Application Description

7

13

Terminal Unit Functional Blocks

Interworking of Functional Blocks

Summary

This document is a part of the HVAC Application Interworking Standard for HVAC applications. This Chapter describes the Interworking of the Functional Blocks.

Version 02.02.01 is a KNX Approved Standard.

This document is part of the KNX Specifications v2.1.

Document updates

Version	Date	Modifications
001.21	2001.08.07	Excerpt from former document TU_FB_18C Adapted to the Template Partly adapted to other documents
001.22		
2.00	2002.11.29	Header and footer adapted Version adapted Completed
2.01	2003.10.15	---
2.02	2004.01.15	---
2.2	2009.06.17	Update in view of publication in the KNX Specifications v2.0.
02.02.01	2013.10.29	Editorial updates for the publication of KNX Specifications 2.1.

References

None.

Filename: 07_13_00 HVAC Interworking v02.02.01 AS.docx
Version: 02.02.01
Status: Approved Standard
Savedate: 2013.10.29
Number of pages: 27

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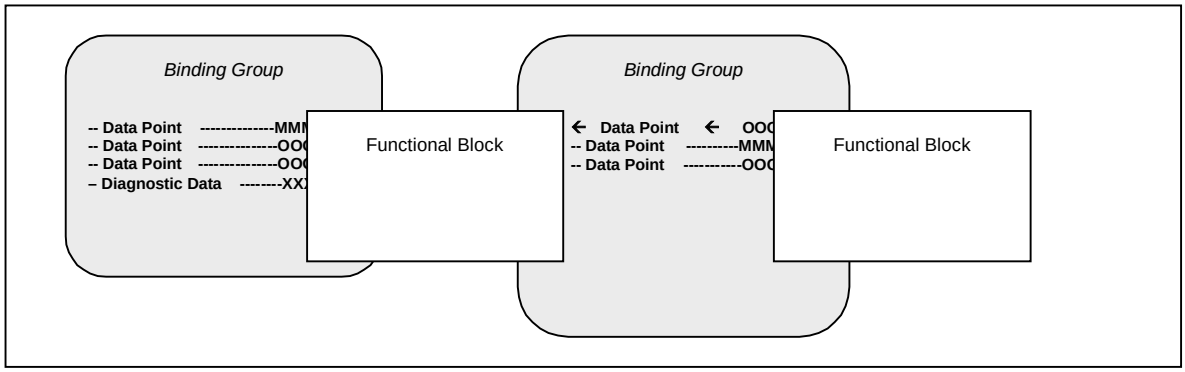
1 General Remarks

The purpose of this document is to verify the co-operation of the different Functional Blocks. Where is the information coming from, where is it going to.

For details of the Functional Blocks, please refer to the corresponding documents (see 1.1).

1.1 Description



The grey fields represent a Binding Group with different Datapoints.

The white fields represent the Functional Blocks with the corresponding Datapoints.

Normally the information flow is from left to right, although some exceptions are especially marked with arrows←.

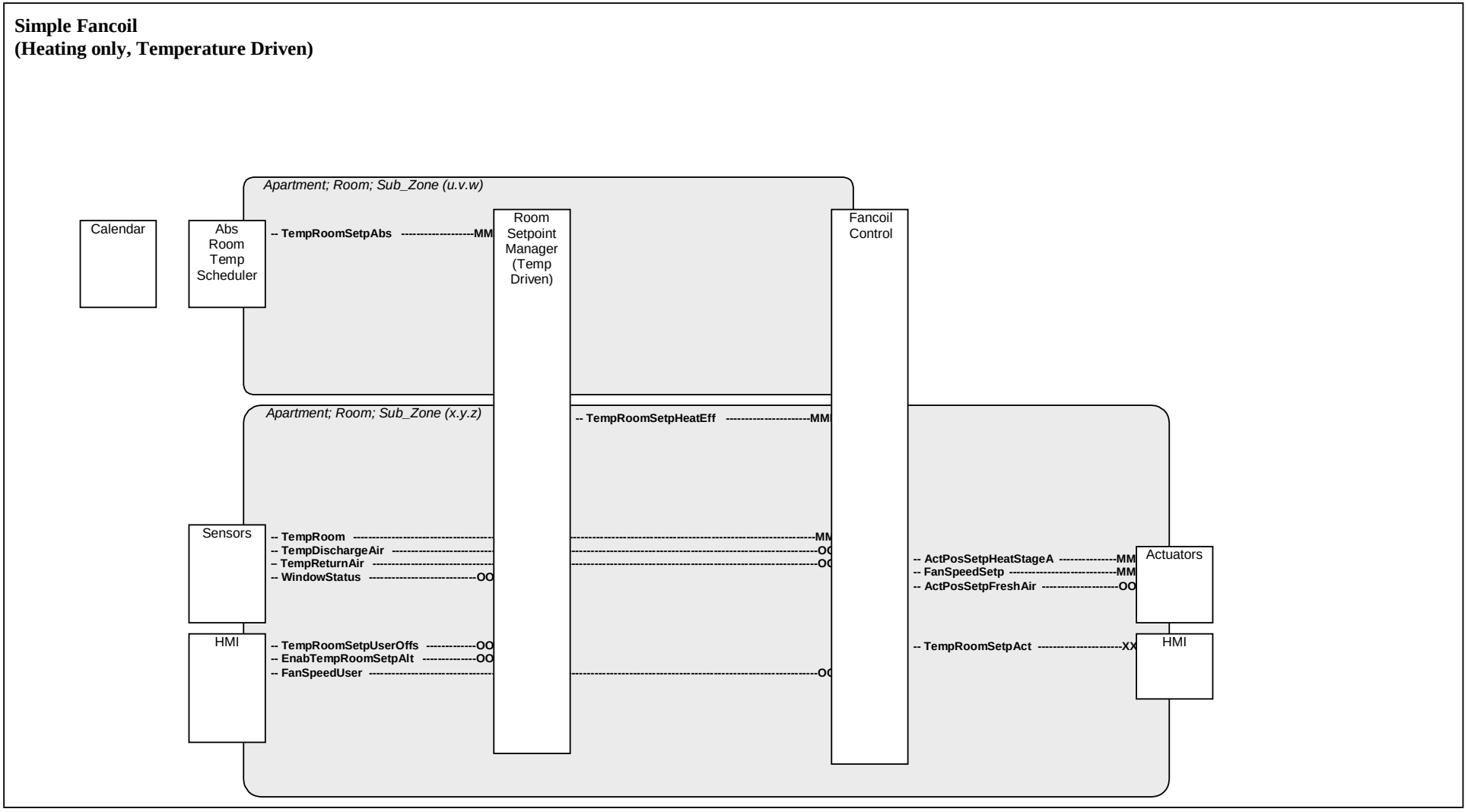
–MM represents a mandatory “connection” of the “variable”
–OO represents an optional “connection” of the “variable”
–XX represents diagnostic data

2 Examples

See following pages

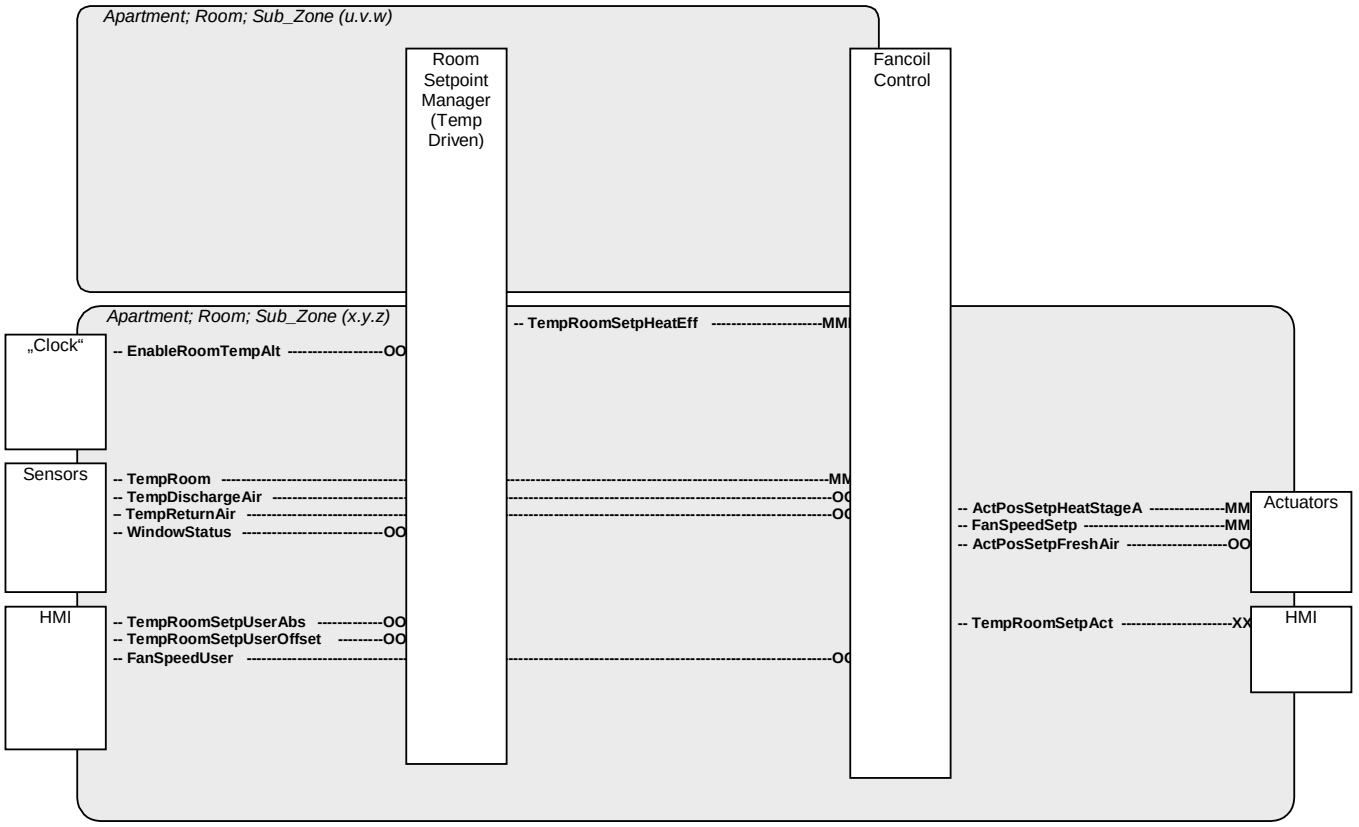
2.1 Simple Fancoil (Heating only, Temperature Driven)

Simple Fancoil
(Heating only, Temperature Driven)



