

# The Emergence of Virtual Organisations

## – A White Paper

**“The sum of the whole is so much greater than the  
sum of the individual parts”**

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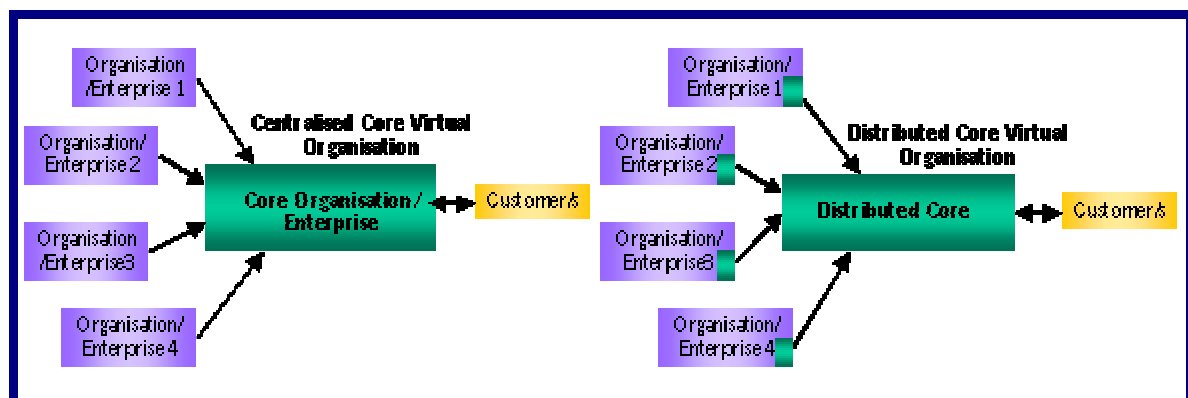


## What are Virtual Organisations?

A virtual organisation consists a group of companies, acting as one company to fulfil a need in the marketplace. These companies collaborate, share skills, information, products, services etc in order to meet the goal of customer fulfilment. In deed, a company can itself be a virtual enterprise consisting of interdependent departments. These companies operate independently of each other but work together to meet a common goal of meeting a need in the market. In deed, any company can partake in more than one virtual organisation so long as this does not result in any direct conflict of interest.

The creation of a virtual organisation creates one face that a customer can interact with and relate to. Members of the virtual organisation are hidden from the customer and do not see interactions between members, customers have one point of contact. The structure of a virtual organisation consists of two major formats, these are both shown in figure 1.1.

Figure 1.1 Virtual Organisations



Source: TekPlus

## The core organisation model

The figure shows how a core organisation/enterprise could take the lead in directing partners/alliance partners to meet the requirements of a customer or group of customers. The core organisation may either be the face of the virtual organisation or it may create another brand or new image to be the façade of the virtual organisation. The other organisations/enterprises that constitute the virtual organisation provide a skill, resource, product etc that the core organisation lacks and needs in order to meet the requirements of the customer/s. This structure can be created to meet the needs of a

long-term change in customer or market dynamics or to meet shorter-term project needs and customer fulfilment. The satellite organisations/enterprises can come and go depending on the needs of the customer/s and those of the core organisation. The core organisation may even acquire organisations/enterprises and the virtual organisation could become less virtualised. The core organisation directs change and the partners react to this change, pulling together to meet that goal. The core organisation does not manage the partners, but manages the relationship between itself and the partners and between partners where required

## The distributed organisation model

The second model is different since there is no one overall organisation/enterprise driving the virtual organisation, all organisations/enterprises have their part to fulfil. All members rely on each other to fulfil the needs of the market and the customer/s. The creation of the virtual organisation is the only strategy for its members to meet market needs; the sum of their parts is greater than those of the individuals. The customer/s sees interacts with one virtual organisation but at the same time may be aware of its members but will not be able to interact with them directly. All members have responsibility to meet the needs of the customer/s. Each member of distributed core delivers a different skill, service, product etc in order to meet the needs of the customer/s. All members are involved in planning, procedures and management of delivering to the demands of the market and those of the customer/s. In deed a board of management, people seconded from the members, could be created to bring better-defined management and processes to this virtual organisation – this depends on the size and the complexity of the project or the virtual organisation itself.

