



RESILIENCE

Grant Agreement 101079792, RESILIENCE PPP

Services Level Requirements (SLR)

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00.01	29/05/2024	DRAFT	Initial Draft	
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01.00	30/05/2024	FINAL	-	Ready for submission to the EC

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2 Document Information

2.1 Applicable Documents

Applicable documents are documents from which all requirements must be fulfilled in the context of the Grant Agreement, although they are not repeated in the present document.

ID	Date	Title/Reference
[A1]	[DD/MM/YYYY]	
[A2]		
[A3]		

2.2 Reference Documents

Reference documents are intended to provide background and supplementary information.

ID	Date	Title/Reference
[R1]	18/08/2022	GRANT AGREEMENT Project 101079792 – RESILIENCE PPP
[R2]	-	D2.2 User Services Catalogue
[R3]	-	D2.3 Data Centre Services catalogue

2.3 Revision Log

ID	Date	Nature of Revision	Approved by
[R1]	[DD/MM/YYYY]		
[R2]			
[R3]			

2.4 Definitions, Acronyms, and Abbreviations

2.4.1 Acronyms

Acronym	Full Form
CI/CD	Continuous Integration/Continuous Delivery
DoD	Definition of Done
DVCS	Distributed Version Control System
GDPR	General Data Protection Regulation

IT	Information Technology
OWASP	Open Web Application Security Project
PEP	Python Enhancement Proposal
PP	Preparation Phase
PSR	PHP Standard Recommendation
RI	Research Infrastructure
R-Suite	RESILIENCE Service Suite
SCRUM	Not an acronym, but a framework for Agile
SDP	Software Development Plan
SDPT	Software Development Plan Template
SW	Software
UI	User Interface
UX	User Experience
WCAG	Web Content Accessibility Guidelines
SLR	Service Level Requirements
ITIL	Information Technology Infrastructure Library

2.4.2 Definitions

Term	Definition
Service Level Agreement (SLA)	A Service Level Agreement (SLA) is a formal, negotiated document that outlines the expected level of service between a service provider and the customer. In the context of the RESILIENCE Research Infrastructure (RI), the SLA specifies the agreed-upon service performance metrics, responsibilities, and expectations for the Data Centre Services. It acts as a contract that defines the quality and scope of services to be delivered, including uptime, response times, and other critical performance indicators. The SLA is crucial for ensuring mutual understanding and accountability between the service provider and the stakeholders.
Service Level Objective (SLO)	A Service Level Objective (SLO) is a specific, measurable target that forms part of the SLA. It represents a particular aspect of the service performance that needs to be achieved and maintained. In the context of the RESILIENCE RI, SLOs might include metrics such as system availability, incident response time, and data processing speed. These objectives are designed to be realistic and attainable, ensuring that the service meets the necessary standards required by the stakeholders. SLOs are used to track and measure the performance of the service against the agreed criteria, facilitating continuous improvement and accountability.
Incident	An Incident refers to any unplanned interruption or reduction in the quality of the services provided by the Data Centre. In the context of the RESILIENCE RI, incidents can include system outages, hardware failures, software bugs, or any other issues that disrupt normal operations. Incidents need to be managed swiftly and efficiently to restore service levels to their agreed state. The management process includes incident detection, logging, classification, investigation, and resolution, followed by a post-incident review to prevent future occurrences.
Request	A Request is a formal appeal for information, advice, or a standard change to be made to the service. In the context of the RESILIENCE RI, requests can include user inquiries, requests for new or modified services, access permissions, or routine maintenance actions. Unlike incidents, requests are typically planned and do not indicate a disruption in service. Managing requests involves logging, assessing, and fulfilling the requests according to predefined procedures to ensure that user needs are met effectively and efficiently without adversely affecting service levels.
SMART	The S.M.A.R.T. criteria provide a framework for setting clear, concise, and attainable objectives. It stands for Specific, Measurable, Achievable, Relevant, and Time-bound.
Failover Mechanisms	Failover mechanisms are systems and processes designed to automatically switch to a redundant or standby system upon the failure or abnormal termination of the currently active system.



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Penalties/Compensations	Penalties/compensations are predefined consequences or remuneration provided to the customer when the service provider fails to meet the agreed-upon service level objectives (SLOs).
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3 Introduction

3.1 Objectives of this document

3.1.1 From the proposal

Extract from [R1]: " Collection of the project services requirements from all management team members. This information, a mandatory ITIL deliverable will be presented as Service Level Requirements (SLR) and is an important deliverable that must be clearly defined, documented, signed off, and understood by all project stakeholders before the Data Centre Services service could be delivered."

3.1.2 Long-term objectives

The long-term objectives of the Service Level Requirements (SLR) for the RESILIENCE Research Infrastructure (RI) are pivotal in ensuring that the project's services are aligned with the needs and expectations of all stakeholders. As a critical ITIL deliverable, the SLR serves as a foundational document that must be meticulously defined, documented, and approved before the commencement of Data Centre Services and after the definition of the Users and the Data Center services.

