

## BUILDING THE 'VIRTUAL ORGANIZATION' AT GERLING

Claudia LOEBBECKE

University of Cologne, Germany  
Bern University, Switzerland  
Wilh.-Backhaus-Str. 23  
50931 Koeln, Germany  
claudia.loebbecke@uni-koeln.de

Tawfik JELASSI

THESEUS/INSEAD  
Technology Management  
Boulevard de Constance  
77305 Fontainebleau, France  
jelassi@insead.fr

### ABSTRACT

As one of the largest insurance and reinsurance companies in the world, the German Gerling Group has traditionally been an innovator regarding the strategic use of state-of-the-art information and communication technologies to foster customer services and profit. This case study illustrates Gerling's efforts to move the insurance Gerling towards a 'virtual organization' and prepare it for the twenty-first century. It presents 'Logical Call Centres' as the organizational backbone and technical enabler for the 'virtual organization' concept. Implementation issues as well as organizational benefits and changes are discussed. The paper concludes with future opportunities and challenges of integrating innovative technologies into Gerling's business and management processes.

"Information is the actual raw product of the services that we provide in the insurance sector. It is the main element of our value chain."

Dr. Dirk Nouvortne  
Head of the Organization Department  
Gerling Group

### 1. THE INDUSTRY

In today's world of mounting risks, the maxim 'make safe and then insure' has become more important. Insurance companies increasingly try to safeguard their customers against losses which today also invariably tarnish a company's image. Moreover, the responsibility of the individual continues to grow, as does the risk of damage due to misjudgement or erroneous estimation of a situation. Those who are responsible for a supertanker or wide-bodied aircraft, who sit in the control centre of a production plant or supervise quality in a laboratory, are aware of the enormous risks whose consequences increasingly defy reliable estimation. Thus, for an increasing number of insurance companies, the combination of risk prevention, risk reduction and risk insurance forms a policy geared to providing optimum security for the customer.

Over the last three years, growth rates in international insurance markets surpassed the results generally produced by flagging economic developments world-wide. This apparent divergence from the economic mainstream was also mirrored in the German insurance market, where premium revenue rose by approximately 9% (in 1993). The recessive economic trend depressed

premium growth for insurers by reducing premium income from payroll and revenue-related business with industrial customers. Also, real declines in private household income curbed demand from private customers.

However, substantial increases in industrial and motor insurance had an opposite effect. In both fire and marine insurance, premium rates showed a further rise, continuing the trend of the early nineties. The high losses sustained by insurers, partly as a result of the progressive erosion of premium rates from the mid-seventies onwards, have appreciably reduced direct insurance and reinsurance capacities and thus helped pave the way for sustained, urgently needed corrective action on prices.

Moreover, the upswing in German and foreign trade as well as the rising demand for credit insurance has had a positive effect on new business, as underlined by the high premium gains made in the first half of 1995 totalling more than 20%. The high level of insolvencies especially in Germany has led to considerable losses. Although the number of export credit insurance claims decreased, the number of German insurance claims has increased. However, the overall loss ratio has slightly improved.

Apart from the above business developments, in the last few years, information and communication technologies (IT) have become over the last few years a critical factor for success in the insurance sector, especially in the marketing and sales functions. In administration and general management, the role of IT is also changing although these technologies are still used mainly as a support tool for rationalization.

The telephone which has traditionally been a medium of news transmission is becoming a major sales instrument. In the insurance sector, product features, sales handling, as well as settlement will be increasingly communicated and managed via the telephone.

Furthermore, the insurance sector has leveraged some technological innovations, mainly through the use of advanced telecommunication applications. A specific example here is the development of 'corporate networks' (see below) as a major catalyst for implementing the 'virtual organization' concept.

## 2. THE COMPANY

### 2.1 Overview

Gerling is a multinational insurance, reinsurance and risk management group. It was created in 1904 in Cologne, Germany, by Robert Gerling at the age of 26. The capital was then 1,000 Reichsmarks<sup>1</sup> (RM); by 1911 it had risen to RM 500,000. After Robert Gerling's death in 1935, his 20-year old son, Hans, took over the management of the company. In 1938, Gerling became the second largest insurance company in Germany with RM 130 million of consolidated premium income. This figure rose to 180 million Deutschmark (DM) in 1953, to DM 2.2 billion in 1973, and to DM 13.9 billion in 1994, up by 7.7% compared to the 1993 figure.

