



# Preparing A Government Agency For The New Economy: A Success Story

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## EXECUTIVE SUMMARY

The Office of the State Comptroller (OSC) in New York State (NYS) provides services to the population of NYS through a program of regulation designed to control government agencies. Because of this role, there has been an adversarial relationship between OSC and other agencies. In mid-1993, new concepts of partnership and quality management were introduced setting in motion the machinery of multifaceted change that is still ongoing. At the heart of these new concepts is the use of information technology (IT).

This study examines the successful initiation, adoption and diffusion of IT within OSC in support of the new approach to business, and identifies the factors that have contributed to success. In particular, we will focus on the Multi-purpose Access for Customer Relations and Operational Support (MACROS) project within OSC's Division of Municipal Affairs (OSC-MA).

MACROS was the first effort intended to improve the quality of OSC-MA services. What used to be, up until the late 90s, a mammoth semi-manually operated environment is fully automated today. As a result of MACROS success, municipalities can now receive/complete/file annual financial reports (AFR) and/or annual update documents (AUD) electronically.

The successful implementation of MACROS has become the cornerstone of an operational enterprise network in OSC-MA. It links all employees, helps OSC-MA respond to most requests for information and facilitates communication.

MACROS reflects a unique vision of what, why and how one government agency has accomplished in preparing itself for business success in the turbulent new economy that demands more responsive customization of services. We believe that other organizations can learn from the approach.

## BACKGROUND

OSC-MA was one of the first departments in OSC to embrace the new concepts of partnership with customers and improved managerial goals. Such a shift in the way business is conducted in public organizations would not be possible if accompanying measures (strategic planning and continuous improvement) were not taken to create the proper environment.

Creating and maintaining a supporting environment is neither straightforward nor easy. In fact, it was the top priority of the Administration for close to four years (1994 – 1998). As in any change effort, it was necessary to gain the support of staff members who would be affected by the new program. The approach to executing OSC-MA's traditional auditing functions also had to be reviewed, taking into consideration the need to build relations among stakeholders. In 1998, the idea of a Municipal Affairs Contact Repository Operating System (MACROS)<sup>1</sup> project was proposed. OSC-MA's personnel is distributed within its two functional branches (Services and Support) operating in nine remote locations through NYS. The customer base served includes NYS local government officials, and external contacts such as federal agencies, legislatures, taxpayers, professional organizations, financial institutions, vendors, and citizens at large.

For better understanding, let us examine two scenarios showing the kinds of daily needs that MACROS helped to solve:

**Scenario One:** A newly elected official calls OSC-MA with questions concerning AUD, needing immediate feedback.

**Scenario Two:** A town board member calls OSC-MA asking for a speaker who could help explain how their town budgeting works before a vote on the budget in just three hours.

Traditionally, OSC-MA routinely gathers, organizes and distributes information to its customers. Prior to MACROS, the information was found in many forms: written correspondences, telephone calls, news articles, media reports, formal reports, professional publications, staff notes, legislature records, etc. In addition, personal contact was the preferred means of communication with the municipalities. The absence of an appropriate network and the existence of "islands of information" (since the field staff quite often operated independently) required considerable prior preparation before responding to customers' requests. In order to keep everything working, OSC-MA had to rely heavily on directives, audits, and corrective actions from the central office. This worked as long as the goals of OSC-MA were clear and its activities well structured (CTG, 2001).

## SETTING THE STAGE

The OSC is an independent government agency that manages State funds, and has custody over the assets of State and Local Government Retirement Systems. Headed by a Comptroller, OSC is also charged with specific pre- and post-audit functions. To effectively execute its functions, the OSC has a number of supporting divisions, including OSC-MA whose primary responsibility is to oversee the operation of local governments and their political subdivisions - which total over 10,000 in NYS.

As a result of new vision of services started 1994, relationships between OSC and local government began to be developed, and new services provided including: training, consulting, analysis of information products manufactured by local governments, and risks assessment.

