to the head of government, as well as a dedicated budget and the ability to enforce standards throughout the government.

There are other ways leaders can underline the importance of creating an e-government. In the United States, former Pennsylvania Governor Tom Ridge made clear that his top priority was to move his administration from Industrial Age operations to Information Age government. He also made it clear that he wanted to change his state's image from an Industrial Age economy to an Information Age economy. Former Ontario premier Ernie Eves adopted a similar approach, called "Go-E-by-2003," which extended into all areas of government.

In each of these cases, leaders at the very top voiced their commitment to interactive and networked information and communications technology initiatives. They made it clear to those outside government that they were committed to providing better and more convenient services and to attracting new industries to a smarter province or state. Inside government, they drove this forward by taking a personal interest in how well agencies and civil servants met these goals.

Create a Project Portfolio

The number of different possible e-government projects can sometimes overwhelm governments. It often helps to group them into a portfolio. This helps ensure that the government is undertaking projects across many areas and is the first step toward deciding which projects to tackle first. Governments that Cisco has worked with have found it helpful to group e-government initiatives under the following six categories:

Government-to-Citizen (G2C)—These Web-based solutions, when coupled with conventional means for ensuring broad access, can lead to qualitative changes in the way services are delivered to citizens. The goal is to create easy-to-find, easy-to-use, one-stop points of service that citizens can use to access government services. These initiatives include modern relationship management tools to improve the quality and efficiency of service delivery.

Government-to-Business (G2B)—Interactions between government and business can be made better and more efficient by developing new initiatives that optimize processes and relationships between the two. The G2B initiatives can reduce the government's burden on business by adopting processes that dramatically reduce redundant data collection, provide one-stop, streamlined support for business, and enable digital communications with business using the language of e-business (Extensible Markup Language [XML]).

Administration-to-Administration (A2A)—These initiatives create effective interaction between various administrative structures at the national, regional, and local levels. They make it easier for administrative organizations, agencies, and localities to meet reporting requirements and to participate as full partners with the government in citizen services. They also make it easier to monitor performance, especially for grants. Other levels of government can get significant administrative savings and improved program delivery, because more accurate data is available in a timely fashion.

Internal Efficiency and Effectiveness (IEE)—IEE initiatives bring commercial best practices to important government operations. They improve the organization and optimization of business processes, administration-employee relations, and communications processes within the administrative structures. They do this by using industry best practices in areas such as supply-chain management, financial management, and knowledge management. Agencies can improve their effectiveness and efficiency, eliminating delays in processing and improving employee satisfaction and retention.

E-Culture Program—These are the "soft" initiatives, designed to change the way government functions (internally) and interacts with citizens (externally). It includes establishing education programs, building e-government strategies, preparing and sharing success stories, allying with other leading governments, partnering with major providers of e-government, and building public relations and media coverage around e-government.

Web Foundation—This is the infrastructure that is needed to run end-to-end government services for all programs. Initiatives include building better broadband access for individuals, organizations, and businesses; creating interactive and networked information and communications technology policies and standards for Web services; and developing a network plan and architecture that supports a long-term, e-government strategy. This is the grinding and

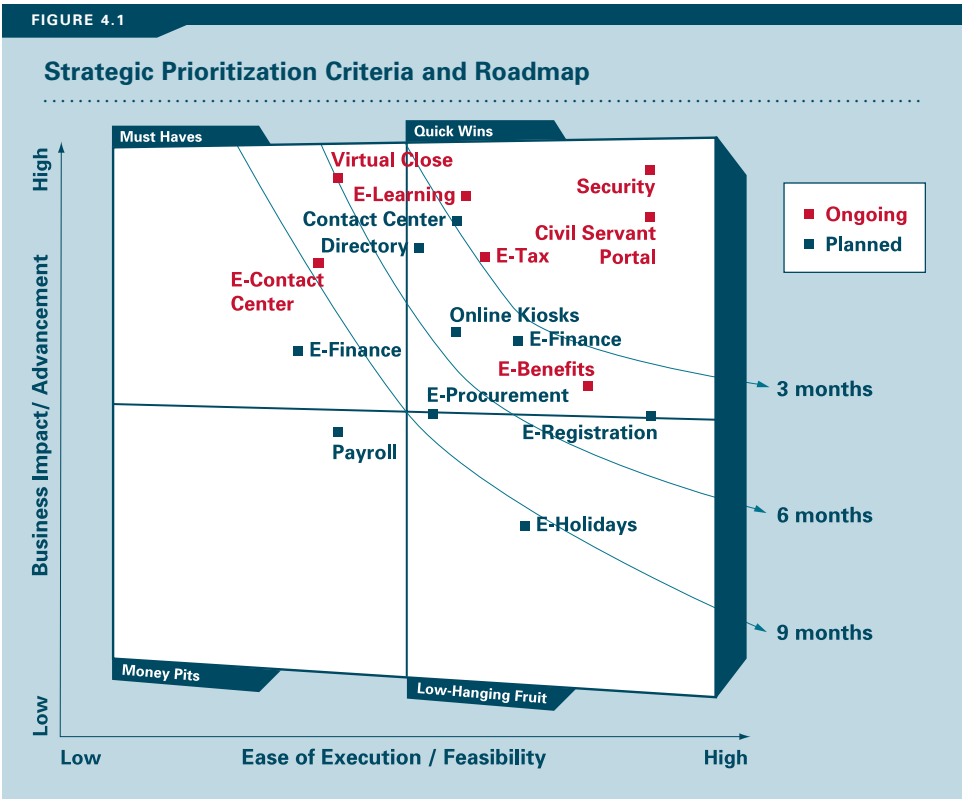
complex work that is necessary to ensure that the entire IT infrastructure takes account of issues such as authentication, security, identity, architecture definition, standardization, and interoperability for services and applications.

