

# Unified Communication

By Keiji KANAMEDA\*

**ABSTRACT** UNIVERGE Unified Communication is a solution that unifies voice applications and data applications at the Enterprise Information Portal. The user can communicate with anyone at anytime, anywhere by using a PC. Unified Communication provides seamless cooperation among various communication tools, increases efficiency, and realizes a new office work style. This paper introduces the features provided by a Unified Communication solution.

**KEYWORDS** Unified Communication (UC), EIP (Enterprise Information Portal), UMS (Unified Messaging System), LDAP (Lightweight Directory Access Protocol), SSO (Single Sign-On)

## 1. INTRODUCTION

The Gartner brief[1] defined that "UC is the convergence of contact and interaction silos." Unified Communication integrates various communication tools, for example, telephone, Instant Message, e-mail, fax, calendar, workflow, telephone directory, etc. It targets an increase in office worker intellectual productivity by realizing a new communication style.

NEC defines Unified Communication as an integrated communication environment that uses the logged in EIP (Enterprise Information Portal) to enable various tools (web conference, groupware, softphone, enterprise application, knowledge management system, etc.) seamlessly on the portal page in the web browser at the office, outside location, home, etc., wherever he or she is.

UC unifies voice applications and data applications, and provides the same workbench as at the office at anytime and in any place. UC realizes an innovative office work style.

## 2. OVERVIEW

The current version of UNIVERGE Unified Communication is a solution that combines following products.

- StarOffice21/Business Portal
- StarOffice21/Business Directory
- StarOffice21/Electronic Telephone Book

- DtermSP30 (Softphone)
- UnifiedStar Excellent (UMS)
- Communication Door (Web Conference)

UC has same concepts with "Communication Portal (released in North America)" but it is different in some points,

- Representation organization hierarchy
- Group line telephone number

They are important points in Japanese work style.

## 3. FEATURES

"StarOffice21" is the series name of NEC office collaboration software. This section describes features of StarOffice21 series component of the UNIVERGE Unified Communication and cooperative function.

### 3.1 StarOffice21/Business Portal

The BP (Business Portal) is the Enterprise Information Portal engine. BP acts as the central hub where information from multiple corporate sources. BP is implemented as Servlet (**Fig. 1**).

BP provides the following functions.

#### (1) Cooperation with Groupware

The Business Portal can represent arrival mail numbers and mail titles, today's and tomorrow's schedule, document sharing cabinet list and groupware service menu on the logged in Portal Page.

\*Ubiquitous Software Division

(2) Personalized and Directory Navigation

The user can easily create a portal page by utilizing the “personalize” function. Each user creates a personal portal adapted to his or her kind of work that is easy to use.

(3) Portlet Library

The Portlet Library is an optional function of the BP. Portlet Library that provides an access control function for pages and portlets. Access control grants on office, user, group, post rank. Link and Copy function and circulates portal pages and portlets in the portal system.

(4) Authentication Collaboration Service

BP provides SSO (Single Sign-On) framework as an Authentication Collaboration Service that cooperates with a Business Directory. The user can easily launch external web applications and rich applications.

3.2 StarOffice21/BusinessDirectory

The BD (Business Directory) is an HR data management service, tools and repository. The BD stores office data, user data and authentication data, etc.

The BD provides an authentication service by LDAP (Lightweight Directory Access Protocol) and

Corporate Directory service.

The BD’s features are given below;

(1) Directory Server Supports LDAP v3

BD bundles LDAP server named Enterprise Directory Server.

(2) Authentication Service for StarOffice21series

The BD is the infrastructure of authentication and user management.

(3) Representation of Corporate Hierarchy

The BD represents organizational hierarchies, which is an important matter in Japanese companies.

(4) Representation of Regular Post/Additional Post

The BD can represent regular and additional post, by assigning user entries with the same user ID to different offices.

(5) HR Management by GUI Client

The system administrator can easily manage HR information by using the GUI maintenance tool.

(6) Web Corporate Directory

BD/Web Client is the corporate directory front end for the web browser.

