



**Invitation to participate in a technical market dialogue
(RFI)
for
Subtitling system for NRK**

NRK MA3002-17E

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1. Introduction

Norwegian Broadcasting Corporation Ltd, subsequently named NRK, invites you to participate in a technical market dialogue. NRK has initiated a procurement process with the intention of replacing or upgrading our current subtitling systems, starting with the part of the system for subtitling newscasts and live broadcasts. Apart from requiring some mandatory functionality, NRK will increase focus on user friendliness, standardization, integration, and modularity.

Our objective with this dialogue is to provide us with an overview of the current landscape in subtitling systems technology that may be suitable to cover our needs today and in the future. In addition, we will dig deeper into the possible scope and trade-offs to be made. It will later also serve as input to our new design and strategy for this area – upgrading our current subtitling systems, and later as a basis for the requirements put into the procurement documents.

2. General

NRK is the public broadcasting corporation in Norway. Its main task is to produce and distribute radio and television programs for the entire Norwegian population. NRK also delivers a comprehensive portfolio of Internet, mobile and Teletext content. At present, NRK has approximately 3,500 employees.

With its nationwide activity and organization, including 12 regional offices, NRK is Norway's largest media company.

NRK TV has a market share of over 40%, distributed over three channels. NRK1 is Norway's largest channel with a daily market share of 32%.

NRK Radio has a market share of over 60% of national listeners. Distribution is on FM, DAB, Internet and apps for handheld devices.

NRK is one of Norway's largest web content providers with services such as nrk.no and yr.no, with an estimated 5 000 000 unique net users per week and 879 000 per day, while reaching over 1 400 000 users with mobile content each week. The number of daily users for mobile and web combined is in excess of 1 000 000.

In total, NRK reaches 88% of the Norwegian population every day.

For more information about the activities, please visit www.nrk.no.

3. Request for information (RFI) overview

NRK intends to replace its existing subtitling infrastructure for newscasts and other live broadcasts in the main site in Oslo. Today's installation has reached EOL.

NRK is currently in the process of replacing its media asset management system (from Tedia), but no decision has yet been made about the type of subtitling solution and level of integration. NRK's policy is – as far as possible – to choose turnkey solutions. At the same time, there is also focus on acquiring solutions that are open, adaptive, and offer a high level of integration potential. It is therefore vital that systems offer APIs as part of their solution. NRK would like to consider both complete systems and partial solutions that integrate well with our existing infrastructure and philosophy.

When we address the “subtitling system” in this document, we are addressing the system for preparing subtitles and delivering them for transmission during live broadcasts. It may be that NRK already owns components to be used in the final setup. We would therefore like to know how your product(s) may interact with existing components.

As a governmental body governed by public law, NRK is under obligation to follow the rules and regulations of public procurement. To obtain a good understanding of the market, NRK will conduct a technical market dialogue before we start the formal procedure of public procurement. This will help us to tune our specifications for the subsequent public procurement process for a system to replace the current subtitling system.

Primarily, NRK wants to open a dialogue with suppliers that have relevant experience related to media services as described in the following chapters, and that would be interested in taking part in the subsequent qualification and procurement process and thus be willing to share their knowledge and experience on this matter.

4. Current Subtitling System

NRK currently provides live subtitling – foreign language subtitling (OPN) as well as subtitling for the deaf and hard-of-hearing (SDH) – for three linear TV channels. Including both live and prepared subtitles, 55 hours of subtitling is broadcast daily. The number of channels may increase in the future.

We believe the best way of describing and understanding for the use and functions of our existing system is to provide some practical usage details. Included are also some few shortcomings to provide you with a few reasons for the areas of particular interest later in this document.

Newscasts and various other live broadcasts are subtitled throughout the day, by three distinct groups of subtitlers:

- *SDH subtitlers* produce same language live subtitling for the deaf and hard-of-hearing, using NRK proprietary software for real-time writing and/or manual cueing, interfacing directly with the Live output TX system.
- *Translators* produce foreign language subtitling, using a Screen Polyscript system with manual cueing; burning the subtitles onto video during broadcast, or pre-recording them onto video, using manual cueing, when needed.
- *Journalists* produce foreign language subtitling when no translator is on duty; either burning the subtitles onto video during editing, or inserting them as lower-third graphics using an *ad hoc* solution implemented in ENPS/Mosart.