Prioritize Projects

After a portfolio of projects has been assembled, one needs to decide which projects to tackle first. This is best done through a systematic prioritization exercise. One effective approach is to classify projects in terms of business impact versus ease of execution. Metrics must be developed to assess business impact (for example, financial returns, benefit to citizen, and political priority) and ease of execution (considering resources, timing, and skills). Group projects by national, regional, and departmental levels. Select and rapidly implement those of high national interest first and pilot them at a regional or departmental level. Then extend them to the national level. After this has been done, projects can be placed on a traditional planning matrix such as the one shown in Figure 4.1.

Government and departments should start by implementing the projects in the top right-hand corner of the matrix shown in Figure 4.1: the "quick wins." These are the easiest projects to complete and have the greatest impact on the business. The "must-haves" in the top left-hand corner can be pursued next. These require more preparation because they involve greater risks. Initiatives in the "low-hanging fruit" quadrant need to be chosen selectively, based on the fit with the other programs. Because they are easy to do they are attractive, but the business impact is low. Finally, the initiatives in the "money pits" quadrant should be avoided because they have low business impact and are difficult to implement.

FIGURE 4.1



Get It Done

The key to implementing change is combining a compelling vision with ruthless execution. People need to be inspired by large, encompassing visions of what is possible. But the vision needs to be broken into bite-sized pieces that can be readily delivered; successes can fuel the motivation and commitment to try something bigger and more complex next time. Effective change tends to happen when one accepts "good" rather than perfection.

The following principles have been applied successfully by companies such as Cisco Systems and the United Kingdom's National Health Service:

- Conceive projects at a scale and scope that will not overwhelm people and systems and that deliver results quickly enough to keep people committed and interested.

- Create initiatives whose implementation timetable does not stretch too far into an uncertain and increasingly volatile future. Projects should be broken into small sizes (for example, three to six months). If nothing can be delivered in that period, the organization should move on to something else.
- Successful organizations recognize the need for ongoing and continuous e-business development and modification.
- Measure the results of the projects that have been implemented. Emphasize activities that can be measured and evaluated, and be sure to create incentives to motivate employees to reach established metrics.

Institute Governance

Absolutely central to the successful implementation of the Connected Republic vision is creating the right governance model for technology services. No one model is right for all countries, but every government must have one. Not creating an explicit governance model is a sure recipe for failure. In the process of developing a governance model, governments will need to address the following difficult issues:

Speed—How can we as a nation act quickly so that we keep up with the needs of our most advanced citizens while making sure that large portions, if not all, of our nation benefit quickly?

Scale and size—Traditional, large-scale, national, public sector IT systems have a habit of running over budget. We also know, however, that the opposite approach of allowing local governments to launch their own uncoordinated initiatives can lead to chaos and the Unconnected Republic.

Ownership—We understand the advantages of telling people at regional and local levels that they have only one choice. But there is always a second choice, which is to do nothing. That is why solutions imposed from the top often fail to lead to the desired outcome and become wasted investment.

Risk—We are exposed to intense scrutiny and must spend public funds carefully for maximum impact, but we also understand that to innovate we must be able to conduct rational experiments that run the risk of failure. How can we manage this balance?

Funding—We like the idea of spending money efficiently through national projects that maximize our buying power, but we know that national investment

is often seen as free money. It is therefore less valued than locally funded investment targeted at local priorities.

Standards—We know standards are important, but no matter how hard we work to create standards, there are so many different government organizations spread over such a large area that the standards are often ignored.

Integrated processes—How can we change the way we work across departments so our citizens see government as a single entity, not as a series of often-conflicting silos?

There are no easy answers to these questions, but any government that wants to be successful needs to solve these issues and make the solutions an important part of its governance structure and architectural framework. This will make it much easier to sustain innovation and quickly implement new services. It will also make it easier to monitor the benefits of the programs and learn from mistakes.

A crucial component of an effective governance model is accountability. Responsibilities need to be clearly defined at the central, departmental, regional, and local levels. Responsibilities must then be allocated to a specific individual, along with the right incentives, funding control, mandates, performance measurements, and interests that are required to fulfill them. Chains of command and problem resolution should be absolutely clear to everyone, and high visibility should be given to decisions, consultations, studies, and underlying standards. These principles are easy to articulate but difficult to apply. However, they are increasingly central to the success of governmentwide transformation programs that draw heavily on the integration of new technologies. Successful strategies include the following actions:

- Appointing a CIO at an appropriately high level in the organization. This focuses decision making and sends a signal to the whole organization that in an NVO, interactive and networked information and communications systems are as important as finance, legislation, and people.
- Making sure that IT responsibilities do not get inappropriately mixed in with other responsibilities, such as a joint CIO-CFO model.
- Openly publishing plans, studies, and decisions on systems architecture, implementation plans, and the like. This raises their visibility and increases the understanding between large, geographically distributed organizations.

