



EUROPEAN VOICE MAIL SERVICES : TOWARDS A TRANSNATIONAL SERVICE. 1

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1. THE EUROPEAN VOICE MAIL SERVICES.

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In Europe, we first can find some vocal services managed by private companies such as Messenger Service, ITT Commercial Cables and One Voice in G.B., or Télétam and Téléservices in France, or even Voicemail Svenska in Sweden. They are using various systems (VMI, IBM, FERRANTI, VMX) and generally have about some hundreds customers each.

But at the present time a major fact occurs that requires all our attention : The crystallization of the vocal public services run by P.T.T.'s.

Voice mail services proposed by P.T.T.'s and their subsidiaries are in Europe an outstanding set of homogeneous services, due to the common origin of equipments and the frequent meetings of the teams. We are in presence of a rather exceptional situation which should attract the attention of C.E.E. authorities as well as multinational companies, but also firms that have just to choose for services or equipments.

At present time the situation is as follows :

- G.B. : BRITISH TELECOM MOBILE COMMUNICATIONS. Service "VOICEBANK".  
11 centers, being networked, all linked to a national paging system.
- CH. : RADIO-SUISSE. Service "VOICEMAIL". The oldest european voice mail service.  
1 center, linked with various pagings, will be transfered to P.T.T. in 1988.
- D. : DEUTSCHE BUNDESPOST. Service "SPRACHSPEICHERDIENST".  
3 centers from different providers in test for choice and official opening in 88.
- I. : ITALCABLE and SOCIETA ITALIANA PER TELECOMUNICAZIONI. "TELEO"  
2 centers, networked, operational from beginning of 87.
- S. : I.F.F. and VOICEMAIL SVENSKA, with TELEVERKET and COMVIK.  
1 center, opened in June 87, combining messaging with paging and radiomobile.
- E. : TELEFONICA has just decided about its equipments and will open at end 87. a service combining voice messaging, paging and radiomessaging.
- F. : DIRECTION GENERALE DES TELECOMMUNICATIONS and FRANCE CABLE & RADIO reach an agreement for a service of voice messaging and paging opening end 87.

The striking fact is that all this services are based on the same systems, provided by VOICEMAIL Int. California, and its subsidiary VOICEMAIL SYSTEM, Geneva. So, we have an homogeneous group of services "de facto".

Others countries, such as Belgium, the Netherlands, Ireland and Portugal, are working on the same subject and coherence aspect can weight a lot on deciding.

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The "CLUB of BERN", leadered by I.R.S.M., gathers frequently these voice mail service providers for technical and marketing information exchanges and to reach homogeneity for proposed services. VOICELINE, an international network, and transnational services are being implemented : they should also allow links with private operators based in U.S.A., Japan, Korea and Taiwan.

## 2. THE PRESENT NATIONAL SERVICES.

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Present national services are proposed and operated either directly by public or privatisated PTT's (Deutsche Bundespost, British Telecom) or by independant firms accounted to PTT's (Radio-Suisse, Teleo). Services generally proposed are :

- Voice-messaging with multilingual assistance and comfortable functions.
- Links with city, national and european paging systems.
- Direct in-dial for non-subscribers or/and operator interception.

Most of these operating companies moreeven propose tele-information services (Dial-it) and advanced tele-marketing capabilities.

Three types of fares are proposed and sometimes even on the same host :

- Global set price, generally linked with the telephon service billing.
- Monthly subscription, completed with a fee per minute due by the called. Sometimes, national and international tool-free access is offered to suscribers.
- Overcharges on telephon fare, due by the caller ("kiosk fare").

Customers are multifarious, from the frequent-flyer consultant to the large multinational group, and any activity is concerned. As examples we can speak of :

- FORD G.B. for internal communications of its sales team.
- ELECTRICITE DE FRANCE, for security in nuclear plants.
- ACCOR HOTELS, for customers' messages.
- RANK XEROX, CH, for communications between customers and technical support.

We estimate at 15,000 to 20,000 the present subscribers of the whole "CLUB of BERN" services, but some centers are really very recent.

Each center is able to manage more than ten thousand of subscribers but usually the configuration is 32 or 64 lines and 50 to 100 hours of storage. Many services are backed-up and an operator assistance is available 24h. a day.

## 3. THE TRANSNATIONAL MARKET.

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During few years , the "VOICEMAIL" service of RADIO-SUISSE, located at Bern, has been the only one in Europe: we found some resistance from the prospects scared about international calls for communications at two blocks distance in Paris. But really motivated customers quickly forgot this point, convinced by the efficient tool and helped with tool-free access.

