

System Upgrades



Overview

Satellite equipment and antennas are high value assets and more and more we are finding that customers wish to re-use rather than replace their existing infrastructure when a change of application is planned. Re-use of certain assets can also be appropriate when the upgrade involves replacement of other legacy hardware/software in the system with the latest technology. With our in-depth knowledge of satellite systems we are able to deal with any upgrade requirement.

Typical upgrade projects include:

- Antenna feed replacements to provide different or extended frequency of operation, high power operation and Circular and Linear capabilities. All feed upgrades come with full re-validation of the antenna radiation patterns and performance to meet satellite operator requirements.
- Antenna drive system refurbishment. Antenna structures are usually well maintained and are fully functional even 15 years after the initially installation. However, drive systems often need replacement, with new motors and the latest ACU and Inverter drives.
- HPA upgrades to replace legacy equipment. At lot of satellite system installations are now 10+ years old. HPAs are a key element of the satellite system, but with advances in HPA efficiency, higher power satellites and older amplifiers now at end of life support cycle, more and more customers are looking to upgrade to benefit from latest technologies. We have developed and proven replacement rack assemblies to enable legacy CPI GEN3 and 3kW TWTA to be changed without disruption to existing Power, Air Handling, waveguide and interface cabling. Other legacy amplifiers replacements can also be supported.
- M&C systems upgrades and retro fits. Software systems develop at a high rate. We can replace or upgrade existing systems, replacing or utilising existing communication infrastructure as required.
- Addition of expansion chains. As customers grow, their need for more satellite bandwidth increases. Adding additional chains of equipment systems such as HPAs and converters, along with associated waveguide, cabling and M&C integration is a capability we offer our customers.
- Other upgrades include: Waveguide network modification, Switch controller replacements and LNA/LNB sub-system replacements.

Planning

We understand that with any upgrade project, planning is key to its success.

- We produce detailed project and site phase plans and co-ordination closely with customers when working on live systems.
- We are able to work night shifts and weekends to enable upgrades to be implemented during off-peak service times.
- Temporary redundancy arrangements can be organised if required during the upgrade phase.
- Full documentation is provided and upgrades are tested to ensure they operate as expected within the existing infrastructure.

