

Government by Design

Techniques for Designing and Managing the Business of Government

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IBM Rational Software

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Government organizations are facing extreme challenges to deliver more with fewer resources, to maintain or increase service levels with a smaller workforce and reduced budgets. Addressing these challenges requires a strategic approach to determining what businesses the government should be in and to what extent they should be in them based on citizens' needs and available revenue.

What governments need is a rational process for planning and budgeting, performance management, and operations that maximize outcomes from available revenue. This requires a means of capturing, assessing and communicating information about their current environment and then determining, evaluating and choosing actions that evolve their programs and services to achieve desired results while managing costs.

Government by design is the concept of applying strategic planning to government in a form that provides a comprehensive view of the entirety of the business you are in and the services your agency or organization provides. It provides a set of tools and techniques to help you do the planning and management needed to meet your citizens' needs at a price they are willing to pay.

No matter the variable forces at play, often the core issue is the lack of a cohesive and inclusive process

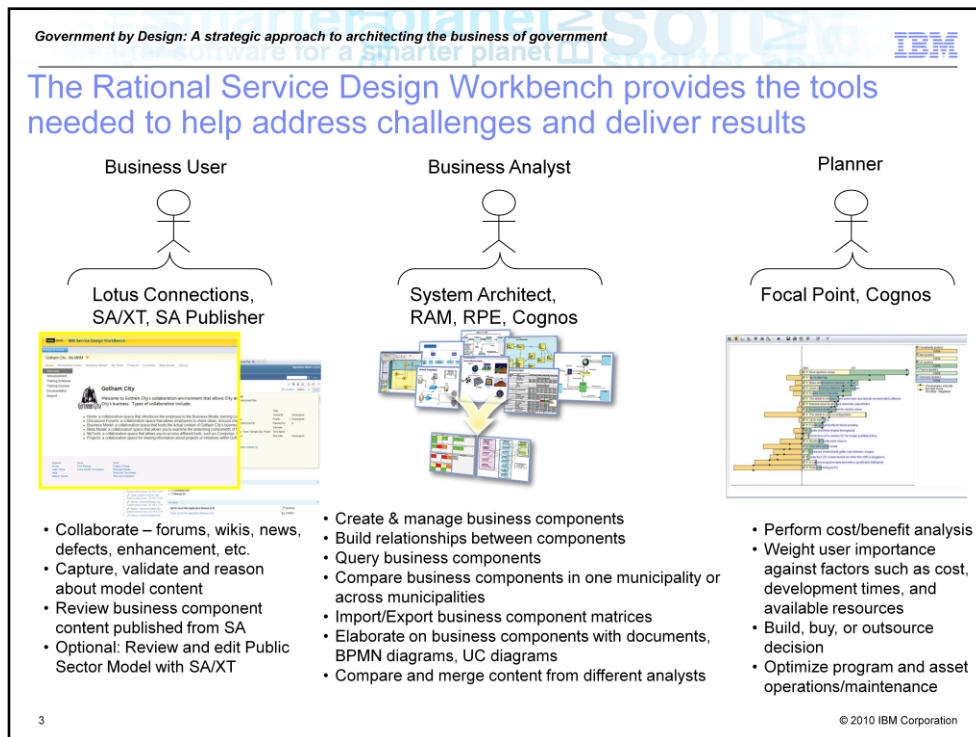
Careful and proper information management helps you:

1. **Do the right things:** through results-based budgeting and policy analysis
2. **Do things right:** through performance assessment and management aligned with policy initiatives
3. **Manage change:** for continuous refinement of delivered services through process optimization to deliver the results citizens want at a price they are willing to pay

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Policy planning and budgeting requires a process and supporting information to address three fundamental concerns. First you need determine what are the highest priority things you need to do in terms of the services you provide to address citizen needs. Second you need to determine the most efficient and cost effective way of delivering those services. And third you need to find ways to leverage citizen groups, community organizations and private sector businesses to collaboratively work together for transparent, effective and efficient government.

This Government By Design presentation explores some approaches for planning and budgeting and performance management that are supported by tools in order to explain the processes, capture and retain the required supporting information, and make the processes accessible and efficient enough that you can respond quickly to new or changing information. The goal is to provide methods, processes and tools that enable and foster continuous improvement rather than rewards and punishments as a means to facilitate government evolution to meet changing citizen needs. These tools and techniques are intended to address both the needs of "Steeres", those addressing the policy domain having needs for accountability, planning and budgeting, and those of the "Rowers", those addressing the functional domain having needs for to improve operations.