While these existing methods provide rapid response and facilities for on-the-fly subtitle editing during broadcast where needed, we are keenly aware of a few shortcomings:

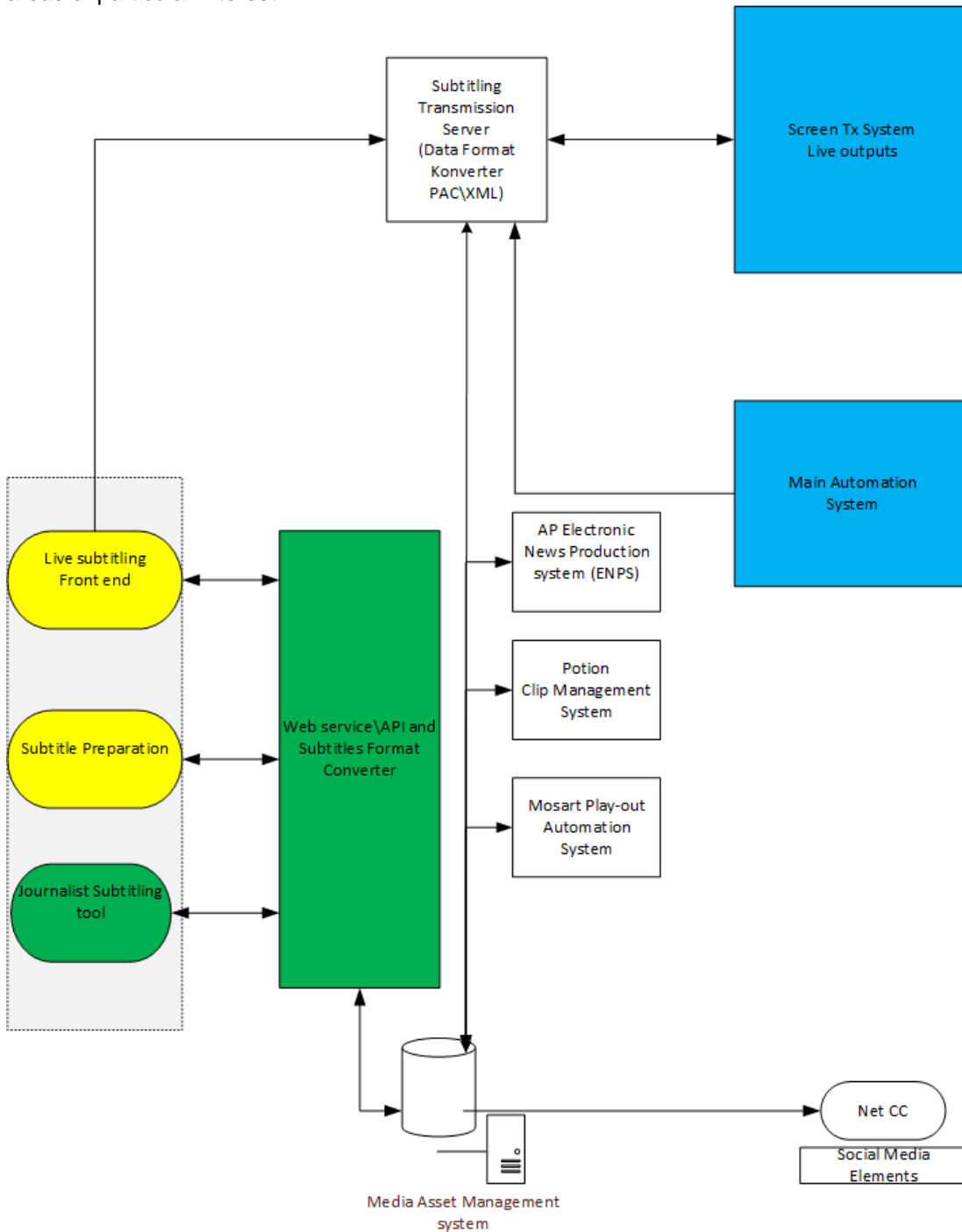
- Offline timecoding of subtitles for prepared segments inside a live broadcast is not possible.
- None of the systems talk to each other, resulting in the occasional on-screen overlap – but more importantly: very limited content reusability.
- None of the systems provide the ability to store subtitles and timecodes centrally, as metadata linked to individual prepared segments. (The current tool which comes closest to fulfilling this particular need, is the *ad hoc* ENPS/Mosart solution used by the journalists; however, it is limited to newscasts only. It is also the least user friendly and accurate, and therefore the most time consuming, tool of the bunch.)