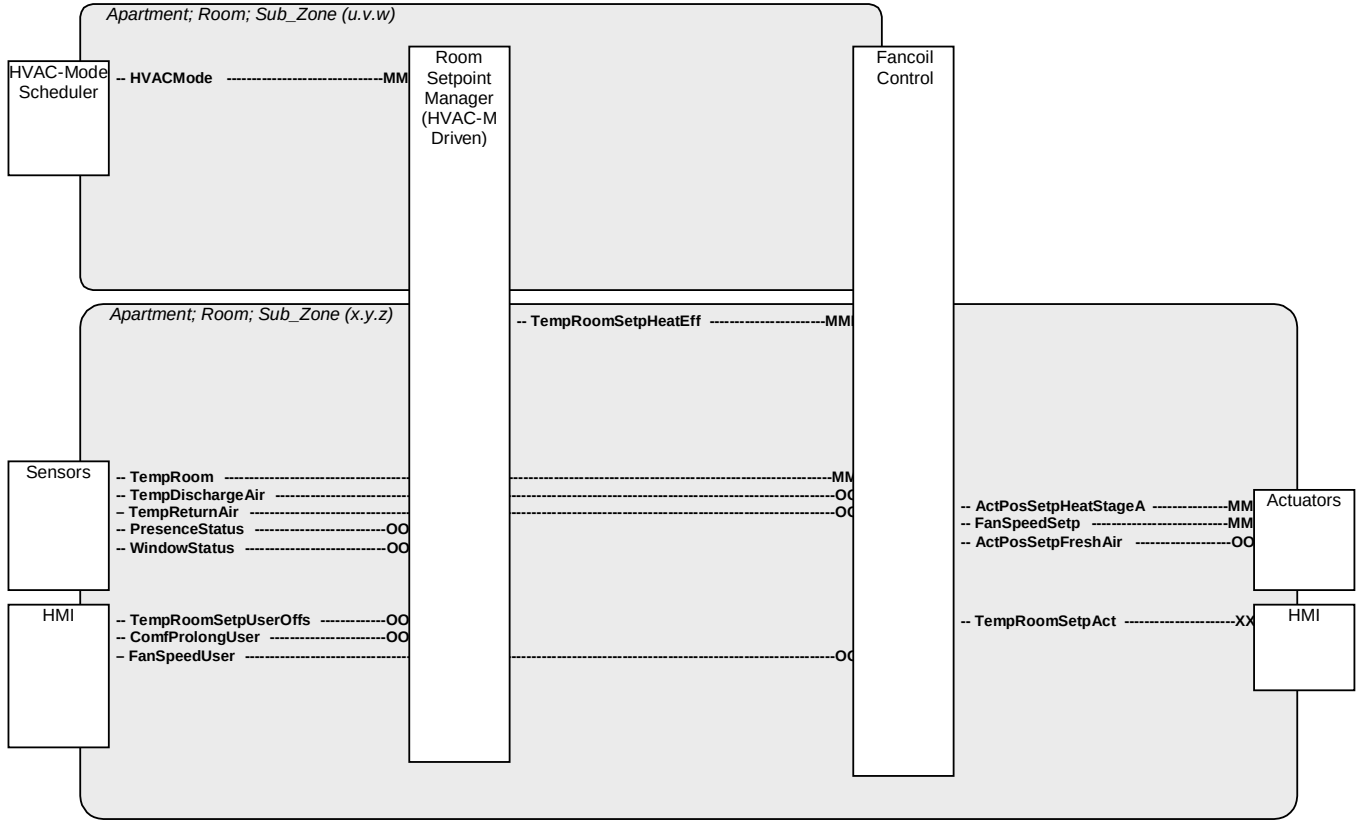
2.2 Simple Fancoil (Heating only, "Clock" Driven)

Simple Fancoil
(Heating only, „Clock“ Driven)

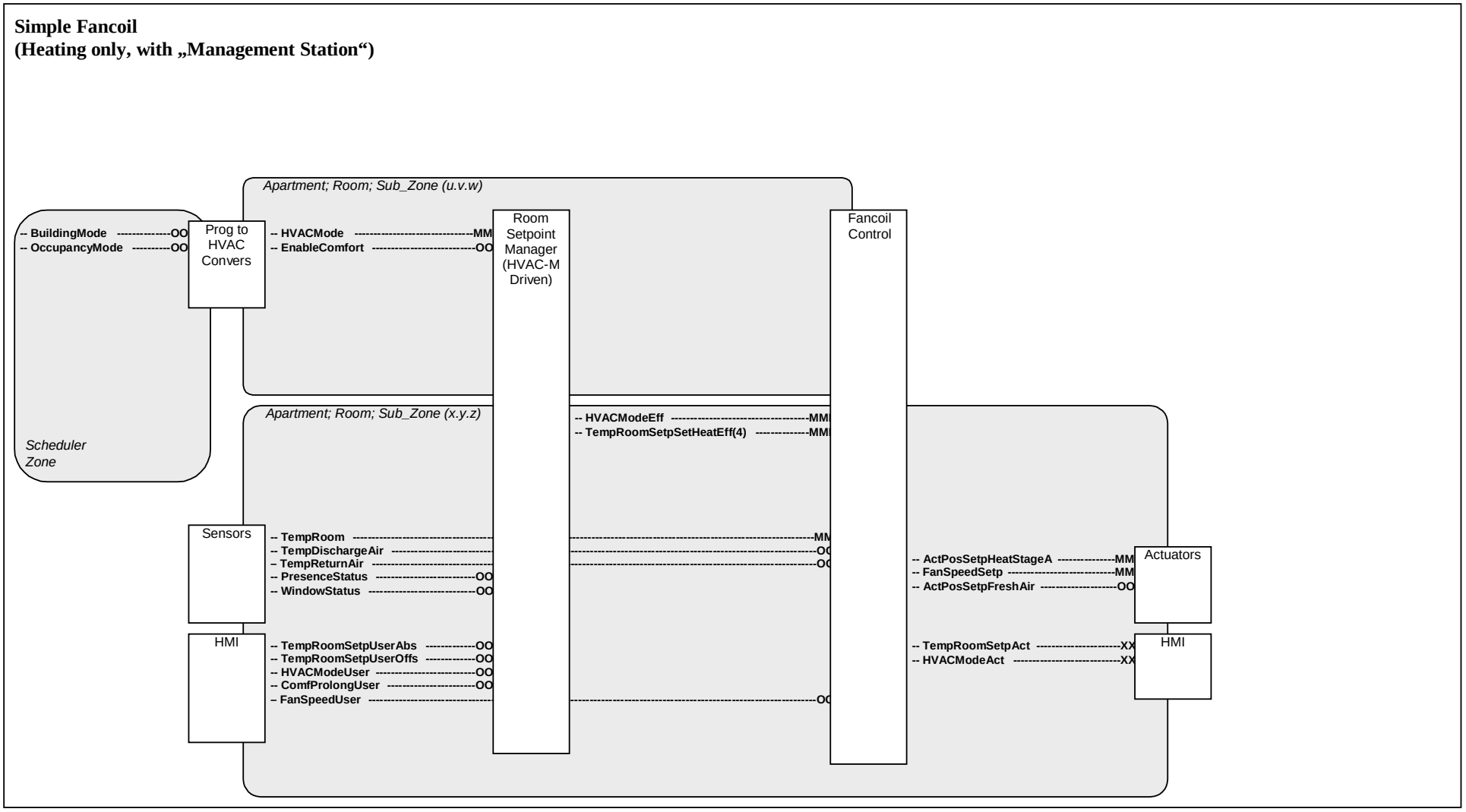


2.3 Simple Fancoil (Heating only, HVAC-Mode Driven)

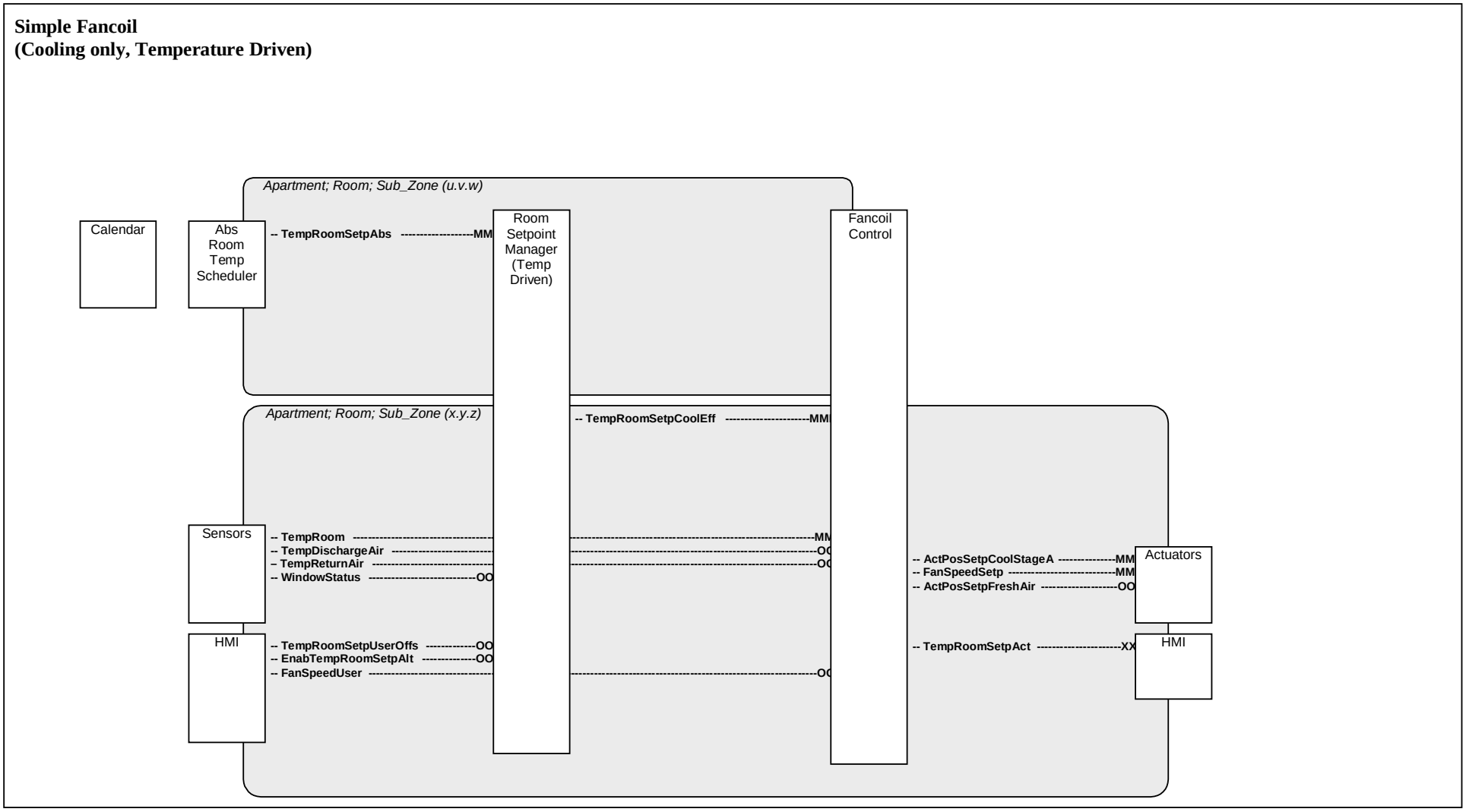
Simple Fancoil
(Heating only, HVAC-Mode Driven)



