Offering MT as a service from a profit center point of view

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Introduction

Siemens Nixdorf Language Services (called *SprachenDienst)* employs about 60 people to date, has over 2000 customers (the majority internal to the Siemens Group), and translates about 130,000 pages (or approximately 30 million words) a year mainly in the fields of information technology and telecommunications. It is part of the Line of Business "Training and Services" which itself is part of a range of "Business Services" that we offer to our customers. In this context all activities are - by definition - service-oriented and must be economically viable in order to survive. One of the best ways to ensure this is to run all units and services as profit centers.

Departure point

After having tried to introduce MT (in our case SNI's product METAL®) as a decentralized tool with a number of in-house translators we had to recognize and accept the fact that the solution available then did not satisfy the needs of SprachenDienst. The main reasons were:
- handling too complex, too slow and requiring far too much expertise
- hardware and software investment too high to make it available to everybody
- integration into our existing production chain not really possible because of missing interfaces (e.g. to our main text processing software, our terminology database and our accounting system)

In 1992 we took the decision to give the topic a new try by using a completely different approach. If we were to continue with MT we had to make it work for us a business generating asset. This statement - translated into system requirements - meant the following:

- MT must be accessible from every translator workbench in all of SprachenDienst's national and international regions

- MT must be accessible to our customers and service partners

- MT must be provided as a centralized service both to our own network of offices and to customers

- MT must be set up and run as a true business, i.e. with a business plan over several years, expected economical results, etc.

- MT must thus be fully integrated into SprachenDienst's production line and be automated as much as possible in order to minimize the amount of fixed labour costs required to operate and maintain the system

The solution

These requirements led to the design and implementation of SprachenDienst's network service called DTS (Distributed Translation and Terminology Services). The first version was put into operation in March 1993 and has since undergone a series of modifications based on many change requests both from the operating team and customers.

DTS can best be viewed as an integration shell that was put on top of the basic product METAL. It is written in C and runs on the same SUN station as the METAL software. It consists basically of the following four servers/services : Format Server, Translation Service, Terminology Service and Administration Server. These four services are supervised in their mutual interaction by the DTS scheduler.

DTS can currently be accessed from within a corporate LAN/WAN or via modem. It will also be accessible through electronic mail (X400). It offers a range of services including
- machine translation (with or without post-editing)
- document-based technical glossary building
- document-based unknown word search
- automated dictionary update
- document analysis for MT translatability, etc.

All services can be highly customized through default user profiles specifying for example all default network parameters for document import, all default language parameters such as language pair, document format, standard customer and/or general dictionaries, bank account to be charged, etc. Furthermore, the operator can allocate user-specific pattern matching libraries, control access permissions to individual user dictionaries, determine the quality level below which the MT translation is suppressed, etc.

Issues and measures

It is impossible to list here and discuss all Do's and Don'ts that needed to be considered during the design, implementation and finally operation phase of such a project. I will thus concentrate on a few requests and consequently derived measures which I think might be particularly relevant to this panel.

1. *Request:*

   Make it widely accessible in a corporate international network.

   Derived measures:

   Implementation of a client/server solution with the front-end as a terminal-emulated alpha user interface. This has two main advantages: first, you do not get involved in having to distribute client software (plus regular updates) to every customer, secondly, access is possible from every hardware platform that supports one of the implemented terminal emulations. This has an immense positive impact on the costs of connecting new customers as well as regular maintenance.

2. *Request:*

   Make it easy to use.

   Derived measures:

   Interaction with the customer must be limited to the strict minimum. Do not ask him/her to select/enter data he/she will probably not fully understand.
   Provide a default profile functionality.
   Automate the process as much as possible. This led us to define standard operating procedures (SOPs). Fixed parameters apply to all documents submitted by a certain user whereas the basic METAL system offers a

much higher flexibility at this point (translation of pronoun "Sie" as "you" or "they", switching usage of pattern matcher on or off, etc.).
We also make large use of our so-called autocoder which will automatically import and code METAL entries from a file of lexicon entries in TEAM format. Using the METAL Intercoder is therefore limited to checking or updating individual entries. Autocoding clearly means that not all entries are coded error-free, but the time and money savings are substantial. We have found that it is acceptable to live with a certain amount of faulty entries and that they do not justify coding hundreds or thousands of entries manually.

3. *Request*

   Make it a business.

   Derived measures:

   Establish a business plan that will include all costs and expected revenues over a certain amount of years. Be aware of the fact that the development costs are only the first expenses which will be followed by fixed costs for business development, operation and maintenance.
   At the same time it must be clear that the service offered has to be competitive. In our case this means a low price. It thus becomes quickly very clear that MT as a business will only be profitable if the volume processed is fairly high (in our case minimum of 10,000 to 15,000 pages/year), the fixed costs (generally people) are kept as low as possible and the output is reasonably good so that additional services such as MT + postediting can be produced at sufficiently competitive rates.

We have not reached all our goals, yet. But we believe that MT has definitely a future and is here to stay. Just as every successful business automatically generates good reference projects, so must the MT business. I therefore strongly recommend that MT services and MT product sales concentrate on finding suitable startup projects to properly establish the service or the application with the customer. And customers are surely well advised to invest in some initial consultancy to make sure that their expectations can actually be fulfilled based on the input, the process and the financial constrains that they have available.