- Creating a "Design Authority" committee that has representation from all user groups but is the ultimate authority on technical-, performance-, and service-definition decisions. The Design Authority becomes the clearinghouse for new ideas, for publishing the activities and decisions made by the Design Authority and for making its deliberations visible. This helps create speedy and resilient decision making.
- Making widespread use of consultation. Public and industry consultation can be used to great effect in addressing controversial issues, airing the various options, and building consensus for the way forward.
- Building a pipeline of knowledgeable talent within the organization that understands how to implement and use IT. Leading NVOs recognize the need for a group that has a common set of experiences, training, and motivation and that works hard to create a career path for its information cadre.
- Using performance measurements for systems staff that mirror the business performance measurements of their customers.
- Ensuring that the ultimate reporting responsibility for systems staff is to a business executive.

Implementing E-Government in the United States

The main weakness highlighted in the U.S. Government Accounting Office (GAO) assessment of the implementation of e-government initiatives in the United States was poor management accountability. "GAO's review of the initial planning documents for the initiatives highlights the critical importance of management and oversight to their success. Important aspects—such as collaboration and customer focus—had not been addressed in early program plans for many of the projects, and major uncertainties in funding and milestones were not uncommon."[1] When the report was updated in 2003, the message was similar. The GAO's recommendations to tackle the weaknesses were:

- Leadership support—Strengthen the connection between lead agencies, partner agencies, and CIOs and improve how agency leaders work together to implement projects.

These points apply across all parts of government. The aim is to ensure that interactive and networked information and communications technologies are given an appropriate priority across the entire organization and that staffing, funding, and other resources are allocated consistently and efficiently. Where the governance model is weak, the result is likely to be inconsistent or overlapping initiatives that conflict with each other, waste resources, and leave both internal and external customers disenchanted and even more resistant to new change initiatives.

Get Funding

Organizations tend to adopt one of two funding schemes: centralized or decentralized. Neither approach has turned out to be a simple or singular solution. Completely centralized funding leads to a lack of local user involvement or interest in the success of the program and little control over performance by local users on the centrally procured services. By contrast, completely decentralized funding leads to procurement anarchy, diversion of funds, and conflicting priorities. An effective funding system ensures that there is sufficient central control to deliver a robust infrastructure and high levels of standardization, coupled with enough local control to retain buy in from other parts of the organization and an approach that is business-driven rather than IT driven.

- Parochialism—Address current policies and budget practices that reinforce agency-centric thinking.
- Funding—Provide more resources in general (funding and staff) and make the budget process more transparent and effective.
- Communication—Better understand the interrelationships among the e-government initiatives, improve the interface between the Office of Management and Budget (OMB) and the lead agencies, and create a more cohesive, effective relationship with Congress.

The U.S. Office of Management and Budget (OMB) responded to this report with a set of recommendations by the President's Task Group. Table 4.1 details the solutions for overcoming these chronic barriers.

TABLE 4.1

Actions for Overcoming Barriers to E-Government

Barrier	Mitigation
Agency culture	• Sustain high-level leadership and commitment • Establish interagency governance structure • Give priority to cross-agency work • Engage interagency user/stakeholder groups, including communities of practice
Lack of federal architecture	• OMB leads governmentwide business and data architecture rationalization • OMB sponsors architecture development for cross-agency projects • FirstGov.gov will be the primary online delivery portal for G2C and G2B interactions
Trust	• Through e-authentication e-government initiative, establish secure transactions and identity authentication that will be used by all e-government initiatives. • Incorporate security and privacy protections into each business plan • Provide public training and promotion
Resources	• Move resources to programs with greatest return and citizen impact • Set measures up front and use to monitor implementation • Provide online training to create new expertise among employees and contractors
Stakeholder resistance	• Create comprehensive strategy for engaging Congressional committees • Have multiple PMC members argue collectively for initiatives • Tie performance evaluations to cross-agency success • Communicate strategy to stakeholders

Our experience shows that successful organizations design funding schemes that do the following:

- Motivate local involvement by linking performance measurement and payment between the local customers and any regional or national suppliers.
- Deal with the equity issue that frequently arises in large, distributed public sector organizations—where the normal practice is to evenly distribute funds according to population headcount, for instance, even when there has been uneven investment in enabling systems in the past. The dilemma to be solved is this: Do we reward past initiatives and investment but widen the gap between the most "connected" suborganizations and those that have not invested? Or do we penalize past investment by giving funds to those that have the least current capability?
- Ensure minimal leakage from standard technologies. This issue arises because distributed organizations often have local system or service selection processes that allow for high degrees of discretion in selection. Funding provided locally is therefore often channeled into nonstandard products or services. Against this, an effective funding scheme orchestrated from the center can have a significant impact on the adoption of standard solutions that aid the flexibility, efficiency, and cost-effectiveness of the entire organization.

Align Business and IT

Under the old way of implementing large, technology-based initiatives, an ambitious objective was identified and the project was handed over to an IT-dominated project team. After several years of work the project was complete, and IT and the business side would decide on the next big project. More often than not, this approach led to frustration and, in some cases, outright failure and scandal.

The alternative approach is to make sure that business and IT are aligned and work closely together throughout the planning, development, and implementation of the project. This approach is much more demanding, but ultimately more successful. Intimate, ongoing work between IT and end users is matched by a regular stream of deliverables with time horizons of three months or less. Quick results that show progress not only put the building blocks of the overall solution in place but also offer crucial and highly motivating evidence that things are happening and benefits are flowing.

