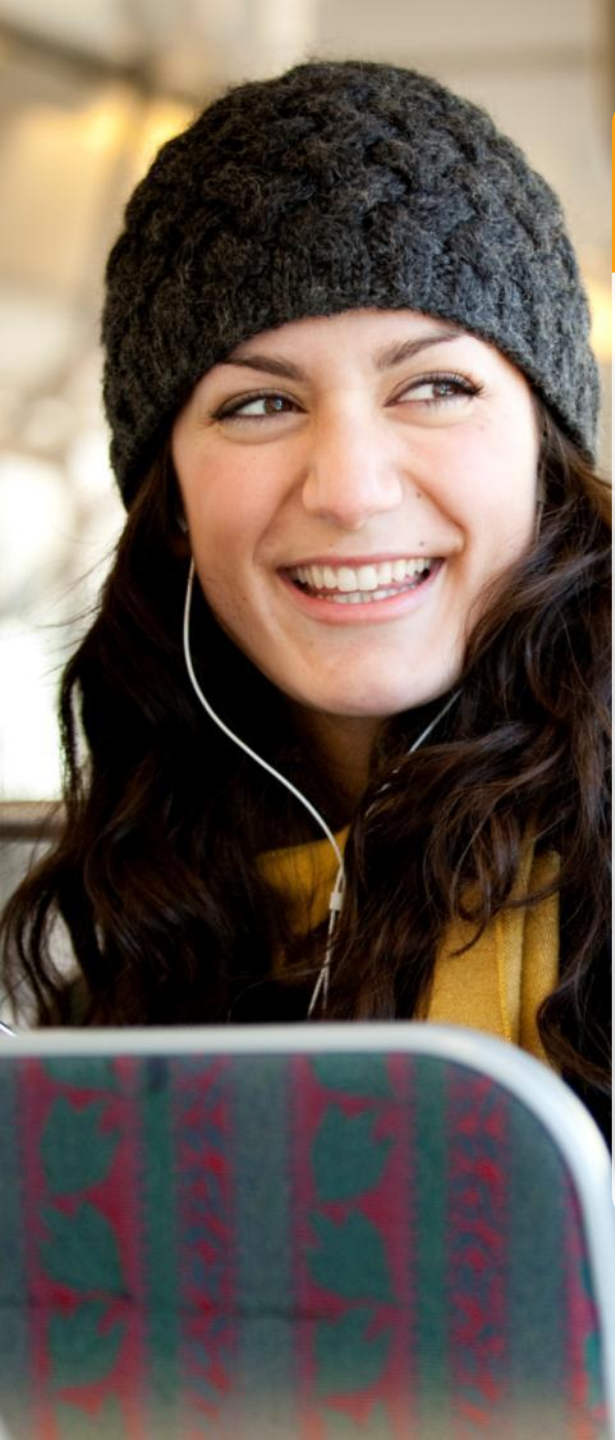# Ruter AS Supplier conference Ticket Vending Machines

Xerox Business Services (Switzerland) AG

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How can Ruter maintain a cost efficient TVM Channel with a small and declining share of the sales?

What are the key design issues to address this challenge?

- Modular design

- High availability (MTBF)

- Easy to operate, maintain and configure

- Well-functioning, stable, reliable TVMs serving all stakeholders in a convenient way

- Easy to understand and easy to use – e.g. no complicated tariff system

- cost effective, well-organized maintenance

- Systems part – efficient management system – easy to make changes, easy to operate

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How can Ruter maintain a cost efficient TVM Channel with a small and declining share of the sales?

What are the key operational and life cycle issues to address this challenge?

- Quality of the TVM and its modules

- Effective Life Cycle Management

- Efficient maintenance system, well organized and well structured

How can such a cost efficient TVM Channel still be flexible and adaptable without driving costs upwards?

- Modular design of the TVM (easy to upgrade, make changes in order to meet requested changes such as technical evolution or changed customer requirements)

- Flexible terminal management system, designed for TVM channel allowing easy changes and upgrades

- It is also important to understand Ruter's and the patron's requirements

- It would be beneficial to know what type of evolution / changes Ruter expects in the future

Ownership and operating models

What possible ownership and operating models should Ruter consider if Ruter decides to move forward with a procurement process (buy, lease, rent, TVM as a service, shared vending services etc)?

- Xerox is experienced in BOT, but project size and decreasing revenue outlook is not really in favor of such approach

- Leasing can be considered in case of low cash

- Due to a certain level of customization, resale of used equipment is not easy

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What functionality helps improving services?

- Procure reliable, high-performance and intuitive equipment. If people try to insert coins in a card reader, something is wrong

- Avoid out-of-paper/media or cashbox-full conditions. Implement state-of-the-art monitoring

- If international tourists matter, offer payment in foreign currencies

- Allow redundancy in the selection process, fast-track and guided

- Implement the HMI in various, well-translated languages

- Follow the Universal Design approach. This takes care of all kind of patrons.

- Offer other products, e.g. public transport + museum entrance, penalty fare or vouchers for prepaid mobile phones

- Make sure that you do not prevent people from buying regular tickets

- Add real-time passenger information. This relaxes the buying act

- Provide time tables, network diagram, tariff and touristic information

What do you consider important that Ruter do and how, in order to make it interesting/possible for you to participate in a tender?

- Use English language in tender and project execution

- Allow a reasonable time for offer preparation and submission

- Base your tender on industry standards, e.g. 15" touch-screen in landscape mode, and keep the non-functional requirements to a minimum

- Base the tender on functional requirements. Examples:
  - Ask for a state-of-the-art operating system, but do not ask for Linux or Windows
  - Describe KPIs for a money handling device , e.g. acceptance rate, processing speed, but do not ask for a specific type of coin or banknote acceptor

What do you consider important that Ruter do and how, in order to make it interesting/possible for you to participate in a tender? (contd)

- Define well balanced evaluation criteria. Price matters, but quality and reliability too

- Demand for high reliability, e.g. xx days MTBF, for a specific configuration, is appreciated

- Allow reasonable time for prototype, pilot phase, iteration/error correction and series delivery. "Banana" projects are risky, expensive and often result in bad reputation

- Base your tender on standardized Ts & Cs
  - Allow a balanced invoicing scheme, to avoid any negative cash flow. Invoices should be payable within 30 days
  - Reasonable penalties for non-performance
  - Define realistic KPIs. No supplier can guarantee a software bug fix within 24h

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