

## EXHIBIT G - Power Requirements

### Equipment in Current Data Center

(Watts) x 3.4192 = BTU/Hr.

	Racks Qty/Rack	Type	Name	MFG	RU's	Total RU	Part No	Each P/S	W	No of P/S	Sub Total V	VAC	Electrical BTU/Hr
	11	2	PDU's			44	PX3-5520R				0	208	
		2	Power Bus Bar	115V Clip-on Module							0		
		22	Power Bus Bar	208V 3Phase Module							0		
<b>Optional Row1</b>		2	Power Bus Bars								0		
<b>Row1 Telecom</b>		1	PDU's	Raritan 1 Phase	2	2					0	115	
<b>Row1 Rack1</b>		1	Server	CloudS3	6	6		3000		2	6000	208	20515.2
		1	Server	Windy	1	1		1500		2	3000	208	10257.6
		1	Server	Chin	1	1		1500		2	3000	208	10257.6
		1	Server	CopySys	1	1		1500		2	3000	208	10257.6
		1	Network	Cisco Nexus	8	8	9504	3000		4	12000	208	41030.4
											0		
											0		
<b>Row1 Rack2</b>		3	Chassis	Cisco UCS	8	24	5108	2500		12	30000	208	102576
		2	Network	CiscoFabricInterconnect	2	4	6296	800		4	3200	208	10941.44
		1	Network	HP	1	1		200		1	200	208	683.84
		4	Servers	Bilbo,Frodo, Gandalf,Gollum	2	8	C240M7	2300		8	18400	208	62913.28
<b>Row1 Rack3</b>			Rack has test gear - For Testing WOU Salem or WOU Salem Data Center										
											0		
											0		
<b>Row1 Rack4</b>		3	Server	Dell PowerEdge	2	6	R7625	2400		6	14400	208	49236.48
		2	Chassis	Cisco UCS	8	16	5108	2500		8	20000	208	68384
											0		
<b>Optional Row2</b>		2	Power Bus Bars								0		
<b>Row2 Telecom</b>		1	PDU's	Raritan 1 Phase	2	2					0	115	
		1	Console	Digi Connect IT 16/48 -	1	1	IT48-1002	100		2	200	208	683.84
		2	Temp Monitoring	Watchdog	1	2		12		2	24	115	82.0608
		1	Weather Station					12		1	12	115	41.0304
											0		
<b>Row2 Rack1</b>		1	Console	Digi Connect IT 16/48 - 48 ports			IT48-1002	100		2	200	208	683.84
		1	Network	Cisco 3650				1100		2	2200	208	7522.24
		1	Server	ORTSOC	2	2		900		1	900	208	3077.28
		2	Network	Cisco Secure FW	2	4	3100	400		2	800	208	2735.36
		2	Network	Cisco Catalyst	2	4	9500	1600		2	3200	208	10941.44
		2	Network	Cisco FPR	2	4	2100	1100		2	2200	208	7522.24
		2	Server	Cisco FMC	2	4	1700	1050		2	2100	208	7180.32
		1	Network	Cisco	1	1	4500-X	750		2	1500	208	5128.8
		1	Network	Cisco FPR	2	2	4100	1100		2	2200	208	7522.24
											0		
											0		
<b>Row2 Rack2</b>		1	Server	Bawana	6	6		3000		2	6000	208	20515.2
		1	Server	Taz	6	6		2000		2	4000	208	13676.8
		1	Server	Orca	2	2		1500		2	3000	208	10257.6
		1	Server	Gilligan	1	1		1000		2	2000	208	6838.4
		3	Server	Moe, Larry, Curly	2	6	C240M5	2300		6	13800	208	47184.96
		2	Disk Tray	NetApp	2	4	DS212C	1000		4	4000	208	13676.8