Creating an organizational structure that can accommodate this new approach is a challenge. It requires careful analysis about who makes decisions and how decisions are made in at least four critical domains of IT: principles, infrastructure, architecture, and investment and prioritization. This approach

An Approach to Funding IT Projects

One way of striking a balance between national and local funding while maintaining common standards is to distinguish among three types of IT service.

1. Nationally funded services. These are services that benefit the whole organization and where local units are not charged for the benefits they receive from the services. On the contrary, local units are motivated to use these services.
2. Partially nationally funded services. These are services where the use of centrally chosen service providers is heavily subsidized, and the use of alternative services is actively discouraged through firm governance.
3. Locally funded services. These are services where a best deal has been centrally negotiated at a local call-off rate to avoid multiple tenders and lack of standards, but where the final purchase decision rests with the local unit.

is designed to build a partnership so that IT projects are effective and business driven. Cisco's experience suggests the following six guiding principles when aligning business and IT:

- Create close IT and business alignment at all levels
- Drive constant improvements with accountable metrics
- Adopt a governmentwide common and scalable infrastructure
- Adhere strictly to standards
- Have business leaders determine value tradeoffs for IT investment
- Ensure delivery of near-term results

On the basis of these principles, organizational roles and responsibilities can be defined as follows.

IT leadership:

- Establishes senior-level relationships and relevancy
- Provides a shared vision of the role of IT with department/agency functions
- Establishes the development and orientation of the culture
- Strives and promotes IT best practices and operational excellence
- Defines success criteria focusing on government goals

Funding mechanisms:

- Includes long-term planning that matches overall vision
- Provides for cross-departmental/agency synergies and optimization
- Establishes joint funding model between IT and departments/agencies
- Creates explicit IT and business roles and responsibilities
- Prioritizes IT investment and balances projects to IT capacity
- Ensures a win-win environment for both the government and its partners

Business leadership:

- Identifies business opportunities and required returns
- Evaluates and re-engineers department/agency processes
- Creates clear government vision and strategy that includes the role of automation
- Provides data ownership
- Develops department/agency understanding of potential of IT
- Ensures department/agency ownership and satisfaction

CASE STUDY: Aligning Business and IT in Ontario, Canada

Ontario is the second largest of Canada's provinces in terms of geography and the largest in population, home to nearly 12 million people: almost 40 percent of the population. Covering more than one million square kilometers, or 415,000 square miles, its landmass is larger than that of France and Spain combined.

In the mid-1990s, a new administration took power in Ontario, with an agenda focused on four main initiatives: reducing the size of government, improving the focus on citizens and taxpayers, eliminating silos, and creating a balanced budget. Underlying it all was a commitment to focus on Ontario's citizens.

"The clear emphasis was on becoming a client-service-driven organization, starting from the outside in," recalls Joan McCalla, the government's chief strategist. "The phrase 'quality service' emerged as a powerful theme." In response to these four initiatives, every ministry in Ontario developed a business plan that focused on its core business objectives, supported by complementary data and interactive and networked information and communications technology plans. To eliminate silos, government officials joined forces in 1998 to build an IT strategy that, for the first time in Ontario's history, set an enterprise model in place for how information and technology would be planned, managed, and delivered across the provincial government.

"This was a real landmark," McCalla notes. "It moved us from a context where technology was considered an administrative cost of each ministry to a view of technology

Build the Infrastructure

Connecting governments, citizens, and communities is the defining characteristic of the Connected Republic. This requires robust infrastructure and bandwidth. Governments need to take the lead in ensuring that these networks are created. The networks will sustain the rapid growth in rich, complex interactivity that constitutes the Connected Republic and will also become an indispensable, strategic asset in the nation's economic success.

A good illustration of what is possible is the Alberta SuperNet, perhaps the largest public-private, high-speed backbone in the world. Soon every community in Alberta will be connected, and every school, healthcare facility, and business will be able to get networked voice, video, and data at the same monthly cost.

as an enabler of change. We successfully made the case that only through the application of technology could we increase the capacity of government while reducing size and costs. And through an enterprise approach to technology, we could improve client service and break down organizational silos. It was the genesis of an important cultural transformation."

The "outside-in" perspective was another factor that accelerated cultural change. Focusing on the client created a reference point that transcended individual ministries or projects, sparking a common mission that everyone could share. Clear and broad communication of the new direction became critical. "Our Secretary of Cabinet issued a report at the time called 'Framework for Action,' which became the vehicle for communicating the overall direction in terms of where we needed to go and how we were going to get there," McCalla says. "The overriding emphasis was on becoming a quality service organization by focusing on continuous improvement."

The journey began with an initial focus on information management and basic online transactions (first generation). It proceeded to an integrated, citizen-focused strategy (second generation). And it is now moving to an NVO (third generation). The third generation is perhaps the most challenging. It draws government and partner organizations into complex patterns of collaboration that rely on shared systems, resources, processes, and knowledge and begins to engage citizens in the endless recreation of the kind of government they want.

The project will be finished on budget and very nearly on time due to the comprehensive planning that preceded it and the defensible legal framework that has assured its completion, despite repeated legal and political challenges.

One lesson from Alberta's experience is that government leaders must not only be willing to commit to these large-scale projects but must also ensure the projects will be completed. This requires comprehensive performance bonding, completion guarantees, or other locally appropriate techniques. Leaders must be ready to withstand intense lobbying and political pressure to relent when vendors and contractors try to renegotiate or avoid what they subsequently see as onerous provisions or timetables.

