

A large, abstract teal graphic on the right side of the page, consisting of overlapping circular and triangular shapes in various shades of teal, creating a modern, geometric design.

INK

APPENDIX 1

**CUSTOMER REQUIREMENTS
SPECIFICATION**

[Contractor name]

[Contractor logo]

1 Contents

1	About this document	3
1.1	The structure of the requirement specification document	3
2	Purpose and Scope of the Agreement	4
2.1	The purpose of the agreement	5
2.1.1	Increased scalability and flexibility	5
2.1.2	Continuous improvement - Efficiency, standardization and automation	6
2.1.3	Freeing up of resources to content production and broadcasting	6
2.1.4	Increased quality	6
2.2	Scope of the agreement	6
2.3	Vision for Client and Service Desk services	8
2.4	End user groups	9
2.5	Interface between services in scope	10
3	High-level service description and general requirements	11
3.1	High-level service description - Understanding of the purpose and scope of the agreement	11
3.2	Vision - Areas of importance	13
3.3	Effect goals	13
3.3.1	Increased scalability and flexibility	13
3.3.2	Continuous improvement - Efficiency, standardization and automation	14
3.3.3	Increased quality	17
3.4	Communication with the end user	18
3.5	Supplementary services (tilleggstjenester)	18
3.6	License management	19
3.6.1	Option – SAM services	21
3.7	General conditions for the competition	21
3.8	RACI matrix	22
3.9	Source protection	23
4	Security requirements	24
4.1	The Agreement, clause 9.1 General external legal requirements and measures	24
4.2	The Agreement, clause 9.2 Information security	24
4.3	The Agreement, clause 9.3 Personal data	29
5	Service Desk requirements	30

- 5.1 Overall purpose and objectives 30
- 5.2 Single point of Contact – SPOC..... 31
 - 5.2.1 ITSM tool..... 33
- 5.3 1st line support..... 34
 - 5.3.1 Services included in 1st line support..... 34
 - 5.3.2 Opening hours..... 37
- 5.4 On-site support..... 38
 - 5.4.1 On-site support at special events..... 38
- 5.5 Facilitating Self-service and Automation..... 39
- 5.6 Statistics and action plans 41
- 6 Client service requirements..... 41**
 - 6.1 Overall purpose and objectives 42
 - 6.2 Out of scope..... 43
 - 6.2.1 Procurement and ownership of physical clients, including mobile devices 43
 - 6.2.2 Life cycle management of critical broadcasting and editing clients 43
 - 6.3 Client life cycle management..... 44
 - 6.3.1 Client security 47
 - 6.3.2 Option – Life cycle management of Linux clients 55
 - 6.3.3 Option – Life cycle management of critical production and broadcasting clients. 55
 - 6.4 Physical clients 56
 - 6.4.1 Option - Client as a service..... 58
 - 6.5 Smart phones and tablets 58
 - 6.6 Option – VPN solution..... 59
- 7 Transfer of an undertaking to another employer 60**
- 8 Standard terms for third-party services 61**
- 9 Guidance 62**
- 10 Attachments..... 62**

1 ABOUT THIS DOCUMENT

This appendix describes the Customer’s needs and requirements for the services, forming the basis of the performance and deliverables for the Contractor. The services delivered during the contract period will be characterized by a high technological pace of change. The contract is structured such that the Contractor can deliver their standardized services to meet the needs of the Customer during the contract period.

The requirements specified for the services included in the contract are, as far as possible, addressing the overall needs of the Customer. The objective is to allow the Contractors to deliver their preferred standard service, instead of imposing strict requirements on the Contractors and how they should design or technically execute the services delivered.

Chapter 2 presents the purpose and scope of the agreement and lays the foundation for the services to be delivered by the Contractor. The remaining chapters include requirement tables to be answered by the Contractor in Appendix 2. Chapter 3 presents a high-level service description, vision and effect goals with associated requirements, in addition to some general requirements for the agreement. Chapter 4 presents NRK’s needs concerning information security and personal data, while chapter 5 and 6 describes the needs of the Service Desk and Client services respectively. The introduction in chapters 5 and 6 (i.e. chapters 5.1 and 6.1) describes the overall purpose and objectives of the service described in that chapter. Requirements associated with these chapters are structured as a minimum requirement (5.1.1 and 6.1.1), with an associated evaluation requirement (5.1.2 and 6.1.2). Failure to fulfil the minimum requirements may result in rejection. The evaluation requirements address the quality of the Contractor’s service and will be evaluated against the award criteria.

Remaining chapters describes other requirements, for instance related to transfer of an undertaking to another employer.

1.1 The structure of the requirement specification document

The requirement specification includes descriptions of needs and requirements for operation of services. Refer to "*Appendix 3 Descriptions of what is to be operated*" for detailed descriptions of the Customer’s current situation regarding the services in scope.

The requirements tables are structured as illustrated below:

Req. number	Requirement text Format requirements	Req. type (M/E)	Answer (yes/no/partly)	Answer
-------------	---	-----------------	------------------------	--------

The requirement number is unique for every requirement.

The requirement text is the Customer’s description of a need, a service or a function.

Requirements that are options have requirement type O.

The format requirements should be read as a part of the requirement and specifies how the requirement should be answered. It will include aspects the Contractor should emphasize in his response. The Customer will use the Contractor’s response both to evaluate whether the minimum requirement is met and in the evaluation of requirement fulfilment against the award criteria.

Requirement type M/E:

- Requirement type **M** is a minimum requirement. Minimum requirements will be evaluated binary yes/no. Failure to meet the minimum requirements may result in rejection of the proposal.
- Requirement type **E** is an evaluation requirement. The Customer will evaluate the Contractor's response to evaluation requirements against the award criteria.
- Requirement type **O** is an option. Options will not be evaluated.

Answer Yes/No/Partly: Every requirement (minimum- and evaluation requirements) shall be answered by the Contractor with «Y/N/P» respectively, which means:

- Y = Yes – The Contractor delivers this service or function and/or accept the requirement. The answer commits the Contractor to deliver the requirement in its entirety as a part of the delivery, and with the prices stated in Appendix 7.
- N = No – The service, function and/or the requirement cannot be delivered.
- P = Partly – The requirement is partially fulfilled. It must be emphasized which parts of the requirement that are not entirely fulfilled.

Answer: The Contractor's response.

Where longer responses are expected, the Contractor is requested to do so directly underneath the table, and not directly into the answer column. This will be indicated in the format requirement for the associated requirement.

The Contractor must familiarize themselves with the current documentation to respond to the requirements, including other relevant appendices with attachments.

This document (appendix 1) should not be edited by the Contractor. The Contractor writes their response in appendix 2.

2 PURPOSE AND SCOPE OF THE AGREEMENT

This chapter describes the purpose and scope of the agreement at a high-level.

NRK has certain obligations as Norway's public service broadcaster.

- NRK strengthens and develops Norwegian democracy
- NRK contributes to a better understanding of society, each other and our selves
- NRK inspires us to be more inclusive and curious

NRK's strategy includes:

- NRK provides content that people find, choose and love
- NRK is close to the audience, and exists to everyone's benefit
- NRK is the best depicter of Norwegian and Sami society
- NRK will create open meeting places, lasting experiences and build new understanding
- NRK should have the best knowledge and understanding of people in Norway
- NRK will mirror the population in content and organization
- NRK will systematically develop a networked, innovative culture
- NRK will develop the best publishing and content competency in a digital world
- NRK will increase the share of resources for publishing and content production

NRK has clear and important values in its charter. The company shall strive to be open, credible and courageous. This includes working to achieve freedom of speech among the population while contributing to media diversity and being available without cost to the entire population.

The strategy elements above reflect NRK being a public service broadcaster with a social assignment. Key elements in NRK's social assignment are the values of confidence in NRK's content and NRK's reputation. Hence NRK will strive for high standards with respect to ethical topics such as compliance with applicable laws and regulations, basic human rights, privacy/GDPR, labour rights and terms, HSE, external environment and responsible business practices. Information security is important in order to support the same values (the public's confidence and our reputation)

2.1 The purpose of the agreement

One of the main objectives in NRK's long term strategy is to be a world class broadcaster and content producer. NRK believes that to achieve this objective we need to prioritize more resources to our core business - content production and broadcasting. Additionally, NRK needs to look more strategic and holistic at the delivery of the services adjacent to the core business. NRK believes that an external Contractor specializing in Client and Service Desk services can deliver services that satisfy NRK's needs in addition to facilitate and support NRK's needs for internal adjustments and initiatives to develop the services in accordance with the vision described in chapter 2.3.

NRK wants to achieve two specific results with this agreement:

- 1) Buy standard services for Client and Service Desk services that NRK should adapt to, instead of adapting the services to NRK, and
- 2) Build knowledge and experience for future outsourcing.

By outsourcing the operations of Client services and Service Desk services, NRK wants to achieve the four following effect goals:

2.1.1 Increased scalability and flexibility

Scalability and flexibility in terms of possibility to quickly increase or decrease capacity, resources or service content during the contract period. The measurement parameter for this effect goal could be for instance time for execution of scaling resources or service content. The selected Contractor should be an active partner in the process to establish new delivery models during the contract period. New service components should be possible to include or exclude,

developed, operated and managed according to the Contractor’s standardized processes and methodology. Furthermore, NRK wants a flexible contract meeting changes in NRK’s business needs, volume and technology.

2.1.2 Continuous improvement - Efficiency, standardization and automation

NRK wants standardized services and modern deployment methods that facilitates more efficient processes for instance by automation. Examples of potential benefits are standardization of the client portfolio, automated workflows, increased level of self-service, and consolidation of licenses and tools.

2.1.3 Freeing up of resources to content production and broadcasting

Outsourcing Client and Service Desk services facilitates reduction of FTEs, both internal employees and consultants, associated with these services. Reduction of FTEs associated with these services results in an opportunity to increase resources to NRK’s core business, content production and broadcasting.

2.1.4 Increased quality

Increased service quality in terms of for instance higher solution grade in 1st line support, increased predictability due to pre-defined service levels, reduced risk associated with lacking capacity and increased user satisfaction.

2.2 Scope of the agreement

At a high-level, Service Desk services in NRK can be described as the SPOC and 1st line support for IT related interactions in NRK, whereas Client services include life cycle management of clients, including setup, configuration, security, patching and updates of clients, in addition to 2nd and 3rd line support for Client services. Clients are defined as Windows clients, Mac clients, Linux clients (option), smart phones, tablets and other devices that can be managed. In total there are about 9100 PC and Mac clients in NRK, and about 4100 mobile devices. Chapter 5 and 6 describe in more detail the scope of the Service Desk and Client services included in this agreement.

Table 1: Scope of requested Service Desk services

Area	Description
Service Desk services	
SPOC (Single Point of Contact)	SPOC for IT related interactions. Escalate interactions to the right operational groups (internal and external) and follow up interactions according to defined SLA requirements. Violation of SLA requirements for services outside the Contractor's responsibility is reported to the Customer. Following up the incidents until they are solved and processed, including responsibility for information to the entity who has reported the incident.
1 st line user support	User support within general IT, office support tools and basic use of NRK applications. This also includes 1 st line troubleshooting for

	PC and Mac equipment (including re-installation of clients) and 1 st line support/user support for setup and use of smart phones and tablets.
On-site IT support at HQ	On-site IT support for users at Marienlyst, Oslo. This also includes installation and preparation of clients for TV productions and events in cooperation with internal roles for media production support and handling the disposal of decommissioned clients by handover to the external Contractor handling these.
Facilitating self-service and automation	Develop and update a knowledge database for employee self-service based on interactions, manuals, basic IT-training and DIY-instructions Automation of services and manual work flows suitable for automation.
Statistics and action plans	Develop statistics of incidents and problems and develop action plans to fix these.

The scope of the Service Desk services described above cover all employees in NRK, both at Marienlyst, Oslo and regional and local offices. See chapter 2.4 and appendix 3 chapter 2.5.1 for further details of the users of the Service Desk.

Table 2: Scope of requested Client services

Area	Description
Client services	
Life cycle management	<p>Life cycle management includes all necessary tasks during the client's lifetime in NRK with focus on automation and a lean user experience. Examples of life cycle management activities:</p> <ul style="list-style-type: none"> • Zero Touch Enrollment (DEP and Autopilot for example). • Self-service (both in terms of software and help/assistance for the end user). • Fast and reliable software packaging and distribution based on the role of the client. • Software configuration: Customized software configuration of some of the software to optimize workflows, and/or to give a better user experience. • Setup of clients according to policy (GPO, profiles, script, setup of client's registry etc.) • Operation of client tool that is installed on the client (for example Intune, and/or Filewave). These tools are used for support, inventory and license monitoring, setup and software distribution*. • Setup and operation of operating systems (e.g. MacOS, Windows, iOS, Android). Implementation at NRK, and patching.
Client security	Ensure the end user has a predictable and secure client, including:

	<ul style="list-style-type: none"> - Surveillance and monitoring of security systems and clients. - Detect, prevent and manage unwanted security incidents. - Installation and operation of security systems and services, vulnerability patching and software update according to NRK's principles and policy.
Physical clients (hardware)	NRK owns and procures the clients needed, hence NRK owns and procures the clients and the Contractor is responsible for operation, maintenance, support and life cycle management. As NRK's situation, the market and technology might change during the contract - an option for leasing of clients is included. See more details in chapter 6.4.
Smart phones and tablets	Life Cycle Management of these devices during their lifetime in NRK. Automatic configuration as much as possible. Apple devices are handled through DEP (device enrollment program), which gives them the correct settings, applications and security settings. Android devices should get a similar setup. Employees have the possibility to buy their old smart phones and the phone needs to be removed from all systems.