5. System overview

As previously stated, this RFI process is designed to envisage the possible scope and trade-offs to be made in the strategy of upgrading our current subtitling systems and later form our

requirements for the procurement. Therefore, we will not list a lot of requirements for the new system before we have had this dialogue with the market.

However, beneath you will find a simple system-overview, and in chapter 6 a list of questions and areas of particular interest.




 Subtitling system schematic diagram	Green	To be delivered
	Yellow	Possibly to be del.
	Blue	Future projects
	Without	Operational systems

Figure 1 System overview

6. Challenges of particular interest

In the following section, NRK raises some important concerns that may not be difficult to solve isolated by themselves, but when combined and integrated in the NRK system-environment it may prove a bigger challenge. Please use these questions as inspiration to help us envisage the way forward to our new subtitling solution.

6.1 Content production

- Is it possible to have a versatile subtitle editor for craft subtitlers, a lighter web based editor for journalists, and NRK proprietary software for live subtitling (or alternatively a similar live subtitling system), all interacting with the same storage / delivery system?
- Is it possible to combine time coded subtitling with live play-out (manual cueing) of subtitles within the same delivery system? How may this combination be implemented, interfacing with NRK's existing news production and transmission systems (i.e. the white and blue boxes in the "System overview" diagram)?
- Is it possible to capture time code to subtitle files from manual cueing, eliminating the need for manual cueing in reruns?

6.2 Storage and archiving

- How would you envisage a metadata oriented subtitling storage and delivery system (i.e. not based on burning text onto the video)?
- How would your system handle a centralized storage facility for subtitles?
- How would your proposed system handle multi-user editing capabilities (check in/check out or real-time manipulation), while avoiding new data being overwritten?

6.3 Workplace and workflow organization

- Would it be possible to carry out maintenance operations on the system during daytime operations?
- Is it possible to avoid using proprietary/legacy operating systems and hardware?
- Could the new system provide a feature rich and thoroughly documented API?

6.4 Output subsystems

- Given that the Live outputs TX system and the Main Automation system are currently not part of the scope, could that create problems regarding integration of such systems at a later point?

6.5 Commercial challenges

- Price models – What structure and variations can NRK expect?
- Model for commitments with regards to complete system responsibility and related minimum obligations
- Scalability and price consequences
- Support models

6.6 References

- Could you provide reference customers, comparable to NRK, who use solutions that may be interesting for NRK to evaluate and possibly adopt (either fully or in part)?

Highlights

- A new system for subtitle preparation, suitable for both journalists and craft subtitlers.
- A system that integrates well towards the MAM system.
- A system that supports many output formats.