The Alberta project also highlights the importance of scale. Infrastructure projects that lack scale will be unable to generate the necessary capital in the private market to complete the network or to build the hardware, software, and training programs needed to realize the goals. There is also a risk that lack of scale will be seen as a signal of a leader's timidity and lack of conviction.

Building for scale does not mean that everything has to be done at once. "Think big, start small, scale fast," is the mantra of Joan McCalla, Province of Ontario's Chief IT Strategist, where one of the first and most successful networks delivering electronic services is found. This concept is an important corollary to achieving scale. Creating quick wins that build momentum and create an atmosphere of success early in large, complex, and lengthy projects can be vitally important.

Immediately after the first major link between two Alberta towns was completed, a two-way, videoconference, teacher training event was conducted. This demonstration not only showed the technical capabilities of Alberta SuperNet but was also used to inspire future users to think of what could be done that simply wasn't possible before.

The other way to achieve scale is to design a network that is flexible and can accommodate future changes in technology. The pace of technological change, exemplified by Moore's Law[2], has caused many decision makers to delay making any choice for fear of going wrong. Others have made the opposite mistake, betting on unproven technologies or companies with little or no track record for large projects with tight delivery schedules. The way out of this dilemma is to create an effective governance model that receives timely and appropriate

input from stakeholders. This model provides for continuously addressing issues with service providers, system integrators, and application developers, all of whom require a fair and auditable mechanism to hold members accountable for the success of the project. This kind of work has been done in California with the RiverLink project (Riverside County of Education). Multiple service providers, vendors, and integration firms, many of whom are competitors, were organized to develop a single, viable, auditable, and achievable scheme for reaching all schools and more than 300,000 students over a 10,000 square-mile area.

Another issue is the relationship between infrastructure and applications. The infrastructure must sustain all of the applications that are likely to be needed in the future, along with applications that users want now. Kennisnet, in the Netherlands, has achieved considerable success in creating this kind of infrastructure. It is a ubiquitous infrastructure that reaches all the schools in the Netherlands and supports existing content along with a mechanism to stimulate Dutch-specific content. Furthermore, a virtual community of Dutch schoolteachers has been created, which played a strong role in originating and organizing the content.

Kennisnet was also structured with a planned handoff to the private sector. This makes the long-term maintenance and updating of the system sustainable without continuous government funding. Private sector users, including local service providers and Internet service providers (ISPs), will be able to use the same backbone at a governed, fair-market rate similar to public sector users. They can provide for-profit products and services through the same portal for schools, health agencies, and other entities. The result is a sustainable project that is providing a valued service of measurable benefit to Dutch schools.

Successful projects such as this illustrate another important point: the era of single-purpose networks is over. Building networks that have the necessary scale is costly. To be feasible, they must accommodate multiple users from the public and the private sectors, broadening the sources of services and community support. If handled correctly, this is a real opportunity. Governments need to serve all citizens, regardless of location. Many businesses want to do the same if they can do it cost effectively. This creates a natural partnership—and for the government, a potential source of revenue to support the infrastructure. By spreading the user base across all portions of the economy, the burden on any one agency or constituency is reduced. Both SuperNet and Kennisnet

were planned with this in mind, so revenues from the private sector would eventually supplant government subsidies.

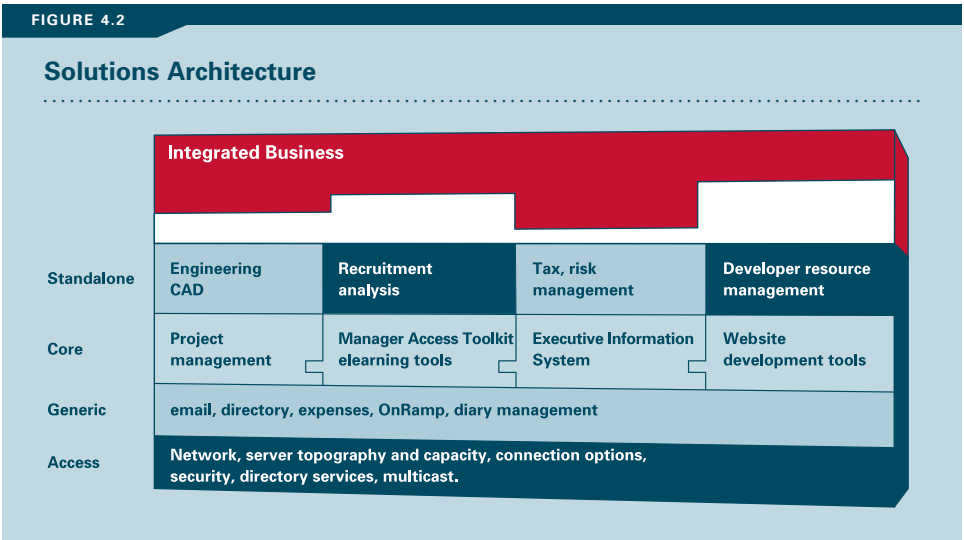
Network infrastructures designed by government in cooperation with the private sector can be built from the ground up with these capabilities in mind. Because government is in the lead role, it can mandate access for rural as well as urban users and create an equitable cost-of-access formula that includes provisions for those unable to afford connectivity. As use of the network grows, the benefits rise dramatically, reflecting what is known as Metcalfe's Law: the value of a network increases by the square of the number of people connected to it.

