Municipal Reference Model Version 2.0

**Reference Model – Quick Reference Guide**

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| **Introduction** | The purpose of this document is to outline the rules used to develop the content of the MRM Reference Model. In particular, these rules apply to the following components in the Reference Model:   * Service * Program * Output * Service Value * Outcome * Target Group * Need * Service Agreement * Process   While there are other business components, such as Organization Unit and Resource that will be available in the MRMv2 software, they will not have any content in the Reference Model, at least for the pilot testing. | |
| **Model Concepts** | The following diagram generalizes the various business components that will have content in the initial version of the Reference Model and illustrates the relationships between the various components represented as a simple connector.    Please note that the above diagram represents a sub set of the full MRM meta-model. The complete MRMv2 data model is available for review in the MISA MRM collaboration site.  Some key observations are worthy of note:   * Every Service in the Reference Model will have one and only one associated Output. * Every Output in the Reference Model will have one or more associated Service Values. * Each Service Value will relate to one and only one Outcome. * Every Outcome in the Reference Model will have an associated Target Group, Need and Program. * A Service is administered by one or more Programs. * Not all Services will have Processes defined at this time, but a representative sample will be provided. * A Service Agreement may be associated with two Services and support the Service Integration and Accountability Model (SIAM) | |
| **Steps to Populate the Reference Model** | The following steps have been identified as the most effective way of filling in the MRMv2 business components:  **Step 1:** Beginning with the Service business component, identify a Service by name and whether the Service is of Type: Public or Enabling.  **Step 2:** Define the Service Output and Service Output Type.  **Setp 3:** Define the Service Value(s) associated with the Service Output.  **Step 4:** Define the Outcome associated with each Service Value.  **Step 5:** Define the Outcome’s associated Need based on the Service Value.  **Step 6:** Define the Outcome’s associated Target Group based on the Service Value.  **Step 7:** Define Programs based on each Outcome.  **Step 8:** Link each Program to its Services and to its Outcomes.  .  Note that each step may require the definition of other attributes associated with each component, but this can be done later. | |
| **Service** | The MRM defines a Service as **a commitment to deliver Outputs that creates Service Value that contribute to Outcomes**. Based on the MRM definition of Outcome, this means that a Service (indirectly) delivers an Output that meets the needs of a client or a target group.  The name of a Service should ideally be defined as a combination of “modifier” (optional), “noun” (mandatory) and “gerund” (mandatory). For example, a Service might be named Solid Waste Collection but would not be called Solid Waste. A Service might be named Business Licensing where there is no need for a “modifier” to preface the name. In the case of enabling Services, the name may only consist of a “gerund”, such as Purchasing. The Service's name should make sense with and without the word “Service” following the name when required by context.  Service definition rules include:   * Service must have one and only one Output * Service does not depend on any other Service * Delivery of the Output should fully create the indicated Service Values   A Service will have the following attributes:   * Parent Service: a reference to the Service that this Service was created from or that groups this Service with other Services * Service Type: Public or Enabling * Status: Active or Inactive * Source: where the reference originated * Program Field: select one or more pre-defined Program Fields, where each Program Field indicates a type of Need addressed by the Service. A typical Service may address needs related to at least one and sometimes up to three Program Fields. * Description: a free-form description of the Service * From Date: date the Service was acknowledged in the Reference Model * To Date: date the Service was removed from the Reference Model   An example of a Public Service is the Solid Waste Collection Service. An example of an Enabling Service is the Purchasing Service. | |