While primary insurance income accounted for DM 7.1 billion, up by 9.2%; reinsurance was DM 6.8 billion, an increase of 6.2%.<sup>2</sup> In 1992, in order to foster its private customer business, Gerling formed a partnership with Deutsche Bank, the largest bank in Germany, which now owns a 30% stake in the main Gerling parent company. In 1994, the Gerling Group employed 9,170 people; 8,050 of them in Germany.

<sup>1</sup> Reichsmark (RM) was the currency in Germany until the currency reform of 1948 when it was replaced by the Deutschmark (DM).

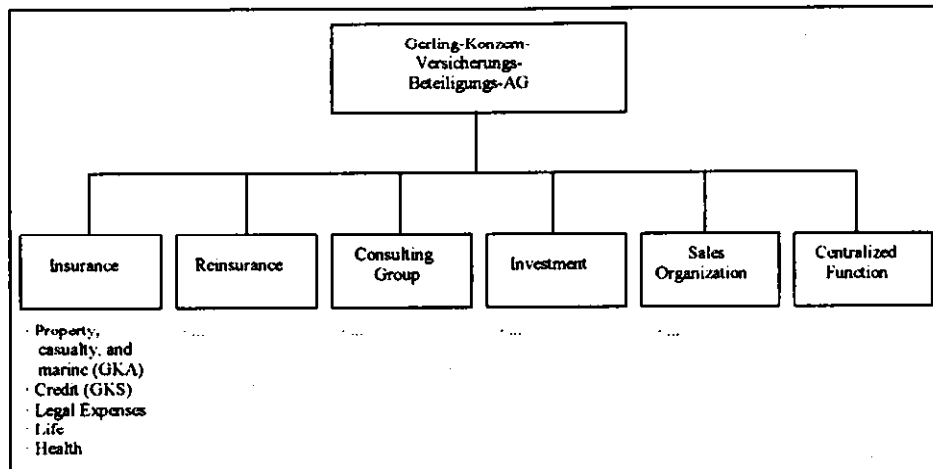
<sup>2</sup> Today Gerling is the 8th largest reinsurer in the world.

<sup>3</sup> Gerling's private insurance business accounted for just 15% of turnover.

## 2.2 Organizational Structure

Since its foundation, Gerling has been an independent, family-owned business. It is controlled by a holding<sup>4</sup> which determines the guidelines of business policy and coordinates the activities of the Gerling companies (see Figure 1 for an overview of the Group's organizational structure). 'Gerling Group General Insurance' (GKA) was created in 1918; it is also based in Cologne and its business covers Germany. It is perceived as the 'flagship' of the Gerling Group standing for outstanding quality and achievement as well as highly motivated personnel and loyal customers. Commercial enterprises, GKA's main customer group, typically have very high, diverse and changeable insurance requirements. Gerling's credit insurance company claims<sup>6</sup> 45% of the private sector credit insurance business in Germany. It is market leader at home and in Switzerland and has representations in Spain and Italy. Gerling's organizational structure consists of four hierarchical levels: (1) corporate headquarters based in Cologne; (2) 12 regional centres located throughout Germany; (3) 2 to 15 local branches per regional centre (giving to a total of 180 branches) each employing 10 to 20 staff members; and (4) mobile field-service staff. Across the different levels of the organizational structure, Gerling communicates mainly within 'vertical communication clusters' (see Figure 2), for example, the headquarters communicate with a regional centre, which in turn communicates with its branches. There is no horizontal communication.