7. Execution of the dialogue and Tender process

As you will find in the tentative time plan, we are relatively close to entering into the procurement process. We will list the highlights here:

1. NRK will arrange a public information meeting with the suppliers registered for participation on the 13th of June. In this meeting, we will present our theories so far, needs and challenges.
2. NRK will also hold individual one-on-one meetings with suppliers who request it, with the opportunity to expand and further clarify both NRK needs and suppliers' suggestions for possible solutions. The suppliers may request such a meeting with NRK on either the 13th or 14th of June. This request must include an explanation as why you are relevant to NRK and related to the issues in Ch. 6 in this document – no later than 30th of May. Since the time and number of such meetings is limited, NRK will use its discretion in choosing suppliers to give us greater and new knowledge in the most efficient manner.
3. The suppliers are also encouraged to send us a document of approximately <10 pages after the meeting(s), summarizing your view of NRK's challenges of particular interest (Cf. Ch. 6), and outlining a preliminary proposal. Please also include potential actions and follow ups from the meetings.
4. Subsequently suppliers are invited to participate in Tender process for a contract on the new subtitling system or parts thereof. Interested suppliers must submit an application to qualify for the Tender procedure. This will focus on choosing suitable vendors with sufficient financial strength to fulfil the contract as well as ability to prove suitable experience.

With the use of this technical market dialogue, NRK will aim to fulfil the basic requirements of equal treatment set out in the laws and regulations governing public procurement, so it prevents that any supplier is given a specific competitive advantage by:

- Biasing the requirements used in the tender documents to its advantage
- Influencing the structure of the tender documents to its advantage
- Achieve greater insight about the actual conditions
- Achieve a greater understanding of customer requirements than competitors

In summary, NRK seek to avoid giving information or use the information received in a way that provides some with a competitive advantage. To counteract such imbalance, we will try to provide the same information to all suppliers.

Suppliers who are prevented from participating in this market dialogue could therefore expect to receive necessary information in the following competition and procurement procedure.

7.1 Schedule

The procurement process is scheduled to be completed after the tentative and overall milestone schedule as given in the table below.

Activity	Date
Announcement of Prior notice	18 rd May 2017
Public information meeting with the registered suppliers	13 th June 2017 10:00 AM CET
Possible bi-lateral meeting with selected relevant potential suppliers	13 th and 14 th June 2017
Deliver written preliminary proposal/answer	30 th June 2017 10:00 AM CET
Scheduled announcement of Tender notice	Q3 2017
Preferred system-implementation	Q1 2018

Explicit time schedules for the procurement process will be announced in the qualification-/Tender documents. NRK will seek to inform all participants of this process when we start the next phase.

8. Administrative provisions

Below you will find the administrative provisions for the suppliers.

8.1 Announcement

This prior announcement has been published 18 May 2017 at www.mercell.no (new reference NRK-MA3002-17E) and at www.doffin.no as well as at TED (www.ted.publications.eu.int/official)

The announcement of the Procurement process will be conducted separately after the completion of technical marketing dialogue. The announcement is intended to be made in late Q3 2017.

8.2 Areas of Communication concerning the procurement

This procurement process is managed via the Merccell. In this portal, the suppliers will be able to show their interest in attending the information meeting and later submit the qualification and tender documents, as well as conduct other correspondence concerning this acquisition.

Any questions regarding this completion and other matters concerning the procurement process should only be addressed through www.mercell.no. Inquiries should be marked "Case number NRK-MA3002-17E".

Other inquiries cannot be expected to be answered. Attempts to acquire information or to influence NRK's employees involved in the procurement process may lead to rejection or that the competition is cancelled.

Incoming questions will be reviewed and answered in a general and anonymous manner, and will be continuously distributed via www.mercell.no, where e-mail notification will be submitted to the contact persons registered.

For questions on the use of Merccell Pro referenced Merccell Support on telephone +47 21 01 88 61 / +47 21 01 88 00 or email: support@mercell.com .

8.3 Your required response to the RFI

Suppliers are asked to confirm whether they intend to attend the information meeting. This is done by sending an email in the Merccell Communication module – listing: name, position / function and company of those who will participate.

Please see chapter 7 for further details and options of your response.

8.4 Cost of participation

At this stage, suppliers participate and prepare presentations at their own expense and risk. NRK thus assumes no financial responsibility for the invested effort or other costs in connection with the preparation of an application for participation or the participation in the competition as such.

8.1 Cancellation of the market dialogue and procurement process

NRK reserves the right to cancel any part of this procurement process if there are objective reasons for this.