

GET CONVERGED: IP Telephony and Mobility

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Introduction:

The main aim of writing this whitepaper is to make good understanding of why the IP based converged network is the future of the communication. Since last many years PSTN has never faced such an intense competition as it is facing today by the introduction of mainly two technologies IP Telephony and Mobility. They provide cost effective solutions which is the main force behind increase in the age of this technology. IP based networks are ideal for convergence. In the past few years because of introduction of these new, standard based, communication technologies, meaning of 'convergence' has been changed.

Before convergence means merging of application and way of operations was the main focus of most of the organizations. But now IP based convergence is in the main manifesto of most of UK organization. There are many reasons for that:

- 1) Reducing the total cost of ownership
- 2) Increasing the productivity of the staff
- 3) Simplification of IT environment.
- 4) Improvement in staff mobility
- 5) Solving business critical issues with simplified solutions

Above mentioned reasons are some of the main reasons why IP based network are more suitable for the convergence.

Defining the term `convergence` :

What is IP Telephony?

IP telephony enables voice communication over internet protocol (VoIP) networks. It unites an organization's many locations - including mobile workers - into a single converged network. It promises cost savings by combining voice and data on one network that can be centrally maintained, as well as by eliminating toll expenses for calls between locations.

What is Mobility?

Mobility means providing universal, "multi-modal" access to the tools and applications you rely on to be productive - regardless of where you are or what device you have access to at the time. Access all messages - voice, email and fax- from one mailbox; dial one number to reach associates whether at the office or somewhere else; and enjoy the same communication features wherever you are working - on the road, at home, or in the office.

Thus a converged network will provide voice, data and video into one single mobile IP based infrastructure.

What are the main reasons of convergence?

Companies today can demonstrate how the convergence of communications system is dramatically impacting their business. Reducing total cost of ownership, enhancing business productivity, simplification of the IT environment and improving mobility and control are just some of the drivers behind IP convergence.

Reduction in Cost:

Savings associated with this convergence is depends organizations network architecture, implementation goals and constraints. A survey reveals that approximately 25 to 60% reduction in cost in overall management and maintenance in the communication equipment.

Increase in productivity:

New technologies will help the organizations to meet productivity objectives through the new value added features. However implementation of this new technology should be performed very carefully as it will also increase complexity in managing. Thus by adopting this new technology will help companies to meet their objectives efficiently.

Improved efficiency:

There is an increase in the teleworkers approximately by 30%. Thus by implementing these advanced communication services through convergence is an innovative approach to increase the business efficiency.

Network simplification:

By centralizing management of voice, video and data into a single network will be definitely easier to manage rather than single application and communication devices for each of them.

Resource optimization:

As the telecom and IT resources will be converged by these advanced technological implementation the resources will be less and technical staff will require knowledge of both the areas to support network.