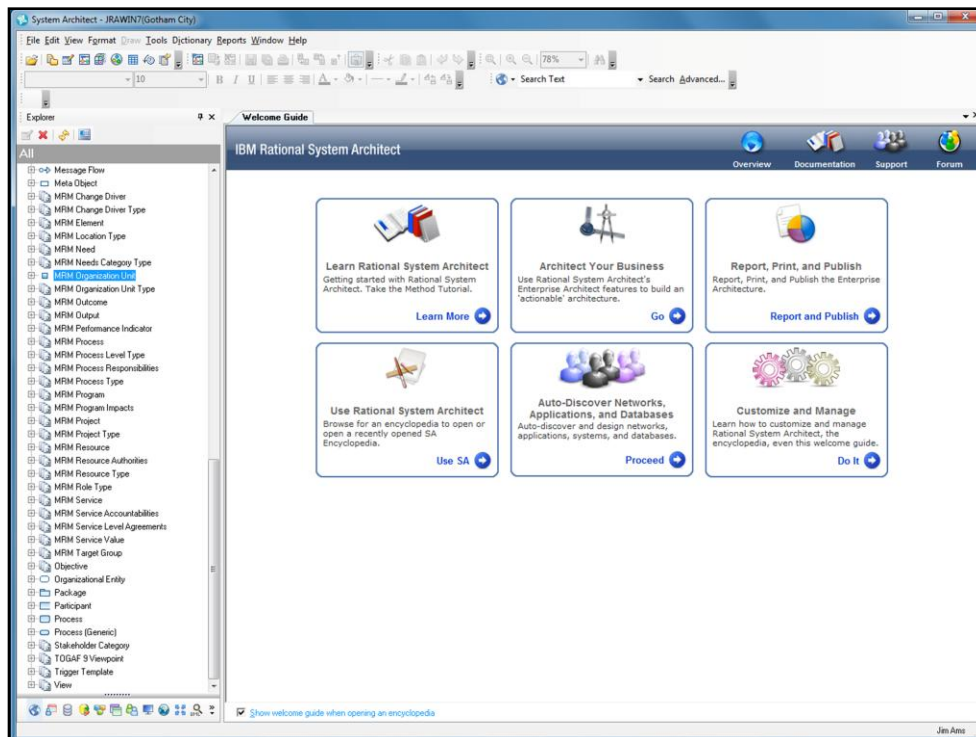


IBM Rational provides a number of tools that can help you address these challenges and deliver results. The offering involves the integration of a number of IBM products that support requirements definition and management, municipal business architecture, strategic planning, portfolio and strategy management, and collaboration, review and approval. The solution supports a large number of use cases to deliver value.

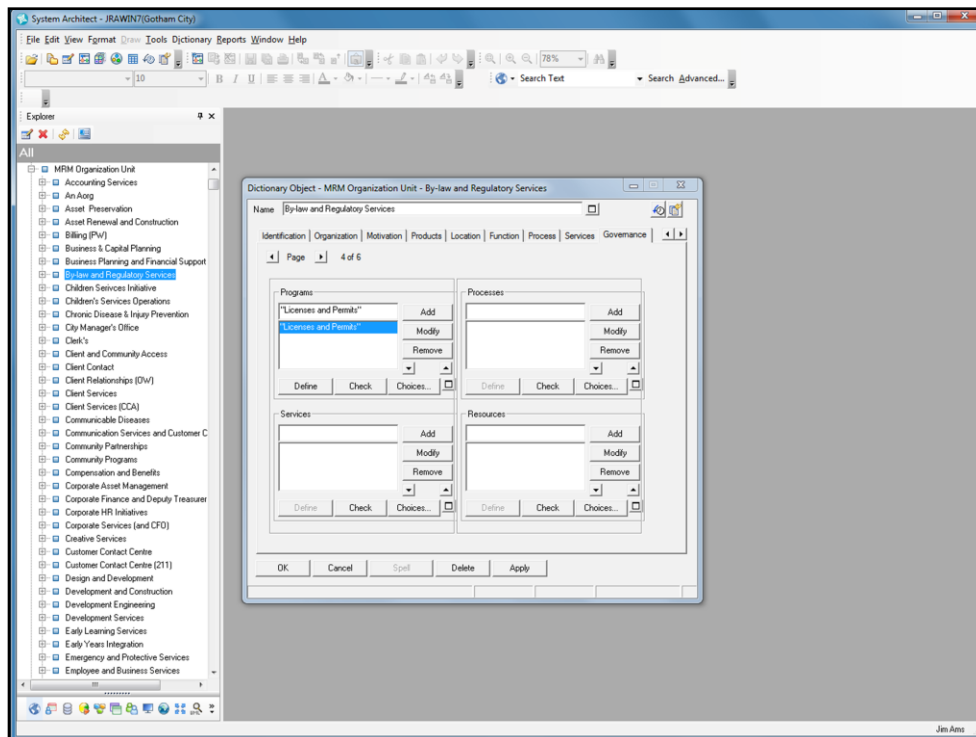
The stakeholders are organized into three broad categories. Business users use collaboration tools to communicate, validate and reason about the business models and budget information while doing less creation and editing of that information. Business analysts are responsible for creating and managing the business components and the relationships between them. They will use richer business modeling and reporting tools to create the work products that are consumed by the business users. Planners take the information from the business analysts, assess different opportunities and solutions for addressing citizens' needs, and perform cost/benefit analysis to determine what projects and programs to fund, or what performance gaps to close.

