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mSCOA Position Papers provide for the methodology adopted by the mSCOA Project Steering Committee to record outcomes of research conducted and articulate the official position of the National Treasury. Importantly, while these position papers do not have any legal status they do serve to formalise and conclude subject matter as it relates to mSCOA piloting and other regulatory requirements. Subject matter forming the basis of discussion will determine any further action required by National Treasury in concluding and providing a formal position on the specific technical area.

**CONTENTS**

[Definitions 2](#_Toc421779466)

[Mapping and the use of short-codes 3](#_Toc421779467)

[Data Extraction 5](#_Toc421779468)

[mSCOA segment coding / long code (String) 6](#_Toc421779469)

[Conclusion 8](#_Toc421779470)

[Recommendations 9](#_Toc421779471)

# Definitions

1. In this position paper, a word or expression to which a meaning has been assigned has the same meaning as in the Act and Regulation, unless the context indicates otherwise. Some definitions have been expanded to allow for further clarity.
2. **"Act"** means the Local Government: Municipal Finance Management Act, 2003 (Act No. 56 of 2003).
3. **“Regulation”** means the Local Government: Municipal Finance Management Act (56/2003): Municipal Regulations on Standard Chart of Accounts, No. 37577 (2014) and will take effect on 1 July 2017.
4. **“Data mapping**” is a process used in data warehousing by which different data models are linked to each other using a defined set of methods to characterise the data in a specific definition. This definition can be any atomic unit, such as a unit of metadata or any other semantic. This data linking follows a set of standards, which depends on the domain value of the data model used. Data mapping serves as the initial step in data integration. Data mapping can be applied in several ways using procedural codes, Extensible Style Sheet Language Transformation and other existing graphical interfaces. The technique involves evaluating data values in different data sources, as well as automatically and simultaneously discovering complex mappings between the sets. *Data mapping is also used to consolidate multiple databases into a single database.* **Mapping techniques applied as a methodology to accommodate the mSCOA classification framework is prohibited by the Regulation and will be deemed as non-compliant.**
5. **“Enterprise Resource Planning (ERP) or Enterprise Management System (EMS)”** means the business management software that typically comprises of a suite of integrated applications or modules; for the purpose of this position paper this definition will be referred to as an **‘integrated system’**.
6. **“Bespoke systems”** means custom made financial or other systems.
7. **“Core financial system”** means the financial software in which the general ledger is hosted and could include bespoke systems. The term ‘core financial system’ for the purpose of this position paper excludes ‘integrated systems’ as defined above.
8. **“Sub systems or third party systems”** means any system that carries financial or non-financial information in a set of sub ledgers outside of the core financial system of integrated system.
9. **“Traditional general ledger”** means the master set of accounts that summarise all transactions occurring within a municipality or municipality entity. A general ledger contains all the accounts for recording transactions relating to a municipality and municipal entity’s assets, liabilities, owners' equity, revenue, and expenses.
10. **“Subledger or subsidiary ledger”**means a subset of the [general ledger](http://en.wikipedia.org/wiki/General_ledger). The general ledger works as a central repository for accounting data transferred from all sub ledgers or modules such as payroll, assets, projects etc.
11. **“Integration of ledgers”** means the accounting data and transactional information transferred from the sub ledgers or modules to the general ledger must be a direct interface. This interface will not be limited to an integrated system and is also applicable to the core financial system, bespoke and third party systems.
12. **“mSCOA general ledger”** means the segmented transactional information as represented by the Segments and associated detailed classification as contained in the Schedule to the Regulation. The mSCOA general ledger is an expansion of the traditional general ledger as defined in point 9 above.
13. **“Transactions in the mSCOA general ledger”** means the financial entries from all sub-systems, sub-ledgers as well as direct journals posted in the main ledgers summarised on a monthly basis for both actual as well as budget virement at the posting level of the classification framework containing all 7 segments of the mSCOA (if municipal standard classification is in use; otherwise transactions will be represented by 6 segments). These entries should be carried on an individual basis in the sub-systems or sub-ledgers and. should be able to proof empirically that the source has been transacted against directly as informed by the mSCOA general classification framework, and not mapped.
14. **“mSCOA Segments**” – means the 7 segments as defined by the mSCOA Regulation and the detail as contained in the Schedule to the Regulation.