| **Output** | A Service Output is defined as the product of a Service that creates Service Values fulfills a client’s need and is associated with at least one Outcome, which in turn is associated with one Target Group and one Need. An Output may contribute to more than one Service Value and hence more than one Outcome, Target Group and Need.  An Output will have the following attributes:   * Name: the name of the Output * Description: a free form description of the output * Source: where the reference originated * Status: Active or Inactive * Volume Count – Planned: intentionally left blank * Volume Count – Actual: intentionally left blank * Volume Period Start: intentionally left blank * Volume Period End: intentionally left blank * Service Output Type: see GSRM Service Output Types (An Output can have one and only one Service Output Type) * Output Type: Service or Process * From Date: date the Output was acknowledged in the Reference Model * To Date: date the Output was removed from the Reference Model   An example of an Output for the Solid Waste Collection Service is a “Tonne of Solid Waste Collected”. An example of an Output for the Purchasing Service is a Purchased Good / Service (Unit of Resource).  Note that within the Reference Model, three instances of a Purchasing Service will be provided each with a different Output and Service Output Type. | |
| **Sub-Service** | A Sub-Service follows all the rules of defining a Service and has the same attributes. However, a Sub-Service must specialize:   * Service Output – for example, a Recreation Instruction Service may specialize Period of Recreation Instruction Output to represent a Period of Skating Instruction to create a Skating Instruction Sub-Service; or * Service Value – for example, a Recreation Instruction Service may specialize the Recreation Students to represent Youth Students to create a Youth Recreation Instruction Sub-Service; * Both Service Output and Service Value – for example, a Skating Instruction for Youth Sub-Service.   In the event that a Sub-Service is created for a Service, its Parent Service attribute will connect the two Services. | |
| **Service Value** | A Service Value defines the expectations of parties directly receiving or indirectly benefiting from the Service's Output and ensures their alignment with associated Service Objectives and Outcomes.  A Service Value will have the following attributes:   * Name: the name of the Service Value. A Service Value name should bring in a reference to the Service (or Service Output) and Target Group (or Clients). For example, 'Enhanced Job skills for Youth' * Description: expresses the Target Group’s expectations of the Service in the context of their Need, and in terms of results or consequences arising from delivery of the Output. * Source: where the reference originated * Client: is the Target Group referenced in the Outcome associated with this Service Value a 'client’ meaning that the members of the Target Group perform one or more of the following actions: order the Service; engage directly with the Service; receive the Output of the Service; control or have the disposition of the Output; identify themselves to the Service. * Beneficiary Rank: the relative importance of the Target Group associated with this Service Value, compared to other Target Groups. * Service Objective: identifies the results to be realized directly by the Service, often expressed in terms of: * Increased resources, i.e. Target Group members taking up the Service have more resources * Increased capabilities - they are more capable of dealing with demands, have more skills * Increased influence - they have more knowledge and awareness * Decreased undesirable behaviour - they move closer to social norms * Client Type: * Planned Client Set: the number of Target Group members expected to take up (be served by) the Service. * Served Client Set: the number of Target Group members actually served. * Client Set Take-up: the number of actual applicants for the Service as a percent of Target Group size. Note that this could include applicants who do not qualify for service delivery. * Achieved Service Level: the number of Target Group members actually served as a percent of total Target Group. * From Date: date the Service Value was acknowledged in the Reference Model * To Date: date the Service Value was removed from the Reference Model | |
| **Outcome** | An Outcome is defined as a desirable change in the level of a Target Group Need resulting from Service delivery.  An Outcome will have the following attributes:   * Name: the name of the Outcome. The name for an Outcome should make explicit the Target Group, recognized Need and desired trend, as in ‘Reduced infant death rate’ or ‘More prosperous community’. * Description: a free form description of the Outcome * Source: where the reference originated * Status: Active or Inactive * Target Level (Goal):Intentionally left blank. * Achieved Level (Actual): Intentionally left blank. * From Date: date the Output was acknowledged in the Reference Model * To Date: date the Output was removed from the Reference Model   An example of an Outcome that is associated with the Output of a Solid Waste Collection Service is “Reduced incidents of Illness due to improper handling of waste”. An example of an Outcome that is associated with the Output of a Purchasing Service is “Increased procurement efficiency”. | |
