

# [Wlans are now deployed](https://assignbuster.com/wlans-are-now-deployed/)

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Wireless LANs, WLANs are now deployed at great pace both on company premises and in public hot spots. Having greatly improved the mobility of professional users, this advantage obviously has also created new threats to security. Accordingly, new needs for authentication and authorization and possibly accounting and charging (" AAA") of users did evolve. In this context, the IEEE 802. 1x standard provides a framework for such AAA tasks. Originally designed for wire-based LANs, it is now extensively used for wireless LANs such as the IEEE 802. 11 family of wireless LANs. 802.

1x uses the IETF Extensible Authentication Protocol (EAP), the latter supporting multiple authentication methods. This paper describes a proposal to use 802. 1x based AAA-functionalities to realise public WLAN usage scenarios such as " closed community membership" and " pre-paid, pay-per-use". Every user of computer is being affected due to rapid change in sizes of software. According to one survey the time is not so far when the computer memory will be sold in terabytes. But the question arises here, now we not need only large memories but also security and flexibility.

Data sharing is one of the major issues of distributed computing. Actually distributed means branches of computers connected through wires or wireless mechanism. In distributed environment distribution of data can be done in such a way that while querying data, request can be sent on more then one computer from any data access point. Mobile computing is another hot issue in the field of computer sciences. From this not only our mind became free from spaghettis of wires but also it made our world a global village.

Security remained a main issue while creating any distributed system. Information leakage threat increases when computer send or receive any request or data from other computer. There are different techniques discussed later to make the environment secure. The availability of wireless network connections to laptop computers and PDA's has created interest in the issues surrounding mobile computing. However, enabling users to be genuinely mobile in their work requires more than a wireless connection.

Distributed system services are needed to support the locating of people, equipment and software objects, and, especially for mobile multimedia applications, network transport protocols which can adapt to a wide range of networking conditions must be developed. The evolution of IEEE 802. 11-based Wireless Local Area Networks (WLANs) and the development of mobile devices like laptops have changed the usage of Ethernet networks. Previously, computers were used to connect to an organization's network statically. Now, WLANs and mobile devices, providing for ubiquitous computing, have greatly improved the mobility of professional users.

However, this mobility advantage has obviously also created new threats to security. The corresponding problem is how to decide which one of the possibly many users in an open radio cell is allowed to access the network, what resources he or she may use and how to possibly account and charge the use of resources. The IETF calls this important task " AAA" - Authentication - Authorization - Accounting, or " Triple A" for short. In the given context, one framework to establish an AAA-framework is the IEEE 802. 1x standard. Initially targeting all of the many IEEE 802 LANs and MANs, 802. 1 xs is now extensively used for AAA of WLANs.