The primary objectives and their application are as follows:

1. Alignment of Services with Stakeholder Expectations

The SLR aims to capture and document the specific requirements and expectations linked with the services provided within the RESILIENCE RI project. This alignment ensures that the services provided meet the agreed-upon standards, thereby enhancing stakeholder satisfaction and trust.

Application: By engaging with stakeholders to understand their needs, the SLR facilitates the development of services that are tailored to the unique demands of the project. This proactive approach helps in anticipating potential issues and addressing them before they impact service delivery.

2. Clear Definition and Documentation of Service Requirements

A well-defined SLR provides a clear, concise, and comprehensive description of the service expectations, performance metrics, and responsibilities. This clarity is essential for setting realistic and achievable service levels.

Application: In the RESILIENCE RI context, detailed documentation helps in establishing a common understanding among all parties involved. This reduces the risk of misunderstandings and ensures that everyone is on the same page regarding service expectations and deliverables.

3. Establishment of Measurable Service Level Objectives (SLOs)

The SLR sets out specific, measurable, achievable, relevant, and time-bound (SMART) objectives for service performance. These SLOs form the basis for monitoring and evaluating the effectiveness of service delivery.

Application: For the RESILIENCE RI, measurable SLOs enable ongoing assessment of service performance against predefined benchmarks. This continuous evaluation process is crucial for maintaining high standards and identifying areas for improvement.

4. Facilitation of Continuous Improvement

The SLR is not a static document but a dynamic tool that supports continuous service improvement. By regularly reviewing and updating the SLR, the RESILIENCE RI can adapt to changing needs and technological advancements.

Application: Regular reviews of the SLR ensure that the RESILIENCE RI remains responsive to evolving project requirements and stakeholder expectations. This iterative process helps in refining service delivery and enhancing the overall quality of services.

5. Enhanced Communication and Accountability

The SLR promotes transparency and accountability by clearly outlining the roles and responsibilities of all parties involved. This fosters better communication and collaboration between the service provider and stakeholders.

Application: In the RESILIENCE RI, clearly defined roles and responsibilities facilitate effective communication and prompt resolution of issues. This structured approach ensures that all stakeholders are aware of their obligations and the expected outcomes, leading to more efficient and effective service delivery.

6. Risk Management and Mitigation

By identifying and documenting potential risks and their mitigation strategies, the SLR helps in proactively managing and minimizing service disruptions.

Application: For the RESILIENCE RI, a well-articulated risk management plan within the SLR ensures that potential service interruptions are anticipated and addressed promptly. This proactive stance helps in maintaining service continuity and reliability.

- **Conclusion**

The SLR is a vital document that lays the groundwork for successful service delivery within the RESILIENCE Research Infrastructure. By capturing stakeholder requirements, defining clear service expectations, and establishing measurable objectives, the SLR ensures that the Users and Data Centre Services are delivered effectively and efficiently. This strategic approach not only meets the immediate needs of the project but also supports its long-term success and sustainability.

3.1.3 Applicability to RESILIENCE Services

This document is specifically oriented towards the human-provided services within the RESILIENCE Research Infrastructure (RI).

These services include, but are not limited to, support, helpdesk operations, and incident management. The applicability of these SLOs ensures that the human aspect of service delivery is held to the same high standards as the technological components.



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Nothing prevents to use this template and its recommendations to establish an Service Level Agreement that will be applied to RESILIENCE RI services providers.

For a list of potential services, check section 5.1.

4 SLR Template

4.1 Service Description

- **Overview of Services Provided**

Provide a high-level summary of the services being offered. Describe the purpose and goals of the services within the RESILIENCE RI. Include key features and functionalities that are essential for stakeholders to understand what the service entails.

- **Service Components**

Refer to the individual components that make up the overall service. This includes hardware, software, network infrastructure, and any other elements crucial to service delivery. Within D2.2 and D2.3, refer to how these components interconnect and support the service.

4.2 Service Level Objectives (SLOs)

- **Applicability**

The Service Level Objectives (SLOs) outlined in this document are specifically oriented towards the human-provided services within the RESILIENCE Research Infrastructure (RI). These services include, but are not limited to, support, helpdesk operations, and incident management. The applicability of these SLOs ensures that the human aspect of service delivery is held to the same high standards as the technological components.

For a list of potential services, check section 5.1.

- **Availability**

Define the expected uptime or availability percentage of the service. Specify any scheduled maintenance windows and how they affect overall availability. Provide clear definitions of what constitutes acceptable downtime.

- **Performance**

Describe the performance metrics that will be measured, such as response times, throughput, or processing speed. Include specific targets that need to be met to ensure satisfactory performance.

