

The Candela IoT test is designed to measure the performance of the Access Point by using different types of IoT devices connected to an Alexa which is connected to an AP. We measure the latencies in performing specific tasks at every iteration and note the number of times a command is successfully executed and failed. The expected behaviour is for the AP to be able to handle several IoT devices (within the limitations of the AP specs) and make sure all devices can be controlled.

Bar chart showing the count of devices for each of the 100 categories. The y-axis is 'Count' (0-5). The x-axis is 'Devices' with 100 categories. Bars are colored blue, green, or red. Most categories have a count of 5, with some having 4, 3, 2, 1, or 0.

Device Category	Count	Color
sun	5	Blue
light_sun	5	Blue
light_sun_pod	5	Blue
light_sun_pod2	5	Blue
light_sun_pod3	5	Blue
light_sun_pod4	5	Blue
light_sun_pod5	5	Blue
light_sun_pod6	5	Blue
light_sun_pod7	5	Blue
light_sun_pod8	5	Blue
light_sun_pod9	5	Blue
light_sun_pod10	5	Blue
light_sun_pod11	5	Blue
light_sun_pod12	5	Blue
light_sun_pod13	5	Blue
light_sun_pod14	5	Blue
light_sun_pod15	5	Blue
light_sun_pod16	5	Blue
light_sun_pod17	5	Blue
light_sun_pod18	5	Blue
light_sun_pod19	5	Blue
light_sun_pod20	5	Blue
light_sun_pod21	5	Blue
light_sun_pod22	5	Blue
light_sun_pod23	5	Blue
light_sun_pod24	5	Blue
light_sun_pod25	5	Blue
light_sun_pod26	5	Blue
light_sun_pod27	5	Blue
light_sun_pod28	5	Blue
light_sun_pod29	5	Blue
light_sun_pod30	5	Blue
light_sun_pod31	5	Blue
light_sun_pod32	5	Blue
light_sun_pod33	5	Blue
light_sun_pod34	5	Blue
light_sun_pod35	5	Blue
light_sun_pod36	5	Blue
light_sun_pod37	5	Blue
light_sun_pod38	5	Blue
light_sun_pod39	5	Blue
light_sun_pod40	5	Blue
light_sun_pod41	5	Blue
light_sun_pod42	5	Blue
light_sun_pod43	5	Blue
light_sun_pod44	5	Blue
light_sun_pod45	5	Blue
light_sun_pod46	5	Blue
light_sun_pod47	5	Blue
light_sun_pod48	5	Blue
light_sun_pod49	5	Blue
light_sun_pod50	5	Blue
light_sun_pod51	5	Blue
light_sun_pod52	5	Blue
light_sun_pod53	5	Blue
light_sun_pod54	5	Blue
light_sun_pod55	5	Blue
light_sun_pod56	5	Blue
light_sun_pod57	5	Blue
light_sun_pod58	5	Blue
light_sun_pod59	5	Blue
light_sun_pod60	5	Blue
light_sun_pod61	5	Blue
light_sun_pod62	5	Blue
light_sun_pod63	5	Blue
light_sun_pod64	5	Blue
light_sun_pod65	5	Blue
light_sun_pod66	5	Blue
light_sun_pod67	5	Blue
light_sun_pod68	5	Blue
light_sun_pod69	5	Blue
light_sun_pod70	5	Blue
light_sun_pod71	5	Blue
light_sun_pod72	5	Blue
light_sun_pod73	5	Blue
light_sun_pod74	5	Blue
light_sun_pod75	5	Blue
light_sun_pod76	5	Blue
light_sun_pod77	5	Blue
light_sun_pod78	5	Blue
light_sun_pod79	5	Blue
light_sun_pod80	5	Blue
light_sun_pod81	5	Blue
light_sun_pod82	5	Blue
light_sun_pod83	5	Blue
light_sun_pod84	5	Blue
light_sun_pod85	5	Blue
light_sun_pod86	5	Blue
light_sun_pod87	5	Blue
light_sun_pod88	5	Blue
light_sun_pod89	5	Blue
light_sun_pod90	5	Blue
light_sun_pod91	5	Blue
light_sun_pod92	5	Blue
light_sun_pod93	5	Blue
light_sun_pod94	5	Blue
light_sun_pod95	5	Blue
light_sun_pod96	5	Blue
light_sun_pod97	5	Blue
light_sun_pod98	5	Blue
light_sun_pod99	5	Blue
light_sun_pod100	5	Blue

[illegible]