Business User Artefacts:

- Login/Registration
- Home, News, Reference Material, Contacts, Help pages
- Discussion Forum



The business analysts tools provide a means of exploring and editing the model content. For example, the model Explorer shows the kinds of elements the analysts can manipulate including definitions, diagrams and matrices for editing relationships between elements. Guidebooks help business analysts who are less familiar with the tools be more productive. The guidebooks are navigated through hyper-links providing guidance on both the analysis methods, and the specific activities and tool capabilities that support those methods. Links in the guidebooks can directly invoke actions in the tools to provide step-by-step instructions for particular activities.



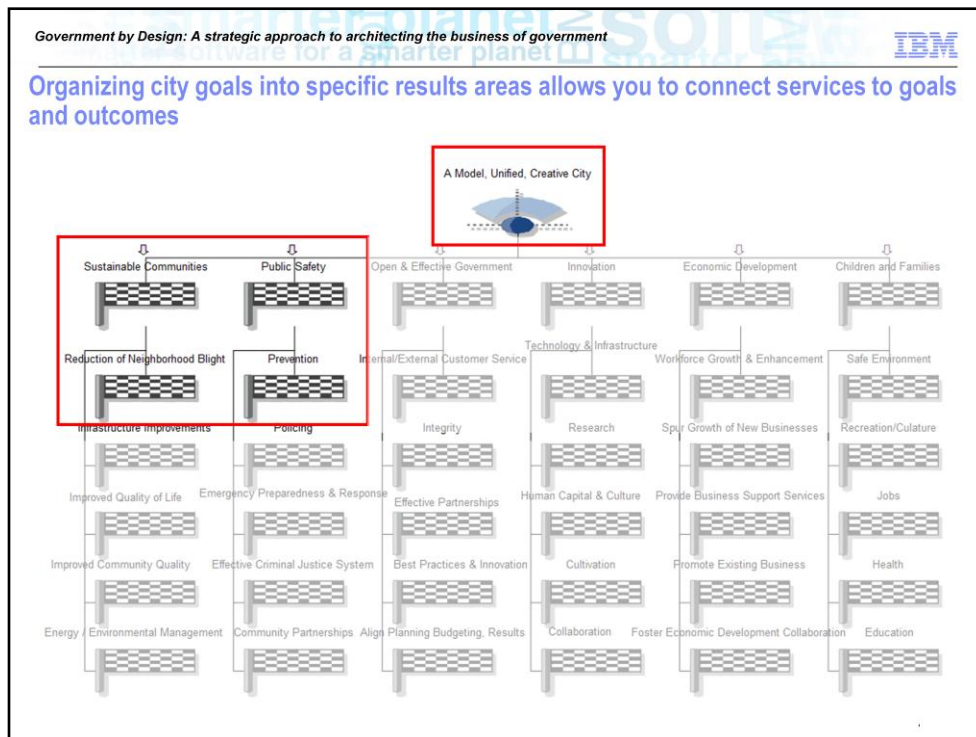
In this slide we have expanded the organization units in the model Explorer view, and selected the By-law and Regulatory Services organization unit and displayed its detailed properties. The properties are organized into tabs that describe the different kinds of information that can be collected. The current page show the programs, processes, services and resources the organization is accountable for. For example, the by-law and Regulatory Services organization unit is accountable for the selected Licenses and Permits program. We could press the Define button to navigate directly to the details of that program in order to see what outcomes it delivers and what services administers. The tool provides many facilities for navigating, searching, reporting on and analyzing information in the municipal business model through a number of different views.

MRM can be used in a number of ways to facilitate results-based government

- **Strategic Planning** - Determining results you wish to achieve and the strategies for achieving them
- **Public Sector Business Architecture** – Designing the programs and services that deliver the outcomes that address citizens' needs
- **Budgeting for Outcomes** - Determining the services and service levels that provide the outcomes citizens want at a price they are willing to pay
- **Performance Management** - Assessments of performance indicator actual vs. target values to drive operational improvements and inform future strategic planning activities to close the right performance gaps
- **Identify opportunities to exploit Information Systems solutions** – Define the associated applications, data sources and platform technical architectures in support of the efficient, cost effective realization of public services – delivering more with less through IT exploitation

