

CYBERMAN Business Plan



Exhibit H
Excerpts from the Provisional
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CYBERMAN Business Plan
Product Description
and
Technical Approach

Pi - Net International, Inc.
222 Stanford Avenue
Menlo Park, CA 94025
(415) 854 - 3393; F: (415) 854 - 1764

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1.0 Introduction and Goals of Electronic Commerce

The goal and vision of computer networking in the twenty - first century is to accomplish the ability to transact from any access point on the net with any other point on the net, spanning both public and private enterprise networks, in true two - way, real - time, interactive mode, for intra/inter - business electronic commerce and from home. This is the core and essence of the Pi - Net CYBERMAN electronic commerce product.

The many - to - many transaction interface, multi - media archival and retrieval management, and switching model promise great commercial value. The robust, secure, reliable, high - performance, predictable, CONFIGURABLE, N - way interactive object router provides the link between businesses or the consumer, the cash source and the service provider.

CYBERMAN enables complex transactions, monetary or other, from an end user's PC or TV set, thereby converting it into a point - of - sale (POS) terminal.

The goal of Internet commerce is to effect a valid financial (or other) transaction, from any access point on the net with any other point on the net, spanning both public and private enterprise networks, in true two - way, real - time, interactive mode. A PC or TV set is now a point - of - sale (POS) terminal, for intra/inter - business commerce and for consumers at home.

Other goals for the VAN service provider are to reduce cost * per transaction first, and then to generate additional revenue. This enables retailers of goods and services to deliver value by focusing on customer intimacy and providing a better level of service.

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In order to achieve these goals, a VAN service provider must meet the following requirements:

many - to - many transaction interface, and switching model, OAM&P, multi - media archival and retrieval management, robust, secure, reliable, high - performance, predictable, CONFIGURABLE, and standards' compliant.

Currently, a user with a PC and a Web browser can access the home page of various Web sites. Pi - Net's CYBERMAN extends the one - way browsing capability of the World Wide Web (WWW) to N - way, real - time, interactive, transactional interface, while remaining browser independent. The Web Page serves as the Network Entry Point (NEP), and becomes the vantage ground from which to transact with other Web Sites and remote IP nodes in Back - Office private enterprise - wide networks, such as Banks, retailers, and infinite other goods and service providers. CYBERMAN brings a remote cash register, telephone and mailbox into the end user's terminal. It reaches everybody and everywhere, much as a telephone does.

CYBERMAN extends the same paradigms as are traditionally used to manage routers and network devices, to interactively reach and manage information, thereby combining the power of distributed computing with transaction processing in legacy systems.

CYBERMAN lays the foundation for a very strong customer care strategy, via its innovative user - centric management approach, enabling the service provider to provide configuration management, performance management, security management, fault, threshold and alarm management, billing management, from the perspectives of user information, the network, the information system, and the service provider.

CYBERMAN's object router offers the service provider a vehicle to capture and control the delivery mechanism, to introduce a continuum of value - added on - line services to win customer loyalty.

CYBERMAN invigorates this paradigm by offering scalability, robustness, and flexibility, designed to be deployed across an entire value supply chain from original manufacturer to point of purchase, to all the cogwheels within the service provider's enterprise.

*Note: For example, Wells Fargo Bank calculates that the cost per teller transaction is \$12, while on the Internet, it drops down to 0.40 cents per

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transaction. Charles Schwab distributes StreetSmart free of charge, as manual transactions cost them more.

1.1 CYBERMAN Functional Requirements

With the Internet and the World - Wide Web evolving rapidly as a viable consumer medium for electronic commerce (EC), new value - added network (VAN) services are expected to emerge, heralding a paradigm shift from the perspective of both the market and the technology.

1.1.1 EC and Telephony

The simple telephone call is a well - known example of a value - added network service. It requires a relatively complex sequence of events, underlying the basic telecommunication service.

The telephone network has two different but interrelated aspects:

- In terms of its physical components, it is a "facilities network."
- In terms of the varieties of VAN services that it provides, it is a set of many "traffic networks", each representing a particular interconnection of facilities. Traffic is the flow of multi - media information through the network.

The facilities network includes:

- Station equipment, located at customer premises, the CPE, is the user's interface with the rest of the network and available services. It receives and transmits information flow and control signals between the user and the network.
- Transmission facilities provide the communication paths, and
- Switching system routes traffic through the network.

When a caller dials the number of the called party, the call is routed between wire centers. (See Fig. 1). An integrated, unified numbering plan identifies each station by a unique address, that is convenient and readily understandable by other stations connected to the network.

1.1.2 VAN Service Provider Challenge: Requirements

Likewise, let us consider, for example, a simple transaction of daily commerce, such as ordering and paying for pizza, or homebanking, or payroll services for businesses from banks, offered as a VAN service.

The Internet, like the telecommunications network, is a system of interconnected facilities that could carry traffic from a variety of EC services. From the perspective of its physical components, the "Facilities Network" for EC exists today.

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However, the service provider has no current means to control the CPE environment. There is no direct access to the end user from the VAN service provider, such as a Bank. There are some missing elements needed to capture and control the end user environment. The "Traffic Network" is THE challenge.

Switched fiber - optics and computers offer the potential of tens of thousands of channels, once key missing links in the technology puzzle are put in place.

The analogy with telephony is useful, because an electronic commerce service provider, such as a Bank, will need to operate like a mini - Telco, with OAM&P functions, (Operations, Administration, Maintenance and Provisioning), in order to administer services, such as business - to - business electronic commerce, or homebanking, via the Internet.

The EC VAN service provider challenge is multi - dimensional, to meet the following requirements, namely:

- Provide a consistent service request interface for VAN services,
- Provide a unification vehicle across diverse network environments, end user devices, and applications,
- Control the interface mechanism
 - coordination with CPE,
- Provide for simple addition /deletion /maintenance and enhancement of applications that deliver services.
- Security, so as to avoid fraudulent transactions, and invasions into the service provider's database.
- Uniquely identify, retrieve and route dynamically changing information elements that have to be accessed remotely, using multi - media, object routing.
- The capability of tailoring VAN services in potentially diverse environments is needed. There is a need for accelerated application development, for the service provider to remain competitive, for example, in banking.

The goal of electronic commerce is to provide the same ease - of - use to transact on the net, as has been achieved for voice, immediate and deferred communication, customized for each individual user, and value - added network service.

Much like keeping the voice interface consistent around the world, while change in underlying technology has allowed for new applications with a single, consistent interface, it is desirable that the interfaces are designed to be relatively stable, resulting in a minimum amount of change, when new applications are added to the core electronic commerce system.

1.1.3 End User in Information System Continuum: Requirements for New Services to Desktop