* Intune and Filewave are the tools used today, but NRK are open to discuss other solutions if the Contractor has tools that are more standardized and more effective during setup and onboarding of clients.

2.3 Vision for Client and Service Desk services

NRK has developed a vision for the development of the Client and Service Desk services.

“Standardized services based on the needs of the user with a high level of automation and self-service.”

To achieve this vision, seven areas are considered as of critical importance:

1. **Focus on the user:** NRK wants the users to be in focus when developing and improving the services and that potential changes should be based on the needs of the users. Anyone who has filed a case should be frequently updated on status during troubleshooting and error resolution and user support should be available through different channels to meet different needs of the users.
2. **Quality and stability:** NRK have different requirements for response and resolution times. A case requires higher SLAs as more users are impacted or the more critical the case is for ensuring quality and stability in association with production and broadcasting. In the same way, a client that is used in production and broadcasting will require higher SLAs the closer the client is to production and broadcasting, cf. appendix 5, chapter 3.1.2.
3. **Automation:** NRK wants to automate more of the processes executed manually today. Examples of manual processes within Client services with potential for automation are

software distribution and the Onboarding process for new hires. Modern deployment methods are expected.

4. **Continuous improvement:** NRK wants to continuously improve the services in scope such that they can be cost effective and valuable for NRK and the users. Formal processes for identifying improvement areas, and hence ensuring continuous improvement, are therefore important.
5. **Proactivity:** NRK wants to be proactive and avoid issues and problems before they affect internal and external users.
6. **Standardization:** NRK's intention is to increasingly standardize hardware and software while at the same time meeting the specific needs associated with hardware and software related to production and broadcasting. The Contractor should use standardized services and protocols, and best practice client administration tools, with focus on the end user experience. For both Service Desk and Client services NRK's overall intention is, as far as possible, to adapt to the markets' standard services.
7. **Self-service:** NRK wants to reduce the number of interactions and requests to the Service Desk by increasing the level of self-service and automation. This means for instance that the Contractor must provide a knowledge database/self-service portal where the user can find user instructions, manuals, basic IT training etc. to answer their questions. Clients should as far as possible have automatic setup, like Autopilot and DEP. The user should also be able to install a selection of software from a self-service kiosk.

Figure 1 illustrates the vision and critical areas of special importance for the development of Client and Service Desk services. The figure also presents some of the activities within each of the seven areas that will be necessary to execute internally or in cooperation with the selected Contractor to achieve the vision.

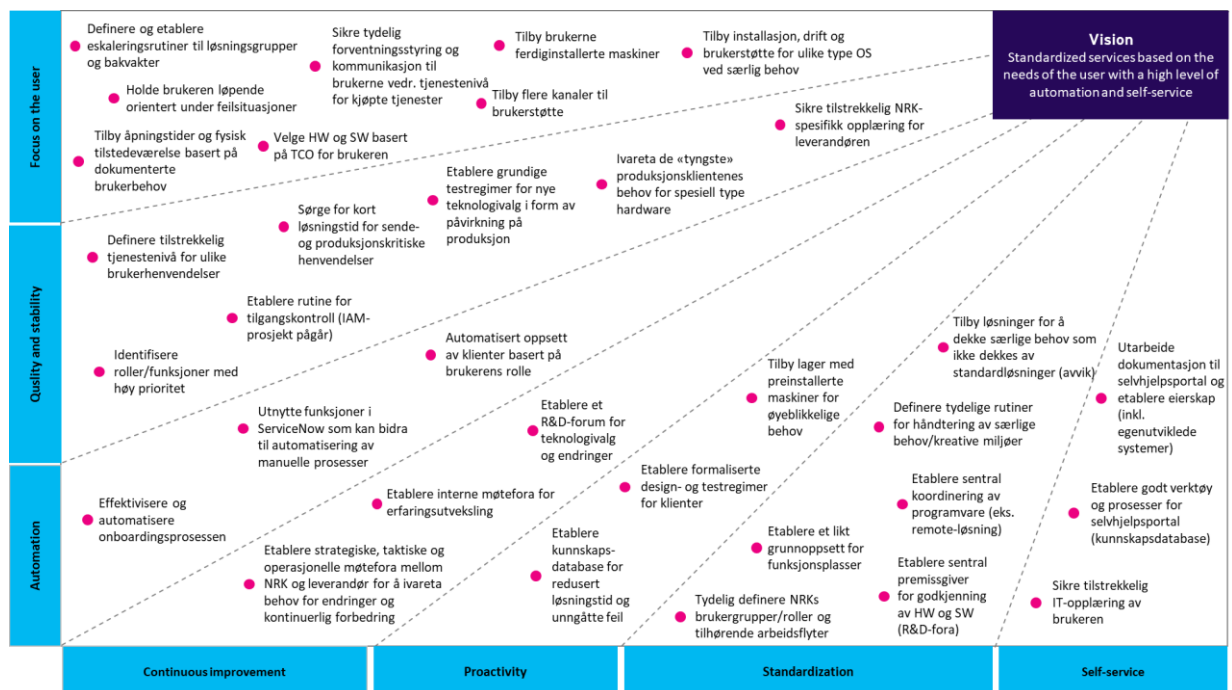


Figure 1: NRK's vision for Client and Service Desk services (activities written in Norwegian)

2.4 End user groups

The end users of Client and Service Desk services in NRK can be broadly categorized into three groups based on their needs:

- 1) Administrative users
- 2) Developers/journalists
- 3) Production and editing users

Administrative users have the most basic needs. Developers and journalists and production and editing users have the same needs as the administrative but in addition they have NRK specific needs which do not necessarily overlap. Production and editing clients have the most stringent requirements and SLAs as they are closest to NRK’s core business (production and broadcasting/publishing). Refer to appendix 3 for more information regarding classification of NRK’s user groups. The figure below illustrating the user groups in NRK can also be found in appendix 3.

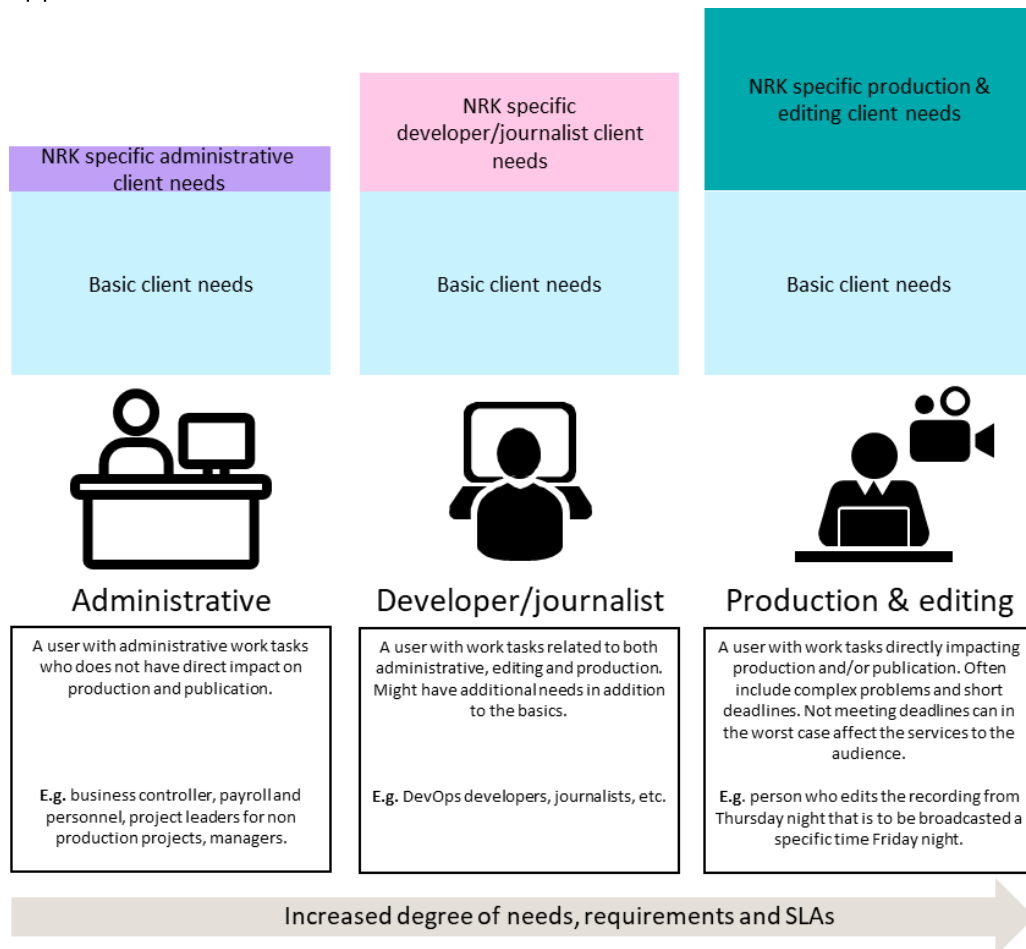


Figure 2: Description of user groups

2.5 Interface between services in scope

The main services in scope of this agreement, Service Desk and Client services, are presented as two different services in this contract but are tightly connected and dependent on each other. This means that some work tasks and responsibilities described as part of one of the services in this document might also be described as part of the other service. An example of this is handover of outdated clients to the disposal company. This is described as a task to be carried out by the Service Desk in chapter 5 but it is also described as a part of the life cycle management of clients in chapter 6.

NRK wants one Contractor for both services because of the tight connections and dependencies between them, in addition to potential for synergies. Hence, whether one of the described work tasks or responsibilities is carried out by the Contractor as part of the Client service or the Service Desk service is irrelevant for NRK if the described needs of the organization are met.

If NRK has described work tasks or responsibilities as part of one service that seems illogical or inexpedient based on the standard services offered by the Contractor, the Contractor is encouraged to inform NRK about this and provide their recommendation. Figure 3 illustrates the interface and tight connection between the services in scope. Although they can be seen as different services, there are responsibilities which can be placed in the interface between them. Who is responsible for the execution of these tasks are up to the Contractor to recommend.

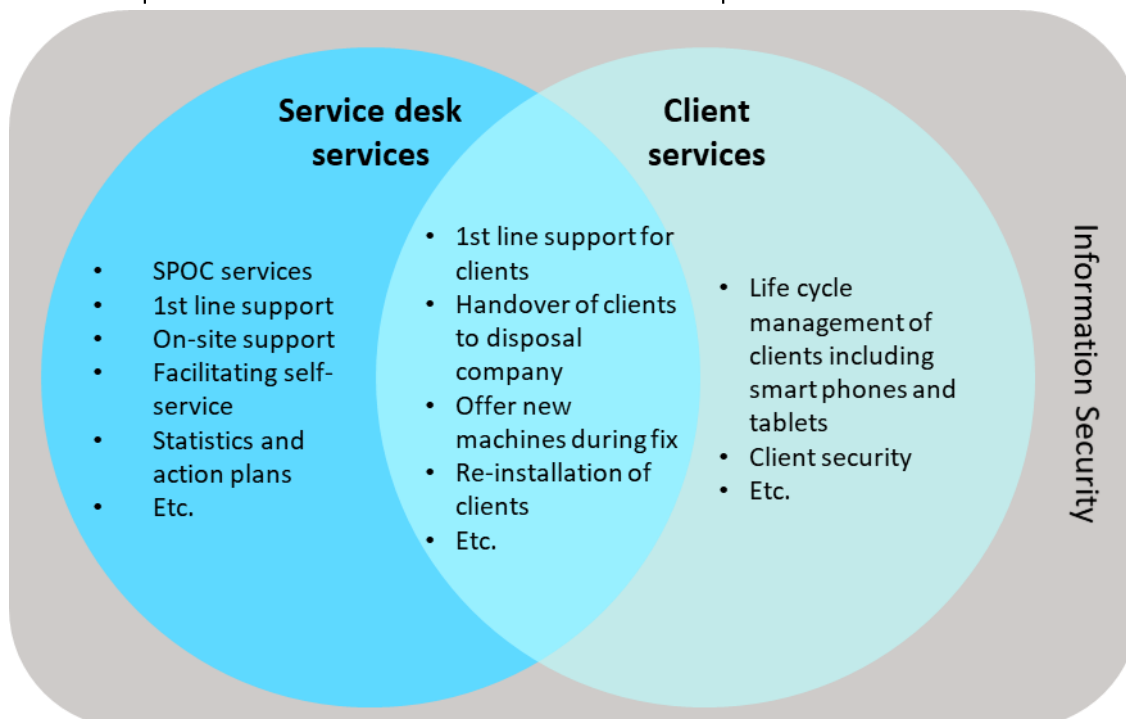


Figure 3: Interface and connection between services in scope

3 HIGH-LEVEL SERVICE DESCRIPTION AND GENERAL REQUIREMENTS

3.1 High-level service description - Understanding of the purpose and scope of the agreement

The Contractor shall provide a comprehensive high-level overview of their Service based on the description of the purpose/scope of the contract and listed requirements – including options and if and how they will be offered. The Contractor must give clear and unambiguous statements about which of the Customer needs and requirements they do not support or cannot deliver. This high-level overview should consist of:

- A summary of the Contractor's bid.
- A high-level description of the Contractor's delivery model, including how and where the Service is provided, as well as a brief description of the "contribution" of the Customer in terms of infrastructure, hardware, software, external services or active participation required to provide the Service. The description should include all such requirements that the Contractor has towards the Customer in order to deliver their services.
- An overall description of the technical requirements involved in providing the Service.