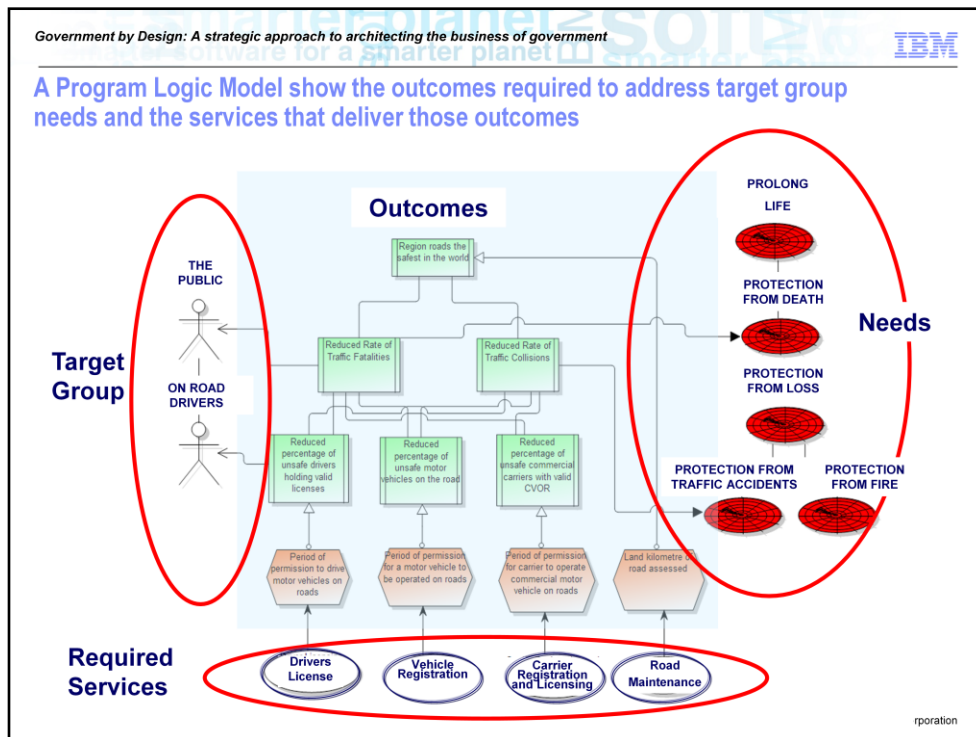
Now that you've briefly seen the tools and the information they capture, let's take a look at some examples of things you might do with the tools.

You can use the models to capture and document the things that are motivating change in your jurisdiction, the results you wish to achieve in response to those influencers, and the strategies for achieving those results. Then you can evolve your municipal business architecture by designing the programs and services that deliver the outcomes that achieve the desired results and address your citizens' needs. Unfortunately it will often be the case that you will have greater demand for services than can be supported by available revenue. Budgeting for outcomes is a Government Financial Officers Association recommended practice for allocating



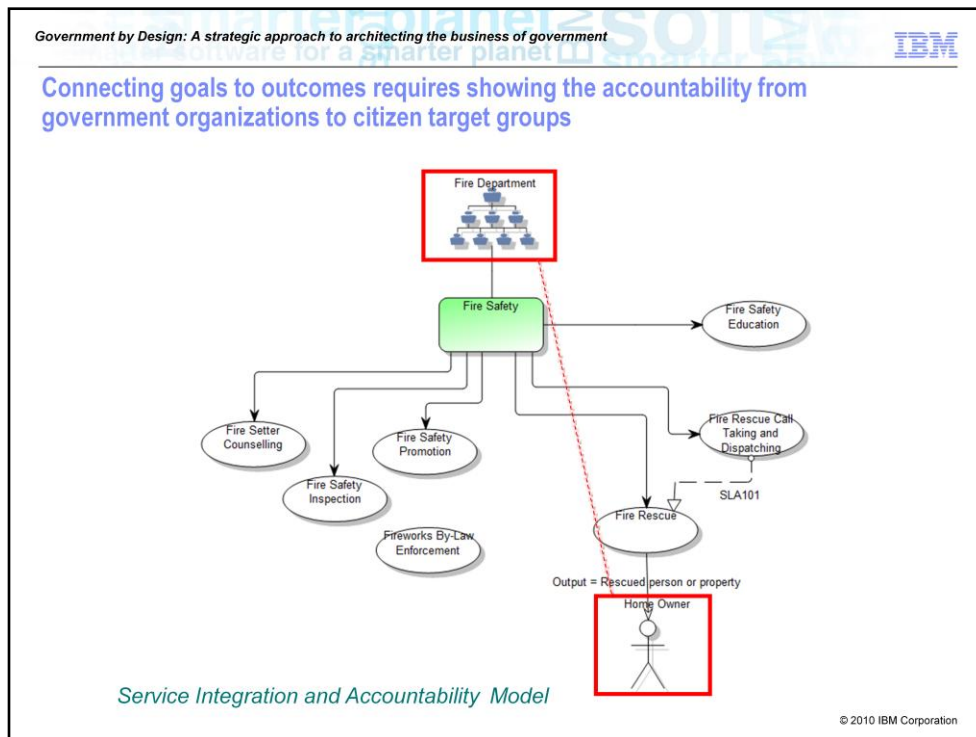
For example, this chart shows the vision of a model, unified, creative city that is amplified by goals for sustainable communities, public safety and so on. Each of these goals is further amplified by sub-goals that can communicate in one page what your city is intending to focus on achieving for your citizens.

Other diagrams can show strategies, tactics, business policies and rules, and can show how these are connected to the realizing programs and services that actually deliver the required outcomes.



The program logic model show the hierarchy of citizen needs in the area of prolonged life and protection from loss. In the center are the strategic, indirect, and direct outcomes that are required to address those needs. Outcomes are a change in level of need experienced by some target group in the community. On the bottom are the outputs and services that are required to deliver those outcomes. The administering programs can also be shown.

