CSPA MM

Service Integration Maturity Model

7 levels

* Silo
* Integrated
* Componentised
* Services
* Composite
* Virtualised
* Dynamically Re-configurable

8 dimensions

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| **Dimension** |
| Business Activity View | |
| Business Capability View | |
| Statistical Methodology | |
| Information | |
| Application | |
| Infrastructure & Management | |
| Governance & Organisation | |
| Design Practices | |

Architecture Capability Maturity Model (Togaf 8.1.1)

6 levels

0 None

1 Initial

2 Under development

3 Defined

4 Managed

5 Measured

The nine IT architecture characteristics are:

* IT architecture process
* IT architecture development
* Business linkage
* Senior management involvement
* Operating unit participation
* Architecture communication
* IT security
* Architecture governance
* IT investment and acquisition strategy

<https://en.wikipedia.org/wiki/Capability_Maturity_Model>

Software Development Processes

The model involves five aspects:

* *Maturity Levels:* a 5-level process maturity continuum - where the uppermost (5th) level is a notional ideal state where processes would be systematically managed by a combination of process optimization and continuous process improvement.
* *Key Process Areas:* a Key Process Area identifies a cluster of related activities that, when performed together, achieve a set of goals considered important.
* *Goals:* the goals of a key process area summarize the states that must exist for that key process area to have been implemented in an effective and lasting way. The extent to which the goals have been accomplished is an indicator of how much capability the organization has established at that maturity level. The goals signify the scope, boundaries, and intent of each key process area.
* *Common Features:* common features include practices that implement and institutionalize a key process area. There are five types of common features: commitment to perform, ability to perform, activities performed, measurement and analysis, and verifying implementation.
* *Key Practices:* The key practices describe the elements of infrastructure and practice that contribute most effectively to the implementation and institutionalization of the area.

*Maturity Levels*

* *Initial* (chaotic, ad hoc, individual heroics) - the starting point for use of a new or undocumented repeat process.
* *Repeatable* - the process is at least documented sufficiently such that repeating the same steps may be attempted.
* *Defined* - the process is defined/confirmed as a standard [business processes](https://en.wikipedia.org/wiki/Business_processes).
* *Managed* - the process is quantitatively managed in accordance with agreed-upon metrics.
* *Optimizing* - process management includes deliberate process optimization/improvement.

<https://en.wikipedia.org/wiki/Testing_Maturity_Model>

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| The five Levels in the Testing Maturity Model | |
| **Level** | **Description** |
| Level 1 – Initial | At this level an organisation is using *ad hoc* methods for testing, so results are not repeatable and there is no quality standard. |
| Level 2 – Definition | At this level testing is defined as a process, so there might be test strategies, test plans, test cases, based on requirements. Testing does not start until products are completed, so the aim of testing is to compare products against requirements. |
| Level 3 – Integration | At this level testing is integrated into a software life cycle, e.g. the [V-model](https://en.wikipedia.org/wiki/V-Model_(software_development)). The need for testing is based on risk management, and the testing is carried out with some independence from the development area. |
| Level 4 – Management and measurement | At this level testing activities take place at all stages of the life cycle, including reviews of requirements and designs. Quality criteria are agreed for all products of an organisation (internal and external). |
| Level 5 – Optimization | At this level the testing process itself is tested and improved at each iteration. This is typically achieved with tool support, and also introduces aims such as defect prevention through the life cycle, rather than defect detection (zero defects). |