Furthermore, the high-level summary should emphasize how they address the following subjects:

- **Performance:** How the offered Solution contributes to achieve the main objectives of this procurement (cf. chapter 2). Please make unambiguous references to the relevant sections in Appendix 2 that contribute to the achievement of the Customer's objectives and also important premises/conditions if any.
- **Risk:** How the Contractor will help the Customer to reduce principal risk related to this Solution. Both in establishing the service and running it. Please make unambiguous references to the relevant sections in Appendix 2 where the offered measures provide effect.
- **Additional Value:** How the Contractor can offer additional value to the Customer in addition to the listed requirements and relative to the competing Contractors. Please make unambiguous references to the relevant sections in Appendix 2 that shows how the offered Solution provides added value and better goal achievement for the Customer.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.1.1	<p>The Contractor shows their understanding of the purpose and scope of the agreement by describing their holistic understanding cf. chapter 2.</p> <p><u>Format requirements:</u> The Contractor provides an overall description of the main features of the total service, including how the Contractor will help achieve the Customer's:</p> <ul style="list-style-type: none"> • Purpose • Scope • Vision <p>Please emphasize how performance, risk and additional value is addressed.</p>	E		

	The description should be included as the introduction in appendix 2 in the Contractor's response. Max 5 pages.			
--	---	--	--	--

3.2 Vision - Areas of importance

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.2.1	<p>The Contractor shows his understanding of the seven areas considered by the Customer as of critical importance for the services in scope 2.3:</p> <ul style="list-style-type: none"> • Focus on the user • Quality and stability • Automation • Continual improvement • Proactivity • Standardization • Self-service <p><u>Format requirements:</u> The Contractor provides an overall description of their understanding of the seven areas/objectives, including how the Contractor will help achieve the Customer's objectives. Make unambiguous references to the relevant sections in Appendix 2 that contribute to the achievement of the Customer's objectives and also important premises/conditions if any.</p>	E		

3.3 Effect goals

The Contractor must support the Customer in achieving their four effect goals stated in chapter 2.1.

3.3.1 Increased scalability and flexibility

As described in chapter 2.1.1, NRK's first effect goal of this competition is increased scalability and flexibility. By this NRK means ability to increase and decrease resources and service content during the contract period. The reason for this is that NRK anticipates that their business need will change because of technological development and a changing market. The chosen

Contractor should be an active partner in the work of establishing new delivery models during the contract period.

NRK understands that some changes may impose additional costs for the Contractor and hence, would require a change order which is priced according to the Contractor's price catalogue. However, NRK would like a Contractor who understands that continuous adjustments to the service they offer are necessary to meet the needs described in this contract and that such adjustments are carried out in an agile, adaptable and scalable manner for the delivery of services.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.3.1.1	<p>The Contractor should deliver a solution that facilitate and support the Customer in achieving the effect goal "increased scalability and flexibility" presented above in 2.1.1 and 3.3.1.</p> <p><u>Format requirements:</u> The Contractor provides an overall description of their understanding of the effect goal "Increased scalability and flexibility", including how the Contractor will help the Customer achieve this. Make unambiguous references to the relevant sections in Appendix 2 that contribute to the achievement of the Customer's objectives and also important premises/conditions if any.</p>	E		

3.3.2 Continuous improvement - Efficiency, standardization and automation

3.3.2.1 Efficiency, standardization and automation

The technology in these areas will change rapidly in the coming years and will provide opportunities for automation and simplification of work tasks. In this, there is a potential for efficiency improvement. The Contractor is requested to describe a model for how the benefits of efficiency improvement can benefit both the Contractor and the Customer.

The Customer expects the Contractor to actively contribute to continuous improvement by streamlining processes and utilizing technology development.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.3.2.1.1	The Contractor describes his understanding of the	E		

	<p>Customer’s needs presented in chapter 2.1.2 and 3.3.2.1, including how their solution will meet this need.</p> <p><u>Format requirements:</u> The Contractor describes their understanding of the Customer’s need described in 2.1.2 and 3.3.2.1 and how they will meet this need. Make unambiguous references to the relevant sections in Appendix 2 that contribute to the achievement of the Customer’s objectives and also important premises/conditions if any.</p>			
3.3.2.12	<p>Automation and simplification of work task give a potential for efficiency improvements. The Contractor describes how this will benefit both parts.</p> <p><u>Format requirements:</u> The Contractor describes a model for how the benefits of efficiency improvement can benefit both the Contractor and the Customer.</p>	E		
3.3.2.13	<p>The Contractor describes how efficiency improvements will affect the service prices presented in appendix 7 for the coming years.</p> <p><u>Format requirements:</u> The Contractor describes a model for how the efficiency improvements will affect the service prices for the coming years.</p>	E		
3.3.2.14	<p>The Contractor describes how their proposed solution will provide efficiency gains in the short term.</p> <p><u>Format requirements:</u> The Contractor describes how their proposed solution will provide efficiency gains in the short term.</p>	E		

3.3.2.2 Continuous improvement

Technological changes and a media market with rapid changes will require continuous changes also of the services provided within the areas within the scope of this agreement. The Contractor is asked to describe how they will be an active part in changing the services they deliver in line with technological changes and other changes and best practice within the services in scope. Contractors are asked to describe examples of how this has been done with other Customers.

The Contractor is asked to describe improvements in the Service Desk services and how this will benefit the user experience for the end users. The Contractor is also asked to describe how they will change and develop the Client services in years to come.

An important part of the Client services is contact with the different departments in NRK and designing client setups based on their needs to optimize their workflows.

NRK finds it important that the Contractor, in cooperation with the Customer's Service Manager for this area, performs similar tasks to ensure that improvement areas are identified and that the services are continuously improved.

Furthermore, parts of NRK's clients have sensitive connections between hardware, software and OS versions. Because parts of the client platform are critical for media production and publishing, there are specific requirements for thorough testing regimes for new technologies and software and security updates. This must be carried out in close cooperation between the Contractor and NRK. It is however important for NRK's creative staff to be able to test new ideas and technical solutions. The need for standardization and rigorous testing regimes must therefore be balanced with the need for creativity and innovation.

There will be some other exceptions from the standard client as well, for example clients running an older operating system than what's currently standard, because the production software requires it. The Contractor must have an understanding of how to handle these exceptions, although NRK and the Contractor should regularly discuss what can be done to standardize these clients as well.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.3.2.2.1	<p>The Contractor describes his understanding of the Customer's needs presented in chapter 2.1.2 and 3.3.2.2, including how their solution will meet these needs.</p> <p><u>Format requirements:</u> The Contractor describes their understanding of the Customer's need described in 2.1.2 and 3.3.2.2 and how they will meet this need. Make unambiguous references to the relevant sections in Appendix 2</p>	E		

	that contribute to the achievement of the Customer's objectives and also important premises/conditions if any.			
3.3.2.2.2	<p>The Contractor describes how they will be an active part in changing the services they deliver in line with technological changes and changes in the media market</p> <p><u>Format requirements:</u> The Contractor describes how they will be an active part in changing the services and how this has been done with other Customers.</p>	E		

3.3.3 Increased quality

The Customer's intention by outsourcing the services in scope is also to increase the quality of the services. Increased service quality can include, but is not limited to, higher resolution grade in 1st line support (response time, solution rate and average solution time), increased predictability due to pre-defined service levels, reduced risk associated with lacking capacity, increased user satisfaction/better user experience, client stability and availability. Based on experience, well-functioning and close cooperation between various actors is crucial to solve complex technical problems. Functioning cooperation between the Contractor's Client services and internal operational groups is crucial for the quality of this kind of troubleshooting. For the Service Desk a success factor is their ability to follow up incidents when both internal and external actors are involved, being responsible for the incident until it is completely solved. The Contractor is asked to describe quality gains from their proposed solution compared to the Customer's AS IS situation.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.3.3.1	<p>The Contractor describes his understanding of the Customer's needs for increased quality presented in 2.1.4 and 3.3.3, including how their solution will meet this need.</p> <p><u>Format requirements:</u> The Contractor describes their understanding of the Customer's need described in 2.1.4 and 3.3.3 and how they will meet this need.</p>	E		

3.3.3.2	<p>The Contractor describes quality gains from their proposed solution compared to the Customer's AS IS situation.</p> <p><u>Format requirements:</u> The Contractor describes quality gains from their proposed solution compared to the Customer's AS IS situation.</p>	E		
---------	---	---	--	--

3.4 Communication with the end user

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.4.1	<p>Oral and written communication with end users should be conducted in Norwegian unless otherwise is specifically agreed with the Customer.</p> <p><u>Format requirements:</u> The Contractor writes "Read and accepted" in the answer column.</p>	M		
3.4.2	<p>When communicating with end users the Contractor should:</p> <ul style="list-style-type: none"> • Be service-minded and Customer friendly • Be respectful and communicate in a way that the end user understands • Be solution oriented • Communicate in an understandable, non-technical Norwegian language. 	M		

3.5 Supplementary services (tilleggstjenester)

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer

3.5.1	<p>The Contractor must be able to deliver supplementary services related to ordinary operations supporting the Customer’s needs. The services and the prices for these should be described in the Contractor’s service catalogue which is a part of appendix 7.</p> <p>Services not included in the Contractor’s service catalogue can also be ordered by the Customer as long as the services are associated with the services included in the scope of the agreement.</p> <p>If an ordered supplementary service impacts the operating environment or is to be deployed, the service should be tested in accordance with requirements in appendix 6.</p> <p><u>Format requirements:</u> The Contractor writes “Read and accepted” in the answer column.</p>	M		
-------	---	---	--	--

3.6 License management

NRK’s wants to be license compliant at any time. NRK currently delivers their own SAM services with ad hoc support from vendors when needed. NRK’s objective is to achieve a more centralized and less fragmented license management in the future. License management should underpin NRK’s objectives of being cost-effective and in accordance with the needs of the business. The Contractor should support NRK in achieving this.

NRK’s policy is to own their licenses but for new licenses this must be discussed on a case to case basis with the Contractor. For instance, if the Contractor delivers a complete service to NRK, it seems logical that management of licenses used to deliver this service, including ownership of these, are managed by the Contractor. Licenses required to deliver a service included in the scope of the agreement should be included in the cost of the service. If the Contractor recommends using a software that requires licenses not in use in NRK, the Contractor is responsible for presenting a business case to be approved by the Customer.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.6.1	The Contractor understands the Customer’s needs related	M		

	<p>to license management as presented in chapter 3.6, and will base their suggested solution on these requirements and preconditions.</p> <p><u>Format requirements:</u> The Contractor writes “Read and accepted” in the answer column.</p>			
3.6.2	<p>The Contractor shall describe how their delivered service will meet the needs associated with license management as described in chapter 3.6.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service, in addition to suggested approach for transition.</p>	E		
3.6.3	<p>The Contractor should at any time be able to verify and report to the Customer what applications are installed on the clients they are responsible for.</p> <p><u>Format requirements:</u> The Contractor describes how they will meet this requirement, including routines, processes and tools utilized, in addition to what accesses will be provided to NRK to extract reports.</p>	E		
3.6.4	<p>The Contractor describes what licenses they would recommend using when delivering their services and how they recommend license management of these.</p> <p><u>Format requirements:</u> The Contractor should deliver an overview per service that indicates where the Customer</p>	E		

	and Contractor is responsible for licensing respectively.			
3.6.5	The Contractor must include prices for licenses which are required to deliver a service as part of the total service price in appendix 7. <u>Format requirements:</u> The Contractor must deliver an overview per service included in the scope (Client services and Service Desk).	E		
3.6.6	The Contractor must ensure approval by the Customer in cases where employees wish to start using products not previously used at the Customer to ensure correct ownership and necessary user rights. <u>Format requirements:</u> The Contractor describes processes, routines and tools for meeting this requirement.	E		

3.6.1 Option – SAM services

Although NRK currently owns and handles license management internally, it might be relevant to include parts in this agreement during the contract period. Hence, the Contractor is asked to describe how they would deliver a SAM service and what are their recommended solution.