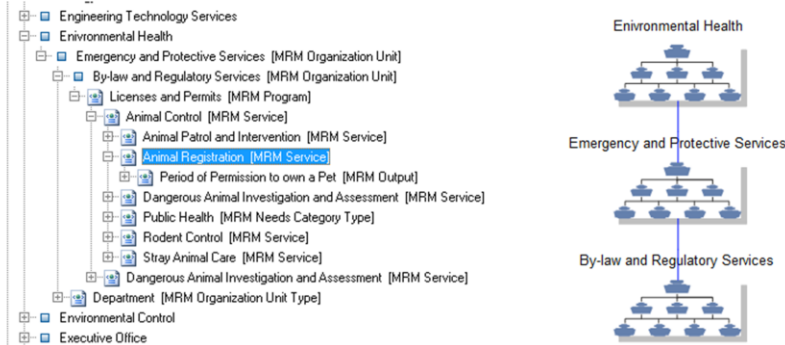
From the PLM diagram, you can easily see what needs are being addressed, what outcomes are required to address those needs, who experiences those outcomes, and what services are required to deliver them. This provides a way of reasoning about services and service levels that define the businesses a city is in, and how those businesses are relevant to its citizens.



Another diagram that is useful is the Service Integration and Accountability Model or SIAM diagram. Accountability for delivering outcomes is fundamental to government operations. The SIAM diagram shows the relationship between organization units and target groups in the community by describing the programs they are accountable for, the services administered by those programs, the service-level agreements between services, the service outputs, and what target groups that are impacted by those outputs.

A SIAM diagram provides a simple visualization that connects the organization units of the government to organizations of its citizens, bridged by the programs and services that are provided by the government and consumed by its citizens. From this diagram it is easy to see who is accountable for delivering what to whom, and how. You can easily see organizations that are accountable for too much or too little, motivating reorganization activities. You can also see what target groups in the community are under or over served as input into change initiatives.

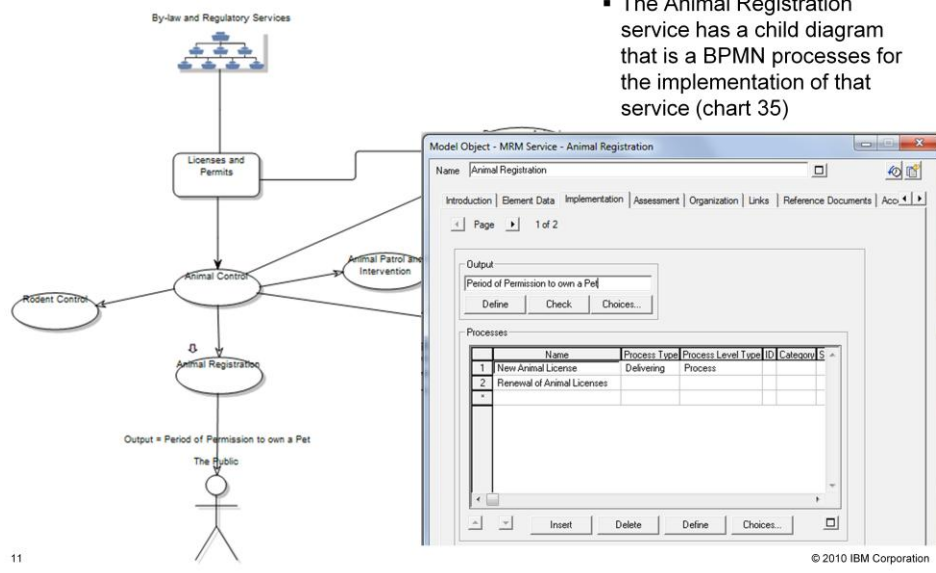
Consider the problem of animal control in Gotham City



- We start by exploring accountable organization units
- This diagram shows the organization unit hierarchy that is in the problem scope
- By-law and Regulatory Services is accountable for the Licenses and Permits program
- This program delivers public health outcomes

Let's explore an organization in more detail. We'll consider the problem of animal control in Gotham City. The Explorer view and **Animal Control** MRM Hierarchy diagram show that the Environmental Health organization has a number of sub-organizations including Emergency and Protective Services which in turn has sub-organization unit By-law and Regulatory Services. This organization unit is accountable for the Licenses and Permits program which among other things administers the Animal Control service. You can see from the Explorer view that Animal Registration is a sub-service of Animal Control.

A SIAM diagram shows policies for what the organization units are accountable for and to whom



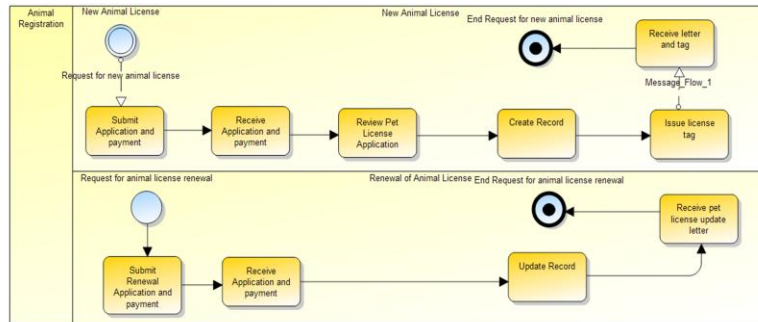
The **Animal Control** MRM SIAM diagram helps us understand the details of the Animal Registration service.