Unfortunately, because each region was doing the same things but in its own way, "Islands of information"<sup>2</sup> were scattered all over OSC-MA. Consequently, there was no way to ensure conformity and accuracy of information. The information required by staff to do their jobs was likely to be unreliable and redundant or not accessible. With no enterprise-wide network in place, the manual approach to information processing and exchange often resulted in slow business transactions and decisions. The strategy devised by OSC-MA offered people the opportunity to improve performance by providing them appropriate IT.

In 1998, OSC-MA established a partnership with the Center for Technology in Government (CTG) at the University at Albany to study the potential for sharing information across the division. CTG<sup>3</sup> "works with NYS government agencies to help develop information strategies that foster innovation and enhance the quality and coordination of symbiotic relationship" (CTG, 2001).

The methodology adopted in this research comprised on interviews and document analysis. Pertaining to the interviews, key informants were gathered from all the organizations and agencies that participated in the MACROS project. Some of the interviews were carried out over the phone while others were carried out in face-to-face methods. The interview instrument included mostly open-ended questions. Due to the Proceedings limits, the interview instrument cannot be included here. The document analysis was carried out on documents about MACROS obtained from the participating agencies and websites.

**Organizational Changes and Technology Issues**

Historically, IT at OSC-MA depended on the Bureau of Information Technology Services (BITS) — the IT shop within OSC that provides infrastructure, application and database support to all divisions of OSC. Being internal to OSC-MA, MACROS was not seen as a BITS responsibility. This led to a major decision within OSC-MA to create a unit called Info Tech (Figure 1), which took responsibility for MACROS.

This change had significant ramifications for OSC, especially pertaining to the relation between Info Tech and BITS. BITS remained fully involved in a number of activities dealing with MACROS (like writing of the technical specifications, reviewing the request for proposals, and reviewing bids), but notably excluding implementation. CTG assisted OSC-MA in “developing a policy, management, and technological framework for using its rich, but unstructured information to support new service goals” (CTG, 2001). The starting point was the creation of a working team, comprised of staff from OSC-MA and BITS on the one hand, and their counterparts from CTG on the other hand.

**CASE DESCRIPTION**

Following the stakeholder analysis, a strategic framework for OSC-MA was established. This was followed by the business problem analysis, defining business problems and recommending various options as parts of an overall solution. Implementing MACROS is, and has been the responsibility of OSC-MA. Its successful design and implementation is the reason to present this case.

The strategic analysis for business case showed, that the foregoing good old strategies<sup>4</sup> generated concerns, such as:

- Inability of staff to track or be informed of previous contacts and communication exchanges with current customers, to coordinate the distribution of information to customers and even within OSC-MA, to design responsive and tailored services for a specific customer or groups of customers needs,
- Absence of information supportive mechanisms to facilitate the tasks and integration of newly elected officials or appointees, and
- Lack of a repository of information resources to share experiences by staff, as well as collaborate and learn.

It opened the door for re-engineering. In addition to better understanding its needs, the constraints passed by the work with CTG’s enabled OSC-MA to realize and appreciate its current organizational environment.

To avoid possible failures, it was necessary to limit the scope of the MACROS as much as possible, while trying to obtain concrete results that would provide the rationale for moving forward. Consequently, a single process — the Technical Assistance (TA) was selected

to serve as the test case. The TA transaction created a central information repository within OSC-MA.

The TA transaction exhibited most of the service characteristics and frequently encountered business problems at OSC-MA. It provided an information service that municipalities could access before making any decisions.

Based on the business case, one of three alternatives had to be chosen in the design of MACROS: designing with focus on the staff, customer or both. The selected design approach was going to influence benefits, process models to be implemented, which documents to be captured in the repository and how to elaborate on the information required for the TA. To minimize chances of failure, a staff design approach<sup>5</sup> was agreed upon as the major focus.