The Contractor might for instance assist with procuring licenses, true-up, reporting and disposal of licenses.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.6.1.1	The Contractor delivers SAM services on request and describes how they will meet this requirement. <u>Format requirements:</u> The Contractor describes how they will deliver these services, including processes, routines and tools, and provides the price for such a service (appendix 7).	O		

3.7 General conditions for the competition

There are some general conditions that applies to the competition.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.7.1	<p>The agreement will be established in the form of a single sourcing model with one responsible partner delivering all services in scope of the agreement. To the extent that the Contractor needs subcontractors to fulfill parts of agreed deliveries, these must be included in the agreement between the Customer and the Contractor. The Customer shall not have any contractual relations with these subcontractors. Use of subcontractors is included in Appendix 6 chapter 2.6.</p> <p><u>Format requirements:</u> The Contractor writes “Read and accepted” in the answer column.</p>	M		
3.7.2	<p>For this agreement, the Contractor must have a critical mass / operational staffing in Norway, and the daily language between the Customer and the Contractor must be Norwegian or English, Norwegian is preferred.</p> <p><u>Format requirements:</u> The Contractor writes “Read and accepted” in the answer column.</p>	M		

3.8 RACI matrix

As there will be many roles associated with the tasks and deliverables making out the services in scope, a clear and transparent overview of who is responsible for what will be critical to avoid misunderstandings - gaps and overlaps in the work performed by NRK and the Contractor. Examples of interfaces that are of special importance to understand are the interfaces between the Service Desk and the internal media production support and operation groups (see

appendix 3 chapter 2.8) and the Contractor handling client security and the Customer handling Operational Security (see chapter 6.3.1).

With that in mind we would like the Contractor to establish a RACI matrix describing their understanding of the interface and responsibilities of the Customer and the Contractor respectively.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.8.1	<p>The Contractor develops a RACI matrix describing the interface and responsibilities of the Customer and the Contractor respectively with regards to the services in scope.</p> <p><u>Format requirements:</u> The Contractor develops a RACI matrix for the services in scope. The interface between the Contractor and the Customer should be clearly stated. The matrix can be attached to the Contractor's response.</p>	E		

3.9 Source protection

As a journalistic business, protection of sources is vital for NRK. Protection of sources involves that the source of a story or other information must be kept anonymous if the source wants to. The right is based on a recognition that without a strong guarantee of anonymity, many would be deterred from coming forward and sharing information of public interest with journalists. NRK has processes and routines to keep such information unavailable for everyone else than the relevant journalist. This means that the Contractor should not be exposed to information about sources. However, if the Contractor somehow come across such information this should immediately be reported to NRK according to established routines. The information shall not at any event be shared or discussed with other persons, similarly with all other information covered by the non-disclosure agreement (NDA).

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
3.9.1	The Contractor understands the Customer's needs related to source protection as presented in chapter 3.9, and will base their suggested solution on these requirements and preconditions.	M		

	<p><u>Format requirements:</u> The Contractor writes “Read and accepted” in the answer column.</p>			
--	--	--	--	--

4 SECURITY REQUIREMENTS

4.1 The Agreement, clause 9.1 General external legal requirements and measures

The services shall be operated and maintained in accordance with laws and legislation levied on NRK. The Contractor is responsible for ensuring that the solutions comply with Norwegian legislation related to information technology. All updates shall comply with legislation before they are implemented.

The Contractor is responsible for ensuring that solutions are updated and in compliance with special demands/requirements that apply to NRK. The Contractor will be notified of these demands/requirements by NRK. At the time it is ISO27001:2013 in addition to NRK’s principles for Information Security (“Appendix 1 attachment 2 – Grunnprinsipper for informasjonssikkerhet i NRK”), IT instruction (Appendix 1 attachment 1), safety classes, data classes, etc.

NRK has a small amount of information that is covered by the Norwegian Safety Act (“Sikkerhetsloven”). NRK is in the process of finding out to which extent we will fall under the jurisdiction of “Sikkerhetsloven” in the future. It is therefore necessary that the Contractor has personnel that have the appropriate Norwegian security clearance.

4.2 The Agreement, clause 9.2 Information security

NRK works continuously and systematically to improve security to ensure that we are able to comply with our national legal obligations, and to protect life and safety, property and NRK’s journalistic activity.

It is paramount that NRK can maintain a high level of trust in the population. NRK must therefore be able, at all times, to produce and publish relevant and credible content, available with high dependability on all significant platforms that the Norwegian public use.

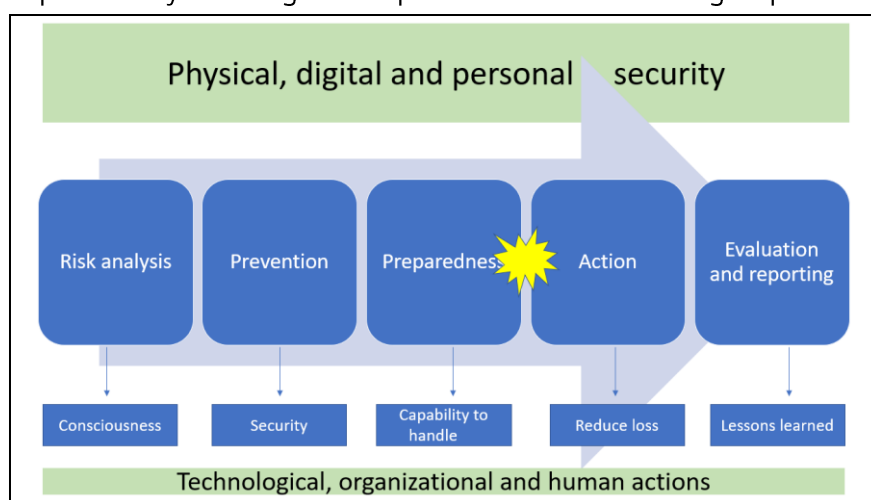


Figure 4: Simplified picture showing how NRK works with continuous improvement

Information Security in NRK

NRK defines information as unpublished material or content, published material or content, source information (journalistic sources especially), personal details, business sensitive information, contracts, competitively sensitive information, codes, system documentation, etc. in the form of text, pictures, video or sound.

For NRK, Information Security is defined as:

- Information not falling into the hands of unauthorized persons (confidentiality)
- Information not unwillingly changed, or changed by unauthorized persons (integrity)
- Information available both within our organization and for authorized persons outside our organization (availability)

Time constraints, creativity and curiosity are regarded as natural elements in NRK's editorial work. NRK wishes that security measures shall assist employees in having a secure digital behavior without hampering their work, so that the measures help reducing security risks both for our employees and NRK.

Systematics

NRK requires that the Contractor utilizes security risk assessments, works systematically and continually with information security both within their own organization and with the services they provide to NRK. This to ensure that unwanted incidents shall not occur, and if an unwanted incident occur that these are detected as soon as possible, and a remedy deployed to ensure normal operations. The threat- and risk level should be expected to change during the contract period. To this end, NRK requires that this aspect is included in the Contractor's risk assessments and that they, at all time, provide a level of security that undergoes constant improvement and is dimensioned in accordance with the threat level.

NRK assumes that security requirements for information security may change during the contract period as the result of legislation, internal policy, NRK organization and areas of responsibility, technology changes, changes in the IT portfolio, or escalation in threat level. It can be likely that these factors may require the employees of the Contractor to have Norwegian security clearance.

Security culture

A healthy security culture is a key factor in maintaining a high level of security. NRK thereby requires that the Contractor works continually and systematically with their employees such that they have sufficient security knowledge. The Contractor must ensure that their employees and the employees of subcontractors understand their responsibility and are suited to their roles and duties.

The Contractor shall regularly carry out internal security revisions and test their own organization, subcontractors, and products and services contained in this contract. NRK reserves the right to initiate security revisions and tests of both the Contractor and subcontractors to verify that the service provided meets a satisfactory security level.

Unauthorized access

NRK considers it paramount that the Contractor takes necessary measures into use to ensure that no unauthorized access is permitted to NRK’s information systems and information itself. Access to, and use of, audit tools that interact with NRK’s information systems shall be appropriately segmented and restricted to prevent compromise and misuse of log data.

All remote access to clients must be logged with information about who initiated the access and which ticket it was related to. Attempts at unauthorized access, access not regarding a ticket or remote access without an end user present must be alerted upon.

Access control is an important precondition for ensuring proper operation, use, maintenance and settlement of NRK’s IT systems. By access control we understand assigning, changing, deleting and controlling authorization for access to systems and services to maintain information security. It is the Contractor’s responsibility that only authorized employees get necessary access.

The Contractor will be required to give details of security measures in place.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
4.2.1	<p>The Contractor understands the Customer’s needs related to Information security as presented in chapter 4.1and 4.2, and will base their suggested solution on these requirements and preconditions.</p> <p><u>Format requirements:</u> The Contractor writes “Read and accepted” in the answer column.</p>	M		
4.2.2	<p>The Contractor describes their holistic understanding of the requirements and preconditions described by NRK related to information security.</p> <p><u>Format requirements:</u> The Contractor presents an overall description of the key elements related to information security, including how the Contractor will ensure that the Customer’s needs described in chapter 4.2 will be met.</p>	E		
4.2.3	<p>The Contractor shall have an updated threat- and risk picture, and actively use this when planning and executing jobs for the Customer.</p>	E		

	<p><u>Format requirements:</u> The Contractor describes how this requirement will be safeguarded and what preconditions there are.</p> <p>The Contractor shall describe their process for continuous improvement in the security work as part of their work for the Customer.</p>			
4.2.4	<p>The Contractor shall safeguard personnel security by ensuring that their employees (and or subcontractors) working for the Customer are fit for the tasks they will perform, have completed necessary training, and are authorized according to service needs and relevant laws.</p> <p><u>Format requirements:</u> The Contractor describes how this requirement will be safeguarded and what preconditions there are.</p>	E		
4.2.5	<p>The Contractor must have documented routines for training and building awareness among all employers working for the Customer, that ensure the employers at any time to have right knowledge. Documentation on training shall be shown to the Customer on request.</p> <p><u>Format requirements:</u> The Contractor describes how this requirement will be safeguarded and what preconditions there are.</p>	E		
4.2.6	<p>The Contractor shall regularly implement internal and external revision of the information security (examples: vulnerability scan, maturity assessment) in all services delivered to the Customer.</p> <p>All results relevant to the Customer are to be documented and made available to the Customer. The Contractor shall correct deviations free of charge for the Customer.</p>	E		

	<p><u>Format requirements:</u> The Contractor describes how this requirement will be safeguarded and what preconditions there are.</p>			
4.2.7	<p>The Customer has the right to initiate internal and external revision of information security related to this contract (examples: vulnerability scan, maturity assessment) in the Contractor business, at subcontractors, and in services included by this contract. All results are to be documented and made available to the Contractor. The Contractor shall correct deviations free of charge for the Customer.</p> <p><u>Format requirements:</u> The Contractor confirms fulfillments by writing “Read and accepted” in the answer column.</p>	E		
4.2.8	<p>The Contractor’s employees (and subcontractors) are imposed to report if they are exposed to, cause, observe or suspect security breaches or weaknesses, according to guidelines presented by the Customer described in chapter 4.1, 4.2 and source protection described in chapter 3.9.</p> <p><u>Format requirements:</u> The Contractor describes how this requirement will be safeguarded and what preconditions apply.</p>	E		
4.2.9	<p>The Contractor shall, based on an updated threat picture, establish and maintain appropriate measures to protect the Customer’s information systems against unauthorized access, harm or service disruption.</p> <p><u>Format requirements:</u> The Contractor describes how this requirement will be safeguarded and what preconditions apply.</p>	E		

4.2.10	<p>The Contractor describes the protection of traffic between systems and services that safeguards authenticity, integrity and confidentiality and minimizes data loss.</p> <p><u>Format requirements:</u> The Contractor must describe how data related to the Customer that traverses public or internal networks, shall be appropriately classified and protected from fraudulent activity, unauthorized disclosure, or modification in such a manner to prevent contract dispute and compromise of data.</p>	E		
--------	--	---	--	--

4.3 The Agreement, clause 9.3 Personal data

The requirements for the Contractor’s processing of personal data on behalf of NRK is set out in the attached Data Processing Agreement. The attachment with specification of processing of personal data shall be completed in cooperation between the Parties.

The Contractor shall not access or process data (personal data and other data) in any other way than in accordance with the Agreement and for no other purpose than to fulfil the Agreement.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/ partly)	Answer
4.3.1	<p>The Contractor understands the Customer’s needs related to personal data as presented in chapter 4.3, and will base their suggested solution on these requirements and preconditions.</p> <p><u>Format requirements:</u> The Contractor writes “Read and accepted” in the answer column.</p>	M		
4.3.2	The Contractor describes their holistic understanding of the requirements and preconditions described by the Customer related to personal data and needs to ensure that their proposed solution meets these requirements.	E		

	<p><u>Format requirements:</u> The Contractor presents an overall description of the key elements related to personal data, including how the Contractor will ensure that the Customer's needs described in chapter 4.3 will be met.</p>			
--	--	--	--	--

5 SERVICE DESK REQUIREMENTS

The Service Desk services in NRK are SPOC and 1st line support for IT related interactions in NRK. End users represent all parts of the company included administrative users, media production and publishing. Since media publishing works within short deadlines and media production is dependent on a well-functioning IT platform, this leads to high expectations to the Service Desk.