2.4 Simple Fancoil (Heating only, with "Management Station")

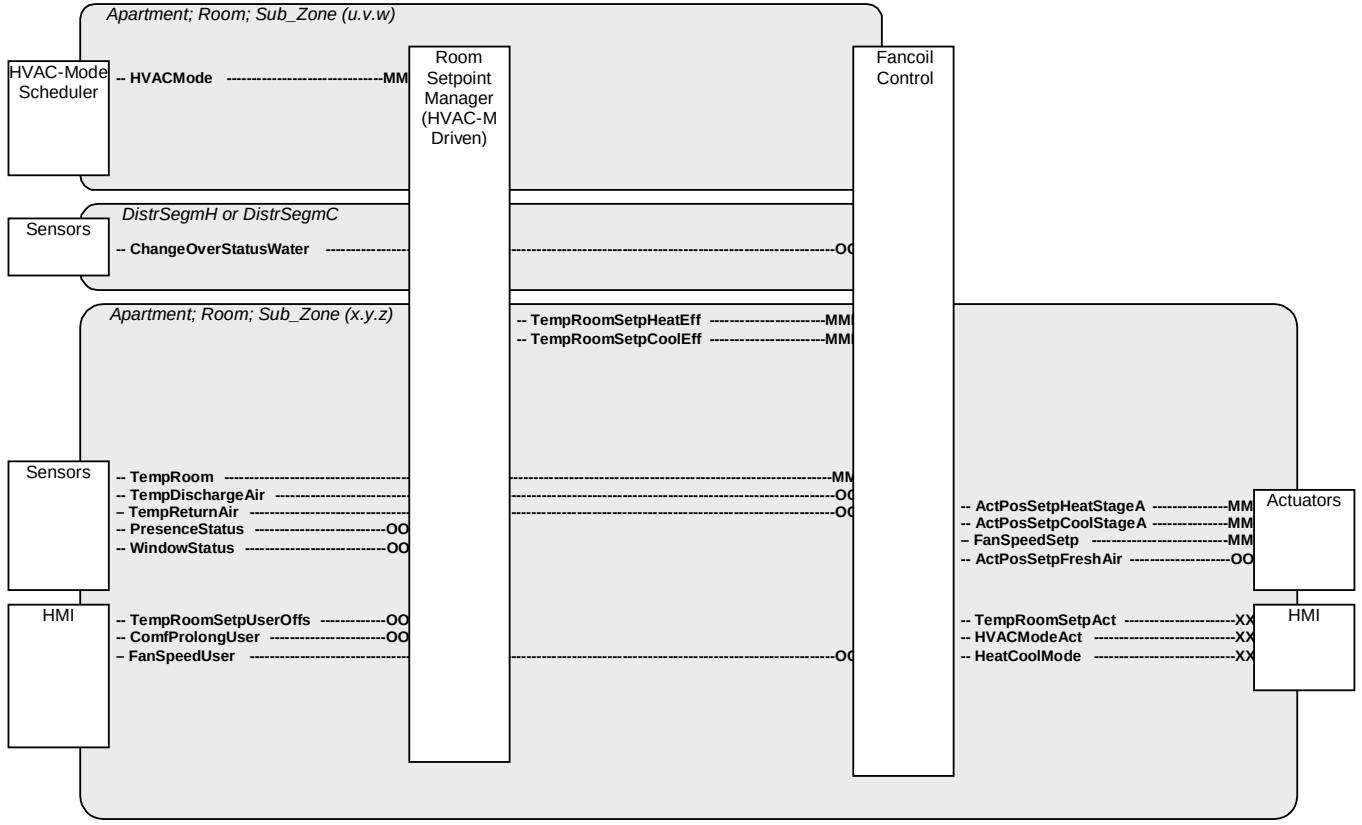


2.5 Simple Fancoil (Cooling only, Temperature Driven)

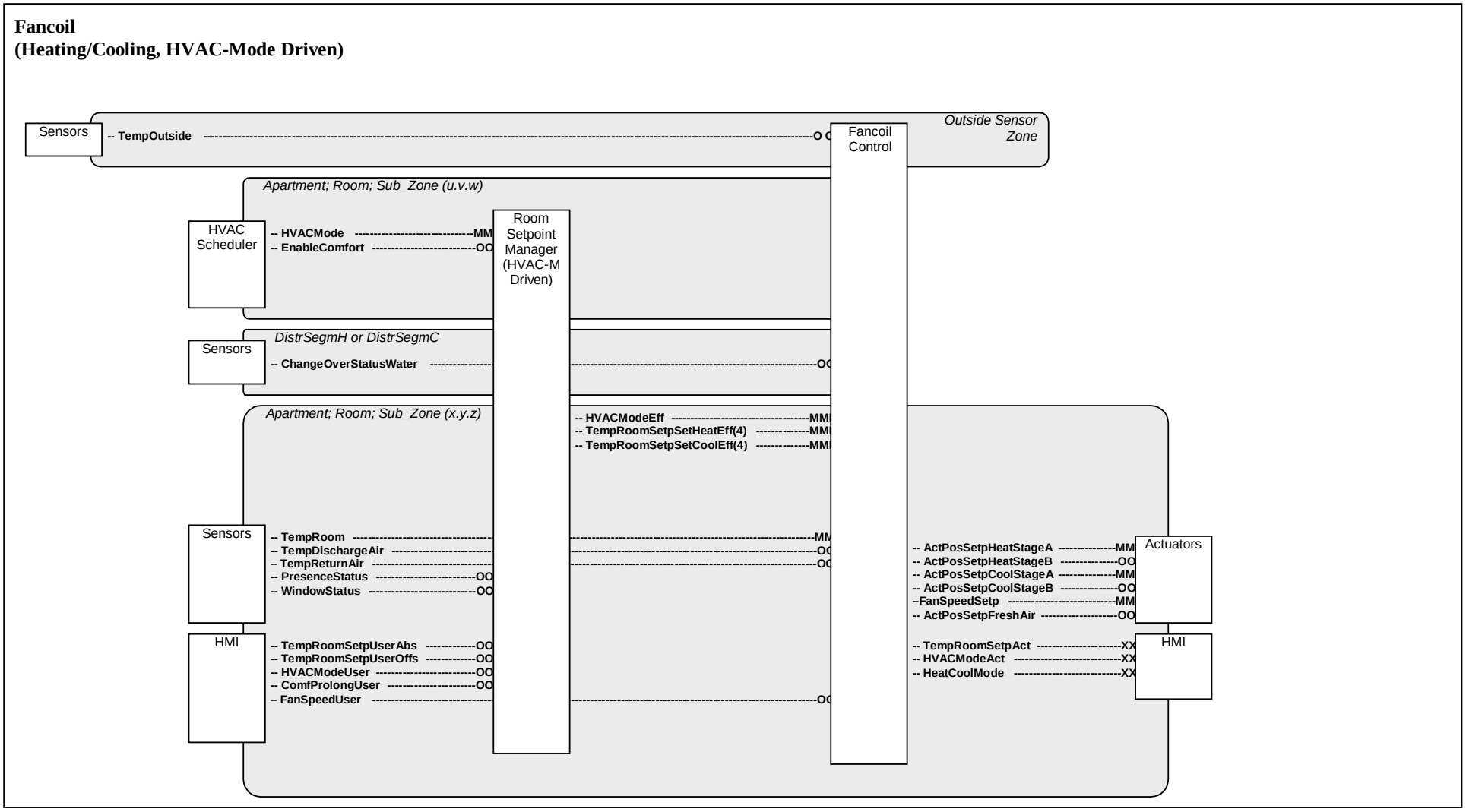


2.6 Simple Fancoil (Heating/Cooling, HVAC-Mode/Temperature Driven)

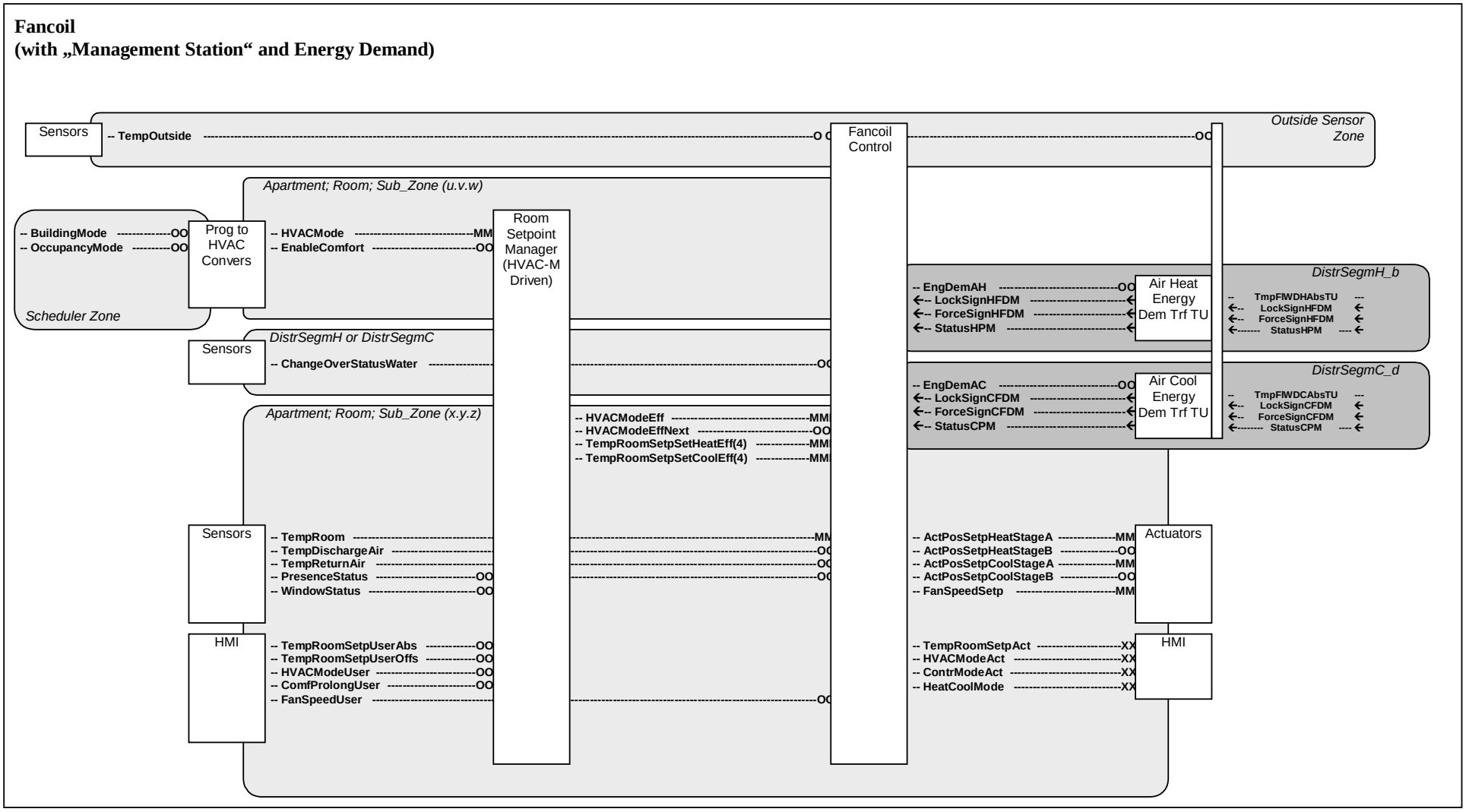
Simple Fancoil
(Heating/Cooling, HVAC-Mode/Temperature Driven)