Fig. 1 Organizational structure of the Gerling Group



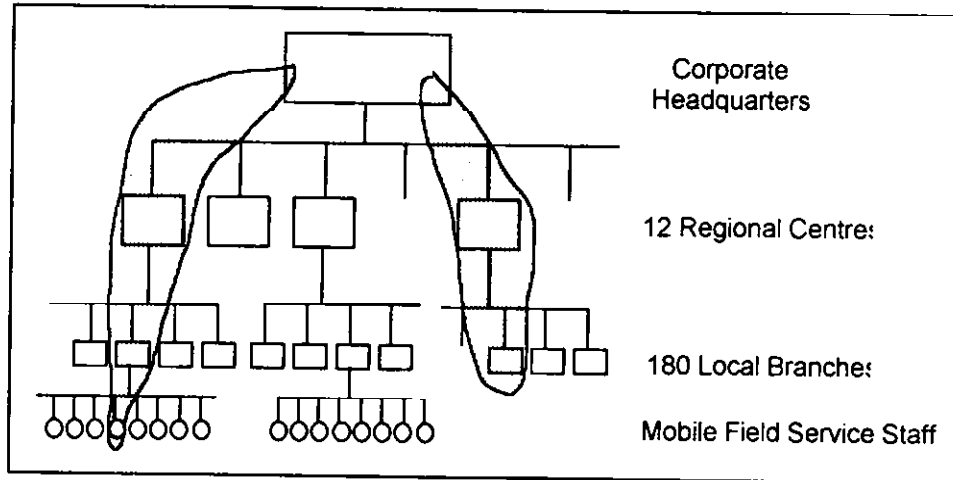
Source: Gerling Group

<sup>4</sup> Gerling-Konzern Versicherungs-Beteiligungs-AG (GKB).

<sup>5</sup> Gerling Konzern Allgemeine Versicherungs-AG.

<sup>6</sup> Gerling Speziale Kreditversicherungs-AG (GSK).

Fig. 2 Gerling's Communication Clusters



### 2.3 Business Strategy

Gerling has been conducting business internationally since 1954, and as part of its business portfolio enhancement, it is now expanding its foreign activities. The company's aim is to offer industrial clients a comprehensive and flexible service, providing intensive risk analysis, innovative product design, and effective claims handling. Three years ago, Gerling tried to be a major force in the Germanic countries. Today, it aims at becoming a leading industrial insurer in Europe and be active in the Asian market. [7] Gerling's global services is fostered through the recent acquisition of a majority stake in a Polish insurer as well as by the newly started businesses in Greece, Slovakia and Australia, and the further expansion in Mexico. Moreover, by taking control in 1994 of Belgium's Namur Assurances du Credit, Gerling has created what the "most multinational credit insurance company in Europe".

In 1995, GKA's strategy emphasizes further improving the corporate portfolio (especially abroad), intensifying customer services, and updating information technology. On the business level, Gerling's aim is to offer professional risk protection for business and personal needs. Its customers represent different economic sectors such as industry, commerce, trade and services, as well as associations, self-employed people, and private individuals. Gerling's products cover three interdependent security phases: (1) comprehensive analysis to reveal risk structures; (2) tailor-made risk management programs to minimize risk; and (3) updating of protective measures and professional claims support to continuously serve the client.

Moreover, Gerling is involved in all major property and casualty insurance classes such as property, liability, engineering, marine, aviation, accident, motor and personal insurance lines. Innovative products include legal protection for top managers, industrial prosecution protection, and other policies. Although the company enjoys a leading market position in most of the above insurance classes, increasing competition has pushed it to stress the service element. Underwriting

7 According to International Trade Finance. 1 July 1994. One of the selling points of the combined group is the ability to offer transnational companies (with subsidiaries across Europe) a single insurance package, delivered through accessible local offshoots in each country. The new group has about 1 million customers.

expertise, consulting, and risk analysis constitute an integrated service that Gerling offers to its industrial customers. For Gerling, this integrated service is fundamental to achieve profits in the long run. Professional claims handling is also important although its quality can only be recognized, for example, in the case of mass litigation.

### 3. LEVERAGING INFORMATION AND TELECOMMUNICATION TECHNOLOGIES

#### 3.1 Sales-related Customer Information and Contract Management

Information technology has been used in the insurance industry and also at Gerling to support sales activities. An essential component of the IT infrastructure is the customer information and contract management software. With the increasing decentralization among insurance companies, this software supports sales processes especially in customer service departments and in sales offices. The hardware (in the form of portable PCs) is used by the sales force mainly for customer-information services; however, it increasingly supports contract management as well.

Furthermore, telecommunications technology has impacted the delivery system of insurance products as it did in the banking industry. Automatic teller machines have been installed in premium customer locations such as airports, lobbies, and train stations to sell standardized, self-explanatory products like automobile insurance, luggage, or additional health coverage.