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Meanwhile, in a large country, a national service cannot be based on only one host. It would be silly to communicate inside Edinburgh with a transit of all messages through London. Hopefully, there is also a "VOICEBANK" center here.

Problem is the same for a multinational organisation. For example, RANK XEROX Europe, headquartered at London, will use for its headoffice staff a vocal system incorporated into its PABX or the VOICEBANK service. But, having activities all across Europe, it is therefore better if internal communications of a subsidiary remain local. And Swiss sales team will communicate with Helvetic customers through a local service like "VOICEMAIL" in Bern. The local and international simultaneous need of communications implies a perfect compatibility of services and identical procedures of access in both cases, as with normal telephone calls.

Furthermore, vocal services can be linked with local or national paging systems, activated from remote hosts as well as adjacent. It allows to alert a person travelling or living for a while in another country. But there is no comparison with a real European paging system such as VIP-LINE which covers most of our continent and which deserves to be better known.

#### 4. SOME TECHNICAL POINTS.

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- Voice digitization is, in voice messaging, converging into the CCITT G 721 norm (32 Kb, ADPCM) used in most of large hosts. The ISDN codification, CCITT G 711 and G 712 is few used, making a perfect continuous service which would be very satisfactory for the mind. There is certainly a large risk for providers developing products or services to go out of these norms.

- Transport of digitized voice between remote centers is technically easy to solve with classic telematic tools. Exchange of digitized vocal messages at normal or reduced speed, by switched telephone network, packet network or dedicated lines, is in principle possible, but often infringes PTT's monopolistic regulations which considers this traffic as abducted. Worst points are actual pricing, very far from simple analog telephone fares, and poor ergonomics as in many written messages services, with deferred non-delivery advices and address-checks.

- The real market demand is about a transparent connection to the remote host, with the same ergonomics as in a local center, only way to allow the sender to check the existence of receiver and to hear his name as a confirmation. Then, message transport can be immediate or at a low-fare hour (who decides, sender or receiver?). That is now well known from services providers, after many expensive developments.

- "VOICELINE", the recently introduced network product of the "CLUB of BERN" members, supplies this real-time efficient service; public telephone switched network is used for analog transport, an unsatisfactory concept but efficient, cheap and really open-service : Private firms using compatible voice equipments can already access these worldwide voice messaging network service.

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- Compatibility between hosts from different providers has not been yet taken into account by systems providers, characteristic fact of a young market with many little firms. We do not see convergent tendency in the U.S. market, even at middle term. But in Europe, the backbone of PTT's similar services runned on identical systems establishes a standard rule, close to a norm "de facto", which has to be considered with pragmatism and impartial approach.

- Even if highly desirable, CCITT recommendations on voice messaging are far to born, due to slowness of a future "vocal X.400". The approach is strictly technical, the present service providers are not present, systems manufacturers ignore these works and PTT's are not really pushing...

#### 5. THE FUTURE TRANSNATIONAL SERVICE.

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Most of the mentioned public services have implemented the networking capabilities and, with test customers, have already validated technical points and ergonomics, both in a multilingual environment. But some work still remains before a real transnational service is offered, such as :

- Validation of offer and fares through open-market.
- Opening of adjacent services : foreign pagings, international call delivery.
- Agreements for a multinational service, with traffic and revenues share.

This last point is not the easiest, due to the different status of the "CLUB of BERN" companies. And most of their energy is presently absorbed by the improvement of their national service. But these operators have a real determination to abut on such a transnational service, and, hopefully, as in P.T.T.'s world, are used to work together.

In conclusion, we believe Europe is at a unique situation in all its telecommunications' history. In all the numerous countries offering voice mail public services through P.T.T.'s or affiliate companies, we found :

- Simultaneous opening of promised services.
- Homogeneity of offers and fares.
- Perfect identity of host systems.
- Incorporation of network capabilities.
- Clear will for transnational services.

We sincerely think this exceptional situation, is worth to be boosted to achieve a transnational public voice mail service. We hope to see CEPT approached by actual european service providers and we dream about a CEE Direction XIII involvement and an ESPRIT or RACE program about voice messaging.

Few known by multinational firms, they have to consider this boring but strong international network as the backbone of voice mail services, for improvement of their communications. Finally, all large or little companies looking for internal voice systems have to take care of coherence and compatibility with this transnational service, which allows interconnections with private centers.