2.7 Fancoil (Heating/Cooling, HVAC-Mode Driven)

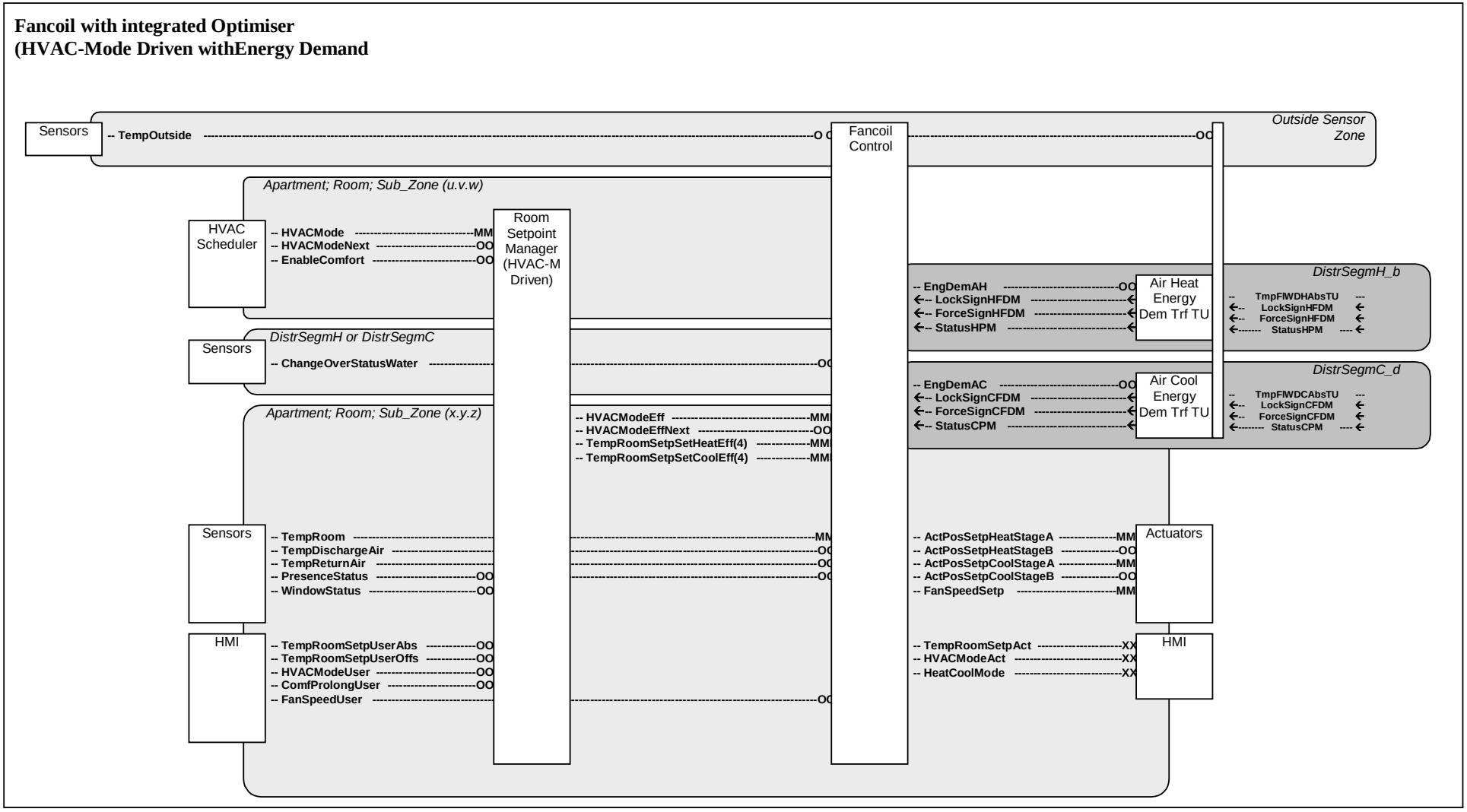


2.8 Fancoil (with "Management Station" and Energy Demand)

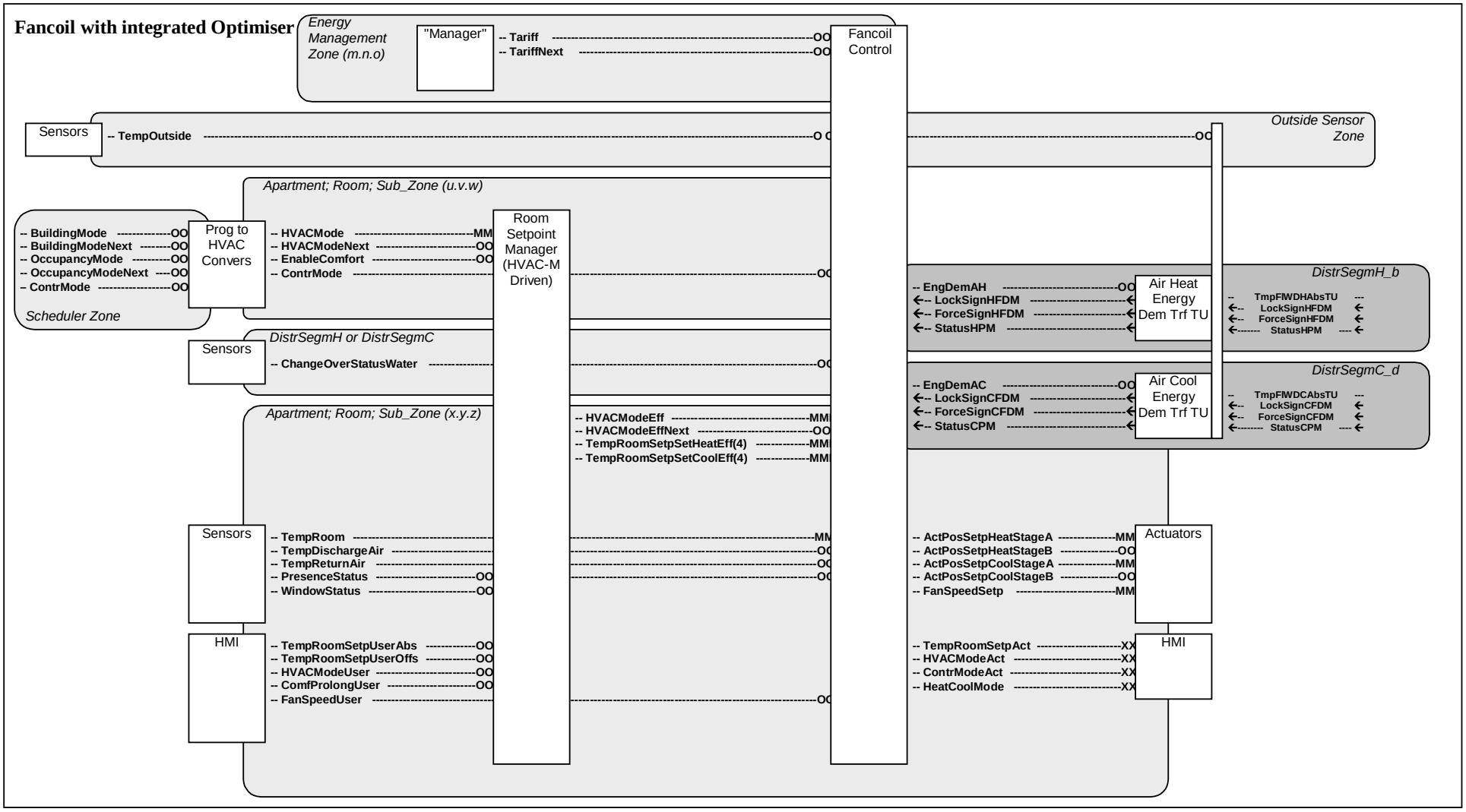


2.9 Fancoil with Optimiser (HVAC-Mode Driven, with Energy Demand)

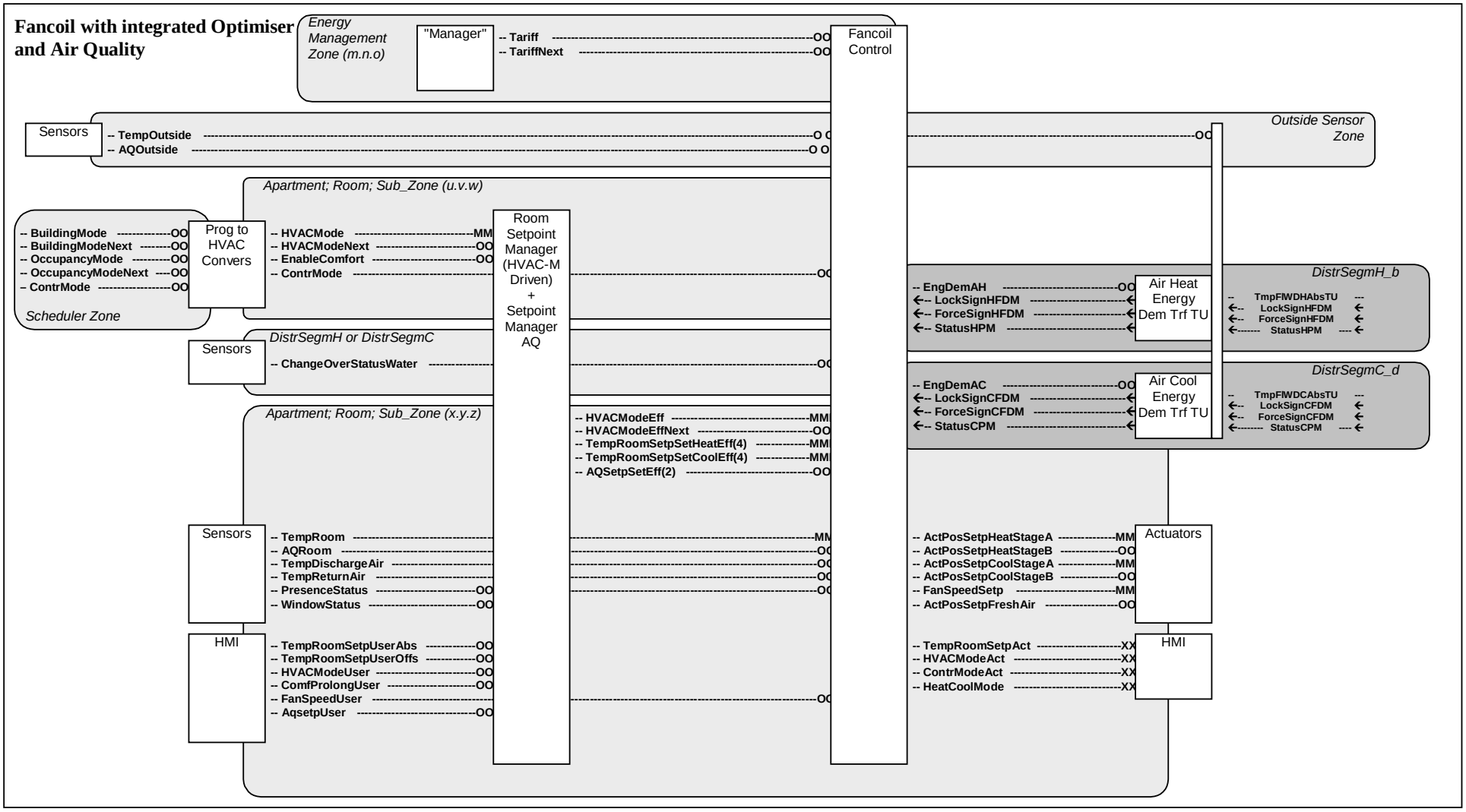
Fancoil with integrated Optimiser
(HVAC-Mode Driven withEnergy Demand