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Electrical

	Racks	Qty/Rack	Type	Name	MFG	Description	Width(in)	Depth(in)	Height(in)	RU's	Total RU	Part No	Each P/S	W No of P/S	Total Watts	VAC	BTU/Hr
UCS	16		DC		Chatsworth	Rack	31.5	47.2	96.9	52	832	ZD45-00000-71			0		0
CoLo	16		DC		Chatsworth	Rack	31.5	47.2	96.9	52	832	ZD45-00000-71			0		0
UCS		32	DC		Chatsworth	PDU				N/A					0	208	0
CoLo		32	DC		Chatsworth	PDU				N/A					0	208	0
UCS		4	DC		E&G	Bus Bar 208V 3-Phase				N/A					0	208	0
UCS		32	DC		E&G	Power Box 208V Attachment Modules				N/A					0	208	0
UCS		2	DC		E&G	Power Box 120V Attachment Modules				N/A					0	120	0
CoLo		4	DC		E&G	Bus Bar 208V 3-Phase				N/A					0		0
CoLo		32	DC		E&G	Power Box 208V Attachment Modules				N/A					0	208	0
CoLo		2	DC		E&G	Power Box 120V Attachment Modules				N/A					0	120	0
UCS		2	DC		GE	UPS				N/A					0		0
CoLo		2	DC		GE	UPS				N/A					0		0
UCS		1	BkUp Power		CAT	Generator				N/A		D75P3			0		0
CoLo		1	BkUp Power		CAT	Generator				N/A		?? From Admin Building			0		0
UCS		1	Safety		FM200	Fire Surpression				N/A					0		0
CoLo		1	Safety		FM200	Fire Surpression				N/A					0		0
UCS		2	Safety			Emergency Lighting				N/A			15	1	30	48	102.576
CoLo		2	Safety			Emergency Lighting				N/A			15	1	30	48	102.576
UCS		4	DC			Overhead Low Voltage LED Lighting PoE				N/A			25	2	200	48	683.84
CoLo		4	DC			Overhead Low Voltage LED Lighting PoE				N/A			25	2	200	48	683.84
UCS		4	DC			Hot Isle Low Voltage LED Lighting PoE				N/A			25	2	200	48	683.84
CoLo		4	DC			Hot Isle Low Voltage LED Lighting PoE				N/A			25	2	200	48	683.84
UCS		1	DC		Virtual Machine	Lighting Control/Monitoring				N/A			1000	2	2000	120	6838.4
CoLo		1	DC		Virtual Machine	Lighting Control/Monitoring				N/A			1000	2	2000	120	6838.4
UCS		2	DC			Fiber trays				N/A					0		0
UCS		2	DC			Copper trays				N/A					0		0
UCS		2	DC			Power path				N/A					0		0
CoLo		2	DC			Fiber trays				N/A					0		0
CoLo		2	DC			Copper trays				N/A					0		0
CoLo		2	DC			Power path				N/A					0		0
UCS		4	DC			Low Voltage Fan Arrays - chimney				N/A			500	4	8000		27353.6
CoLo		4	DC			Low Voltage Fan Arrays - chimney				N/A			500	4	8000		27353.6
<b>UCS</b>		2	Building		Stulz	DataCenter Static Provention				N/A		BNB4000	340	2	1360	120	4650.112
<b>CoLo</b>		2	Building		Stulz	DataCenter Static Provention				N/A		BNB4000	340	2	1360	120	4650.112
		6	Servers		SuperMicro	Small single RU for HVAC, Camera,DNS,AI				1	6		1600	2	19200	208	65648.64
		3	Servers		Dell	PowerEdge Server with Graphics Cards				6	18	R7625	2400	2	14400	208	49236.48
		6	Servers		Dell	PowerEdge without Graphics Cards				2	12	R7625	2400	2	28800	208	98472.96
		1	Servers		NetApp	Dual Head w/NVME 800TB and ROCE Protocol				6	6		1000	4	4000	208	13676.8
		1	Servers		NetApp	C800 from old DataCenter				4	4		1000	4	4000	208	13676.8
		2	Servers		SuperMicro	2U w/NVME Data Store for AI				2	4		2000	2	8000	208	27353.6
		2	Servers		SuperMicro	6U for AI has GPUS				6	12		2400	4	19200	208	65648.64
		1	Server		ORTSOC					2	2		900	1	900	208	3077.28
		2	Server		Cisco FMC					2	4	1700	1050	2	4200	208	14360.64
		4	Console			Digi Connect IT 16/48 - 48 ports				1	4	IT48-1002	100	2	800	208	2735.36
		4	Console			32port KVM with Adapters				1	4		900	2	7200	208	24618.24

	1	Network		Cisco 3650					1	1			1100	2	2200	208	7522.24	
	2	Network		Cisco Secure FW					2	4			3100	400	2	1600	208	5470.72
	2	Network		Cisco Catalyst					2	4			9500	1600	2	6400	208	21882.88
	2	Network		Cisco FPR					2	4			2100	1100	2	4400	208	15044.48
	1	Network		Cisco					1	1			4500-X	750	2	1500	208	5128.8
	1	Network		Cisco FPR					2	2			4100	1100	2	2200	208	7522.24
	1	Network		Arista	LinkOr				1	1			7020SR-32C2	1000	2	2000	208	6838.4
	3	Network		Cisco Catalyst	Switch 48 port				1	3			1300X-48P-XX	740	6	13320	208	45543.744
	1	Network		Cisco	Switch 48 port				1	1			2960	700	2	1400	208	4786.88
	1	Network		Cisco	Core Switch				1	8			C9606R	3000	4	12000	208	41030.4
	2	Network		Mellanox	400G AI Switch 32 ports				2	4			MQM9700-NS2	1500	2	6000	208	20515.2
	64	Network		Mellanox	400G SFP				N/A	N/A			QSFP-DD	15	64	61440	208	210075.648
	2	Building		Tanks	Deionized Water (Humidifier)				N/A	N/A								
	1	Network			Switch									1200	2	2400		8206.08
	1	Network			Switch									1200	2	2400		8206.08
	1	Building			HVAC Unit											0		0
	1	Building			HVAC Unit											0		0
	1	Building			Building Heater											0		0
	1	Network			Starlink											0		0
	1	Network			Starlink Router											0		0
	1	Network			Transfer Switch											0		0