| **Program** | A Program is a Mandate to achieve Outcomes by delivering Services.  A Program will have the following attributes:   * Name: the name of the Program. * Description: a free form description of the Program The typical Program name is a concise description of either or both of the Target Group or the Need to be addressed, e.g. ‘Public Health’, ‘Family Safety, * Need Category: Categorizes the need addressed by outcomes delivered by the program (See GSRM Program Fields) * Source: where the reference originated * Status: Active or Inactive * From Date: date the Program was acknowledged in the Reference Model * To Date: date the Program was removed from the Reference Model * Program Type: Public or Enabling / Provider * Program Field: See GSRM Program Fields * Vision: Description of the Program's vision and expected Outcomes.   An example of a Program associated with the Solid Waste Collection Service is a Solid Waste Program. An example of a Program associated with the Purchasing Service is a Supply Chain Management Program. | |
| **Target Group** | A Target Group is defined as set of Parties that share intrinsic or extrinsic characteristics causing a Program to identify (target) them. A Target Group must have more than one member. A Target Group can be represented within a hierarchy of Target Groups. For example, a First Nations Residents can be broken out into First Nations Senior Residents, First Nations Adult Residents, etc.  The name should defined without reference to any particular Service or Program, e.g. ‘Residents’, rather than ‘Water Users’.  A Target Group will have the following attributes:   * Name: the name of the Target Group * Description: a free form description of the Target Group * Population Size: a count of the population of the Target Group * Source: where the reference originated * Status: Active or Inactive * From Date: date the Target Group was acknowledged in the Reference Model * To Date: date the Target Group was removed from the Reference Model * Target Group Type: Public or Provider   An example of a Target Group associated with the Solid Waste Program and the Outcome of reduced incidents of illness due to improper handling of waste is a “Property Occupant”. An example of a Target Group associated with the Supply Chain Management Program and the Outcome of increased procurement efficiency is a “Purchasing Authority”. | |
| **Need** | A Need is defined as a condition wanting or requiring relief. An extension to the concept of Need is a Recognized Need which is defined as a Need acknowledged by the Municipality or Public Sector Enterprise.  Defining and naming Needs is a policy task, requiring distinctions between Needs, wants and requirements among other things. A Need’s name should be chosen so as to be re-usable in different contexts and to enable a view of the jurisdiction’s services through the lens of each Need.   * Avoid reflecting a specific Service in the name, e.g. ‘Protection from Violence’ rather than ‘Police Patrols’. * Names should be as general as possible to allow them to be used with different Target Groups. For example, ‘Protection from hazards’ is addressed differently when expressed by senior citizens compared with children. For the former, residences might be upgraded and for the latter, barriers built around dangerous places. * Both Maslow’s Hierarchy of Needs or its superseding versions, and the Public and Provider Program Fields (see below) are useful to understand how to name and describe Needs. The two frameworks are complimentary: Maslow offers a view of individual Needs that can have different expressions in the different contexts presented in the Program Fields.   A Need will have the following attributes:   * Name: the name of the Need * Description: a free form description of the Need * Source: where the reference originated * Status: Active or Inactive * From Date: date the Need was acknowledged in the Reference Model * To Date: date the Need was removed from the Reference Model   An example of a Need associated with the Solid Waste Program and the Outcome of reduced incidents of illness due to improper handling of waste is “Public Health”. An example of a Need associated with the Supply Chain Management Program and the Outcome of increased procurement efficiency is “Efficient Municipal Operation”. | |
| **Process** | A Process is defined as the work required to transform inputs into an Output. Processes describe how a service is implemented.  A Process will have the following attributes:   * Name: the name of the Process * Description: a free form description of the Process * Source: where the reference originated * Status: Active or Inactive * From Date: date the Process was acknowledged in the Reference Model * To Date: date the Process was removed from the Reference Model   An example of a Process associated with the Solid Waste Collection Service is “Prepare Curb Side Solid Waste Collection Schedule”. An example of a Process associated with the Purchasing Service is “Award Purchase Order to Supplier”. | |
| **GSRM Program Fields** | The following set constitutes the GSRM Program Fields: | |
| **Public Program Fields** |  |
| (Socio-)Economic Development | Need to organize, work, trade and prosper  Need for protection from economic crimes |
| Cultural Development | Need for preservation of identity, history, tradition, values |
| Educational Development | Need to develop human capabilities |
| Environmental Protection | Need to enjoy and rely on the natural environment |
| Justice | Need for fair and just treatment  Need to sanction (punish) law-breakers |
| Legal, Collective, Democratic & Human Rights Protection | Need for recognition and protection of legal, collective, human, and democratic rights and freedoms |