2.10 Fancoil with Optimiser (with "Mgmt Station", Tariff Opt. and Energy Demand)

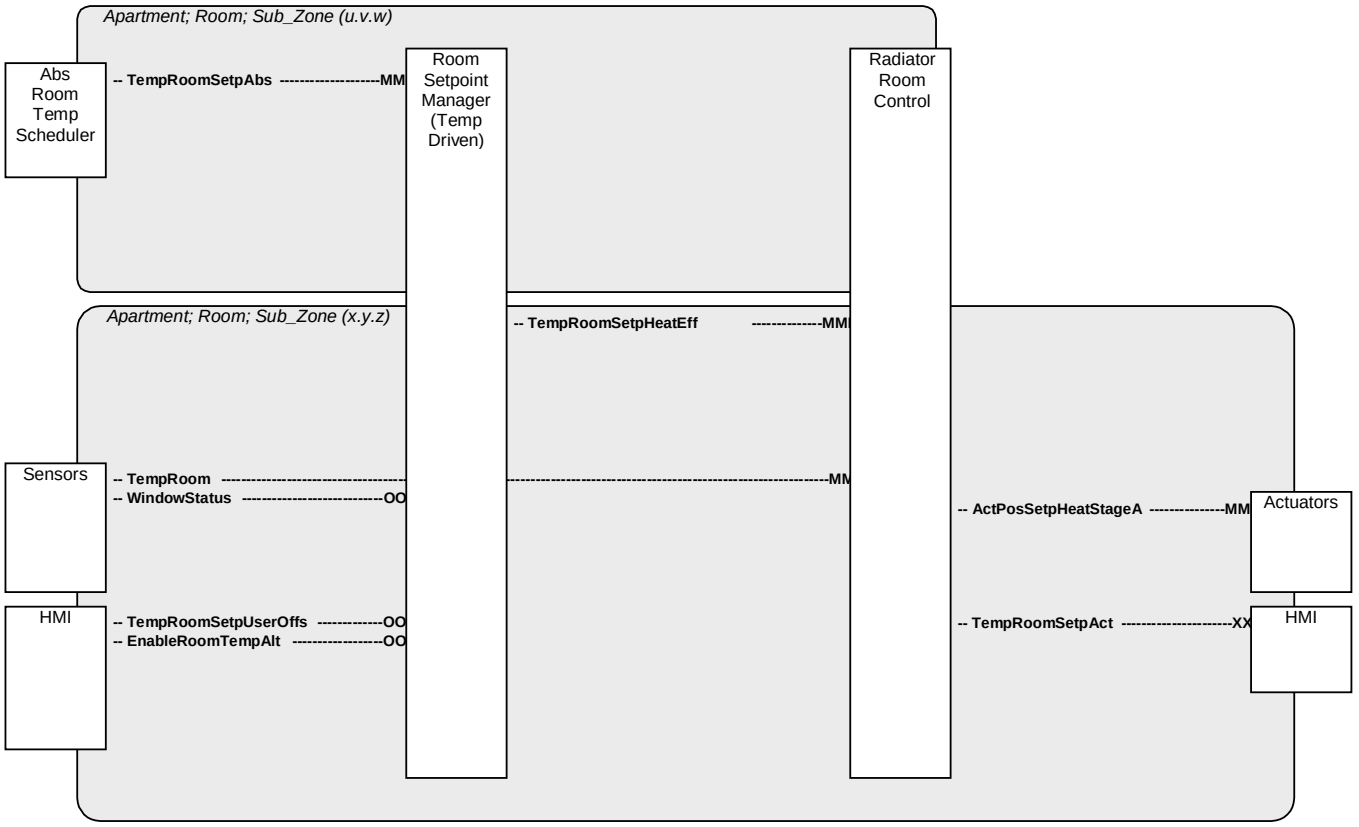


2.11 Fancoil with Optimiser and Air Quality



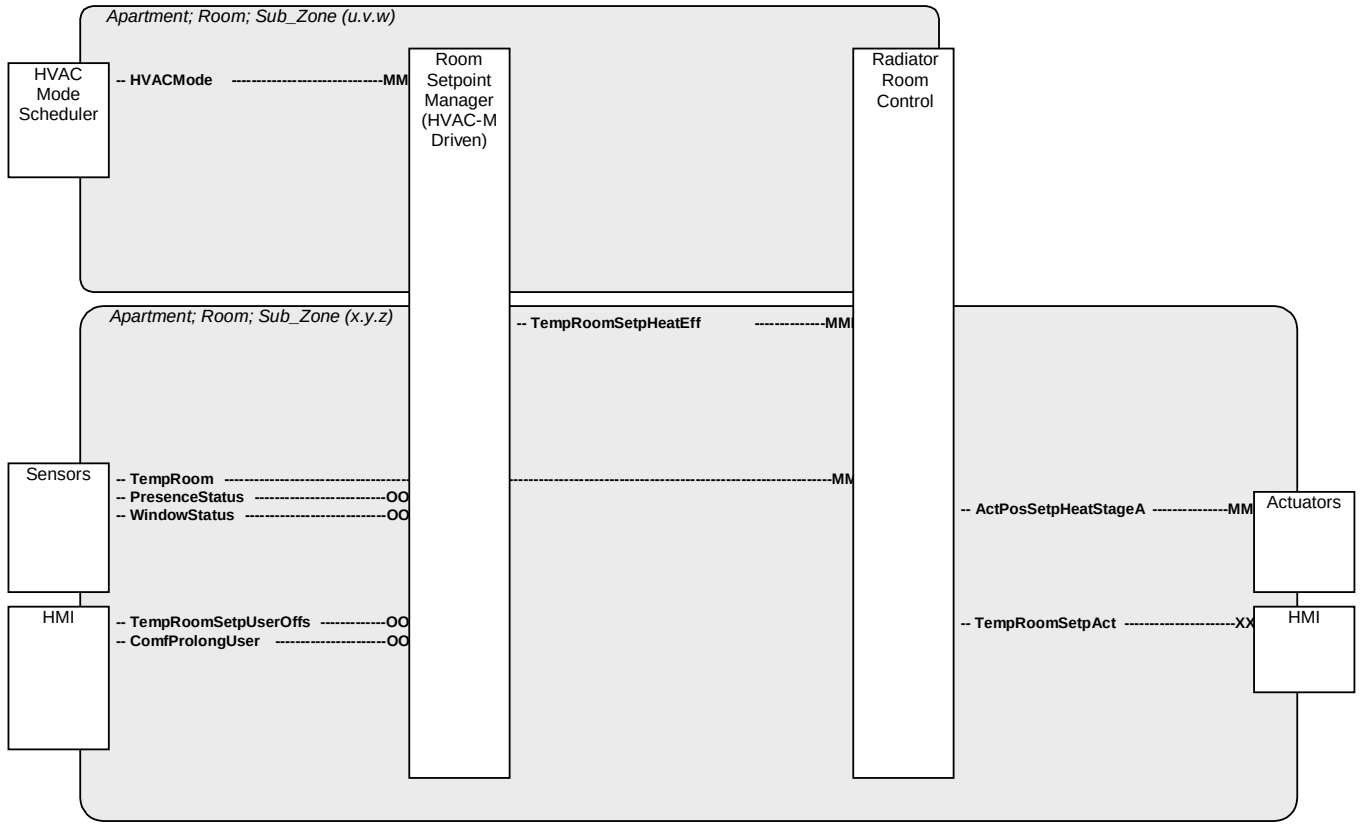
2.12 Simple Radiator Heating (Temperature Driven)

Simple Radiator Heating (Temperature Driven)