**Total P/S Total Watts Total BTU/hr**  
149 253540 866903.968

Sensors | Temp Humidity Power Air Flow Pressure Between Hot/Cold Isles Occupancy Door Open/Close  
Alarm Flashing Light

### Cooling Examples

#### GeoThermal

Trench 8ft below surface and run piping (8ft should get a consistent 50 deg temperature)  
 Homerun piping back to DataCenter into a manifold  
 Run 4 - 4" pipes below the DataCenter floor under the cool isle (under each side of the 16 rack pods)  
 Pump coolant through pipes  
 There needs to be an area setup to replace the coolant in the pipes every so many years  
 The Pumps and fans will all be internal to the DataCenter - Maintenance Room and shouldn't bleed noise into work areas

#### Direct Liquid Cooling

Place Manifold in between servers in rack each manifold will have at least 2 paths (1-2 RU Thick) with quick disconnects  
 Run server manifolds into another manifold in the side of the rack one manifold for cool input and the other for heat return  
 Each rack will have a Pump at the bottom to help move the fluid through the system  
 All racks will have their heated fluid run to the pipe field so that is can be cooled down and returned to the DataCenter  
 All racks will have their cool fluid coming back from the field so it can be used to cool the equipment in the racks.  
 The fans in the servers push air through the chassis and into the chimney area to move the heated air up and out of the hot isle  
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Ducting from the cold side of the HVAC unit will be run around the chimney at the top and painted white to blend in

These will bring the cold air down into the cold isle and the system fans will pull the cool air through into the hot isle

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The heated air will flow through the plenum to an outside vent (or if we can come up with something to do with the heated air, then that goes here)

Note: Heated air could be used to drive turbines and used to make power - Heated air could be used during cool weather to heat areas of the building or the warehouse that may need heat year round

### **Emersion**

A tech that has been around for a while and is now making a come back

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CoLo	16		DC		Chatsworth	Rack	31.5	47.2	96.9	52	832	ZD45-00000-71			0		0
UCS		32	DC		Chatsworth	PDU				N/A					0	208	0
CoLo		32	DC		Chatsworth	PDU				N/A					0	208	0
UCS		4	DC		E&G	Bus Bar 208V 3-Phase				N/A					0	208	0
UCS		32	DC		E&G	Power Box 208V Attachment Modules				N/A					0	208	0
UCS		2	DC		E&G	Power Box 120V Attachment Modules				N/A					0	120	0
CoLo		4	DC		E&G	Bus Bar 208V 3-Phase				N/A					0		0
CoLo		32	DC		E&G	Power Box 208V Attachment Modules				N/A					0	208	0
CoLo		2	DC		E&G	Power Box 120V Attachment Modules				N/A					0	120	0
UCS		2	DC		GE	UPS				N/A					0		0
CoLo		2	DC		GE	UPS				N/A					0		0
UCS		1	BkUp Power		CAT	Generator				N/A		D75P3			0		0
CoLo		1	BkUp Power		CAT	Generator				N/A		?? From Admin Building			0		0
UCS		1	Safety		FM200	Fire Surpression				N/A					0		0
CoLo		1	Safety		FM200	Fire Surpression				N/A					0		0
UCS		2	Safety			Emergency Lighting				N/A			15	1	30	48	102.576
CoLo		2	Safety			Emergency Lighting				N/A			15	1	30	48	102.576
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UCS		1	DC		Virtual Machine	Lighting Control/Monitoring				N/A			1000	2	2000	120	6838.4
CoLo		1	DC		Virtual Machine	Lighting Control/Monitoring				N/A			1000	2	2000	120	6838.4
UCS		2	DC			Fiber trays				N/A					0		0
UCS		2	DC			Copper trays				N/A					0		0
UCS		2	DC			Power path				N/A					0		0
CoLo		2	DC			Fiber trays				N/A					0		0
CoLo		2	DC			Copper trays				N/A					0		0
CoLo		2	DC			Power path				N/A					0		0
UCS		4	DC			Low Voltage Fan Arrays - chimney				N/A			500	4	8000		27353.6
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	1	Network			Switch								1200	2	2400		8206.08
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	1	Building			HVAC Unit										0		0
	1	Building			HVAC Unit										0		0
	1	Building			Building Heater										0		0
	1	Network			Starlink										0		0
	1	Network			Starlink Router										0		0
	1	Network			Transfer Switch										0		0

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