

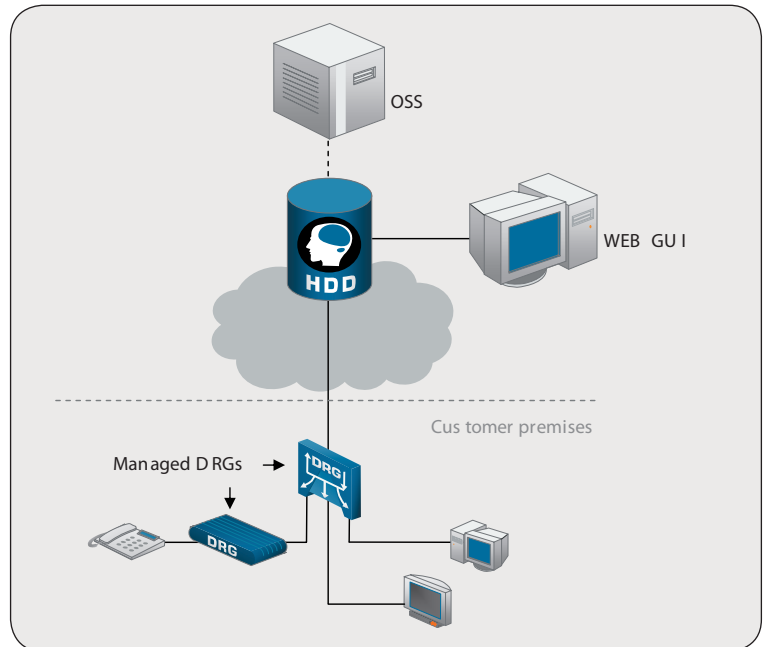
HDD

Home Device Director

Flexible element manager for DRGs

Key benefits:

- Easy and remote configuration
- Automated SW upgrades
- Efficient service provisioning through service profiles
- Offers up-to-date inventory
- Automatically discovered by new DRG units
- Managed through standard web browser



The Home Device Director, HDD, manages the DRGs in the broadband network.

Making triple-play services available for thousands of end-users requires a flexible service provisioning system. The Home Device Director, HDD, is optimized for the DRG series of Digital Residential Gateways and IP-telephony, Video and Internet services.

Configuration

In broadband networks where the number of DRG units is growing, the need for automation is evident. HDD enables the operator to register, configure and manage all DRGs in the network remotely. All manageable functions in the DRG can be configured through the HDD. This involves defining telephone line characteristics, fax parameters, configuration of Virtual Local Area Networks (VLANs), multicast behavior and network information.

When the DRG is connected to the network, it automatically discovers the HDD, using various methods. The HDD, in turn, configures the DRG with the desired parameters and required software.

To facilitate the easy configuration of DRGs, profiles are provided. These profiles are used to minimize the efforts needed for configurations, and to ensure the mapping of capabilities with the correct product type. When adding a DRG to the network, the operator chooses a pre-defined profile and all parameters are set in the DRG, except those that are unique to the individual, such as the DRG ID, VoIP account data and telephone number.

Service provisioning

To create services for multiple DRGs the HDD facilitates system wide service profiles. A specific service profile is referred to as a DRG require that service. In this way services gets manageable even if deployed on thousands of DRGs. Any changes in the service profile changes the configuration for all DRGs to which it refers. For customization purposes, extra service profiles can be created, as required.

Software upgrades

The HDD enables remote upgrade of software on both single and multiple DRGs.

The operator simply selects the version that is to be upgraded and specifies the new version. As soon as the DRG polls the HDD it gets a notice about the upgrade and connects to the HDD and downloads the software package.

After a software update or upgrade, the HDD may re-adjust some of the other parameters of the DRG to ensure that these will function correctly by having the DRG download a new configuration template.

Inventory

The HDD keeps track of all the DRGs it manages. This gives an up-to-date inventory of every unit that is connected. It also keeps track of when any given unit was last seen in order to allow identification and troubleshooting of faulty or disconnected units.

HDD

Auto-discovery

One important feature of the HDD is auto-discovery. A newly installed DRG unit will automatically look up the HDD system. The HDD system, in turn, will provide the DRG with the pre-configured parameters to enable telephony and other functions according to the templates.

The HDD is independent of the network architecture and can also be placed remotely (outside the network containing the DRG). The communication between the HDD and the DRG is based on standard protocols and does not require any additional rules in the firewalls of the networks. The DRG system can discover the HDD system in two ways:

- A DRG may be pre-provisioned with the name and/or address of the HDD system from manufacturing. As soon as the DRG is connected to a network and is provided with its network configuration, it immediately looks up the HDD.
- The DRG can be instructed to find the HDD through the Dynamic Host Configuration Protocol (DHCP) option 43 at the same time the DRG acquires its network configuration.

Easy-to-use web-based interface

The HDD is managed through a standard web browser. Since the web interface is familiar to most users, getting started is easy. The normal web layout, colors and icons

have been intentionally chosen. File management is done by means of the ordinary operating systems dialogues.

The HDD has been specifically designed for its primary task of increasing efficiency when handling large-scale DRG deployments from a central Operations and Maintenance center.

External API

In many cases, it is preferable to integrate the management of the DRGs in an overall Operational Support System. The HDD has a standard based SOAP/XML interface to allow external applications to do all of the tasks normally handled by the human user through the web interface.

Technical requirements

HW platform requirements

Network interface e.g. Ethernet LAN
Windows XP SP2
Intel P4 1.5 GHz or equal
Screen resolution of minimum 1024x768, 16 bit colour
1 GB RAM
100 GB Harddisk