“Focusing on the customer while simultaneously considering costs, makes [the adoption of] alternative sales channels necessary. Sales channels become more diverse. Sales via automatic teller machines or via the emerging possibilities of digital TV for basic types of insurance products with little explanatory need, sales over the bank counter or through commercial establishments and credit card companies make it evident that it's not just the sales person who sells insurance policies.”

Dr. Dirk Nouvortne

#### 3.2 Electronic Data Interchange (EDI)

Electronic data interchange (EDI) is expected to significantly increase productivity. It is used for electronic communication between insurance holders and brokers, key account customers, other insurances, banks, government offices and the German Federal Insurance Office<sup>8</sup>. Examples of standardized industry information are insurance applications, contract information, damage claims, premium invoices and clearance systems with banks<sup>9</sup>.

### 4. THE IDEA OF A CORPORATE NETWORK

The initial motivation for setting up a corporate network was to reduce telephone costs. A phone call within the geographically-spread Gerling group becomes just an 'in-house' call<sup>10</sup>. The 'least cost routing' system leads to additional savings by allowing calls to an external party to be done through the telecommunication exchange which is closest to it. For example, the distance between Hamburg and Munich is bridged via the corporate network up to the destination node, hence reducing the telecommunications operator costs. The external party will then be connected by a local call 'placed' in Munich.

<sup>8</sup> Bundesamt für Versicherungswesen.

<sup>9</sup> Also interesting in this context are clear house applications. A common application in reinsurance is RINET. Currently the effort is made to have RINET accepted as EDI standard by the European Union. Similarly, the industry is about to standardize message types in the insurance business which should also get accepted as EDI standard by the EU.

<sup>10</sup> At the moment this only applies to Germany.

A further objective of a corporate network is to increase productivity through a company-wide central exchange that serves all branch offices without the need of switchboard operators in the decentralized units. Moreover, economies of scale and cost advantages for all branch offices can be achieved through the use of net capacity and centralized, appropriately dimensioned servers.

According to Gerling, so far the real benefits of corporate networks have only been achieved by few companies in the insurance industry. However, the Group perceives corporate networks as the pillar of a truly customer-oriented organizational structure. These networks allow to drastically shrink both time and distance.

## 5. GERLING 2000: TOWARDS A 'VIRTUAL ORGANIZATION'

"The true value of corporate networks for insurance companies lies in the 'virtual organization' concept. That includes options like the implementation of logical call centres or just one 'Gerling phone number' nation-wide which is not subject to geographical restrictions anymore."

Dr. Dirk Nouvortne

### 5.1 The Concept

The 'virtual organization' concept aims at creating a customer/service-oriented company. Communication takes place along logical dimensions (such as 'health insurance', 'water damage', or 'machinery breakdown') as opposed to following regional, branch-based structures. Hence, it enables a better flow of information among employees and between the company and its customers.

Moreover, the 'virtual organization' concept, which overcomes geographical constraints, alleviates the traditional dichotomy between centralized and decentralized organizational structures and processes<sup>11</sup>.

Dr. Nouvortne said: "It is a fundamental paradigm shift. The previous profit centres were too expensive due to internal competition, its resulting redundancies, and the lack of synergy".

An employee phone number should not any more be thought of as company-wide. This means that one does not, like today, call a terminal but instead a specific person, independent of his/her actual location. Phone numbers become function-oriented instead of person-oriented. Consequently, one should no longer think of a 'central office' in physical terms but should rather perceive it as a logical unit.

### 5.2 A 'Logical Call Centre' as the Organizational and Technical Backbone

"We consider telecommunications as a critical success factor for the creation of a totally new sales strategy. This becomes evident with the increasing implementation of call centres which constitute the backbone of our corporate network."

Reiner Pliefke  
Telecommunications Manager, Gerling

Using the features of modern call centres<sup>12</sup>, customer service can be structured in such a way that, in case of damage claims, an insurance agent is always ready to attend the customer. The core of the system consists of the automatic number identification and the auto-

<sup>11</sup> Increased decentralization in the virtual organization is not to be confounded with autarky. To convey company-wide strategies a constant and tight co-ordination is necessary.