The service objectives were subsequently formulated (CTG, 2001; OSC, 1998):

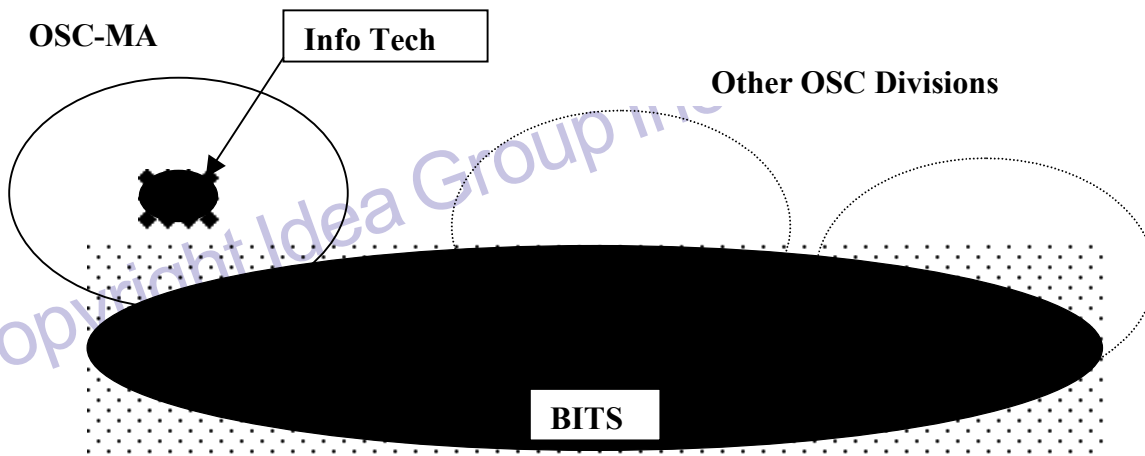
- Conduct targeted and mass dissemination of information to local governments
- Assess the need for service delivery to local governments
- Document contacts between MA staff and specific local government
- So that,
  - Local governments receive useful information provided by or through OSC
  - Staff can determine municipalities at risk
  - Staff can maintain a contact history between OSC and local governments
- Staff have timely and accurate information designed to guide regional staff in delivering consistent services to municipalities
- Staff can produce a reliable, accessible, uniform centralized list of local officials.

After setting the service objective, the next step was to identify and describe the appropriate business activities. The rationale was to make the TA service process as explicit as possible, so that the overall business value of MACROS could be easily evaluated. Following the Joint Application Development<sup>6</sup> approach, a workshop was organized, in which the CTG Model for Action Tool Kit (CTG, 2001) was employed to identify, review, and describe all the steps of the TA processes, as well as the associated records and system requirements. In this phase, many more OSC-MA staff, especially those from the regional offices were involved. Participants agreed that TA was the most cost-effective way to start MACROS.

Given the importance and necessity to win broad and top management continuous support, the OSC-MA team adopted a strategy to tell the story of the MACROS projects and its prospects. This led to a solid foundation for agency support, paved the way for stakeholders’ analysis and also served as a stimulant for the desired inter-division collaboration.

A formal evaluation of the stakeholders’ involvement resulted in three broad categories: direct, internal and external. The OSC-MA

Figure 1: Operation of BITS and info tech reflecting IT area of OSC-MA



staff was once more confirmed as the primary stakeholder. The relative needs and value of proposed services of the products and features of MACROS for each stakeholder were assessed, to have an indication of the level of commitment and expectation of the stakeholder.

Both, internal and external factors to achieve specific service objectives were analyzed using CTG's "Making Smart IT Choices: A Handbook." (CTG, 2001). This analysis established the framework for OSC-MA, which is a way to enable organizations to "think out of the box", so that they can better understand the operational environment — resources, innovative opportunities, customers and new partners (Table 1).