Organisations/enterprises can enter and leave the virtual organisation, depending on individual goals and those of the market. This is less likely than in the core organisation virtual structure, but remains a possibility and limited by the length of a project. The shorter the length of project the less viability of changing a member.

### Why do we need virtual organisations?

Most markets require virtual organisations to fulfil the needs of customer/s that would otherwise go unmet. We have seen some enterprises partially virtualise their operations, Cisco operates virtual factories, so if we look at it from the point of view of the factories that produce routers and switches Cisco is the virtual organisation. In deed, Cisco works with partners in the field of software,

equipment, consulting etc in order to fulfil customer/s requirements. Despite Cisco having a virtual feel it is not a virtual organisation, but it does indicate the possibilities and opportunities that virtual organisations can deliver.

Virtual organisations will develop in many industries as customer requirements become more difficult to achieve or where risk prevents enterprises from acquiring companies to fulfil customer or project requirements on their own, markets become more project orientated, the market consists of lots of small organisations and companies. The increasing prominence of eco-system partnerships and alliances indicates the migration to the virtual organisation.

Other stimuli are driving the development of virtual organisations, this includes:

- ☞ Increasingly dynamic markets – having to react quickly to market demands; not all organisations/enterprises have the core competencies to react to changing demands.
- ☞ Changing value chains – more services led as opposed to manufacturing led growth, particularly important in the western world. Convergence between technologies, services, products etc are changing value chains.
- ☞ Customers are more knowledgeable and demanding, expectations are very high.
- ☞ Personalisation – customers/end-users increasingly seek differentiation or individually developed products and services.
- ☞ One-stop-shop and end-to-end service – some customers/end-users seek one all encompassing solution from one company.
- ☞ Shrinking margins – the manufacturing industry is particularly vulnerable to this and will seek new ways of delivering value to customers/end-users.
- ☞ Eco-system partnerships or alliances, some, will evolve into virtual organisations.

### **What are the challenges against creation of virtual organisations?**

There are different challenges to be overcome in the virtual organisation environment. These challenges include infrastructure and people issues. In order for a virtual organisation to operate efficiently, the flow of information to enable decision-making and management is required. This means that all members of a virtual organisation need to introduce a coherent IT strategy that enables information free flow. In the centralised example it will be the core organisation/enterprise that takes the leading role in directing the IT strategy and in the decentralised virtual organisation each member

needs to agree to this strategy. Ensuring that the right IT infrastructure is deployed is paramount to achieving a workable virtual organisation; it must conform to the ideals of being flexible and scalable.

The IT challenges that must be overcome include:

- Availability – as close to five nines as possible
- Expense – not cut corners
- Performance – no matter what the load is
- Mobilisation – is the network capable of going mobile?
- Meet user requirements – the user interface needs to be easy to use and meet user needs
- Architecture – scalable, flexible, migratable
- Integration – networks of different members need to interoperate
- Application support – the network must support new applications
- Communications – how will members interact? Deployment of VPN, Extranet?
- Security – members should not be able to access information that falls outside the remit of the virtual organisation

Addressing the challenge of IT and Business Priorities is only part of the solution, the other main obstacle to overcome include people and cultural issues. This concerns the moulding together of organisations and work practices, this is more difficult to solve than the IT challenge since there is a limitless number of paths that could be followed. The objectives of the virtual organisation should be clearly defined, culminating in meeting the requirements of the market and customers. If members have other interests outside that of the virtual organisation then a degree of autonomy is required. Objectives should be set where conflicts of interest between members and within members are reduced to a minimum. The other people challenges relate to the interaction between members of the virtual organisation. In the centralised model interaction between members, other than with the core organisation, is less prominent than in the decentralised model. The people issues are easier to solve in the centralised model since the core organisation is in the position of power and dictates objectives and solutions, members that do not conform will not be chosen. The people challenges that need to be overcome include:

- Unrealistic expectations – expectations of any part of the virtual organisation must be achievable. Clearly defined objectives and solutions must be determined
- Different culture – members of a virtual organisation must be able to work together. Work cultures must be similar, bit discrepancies will lead to problems
- Collaboration over long-distances/time-zones – people co-operate over long-distance or time zones, this should not hamper workflow, the right IT solutions must be out in place
- Diverse processes/procedures – each member must understand his/her role, responsibilities and objectives and so must the people that are included as part of the virtual organisation. These must be clearly defined.
- Management practices – each member must be able to manage their objectives as part of the virtual organisation to suit their needs and objectives.

### **Virtual organisation solutions and enablers**

Implementing a virtual organisation relies on the challenges above being adequately resolved. The objective of the virtual organisation must be clearly defined and understood by its members and employees. Part of the solution relates to empowering members and employees, this will place them in control of their objectives.

The implementation of a virtual organisation portal will enable members to effectively operate and access information, processes and applications to enable them to achieve this goal. The information, processes and applications must be globally available in order to empower each member of the virtual organisation so that they effectively operate. The virtual organisation portal provides a workplace solution on which members and employees can:

- Collaborate
- E-learn
- Information share
- Web-conference

- Delegate
- Manage
- Interact with customers, partners, suppliers
- Project Manage
- Transact Value

The route to achieving this goal is an ill-defined one, the virtual organisation can look to implement an IT/Telecoms solution internally or externally or a mixture of both. However, the prospect of creating a virtual organisation fits in nicely with that of a virtual network, so sourcing a VPN led together with an ASP solution will be required. Off-loading all non-core functions of the virtual organisation to outside companies is an ideal solution where IT and communications is concerned. Members would not have to replace existing infrastructure, but they may need to make some adaptations to interoperate with that of the virtual organisation. An outsourced IT telecom solution is a low risk strategy compared to managing and running a private VPN or applications that ran on an IP-VPN for instance. Once outsourced solutions are sought the virtual organisation will need to negotiate SLAs with an external service provider. We have separate information covering the importance of creating security SLAs and this also provides relevant information for any enterprise needing to agree SLAs with a service provider.

The creation of a virtual enterprise portal will be fraught with challenges and we have also discussed the importance and role of enterprise portals. More information on Enterprise Portals can be obtained from our website. The virtual organisation will be able to utilise portals in much the same way as enterprises and as other organisations do currently.

There is no hard and fast way to virtualise an organisation and which IT/Business path to follow, there are many choices to be made, however some of the most important aspects that must be addressed in order to create a successful virtual organisation include:

- Virtualisation must be based on user, market and customer requirements
- Define SLAs with external service provider and internally if needs be
- Integrate solutions end-to-end across the virtual organisation network
- Implement security end-to-end across the virtual organisation network
- Build in scalable solutions and flexibility

- Make sure there is Value for each partner
- Go for Some quick short term wins whilst developing the infrastructure /Organisation
- Get hands-on management team even if it starts of as a project

### **What next for virtualised organisations?**

Virtual organisations are beginning to emerge and develop, the market conditions are right; the technology is there along with the drive to do it. The appearance of true virtual organisations will take time to appear, it may occur in a phased approach and develop out of many industries. The automotive, IT/electronics and Telecoms service provision appear to be the most likely industries to exploit virtual organisation dynamics.

Virtual organisations do not mean the imminent arrival of another Dotcom type bubble; it is the creation of new business practices to meet the demands of new market dynamics, being better able to react to the customer demands. Virtual organisations will only work where there is benefit for all members, whether it is a centralised or decentralised virtual organisation. It is quickly being realised that in many emerging market it is very difficult for individual enterprises to meet the demands of the individual and in many cases expectations go unmet. These end-user needs can sometimes only be met through co-operation and in a virtual way. Organisations and enterprises can work together in new ways without leaving their core market and leverage becomes more important in these hard times of commoditisation. As convergence, integration, migration occurs between technologies, markets and user demands, virtual organisations will be in a position to react to these changes.