The “By-law and Regulatory Services” organization unit is accountable for the “Licenses and Permits” program, which administers the “Animal Control” Service. This service has (among others) “Animal Registration” as a sub-service with delivers a “Period of Permission to own a Pet” to the “Public” target group

You can open the details on the Animal Registration service right from the diagram. You can see that the Animal Registration service is implemented by two processes. Notice the arrow decoration on the Animal Registration service. This indicate the service has a child diagram that can be used to show how the service is implemented.

Implementation of a service, possibly involving multiple processes

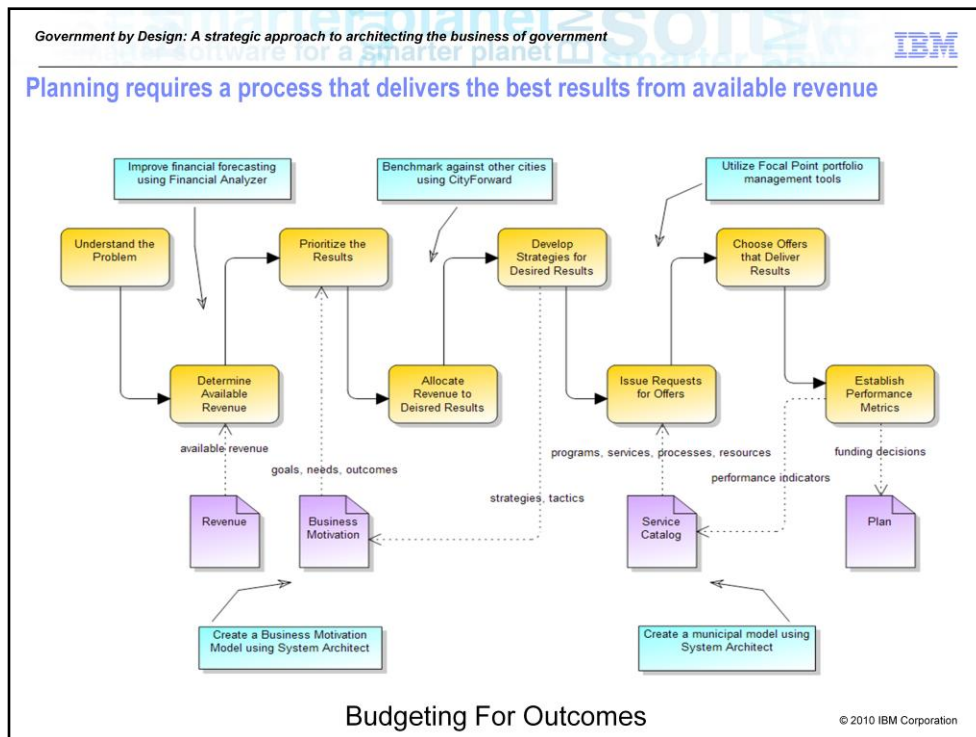
- The Animal Registration service is implemented using two processes



- Pools represent services while lanes can be used to depict the different processes that are involved in implementing the service
- Message exchanged between services represented by pools can describe the details of the interactions between services described by their service level agreements.

The **Animal Registration** business process diagram models the implementation of the Animal Registration service, and is a child diagram of the Animal Registration service on the Animal Control SIAM diagram.

The service is implemented using two process, one for establishing new animal licenses, and another for license renewal. The pools in this diagram represents the Animal Registration service while lanes are used to depict the different processes that are involved in implementing the service. Messages exchanged between services represented by pools can describe the details of the interactions between services described by their service level agreements.



Next we'll take a brief look at planning and budgeting. Budgeting for Outcomes is one possible approach that was pioneered by Governor Gary Locke of Washington at a time when his state faced a \$2.5 billion shortfall in its budget.

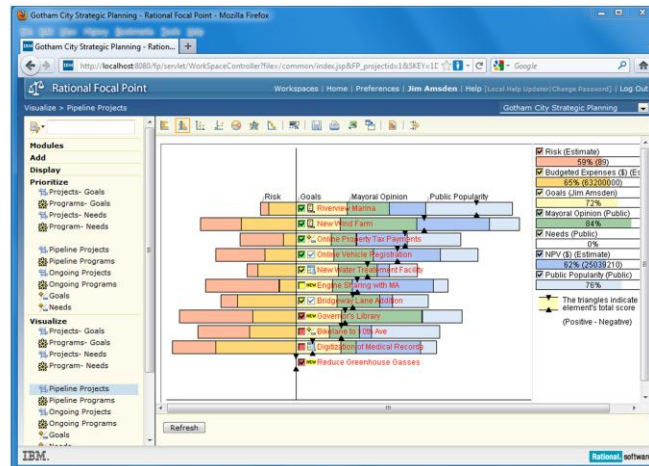
Quoting from Governor Locke: "The usual, political way to handle a projected deficit is to take last year's budget and cut. It is like taking last year's family car and reducing its weight with a blowtorch and shears. But cutting \$2 billion from this vehicle does not make it a compact; it makes it a wreck. What is wanted is a budget designed from the ground up."