5.1 Overall purpose and objectives

The overall objectives of Service Desk services are that:

- The Service Desk contributes to solve errors, problems and needs of the business as effective as possible and according to defined criticality ref. appendix 5.
- The Service Desk focuses on the user's situation and thereby contributes to increase the efficiency of the employees.
- The Service Desk reduces the number of interactions and requests to the Service Desk by increasing the level of self-service and automation.
- The Service Desk contributes to effective interactions between 1st, 2nd and 3rd line support and different internal and external operational groups.
- The Service Desk services are established in a time- and cost-effective manner.
- The Service Desk services are delivered with other services in scope in a holistic manner.
- The Service Desk services are, as far as possible, delivered as a standardized service.

To achieve these objectives, the Service Desk must deliver at least the following services:

- Single Point of Contact - SPOC
- 1st line support
- On-site support
- Facilitating self-service and automation
- Prepare statistics and contribute to action plans

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.1.1	The Contractor understands the Customer's needs related to service desk services as presented in chapter 5.1, and	M		

	<p>will base their suggested solution on these requirements and preconditions.</p> <p><u>Format requirements:</u> The Contractor writes “Read and accepted” in the answer column.</p>			
5.1.2	<p>The Contractor delivers Service Desk services which in a good way meet the needs and purpose of the Customer as specified above in Chapter 5.1.</p> <p><u>Format requirements:</u> The Contractor describes how the Customers Service Desk requirements will be met within the following categories:</p> <ul style="list-style-type: none"> - Single Point of Contact - SPOC - 1st line support - On-site support - Facilitating self-service and automation - Prepare statistics and contribute to action plans 	E		

5.2 Single point of Contact – SPOC

The function as a SPOC implies that the Service Desk provides one point of contact for inquiries in order to simplify the users’ situation. Incidents, the need for support and inquiries related to IT are reported to the Service Desk. In addition, the Service Desk is the point of contact for incidents related to NRK’s production and publishing systems. In cooperation with the user, Service Desk will consider the criticality of the incident. Service Desk must handle different SLA requirements depending on if the incident affects a single user, many users, production or publishing. A PC and Mac may have different SLA requirement depending on where it is located in the media production process. Some main functions will also have special priority. Incidents that need to be escalated are routed to the Contractor’s 2nd line, other Contractors or to 2nd line in NRK, depending on the one responsible for the service. By escalation, relevant information for solving the incidents shall be included to the case. A functioning cooperation between the Service Desk, 2nd line and other actors is a main success criterion for Service Desk. See appendix 3 chapter 2.8 for descriptions of these interfaces. Service Desk is responsible for following up the incidents until they are solved and processed, including responsibility for information to the entity who has reported the incident.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.2.1	<p>The Contractor shall describe their holistic understanding and proposed service according to the needs associated with the SPOC service in chapter 5.2.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service, in addition to suggested approach for transition.</p>	E		
5.2.2	<p>The Contractor handles the inquiries according to guidelines for criticality, escalation and following up incidents until they are solved and processed, including responsibility for information to the entity who has reported the incidents.</p> <p><u>Format requirements:</u> The Contractor describes the process of handling different kinds of inquiries until they are solved and processed.</p>	E		
5.2.3	<p>Service Desk cooperates closely with IT-personnel at the district offices, Media Production Support, Operational groups and the Service Center, ref. appendix 3 chapter 2.9. The Contractor describes how this cooperation and communication should be done.</p> <p><u>Format requirements:</u></p>	E		

	The Contractor describes the routines for cooperation and the expedient communication between Service Desk and IT-personnel at the district offices, Media Production Support, Operational groups and the Service Center,			
5.2.4	The Service Desk should be available through multiple channels to simplify the contact with the users. Independent of channel, the case must be documented and be a part of the knowledge base. The Contractor describes their recommended solution. <u>Format requirements:</u> The Contractor describes their recommended channels to the Service Desk and how the inquiries and solutions are documented and included in the knowledge base.	E		

5.2.1 ITSM tool

The Customer's ITSM tool, ServiceNow, is to be used for registering and handling of all inquiries to the Service Desk's SPOC function. Handling of cases by the Contractor is to be handled through seamless integration from the Customer's ITSM tool to the Contractor's ITSM tool. The Contractor is responsible for the integration and all costs related to the integration.

All reports and information regarding the handling of cases, e.g. inquiries and incidents and changes shall be available live in the Customer's ITSM tool. The Customer needs access to live information about all clients and issues concerning these. This information may be accessed in the Customer's ITSM tool or through other channels recommended by the Contractor.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.2.1.1	The Contractor integrates their ITSM tool with the Customer's ITSM tool. All reports and information regarding inquiries, incidents and changes must be available real time and must be saved for the future in the Customer's ITSM tool. The	E		

	<p>Contractor gives access to live information about all clients and issues concerning these.</p> <p><u>Format requirements:</u> The Contractor confirms the integration between the Customers and the Contractors ITSM tool and that all reports and information regarding inquires, incidents and changes will be available real time in the Customer's ITSM tool. The Contractor describes their recommended solution to give access to live information about all clients and issues concerning these.</p>			
--	--	--	--	--

5.3 1st line support

As far as possible, incidents should be solved in 1st line, and a high-resolution rate in 1st line is a success criterion. Service Desk therefore must be able to solve incidents and inquires and give support regarding general IT, use of office tools and basic use of applications used by many of the users in NRK. The Service Desk must know the basic use of these applications, the most common error conditions and how to solve them, in order to provide basic support. Support includes both PC and Mac platforms, and necessary re-installation to solve incidents. Use of smartphones and tablets has become an important part of both administrative work and media production and is therefore an important part of 1st line support.

In order to solve as many cases as possible as quickly as possible in 1st line, as well as to ensure a good user experience, it is required that Service Desk has the ability and competence to understand the users' situation, knowledge of hardware and software in use in the company and knowledge of the company's production environment and geography.

5.3.1 Services included in 1st line support

The list of services provided is not necessarily exhaustive. More services might be included during negotiations or during the contract period due to changing needs.

Service	Description
1 st line handling of inquiries	Logging, categorization, prioritization, 1 st line-support for end users, escalation, information and dialog with end users.
Manage user access	Managing user access to NRK's IT systems: Create, change and exit accesses Lifecycle management of users.
User satisfaction survey	For continuous follow-up of user satisfaction, the Contractor shall conduct surveys aimed at end users by appointment with the Customer. Results from surveys should be actively used to further develop and improve

	the service. The results shall be made available to NRK as part of the reporting described in appendix 6.
Exchange/Outlook	Shared e-mail boxes: New/change/delete, add or remove shared e-mailbox from user's client. Distribution lists: New/change/delete. Resources (meeting rooms etc.): New/change/delete.
User support/guidance	Inquiries for the IT area.
Communication with end user	In all communication with NRK and end-user, Service Desk should: <ul style="list-style-type: none"> • act customer-friendly and service-minded • act with respect and communicate so that end-user understands • be solution-oriented • communicate in an understandable, non-technical, good Norwegian language.
Password management	Manual password reset and password support that is not handled by self-service solution.
Printer handling	SPOC for support requests related to functionality, errors and deviations. Troubleshooting and coordination in cooperation with the supplier of the print service. Manage IP addresses associated with this hardware when this is relevant.
Software installation	Manual installation / access to software.
Restore	File Recovery.
Access to application/service	Access to applications and services.
Access control AD	Access to common file area and other places where this is not automated
Access control client / server	Access to local admin on client and / or server where this is not automated.
Access to wireless network	Access to wireless network for guests, events, and hired persons who will have access for a long time.
VPN	User support and troubleshooting.
Registration of devices	Registration of network connection devices
Update telephone messages	Update messages that informs users via the Service Desk phone about major issues and other relevant information.
End user support	Support regarding use of office tools and basic use of applications used by many of the users in NRK. This included e.g. storage, use of cloud service (Office365, SharePoint, OneDrive) etc.
Wi Fi-support	Use of Cisco DNA Center as part of user support related to wireless network
Microsoft Collaboration Platform	End user support on Microsoft's Collaboration Platform including Microsoft Office 365, SharePoint and OneDrive

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.3.1	<p>The Contractor shall describe their holistic understanding and proposed service according to the needs associated with the 1st line support service in chapter 5.3</p> <p>5.3.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service, in addition to suggested approach for transition.</p>	E		
5.3.2	<p>The Contractor gives 1st line support on PC, Mac, smartphones, tablets and use of office tools and basic use of applications used by many of the users at the Customer. Necessary re-installation to solve incidents is part of 1st line support.</p> <p><u>Format requirements:</u> The Contractor confirms that they meet the requirements and describes how their Service Desk will be able to fulfill these requirements</p>	E		
5.3.3	<p>The Service Desk shall have the ability and competence to understand the users' situation, knowledge of hardware and software in use in the company and knowledge of the company's production environment and geography.</p> <p><u>Format requirements:</u> The Contractor describes how</p>	E		

	their Service Desk will get the ability to understand the users' situation, knowledge of hardware and software in use in the company and knowledge of the company's production environment and geography.			
--	---	--	--	--

5.3.2 Opening hours

The opening hours of today's internal Service Desk are Monday-Friday 08.00-16.00. In conjunction with the outsourcing the Customer considers extended opening hours and the time period Monday-Friday 08.00-19.00 is a current alternative. The Contractors are asked to describe minimum these two alternatives. As for other parts of the agreement the Customer seeks to adapt to standard services, also regarding opening hours. The Contractors are therefore in addition asked to describe their standard opening hours. As an option the Contractors are asked to describe an alternative that includes a 24/7/365 SPOC function

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.3.2.1	<p>The Contractor describes two alternative opening hours for Service Desk, 08.00-16.00 and 08.00-19.00. In addition, the Contractor is asked to describe their standard opening hours. All alternatives are described with corresponding prices.</p> <p><u>Format requirements:</u> The Contractor describes the two alternative opening hours in addition to their standard opening hours. For all alternatives corresponding prices are described in appendix 7.</p>	E		

5.3.2.1 Option – 24/7/365 SPOC-function

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.3.2.1.1	As an option the Contractor describes an alternative that includes a 24/7/365 SPOC-function.	O		

	<u>Format requirements:</u> The Contractor describes an option that includes a 24/7/365 SPOC-function, including content of and price for the service (appendix 7).			
--	---	--	--	--

5.4 On-site support

Service Desk gives necessary on-site support to approx. 2000 employees at NRK's headquarter. Users should be able to contact the on-site team by personal attendance. The on-site team also handles incidents and support that need to be performed at the users' workplace. The on-site team handles necessary submission and extradition of equipment associated with problems with the equipment. The capacity of the on-site team shall be sufficient for on-site reception and support and necessary support at the user`s workplace.

To minimize impact on the employees when problems with PCs and Macs, the Service Desk should be able to immediately offer new clients that can be used while original machine is repaired, ref. SLA -req. appendix 5, chapter 2.2.3. This applies to situations that requires long solution time or clients critical for the media production process.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.4.1	<p>The Contractor shall describe their holistic understanding and service description according to the needs associated with the on-site support service in chapter 5.4.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service, in addition to suggested approach for transition.</p>	E		

5.4.1 On-site support at special events

Special events, e.g. major TV-productions, occasionally need extended on-site support. This may e.g. include installation of 30 extra computers with monitors and present on-site support for the time period Friday 12.00-22.00.

The Contractor is asked to describe how this service is to be delivered with corresponding prices.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.4.1.1	<p>Chapter 5.4.1. describes an example of Customer's needs for on-site support at special events. The Contractor describes how this service is to be delivered with corresponding prices.</p> <p><u>Format requirements:</u> The Contractor describes how the service, explained in this example, is to be delivered with corresponding prices.</p>	E		

5.5 Facilitating Self-service and Automation

Self-service and Automation is important for efficiency improvements and availability. NRK wants to facilitate for a higher degree of self-service and automated services for the employees. The purpose is to make the employees more efficient, and to offer a service that is available 24/7. Service Desk shall offer automated services and knowledgebase/self-service portal where the employees can find manuals, basic IT-training and self-service instructions. Automated services shall as a minimum include issues related to password and unlocked user accounts. Software that helps the user on a day to day basis and is not automatically installed should be offered through a self-service kiosk or portal.

Progress and future development of this area is part of the Contractor's regular status reports.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.5.1	<p>The Contractor shall describe their holistic understanding and proposed service according to the needs associated with self-service and automation in chapter 5.5.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor describes their self-services and automated services and further development to offer new</p>	E		

	services. In addition, the Contractor shall describe potential preconditions and limitations for the delivery of this service.			
5.5.2	<p>The Contractor offers a self-service portal that makes it possible for employees to install selected software.</p> <p><u>Format requirements:</u> The Contractor describes their solution for software self-service.</p>	E		
5.5.3	<p>The Customer wants, as far as possible, to automate the onboarding process where employees get user accounts and access to IT. The Customer asks for the Contractors proposals to this routine.</p> <p><u>Format requirements:</u> The Contractor describes their solution for automation of the onboarding process.</p>	E		
5.5.4	<p>The Contractor shall make sure all relevant incidents are included in a knowledge base available for end users.</p> <p><u>Format requirements:</u> The Contractor describes their solution and routines for making the knowledge base available to end users.</p>	E		
5.5.5	<p>The Contractor produces, updates and makes manuals, basic IT-training and self-service instructions and knowledgebase on self-service on relevant topics available for users.</p> <p><u>Format requirements:</u> The Contractor describes their solution, routines and development to make manuals, basic IT-training</p>	E		

	and self-service instructions and knowledgebase on self-service on relevant topics available for users.			
--	---	--	--	--

5.6 Statistics and action plans

Service Desk is responsible for continuous statistics on which errors that gives most problems for the employees and contribute to action plans to solve these problems.

