

LCPM White paper:

the rationale for LifeCycle- and Portfolio Managementⁱ within NRENs

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External and internal drivers

Various reasons can be identified for NRENs to devote attention to LifeCycle- and Portfolio Management (hereafter, LCPM). First and foremost it is a mere fact that the average NREN customer-base (universities and research-institutions) has become more critical towards the NREN service portfolio. This trend should be considered a logical development now that (high-speed) connectivity and associated services have become “mission-critical” for a growing number of users. It is expected that this development will continue and even more so for NRENs that offer *business critical* VoIP services. Hence, the NREN service portfolio should closely align with existing and future customer requirements.

A second reason for a more critical user group results from changes in the playing field, where commercial ISPs seem determined to close the gap (financial, technological, services) with NRENs. The actual market situation of course differs from country to country but in general any NREN should prepare to face competition from commercial ISPs since these will undoubtedly at some time start to focus on service delivery to universities and research-institutes.

Apart from these (re-active) external reasons, a strong internal rationale for LCPM follows from the need to allocate resources efficiently within NRENs. This requirement forces NRENs to phase out services that have reached the end of their lifecycle at the right moment. Traditionally many NRENs continued to offer a legacy service until the last user indicated that it did no longer need it, but recently it has become widely accepted to shut down a service after usage reaches a certain threshold. Needless to say of course that such a threshold may decrease per NREN in a situation where various NRENs cooperate not only in service-development but also in service-provision.

Technology-push versus demand-pull

Many NRENs choose to offer network connectivity to their customers as well as a full range of middleware-, security- and application- or even content-services. Most services and applications however result from innovation projects and are often developed from a technology-push perspective. The risk of a mismatch with customer needs is therefore imminent, resulting in slow adoption of new services offered. However, shifting the balance towards a demand-pull orientation would probably not stimulate innovation and also induces a risk, since it decreases the level of differentiation with commercial ISPs.

A second aspect to consider lies in the mission of NRENs. A typical NREN mission statement articulates that innovation is their “raison d’être”, which is certainly true from the perspective of (government) funding bodies.

ⁱ Definitions of lifecycle- and portfolio management are given in the annex.

Co-operation in innovation

Each NREN has developed its own strategies to cope with this inherent tension but we can of course learn from each other and improve our procedures. Therefore one of the goals of the TERENA LCPM Taskforce is to develop a model that

- avoids the pitfalls of a “demand pull” orientation
- avoids the pitfalls of a “technology push” orientation
- allows for input and feedback from customers at the various stages of service development
- preserves the valuable orientation on innovation and technology within NRENs

Concluding remark

Over the last couple of years a growing number of NRENs have acknowledged the need to invest in LCPM-procedures. Some NRENs have even introduced a LCPM-model within their user constituencies. The TF-LCPM provide a forum for exchange of experience and know-how on LCPM-issues and should ultimately result in building-blocks for an LCPM model that can be used across NRENs.

Annex: Definitions

Lifecycle management

Lifecycle management refers to the choices that will have to be made during the development process of an individual service. It provides guidance by introducing a decisionmaking cyclus that defines which persons/roles should decide on what moments and on what grounds on issues like the introduction of new services as well as the allocation of marketing- and communication resources.

Lifecycle management is a dynamic process requiring a constant flow of decisions and hence will not work when the customers or funding organizations are directly involved in go/no-go decisions. Indirectly the relevant stakeholders are stimulated to provide significant input for this process by means of:

Portfolio management

Portfolio management is oriented much more externally and should guarantee that the range of services delivered to the SURFnet customer-base remains appreciated and well-balanced. Portfolio management within SURFnet is considered of strategic importance which implies that the SURFnet directors periodically initiate direct interaction with the IT management of the connected institutions in order to discuss proposed changes in the SURFnet service portfolio.