<sup>12</sup> The main functions of a call centre are (1) automatic number identification, (2) automatic call distribution (ACD), and (3) voice processing and servicing a toll free phone number with the option of dialed number identification.

matic call distribution system (ACD). It helps determine whether the incoming call is the result of a life- or property-insurance promotion or whether it is to claim a loss. Furthermore, following the receipt of a phone call, it is possible to display related contract information on the service agent terminal<sup>13</sup>. Incoming calls are evenly dispatched by an automatic call distribution system among a group of service personnel. A system controller can monitor on the screen the capacity usage and the wait line. This feature allows him/her during peak times to increase staff by 'bringing in' nonservice personnel or service personnel from other areas (e.g. life and property insurance). The incoming calls will then be automatically re-routed to them without redialing.

### 5.3 Organizational Benefits

"The implementations of our call centre applications clearly show how technology causes significant organizational and structural changes."

Dr. Dirk Nouvortne

Benefits of Gerling's virtual organization concept include service availability and quality, and a strong synergy among the company employees<sup>14</sup>. For example, setting up a centralized claim department (e.g., at the corporate headquarters in Cologne) would allow customers to contact the company, using a single phone number, 24-hours a day, seven days a week. Before installing company-wide call-centers, the provision of a 24-hour service used to be expensive, as is maintaining regional structures with their own call service centres. Within the scope of corporate networks and the possibility to implement 'logical call centres' at all branch offices, there is no further need for a special phone service in every single decentralized unit.

Another example are natural disasters (like icy rain or hail) which typically hit a limited geographical area. In order to cope with the large number of incoming customer calls resulting from such disasters, the corresponding service centre receiving the calls can re-direct them so they get evenly distributed among all call centres. The customer does not realize that the Stuttgart call centre is handling his call although he called the Berlin centre.

Synergy enhancement made possible by the virtual organization also includes access to and use of remote, scarce expertise in solving specific customer problems. Using an effective network infrastructure, experts can quickly be consulted from other 'geographical' areas in order to resolve a customer problem. For example, a customer calls in to report a car accident and the data about the resulting damages is collected locally. In case that Gerling unit does not have a local expert for that problem, the incident is forwarded to another regional centre where the necessary expertise resides.

A 'logical' central office registers every customer complaint. Based on the frequency of similar complaints, it can get a clear picture of the company's image in the market and its perceived service quality. Moreover, through call centres service agents are no longer unnecessarily interrupted by phone calls; they are instead supported by the central customer telephone service. Answers to customer queries like "This is not my sales territory" or "I am not responsible for this; you will have to call again later" can be eliminated in the virtual organization structure.

<sup>13</sup> With ISDN, the caller can enter additional input (beyond his phone number) via the phone keyboard. Furthermore, there are already systems based on voice recognition. Through verbal input of numbers or letters standard inquiries are possible via voice digitalization without human intervention.

<sup>14</sup> The logical organizational structure also results in a change of the company's recruitment policy since local overcapacities can be eliminated.

"It doesn't help much to debate whether we should get closer to the customer without considering major structural changes in the insurance business. Technology alone rather leads to the 'electrification' of the existing structure!"

Dr. Dirk Nouvortne

## 6. IMPLEMENTATION OF THE CORPORATE NETWORK

"New technologies require large investments. Since individual companies hardly can afford these investments, they either opt for alliances or foster outsourcing which is likely to become the leading strategy in the insurance sector."

Reiner Pliefke

Gerling's corporate network was developed in-house, but the company is now moving towards outsourcing. Reiner Pliefke explained: "Only a few applications were developed and are now operated and maintained within Gerling. The bulk of our corporate network will soon be outsourced." This move was motivated by the large hardware investments and the binding of human resources required for developing in-house corporate network applications.

### 6.1 First Thoughts

Gerling first thought implementing the corporate network via a nation-wide PABX network<sup>15</sup>. This would have only worked if all PABX systems had been from the same supplier. As Gerling relies on PABXs provided by different suppliers and using different communication protocols, the above option did not seem feasible. The approach based on a single supplier would have not only meant total dependence concerning pricing policy and development cycles, but would have also been an obstacle to connect third parties. For an international company like Gerling, the creation of a heterogeneous structure is vital.

