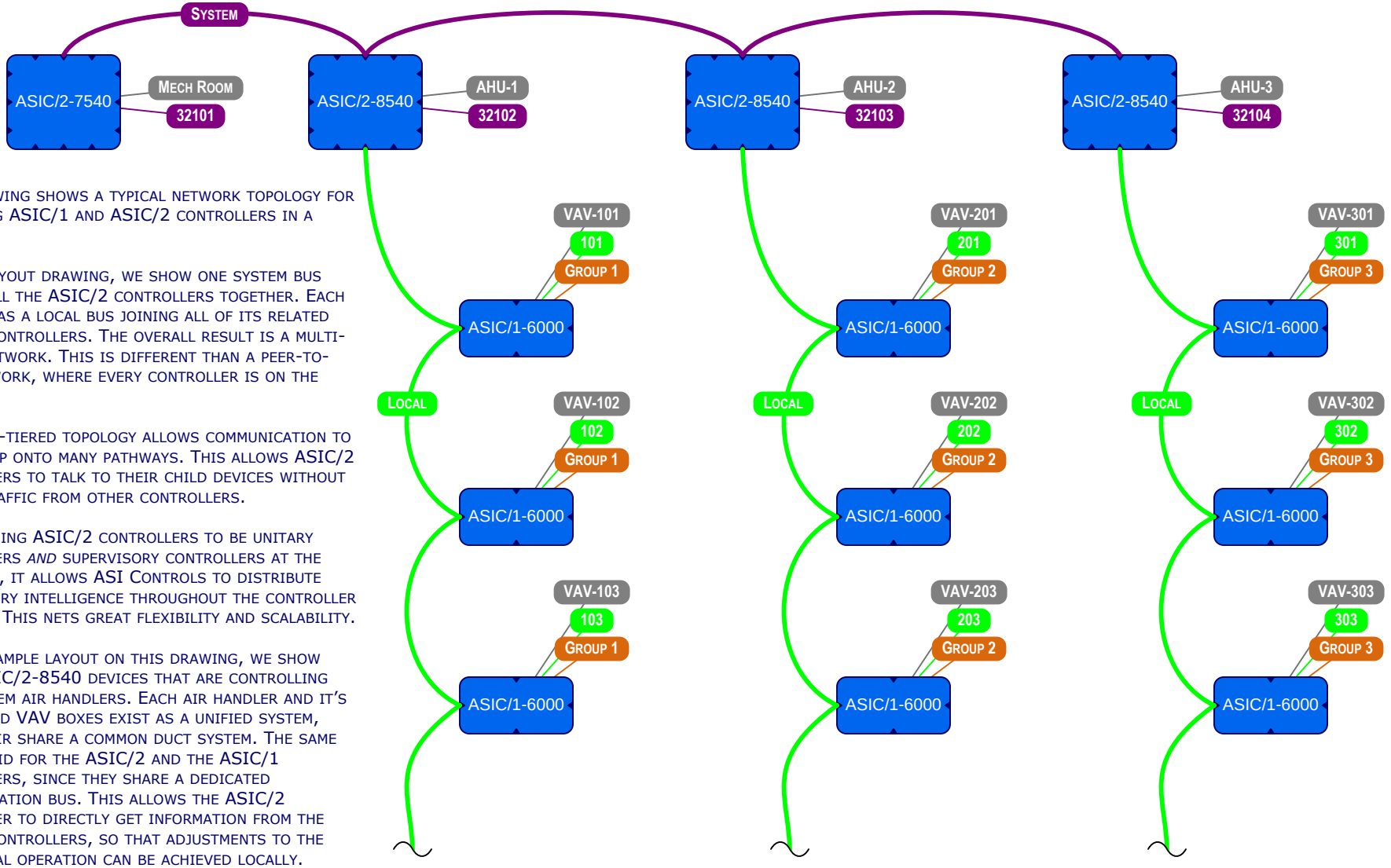

THIS DRAWING SHOWS A TYPICAL NETWORK TOPOLOGY FOR COMBINING ASIC/1 AND ASIC/2 CONTROLLERS IN A PROJECT.

IN THIS LAYOUT DRAWING, WE SHOW ONE SYSTEM BUS JOINING ALL THE ASIC/2 CONTROLLERS TOGETHER. EACH ASIC/2 HAS A LOCAL BUS JOINING ALL OF ITS RELATED ASIC/1 CONTROLLERS. THE OVERALL RESULT IS A MULTI-TIERED NETWORK. THIS IS DIFFERENT THAN A PEER-TO-PEER NETWORK, WHERE EVERY CONTROLLER IS ON THE SAME BUS.

THE MULTI-TIERED TOPOLOGY ALLOWS COMMUNICATION TO BE SPLIT UP ONTO MANY PATHWAYS. THIS ALLOWS ASIC/2 CONTROLLERS TO TALK TO THEIR CHILD DEVICES WITHOUT MIXING TRAFFIC FROM OTHER CONTROLLERS.

BY DESIGNING ASIC/2 CONTROLLERS TO BE UNITARY CONTROLLERS *AND* SUPERVISORY CONTROLLERS AT THE SAME TIME, IT ALLOWS ASI CONTROLS TO DISTRIBUTE SUPERVISORY INTELLIGENCE THROUGHOUT THE CONTROLLER NETWORK. THIS NETS GREAT FLEXIBILITY AND SCALABILITY.

IN THE EXAMPLE LAYOUT ON THIS DRAWING, WE SHOW THREE ASIC/2-8540 DEVICES THAT ARE CONTROLLING VAV SYSTEM AIR HANDLERS. EACH AIR HANDLER AND IT'S ASSOCIATED VAV BOXES EXIST AS A UNIFIED SYSTEM, SINCE THEIR SHARE A COMMON DUCT SYSTEM. THE SAME CAN BE SAID FOR THE ASIC/2 AND THE ASIC/1 CONTROLLERS, SINCE THEY SHARE A DEDICATED COMMUNICATION BUS. THIS ALLOWS THE ASIC/2 CONTROLLER TO DIRECTLY GET INFORMATION FROM THE ASIC/1 CONTROLLERS, SO THAT ADJUSTMENTS TO THE MECHANICAL OPERATION CAN BE ACHIEVED LOCALLY.

TITLE	ASI CONTROLS SYSTEM BUS AND LOCAL BUS TOPOLOGY OVERVIEW		
DATE	2008-DEC-07	REV	2008-DEC-11
DRAWN BY	PDL	SCALE	None
NUMBER	ASI-7		

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