

# The Reference Point Method: Requirements-Based ICT Convergence Solution Development

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The markets for information technology and communications technology (ICT) are converging: data-processing systems and applications are merging with networks for voice, video and data transmission. A few examples are the Internet which is going mobile with UMTS, software which can be leased over the Internet, and business processes that are being integrated via the Internet.

T-Systems is one of the world's leaders to offer ICT convergence solutions from a single source (cf. Figure 1).

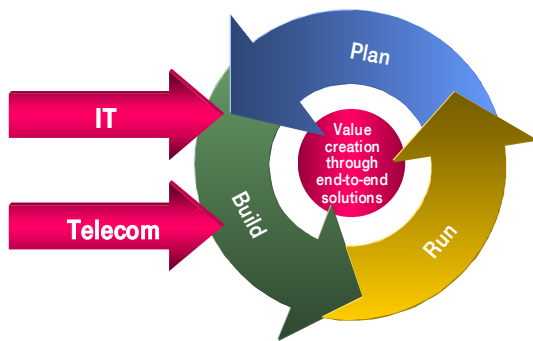


Figure 1. Development of ICT Convergence Solutions

The *Reference Point Method* has been developed by T-Systems as an overall approach for making the complexity in developing ICT convergence solutions manageable. It is based heavily on requirements engineering at the level of business process architecture, technology neutral architecture, technology specific architecture, and telecom architecture. The integration of all these architecture levels is realized by special interfaces at each level called “reference points” (cf. Figure 2).

This method touches the areas of software architecture design and requirements engineering and emphasizes the integration of both. First, it is used to investigate the needed business processes and to get a first insight into the needed system landscape. Then, the corresponding results provide the basis for the operative planning of the ICT systems.

The Reference Point Method is used heavily within Deutsche Telekom AG and its divisions T-Com (service provider hardware communication and network infrastructure), T-Mobile (service provider mobile communication), T-Online (internet service provider) and T-Systems (ICT convergence solutions), i.e. both in strategic projects and in realization projects. It is also applied successfully in various other application domains, e.g. banking and insurances.

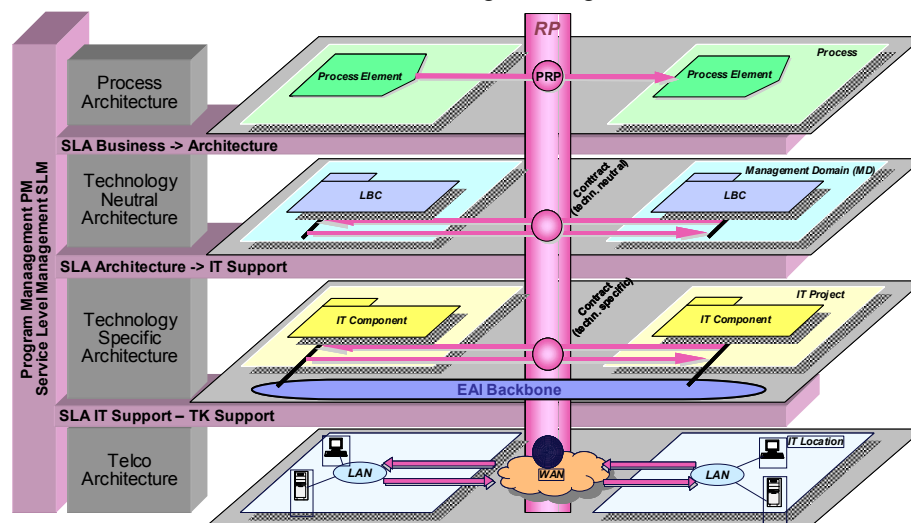


Figure 2. The Reference Point Method