able bandwidth repeater switch in an enhanced services region in a communication system, in accordance with a preferred embodiment of the present invention. A subscriber unit may operate within an enhanced services communication system **10** (FIG. **1**) in both a standard region and an enhanced services region. In enhanced services region **58** (FIG. **1**), bandwidth on communication links may be dynamically allocated using variable bandwidth repeater switch **42** (FIG. **1**).

A subscriber unit, in a query task **410**, evaluates the availability of enhanced services, by monitoring for the transmission of enhanced services beacon signal **52** (FIG. **1**) or other communicative protocol such as the exchange of a system capability status with a subscriber unit. By detecting the availability of enhanced services, a subscriber unit may more efficiently and economically operate in enhanced services communication system **10** (FIG. **1**). When enhanced services are not available, a subscriber unit performs a task **415** employing standard communication services for transmitting information through the system.

A subscriber unit, in a query task **420**, receives authorization or validation to employ enhanced services. If enhanced services are not approved, a subscriber unit may employ only standard communication services.

When a subscriber unit receives an authorization to use enhanced services, a task **425** enables enhanced communication services to a particular subscriber unit. The subscriber unit may then place bandwidth requests for allocation of an enhanced services communication link having varied parameters, such as a change in bandwidth.

A query task **430** determines if a request for enhanced services has been issued. When a request for enhanced services is granted, a task **435** employs the requested bandwidth for transmission of data through the variable bandwidth repeater switch. In a preferred embodiment, the subscriber unit transmits consistent with the requested bandwidth through a variable bandwidth connection from among several interconnections through the variable bandwidth repeater switch, and receives consistent with requested bandwidth through the variable bandwidth connection. In another preferred embodiment, a subscriber unit receives a menu of interconnections having at least the requested bandwidth, and selects from among the choices. In yet another preferred embodiment, the menu of available interconnections are presented to the user of a subscriber unit, wherein the user may select a particular interconnect from among those listed in the menu.

In another preferred embodiment, the subscriber unit, in the selecting step, may further allow the user to withdraw the bandwidth request. Such a withdrawal may occur when interconnection costs become expensive or the benefits of dynamic allocation of bandwidth becomes prohibitive.

Following the establishment of a route or interconnection of resources to allocate the requested bandwidth, a task **435** employs the requested bandwidth for transmission of data.

Thus, a method and variable bandwidth repeater switch for dynamically allocating bandwidth through a variable bandwidth repeater switch having a plurality of interconnections between a subscriber unit and a standard region to a subscriber unit in an enhanced services region by detecting the availability of enhanced services in the enhanced services region, evaluating availability of requested bandwidth, and allocating the requested bandwidth to the subscriber unit have been disclosed.

Also, a method for employing dynamically allocated bandwidth through a variable bandwidth repeater switch in an enhanced services region, by detecting the availability of enhanced services, requesting dynamic bandwidth from enhanced services, and employing the requested bandwidth for transmission of data with the variable bandwidth repeater switch has been disclosed.

It will be apparent to those skilled in the art that the disclosed invention may be modified in numerous ways and may assume many embodiments other than the preferred form specifically set out and described above.

Accordingly, it is intended by the appended claims to cover all modifications of the invention which fall within the true spirit and scope of the invention.

What is claimed is:

1. In a communication system having a standard services region and an enhanced services region for providing enhanced services to users, a method for dynamically allocating bandwidth through a variable bandwidth repeater switch to a subscriber unit in said enhanced services region, said variable bandwidth repeater switch having a plurality of interconnections between said subscriber unit and said standard services region, said method comprising the steps of:

detecting availability of said enhanced services;

when said subscriber unit requests said enhanced services, evaluating availability of requested bandwidth; and

when said requested bandwidth is available, allocating said requested bandwidth to said subscriber unit in response to request for said enhanced services.

2. A method as recited in claim **1**, further comprising the step of prior to said evaluating step, authorizing said subscriber unit to employ said enhanced services of said enhanced services region.

3. A method as recited in claim **1**, wherein said allocating step comprises the steps of:

selecting a variable bandwidth connection from said plurality of interconnections through said variable bandwidth repeater switch having at least said requested bandwidth; and

establishing said variable bandwidth connection through said variable bandwidth repeater switch.

4. A method as recited in claim **3**, wherein said selecting step comprises the steps of:

evaluating a cost of each of said plurality of interconnections having at least said requested bandwidth; and

selecting said variable bandwidth connection having a least cost of said plurality of interconnections having at least said requested bandwidth.

5. A method as recited in claim **3**, wherein said selecting step comprises the steps of:

presenting to a user of said subscriber unit each of said plurality of interconnections having at least said requested bandwidth; and

said user of said subscriber unit selecting said variable bandwidth connection having at least said requested bandwidth.

6. A method as recited in claim **5**, wherein said selecting step further comprises the step of allowing said user to withdraw said requested bandwidth.

7. In a subscriber unit for operation in a communication system having a standard services region and an enhanced services region for providing enhanced services to users, a method for utilizing dynamically allocating bandwidth through a variable bandwidth repeater switch to said subscriber unit in said enhanced services region, said variable bandwidth repeater switch having a plurality of interconnections between said subscriber unit and said standard services region, said method comprising the steps of: