AA-64 architecture canonical addresses

in LM all unsupported virtual address bits must be sign-extended																																									
virtual address bits	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31		0
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	xxx	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	xxx	
48 #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	xxx																	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	xxx																	
57	0	0	0	0	0	0	0	0	xxx																										
	1	1	1	1	1	1	1	1	xxx																										
64	xxx																																		
	xxx																																		

note	description
#1	The first implementation supports 48 virtual address bits, resulting in the following regions:

begin	end	canonical?
0000_0000_0000_0000h	0000_7FFF_FFFF_FFFFh	yes
0000_8000_0000_0000h	FFFF_7FFF_FFFF_FFFFh	no, causes #GP(0) or #SS(0)
FFFF_8000_0000_0000h	FFFF_FFFF_FFFF_FFFFh	yes