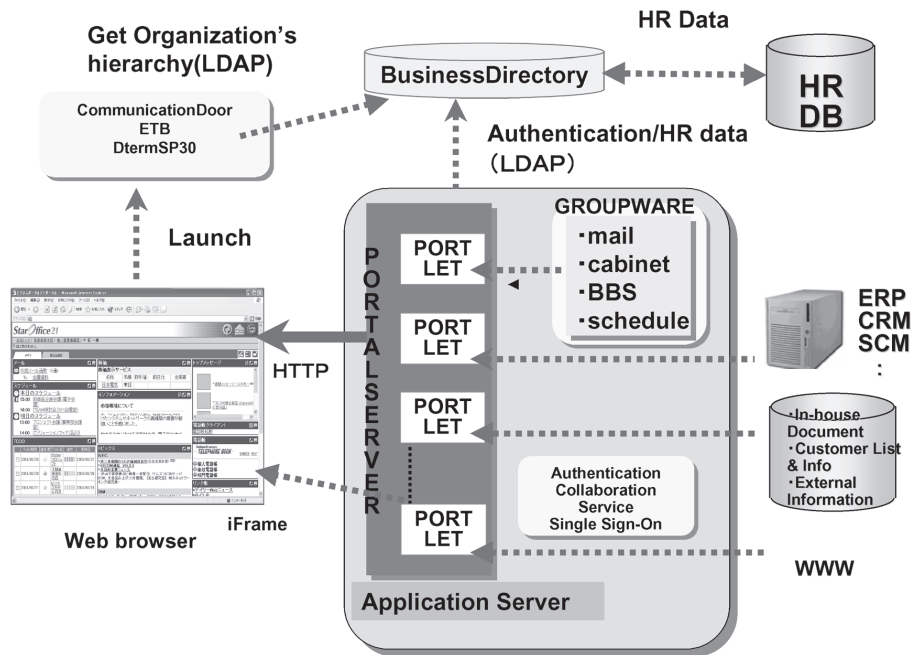


Fig. 1 System structure of Business Portal.

### 3.3 StarOffice21/Electronic Telephone Book

The StarOffice21/ ETB (Electronic Telephone Book) is a client application software that connects to an LDAP server and manages the local contact list data as a personal telephone directory. ETD provides the following functions.

(1) Management Personal Telephone Book

The user can register a person entry in the personal telephone book of the ETB from the search results of the BD and the inbound/outbound phone call history of DtermSP30. The personal telephone book data is stored in a local PC file.

(2) Interfacing with DtermSP30

By interfacing DtermSP30 and ETD, the following functions are provided;

- Dial from the search results on the ETB
- Check presence of other users
- Registering of personal telephone book from inbound/outbound call history
- Display the name on incoming phone call popup

and incoming/outgoing phone call history;

- Select an address for sending the voice mail

(3) Refer E-mail Address

ETD can copy the several e-mail addresses from selected user list of ETD to address field of mail client software on new mail windows.

The ETB supports StarOffice21/Mail Client, Outlook, Outlook Express, etc.

(4) Search

The user can search a corporate directory or personal telephone book by name, e-mail address, etc., and then dial the number to DtermSP30 from search results.

(5) Person Detail Information

The user can check the department, extension telephone number, e-mail address, mobile phone number, etc. This data is stored in the Business Directory.

(6) Data Import/Export

The personal telephone book data can be exported to file. The user can export data, and other users can import it.

(7) Shortcuts

The ETB can make a shortcut link of the user and office in the BD. The user can access the information easily.

(8) Customizable

The user can customize the list view items, the detailed dialog items, the conditions of display, and icon images on the ETB.

### 4. CONCLUSION

The UC realizes an innovative office work style. However, it is necessary for effective use to reform the work style of the user, to spread my-line telephone numbers, to adapt using a head set or a hand set, and to join the desk conference.

UNIVERGE Unified Communication will integrate more communication tools and presented information.

### REFERENCE

[1] Gartner, "Unified Messaging Will Be Just a Part of Unified Communications," Drew Kraus, Bernard Elliot, April 10, 2001, GJ03533.

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Keiji KANAMEDA received his B.E degree from Toyohashi University of Technology in 1997 and his M.E degree in 1999. He joined the NEC Corporation in 1999. He is now Assistant Manager of the Ubiquitous Software Division.

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