The process evolved from Zero-based budget concepts and is described in a book by David Osborne and Peter Hutchinson called "The Price of Government: Getting the results we need in an age of permanent fiscal crisis". BFO is supported by consulting organizations such as Public Strategies Group and is a recommendation of the Government Finance Officers Association.

Any planning process can be challenged by uncertain, inaccurate, or missing information, and poor line-of-sight between city goals, supporting service offers, performance indicators and available revenue. Tools help make the process more efficient so that you can effectively respond to new and changing information. The process can also benefit from supporting information and tools for more efficient execution in order to ensure expected outcome: maximize outcomes for available revenue.

Do what-if scenarios to determine the impact of choices

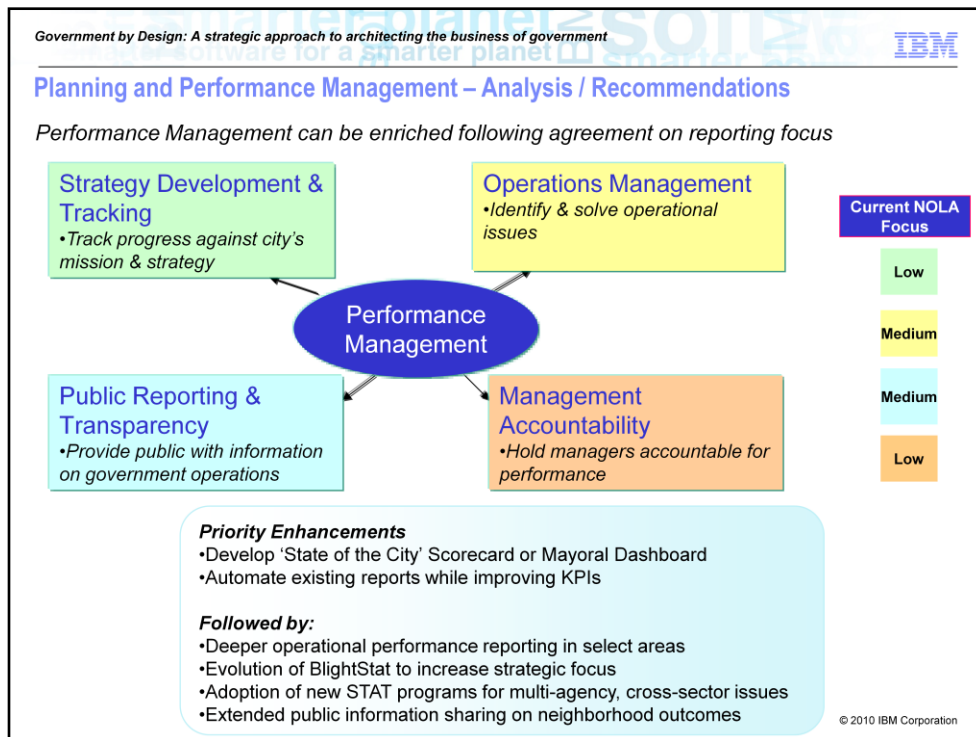
- What programs are we proposing to change and why?
- Which projects should we invest in to maximize outcomes while minimizing costs?
- Is our project portfolio aligned with our goals?
- Are we incurring acceptable levels of risk?
- What are the potential effects of various choices we might make?



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Choosing the offerings that deliver results involves determining which programs to invest in based on business goals, community needs prioritization, risk management, cost, and value. This approach to strategic planning provides emphasis on outcomes required to address needs instead of what to cut or what activities to optimize. Value becomes more relative, based on community need prioritization. Citizens can focus on what they're getting for their tax dollars instead of what's getting cut.

In this example the elements in the graph are pipeline programs that have completed business cases and are now ready for assessment. Business case and outcome data has been incorporated into the 'Budgeted Expenses' and 'NPV' criteria located in the upper right corner. Subjective criteria such as public popularity, can also be assessed using a pair wise comparison. Using the scoring from each criterion planners can make a decision about which potential projects and programs are the best candidates for launch based on current budget constraints. Then they can use a Gantt chart to schedule projects based on dependencies and resource availability.

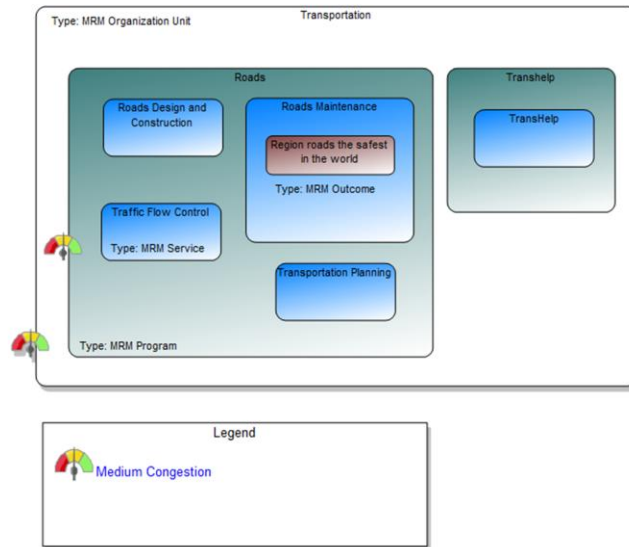


Performance management involves a number of related activities. Operations management consists of monitoring and assessing operational processes and activities against performance targets established during planning activities. These performance targets establish the intended services levels and are part of the municipal business model. Closing performance gaps involves understanding the accountable organization units and giving them the tools required to access performance against desired outcomes and prioritize what gaps to focus on closing. Reporting tools and access to accurate, timely data can make it easier to develop the reports and presentations needed to communicate performance to citizens and help determine acceptable actions for closing gaps, or changing targets during STAT meetings. Performance assessments can also be fed into the next round of strategic planning and budgeting as they may inform desirable or achievable service levels based on common practice or resource limitations.

