

Unified Communications with IBM technologies

## Comparison of Solutions

**Companies, which are planning the replacement or enhancement of their voice communication infrastructure, need to deal with IP telephony and Unified Communications. It is crucial to select the right solution to profit from added value like efficient communication, flexible collaboration or profiting of cost cutting potential.**

For Unified Communications within the IBM environment, there are three basic possibilities: CTI solutions (Computer Telephony Integration) from different providers, integrated softphones like is-phone and IBM SUT (Sametime Unified Telephony).

Since IBM entered the telephony market with SUT, companies who are focusing on IBM need to decide which Unified Communications strategy they like to implement. Besides SUT, there are softphones available which are smoothly integrated into IBM Lotus Notes or IBM Lotus Sametime, and CTI solutions are also offering functionalities to bring voice and video communication on the PC workplace.

To evaluate the appropriate solution, one should be clearly informed of these three approaches that are differing in many aspects.

### CTI solutions, softphones and SUT in the UC environment

Unified Communications is known as the connection of communication over different technologies and applications (see chart). The goal is to offer users appropriate tools in order to communicate over the data network with their PCs through email, instant messaging etc.

The possibilities of UC, enabling to integrate the communication in existing applications and devices, result in several advantages:

- Improved customer contact through better availability, integration of communication processes and access to related information.
- Efficient collaboration through location-independent access to specialists and information about presence.

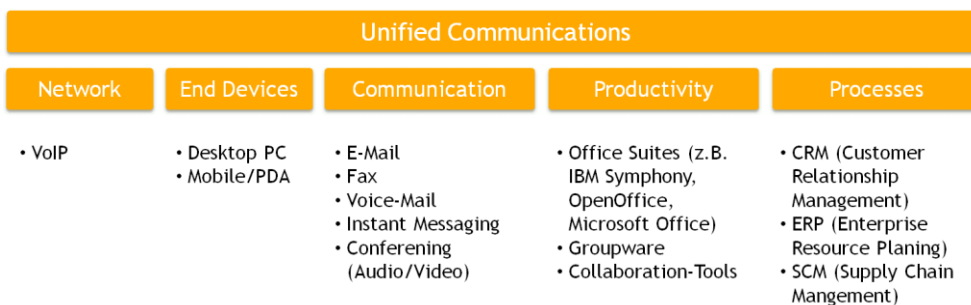
- Cost savings when purchasing (primarily with softphones, because no additional hardware is needed), and at administration due to the integration into existing applications and lower call-charge by using data networks.

### Differences in functionality

When looking at the functionalities, important differences between the three solution approaches can be identified:

- Audio/video conferencing: CTI solutions, softphones and SUT offer in the majority of cases the possibility to make audio and partially also video conferences. The difference is on one hand the number of participants and on the other hand the hardware that is needed in some cases (table 1).
- Telephony and Instant Messaging presence information: CTI solutions can show presence information in most cases by using interfaces to the PBX. Because solutions like is-phone or SUT are integrated into IBM Lotus Sametime, they are able to show the telephony and IM status of the users.
- Integration into IBM Lotus Notes and Microsoft Outlook: CTI solutions are mainly available for Microsoft Outlook and partly offer basic telephony functionality for IBM Lotus Notes and Lotus Sametime. Integrated softphones like is-phone are available in different versions and can be used with IBM Lotus Notes 6/7/8 (also without Lotus Sametime) and IBM Lotus Sametime, as well as Microsoft Outlook. SUT is currently only available for IBM Lotus Sametime.

## Unified Communications



Comprehensive concept for more efficient Communication and flexible collaboration with high cost reduction potential.

- Call Recording: CTI solutions as well as SUT either need additional applications or appropriate back-end infrastructure to enable recording and storing phone calls. Integrated softphones like is-phone enable this functionality on every PC and allow to store the recordings as data files.
- Hard phone functionalities: CTI functionalities like notification of incoming calls or answering of calls with the normal hard phone are basic functions covered by CTI solutions. As to softphones, this depends on the supported devices, and for SUT, it is planned to support hard phones in one of the future releases.

**Operations and maintenance – big differences**

There are big differences between CTI and integrated softphones compared to IBM SUT solutions. SUT needs, besides the Sametime server, additional hardware (SUT TAS – Telephony Application Server and SUT TCS – Telephony Control Server). However, costs can be decreased due to internal communication over the data network internally and externally, as well as due to reduction of high mobile costs, depending on the user profile (table 2).

Because of the low functionalities, CTI solutions are often applications based on a PBX, therefore, additional servers for basic functions are not needed. But companies have only a limited added value in terms of cost cutting potential, e.g. with internal communication, because only with IP PBXs and corresponding setup, no call costs appear, and the use is limited to the company workplace.

Integrated softphones like is-phone are completely software-based and use existing infrastructure, such as IP PBXs and server. Due to the integration in existing applications, softphones can be used wherever a network connection is available, and therefore cut call costs, e.g. in home

Table 1:

|                              | CTI solutions                          | is-phone softphone                  | IBM SUT                          |
|------------------------------|--|-------------------------------------|----------------------------------|
| Audio Conferencing           | Depending on PBX                       | Up to 16 participants               | Possible with additional servers |
|                              |  | No additional soft-/hardware needed |                                  |
| Video and video Conferencing | Depending on video conferencing system | Up to 4 participants                | Possible with additional servers |
|                              |  | No additional soft-/hardware needed |                                  |

These differences appearing for audio- and video conferencing

Table 2:

|                                 | CTI solutions  | is-phone softphone | IBM SUT  |
|---------------------------------|--|--------------------|--|
| Functionalities                 | Low till Medium  | High               | High   |
| Target Customers                | All  | All                | Large Companies                                      |
| Acquisition and Operation Costs | Medium   | Low                | High   |
| Implementation                  | Easy   | Easy               | Complex  |
| Needed Middleware               | Only for special functionalities, because depending on PBX | No                 | Yes (at least Sametime, SUT TAS and SUT TCS servers) |

Big differences in operations and maintenance

offices or other external locations, especially with internal communication.

For small and medium companies that are not yet operating own servers and don't want to use additional, complex hardware and software, the use of an outsourcing solution or SIP provider service is a good possibility. Basically, there are three different approaches: Internal IP PBX or outsourcing service provider with softphones, or integrated PBX with CTI. Softphones, such as is-phone, are certified for compatibility from major IP PBX suppliers like 3Com, Avaya, Nortel or Siemens, and tested with SIP based PBXs e.g. from Alcatel-Lucent, Cisco or Digium (Asterisk). Therefore, future switches of the IP PBX or mixed environments are supported. This is also true for IBM SUT, since there is middleware to be installed before the PBX.

**Recommendations**

The investment in an in-house PBX is a long-time investment. Therefore and due to the outlined advantages, companies should evaluate IP based PBXs with flexible, open solutions. Small and medium-sized businesses should also look for a

solution, where a future outsourcing of the PBX can be an option.

With the integration of telephony solutions in existing or future Unified Communications platforms, companies profit from the added value in communication and gain a competitive advantage. Big organisations with complex infrastructure should think about a first step in optimizing the less costly communication with softphones that can be used with different Unified Communications (e.g. IBM and Microsoft) and different IP PBXs, as well as connecting to e.g. IBM SUT in the future. This offers them an immediate cost reduction in the internal and external collaboration, especially for external workforces.

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