| National Security & Defence | Need for protection from insurrection, terrorism, international threats and defence of freedom |
| Natural Resources | Need to use/consume natural resources  Need to sustain/renew natural resources |
| Public Health | Need for protection from illness and disease |
| Public Safety | Need for protection from natural and built hazards  Needs for protection from violent crime |
| Science and Knowledge Development | Need for new knowledge |
| Social Development | Need to overcome disadvantages  Need to help others and share prosperity and community |
| **Provider Program Fields** |  |
| Public Policy, Planning and Management Services | Need to address public needs and accomplish public goals |
| Corporate Policy, Planning and Management Services | Need to shape the enterprise to accomplish public goals |
| Integrated Delivery Services | Need to integrate service delivery from different program fields |
| Communications Management Services | Need to communicate with the public and with providers including the government |
| Human Resources Management Services | Need to deploy and steward the government’s human resources |
| Financial Management Services | Need to deploy and steward the government’s financial resources |
| Information Management & Technology Services | Need to deploy and steward the government’s information |
| Supply Chain Management Services | Need to ensure supply and conserve the government’s resource expenditures |
| Administrative Services | Need to deploy and use the government’s resources, facilities and assets |
| Facilities and Assets Management Services | Need to maintain and steward the facilities and assets entrusted to the care of the government |
| Professional Services | Need to comply with laws, regulations and best practices as an enterprise |
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| **GSRM Service Output Types** | The following set constitutes the GSRM Service Output Types: | |
| **Funds**  An amount of money | Outputs of this type are used to give the recipient the power to act on the intended purpose of the requested funds, or to fulfill their obligation to provide funds |
| **(Units of) resource**  A unit of resource | Outputs of this type are used to equip the recipient to carry out activities whose purposes are consistent with the terms under which the resources are provided |
| **New Knowledge**  New knowledge *(can also be called intellectual property)* | Outputs of this type are used to advance the public good, solve a problem related to the public good |
| **Recreational and Cultural Encounters**  A recreational and cultural encounter | Outputs of this type are used to improve quality of life, create enjoyment, better health, personal growth, pride in heritage, awareness of civic role, etc. |
| **Educational and Training Encounters**  An educational and training encounter | Outputs of this type are used to improve the capabilities of recipients |
| **Care and Rehabilitation Encounters**  A care and rehabilitation encounter | Outputs of this type are used to improve the quality of life and health of people or extend the lifespan and usefulness or appearance of things |
| **Movements**  A movement of a person or resource | Outputs of this type are used to overcome the barriers of geography and distance |
| **Matches, Referrals and Linkages**  A match, referral or linkage | Outputs of this type are used to assist two or more parties to meet their mutually interrelated requirements |
| **Periods of Agreement**  A period of agreement | Outputs of this type are used to reduce or eliminate unproductive or harmful activities and enable new or continued beneficial activities |
| **Advisory Encounters**  An advisory encounter *(can also be called an information encounter)* | Outputs of this type are used to inform |
| **Advocacy and Promotional Encounters**  An advocacy or promotional encounter | Outputs of this type are used to bring about a change in behaviour, decision, action, etc. |
| **Periods of Permission**  A period of permission  *... granted by an authority* | Outputs of this type are used to grant rights and privileges and regulate activities |
| **Findings**  A finding | This output type is used to recommend further action or not, usually to an authority with the power to act |
| **Rulings and Judgments**  A ruling or judgment | This output type is used to ensure fairness and justice |
| **Penalties and Periods of Sanction**  A penalty or period of sanction | This output is used to enforce compliance |
| **Periods of Protection**  A period of protection | This output type is used to ensure the continuance of the state and society by safeguarding people and property from potential threats |
| **Interventions**  An intervention | This output type is used to ensure the continuance of the state and society by intervening to remove or reduce manifest threats or mitigate their effect |
| **Rules (laws, regulations, policies, strategies, plans, designs, standards)**  A rule | This output type is used to govern |
| **Implemented Changes**  An implemented change  *... may also be called a project* | This output is used to establish a different operation of the organization |