Partnerships between the public and private sectors are not problem free. In countries where government monopolies in telecommunications have been privatized, limitations may have been placed on government activity to ensure the viability of the newly created telecommunications companies. Such limitations may need to be modified. Similarly, careful thought needs to be given to create the right funding model when the public and private sectors are involved; particularly if the network will eventually be turned over to the private sector.

So far we have focused on broad infrastructure issues, but there are also important infrastructure issues within NVOs. This is an area where the public sector can learn from the private sector's mistakes. Through acquisitions, franchises, and joint ventures, many large, commercial organizations have learned the hard way that the biggest impediment to operation is a lack of mandated, adhered-to standards. That's because an NVO such as the Connected Republic needs to have an interoperable IT infrastructure. And the only way this can occur is if all parts of the NVO adhere to common standards.

There are many different architectural frameworks that meet these design criteria. However, the underlying message for all who want to move toward the Connected Republic is that standards must be applied ruthlessly, with no exceptions in either one's own organization or in supplier and customer organizations. In the private sector, enforcing standards on customer organizations can be difficult. In the public sector standards are usually welcomed by all participants, but it is still vital to guard against the inherent tendency for some to believe that they are a special case.

FIGURE 4.2



Measure Results

Government needs to be clear about the benefits it expects from particular projects and needs to develop metrics to measure those results. Internal and legislative audits often focus on whether funds were spent as allocated. They should also examine whether the expected benefits were actually delivered. The benefits can include hard targets, such as the financial return on the investment, as well as soft targets, such as whether agencies worked more closely together than before.

Measuring the results is only the first step. It is just as important to use the results to learn and to improve the probability that future initiatives will be more successful.

Here are a few of the questions that need to be asked when developing metrics:

- What degree of cross-government usage was actually achieved?
- Were alternative systems actually turned off?
- How successfully was the use of new channels and systems promoted?
- Were there feedback mechanisms for citizens or public sector employees to provide input on the process and were these being used?
- Have productivity goals been set and are any "stretch" goals being met?

Obstacles can be overcome if governance is collaborative, consistent, and action oriented. Communication of these founding principles will enlist employee involvement and contribute to changing the public-service environment. Knowing that these are not simple tasks but matters of great importance to the health of the state can create a profound outcome.

1 GAO-03-495T Electronic Government; Success of the Office of Management and Budget's 25 Initiatives Depends on Effective Management and Oversight. March 13, 2003

2 In 1965 Gordon Moore, cofounder of Intel, made the observation that the number of transistors per square inch on integrated circuits had doubled every year since the integrated circuit was invented. Moore predicted that this trend would continue for the foreseeable future.

CHAPTER SIX

Beyond the Connected Republic

The underlying social, economic, and technology trends that are creating the conditions for the emergence of the Connected Republic are certain to create changes in other parts of society as well. What is not certain is the nature and extent of those changes. Many of them are still in early stages, and it is not certain how they will evolve or what impact they will have on society at large. While no one can predict the future, it is useful to attempt to understand the direction that present trends might take. It is in that spirit that we offer this chapter, "Beyond the Connected Republic." Our goal is to stimulate discussion, not present a blueprint.

As the social, economic, and technology trends that are creating the Connected Republic evolve, some at Cisco believe they will also create the conditions for the next stage of society, what they call the Networked Virtual Society (NVS). The NVS is based on the assumption that a certain segment of knowledge workers who use the Internet for collaboration will increasingly associate with similarly minded individuals, regardless of geography. These people will emerge as a new segment of the population—the NVS. Teleparticipation will become the dominant mode of interaction for this group, affecting how they learn, live, work, and play, so much so that the boundaries between these activities will become blurred. These groups exhibit a strong willingness to share knowledge among members of the same NVS subset, fostering learning and increasing the group's knowledge base. NVS members will be masters of navigating a world of enterprises and government agencies, which are in a state of continuous transformation.

An NVS will have the following characteristics:

- Marked increase in the knowledge creators versus knowledge users in NVS subsets, leading to higher levels of productivity growth.
- New forms of shared aspirations and meaning will evolve in the NVS, providing the fundamental justification for new societal constructs.
- Growing dependency on connectivity and continuous access, regardless of time or location.
- Members default to the network when it comes to communication, information access, knowledge development, collaboration, and problem solving.
- Participants exhibit a uniformly high level of digital proclivity, using technology to collaborate virtually as an automatic reaction to a desire for access and to create knowledge.
- Members work with numerous, simultaneous employers as the norm.
- The scope and nature of an individual's online network (a form of virtual society) are increasingly viewed as that person's primary personal asset.
- NVS performs an integrator role and fosters collaboration as individuals form simultaneous relationships with other citizens, governments, and organizations.
- Adequate contributory recognition (this can vary from perpetual monetary compensation to giving credit among the peers) encourages members to freely share knowledge with other members of the virtual team. Members also receive recognition for fully participating in collaborative working structures, such as refocusing their skills on a new product or service or affiliating with a new set of NVSs.
- Continuous learning is the norm.
- Growing willingness to accept responsibility for one's own care, as the members of an NVS better understand how to convert knowledge into value.