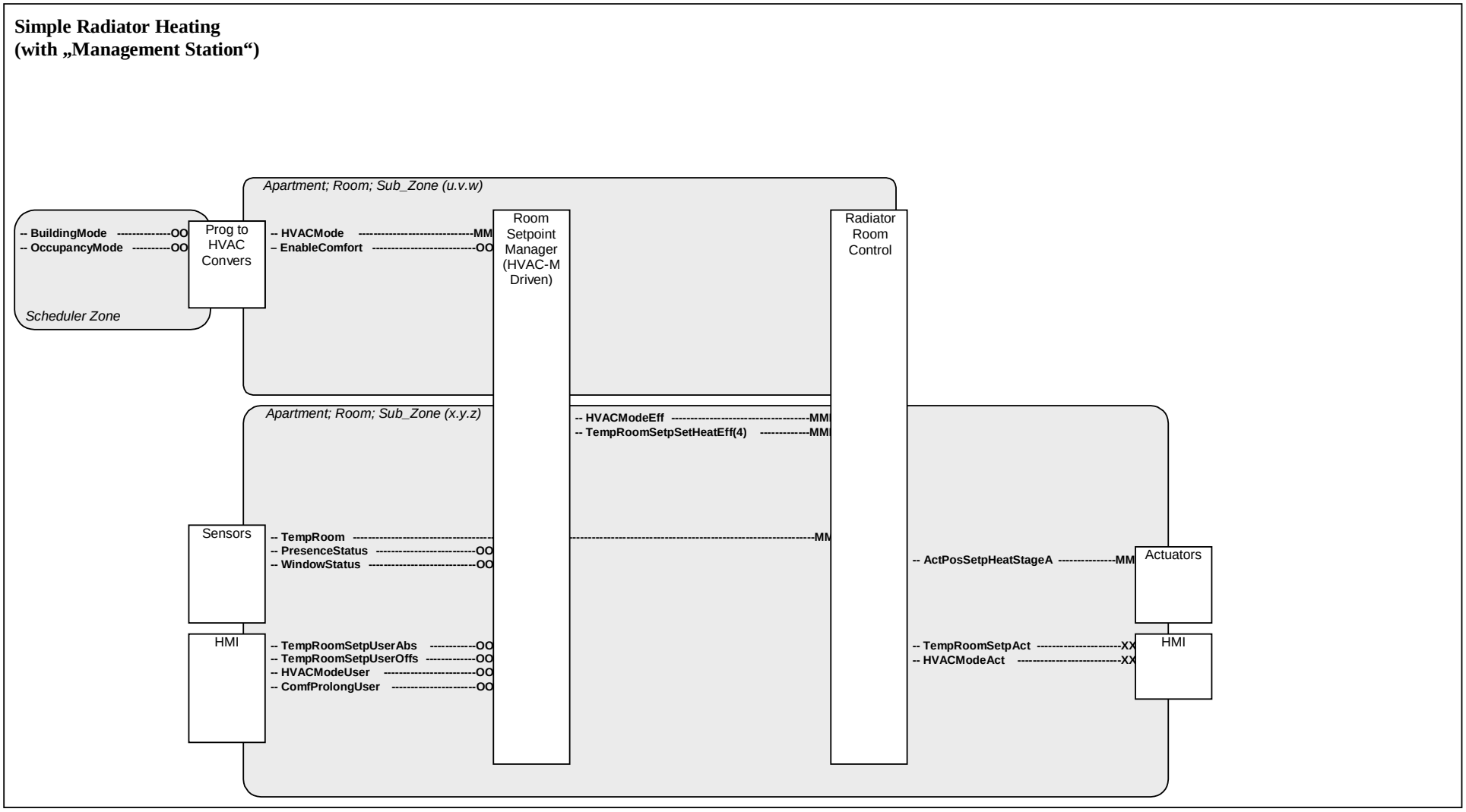


2.13 Simple Radiator Heating (HVAC-Mode Driven)

Simple Radiator Heating (HVAC-Mode Driven)

