

Case Study : : Large Resort Hotel – Whistler, BC - Connect to Reservation System



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Background:

This large ski resort hotel has high energy costs. The Reservation and hotel booking system know when rooms are vacated and when a check-in occurs. This information is used to control 'Room-Occupancy' mode and hence provides an energy optimization.

In addition, some HVAC operational data is extracted from the automation system and fed directly into the Preventative Maintenance System. No new controls were introduced during the project.

The existing controls are based on JCI Controllers and trunks of JCI Metasys devices. Installed in 1999. The system operates well and no changes were required.

Major Project Challenges (from an integration point of view)

1. A new system requires access to the data points of the JCI Metasys field devices but these devices are already in service as part of a JCI system where the controllers perform sequencing and scheduling.
2. Metasys only allows a single 'Master' on the trunk and thus with the JCI controllers remaining in place there is no way for an additional system to monitor / command the Metasys points.

3. Legacy Metasys does not have the ability (without upgrades) to communicate over BACnet or other web protocols like HTML or SOAP and thus integrating the system with other systems is costly and complex.

Why the S4 Solution was chosen:

1. S4 system allows existing controllers to continue to function (as they always did) without interruption AND at the same time exposes the data via BACnet.
2. The S4 system provides a mechanism for command contention between commands coming from the JCI controller and the new BACnet interface. The system allows an engineer to make (and then change) a decision about which command wins, if both the new BACnet and the old JCI want to command the same point.
3. The S4 system co-exists with the communications between the JCI controller and the field devices on the Metasys trunk. It uses 'quiet' times, to send its own polls and commands without interfering with the JCI controller communications.

Some Key project Information and successes

1. 4x NCM350
2. Total Metasys device count approx 600.
3. Project executed by Miro Kristof of



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