Effect of the NVS on Nations

"Jobs, knowledge use, and economic growth will gravitate to those societies that are the most connected, with the most networks, and the broadest amount of bandwidth—because these countries find it easiest to amass, deploy, and share knowledge in order to design, invent, manufacture, sell, provide services, communicate, educate, and entertain. Connectivity is now productivity."[1]

As Friedman says, countries that provide the best environment for knowledge workers will be the countries that prosper in the Information Age. The corollary to that is that countries that are the most successful at creating an environment where an NVS can thrive—the Connected Republic being chief among them—will be the ones that prosper most. That is why so many nations are now exploring alternative policy strategies to accelerate the transformation to an NVS. Nations that emerge as leaders will be able to increase their economic performance.

"It is now understood that the cognitive assets of society—knowledge and expertise—and not its material assets—raw materials or financial and physical capital—increasingly determine its productivity and competitiveness."[2]

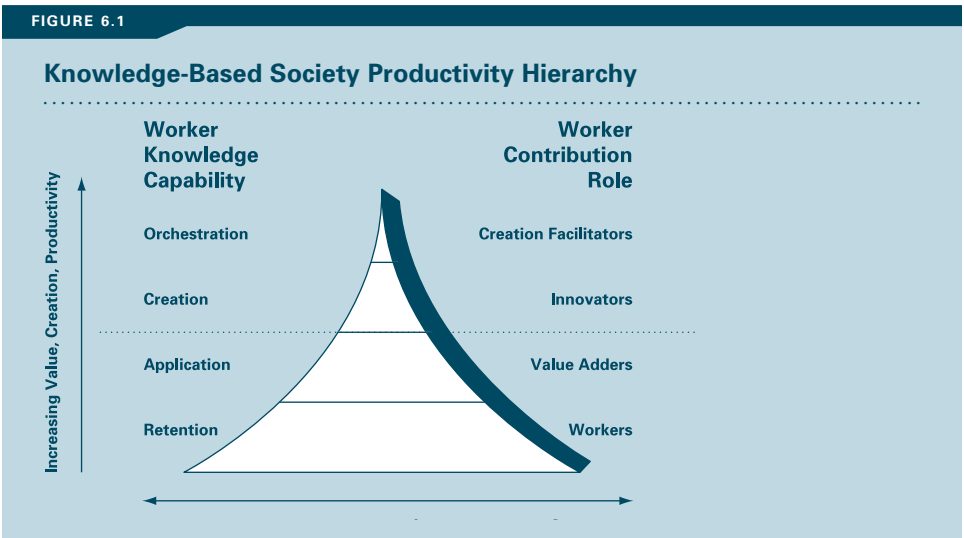
Centuries ago, countries such as Spain and England were able to gain a competitive advantage because they could launch vast fleets of ships to cross the oceans for trade and colonization. The same principle is true today: countries that can tie into the global "infostructure" and encourage significant numbers of their citizens to use it will be tomorrow's leaders.

When the global networked organizations of tomorrow look for opportunities for investment or additional knowledge workers, they will increasingly turn to countries with large NVS populations. National competitiveness profiles, such as the World Economic Forum/Kennedy School assessment, have responded to this trend by increasing the importance of interactive and networked information and communications infrastructures in their assessments and will be migrating to a more sophisticated approach in the near future.

There is a growing recognition that the difference in a country's ability to create value from knowledge is a function of the development of human assets. The maturation of an NVS can be indicated by the emergence of individuals able to perform higher-level knowledge-worker roles, and the migration of growing numbers of the workforce into these higher levels.

Figure 6.1 depicts a semimature level of knowledge-worker society. There are comparatively few members of the population above the dotted line, which represents people who are capable of creating significant value by innovating based on existing knowledge. The NVS provides the basis for the global collaboration, which fosters the development of additional innovators, and, most importantly, spurs the development of those capable of leading and fostering global innovation. It is the ability of a nation's citizens to migrate up this hierarchy that leads to greater productivity and the basis for a more mature NVS.

FIGURE 6.1



As nations mature, they tend to migrate from competing on the basis of natural resources or highly cost-effective labor resources to competing on the ability to use advanced production technologies. As these technologies become more widely available, countries must continually out-innovate other nations to stay in a leading position. One way to do this is to use a nation's NVS to virtually collaborate with innovators who might live in other nations. A nation is in a position to out-innovate when it has a meaningful percentage of its population able to orchestrate innovation. This is reflected by the highest level of activity in the knowledge-based society productivity hierarchy.

The old factors of competition that are cost oriented (capital, technology, labor, and raw materials) are giving way to new factors that are value-creation oriented (knowledge and innovation). The result is innovation through ubiquitous

collaboration. As technology becomes increasingly available to all developing nations, the competitive-advantage differentiator will become innovative effectiveness. This is dependent on factors such as a willingness to take risks, the availability of venture financing, new entity formation facilitators, support for fundamental research, and an enticing net after-tax reward structure. But most importantly, it is dependent on the people and the related cultural factors.

Stimulating an NVS

After a nation decides that it wants to encourage its citizens to become members of an NVS, there are some things it should do. The most important task is to make sure that its citizens understand the benefits. Citizens must become educated about how an NVS creates value, and they must be trained to use the technology that enables the new relationships to function. This hurdle will decline in significance as the technology becomes more user friendly. Citizens must also develop skills in areas that are important in an NVS, such as recruiting, leading, motivating, and coaching a global virtual team of individuals into a high-performance, innovation network.