# Mapping and the use of short-codes

1. With the introduction of standardised Section 71 and 72 in-year reporting most system vendors and municipalities have applied “mapping techniques” to provide individual municipal financial information (budget, IYR and actual based on their own chart of accounts which has historically informed the master data table). This practice includes the population of the budget reporting requirements as prescribed by the Municipal Budget and Reporting Regulations (Schedules A1 to A10 and all supporting schedules) and compilation of accountability reporting (annual financial statements).
2. The practice of mapping or data extrapolation has resulted in inconsistent application across all municipalities severely impeding the aggregation of municipal performance and ‘whole of government’ reporting. In addition, there is limited application of evidence based financial management as a direct result.
3. The mSCOA Regulation stipulates that the prescriptive classification framework as determined by the seven segments and associated detail as contained in the Schedule, must be embedded within the posting level in the mSCOA general ledger i.e. master data tables.
4. In the achievement of mSCOA compliance, the financial applications in operation at municipalities need to provide for the segments and associated detail as contained in the Schedule at a budget and transactional level.
5. Notwithstanding the above, the entire mSCOA classification framework as represented by the mSCOA Segments, must be embedded in the transactional environment of the respective financial applications. The following could represent alternative approaches by various system platforms which would be considered as compliant to the Regulation from a transactional perspective:
	* In an integrated system environment, the mSCOA Segments could be hosted in the traditional general ledger, sub-ledgers and other attributes (modules) of the particular system. Importantly, seamless integration between these attributes would require that all sub-legers and other attributes post the consolidated entries to the primary or general ledger where applicable. The integration from the sub-ledger or other attributes would require perfect alignment to the mSCOA classification framework i.e. while detail transactional information at the lower levels will be hosted in the sub-ledger, integration into the primary general ledger would need to roll-up to the next level of the mSCOA classification framework; or
	* With a core financial system, be that bespoke or commercial offering, all detail transactional data would be hosted within the sub-ledgers represented by the sub-systems at the lower levels of the mSCOA Segments. Integration into the traditional general ledger would need to roll-up to the next level of the mSCOA classification framework.
6. This further requires that the master data tables of each respective financial application must be informed and perfectly aligned to the mSCOA Segments.
7. Some systems have adopted a configuration model whereby “short codes” align to the mSCOA segments on the master data table. The short codes consist of the original chart numbering thereby creating a retrofit to the legacy chart and transactions.
8. Where one on one linking due to additional votes could not be achieved, the configuration of a previously non-existing vote in the budget is created by using the mSCOA Segments to create the new budget vote and in the same instance a short code based on the retrofit method of allocating an account in the legacy chart.
9. Transactions are posted using all segments and integration from sub-systems. This ideology, especially as it relates to the billing and asset sub-systems require that a translation table to be applied to relate the transactional environments into the mSCOA Segments. This is also done in traditional general ledger integrations as the management of data size makes it redundant to carry the additional account number of the general ledger in addition to the tariff, service and type of transaction.
10. The relationship is built in a master table configuration that identifies the chart on the consolidation level which in the case of billing data would reflect the tariff, service, and type of transaction. Similarly the assets system uses the type of asset, custodian and GIS to identify the segments.
11. While translation tables hosted in the setup and configuration of master tables or tariff tables constitutes mSCOA compliance and would not be deemed to be mapping, this would be subject to the hosting of the master translation tables in the core financial and reporting modules.
12. However, mapping the current chart of accounts of municipalities to the mSCOA Segments in an attempt to extract or extrapolate reporting is prohibited by the Regulation and would constitute non-compliance (refer to the definition on mapping). While the use of short codes as a methodology to implement the mSCOA Segment, as explained in points 21 to 25 is acceptable, extreme caution must be applied not to mistake the use of short-codes as a mapping exercise.
13. National Treasury, supported by the mSCOA Regulation requires that transactional detail be recorded by selecting a classification from each of the mSCOA Segments. This selection must inform the posting level within the general ledger were applicable.
14. Municipalities are required to ensure that each transaction is budgeted against the mSCOA Segments at a posting level from the master data table for both operational and capital projects. There would therefore be perfect alignment between the approved budget at a posting level and the actual posting of transactions within the general ledger and sub-systems or sub-ledgers where transactions are hosted at point of origin.
15. Reporting in some cases is done via Business Intelligence (BI) tools of which some are inherent to the system functionality. The reporting functionality must directly be informed by the mSCOA Segments and transactional environment and must do so without the application of mapping methodologies to the mSCOA Segments.
16. The use of translation tables in the BI tools to convert the short-codes to the segment long string code and/or GUID is permitted subject to the short codes being embedded in the system functionality as explained above.