Table 1: OSC-MA operational environment

<b>Resources</b>	<b>Primary</b>	<b>Secondary</b>
	Existing systems, media reports, local government reports, operational policies, legal opinions and OSC-MA staff knowledge	BITS, OSC Divisions, Network resources, Personnel, Vendors, Internet, local government associations
<b>Innovative opportunities</b>	<b>Products</b>	<b>Services</b>
	Central repository, communication tracking and document management	CTG project, communication center, search capabilities, on-line access and decision support
<b>Customers</b>	<b>Internal</b>	<b>External</b>
	OSC-MA staff, and managers, legal services, press office	Local officials, other state agencies, federal agencies, taxpayers, legislature, media, professional associations, vendors and financial institutions
<b>New partners</b>	Legal Division, Press Office, Justice Court, Mail Room, BITS, Management Services	State Agencies, Local Governments, CTG, Office for Technology

Following the stakeholder analysis and establishment of the strategic framework, the business problem analysis was conducted using three modeling tools — cost performance, surveys, and best practices. The cost performance modeling addressed issues concerning the system functionality, level of system implementation (modest, moderate, elaborate), associated cost/gain and required time frame. Stakeholders were surveyed to ascertain the business practices within OSC associated with collecting and documenting contact information, the nature and availability of such information, who is responsible and what stakeholders expected of MACROS.

Based on the business problem analysis, three options were considered as possible solution components. These components turned out to be complementary and included a Document Management System, a Workflow System and a Records Management System. Such a system was expected to positively impact the efficiency, effectiveness and quality of OSC-MA services.

The assessment of MACROS showed that it would be able to (OSC, 1998):

- Reduce redundant records and thereby record storage necessity
- Provide historical information, better background information for services, more consistent policy and action, better context for planning engagement
- Deliver services on the spot
- Improve day-to-day communication, performance, impact measures and triangle
- Ensure more timely service delivery
- Increase local awareness of available state-sponsored services

Additional recommendations included the creation of the implementation team and designation of a team leader, implementation of the system vision with appropriate technological solutions and maintenance of effective communication to educate stakeholders on the importance and necessity of MACROS.

### MACROS: Design and Implementation

A call for bids was made in 2000. The bid articulated all the objectives of OSC-MA and the system vision of MACROS. Proactively, the bid went a step further to emphasize an OSC-wide integration per-

spective (scalability) and in making it clear that MACROS would be adding processes over time.

ComputerWorks, an Albany, NY, based company, and Lotus Premier Business Partner<sup>7</sup> emerged as another collaborator in the MACROS project (CWK, 2001.)

MACROS integrated databases serve the purposes of auxiliary forms (audit and reports), business processes, calendar, calls, contacts, correspondences, filing services, form letter library, help, help desk and knowledge base, reports, and time management. The inherited Lotus Notes/Domino architecture offers an environment with powerful facilities for free form, association of documents, and ability to replicate information for off-line use. Although MACROS has the ability to integrate products from several platforms, the focus is on the Microsoft Office Suite. From an operational perspective, MACROS is transparent to its users. All components seamlessly operate together and are accessible through various graphical users interfaces. Functionally, MACROS offers important features and services as: Information Access, Dissemination, Business process support.

Key success factors include introducing and understanding relevant concepts, developing staff skills, focusing on organizational processes, and improving the technological infrastructure.

Project realization resulted in offering the opportunity for staff to collaborate and learn from each other, while better serving customers. Described as an organization in transition towards a service-oriented way of working (CTG, 2001), OSC-MA's new strategies are in the hands of Info Tech — now the IT flag bearer of OSC-MA.

## CURRENT CHALLENGES

Three categories of challenges are associated with MACROS.

### Philosophical and Organizational

- Building and sustaining credibility and support.
- Difficulty in describing and getting people to understand MACROS in its entirety
- Geography (as a result of the dispersed location of the regional offices).
- Info Tech must work with all division managers, staff and customers to better understand respective objectives so as to craft the best IT solutions, everyone must contribute (involvement) in sharing information with others, even if they do not know how helpful it might be to the others.
- Resistance to change is one of the greatest obstacles to the successful introduction of new concepts and systems.
- Interdependence on other departments for collective success

### Information Resource Management

- Establishing an appropriate relationship between BITS and Info Tech.
- The need for a more stable IT, to implement MACROS for their remote users. The current Internet Service Provider is not reliable.
- Solving time constraints and the ability to transfer their current legacy system into MACROS will open possibility of replicating MACROS.

