



## Microsoft ® Telecom Inc.

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<http://www.ck-wong.ca/Technologies/microsoft%20telecom%20inc%20200703.pdf>

### Introduction

Microsoft has announced on June 26, 2006 its Communication Server 2007. This server offers a telephony back-office and a number of desktop application clients. Enterprises users can use the VOIP based service to communicate each other securely. Are the conventional telecom companies going to fade? To understand this we have to examine the meaning of technology provider and service provider.

### What is Microsoft nowadays?

The beginning of Microsoft started as DOS supplier. Since then, it has diversified to other non-Software sectors:

- Productivity suite provider – the Microsoft Office Suite.
- Internet Service Provider – The MSN service.
- Media – MSNBC, MSN Sympatico, etc.
- Game supplier – Xbox platform and various games.

A company's growth is based on two strategies:

- Based on the application of the core technologies and repackaging these technologies to end-user application developers. For example, GE develops the electric dynamo to generate the electricity which is sold to the power company who implement the hydro system to supply the electricity to the home and business users.
- Extend the role to the application developer. Many automakers continuously develop new engine and/or integrate technologies to cars for better and safer cars.

A company can choose the combination of these two strategies so that its growth is not limited. The factors are determined by the market demands and the resource profile. Over growing will lead to holes and weakness in the infrastructure that eats away the profit margin. However, growth is just like increasing the rate, its effect does not show up immediately. Some will take a long time. IBM has been investing in many non-computing fundamental research such as speech recognition, its application may never hit the market.

Microsoft has adopted the combination strategy to exploit various growth opportunities to deploy its core competencies. There are two dangers to do this. The first related to the market knowledge. The second related to the core technologies specialized for the market. Use the gaming market as example. Microsoft's operating system and the

DirectX platform has been the standard gaming development environment for years. Microsoft has the core advantage but has not market and domain expertise. Microsoft has not market any games nor created any new games by its own man/woman. In this case, the gaming is very self-contained. So the joint venture experience and later buying out gaming company will provide the expertise required.

## Telecom

For those not familiar with the operating system market, they may not aware of ferocious effort from Microsoft to sell its operating system to the telecom equipment manufacturer. The telecom equipment manufacturers require two types of operating systems.

The first type is a very small and very basic reduced version of operating system, usually called exec, to control intelligent equipment such as line card or front ends. These execs are small and can be store in ROM so that the devices can be built using the System on a Chip technology. Among many execs, MS-DOS ® provides a perfect platform for the control device developer the right platform. You may be surprise the life of MS-DOS could continue for a while.

The second category operating system is called real-time operating system. How does it different from the one we use is by implementing the predictable response time policy? When an event happens, the software to respond to this event can be executed within a specific predetermined time. Why is it important? Consider if your send a frame from your desktop to the ISP containing your web-surfing request is overwritten by the late comer before it is relayed to the web server, you know the importance. Although Windows-NT ® (If you wonder whether this NT has any relation with Nortel, the answer is yes. Microsoft has to pay loyalty to Nortel for the use of the NT logo.) is very complicated, it has never provided the real-time service. Microsoft has been continuously to exploit this market.

Intel® comes to help. When you have ample computing power, you execute software fast. As the result, you may not able to predict the response time but it will be fast enough to do all the work as required. As the result, the Windows operating system has been part of the back end and some front end in the telecom industry for over decades.

For 10 years ago, there is a telephony component called the TAPI comes with the Windows. The TAPI has been evolved dramatically to support various VOIP and SIP protocol for voice and video. Many applications are built on top of this platform.

One also has to understand the Exchange is the basic technology that could be the server for the connection establishment. My US patent 6,185,288, IS based on a mail server for multimedia call setup. Mail service could send out alert to any devices and store voice, video and document as a form of message. The extension required will be client to present the contents. Microsoft has it all ready. It is not a giant step. Again, Microsoft leveraged on all its core competencies in Office, mail, multimedia and telephony to create

the Communication Server. The Office suite is not just document handling. It is extended to a full office support infrastructure.

### **Telecom Service Provider**

The first step to provide the application before creating the service provider business is a sound step. There are so many service providers Microsoft could joint venture or buy out, there is no hurry but you could count on it.

### **Resources**

[1] Microsoft Office Communication Server 2007, TMN, 2006.06.26.

<http://blog.tmcnet.com/blog/tom-keating/microsoft/microsoft-office-communications-server-2007.asp>

[2] Microsoft Live Communication Server Home Page, <http://office.microsoft.com/en-us/FX010908711033.aspx>

[3] Multimedia call signalling system and method, CK Wong, US patent 6,185,288, February 6, 2001.