

IAF SPACE OPERATIONS SYMPOSIUM (B6)
Ground Operations - Systems and Solutions (1)

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CLYDE SPACE: MISSION OPERATIONS CENTRE

Abstract

The Clyde Space Mission Operations Centre (CS:MOC) is a REST API backend with a web app front end that serves to coordinate satellite operations. It has an extendable scheduler for booking spacecraft contacts with various ground station networks and a logbook for recording contact plans and the results of each contact. It also acts as the central source of truth for spacecraft configurations.

The MOC can be used for manual spacecraft contacts but also supports the progression towards automation of satellite operations. It has a notification system for external apps to hook into that facilitates automated processes during and in support of automated spacecraft contacts.

Together with its companion application, CS:Commander, it allows automated execution of Python scripts during spacecraft contacts to perform autonomous operations. The logbook can capture automated scripts to run as part of the contact plan, and the logs from the scripts are captured in the logbook results.

It is built using freely available backend systems. It is deployable to the cloud and has been designed to be scalable.