### 6.2 Installing a Virtual Private Network

To overcome these problems, Gerling selected the virtual private network (VPN) solution offered by Deutsche Telekom. A VPN is considered the 'most outsourced' form of a corporate network that can even operate on a public network. Its benefits include the following:

- (1) No hardware investment required: The VPN offers the advantage of having a private communications network without incurring the associated costs of leased lines<sup>16</sup>, dedicated hardware and expert telecommunications personnel.
- (2) Increased flexibility to choose the most suitable network and/or network operator (So far, there are not many alternatives for choosing a corporate network operator. In Germany, Deutsche Telekom has the only license for many network functionalities. However, several operators offer call center management services.);
- (3) Extensive discounts on communication charges: by getting from Deutsche Telekom a 28% discount on its communication charges, Gerling was able to save approximately DM 1.5 million per annum<sup>17</sup>.

<sup>15</sup> PABX stands for Private Access Branch Exchange.

<sup>16</sup> The logical organizational structure also results in a change of the company's recruitment policy since local overcapacities can be eliminated.

<sup>17</sup> Gerling annually incurs DM 10 million of communication charges, 50% of which correspond to internal communications. With the 28% discount on internal communication charges (i.e. on DM 5 million), Gerling was able to save annually approximately DM 1.5 million.



The VPN is an integrated, software-based network, hence the term 'Intelligent Network'<sup>18</sup> applies. It is designed for international voice and data communication, fax transmission as well as automatic video conferences<sup>19</sup>, and is adapted to customer requirements. Supervision and control are solely carried out by Gerling; the operational service is provided by the network operator<sup>20</sup>, in Gerling's case Deutsche Telekom.

Furthermore, the VPN offers Gerling the possibility of having a dynamic bandwidth allocation between branch offices in order to cope with changing capacity requirements. It allows usage-based charging which is more economic than a fixed price (for a 2 megabytes) connection that is only rarely used to its full extent.

### 6.3 Network Management and Accounting

Network management is of crucial importance in a corporate network. The authorization or extension of users' access must be regulated. It is necessary to integrate local network management functions like performance management<sup>21</sup>, fault management<sup>22</sup> and network design<sup>23</sup> into the corporate network. All modules access a common database which contains the complete data concerning users, fees and the system. The structure of a central and usage-dependent invoicing system is complex. In a corporate network all connected users can incur costs at any node. The problem of charging the corresponding user with 'his/her' costs is not trivial since a user in Hamburg may be routed through the network to call an external party in Munich at the cost of a local call (least cost routing)<sup>24</sup>.

## 7. ORGANIZATIONAL CHANGES

The corporate network and its associated business applications have been smoothly rolled out at Gerling. However, implementing the organizational changes needed to establish the 'virtual organization' has been a rather slow process. For example, the sales structure and incentive system are still regionally based. This raises the issue of how they can best be restructured to operate as logical centres within the 'virtual organization'.

Dr. Nouvortne explained: "We know how to do the hard side of things but still need to learn how to go about the soft matters. To reap the full benefits from new technologies, we've got to be prepared and willing to reorganize the structures. We need to work harder on changing the mindset of our employees. It is primarily a people issue and that's why the process is political and slow."

18 The 'Intelligent Network' (IN) concept refers to a logical network based on the separation of physical connections and service-specific intelligence. It offers the following functionalities: a flexible charging instrument, traffic relay depending on location and time, customer-adjusted parameters, detailed statistical programs on traffic and user data, individual and flexible numbering by the receiver, caller identification by the client and automatic call distribution to various destinations as well as adjustable peak limits, and call redirection when busy.

19 The VPN is based on the Euro-ISDN which only supports narrow-band communication.

20 The operator of a public network offers the VPN customer a net which is equivalent to private ones in respect to privacy, security, network management and invoicing.

21 All necessary statistical data are to be administered and modified under this function in order to guarantee an optimal throughput in the corporate network. Among the most important statistics are traffic measurement, fault statistics, response time, line usage, and alarm statistics.

22 This functional block is related to error recognition. All errors of connected active and passive components are relayed. Network-management administration follows-up and eliminates errors as long as they are not hardware defects.

23 Network design covers optimizing the entire network during daily operation. Dynamic routing and dynamic bandwidth management are the main components of this function.

24 A possible approach is the recording of the duration / volume of the conversation data strings at the individual PABX nodes and their transmission to a central accounting system each night.