These statistics and action plans are part of the Contractor's regular status reports.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
5.6.1	<p>The Contractor shall describe their holistic understanding and proposed service according to the needs associated with statistics and action plans in chapter 5.6.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service, in addition to suggested approach for transition.</p>	E		

6 CLIENT SERVICE REQUIREMENTS

By Client services NRK means mainly life cycle management of client devices used by various user groups in NRK. NRK defines the following as a client device:

- Windows clients
- Mac clients
- Linux clients (optional - see chapter 6.3.2)
- Smart phones and tablets (iOS and Android)
- Other devices that can be managed

If a device can't be managed, it can't have access to internal resources, such as network and servers, software and certificates. These devices will have to connect to Wi-Fi with limited or no access to internal resources. Exceptions will have to be approved by the Operational Security Group on a case by case basis.

6.1 Overall purpose and objectives

The objectives of the client service are that:

- The Client services are delivered as requested by the organization.
- The Client services meet the needs of the organization.
- The Client services are established and developed with the seven areas of critical importance described in chapter 2.3 in mind (Focus on the user, Quality and stability, Automation, Continuous improvement, Proactivity, Standardization and Self-service).
- The Client services are adapted to the needs of the defined user groups.
- The Client services should be service oriented and flexible, and hence be adjusted and updated according to technological development and best practice.
- The Client services are established in a time- and cost-effective manner.
- The Client services are delivered with other services in scope in a holistic manner.
- The Client services can be delivered within defined service levels (SLA) which are developed to meet the needs of the user groups.

To achieve these objectives, the Client services must include at least the following services:

- Life cycle management of clients: Managing the client during its life cycle – from initial setup, to operation, support, incident handling and disposal. (chapter 6.3).
 - Client security: Security needs to be embedded in the life cycle management of the client (chapter 6.3.1). Making sure client are compliant and follows the security principles.
- Smart phones and tablets: Life Cycle Management and Operation of all smart phones and tablets in NRK (chapter 6.5).

The following sub chapters describe the needs and requirements associated with each of these services.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
6.1.1	The Contractor understands the Customer's needs related to client services as presented in chapter 6.1, and will base their suggested solution on these requirements and preconditions. <u>Format requirements:</u> The Contractor writes "Read and accepted" in the answer column.	M		
6.1.2	The Contractor delivers Client services which in a standardized way meets the needs and purpose of the Customer as specified above. <u>Format requirements:</u> The Contractor describes how the	E		

	client service needs of the Customer will be met within the following categories: <ul style="list-style-type: none"> - Life cycle management - Client security - Physical clients - Smart phones and tablets 			
--	--	--	--	--

6.2 Out of scope

There are some parts of the client life cycle which are considered out of scope of this agreement.

6.2.1 Procurement and ownership of physical clients, including mobile devices

NRK will still own and procure the physical clients and mobile devices. That means that NRK is responsible for the first part of the life cycle, but the Contractor is responsible for all remaining parts of the life cycle after procurement.

However, as NRK acknowledges the fact that the market and technology changes rapidly, an option for leasing clients is included in this RFP. See chapter 6.4.1 for details.

6.2.2 Life cycle management of critical broadcasting and editing clients

Some clients have critical functions in the media production chain. NRK has considered that some parts of operation and support of these clients requires in-depth knowledge of media production and media publishing. Therefore NRK, at this time, has defined that parts of operation and support of these will be handled by internal media production support. See Table 3 for description of these clients.

Table 3: Clients with parts of life cycle out of scope

#	Description	Approximate number of clients
1	Clients that are physically located in racks in equipment and control rooms at the HQ, region and local offices or in outside broadcast (OB) buses. These are advanced and highly critical for production and broadcasting.	800-1000
2	Clients that are physically located in advanced editing rooms, for example color grading, Protools (audio editing) and VFX	100-200

However, as NRK acknowledges that the difference between administrative clients and broadcasting and editing clients decreases due to technological development, NRK is open to suggestions from Contractors for handling these critical clients in a way that allows the Contractor to handle a larger part of the life cycle of these clients. See chapter 6.3.3 for description of this option.

6.3 Client life cycle management

Life Cycle Management means managing the client during its life cycle – from initial setup, to operation, support, incident-handling and disposal. This also includes processes and routines for deployment of software and applying updates and patches. NRK is not a “one size fits all” organization, and it’s therefore a need to have different setup and different clients for different needs, and an understanding of what is most important for NRK. We need to categorize clients after what the intention is for that client, and the closer a client is to broadcasting and core business, the more critical it should be handled. At the same time, we want standardized and modern deployment methods. Life Cycle Management should always improve and make the user experience and the processes better on a regular basis, and the more automated processes a client can have, the better. Performance and speed are crucial, especially when core business is involved, such as postproduction and broadcasting. Client life cycle management must therefore always monitor that every process works as robust and fast as possible with the best possible end user experience in mind. Parts of the life cycle management for the most critical clients (see 6.3.3) are handled by NRK.

Client Life Cycle Management should always strive towards modernization of client management and a modern deployment method, with a high degree of automation, “zero touch” and self-service.

Client Life Cycle Management includes (not exhaustive):

- **Setup and operation of operating systems (OS):** NRK has multiple platforms, like Windows clients, MacOS clients and Linux clients (optional), but also iOS and Android, and they should be treated equally important. There must be setup for NRK’s services provided for every platform NRK want to support. NRK want as far as possible this to be automated processes, for example using Autopilot and DEP, or other similar systems.
- **Self-Service:** The end user should have access to and the possibility to install some basic software that is usually not automatically distributed. The software that must be presented for the end user via a self-service solution is continuously discussed and updated, but it is considered a main part of the life cycle management of clients. Self-service also means the end user easily can help themselves with a problem, for example that they have a possibility to run scripts that help with the setup of the client, or that can fix a known problem. The end user must have easy access to help-documentation/assistance.
- **Distribution of drivers:** Drivers for the different clients and operating systems should be handled and updated based via best practice and the recommendations from the manufacturers.
- **Regular updates:** Regular updates is included as a part of the Life Cycle Management delivered by the Contractor. This includes services, such as: patching of the operating systems, life cycle management of software and life cycle management of hardware. The Contractor is responsible that every change happens in a predictable, fast and robust

manner for the end user, and that they are in compliance with NRK’s requirements. See chapter 6.1 in appendix 6 for requirements for changes in the operating environment.

- **Client administration:** Ensure an optimized client management system for all client categories, provide inventory and insight, and handle and distribute software.
- **Policy setup:** Setup of policies according to NRK guidelines and make sure the client is security compliant.
- **Software packaging and distribution:** Facilitate, prepare and execute distribution of software to all clients in a predictable and orderly fashion. The Contractor should have a deep knowledge of how to distribute software to clients with the most robust and best user experience in mind. Software packaging and distribution of new software or new versions of software are included in the life cycle management of clients.
- **Software configuration:** Setup and configuration of software according to NRK’s needs.
- **Client security:** Ensure the client is security compliant, that OS patches and firmware updates are applied in an orderly and predictable fashion. Further details and description of security incident handling is described in chapter 6.3.1.
- **Troubleshooting:** The Contractor must be a resource when it comes to troubleshooting, for example when it’s unclear if there’s a problem in the software, the OS or maybe parts of the infrastructure. Communication between the Contractor and other operation groups at NRK must therefore be good. Sometimes there might be multiple sides to a problem, and it is important that solving this is handled in a holistic way and always improved upon with focus on the end user.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
6.3.1	<p>The Contractor shall describe their holistic understanding and proposed service according to the needs associated with the life cycle management of clients described in chapter 6.3.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service, in addition to suggested approach for transition.</p>	E		
6.3.2	The Contractor delivers a solution for software distribution that includes tests and conducts differentiated distribution of	E		

	<p>software based on the role of the user.</p> <p><u>Format requirements:</u> The Contractor describes how the software is distributed and how the distribution is differentiated based on the role of the user.</p>			
6.3.3	<p>The Contractor's service delivery for life cycle management for clients includes all software packaging and distribution of new software or new versions of software.</p> <p><u>Format requirements:</u> The Contractor describes how their solution will meet this requirement.</p>	E		
6.3.4	<p>The Contractor shall make sure that services, including underlying systems and software delivered and developed by the Contractor, are updated and developed continuously and in accordance with technological development as part of their routine for life cycle management.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service.</p>	E		
6.3.5	<p>The Contractor describes how they can meet the Customer's needs related to initial setup and handover of critical production and broadcasting clients to the disposal company as described in chapter 6.2.2 and how they will ensure</p>	E		

	smooth handover of responsibility of operations of these clients from the external Contractor to the Customer after initial setup. <u>Format requirements:</u> The Contractor describes their understanding of the Customer's needs described above and how they will handle this, including processes, routines, reporting and tools used.			
6.3.6	The Contractor provides clients while original client is repaired. The Contractor describes their recommended solution. <u>Format requirements:</u> The Contractor describes their recommended solution to provide clients while original machine is repaired.	E		

6.3.1 Client security

The overall objective of the client security service is that the Contractor provides the end user with a predictable and secure client.

Client security is a subset of operational security and information security. The basis for client security is NRK's principles for information security, see attachment "Appendix 1 attachment 2 - Grunnprinsipper for informasjonssikkerhet i NRK". All policies and setup of the clients need to follow these principles.

Client security is defined as the security features, services and systems needed to maintain a satisfactory level of security and protection for NRK clients. To ensure a comprehensive security approach across client and operational security, the Contractor must include NRK's basic principles for information security. The Contractor must ensure responsibility for ensuring that security becomes a natural part of clients in NRK's infrastructure.

The cyber threats landscape and the ability to handle these threats are constantly evolving. NRK require that all services and systems are to include continuous improvement and safeguarding of security in line with the development. Client security is expected to include this.

In order to safeguard security, the Contractor must have the necessary expertise and available resources to be able to detect, manage and quickly solve errors and security incidents. It is necessary that the Contractor is proactive and can contribute with proposals for new solutions and improvements within client security. It is necessary that the Contractor and NRK establish functional interfaces for collaboration, and that collaboration also involve contact with NRK's

security providers. Regular emergency exercises with NRK and partners with scenarios related to service interruptions and security incidents will be carried out. Operational Security in NRK has overall responsibility for exercises and must be implemented in accordance with guidelines. Operational Security is a professional group that handles events and operation of security tasks in NRK. Operational Security will be the contact point towards the Contractor and cooperation with client security when necessary.

Operational Security wants The Contractor to be proactive and to make suggestions for the implementation of security exercises.

Client security shall ensure that clients are compliant with the rules and regulations of NRK through best practice security, that security policies are enforced, that OS patches are applied when needed, and that software is updated regularly. The Contractor shall ensure always easy access to reports and an overview of the status of the clients for NRK.

Furthermore, client security includes the basic setup of the clients, which includes installing security policies and profiles on the clients, the general security setup of the OS, and that the client has signature-based security software and security detection software. This must be applied as early as possible, and before the end user starts using the client. Detection and handling of clients that show unusual traffic or behavior should be a key task that is included within client security.

In cases where clients show suspicious activity, and needs further investigated, or a proper response to a threat is unclear, Operational Security in NRK must be notified immediately.

Handling “normal” security incidents is included as a part of client security though. If the machine for example has a virus, it shall be quarantined and handled by the Contractor. All security incidents, that are either automatic or manually identified, must be reported to Operational Security through the ITSM tool. Re-installing or replacing a client as a response to a low-level threat shall be within the Contractor’s capability.

NRK has overall responsibility for security and owns and maintains all guidelines and instructions, and here define the long-term goals for information security

As described in appendix 6, chapter 2.3.1, the Contractor and NRK must meet regularly in Security forums to further adjust and improve the security. As previously pointed out, there are different needs for different types of clients, and the Contractor, Operational Security and Service Owners will have to work together to give the end user a secure and predictable client, either if it’s a Mac, a Windows machine or a tablet. NRK also sends people to countries that requires a different/higher security policy for clients. It should be within the Contractor’s capability to handle this kind of custom setup if that’s required from NRK.

