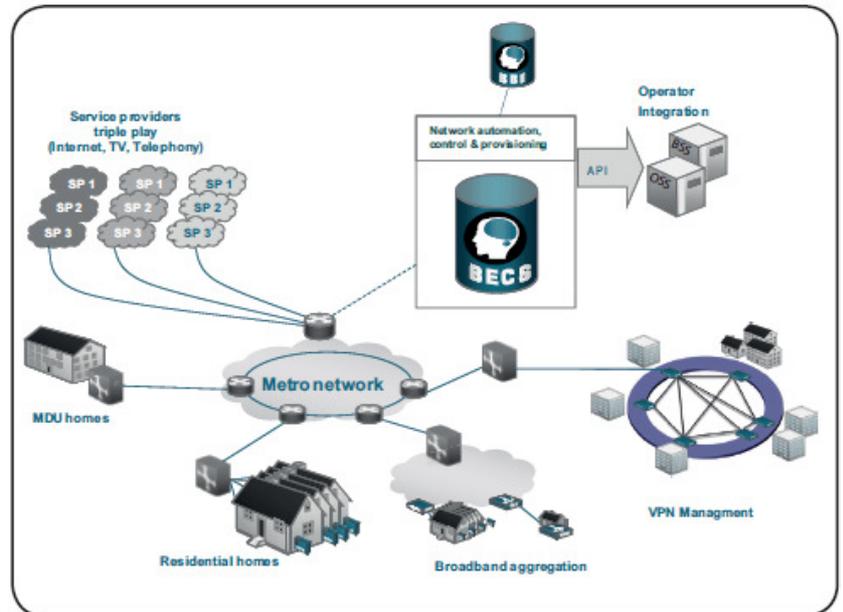


### Key benefits:

- Solution for residential, enterprise and carrier networks
- Multi-vendor element support from core down to CE/CPE level
- Zero-touch element deployment
- Network topology aware service and policy management
- Advanced network resource management
- Customizable APIs for fast and easy third party OSS/BSS integration
- Always up-to-date documentation of services, network elements and resources



### BECS control and provisioning system

Today most networks are still managed manually or semi-manually using scripts. This causes long configuration lead-times, risk of errors in configuration and documentation, as well as high person dependencies. BECS™ is an advanced network manager that eliminates these constraints. It provides the full automation of resource intensive tasks including essential functions for carrier class service provisioning and network management.

### Applications

BECS can be used for multiple types of networks, including residential, enterprise and carrier networks. It is especially suitable for management of complex multilayer and multi-vendor environments, but can also be used as a point product for a part of the network or for solving a specific task.

### Wide range of functions

BECS provides a wide range of functions, covering the tasks associated with provisioning network elements, provisioning and control of services, and generation of information required for, e.g., troubleshooting, billing and network statistics.

### Element Management

BECS automates the time-consuming and demanding tasks involved in controlling and provisioning network elements. Initial configuration and firmware are provisioned automatically to elements when they connect to the network the first time, allowing mass deployment of elements.

Automated updates of element firmware secures the stability of the network, and reduces problems associated with multiple firmware releases. This also saves time and cost by minimizing on-site visits.

### Topology aware service management

Activation, deactivation and changes of services cause numerous updates to service profiles. BECS automates these tasks, thus reducing manual work to a minimum. As BECS is aware of the network topology, it understands which elements to configure on all network layers for each service modification. Every activation, deactivation or change in a service subscription triggers the service profile configuration to be automatically provisioned to all affected elements.

### Simplified service activation

BECS' capability to treat each service separately is vital for the success of a network. Parameters such as bandwidth, QoS, priority, security, etc., are determined individually for each service. A set-top box for IPTV, for example, requires high bandwidth from the transmitter, while a VoIP service is sensitive to delay but requires less bandwidth.

Each individual service profile can be statically configured at the time of activation or dynamically when clients connect to the network. This allows granular control of the network, giving essential advantages such as advanced service differentiation and personalization. It also enables fast troubleshooting as services are separated and treated individually, and thus easily monitored.

### Automated network documentation

As BECS automates the management of network elements, services and resources it documents the changes in its database. This means an up-to-date, fully documented network at every moment.