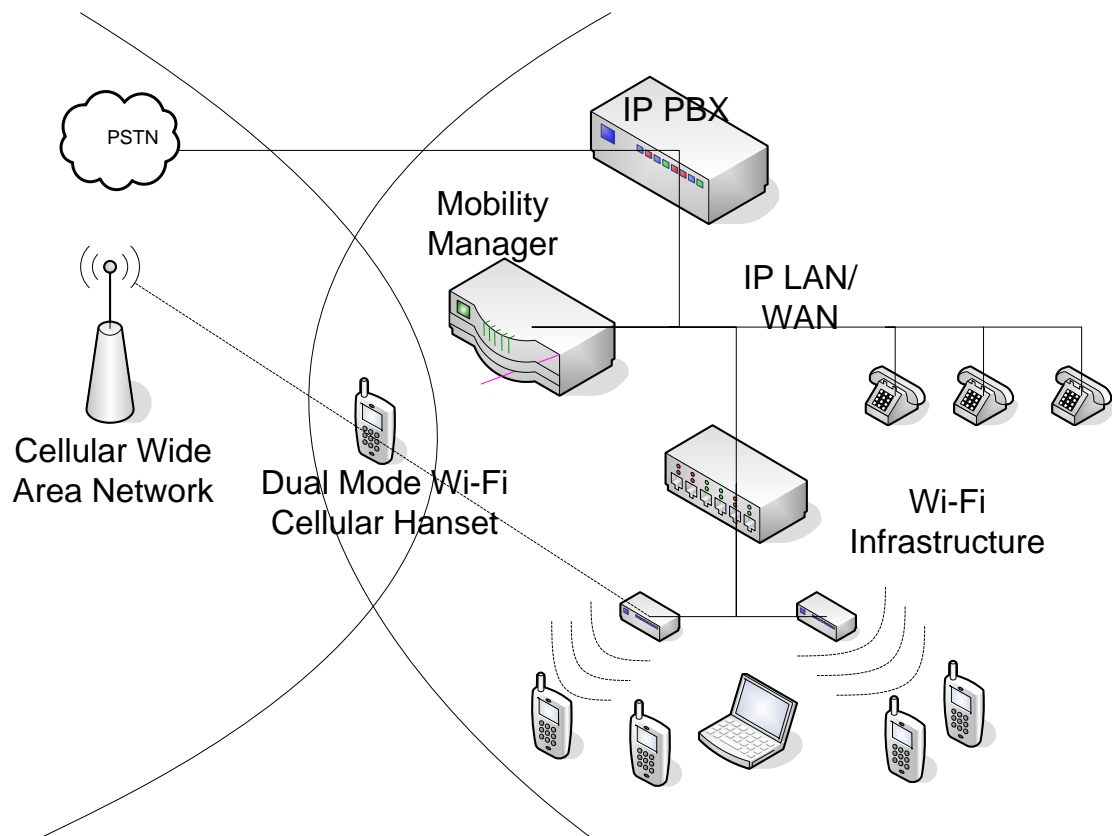


Figure: IP Telephony and Mobility `convergence`

Convergence Challenges:

Planning for this convergence in any organization will require the convergence at the following level:

- **LAN convergence**
- **WAN convergence**
- **Application convergence**
- **Operational convergence**

These each convergence driver will require detail understanding of how they point to the specific area of business. That is why it is critical for any service provider to know the baseline technology to implement this network within time frame. Below are implementation and deployment challenges for a service provider:

- **Network design and planning – including hybrid network options**
- **Evaluation of in house expertise**
- **Evaluation of existing equipment**
- **Migration plan detail**
- **Planning for a better security**
- **Managing and troubleshooting implantation of this IP based network**

Summary:

As companies expand their business globally, the lure of long distance calling and reduced maintenance cost has encouraged them for the VOIP and data convergence. With this initial change companies are starting to realize convergence can have much broader impact on their business. This convergence has much more wider scope as a person can work from home, office and while travelling seamlessly with a single IP based infrastructure. Also with this companies can increase the customer satisfaction and competitive advantage over their rival companies. For that extra edge companies will require help of these innovative technologies.

About NIVID LTD

NIVID provides consulting and IT services to clients across UK - as partners to conceptualize and realize technology driven business transformation initiatives. With our over 15 years of strong technical expertise, our top to bottom approach ensures continuous training for all our employees at all levels. We use a low-risk Service Delivery Model (SDM) to accelerate schedules with a high degree of time and cost predictability.

We provide solutions for a dynamic environment where business and technology strategies converge. Our approach focuses on new ways of business combining IT innovation and adoption while also leveraging an organization's current IT assets. We work with large global corporations and new generation technology companies - to build new products or services and to implement prudent business and technology strategies in today's dynamic digital environment.

Our characteristic appeal to all our clients is our ability to deliver 101% on time. Our commitment to meet your specific requirements with a "can do" approach makes us increasingly popular with our existing clients and our other prospects. Our success ratio is our ability to retain our clients across the SME sector, Corporate and Multinational companies.

NIVID LTD partners with leading IP telephony and VOIP solutions provider AVAYA to bring about cost effective network solutions for its clients. With Avaya IP Telephony, a company can choose the path that is most appropriate for them to deploy enterprise mobility, one that minimizes technical disruption and preserves existing investments in wiring and phones. A mobility server can be added to an existing PBX or the PBX can be IP enabled and gradually expand its new capabilities throughout the enterprise.

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