Overall Report Table

Device	Min. Latency (ms)	Avg. Latency (ms)	Max. Latency (ms)	No. of Iterations	Successful Iterations	Failed Iterations
sun.sun	-	-	-	5	0	5
light.wipro_smart_tube_light_pod1	327.10299999999995	430.6824	557.572	5	5	0
light.wipro_smart_tube_light_pod3	299.674	444.7058	558.635	5	5	0
light.wipro_smart_tub_light_pod2	272.109	420.79920000000004	598.6120000000001	5	5	0
switch.zebronics_smart_plug1_pod1_socket_1	277.698	398.46899999999994	472.798	5	5	0
switch.zebronics_smart_plug4_pod1_socket_1	267.449	397.8894	566.684	5	5	0
switch.zebronics_smart_plug2_pod3_socket_1	290.204	487.5482	620.952	5	5	0
switch.zebronics_smart_plug2_pod2_socket_1	352.699	440.399	542.497	5	5	0
switch.zebronics_smart_plug1_pod2_socket_1	307.921	455.58540000000005	651.968	5	5	0
switch.wipro_smart_plug1_pod1_socket_1	220.525	355.1412	431.212	5	5	0
switch.zebronics_smart_plug2_pod1_socket_1	304.622	457.6616	538.653	5	5	0
switch.zebronics_smart_plug1_pod3_socket_1	322.711	505.9914	601.967	5	5	0
switch.kmanok_smart_switch_pod1_switch_1	462.995	589.9396	650.088	5	4	1
switch.wipro_smart_plug1_pod1_socket_1	275.092	394.5784	444.941	5	5	0
switch.kmanok_smart_switch_pod1_switch_2	473.62100000000004	623.4118000000001	767.959	5	4	1
switch.kmanok_smart_switch_pod1_switch_4	529.89	623.906	775.029	5	4	1
switch.kmanok_smart_switch_pod1_switch_3	517.499	584.7382	680.539	5	4	1
switch.kmanok_smart_switch_pod1_switch	421.118	561.26175	696.515	5	4	1
switch.kamonk_smart_switch1_pod2_switch_1	494.47799999999995	684.6407999999999	806.241	5	5	0
switch.kamonk_smart_switch1_pod2_switch_2	430.387	625.387	951.35	5	5	0
switch.kamonk_smart_switch1_pod2_switch_4	534.6220000000001	742.36625	910.423	5	4	1
switch.kamonk_smart_switch1_pod2_switch_3	800.847	849.02175	918.87	5	4	1
switch.smart_extension_pod2_socket_3	388.704	485.4572	588.521	5	5	0
switch.kamonk_smart_switch1_pod2_switch	560.316	736.7257999999999	925.907	5	5	0
switch.smart_extension_pod2_socket_2	316.567	470.351	569.532	5	5	0
switch.smart_extension_pod2_socket_4	447.372	480.96040000000005	535.674	5	5	0
switch.wipro_smart_plug1_pod4_socket_1	253.58999999999997	395.76180000000005	502.62700000000007	5	5	0
switch.wipro_smart_plug2_pod4_socket_1	285.094	379.1298	449.82800000000003	5	5	0
switch.smart_extension_pod2_socket_1	325.513	459.5192	527.803	5	5	0
switch.wipro_smart_plug3_pod4_socket_1	322.055	378.7528	468.64099999999996	5	5	0
switch.wipro_smart_plug4_pod4_socket_1	343.437	427.8184	529.775	5	5	0
light.wiz_rgbw_tunable_f7ef35	4.303000000000001	4.303000000000001	4.303000000000001	5	1	4
switch.wipro_smart_plug3_pod1_socket_1	273.632	399.60679999999996	524.5379999999999	5	5	0
light.tapo_smart_blub1_pod2	70.622	396.6472	670.843	5	5	0
light.wiz_rgbw_tunable_f840fd	1.689	38.06933333333333	100.762	5	3	2
light.wiz_rgbw_tunable_f83c95	18.443	46.382	73.76299999999999	5	3	2
light.wiz_rgbw_tunable_f77953	1.597	9.482666666666667	18.501	5	3	2
light.tapo_smart_bulb2_pod2	416.303	587.1558	842.134	5	5	0
light.wiz_rgbw_tunable_5d51ea	0.2	2.7150000000000003	5.23	5	2	3
light.wiz_rgbw_tunable_e2ad78	3.677	11.92675	21.668	5	4	1
light.tapo_smart_bulb1_pod3	244.417	497.79066666666667	790.9490000000001	5	3	2
light.tapo_smart_bulb1_pod4	469.81600000000003	469.81600000000003	469.81600000000003	5	1	4

Input Parameters

The below table provides the input parameters for the test.

Testname	IoTDeviceTest_2025-04-2120:48:28.861914
Device List	sun.sun,light.wipro_smart_tube_light_pod1,light.wipro_smart_tube_light_pod3,light.wipro_smart_tub_light_pod2,switch.zebronics_smart_plug1_pod1_socket_1,switch.zebronics_smart_plug4_pod1_socket_1,switch.zebronics_smart_plug2_pod3_socket_1,switch.zebronics_smart_plug2_pod2_socket_1,switch.zebronics_smart_plug1_pod2_socket_1,switch.wipro_smart_plug1_pod1_socket_1,switch.zebronics_smart_plug2_pod1_socket_1,switch.kmanok_smart_switch_pod1_switch_1,switch.kmanok_smart_switch_pod1_switch_2,switch.kmanok_smart_switch_pod1_switch_4,switch.kmanok_smart_switch_pod1_switch_3,switch.kmanok_smart_switch_pod1_switch,switch.kamonk_smart_switch1_pod2_switch_1,switch.kamonk_smart_switch1_pod2_switch_2,switch.kamonk_smart_switch1_pod2_switch_4,switch.kamonk_smart_switch1_pod2_switch_3,switch.smart_extension_pod2_socket_3,switch.kamonk_smart_switch1_pod2_switch,switch.smart_extension_pod2_socket_2,switch.smart_extension_pod2_socket_4,switch.wipro_smart_plug1_pod4_socket_1,switch.wipro_smart_plug2_pod4_socket_1,switch.smart_extension_pod2_socket_1,switch.wipro_smart_plug3_pod4_socket_1,switch.wipro_smart_plug4_pod4_socket_1
No. of devices	42
Iterations	5
Delay (seconds)	10