Performance management tools can help you model performance indicators for your service catalog; assessing programs, services, processes and resources. You can align performance indicator targets with service levels derived from the purpose of the service, the outcome it contributes to and the needs it addresses, not just the processes used to implement the service.

It is important to distinguish what is being done, a policy decision from how it is being done, and operations management concerns. You can address these “steering” from “rowing” functions through separate performance assessments of programs and outcomes, services and service value, process efficiency, and resource usability to optimize what is being done as well as how well it is being done. Performance assessments can be performed incrementally using portfolio management tools with automatically generated dashboards, views and reports to provide the information you need to justify and drive action. This helps focus performance assessments against outcomes and needs, not just target values.

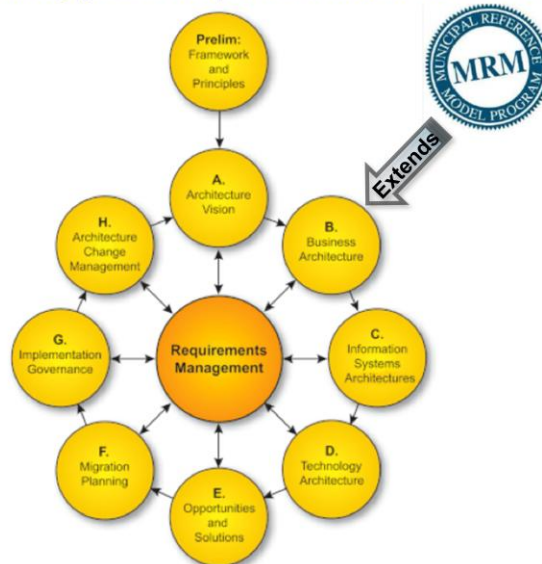
Use heat maps to visualize performance gaps and problem areas



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For example, Program Service and Accountability Model diagrams (PSAM) provide summaries of the programs and services that an organization unit is accountable for. Tools provide a means of creating “heat-maps” that depict assessments of performance indicators right on the PSAM diagram. We can see in this diagram an assessment of medium road congestion against the Transportation department, and the Roads program.

Connecting Business and IT: Use the TOGAF ADM as a method for creating and evolving your enterprise architecture to meet business needs



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IT is becoming more strategic to the public sector every day. In order to respond to this opportunity, you need to be able to connect your business and IT components to ensure you are making the best use of your existing IT assets, and investing in IT for the future in a manner that is consistent with your business strategy.

The Open Group has established a standard Enterprise Architecture Development method, the TOGAF ADM. The ADM has a simple language for describing the elements of an enterprise architecture, and determining how the architecture should evolve to meet business needs. This language and its associated work products is intended to be extended for particular domains and to address the unique needs of any given organization. The MISA MRM has been implemented as an extension to the TOGAF business architecture to provide a language and method applicable to the public sector. This allows you to integrate your business architecture with your IT architecture to align IT against your business objectives. The TOGAF ADM provides a standard way of capturing and analyzing your complete enterprise architecture, integrated with your budgeting and performance management processes to help you deliver service excellence to your citizens.

The Service Delivery Workbench and related SaaS offerings can be delivered in the Cloud

- [Planning and Budgeting for Smarter Government Powered by CloudOne](#)
- IBM Rational System Architect – Core SDW capabilities
- IBM Rational System Architect Publisher Add – to publish models to the web
- IBM Rational System Architect XT - for business analyst Web Access
- IBM Rational Publishing Engine – for document generation
- Rational Focal Point – for prioritization, planning and portfolio management
- Lotus Connections (or Lotus Quickr) – for collaboration on planning and other activities within and across government organizational boundaries
- MISA MRM VPC – For the purpose of managing and governing the MRM by the MRM Working Group as directed by the MRM Steering Committee
- Hosting Services:
 - Standard 2-5 Product offering
 - 25G storage included
 - Standard BW included

The complete Service Delivery Workbench, the MRM Authoritative Reference Model, the sample model for Gotham City and other supporting tools for document generation, reporting and portfolio and strategy management are all available in a SaaS offering at CloudOne. This allows you to get up and running in a matter of hours at a cost that is consistent with your needs. You can spend more time on what really matters to you: analyzing how you are going to address your citizens' needs with available revenue, instead of how to install and configure tools. There are flexible product configuration and pricing strategies to meet your needs and budgets.

Thank you for this opportunity to summarize some of the IBM and Rational offerings that we hope can help you become a smarter city.