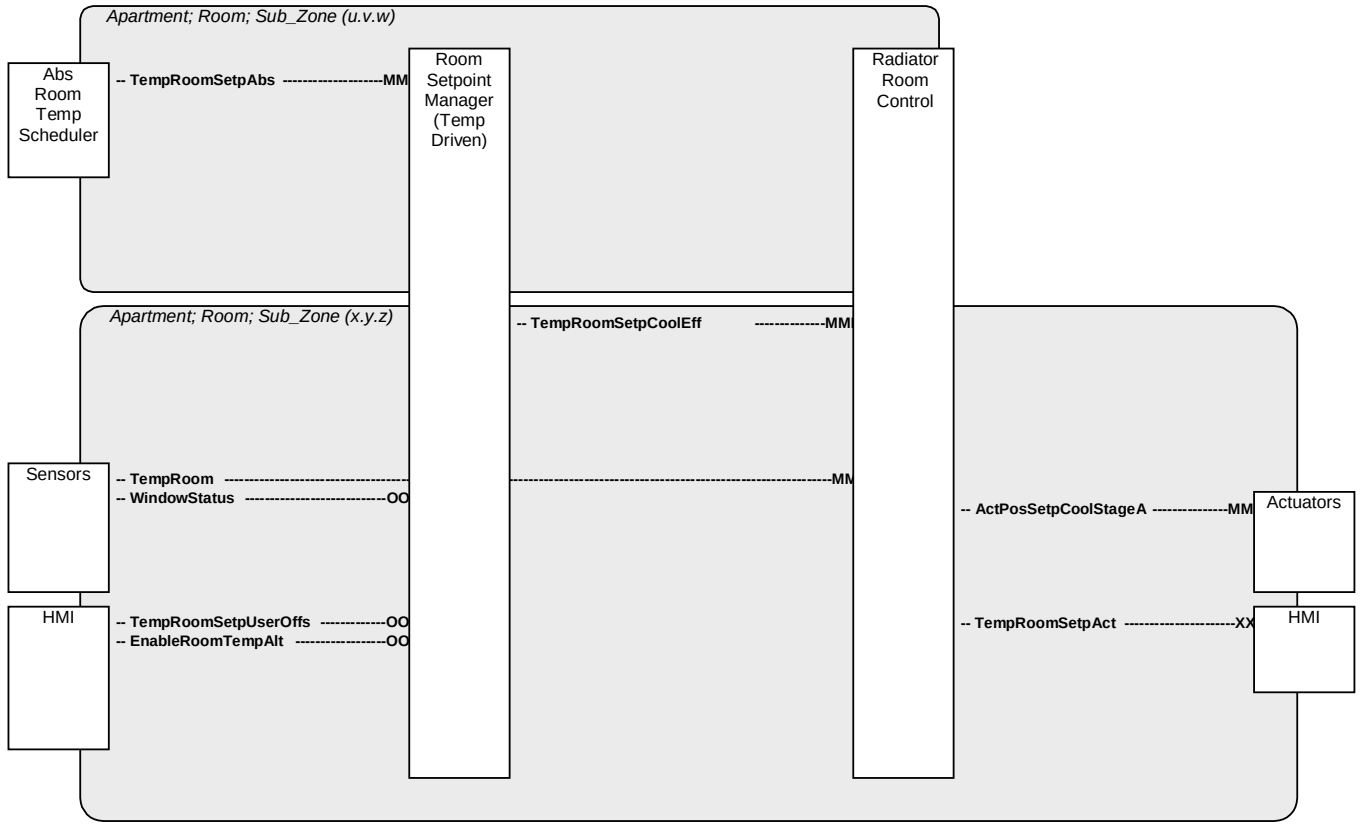


2.14 Simple Radiator Heating (with "Management Station")

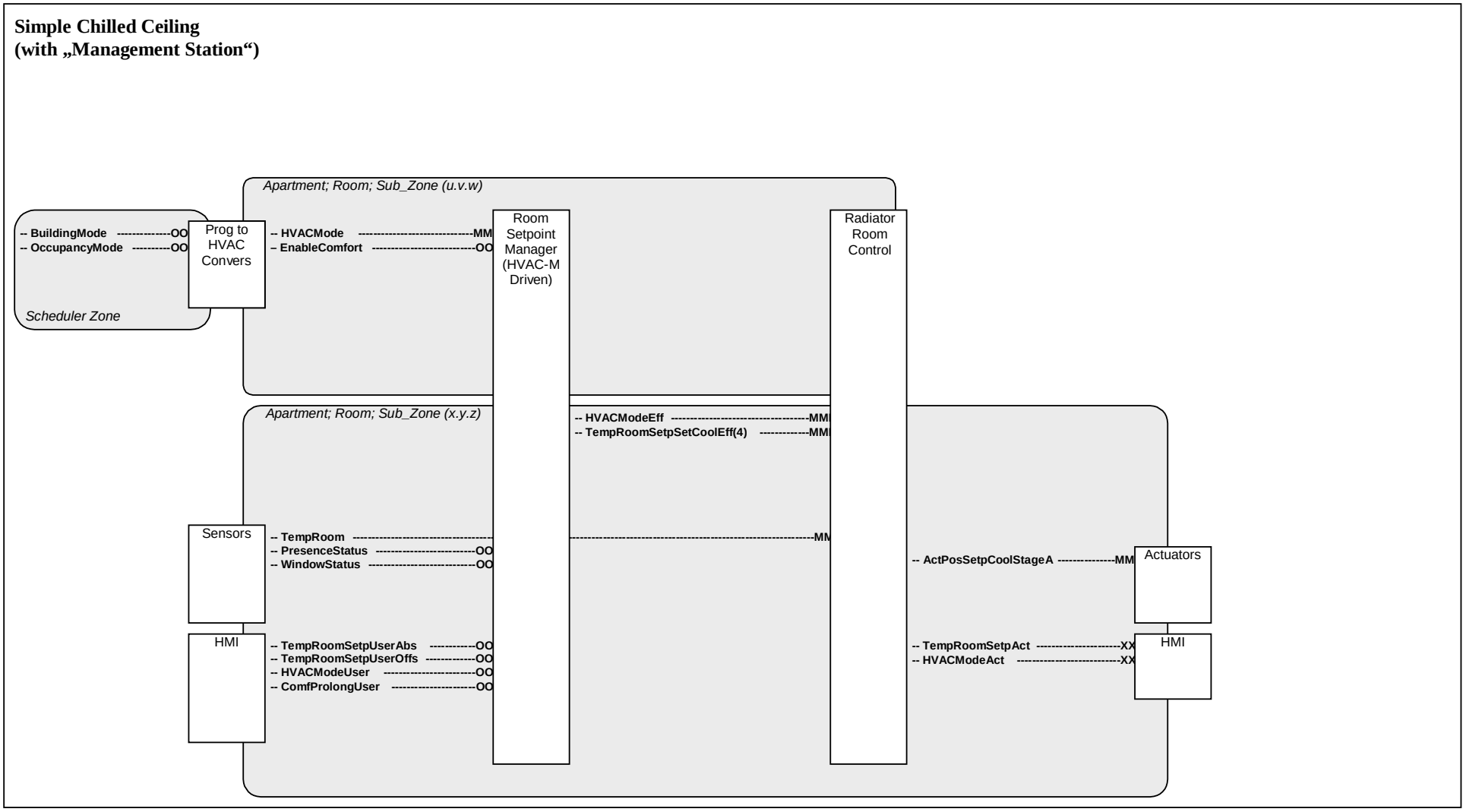


2.15 Simple Chilled Ceiling (Temperature Driven)

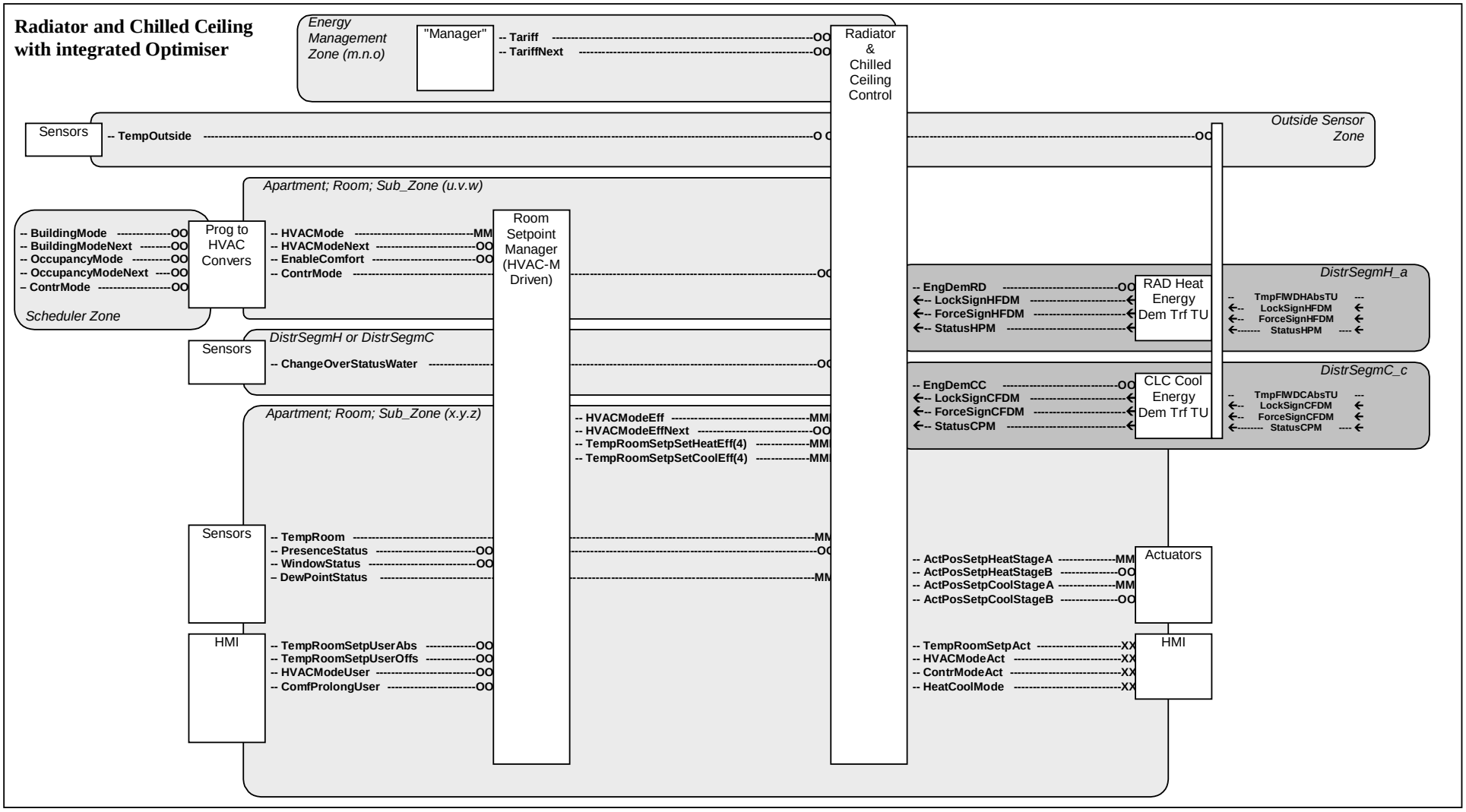
Simple Chilled Ceiling (Temperature Driven)



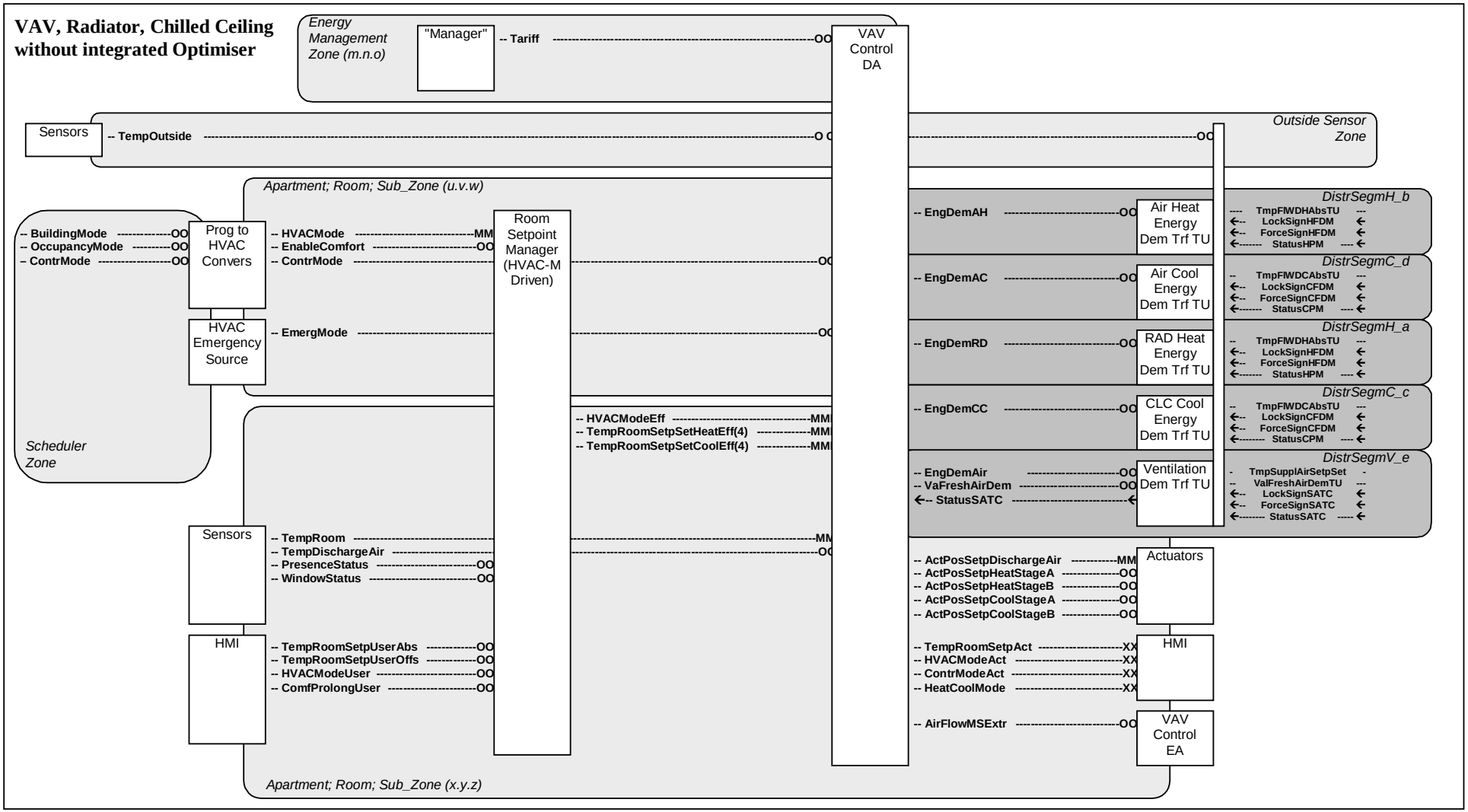
2.16 Simple Chilled Ceiling (with "Management Station")



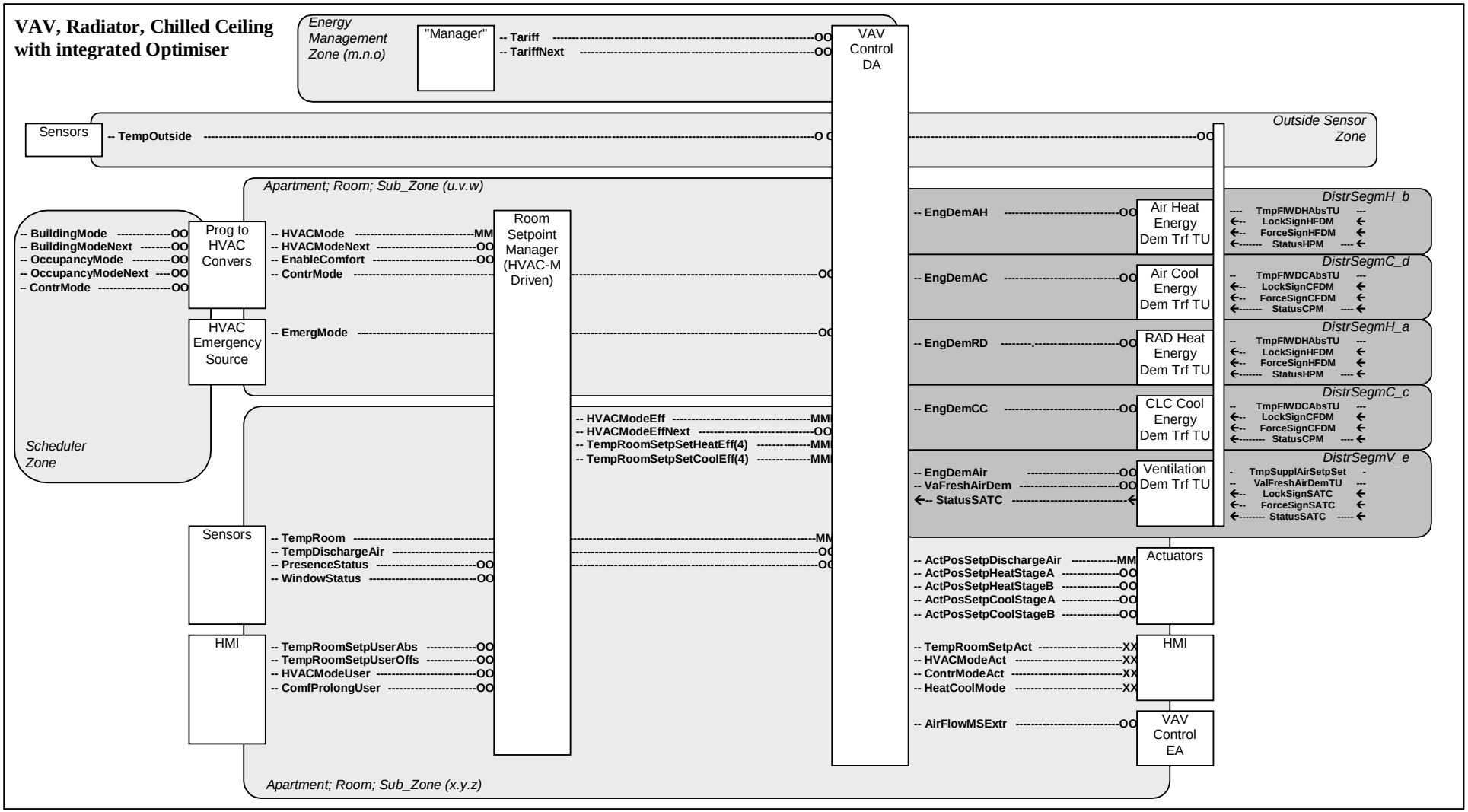
2.17 Radiator and Chilled Ceiling with integrated Optimiser