# Data Extraction

1. In terms of the Regulation, section (2)(c) provides for portal access by the National Treasury (NT) and is defined as the means to obtain and collate the transactional mSCOA general ledger data and financial information.
2. The portal, for practical application reasons, is defined as providing of data in the mSCOA Segment detail consistently across all municipalities and municipal entities to a central database for extraction, collation, and reporting.
3. The above extraction will require the mSCOA general ledger to be derived from the traditional general ledger in combination with the sub-ledger or sub-systems as defined above regardless of an integrated system, core financial system, bespoke or sub-systems in operation at the respective municipalities.
4. The format of the extraction is pipe delimited (|) with the following headings defined:
* Demarcation code: The code assigned by the demarcation board of the municipality. This leading code is to identify the transacting municipality;
* Financial Year: The year in which the financial period ends; for example 2014/15 will be 2015;
* Type of submission: Budget (Municipal Budget and Reporting Regulations), in-year reporting (Section 71 and 72), or annual financial statements (AFS);
* Period Indicator: Period indicators provide for the distinction of financial periods in a particular financial year. Monthly budget and IYR submissions should therefore provide for period indicators as would AFS in different financial years. In this regard the following applies:

Code Description

[ORGB](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=ORGB) Original Budget

[IBY1](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=IBY1) Indicative Budget Year 1

[IBY2](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=IBY2) Indicative Budget Year 2

[ADJB](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=ADJB) Adjusted Budget

[ESTA](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=ESTA) Estimated Year End

[AUDA](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=AUDA) Audited Actual (Replaces M13 with Diff between M01 till M12 and AUDA)

[PAUD](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=PAUD) Pre-audited Actual (Equals M01 till M12 and Opening Balance)

[M01](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M01) Actual Month 1 July

[M02](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M02) Actual Month 2 Aug

[M03](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M03) Actual Month 3 Sept

[M04](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M04) Actual Month 4 Oct

[M05](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M05) Actual Month 5 Nov

[M06](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M06) Actual Month 6 Dec

[M07](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M07) Actual Month 7 Jan

[M08](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M08) Actual Month 8 Feb

[M09](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M09) Actual Month 9 Mar

[M10](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M10) Actual Month 10 Apr

[M11](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M11) Actual Month 11 May

[M12](http://resvirisp01/ibi_apps/WFServlet?IBIF_webapp=/ibi_apps&IBIC_server=EDAPROD&IBIWF_msgviewer=OFF&IBIF_ex=MFM10003&CLICKED_ON=&COLNAME=PERIOD_IND&CDECDE=M12) Actual Month 12 June

M13 Audit corrections

* Segment’s GUID and/or long code required in the following sequence:
	+ Project, Function, Item, Fund, Costing, Municipal Standard Classification and Regional Indicator. (If empty use default for space keeping.);and
	+ Breakdown allowed and Municipal Standard Classification descriptions. Sequence as detailed above and if empty 0 for space keeping.
* Amount: Amount provides the monetary value of the transaction pipe delimited format at the end. As a result of closing balance requirements on control accounts, amount should be informed by the net movement and will only balance to zero as per general ledger if closing balances is omitted.

