



# ASTRA SHS Multipath Architecture

## ASTRA Architectures

ASTRA's architecture offers many levels of redundancy at the component, device and system levels. SHS is a software option that adds an additional redundancy option at the facility level.

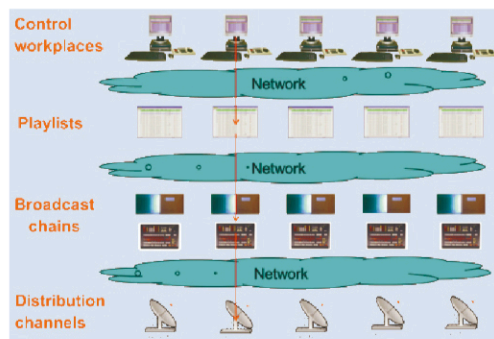
ASTRA hardware components come standard with dual power supplies and system disks for protection. ASTRA Servers used in standalone systems, Orbiter pods and ASTRA

BackOffice can be mirrored for full redundancy. At the system level, Orbiter systems can be designed with spare Orbiter pods for an "N+1 redundant design.

SHS provides system designers a cost-effective redundancy option that works at the facility level.

## Facility Design

A typical facility has dedicated control rooms for each playout channel. Each channel has a dedicated "broadcast chain" of devices controlled by ASTRA that process the signal for playout. This includes videosever channels, logo inserters, graphic devices, master control, routers, etc. These devices are dedicated to a specific channel and it is very difficult to move or share devices between other channels.



TYPICAL MULTI-CHANNEL FACILITY DESIGN.

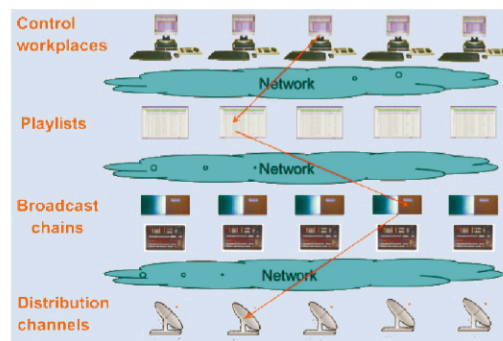
## ASTRA SHS Multipath Architecture

ASTRA SHS is designed around the concept of network transparency which enables devices to be shared between control rooms. Without rebooting the system or devices, users can:

- Control any broadcast chain from any control room
- Move any playlist to any ASTRA server
- Control any Playlist from any user terminal

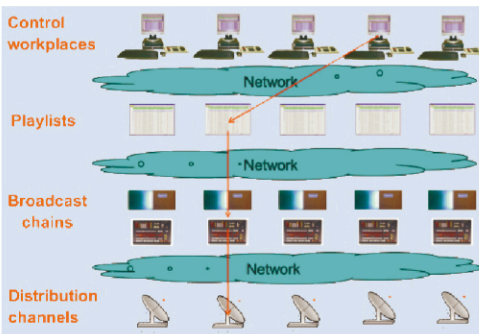
## SHS Examples

For example, if a control room needs maintenance or an upgrade, control of that channel can be moved to another control room. SHS will automatically route the proper signals to the local multi-viewer, route the proper mixer frame to the local mixer control panel, and even route the phone calls and intercom calls.



EXAMPLE OF CHANGING CONTROL ROOMS UNDER ASTRA SHS CONTROL.

SHS lets expensive devices be shared between control rooms. For example, a high-performance switcher or graphics device could be used by one control room during the day and another control room at night for special programs.



EXAMPLE OF MOVING USER CONTROL.

SHS is yet another example of why ASTRA is installed at many multi-channel broadcasters as it adds a powerful capability for the design and control of a complex facility.