- **Reliability**

Explain the measures in place to ensure consistent and dependable service delivery. This might include redundancy, failover mechanisms, and regular maintenance practices. Specify reliability targets and how they will be measured.

- **Incident Response Time**

Define the expected time frame for responding to incidents once they are reported. Include different priority levels and corresponding response times for each level.

- **Resolution Time**

Outline the time frames within which incidents should be resolved based on their priority. Describe the process for escalating incidents that cannot be resolved within the initial time frame.

4.3 Measurement Criteria

- **Metrics Definition**

Clearly define the metrics that will be used to measure service performance. Ensure each metric is specific, measurable, achievable, relevant, and time-bound (SMART).

- **Measurement Methods**

Describe the methods and tools used to collect data on the defined metrics. Explain how the accuracy and consistency of these methods will be ensured.

- **Data Collection Processes**

Detail the processes for collecting, storing, and analysing data. Include frequency of data collection and how the data will be used to assess performance against SLOs.

4.4 Reporting and Monitoring

- **Reporting Frequency**

Specify how often performance reports will be generated and shared with stakeholders. Include different reporting intervals for various metrics if applicable.

- **Reporting Formats**

Describe the formats in which reports will be presented (e.g., dashboards, PDFs, spreadsheets). Ensure the formats are accessible and comprehensible to all stakeholders.

- **Monitoring Tools and Techniques**

Detail the tools and techniques that will be used for continuous monitoring of service performance. Explain how these tools will help in identifying and addressing issues proactively.

4.5 Roles and Responsibilities

- **Service Provider Responsibilities**

Outline the responsibilities of the service provider in delivering and maintaining the service. Include details on incident management, maintenance, and performance monitoring.

- **Customer Responsibilities**

Define the responsibilities of the customers or users of the service. This might include providing necessary information, adhering to usage guidelines, and reporting incidents promptly.

- **Escalation Procedures**

Describe the procedures for escalating issues that cannot be resolved through standard processes. Include the hierarchy of escalation and contact information for each level.

4.6 Service Review and Improvement

- **Review Process**

Explain the process for regularly reviewing service performance and the effectiveness of the SLOs. Include the frequency of reviews and the stakeholders involved.

- **Feedback Mechanisms**

Detail the mechanisms in place for collecting feedback from stakeholders. Explain how this feedback will be used to improve the service.

- **Continuous Improvement Procedures**

Describe the procedures for implementing continuous improvement initiatives. Include how changes will be tested, validated, and integrated into the service delivery process.

4.7 Remedial Measures

- **Failure to Meet SLOs**

Outline the steps that will be taken if the service fails to meet the defined SLOs. Include the process for identifying the root cause and implementing corrective actions.

- **Penalties and Compensation**

Specify any penalties or compensation that will be provided to stakeholders if service levels are not met. Include the conditions under which these will apply and the process for claiming compensation.

- **Corrective Action Plans**

Describe the plans for corrective actions to prevent recurrence of issues. Include timelines and responsibilities for implementing these actions.

4.8 Duration and Termination

- **SLA Duration**

Define the duration of the SLA, including start and end dates. Specify conditions for extension or renewal.

- **Conditions for Termination**

Outline the conditions under which the SLA can be terminated by either party. Include notice periods and any associated costs or penalties.

- **Renewal Process**

Describe the process for renewing the SLA. Include timelines, responsibilities, and any required approvals.

4.9 Amendments and Changes

- **Process for SLA Amendments**

Detail the process for making amendments to the SLA. Include how changes will be proposed, reviewed, and approved.

- **Documentation of Changes**

Explain how changes to the SLA will be documented and communicated to all stakeholders. Include version control practices.

- **Communication of Changes**

Specify the methods for communicating changes to the SLA. Ensure that all stakeholders are informed in a timely and clear manner.

5 Appendices

5.1 Appendix 1 – List of potential services applicable for this SLR

- **Support Services:**
 - Objective: Ensure that all user support queries are addressed promptly and effectively.
 - SLOs: Response times for support tickets, resolution times for common issues, user satisfaction scores from support interactions.
 - Importance: High-quality support services enhance user experience and satisfaction, ensuring smooth and uninterrupted use of the RESILIENCE RI.
- **Helpdesk Operations:**
 - Objective: Provide a reliable first point of contact for users needing assistance or reporting issues.
 - SLOs: Average wait times for helpdesk calls, percentage of issues resolved at first contact, helpdesk availability (hours of operation).
 - Importance: Efficient helpdesk operations reduce downtime and ensure that user issues are addressed quickly, maintaining overall productivity and service reliability.
- **Incident Management:**
 - Objective: Ensure that all incidents are managed and resolved in a timely manner to minimize disruption.
 - SLOs: Incident response times, incident resolution times, incident recurrence rates, user communication during incidents.
 - Importance: Effective incident management minimizes the impact of service disruptions and maintains trust and reliability in the RESILIENCE RI.



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