# mSCOA segment coding / long code (String)

1. The mSCOA tables provide indicators for posting level accounts. These accounts contain a code number also linked to a GUID (global unique identifier). Where the GUID is used by vendors it will be translated back to the long code number for purposes of interpreting the GUID by national treasury.
2. Where Breakdown allowed is used to create a posting level the last guid used by treasury should be used with an added numeric 001,002 etc. at the end.
3. The account numbers provided in the mSCOA tables are the official referencing adopted by National Treasury and will inform data extraction from the general ledger and transactional environments of the sub-ledger or sub-systems which represent the mSCOA general ledger.
4. The posting level accounts provided for in the mSCOA Segments are referenced by using a combination of alphanumeric and numerical code structure.
5. The “code numbering” gives effect to the hierarchical nature of the classification structures defined within the various segments and informs the posting level transaction within the general ledger and sub-ledgers or sub-systems.
6. The hierarchical nature refers to a label defining a group of accounts, containing a further breakdown of accounts. These “levels” will provide the “link” to different reporting levels within the required reports: for example, budget reporting formats (MBRR), in-year-reporting framework (section 71 and 72 of the MFMA), and the specimen annual financial statements. The position paper detailing ‘reporting’ will provide further guidance in this regard.
7. The mSCOA tables provide for the code structure as contained in the Project Document.
8. The code structure assigned to the mSCOA Segments contains an alphanumerical character to define the segments followed by a numerical structure representing the various levels within the reporting structure. The alpha characters have been defined as follows:

| **Code** | **Segment** |
| --- | --- |
| CO | Costing |
| FU | Fund |
| FX | Function |
| IA | Item Segment: Assets |
| IL | Item Segment: Liabilities  |
| LN | Item Segment: Net Assets |
| IE | Item Segment: Expenditure  |
| IZ | Item Segment: Gains and Losses |
| IR | Item Segment: Revenue |
| PR | Project |
| RE | Regional Indicator |

1. The alphanumeric structure and implication on number of digits are illustrated below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Segment** | **Function****(digits)** | **Fund****(digits)** | **Item****(digits)** | **Project****(digits)** | **Costing****(digits)** | **Regional** **(digits)** |
| Column 1: GFS Code  | 4 |  |  |  |  |  |
| Column 1: Alphanumeric |  | 2 | 2 | 2 | 2 | 2 |
| Column 2 Alphanumeric | 2 |  |  |  |  |  |
| Column 2 -13 |  | 3 | 3 | 3 | 3 | 3 |
| Column 3 – 13  | 3 |  |  |  |  |  |
| **Total Digits 229** | **39** | **38** | **38** | **38** | **38** | **38** |
|  |  |  |  |  |  |  |

1. The code structure for function deviates from the general rule outlined above. The first column contains the 4 digit GFS code, followed by the alphanumeric for identification of the segment and then the code structure in the columns to follow.
2. While the multi-dimensional mSCOA Segments does not necessitate the adoption of this account code (string) within each specific financial application (system) at a posting level, it is the preference of National Treasury that where possible this string be accommodated at the posting level of each financial transaction.
3. It is therefore recommend that the fixed account coding structure be applied throughout all municipalities and municipal entities in ensuring consistency should the system application be able to accommodate the account coding as demonstrated above.
4. Where the account coding cannot be accommodated at a posting level within the financial systems’ master data tables informing the general ledger, it’s an absolute requirement that the prescriptive account coding as contained in the various mSCOA Segments be embedded in the data extraction.
5. Some system vendors (financial applications) have indicated through the frequently asked questions and other engagements their inability to accommodate the length of the account code (string). While these limitations are acknowledged, the position of the National Treasury is directly informed and related to report extraction that is consistent to the mSCOA Segments across all 278 municipalities.
6. The system developer (service provider) may use a methodology to convert the “long code” to a “short code” provided the “account code (long code)” is retained for posting (transacting) and reporting purposes.
7. A short code is not considered to be a mapping exercise. Short code keys relate to the specific system setup and consist of “two sets” pointing to each other. Importantly, a short code key does not function independent of the overall classification framework and has no value if separated and there must exist a direct relationship.