## Resource management

BECS guarantees optimal use of network resources, eliminating the risk of otherwise frequent resource conflicts. This is achieved by connecting the resource pools to the actual network topology, something that is typically difficult when handling resources in an external system.

BECS can allocate and control IP addresses through its integrated DHCP functionality. For example, the handling of IP addresses from the address scopes of multiple service providers in an open access network is highly complex. The DHCP server in BECS ensures that each end-user device (PC, telephone, STB) receives an IP address from the provider of that specific service. This procedure ensures efficient use and control of IP addresses.

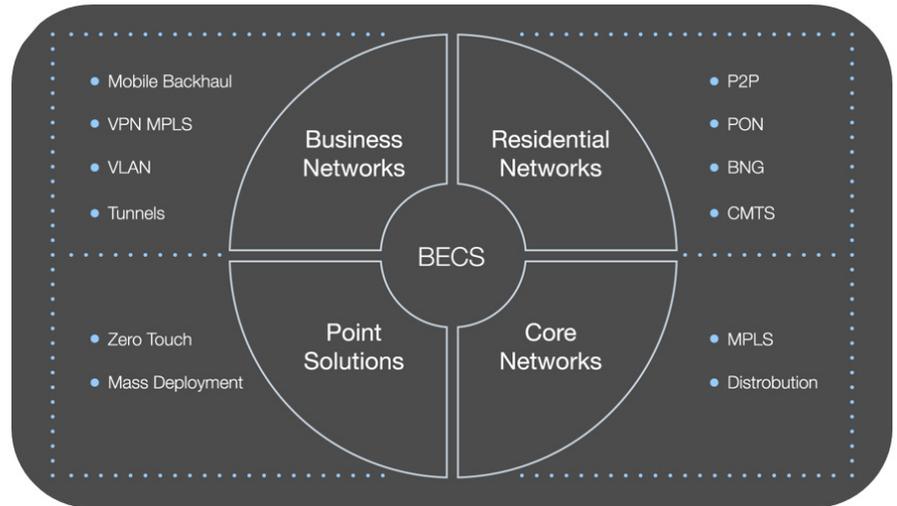
BECS can also be used to automate VLAN and routing parameter assignments, access list, routing and MAC address table updates etc.

## Easy to integrate with other systems

Integration with other systems is made using the BECS Mediation Point (MP).

The high capacity SOAP-XML API ensures smooth and fast integration with business critical systems. The ready-made API adapters make the integration even faster thanks to simplified interfaces for complex tasks, such as service provisioning and trouble shooting. Also, the API is easy to customize. Adding new methods to the API for solving specific tasks is done by simple scripting.

For operators that do not have suitable legacy business applications PacketFront Software offers the BBE suite of applications that are already integrated with BECS and provide out-of-the-box functionality for management of workflows, subscribers, services, trouble shooting, billing, tickets and end-customer portal.



## Network technology agnostic

BECS provides native support for different types of networks and flexibility in the choice of technology.

## Modular element management

BECS manages hardware using specific product kit packages to achieve flexible and easy control of hardware in a multi-vendor environment. Each element manager uses the native configuration commands for specific hardware platforms making it possible for BECS to manage any type of access hardware through simultaneous use of multiple element managers.

## Create own element managers

The Actualizer product kit offers a fast and efficient way of creating new element managers. Thanks to its easy-to-use GUI wizard, Actualizer does not require expert programming skills or deep knowledge of BECS. The user only needs to know how to natively configure the new hardware and the Actualizer then builds the customized element manager. This allows the network operator to create and update element managers by themselves, thus avoiding large consulting costs.

## High Availability

High availability (HA) allows the network to continue to deliver service in the unlikely event of a fatal hardware or software error.

The system modularity combined with the architecture fulfills the demands of a carrier class solution. The architecture of BECS divides the system into Core and Cells.

The High Availability setup allows both the Core and Cell to be coupled in pairs where each (virtualized) server can be located at separate sites in order to increase the reliability of the system.

## High Capacity

BECS has been designed to meet requirements at any scale – from city carriers to large telecom network operators. As the network expands, the scale-as-you-grow capability of BECS allows you to add extra Cells when necessary.