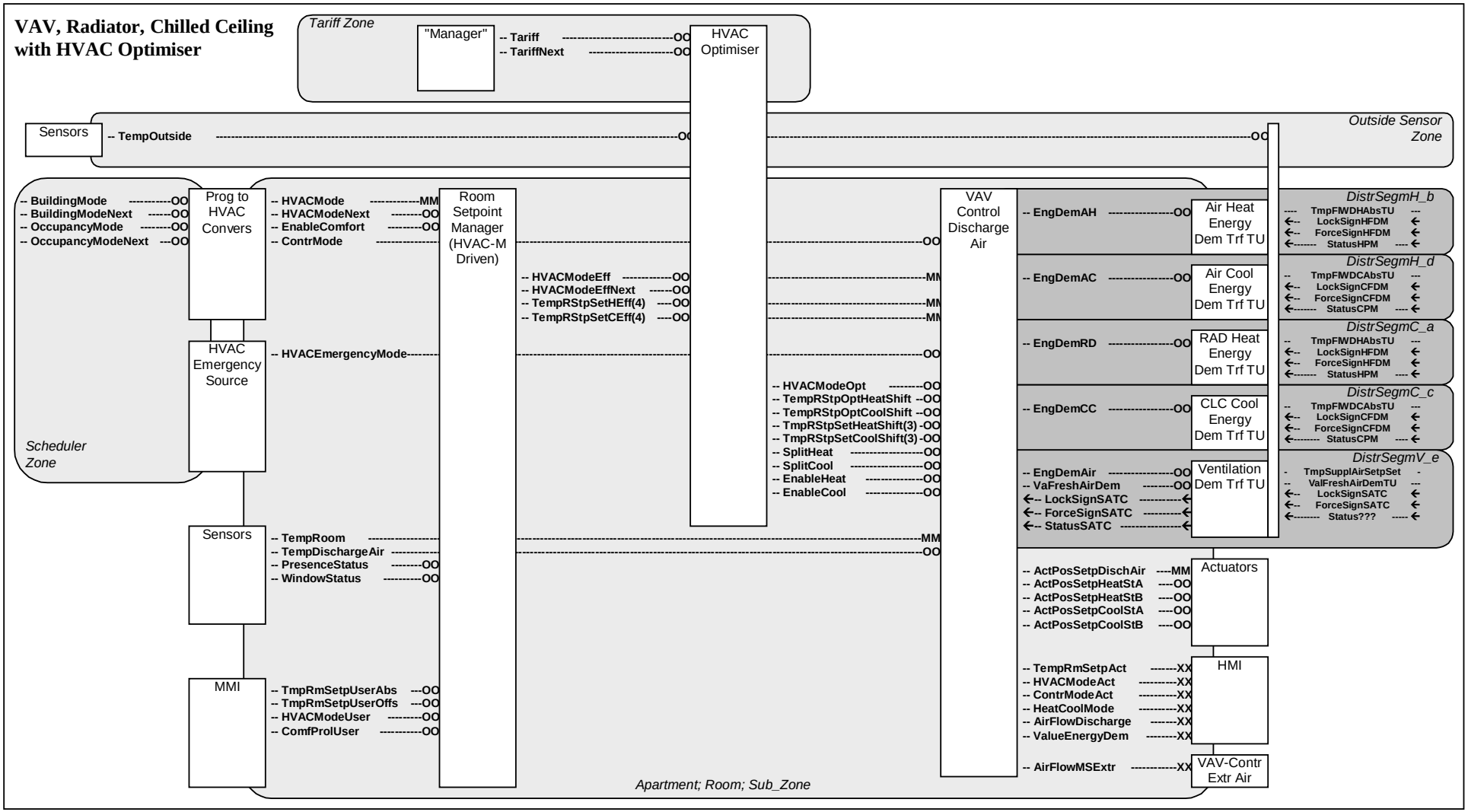
2.18 VAV, Radiator, Chilled Ceiling without integrated Optimiser



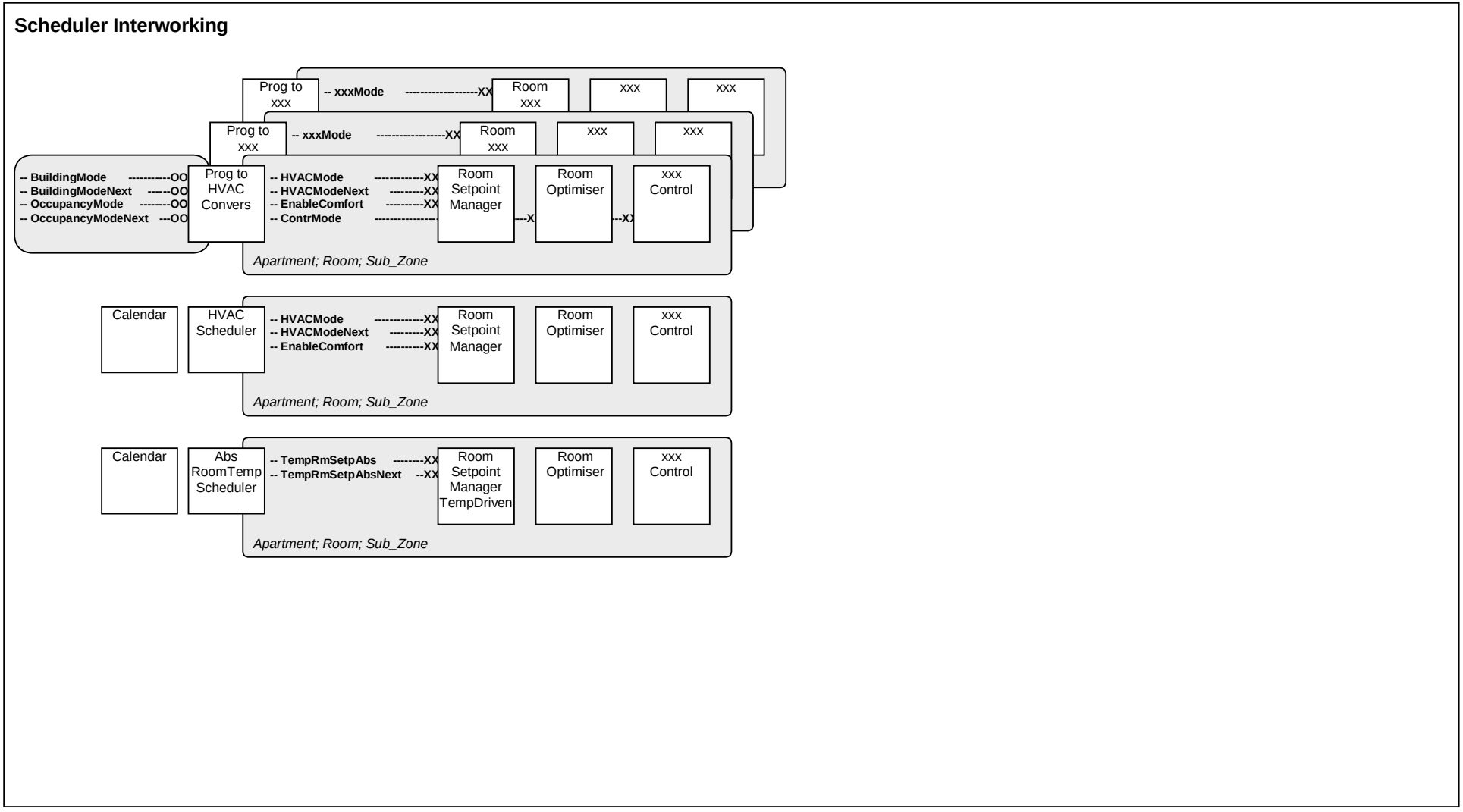
2.19 VAV, Radiator, Chilled Ceiling with integrated Optimiser



2.20 VAV, Radiator, Chilled Ceiling with HVAC Optimiser

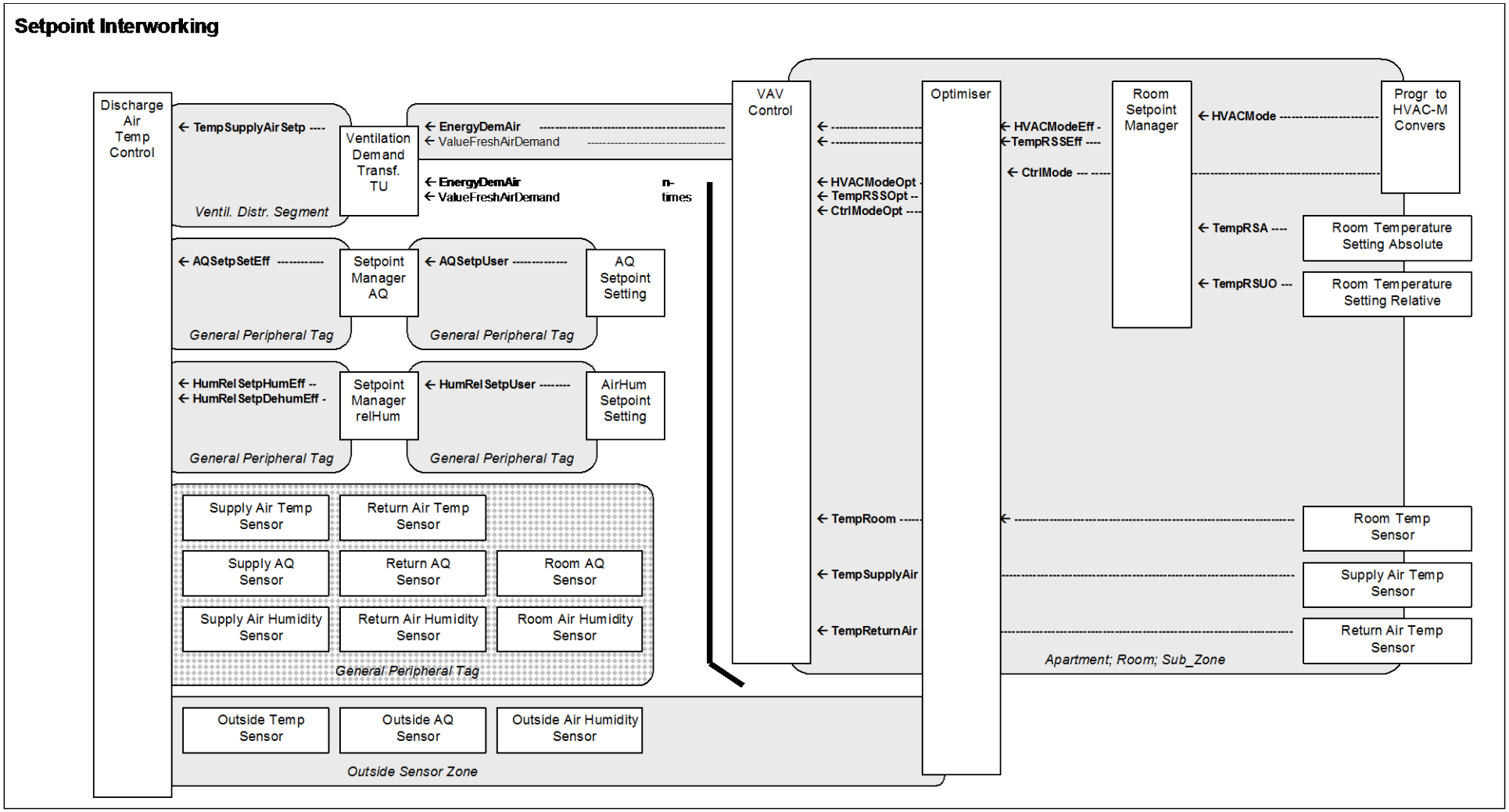


Scheduler Interworking



3 Interworking of Setpoint Managers (Temperature, Relative Humidity, Air Quality)

3.1 Temperature Setpoints from Rooms, Relative Humidity and Air Quality centralised.



3.2 Temperature and Air Quality Setpoints from Rooms, Relative Humidity centralised.