

BECS

Automated Multi-Vendor Network and Service Orchestration

AUTOMATE THE MANAGEMENT OF NETWORK DEVICES, SERVICES AND RESOURCES

BECS control and provisioning system

Today most networks are still managed manually or semi-manually using scripts. This causes configuration lead-times, risk of errors in configuration and documentation, as well as high person dependencies. BECS is an intent-based network orchestrator 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 complex multilayer and multi-vendor environments, but can also be used as a point product for a part of the network or for solving specific tasks.

Wide range of functions

BECS provides functions covering the tasks associated with deploying network devices, provisioning and controlling of services, and generating information required for troubleshooting, billing and analytics.

Device Management

BECS automates the time-consuming and demanding tasks involved in controlling and provisioning network devices. Initial configuration and firmware is deployed



automatically to devices when they connect to the network, allowing mass deployment at scale. Automated firmware updates increase security of the network, and reduce problems associated with multiple firmware releases. This also saves time and money by minimizing on-site visits.

Topology aware service management

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

Resource management

BECS guarantees optimal use of logical 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 external systems.

BECS can allocate and control IP addresses through its built-in DHCP and RADIUS functionality. The DHCP server in BECS ensures that each end-user device (PC, telephone, STB) receives an IP address from the right pool. This procedure ensures efficient use and control of IP addresses.

BECS can also be used to manage other resources, such as VLANs, VPNIDs, route targets etc.

Automated network documentation

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

Easy to integrate with other systems

Integration with other systems is done over the well documented REST and SOAP APIs. The high-capacity APIs ensure smooth and fast integration with business-critical systems. Ready-made APIs make integration even faster thanks to simplified interfaces for complex tasks, such as service provisioning and trouble-shooting. Also, the APIs are easy to extend. Adding new methods to the API for solving specific tasks is done by simple scripting.

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.

High Availability (HA) and Scalability

BECS operates in High Availability, ensuring operation even if disaster strikes.

The system modularity combined with the architecture fulfils the demands of a carrier class solution. 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 scale when necessary, by just adding more servers.

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

Technical requirements

Operating system

- RedHat Enterprise Linux 9, AlmaLinux9 or Rocky Linux 9

Recommended Hardware:

- Minimum Intel compatible 2,4 GHz CPU, 4 cores and 32 GB RAM (depends on network size)

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