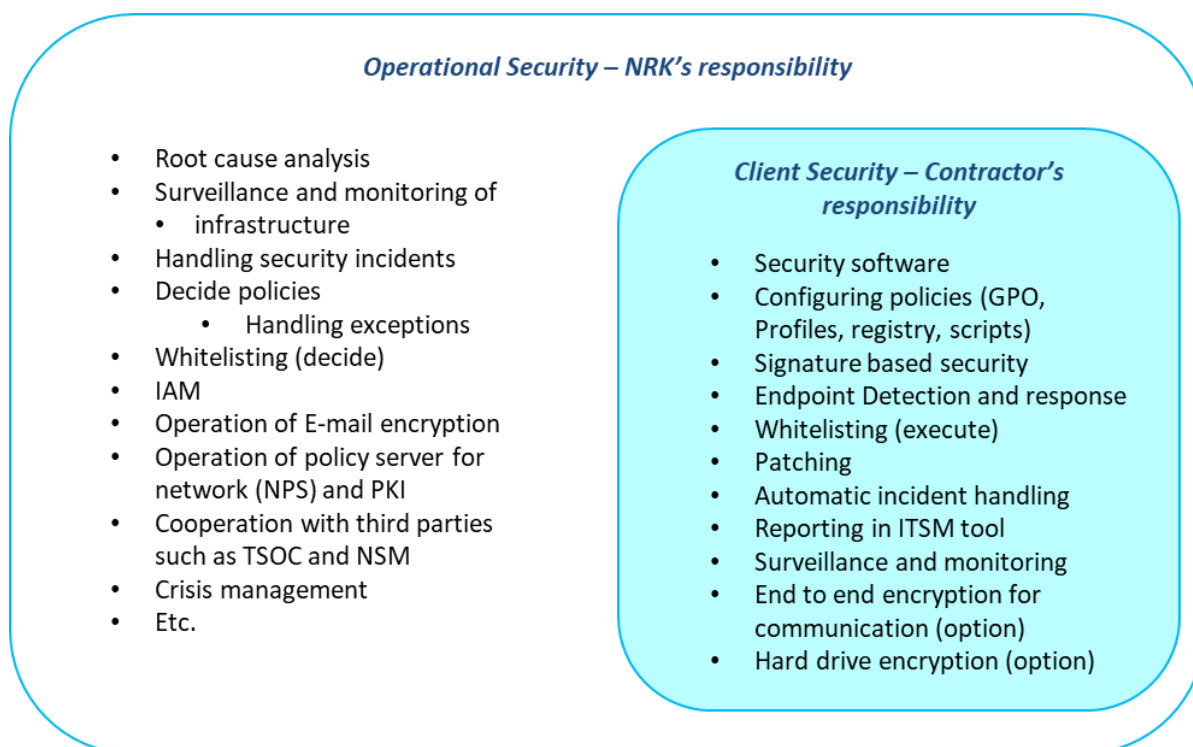


Figure 5: Illustration of the interface between Operational Security and client security

The Contractor is responsible for the tasks in the blue box in Figure 5. See descriptions of these tasks below. Note that the list of responsibilities of the Contractor is not necessarily exhaustive. The Contractor is required to suggest additional responsibilities they find relevant and a natural part of the delivered services.

- **Security software:** Security software is a system or service that secures and protects a client device and security auditing. It manages access control, provides data protection, secures the system against threats and network/Internet based intrusions, and defends against other system-level security risks.
- **Configuring policies:** Setup of the client according to policies set by the operational security group. This might include GPO (Windows), Profiles (Mac, iOS, Android), scripts (Mac, Linux and Windows), and registry (Windows). Examples of types of policies are employees abroad for long and short periods of stricter security measures.
- **Signature based security:** Software that detects suspicious activity based on “known” factors.
- **Endpoint detection software:** Software that detects and investigates suspicious activity based on “unknown” factors or unnatural behavior of the client. This can be detected through logging or unusual network traffic.
- **Whitelisting:** Ensure NRK’s whitelisting is complied with.
- **Patching:** Updating the client with a newer OS, or security update.
- **Incident handling:** Incidents that are within normal and expected behavior (automatically detected by the signature-based security detection software) are handled by the Contractor according to best practice, but more critical and unexpected incidents should be directly reported to the Operational Security Group (OP-SEC) and

investigated further. Example of incident to be handled by the Contractor: automatically quarantine clients that have virus or have detected suspicious activity.

- **Reporting:** See appendix 6 chapter 3.3 for details concerning reporting. Information concerning security incidents should be registered in NRK's ITSM tool.
- **Supervision and monitoring:** Detecting and handling client-security incidents. Security and system logs must be available centrally that NRK can access.
- **End to end encryption for communication (option):** Explain which systems and possibilities the Contractor can offer to set up secure, reliable encryption for communication on clients. There are different needs for this type of communication, and examples may include source protection, anonymization and data protection. See chapter 6.3.1.1.
- **Hard drive encryption (option):** We would like to know what kind of solution the Contractor supports for Macs and PCs – see chapter 6.3.1.1.

The flow chart below is not meant to impose how the Contractor should manage and carry out their security incident process related to client security. It is up to the Contractor to suggest their recommended solution, including processes, for security incident management. The objective of the flow chart is to indicate the interface and cooperation needed between the Contractor and NRK. As described in Figure 7, The Contractor should handle all incidents categorized as level 1-5. More specifically, the Contractor should automatically deal with the least severe incidents by itself (levels 1-3), with just reports to Operational Security, while Operational Security **must** be involved in every case where there is more severe or critical threat levels (4 and above). The process of handling the most critical incidents will also need to include resources from the Contractor, but NRK is responsible for the handling of the security incident. This means that the first step of the Contractor, when becoming aware of a security incident, is to evaluate and categorize the incident according to severity level.

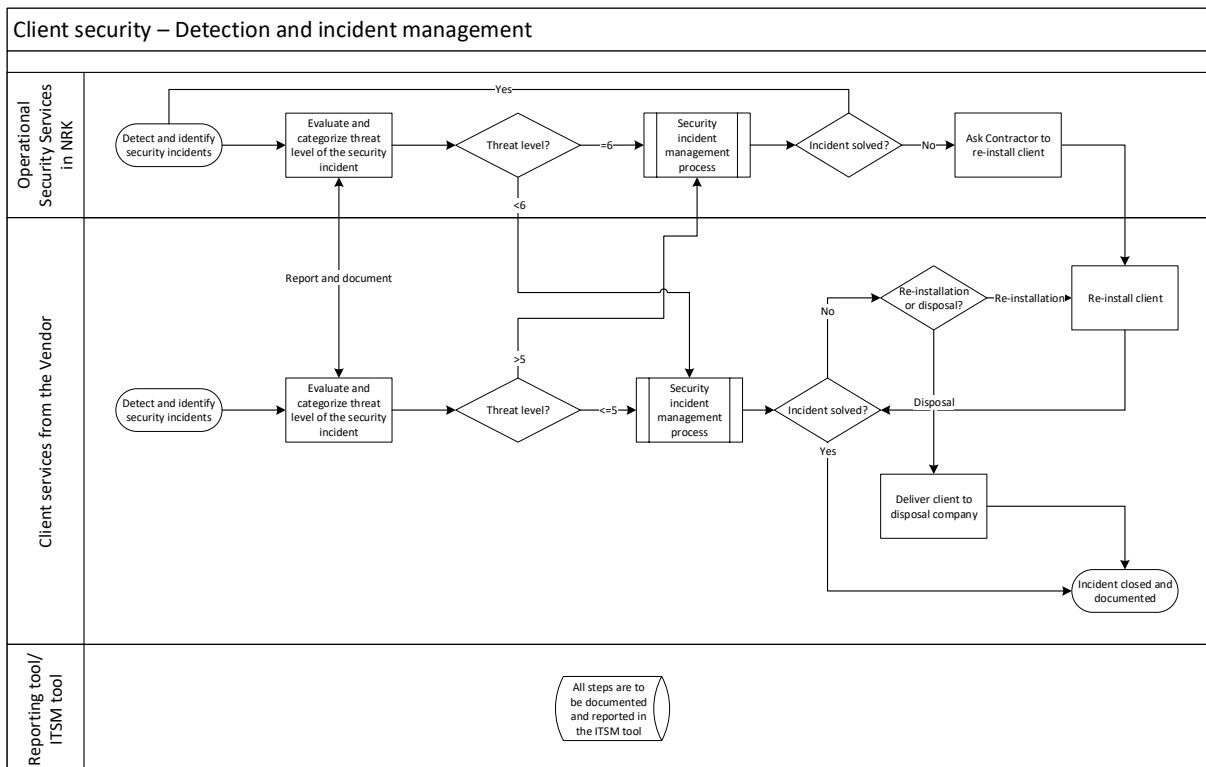


Figure 6: Flow chart describing interface between the Customer and Contractor related to detection and incident management

Level	Definition	Example	Executor
1 - Green	False security incident, but a report must be made	False positive, approved deviations from policies	Contractor
2 - White	Unwanted Incident, but very low risk	Spam. Bad config.	Contractor
3 - Yellow	Low level Incident detected by signature based software or automatic routines	Automated attacks that are filtered (virus for example)	Contractor
4 - Orange	Incident is discovered, but there is a need for a manual review. Uncertainty about damage from malware.	Malware may or may not be installed, and there might be a service under attack.	Contractor
5 - Red	Clients have been compromised	Malware has been executed, Successful attack	Contractor
6 - Black	Infrastructure has been compromised	Malware is spreading, services are down. Unable to publish or broadcast	NRK

Figure 7: Severity levels - Client Security

The categorization of severity level as presented in Figure 7 is to be used by the Contractor or Operational Security in NRK when becoming aware of an incident, for instance through automatically detection or through the Service Desk’s routing function. The categorization of undesirable incidents as presented in chapter 1 in appendix 5 should be used by the Service Desk to categorize the incident into critical, serious or less serious. After the Service Desk has categorized the incident and escalated the incident to the Contractors Client Service, the Contractor should categorize the severity level of the incident received.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
6.3.1.1	<p>The Contractor delivers client security that meets the needs and preconditions of the Customer as described in chapter 6.3.1 in a good way.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service, in addition to suggested approach for transition. The Contractor's description should also include description of additional services and tasks they find necessary to ensure sufficient client security even though these are not described by the Customer.</p>	E		
6.3.1.2	<p>The Contractor must have the expertise and resources to discover, investigate and handle security incidents according to the Customer's level chart (Figure 7). In addition, the Contractor must be able to provide with expertise in IT security, and assist the Customer with security incidents according to level chart (Figure 7).</p> <p><u>Format requirements:</u> The Contractor describes their expertise and resources concerning security incident management and overall IT security.</p>	E		
6.3.1.3	<p>The Contractor shall ensure that surveillance, monitoring and handling of clients are carried out in a good and decisive manner, which means that the Contractor</p>	E		

	<p>capture client security incidents in the Customer's infrastructure. Surveillance and monitoring must be 24/7/365.</p> <p><u>Format requirements:</u> The Contractor describes how they will meet the requirement concerning surveillance and monitoring and handling, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service, in addition to suggested approach for transition.</p>			
6.3.1.4	<p>The Contractor must have routines for security patching of OS and software installed on clients. All identified security updates should have a deployment plan within the timeframe specified in attachment "Appendix 1 attachment 2 - Grunnprinsipper for informasjonssikkerhet i NRK" according to the CVSS categorization provided by the software Contractor.</p> <p><u>Format requirements:</u> The Contractor describes how they will meet the requirement, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations for the delivery of this service, in addition to suggested approach for transition.</p>	E		
6.3.1.5	<p>Chapter 6.3.1 describes the interface and responsibilities to be split between the internal Operational security and the client security to be handled by the Contractor. The Contractor needs to</p>	E		

	<p>facilitate well-functioning coordination and cooperation between the Customer and the Contractor to avoid misunderstandings.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations.</p>			
6.3.1.6	<p>The Contractor must have a system for traceability that satisfies the Customer's need for continuous access to system and event logs for client security. Logs should be centralized for effective monitoring and troubleshooting and available to the Customer, for example through the Customer's SIEM tool.</p> <p><u>Format requirements:</u> The Contractor describes how this need will be met, including routines, processes and tools utilized. The Contractor shall describe potential preconditions and limitations.</p>			

6.3.1.1 Option – End to end encryption for communication and hard drive encryption

NRK currently has a central solution for encrypting hard drives on Windows clients, in order to handle unauthorized access and loss of data or theft of clients. The functionality used is Bitlocker and is automatically installed on all Win10 portable clients. Other Windows versions are upgraded as needed, and other types of clients use other solutions without automation. For MacOS encryption of hard drives should use Apple's standard FileVault service, and there should be a possibility to manage the master encryption key of each client.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
6.3.1.1.1	The Contractor offers a solution for end to end encryption for communication on request.	O		

	<u>Format requirements:</u> The Contractor describes in general terms how this option would be delivered and priced in appendix 7, and what are the potential advantages of including this option.			
6.3.1.1.2	The Contractor offers a solution for hard drive encryption on request. <u>Format requirements:</u> The Contractor describes in general terms how this option would be delivered and priced in appendix 7, and what are the potential advantages of including this option.	O		

6.3.2 Option – Life cycle management of Linux clients

NRK currently have an ad hoc management of Linux clients, and no central management system. Linux clients that can have a life cycle management system should therefore also be considered included as a standard client. The current number of Linux clients is below 100.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
6.3.2.1	The Contractor describes their solution for Linux Clients with corresponding prices if this includes extra cost. <u>Format Requirements:</u> The Contractor describes their solution for Linux Clients with corresponding prices if this includes extra cost.	O		

6.3.3 Option – Life cycle management of critical production and broadcasting clients

In chapter 6.2.2, it is described that main parts of operation and support of the most advanced and critical production and broadcasting clients are handled by internal media production support. However, NRK would like to know what solutions the Contractor could deliver concerning life cycle management of these clients and whether the Contractor believes that whole or larger parts of the life cycle of these clients could also be included in the scope during the contract period.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer

6.3.3.1	<p>The Contractor describes handling of critical clients in a way that allows the Contractor to handle a larger part of the life cycle of clients used for media production and publishing.</p> <p><u>Format requirements:</u> The Contractor describes a model for handling a larger part of the life cycle of clients used for media production and publishing.</p>	O		
---------	---	---	--	--

6.4 Physical clients

The Customer owns about 9100 clients. Out of these, about 3400 are administrative clients, 4500 are used by developers and journalists for smaller editing tasks, and the remaining 1200 are critical or high-end production/editing clients.

