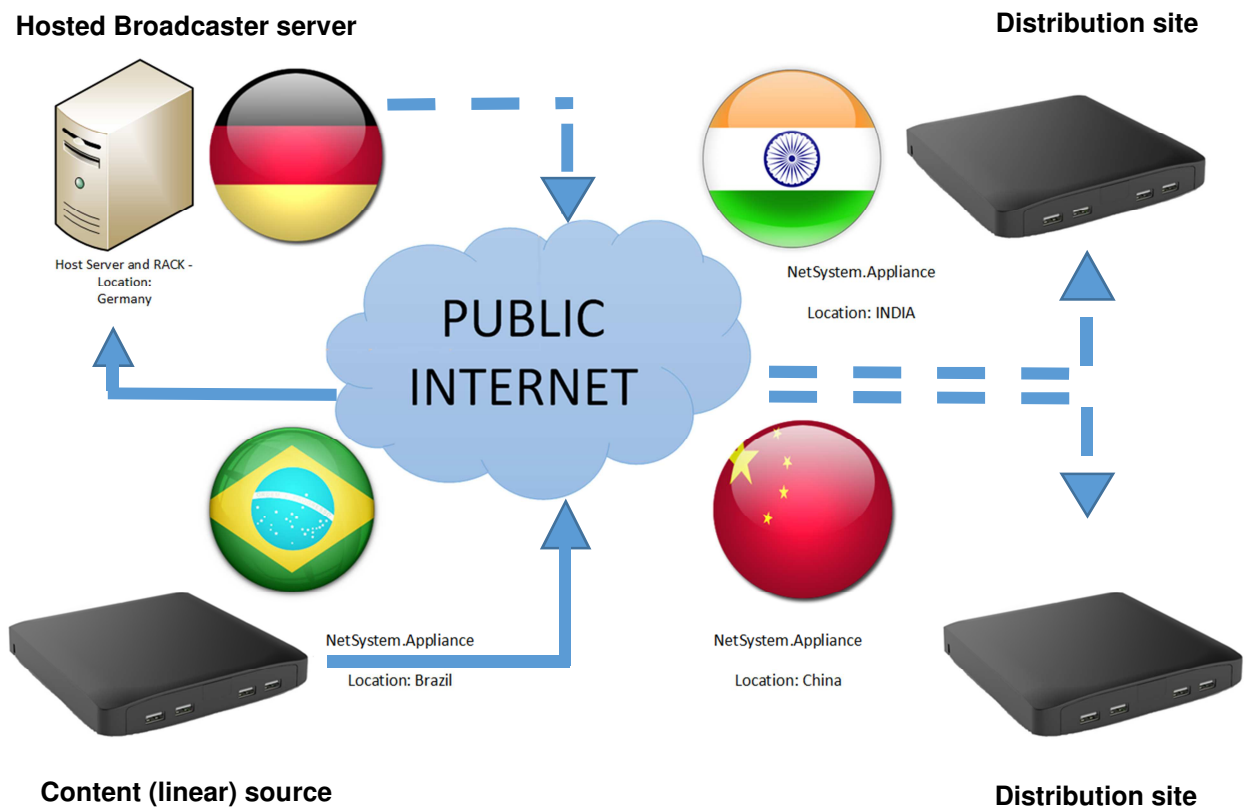# NetSystem.Provisioning Service
Ideal for "remote-hands-on" operation

NetSystem.Appliance is our standard Network Termination Unit (NTU). As all our services are for a Software Defined Network (SDN), we developed this generic appliance concept (Linux based), suitable for both long term service, as well as for a short term service delivery (OU – Occasional Use).

We will explain the functionality using as example our Broadcaster's content distribution service:

CS-Stream Service:

Hosted Broadcaster server

Distribution site

Host Server and RACK - Location: Germany

NetSystem.Appliance

Location: INDIA

PUBLIC INTERNET

NetSystem.Appliance

Location: Brazil

NetSystem.Appliance

Location: China

Content (linear) source

Distribution site

The NetSystem.Appliance is sent to the Distribution Site with a simple installation kit, suitable for the remote-hands-on service of the local operator on that site:

- The site's local service person connects the Appliance as per instructions to an IP network, plugs-in the unique Dongle-ID USB key and starts the power
- The box automatically connects itself to the internet and creates a secure tunnel to its host server
- The host server identifies the box and automatically starts to install all the software pre-defined for it. No need for further intervention

- Once this is done, the control over device is being transferred to the SDN Service Owner (either NetSystem, or an external service operator). In order to complete this hand-over of responsibility and as security mechanism, the Dongle-ID USB key is then disconnected. From this moment on the Appliance is monitored and controlled by the SDN Service Owner

Features:

- Self connecting to home server on internet connection
- Secure connection with openVPN and strong 2048 bit key encryption
- Strongly reliable Linux operation system
- Robust industrial pc case
- Ship → Plug in→ Updated by remote server→ Ready to use

- All needed interfaces included
- Reset button for factory reset
- Remote access from central host
- Up to 5 years long warranty
- Self installing software
- Plug'n'play

System Description:

The appliance is an industrial PC with very high MTBF, designed to work in remote locations with minimal service on site, typically only a "remote-hands-on" service to connect the power and data connections. It finds its way automatically to the NetSystem central provisioning server (Germany), authentifies itself with a special Token
(USB stick) and enables the further installation or activation or on board applications.

Transfer of control to application operator (Service Owner):

On request, the control is being transferred to the application operator (for example Video/Audio transmission) and as long as the Dongle-ID USB Key is physically unplugged, it remains in sole control of the application operator.

Factory reset:

The Dongle is re-inserted and the appliance hard re-booted. Then the provisioning cycle will be done all over again. This is done in case connection is lost to the remote device or a major SW upgrade needs to take place.
It is recommended that the Service Owner stores the new, updated configuration on the Provisioning Server before performing the factory reset. Transfer of control is then done in the same way as when originally activated.

About NetSystem

NetSystem GmbH, founded in Germany 1998, is an international IP Network Operator, specializing on highly secured applications:

- *Broadcaster's Video contribution and distribution*
- *Medical institutes WAN networking for Video and VoIP*
- *Utilities VPN networking from remote unmanned sites and CCTV.*

Based on its SDN architecture and 7x24 NOC, NetSystem operates across networks and continents.
The service provided to the customers is an end-to-end service, agnostic to the specific premises being on-Net or off-Net.
The offering is both for long term connectivity contracts as well es for occasional use (OU).

Connectivity in the last mile can varry on case by case basis between F.O., DSL, SAT Ka or Ku-Band, CDMA-450 MHz, and PtP wireless in various frequencies.

We focus on the customer's needs and build a managed, virtual private network for each customer. Our customer's loyalty proves us right in this approach.
Continous flow of new technology enable us to improve service and costs, thus enabling our customers the competitive edge needed for their business.