## 8. FUTURE CHALLENGES

### 8.1 The 'Virtual Employee' Concept

"Our vision [at Gerling] is to implement the concept of the 'virtual employee'."

Dr. Dirk Nouvortne

Gerling aims at implementing in the next years the concept of the 'virtual employee' throughout the Group. This concept would allow every Gerling staff member to identify him/herself at any phone within the company by inserting his 'personal phone card'. Hence, he could receive all calls directed to him and make phone calls 'on his card'. The latter functionality is required for caller identification, billing, and security protocols.

This advanced concept also supports working from home (or tele-work). Employees could easily contact their colleagues and be contacted at home as well as through the entire corporate network. Such a feature is especially attractive for women who increasingly prefer to work either on a part-time basis and/or from home. Reiner Pliefke added: "We are creating a working environment that will in part be desk-less and office-less, and that will have ecological side-benefits".

### 8.2 Image-based Documents Anytime and Anywhere

Gerling's current corporate network is only voice-based. Corporate networks capable of handling both data and voice will be introduced in 1997, once Deutsche Telekom will have integrated ATM<sup>25</sup> and ISDN. Dr. Nouvortne explained: "To be able to offer full-scale business applications via our corporate network, ISDN is not sufficient. We need to have ATM throughout Germany". An example of these business applications is remote image processing which requires high transmission bandwidth. It would allow Gerling to share documents, such as electronic files with 30 year-old correspondence (a quite normal feature for life insurance), between corporate headquarters, regional centres, branches and field employees on a real-time basis throughout Germany. An ATM-based corporate network would also allow for remote access of image databases related to technical, transportation or art insurance categories.

### 8.3 Digital TV

An important future challenge arises from the opportunities that digital TV will offer. TV network operators control an interface present in most households and enabling the direct transmission of data, speech and images to the consumer. The shift of the point of sale (POS) into the living room of the (potential) customer, will open new sales channels. Digital TV will be used for newspapers and magazines, but also to offer sector-specific applications (e.g., in insurance) and for special interest groups (e.g., dentists).

Today it is already possible to use videotext applications for commercial purposes; however, the sole function of a 'bulletin board' is out-dated. The telephone as a reverse communication medium is a first step towards the creation of a dialog between customers and their insurance company.

"Reverse communication will be much more interesting with digital TV [using, for example, a 'set top' box]. Connected to call centres, digital TV will create new possibilities that will be limited more by their development sectors than by their technical feasibility."

Dr. Dirk Nouvortne

---

<sup>25</sup> ATM stands for "Asynchronous Transfer Mode" and refers to fast broadband transmissions.

#### 8.4 Integrating Mobile Field Service into the Corporate Network

Mobile communication technology will drastically influence the insurance sector; it will be more through data applications using portable PCs than the mere transmission of speech. The almost permanent availability of sales personnel will then increase service quality and reduce the handling time of insurance applications. Gerling's corporate network is not yet used for mobile field service, according to Dr. Nouvortne, "due to the phone numbering scheme<sup>26</sup> and also to the difficulty of running the corporate network on mobile networks such as GSM<sup>27</sup>". The universal personal telecom (UPT) system will overcome the above problem. Each employee will then have just one 'communication number', regardless of where he/she is or which telecommunication infrastructure he uses<sup>28</sup>. This system should be operational in 2-3 years as part of any advanced Intelligent Network. Reiner Pliefke explained: "Within the Gerling Group, we need to have one contact phone number per staff member, regardless whether he/she uses a fixed or mobile [communication] system".

#### 8.5 Extending Gerling's Corporate Network Internationally

Gerling's corporate network does not yet operate internationally. Dr. Nouvortne said: "This is due to the lack of licenses for operating corporate networks internationally<sup>29</sup>. Plus, our approach is to first gain experience at a national level".

#### 8.6 From Passive to Active Call Management

Finally, Gerling's management believes that the move from passive to active call centres will further improve the company's sales. For example, selected customers will be automatically called (initialized by the 'active call centre') when new products that suit their specific needs become available. 'Active after-sale service' will result in automatically calling a client a number of weeks after he signed a new insurance contract.

### 9. OUTLOOK

For Gerling, the 'virtual organization' concept will reinvent the way of doing business. The company perceives it as a 'revolution' that has already brought important improvements, mostly in customer related areas.