One of the most direct ways that a government can stimulate the creation of an NVS is to make sure the nation has an affordable and ubiquitous, high-capacity infostructure to support global interaction. In addition, there must be a critical mass of enterprises operating in the nation that are effectively using NVO strategies. These enterprises will provide the employment opportunities for the nation's citizens. The final and perhaps most important prerequisite is for the government to be well on its way to creating a Connected Republic.

Some smaller and developing countries are making aggressive moves to participate in the emerging NVS, seeing it as a way to leapfrog larger and more developed countries. The Kingdom of Jordan has developed a strategy that calls for investing the vast majority of its available funds in a learning infostructure. His Royal Highness is a strong proponent of using this infostructure to convert the next generation into a large and internationally competitive pool of knowledge workers, able to join the NVS and provide value to NVO enterprises around the world. The United Arab Emirates has entered into partnership with several technology companies to provide its citizens with the training and technology required to connect to the global network and join the NVS. The UAE wants to become the leading technology society in the Gulf Region.

Cisco and its ecosystem partners provide an interesting example of what an NVS in microcosm might look like. All employees are educated in the benefits of and approaches to global collaboration. A culture of sharing has been created, and full participation is encouraged by closely linking the annual bonus to this type of behavior. Every employee is provided with a PC and an entire suite of needed software. Every employee must have broadband access from home, a cost that is fully reimbursed by the company. All communication occurs via the global, high-capacity network, using a combination of voice, video, and data. Paper is frowned upon by the Cisco culture. Instead, knowledge is stored on the intranet with access by the globally distributed team.

As a result, employees at Cisco and its partners fully embrace the concept of integrating the network into the way they work and learn. The Cisco society is achieving ubiquitous digital proclivity. Employees who are not willing or able to take on these cultural values and achieve this level of performance are rejected by the Cisco society. This leads to homogeneity and alignment of values across the entire team, and a singular focus on creating and delivering value to the customers.

Most organizations resist making major changes. It usually takes a crisis to provoke an organization into action. Perhaps this is why the initial enthusiasm for the NVS is stronger in less-developed countries that are anxious to catch up or even move ahead of their competitors. These countries want to attract foreign investment, create meaningful jobs, and dramatically improve the standards of living for their citizens.

However, there is an increasing concern in many of the more mature countries in Europe, along with Japan and North America, that they are losing their competitive positions and are no longer able to retain manufacturing jobs because of their vastly higher cost structures. There is a growing recognition that they will not be able to maintain their standards of living by simply migrating the workforce to the knowledge worker tasks, because so many developing countries with dramatically lower cost structures have large and growing pools of well-educated knowledge workers. Countries such as India and China are rapidly gaining global market share in knowledge work.

It is clear that tomorrow's leading countries will be those that are able to reposition a significant number of their knowledge workers to the tasks of knowledge creation, innovation, and orchestration of value. That is why

governments must develop plans to encourage NVS development in their countries. It will also be necessary to accept the need to trade a bit of national sovereignty for admission to the ranks of the global NVS, a task that will be a political challenge in many countries.

Ensuring Future Prosperity

Nations will continue to find themselves divided into substrata based on their levels of economic and political maturity and their capabilities for creating value. Nations in the most mature strata will no longer compete on the ability to provide knowledge workers, because this will have evolved into a commodity that is virtually traded based on cost effectiveness. Instead, the most advanced nations will compete based on the ability to generate a critical mass of "innovation orchestrators."

These innovation orchestrators will be the catalysts of tomorrow's winning NVO enterprises and governments. They will play a significant role in determining how the knowledge resources of the world are aggregated to create winning levels of innovation. This innovation will be the source of new value, and will fuel the growth of tomorrow's NVS. This evolving NVS will support new ways of learning, working, living, and playing and will provide for an ever-increasing quality of life.

One of the best ways a nation can help ensure its future prosperity is by encouraging and equipping its citizens to join the emerging supernational NVS. The citizen-focused convergence of civil, public, and private NVOs will provide a nation with the basis for success in the next round of competition.

The principal prerequisite for joining this new society is a willingness to embrace change. This is true for all parts of society, including the private sector, nonprofit organizations, individuals, and, of course, the government. The highest rewards will go to those that can most effectively adapt to these changes, and orchestrate physically dispersed and virtually focused, high-performance networks of loosely affiliated contributors to innovation. The winners are likely to be countries that have developed the most mature Connected Republics.

1 Thomas Friedman, The Lexus and the Olive Tree, Anchor Books, 2000
2 The Arab Human Development Report 2003: "Building a Knowledge Society", United Nations Development Program

Government leaders around the world find the Connected Republic framework most valuable for…

"…the shift of focus away from e-government towards a focus on changing the business of governing, where the 'e' is so well integrated it has become invisible."

Chung Mui Ken, *Ministry of Finance, Singapore*

"…the emphasis on relationships, which is actually how humans function, as compared to how classic bureaucracies function."

Rohan Samarajiva, *ICT Agency of Sri Lanka*

"…the client-centric principles that align perfectly with our organization's principles."

Margaret Carmody, *CRS Australia*

"…moving the recognition from e-government to a focus on government-to-citizen relationships."

Laurence Chiu, *Inland Revenue Department, New Zealand*

"The Connected Republic reflects the future of public services delivery with great insight. It's a future that we in Ontario are beginning to experience due to our investment in electronic service delivery. Taking a citizen-centered approach by collaborating with other jurisdictions is essential to providing convenient, accessible services. Indeed, it is essential to the future of government."

Greg Georgeff, *Corporate Chief Information Officer, Government of Ontario, Canada*