UNIVERGE Terminal Series

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ABSTRACT It is the IP telephony server "UNIVERGE SV series" that will become the core means of realizing the UNIVERGE solution. In this paper, we would like to introduce the lineup of "UNIVERGE terminal" as it corresponds to various user needs.

1. INTRODUCTION

The following are featured in the UNIVERGE terminal.

(1) Wiring of the voice system and a data system in premises are integrated.
(2) Moving terminal at the time of floor movement etc. becomes easy, and realizes TCO reduction.
(3) Telephony service is realized only by setting up terminals, without the PBX installation for every branch or base.

We have newly developed each product of PC softphone, SIP telephone for places of business, SIP terminal adapter, terminal equipment such as multifunction IP telephone, wireless LAN cordless handset, various gateway units and PHS base station as UNIVERGE terminal series.

Terminal equipment indicates PC softphone, SIP telephone (NEterm series), SIP terminal adapter, multifunction IP telephone: Wireless LAN cordless handset does JustPhone: Various gateway units does MG-MC (COT), MG, MC, VS-32, IPMASTER-104X series: PHS base station does IP-BS.

2. FEATURES OF THE UNIVERGE TERMINAL

The lineup of the UNIVERGE terminal is explained below and its composition is shown in **Fig. 1**.

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2.1 PC Softphone (DtermSP30)

The PC softphone (DtermSP30, **Photo 1**) was developed as the IP terminal for the UNIVERGE series.

In addition to a telephone function that specializes in conventional voice communication, the DtermSP30 offers a means of realizing bidirectional communication not only by sound but also by image, data, and video. This is done by positioning a support tool that attains improved communication efficiency. The main features of this product are as follows.

(1) Offering Convenience of Communication
· Video conference or a means of sharing an application screen.
· Short message transmission for an absent partner and a partner in conversation.
· Display of call log and call back from the log.
· Telephone call recording using a PC.
· The presence function which shows the partner's condition (presence, absence, in conversation, etc.) for checking before making a call.

(2) Upgrading the Existing System
By cooperating each function of PHS and analog telephone, PHS and the analog telephone as a handset as usual, and furthermore utilize its softphone function.

2.2 SIP Telephone (NEterm50/TE20-TA)

This section explains the SIP telephone (NEterm50) for business use and the SIP terminal adapter (TE20-TA).

NEterm50 (**Photo 2**) is a SIP telephone for business use, which can also utilize the conventional PBX function.

It becomes possible to integrate the abundant functions of the conventional PBX, because the state of a terminal is managed by the UNIVERGE SV7000 making it Back To Back User Agent. And also voice data can be converted to IP, without derogating the function of PBX which has been used.

Moreover, because of its high-affinity with other protocols, SIP hides the possibility of a new function.

TE20-TA (**Photo 3**) is a terminal adapter to which only one analog telephone circuit using SIP can connect. By using TE20-TA, the conventional analog telephone and FAX that do not correspond to SIP can be connected to UNIVERGE SV7000.
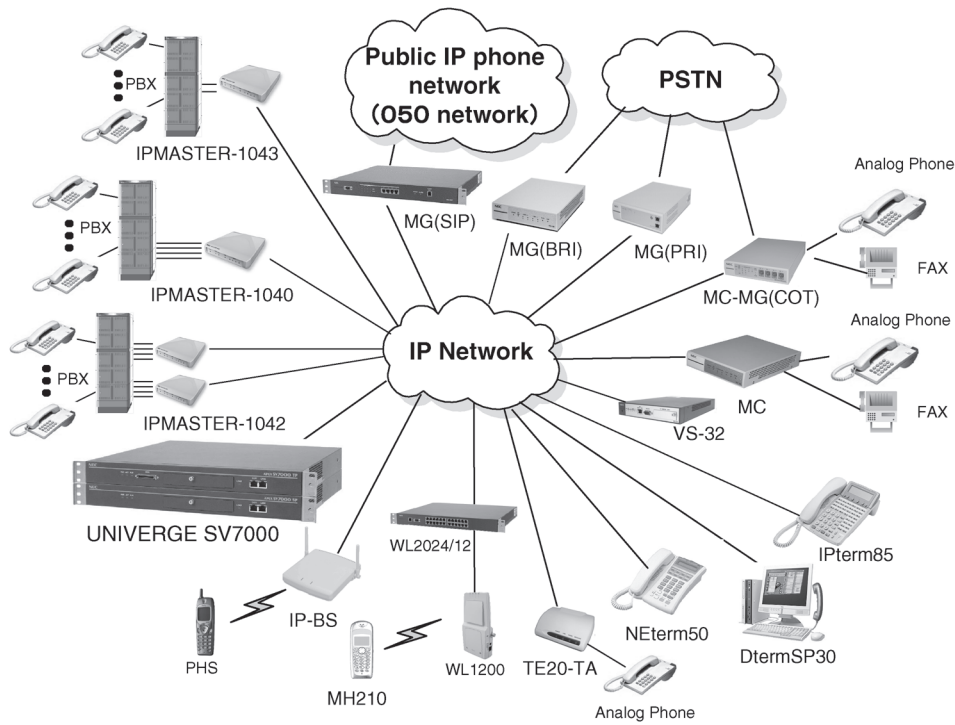