# Conclusion

1. Data extraction should be done from the mSCOA general ledger. Alternatively business intelligence engines would be required to extract from both traditional general ledger and sub-ledgers or sub-systems to derive mSCOA general ledger extract.
2. Mapping of the mSCOA Segments to the current general ledger as informed by the master data table of a financial application does not fulfil the requirements of the Regulation. Municipalities that adopt this approach in implementing the Regulation will be deemed to be non-compliant to the Regulation.
3. National Treasury, supported by the Regulation requires that transactional detail be recorded by selecting a classification from each of the mSCOA Segments. The system may have functionality that drives the subsequent selections based on parameters or attributes. This selection must inform the posting level within the traditional general ledger.
4. Compliance to the Regulation requires that the master data tables of all financial systems (applications) be informed by the detail transactional classification as prescribed by the mSCOA Segments which in turn posts to the general ledger.
5. It is the preference of National Treasury that the fixed account coding structure (long code) be applied throughout all municipalities and municipal entities in ensuring consistency should the system application be able to accommodate the account coding.
6. The code structure has been developed to provide for sufficient fields and digits for future expansion of the account codes. Provided this principle is maintained, the “account codes” could far exceed the current requirements and subsequently could be substantially shortened.
7. The application of the long code for National Treasury purposes need only be until the last non-default portion of the code on the posting level. The padded zeros may be omitted.
8. The breakdown allowed should be added from level 10 to 12 as this will allow for expansion of the chart without the expansion impacting on numbers used by systems.
9. The extraction report for items where breakdown is allowed should carry the short description of those posting levels in the report extraction.
10. Where the account coding cannot be accommodated at a posting level within the financial systems master data tables informing the general ledger, it’s an absolute requirement that the prescriptive account coding as contained in the mSCOA Segments (long code) be embedded in the report extraction.
11. A short code is not considered to be a mapping exercise. Short code keys relate to the specific system setup and consist of “two sets” pointing to each other. Importantly, a short code key does not function independent of the overall classification framework and has no value if separated and there must exist a direct relationship to the long code.
12. Municipalities are required to ensure that each transaction is budgeted against the mSCOA Segments at a posting level from the master data table. There would therefore be perfect alignment between the approved budget at a posting level and the actual posting of transactions within the general ledger and sub-system or sub-ledgers.
13. The system developer (service provider) may use a methodology to convert the “long code” to a “short code” provided the “account code (long code)” is retained for posting of transactions and reporting purposes.

# Recommendations

1. The mSCOA Integrated Consultative Forum note:
* ***This*** position paper has extensively been work shopped with all role players and stakeholders (internal to the National Treasury and external stakeholders);
* ***This*** position paper has been tabled and approved by both the mSCOA Technical Working Committee and mSCOA Steering Committee;
* ***This*** position paper will be tabled and discussed as part of the formal agenda at the mSCOA ICF to be hosted on Monday, 22 June 2015;
* ***That*** mSCOA ICF members note that they will be offered an opportunity to provide final comments subsequent to the mSCOA ICF of the 22 June 2015 on the position paper until the close of business on Monday, 29 June 2015; and
* ***That*** subsequent to the close of the comments period the position paper will be finalised and distributed to all mSCOA ICF members and posted on the National Treasury website.