

The concept of “Service Stewards” as envisaged for the NFDI’s Initiative Base4NFDI

What is Base4NFDI

Base4NFDI is a joint initiative of all the German National Research Data Infrastructure (NFDI) consortia to deploy a portfolio of basic services to support data sharing across all of NFDI. It brings together many national institutions that support domain infrastructures and major German research organisations. The target group of the basic services are all existing and future NFDI consortia and their research communities and a three-step process to develop the services from initialisation to a roll-out stage is participatory and transparent. Base4NFDI started in March 2023, and as of January 2024 it has three services in the initialisation service and beyond¹.

Introduction

The concept of the Service Stewards was conceived to support the service development process through all stages of the development. They will ensure a smooth interplay between the consortia and partner organisations involved in the development of a service and the Sections. They are particularly responsible for interfacing with the consortia. They scout the consortia’s infrastructure landscape with regard to certain service candidates and act as requirement engineers in specific domains. They consolidate this information for Base4NFDI.

In later stages of the process, they support the rollout of basic services and the integration of those into the existing infrastructure landscape. They are critical to efficient adaptation of basic services as the consortia will often need additional support for integrating a basic service with their existing service portfolio or do not have the resources and/or expertise for adopting a new service.

To facilitate these crucial tasks, Service Stewards form a network of in-person interfaces across all consortia and all Sections. They will network weekly in virtual meetings and through quarterly in-person meetings. This will help develop tight liaisons within the large network of NFDI partners and especially between the consortia’s infrastructure providers, who are typically involved in several consortia. The Management Committee (MC) and the Coordination Office (CO) will conceptually support the development of the network.

Service development and operation is a multifaceted process. The Service Stewards will take care of domain specific and technical-organisational requirements as well as management and communication tasks.

In the initialisation phase Service Stewards are responsible for the following:

¹ <https://base4nfdi.de/>

- inform ongoing discussions in NFDI Section's on basic services in their domain as well as the decisions on potential candidates, i.e. by providing information about and / or prototypes of existing community solutions and their broader usability,
- aggregate, consolidate and monitor needs and requirements for basic services across several consortia, and help synchronise basic-service related discussions between different Sections,
- assist Section working groups preparing a basic service with their domain- and service-specific knowledge in developing proposals for the initialisation phase,
- with their domain-specific knowledge support evaluation and reporting during the initialisation phase.

In the integration and ramping-up for operation phase Service Stewards

- support integration of basic services into the NFDI consortia's service landscapes. They will assist with (1) securing commitments from institutions necessary for the operation of a service, (2) maintaining compliance requirements and – where necessary – (3) arranging training in collaboration with the Base4NFDI training manager,
- assist Section working groups with their domain-specific knowledge in developing proposals for service integration and service operation,
- support evaluation and reporting during the integration and ramping-up phase,
- supervise service levels and propose service adjustments.

Main Tasks of the Service Stewards

1. **Support the assessment of needs and the requirements analysis for basic services.**
Basic service candidates are identified **within the Sections** of the NFDI association. Service Stewards will support the sections by scouting the given service landscape as well as by guiding through the formal process of applying for basic service funding.
Please note: Service Stewards shall neither participate in proposal writing nor in service development.
2. **Accompany the development of one or more NFDI-wide basic services.**
Service Stewards are tasked to support the **service developer teams** for a given basic service within the development process. Each Service Steward will be associated to one or more basic services, depending on the development in progress and the given specialised area of the Service Stewards.
3. **Support the NFDI consortia in one or more phases of service development, i.e.:**
 - **by ensuring the consideration of specific needs:** Service Stewards analyse the technical-organisational characteristics of a given consortium and how a consortium's consideration affects the development of a given Basic service (together with TA1).
 - **with the integration of new basic services into the given service landscape of a consortium:** Since Service Stewards know both, the basic service and the consortia's specific landscape, they are the natural communicator to support this process of integration (together with TA2).
 - **in the operation of basic services in their pilot phase:** Service Stewards will assist in securing commitments of service operation from institutions and in implementing compliance requirements.

- o **in the further development of established basic services:** Service Stewards will monitor the use and acceptance of basic service and analyse and communicate improvements/adjustment for further development (together with TA2).
- 4. **Network across Sections, consortia, service developer teams, and users:** Service Stewards are the interfaces between the different stakeholders in the development of a basic service. They balance the interests of the wide range of colleagues from research and the infrastructure communities.
- 5. **Shape the profile of Service Stewards:** The role of Service Stewards, introduced by B4N, is new in the development of a service landscape. Each Service Steward can shape this role and therewith contribute to this emerging job profile in an federated service landscape.

Education and job experience

- Technical background preferred (i.e. computer scientist)
- Domain specific knowledge in [the given service group]
- Experience in IT service design and/or provision (e.g. ITIL)
- Ability to effectively communicate and manage expectations of various stakeholders
- Ability to prioritise multiple project items
- Experience in complex multi-institutional programs welcome

Service Coverage

The seven approved Service Stewards profiles in 2023 cover six specific areas within the possible range of a basic service landscape (see Table1). Together, this expertise allows to channel the discussion of potential basic service candidates within the sections to form a bigger picture of an B4N service portfolio.

Table 1: Service Steward profiles

Profile
#1 Federated access 1 Federated access 2
#2 Federated storage- and compute-infrastructure
#3 Data management, ingest, archival
#4 Semantic interoperability and reusability (data harmonisation)
#5 Data literacy, data management support
#6 Data protection & anonymisation

Networks and Meetings

To enable the full potential of Service Stewards, balancing the interplay of Sections, consortia, B4N task areas and the Service Stewards host institutions is crucial. It is the role of

the host institutions and the B4N TA leads, to create a supportive environment for Service Stewards. Specific networks and regular meetings will help to create an effective and conducive working environment.

Service Steward Network: Meet other Service Stewards on a regular basis, exchange experiences, support each other and discuss next steps. The network is self-organised but accompanied by CO and TA staff members. This group will network **weekly in virtual meetings and through quarterly in-person meetings**.

Single Service Network: A Service Steward forms a network for each of his/her supervised service, to establish a **monthly** communication between the service stakeholders (section, consortia, developer, host institutions, potential provider, ...). The agenda is driven by the current development process and upcoming next steps. The group composition depends somewhat on the current development phase.

TA Tutorship for Service Stewards: TA or measure staff members will tutor Service Stewards, especially **in their first year**. They guide Service Stewards through the B4N processes and will support networking efforts and connect Service Stewards to stakeholders.

Connection to Service Portfolio and Tool Pool: Service Stewards will be guided through the criteria catalogue for the service portfolio and the tool pool. They can participate in the continuous development of the service portfolio framework and will be invited to **quarterly meetings** by the TA2.

Service Portfolio Meeting: All Service Stewards, service developers, Section leads and TA members meet to discuss the overall progress in service development, provision, portfolio and overall architecture design. This meeting will be organised as a **two-day-retreat on a yearly basis**.