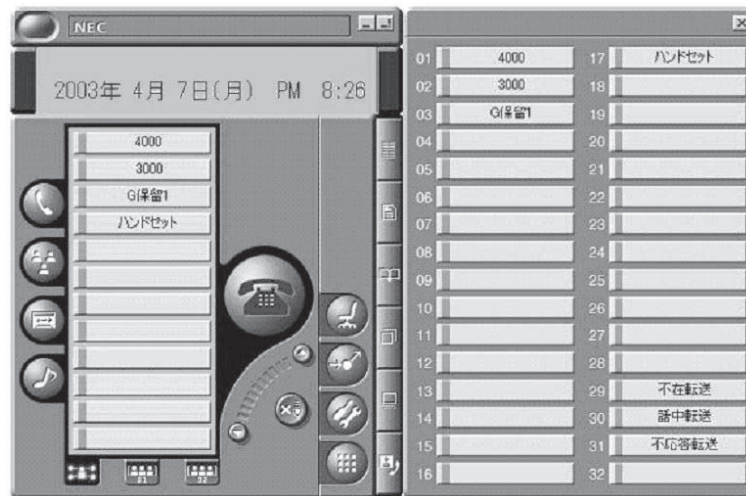**Fig 1 Configuration of the UNIVERGE Terminal.**

Photo 1 DtermSP30.

2.3 Multifunction IP Phone (IPterm85)

IPterm85 (**Photo 4**) is an IP telephone of all-in-one unit. Since IP adapter attachment is not necessary in the new introduction of IP telephone, the user's construction efficiency is improved as compared with the introduction of IP adapter.

Photo 2 NEterm50 (8D).

Photo 3 TE20-TA.

Photo 4 IPterm85 (32D).

2.4 Wireless LAN Cordless Handset (MH210 JustPhone)

MH210 (**Photo 5**) is a wireless LAN telephone for premises based on IEEE802.11b.

By using SIP, the function of PBX as well as a voice telephone call can be used. Moreover, the simple message transmission and reception by IM (Instant Message) service can be possible.

As a simple telephone, functions such as a telephone directory function and a history display can be used by itself.

2.5 Media Gateway Unit Series

This section explains various media gateway units that enable connection with an existing public network.

Products lineup is as follows;

1) MG (PRI)
   One circuit accommodation of INS1500 is possible.

2) MG (BRI)
   Two circuits accommodation of INS64 is possible.

3) MC-MG (COT) (**Photo 6**)
   Two offices lines and four inner-circuits accommodation are possible in an analog office line. Because of

Photo 5 MH210 (JustPhone).

the backup function that makes a direct connection of an office line and the extension of two circuits when it is installed at a remote site and failure of the network or power occurs, reservation of a lifeline is possible.

4) MG (SIP)

A connection with a public IP telephone network (050 nets) is possible. Connecting to a company IP network or a public IP telephone network by IP 1 link high-quality voice communication is offered.

5) MC

Two circuits accommodation of an analog extension is possible.

6) VS-32

The following functions are offered using an IP network.

A 3-person telephone meeting
A conference call (8 persons / 16 persons / 32 persons)
An announcement function
IP external suspension sound function

2.6 VoIP GW (IPMASTER-104X Series)

IPMASTER-104X (**Photo 7**) series is a gateway equipped with a protocol converter function of four ports to connect to a VoIP network and an existing telephone network. It is suitable for a VoIP gateway that can currently accommodate PBX such as installed in the small-scale office or the factory or a key telephone system, etc. Since it has a simple connection function that can perform network connections without a SIP server, a VoIP network can be economically built using IP-VPN or broader-based Ethernet. In IP centrex network, it can be used as a VoIP gateway installed in a user site.

(1) Lineup
· IPMASTER-1040: FXS (four circuits accommoda-

tion).
· IPMASTER-1042: OD (four-line type dedicated line accommodation of four circuits).
· IPMASTER-1043: BRI (two circuits BRI / four voice accommodation) <Under development>.

(2) Feature
· A protocol converter of four ports is provided.
· G.711, G.729a, and G.723.1 voice codec is selected for every call.
· Hot line connection function (this function connects with the terminal set up at the time of arrival of the call [FXS/OD]).
· Station hunting function (when a circuit is using this function, other empty circuits are chosen automatically [FXS]).
· The remote maintenance function by the Web browser.
· An introductory installation is easily achieved at compact, lightweight, low power consumption, and a low price.

2.7 PHS Base Station (IP-BS)

IP-BS (**Photo 8**) is a PHS base station accommodated in UNIVERGE SV7000 through the IP network. As one means of work style innovation in the communication network of a company, PHS services in business places are indispensable existence, and IP-BS enables the PHS base station in each business place to convert to IP.

· Feature: Radio Synchronous System
IP-BS, since the clock synchronization cannot be taken with UNIVERGE SV7000, defines master BS, and other IP-BS receive the electric wave which this master BS sends out and take the synchronization between non-railroad sections. Owing to data setup by the side of main equipment, management by synchronizing with established BS also becomes
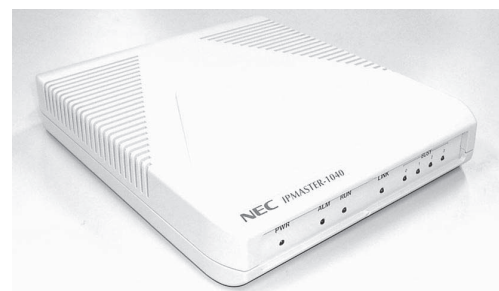

Photo 6 MC-MG (COT).

Photo 7 IPMASTER-104X Series.

Photo 8 IP-BS.

possible, and coexistence freely with the established PHS system can be also realized.

3. CONCLUSION

NEC has developed the UNVERGE terminal in which the merit of full IP is employed efficiently, inheriting the advanced telephony service function, which IP-PBX "APEX series" has offered from the former series.

NEC will continue to offer the service which strengthens these UNVERGE terminal goods and endeavor to meet the user's needs.

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