### Knowledge Management

- Getting people to share information/knowledge.
- Devising an appropriate rewarding system for knowledge sharing.
- Getting the best analytical tools to be used in managing knowledge exchange.
- Educating staff: Jobs will not be lost. MACROS will ensure better performance.

To manage challenges, a number of significant moves were made:

- Creation of a MACROS Advisory Committee (with members from OSC and CTG).
- Maintaining a monthly newsletter called *State of Affairs* through which staff is informed, and educated.
- Designation of leadership able to handle the high expectations the administration placed on the success of MACROS.

- Flexibility in MACROS philosophy and its evolutionary nature reflected in the change of the meaning of the acronym MACROS<sup>8</sup>.
- Training through the use of “champions”.

## THE MACROS PERSPECTIVES

The next phase in the MACROS project is being geared at establishing an OSC-wide collaborative environment. The MACROS Advisory Committee in May 2001 completed a study: “Conducting The Investigation And Feasibility Of Expanding MACROS As An Agency-Wide Tool.” (OSC, 2001b). The best strategy for OSC-MA requires a focus on Info Tech, rather than just on MACROS. A strategic plan for the realization of the mission of Info Tech (InfoTech, 2001) has been summarized as: “Users will be able to access information they need when they need it, regardless of their location, in the format that is most appropriate for their needs.” It is in fact the “Anyone-Anything-Anywhere-Anytime” paradigm, and clearly requires enormous resources for full execution.

Let us discuss solutions of two scenarios presented earlier:

*Scenario 1 (Solution): How MACROS serves customers* — a contact list is instantly consulted, relevant past communications of the out-going official are tracked and consulted by OSC-MA staff, who can collaborate in real-time, re-assign jobs (in case one staff is not on seat) to generate the required answers. The result is made available to the official in whatever form requested.

*Scenario 2 (Solution): MACROS serves as the Municipal Electronic Library (MEL)* — training material on budgeting is gathered on the spot, through appropriate keyword search. The appropriate OSC-MA staff is mobilized or re-assigned to roles and everything is set for the Board Meeting.

Greater demands on the public sector for better services seems logical — a fast moving economy, the rapid pace of technological changes and the responsiveness of private sector customer services have created an increased demand of citizens for similar responsiveness from government (Asoh et al., 2001.). Governments’ engagement in such initiatives as e-Commerce and e-Government would certainly offer an opportunity to respond to customers needs. Success in these endeavors depends to a larger extent on how public agencies are prepared in advance. Evidently, with MACROS, OSC-MA is poised for business success in the new economy: to deliver services — very elegantly, timely, with a high degree of accuracy, to the satisfaction of all parties concerned and at minimum cost.

## ENDNOTES

1 The project title: MACROS remains the same, but the original acronym developed over time into: Multi-purpose Access for Customer Relations and Operational Support showing the special flavor for dynamic needs and approach.

2 Islands of information **between** Governmental Agencies are not in the focus of this paper

3 CTG received the prestigious “Innovations in American Government Award” in 1995 from the Ford Foundation in recognition of its creative partnerships and problem solving in the public sector.

4 Briefly presented in the section “Background” of this paper

5 When building new informational systems for organizations, other approaches are more likely to be chosen (Crnkovic, 2001)

6 See Jeffrey A. Hoffer, Joey George, Joe Valacich: Modern Systems Analysis and Design. 2nd ed. Addison Wesley, Reading, MA. 1999

7 ComputerWorks has clients all over the world, including several NYS agencies (CWK, 2001). In 2000, ComputerWorks won the “Best Industry Solution Public Sector” award from IBM Lotus Development Corporation in recognition of its works in the government and health care segments

8 See footnote numbered 1

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