



Seven Key Steps for Identity Management  
in a Unified Communications World

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## Steps

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## Seven Key Steps for Identity Management in a Unified Communications World



**Many people report using as many as 6 different channels and 5 applications for communication each day.**

Ironically, more tools do not imply more effective communication. In practice, many employees fail to reach their colleagues on the first attempt, given the choice of channels and a lack of context around the most effective method, based on a colleague's status.

It's no wonder then that many organisations worldwide are taking the first steps in unifying their business communications channels in order to improve their employees' productivity and reduce the delays and costs associated with business communications.

Unified Communications enables people to use the most appropriate communication medium for the task at hand and to switch/merge channels as necessary. To do this in practice, organisations need to integrate systems, technologies and technology vendors to enable, for example, switching from email to voice, or IM to voice.

For unified communications to deliver on the productivity and cost reduction promise, it relies heavily on accurate and consistent contact information. Managing identity across these components can be problematic because they involve multiple vendors, and technology elements that are new to the network administrators – like voice systems. Without an integrated approach to identity management across these systems high administrative costs are incurred, security loopholes are created, and a seamless unified communications experience is inhibited.

Dimension Data has helped many organisations around the world to integrate identity across multiple systems, including their IP telephony environments. In this document, we share our experience and outline seven practical considerations to keep in mind when undertaking such a project.

## 1. Select And Prepare The Directory

Most organisations maintain multiple directories and the number of directories to maintain, grows every time a new technology is added to the communications mix. They often find themselves manually reconciling user moves, adds, changes and deletes (MACDs) between their IP telephony and directory systems. This manual process is time consuming and error prone.

It is important to select a single authoritative directory that will be maintained as a true source of contact details for all employees. This should include (at a minimum):

- ▲ Full name
- ▲ E-mail address
- ▲ Telephone extension(s)
- ▲ Facsimile
- ▲ Mobile
- ▲ Home
- ▲ Conference bridge
- ▲ Video
- ▲ SIP/Presence/IM address
- ▲ Physical location

Once the directory is selected, it needs to be prepared for schema extensions and accurate synchronisation. Ensure numbers are normalised into a standard format (E.164 is frequently used) and that users understand how to enter numbers in this format to their own personal contacts.



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## 2. Prepare The PBX

IP telephony enables employees to use multiple communication channels such as voicemail and Microsoft® Outlook and provides remote users with the ability to retrieve messages when they are away from the office. In order to realise the value of some of these features, IP telephony needs to be integrated with the organisation's existing directories and systems, such as Microsoft® Active Directory.

The PBX may need configuration to accept the new numbering schema and interpret it correctly. Additionally, some form of computer telephony integration (CTI) interface is required to enable telephony presence and call control. This may be a software license, a hardware component or may even require a platform upgrade, depending on the PBX. In some cases, the CTI license is included.



## 3. Integration Into A Broader Provisioning Scheme

The value of unified communications lies in the integration of previously separate communications channels into one seamless experience. This is however also where the challenge lies. If technology vendors are to be believed, unified communications is “plug and play”.

In reality, no single vendor today offers a complete suite of unified communications technologies to address all collaboration needs within an organisation. There are even fewer organisations that have standardised on a single vendor for all of their communication needs. This presents a need to integrate multiple vendor technologies across multiple platforms and architectures.

While many systems and applications have come to leverage existing directories (particularly Active Directory), the reality is that numerous directories will continue to exist, and these directories will be tailored to support the specific applications they exist for – and so many details will vary from directory to directory. To be able to integrate these directories into a broader provisioning scheme.

Dimension Data recommends looking at identity integration software – middleware that will broker and translate the various directory pieces across the systems. This integration software should be able to cover both the voice and data worlds, be simple yet extensible.

**It will free up skilled resources** to work on business affecting projects, rather than areas that offer low value from an operational prospective.



#### **4. Bring Together The Right People And Skills**

Before the days of IP telephony, organisations typically employed a team to maintain their network identity, and a separate team to take responsibility for identity management on the PABX. This presented challenges, because the telephony identities were managed separately from the network logon account.

IP telephony is a key building block for unified communications and requires a bridging of identity across the voice and data world, requiring resources with broad experience in multiple areas.

Multi-disciplinary people with experience in the data, voice and application space are difficult to attract and retain. They need to be tasked with work according to their levels of skill and experience. Transactional tasks like identity updates fail to stimulate.

Dimension Data recommends implementing identity integration software that allows the view and management of identity across systems to be rationalised and therefore removing the requirement to have specialist skills to maintain this identity information for each application. It will free up skilled resources to work on business affecting projects, rather than areas that offer low value from an operational prospective

#### **5. Address Risk And Compliance**

Identity management plays a key role in ensuring that organisations are compliant with the requirements of regulatory acts like Sarbanes-Oxley and Basel. Without having a central directory with accurate information around roles and titles, organisations lack visibility and transparency into how employee access to corporate tools and information is regulated.

Ensuring that employees have appropriate levels of access to corporate resources, communication channels (i.e. long distance dialling) and that these services are deactivated when an employee leaves the organisation are critical to containing risk.

Organisations need transparent and auditable processes that can consistently be applied across all systems to record an employee's access details. As this process is generally labour and time intensive, Dimension Data recommends approaching the process via rules and automation, to standardise how employees and access are segmented.

## 6. Need For Ongoing Directory Maintenance

If end users have to log in to multiple systems, or the authentication schemas are inconsistent between systems, then the unified experience is lost. Dimension Data often supports clients that have no schema in place to ensure that identity between their Microsoft® Active Directory and voice systems was kept in sync. As and when they roll out enterprise instant messaging systems and use the “click to dial” functionality heavily this becomes a major problem. As people change names, locations and extensions; or leave the company, directories fall out of sync resulting in “click to dial” functionality not working.

Without resources and a streamlined process to maintain disparate directories, organisations will soon lose the benefits they sought to gain from unified communications. At the same time, the time and human effort required to update multiple directories often results in delays in provisioning new users with systems and tools they require to be productive.

Dimension Data recommends investing in tools that automate the process of creating accounts for new hires, changing access levels as employees change jobs, and eliminating accounts when employees leave the company. By automating these processes and systems, organisations become less reliant on individual people and their available time to keep communication up and running. In addition, human error is minimised and risk reduced.

## 7. Build Organisational Growth Into The Plan

Often, organisations look to solutions that address an immediate pain but with limited future application. As the workforce grows and more changes, even streamlined provisioning processes will struggle to cope with user requirements.

Dimension Data recommends organisations consider mainstream technology solutions that are well supported and do not rely on custom development and knowledge to scale with growing demands.

An appropriate solution should include functionality like optional web- or form based user provisioning to streamline the process and web-based corporate directory look up as the organisational workforce grows.

Lastly, the solution should be easily incorporated into full user provisioning across the organisation to avoid duplication and error.

Dimension Data's IPAD Connector solution is a user-provisioning solution that streamlines the management of identities across voice and network environments. IPAD Connector simplifies the deployment and management of IP telephony by integrating user identities between Microsoft® Active Directory and Cisco Unified Communications Manager.

It acts as middleware between these two directories to ensure that both directories are consistent and up-to-date, by automatically provisioning users added to Microsoft® Active Directory in the Cisco Unified Communications Manager directory, with all necessary VoIP attributes added, changed or deleted.

## About The Author

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