The corporate network makes knowledge and information readily available and integrates them into the company's structure. The call centres, a critical element of Gerling's corporate network and virtual organization, allow employees to focus on customer needs and expectations, the key source of a sustainable competitive advantage.

"The centre of our attention is the value that is delivered to the customer. The possibilities offered by corporate networks are vast and the accompanying changes in company structure and traditions significant. The limitations of the 'virtual organization' concept are only set by the boundaries of [our] imagination."

Dr. Dirk Nouvortne

---

26 Gerling developed a special numbering scheme based on the company's vertical communication cluster (see Figure 2). This scheme overcomes the technical constraint imposed by the VPN; that is a phone number cannot exceed 12 digits. Due to this limit, the current numbering scheme, limited to 12 digits, cannot individually identify the large number of mobile staff and their required network nodes.

27 GSM stands for 'Global System of Mobile Communication'. It is a standard for digital, cellular mobile communication that was developed in Europe and is now used in more than 90 countries world-wide.

28 The idea has already been implemented in the GSM standard: wherever a person travels with his mobile phone, he can always be reached under the same number.

29 Up to now, no telecom operator has a license to run the same corporate network inside Germany as well as out of the country.

## 10. LESSONS LEARNED

The Gerling case study presents some concepts and raises several issues related to business strategy, organization theory, service management, and information technology/systems. The following lessons can be learned :

- (1) Recent technological advances in IT and telecommunications (such as 'Computer-Telephone Integration' and 'Intelligent Networks') enable the development of innovative business applications that allow significant costs reduction, enhanced internal coordination, and improved customer service.
- (2) In information-intensive business sectors (such as financial services in general and insurance in this case), IT is a major catalyst for implementing a customer-oriented differentiation strategy. More 'intelligence' is embedded in the computer and telecommunications infrastructure resulting in a greater business flexibility and a stronger market potential.
- (3) As already documented in the literature, top management awareness of and commitment to technological innovation is a necessary ingredient for successfully implementing IT-based solutions that cut across business units/processes and ultimately alter the organizational structure. Managing the resulting IT-induced change remains the key challenge for top executives.
- (4) Helping employees to adjust their mindset and way of working to the new, IT-transformed organization is a central element in the above challenge. More specifically, the impact of accessing information anytime and anywhere (through high-speed publicly accessible and corporate networks) needs to be thought through, understood, and accepted.
- (5) Building the 'virtual organization' goes beyond the traditional debate of centralization versus decentralization of business activities and management processes. It is first and foremost a people issue that requires revisiting some organizational assumptions such as communication, collaboration, coordination and control.

It is the authors' belief that the above issues make the Gerling case relevant for many companies, especially those operating in the service sector. The pioneering experience undertaken at the Gerling Group represents a compelling example of a quite novel business practice suited for the 21st century. It demonstrates how a company can make a quantum leap in the new competitive world of the information superhighway and the networked corporation.

## ACKNOWLEDGEMENT

The valuable help of Sebastian Kentenich, Master Student in Business Administration at the University of Cologne, Germany, is greatly appreciated.

## REFERENCES

1. Davidov, W.H., Malone, M.S.: *The Virtual Corporation*, Edward Burlingame Books, Harper Business, 1992.
2. Gerling Group, ed. *Annual Reports 1993 and 1994*.
3. Gerling Group, ed. *Press Information*, Cologne, June 29, 1995.

4. Gerling Group, ed. *Gerling Partner of Industry and Commerce*, Company Brochure, Cologne 1994.
5. Gerling Group, ed. 90 Jahre Gerling, *Dialog 3* (1994) 10-13.
6. Hopland, J.E., Virtual Organization and Dynamic Business Structures. In: OFW ed., *Mehrwert Information*, 1995, 175-190.
7. See Kracht, A., Chief Executive Officer of the Gerling Group. *World Insurance Corporate Report*, January 27, 1995.
8. Nouvortne, D., *Organisatorische und technische Moeglichkeiten von Corporate Networks*, Gerling, Internal Report, 1995.
9. Nouvortne, D., Ein Bild sagt mehr als tausend Worte. *Versicherungsbetriebe 5/6*, (1993) 4-8.
10. Scott Morton, M.S., ed. *The Corporation of the 1990s*, Oxford University Press, 1991.