Currently NRK has a complex and huge client portfolio with lots of different models, ref.

“Appendix 3 attachment 1 - Overview of client portfolio”. As described in chapter 2.3, standardization is one of the main areas of the vision for Client services. Based on this, the existing client portfolio needs to be transformed. Furthermore, NRK acknowledges that the market for digital workplace rapidly develops, hence solutions including Bring Your Own Device (BYOD) for mobile devices are interesting. Therefore, NRK would like to know if BYOD can be relevant for the client service solution delivered and what benefits this might give.

As described in appendix 3, chapter 3, there are no formal policies for frequency for client replacement in NRK today. Going forward, NRK would like a standardized frequency for client replacement. NRK would like the Contractor’s recommendations concerning client replacement based on NRK’s needs. As part of the life cycle management, the Contractor is responsible for providing the outdated and broken clients to the company responsible for disposal after client replacement.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
6.4.1	<p>The Contractor recommends a standardized client replacement frequency based on the Customer’s needs.</p> <p><u>Format requirements:</u> The Contractor describes their recommended client replacement frequency and how this meet the needs of the different users at the Customer.</p>	E		
6.4.2	As described in chapter 6.4, the Customer has currently a complex client portfolio consisting of many different	E		

	<p>models. The Customer wants to standardize the client portfolio. In cooperation with the Customer, the Contractor shall plan and execute a transformation to standardize the client portfolio.</p> <p><u>Format requirements:</u> The Contractor describes their recommended plan and approach for transforming and standardizing the Customer's client portfolio</p>			
6.4.3	<p>The Customer will, to a greater extent than today, standardize the use of hardware and software. At the same time, some clients used for media production require special type of hardware and the Customer's production environment occasionally conducts tests and innovative projects that require non-standard hardware and software. In some cases, non-standard hardware and software are also part of a critical production chain and must be handled thereafter.</p> <p><u>Format requirements:</u> The Contractor describes how special needs for production and creative testing could be run in parallel with a standardized environment and how this should be taken into account in the approach suggested in requirements 6.4.2.</p>	E		
6.4.4	<p>The Contractor describes their recommendations concerning BYOD and elaborates on how this could be implemented in the delivered client service.</p> <p><u>Format requirements:</u> The Contractor describes their BYOD recommendations, including potential</p>	E		

	preconditions and limitations for such a delivery.			
--	--	--	--	--

6.4.1 Option - Client as a service

Due to for instance rapid regulatory and technology changes, NRK understands that other ownership models might be more relevant in the future. Hence, an option for leasing of physical clients is included in the RFP.

This option includes that the Customer rents/leases the clients from the Contractor who owns and procures clients based on the needs and guidelines of the Customer. Hence, the Contractor is responsible for the whole life cycle of the client such that this can be referred to Client as a Service (CaaS).

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
6.4.1.1	The Contractor offers leasing of physical clients (CaaS) on request. <u>Format requirements:</u> The Contractor describes in general terms how this option would be delivered and priced in appendix 7, and what are the advantages of a such solution.	O		

6.5 Smart phones and tablets

The Customer has about 3000 mobile devices today in their MDM system, including both smart phones and tablets. Some mobile devices (about 1100) are not registered in the MDM system. Refer to appendix 3, attachment 1 for descriptions of the smart phone and tablet service offered in NRK.

All new mobile devices should automatically be enrolled using appropriate MDM tools. If the user needs help in setting up his/her mobile device, the user may contact the Service Desk or local IT support if the employee is located in one of NRK's regional offices. The Contractor is responsible for main parts of the life cycle management of mobile devices. This includes operation, security, maintenance and user support. User support for smart phones and tablets is part of the Service Desk service, please refer to chapter 5.3.1.

Smart phones and tablets are important tools for NRK and contributes to increasing our productivity. Mobile devices also represent a significant risk to data security as, if the appropriate security applications and procedures are not applied, they can be a conduit for unauthorized access to NRK's system and services. This can subsequently lead to data leakage and system infection. NRK has no defined guidelines for the use of mobile devices but expects that the Contractor handles smartphones and tablet as part of client security described chapter 6.3.1.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/)	Answer
-------------	------------------	-----------------	------------------	--------

			partly)	
6.5.1	<p>The Contractor meets the Customer's need for life cycle management of mobile devices according to the description in chapter 6.5.</p> <p><u>Format requirements:</u> The Contractor describes how the life cycle management of smart phones and tablets should be handled to satisfy the Customer's needs.</p>	E		
6.5.2	<p>The Contractor delivers security on smart phones and tablets that meets the needs and objectives of the client as described in chapter 6.2.1 in a good way.</p> <p><u>Format requirements:</u> The Contractor describes how security on smart phones and tablets should be handled to satisfy the Customer's needs.</p>	E		

6.6 Option – VPN solution

The Customer currently uses 2 solutions for access to the internal network in NRK: Microsoft Direct Access and an SSL VPN solution from F5.

The Customer will stop using Direct Access and wants to standardize on one, the SSL VPN solution. Today's F5 solution is a HA system based on Big IP 4000 APM which is old and should be replaced by a new solution.

The Contractor is asked to offer VPN-as-a service:

- The solution must support Windows, Mac and Linux, Android and iOS on mobile phones and tablet.
- The solution must also be able to provide access for external companies that need access for operation and troubleshooting on the Customer`s internal systems.
- The solution must support any access to future cloud-based services.
- The solution must support automatic connection when the user is not on NRK's wired or wireless network at the Customer's premises. It must also support not to connect / disconnect the VPN connection when the device is connected to wired or wireless network at the Customer's premises.

Availability requirements are 24/7/365. In today`s solution connection to the Customer's network takes place in the Customer's data center on Marienlyst and with redundancy in Disaster Recovery site in the Oslo area. The Contractor is asked to propose their solution

regarding localization. The service must be integrated into the Customer's Active Directory for access control, handle minimum 700 concurrent users and be able to handle later extensions.

The solution must support the following policy:

- Users with machine certificate or user certificate issued by internal CA, log in with this and give full access after the device is checked for updated antivirus.
- It can be chosen whether to have a full or split tunnel
- If you do not have a machine certificate, a check is made of the device and requires updated antivirus on Windows and Mac
- User logged in with authentication against Azure AD
- Internal users gain access to http / https internally
- External users can access a defined set of IP addresses on all ports

The Contractor is asked to describe their proposed VPN-as-a service. Alternatively, a solution can also be described where the supplier operates and maintains an on-premise solution owned by NRK. Describe this service and what solutions you can take responsibility for.

Req. number	Requirement text	Req. type (M/E)	Answer (yes/no/partly)	Answer
6.6.1	<p>The Contractor describes their proposed VPN-as-a-service-solution. Alternatively, the Contractor describes a solution owned by the Customer but supported and operated by the Contractor.</p> <p><u>Format requirements:</u> The Contractor describes their proposed VPN-as-a-service-solution. Alternatively, the Contractor describes a solution owned by the Customer but supported and operated by the Contractor. For both solutions corresponding prices are described in appendix 7.</p>	O		

7 TRANSFER OF AN UNDERTAKING TO ANOTHER EMPLOYER

It is a premise to award this contract that personnel currently holding these functions in NRK will be subject to transfer of business into the chosen Contractor.

The table below describes central information regarding the involved personnel:

Service Desk employees	Full-time equivalent	Seniority	Year of birth	Yearly wages
Sectional engineer 1	50 %	1981	1960	NOK 289 145
Sectional engineer 2	100 %	2002	1965	NOK 566 044
Sectional engineer 3	50 %	1987	1960	NOK 285 476

Sectional engineer 4	100 %	1979	1956	NOK 577 678
Sectional engineer 5	50 %	2003	1973	NOK 277 045
Sectional engineer 6	100 %	1999	1971	NOK 559 208
Sectional engineer 7	100 %	2011	1982	NOK 559 950
Sectional engineer 8	100 %	2012	1976	NOK 554 800
Sectional engineer 9	100 %	2012	1986	NOK 541 550
Sectional engineer 10	100 %	2012	1983	NOK 541 550
Section leader	100 %	2005	1975	NOK 728 172

In “*Appendix 1 attachment 4*” you will find individual task descriptions related to the above-mentioned employees.

The Contractors are expected to possess necessary knowledge of the Norwegian rules and regulations applicable to enterprise transfer, Arbeidsmiljøloven § 16 (Working environment Act. § 16). For the purposes of this Act, transfer shall mean transfer of an autonomous unit that retains its identity after the transfer. Attached (only in Norwegian) you will find relevant information regarding:

- Main wage scale (hovedlønnstabell),
- Collective bargaining agreement (tariffavtale) and
- Collective agreement part B (overenskomstavtalen del B)

The Contractor must offer a working environment with Norwegian as the working language, although English may also be used. In order to verify the Contractors compliance of this premise the Customer will need the Contractor to describe how they, in addition to the mentioned rules and regulations, will fulfil the below listed bullet points.

- Describe what type of pension and insurance schemes the Contractor offers. Including if the Contractor offers the AFP scheme.
- Describe possible membership in an employer association.
- Describe any agreement with the Company Health Service.
- Describe the Contractor’s HSE system.
- Describe the Contractor’s strategy and goals for the next 3-5 year.
- Describe in general the Contractor’s practice on competence development.
- Describe if the Contractor have any Employee benefits.
- The Contractor is responsible to clarify any issues regarding a correct handling of the Arbeidsmiljøloven § 16 (Working environment Act. § 16).
- Describe the day to day working language for the transferred personnel.

The Customer will award the best Contractor both with respect to fulfilment of the service requirements in this contract as well as the best possible fulfilment of the bullet points listed above.

8 STANDARD TERMS FOR THIRD-PARTY SERVICES

If you rely on another party’s capacity to provide these services and they will be provided under the standard terms of this third-party – the Contractor must present them with an explanation of the part they play in your solution and if any – the deviations from the above fulfilment they may represent.

9 GUIDANCE

Table 4: Guidance for completion of the appendices

#	Guidance
1.	The Contender shall answer the requirements listed in chapters 2 – 8 in Appendix 2 When applicable the Contractor must give detailed description on how the requirements are fulfilled when they are required or when it is natural to do so.
2.	Any required changes to the Customer technical platform must be explicitly described in Appendix 2 in order to apply.
3.	Requirements related to project implementation are set out in Appendix 4: Project and progress plan for the establishment phase. The Contractor shall answer the requirements and describe his proposal for project implementation based on his best practices in accordance with the requirements of this Appendix.
4.	Requirements related to Service level with standardized compensations are set out in Appendix 5. The Contractor shall answer the requirements and describe his proposal for fulfilling the requested service level based on his best practice in accordance with the requirements of this Appendix.
5.	Requirements regarding organization, manning and interaction are set out in Appendix 6 - Administrative provisions. The Contractor shall describe his proposal for organizing staff, offered competence and interaction based on his best practices in accordance with the requirements of this Appendix.
6.	Requirements for pricing are set and must be answered by the Contractor in Appendix 7: Total price and pricing provisions and in accordance with the requirements of this appendix.
7.	The Contractor shall make any changes or amendments to the SSA-D in Appendix 8 Changes to the general contractual wording, in order to make these applicable, except for cases where the contractual text refers to other documents.
8.	If Standard terms and conditions for third-party deliveries are made applicable, these must be described under the relevant section in Appendix 2, with clear reference to which parts of the delivery they are made applicable. The terms themselves must be included in Appendix 10. It is emphasized that these may only be supplementary, and not contrary to the SSA-D. To the extent that they affect the offered performance, this must be clearly stated in the Contractors' reply to Appendix 2 under the relevant section.

10 ATTACHMENTS

- Attachment 1 - IT-instruks for NRK
- Attachment 2 - Grunnprinsipper for informasjonssikkerhet i NRK
- Attachment 3 - Glossary
- Attachment 4 - Individual task descriptions
- Attachment 5 - Main wage scale (hovedlønnstabell)
- Attachment 6 - Collective bargaining agreement (tariffavtale)
- Attachment 7 - Collective agreement part B (overenskomstavtalen del B)

For your information Appendix 1, 2, 4, 5, 6 and 7 only exists in Norwegian.