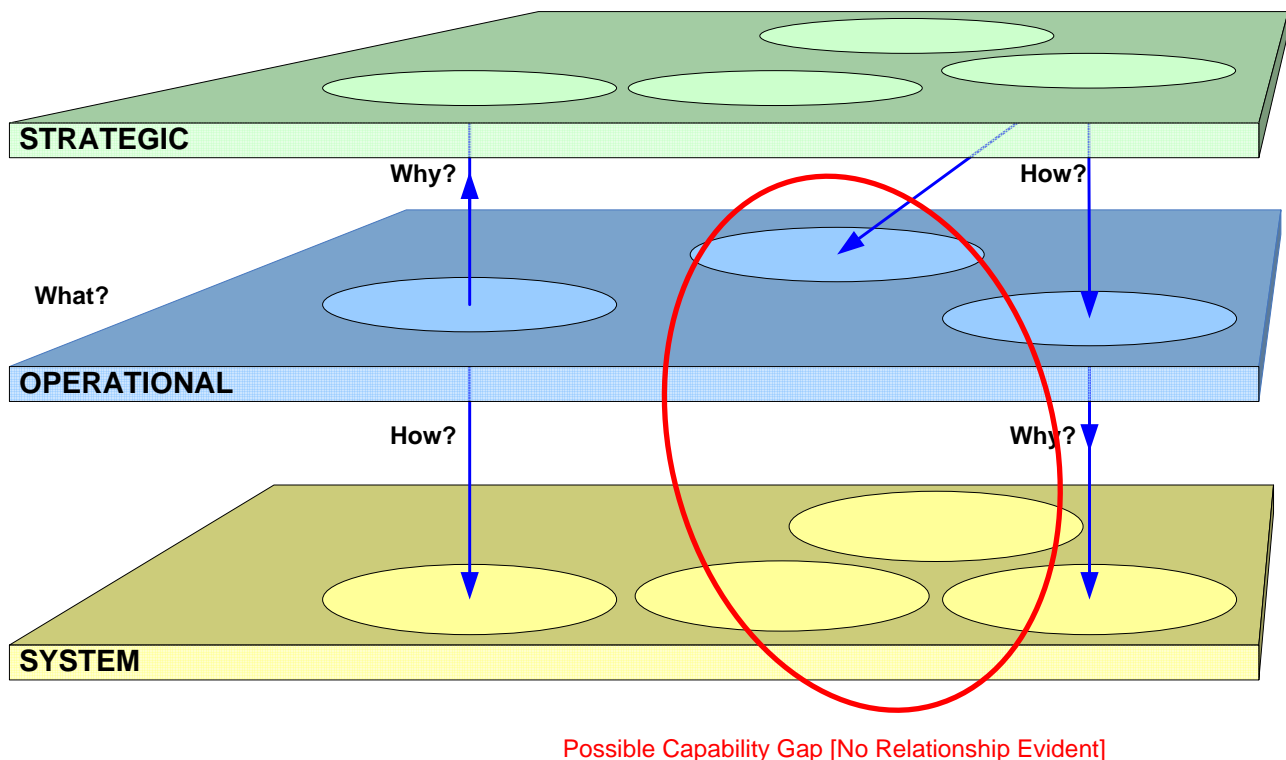


Gap analysis with MODAF

This article illustrates the use of MODAF with reference to gap analysis. Gap analysis is a way that enterprise knowledge can be used to inform decision-making. The gaps of interest to MOD can include gaps in the realisation of military capability (based on the linkage between Strategic and Operational Viewpoints) and gaps in the realisation of equipment capability (based on the linkage between Operational and System Viewpoints).

The discussion below depends upon the modelling layers and viewpoint linkages covered in other articles. The assumption is made that an enterprise architectural model has been created using MODAF.

The diagram below illustrates use of MODAF in the conduct of gap analysis.



In this example, a model of the operational capability required has been created together with a partial specification of the associated solution. An operational capability has been identified through analysis for which there appears to be no solution capability.

A specific example of this is the use of SV-5, which traces system functions to operational activities. This tabular view might be used to identify an operational activity which lies within the scope of the operational boundary but for which there is no prescribed system functionality.

Note that the technique used to analyse gaps in capability can also be used to identify overlaps, ie redundancy in the provision of operational capability from more than one system capability. For example, based on an architectural repository that contains models of a number of system capabilities, it is possible to perform an analysis which identifies all the systems that are able to support a particular type of operational activity.

Gap analysis, like dependency analysis, makes use of the expected linkages between capabilities expressed at different modelling levels. Typically the analysis is focused on identifying realisation gaps (ie requirements that are not yet fulfilled). One difference is that the analysis can also be focused on identifying gaps in the model by looking upwards through the modelling layers.

As an example, when modelling the 'As-Is' capability it is not uncommon for models of existing systems to be captured using MODAF and the business requirements for them (in terms of models at the operational and perhaps the strategic levels) reverse-engineered. Dependencies (such as interfaces or the common use of a technology component) between the As Is systems might then manifest themselves as dependencies at a higher level (higher modelling layer).

The reason that this type of gap filling is important is that any incompleteness or inaccuracies in the model associated with the enterprise architecture might lead to incorrect decisions being taken at a later date