# PACKET**PØWER**

PacketPower Mission control Home Manage Analyze Downloads Help										
ENERG	YU	SE B	YC	JSTO	MI	ER				
Alan Spec Sheet	2014 Apr 1 0:00			Apr 1 0:00 - May 1 0:00	2014 May 1 0:00		2014 May 1 0:00 - 2014 Jun 1 0:00			
16000000000004A	Energy 5	21618.43 kWh		790.20 km	Energy	522409.24 km		816.88 kWh		
32000000000003D	Energy 52	21608.02 kWh	Energy	790.38 kmh	Energy	522398.92 km	Energy	816.73 kWh		
4700000000000039	Energy 52	21610.93 kWh	Energy	790.61 km	Energy	522402.08 Wh	Energy	816.75 kWh		
5D000000000000	Energy 52	21615.13 kWh	Energy	790.94 km	Energy	522406.66 kWh	Energy	816.48 xWt		
87000000000002E	Energy 52	21606.61 kWh	Energy	790.59 km	Energy	522397.72 kWh	Energy	816.87 kWr		
\$80000000000038		21612.14 kWh	Energy	790.55 km	Energy	522403.27 km	Energy	817.09 xwt		
9F00000000000C		21608.65 kWh	Erergy	790.34 km	Energy	522399.54 km	Energy	817.02 xm		
AA0000000000005		21618.42 kWh	Erergy	790.49 km	Energy	522409.51 km	Energy	816.94 xwt		
AF000000000048		21611.95 kWh	Erergy	790.33 km	Erergy	522402.85 kith	Energy	816.90 kWh		
C70000000000023		21614.56 kWh	Erergy	790.70 kmh	Energy	522405.87 With	Energy	816.98 kWh		
D8000000000035		21619.32 kWh	Energy	790.58 kmh	Energy	522410.51 kWh	Energy	816.65 kWh		
F00000000000053		21620.06 kWh	Energy	790.51 kmh	Energy	522411.17 kWh	Energy	817.11 kWh		
Blade		59364.22 kWh	Energy	9486.20 km	Energy	6268857.34 Wh	Energy	9802.39 kWh		
2D00000000002B	Energy 57	21616.48 kWh	Energy	790.48 kith	Energy	522407.58 With	Energy	816.82 kWh		



**ENERGY AND ENVIRONMENTAL MONITORING** 

Seamlessly integrates monitoring hardware, wireless networking, analysis and reporting into a ready to run system.

**MONITORING AND ANALYSIS MADE EASY:** The EMX energy portal makes it easy to access detailed power and environmental information. Using any web browser, you can quickly see your top level or detailed power and environmental data, available power infrastructure, examine usage trends across time and more. EMX also simplifies energy cost allocation and reporting with an array of standard and customizable reports.

**CLOSELY INTEGRATED HARDWARE AND SOFTWARE:** Packet Power provides a true end to end "plug and play" experience with a self configuring wireless network that effortlessy integrates with the EMX monitoring system. From the moment you energize monitors the EMX portal will automatically recognize new devices and make the data available.

**THE SMART ALTERNATIVE :** EMX can be online and commissioned in fraction of the time and cost of conventional BMS and DCIMs while still delivering the critical information you need to operate and optimize your data center. EMX can run as a cloud application or locally as well as operate simaltanuously with conventional building management systems. See why so many enterprise customers choose EMX.

### Information that delivers real value and operating efficiencies:

- Optimize available power per circuit without the risk of tripping circuits
- Generate energy savings by increasing ambient temperature while safely knowing your peak rack temperature
- Monitor and optimize air flow using low cost strategically placed pressure sensors
- Ensure compliance with customer contracts using easy to run reports
- Maintain uptime by setting policies that ensure safe operating parameters
- Accuracately allocate costing by user and improve billing accuracy
- Increase PUE resolution to better gauge operating efficiency efforts
- Automate reporting and time consuming manual measurements

## FEATURES

- Real-time power and environmental information from facility wide to device resolution
- Ready to run no costly commissioning and integration expenses
- Supports thousands of monitoring points across multiple facilities
- Multi-company support; separate access to information for different parts of your company or customer sets
- Use as-is or customize reports, dashboards, languages and alerts
- Accessible from any web browser
- Cloud based or locally installed
- Proven globally in enterprise and co-location environments

### **FUNCTIONS**

- Set policies and receive alerts via email or SMS
- Create custom dashboards viewable as web pages
- 3D thermal maps
- Detailed reporting capabilities
- Dynamic charting and trending functions of real time and historical data
  - Export data in universal formats
- Track energy usage, costing and C0<sup>2</sup> emissions
- Create realistic data center diagrams and view information from a facility to device level

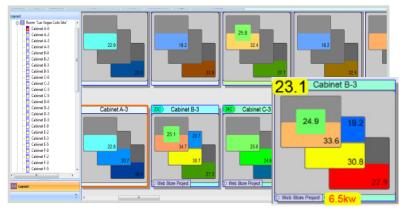
#### SYSTEM OVERVIEW



**Easy to see system wide overviews:** View all devices being monitored by type, location, or grouping along with system status from a central dashboard.

Layout * Policy name			Policy descriptio			Desired	Timeout Is	Level	Ema
Layout 5	Policy name		Policy descriptio	n	0	ondition	mineour [s	1 Lever	Ema
Demo Corporation	A/B Cabinet Test					ent A1/B1 shall be < % of its rating	300	4	no
Demo Corporation	Inflow Temperature Lower Limit		stances where temperal SHRAE recommended r		iniet tempera	ture shall be >= 18.0	3600	3	no
Demo Corporation	Inflow Temperature Upper Limit		inflow temperatures in er naximum temperature g		Inlet tempera	ture shall be <= 27.0	900	2	00
Demo Corporation	Maximum Circuit Load		then a reading exceeds on a circuit for it to remain quidelines.		PDU current s	hall be <= 80.0% of it rating	s 300	4	00
Demo Corporation	Maximum Circuit Load - Redundant Power	level at which	ten the maximum load in the full load could be su still remain within code	pported on that circuit		hall be <= 40.0% of it rating	s 3600	2	DK
Demo Corporation	Maximum RH		lative Humidity reading recommended maxin	in excess of ASHRAE	Humidity	shall be <= 60.0	300	2	00
Demo Corporation	Total Cabinet Current	Keep the sum	of the current of all circu 80% of their total capa		Cabinet current	shall be < 80.0% of rating	ts 3600	1	no
Policy via	olationse								
Policy name	Room	Cabinet	Violating	Violating	Violating	Policy limit	Margin VS.	Most	Leve

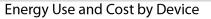
**Set Policies to ensure your operating parameters:** Define your policy parameters to keep your operating environment in check; any violations are logged and also can trigger email or text alerts.



Active Facility Maps: Create accurate facility maps to mimic data center layouts and get detailed information down to the cabinet level including 3D temperature maps, rack and device level power consumption and more.

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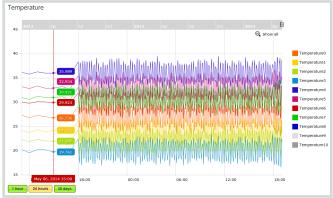


Monitoring node	OK?	Energy used last 24h by phase [kWh]	Energy used last 24h total [kWh]	Energy cost last 24h [\$]	Energy used last 30d [kWh]	Energy used last 30d total [kWh]	Energy cost last 30d [\$]	Energy used last 1yr [kWh]	Energy used last 1yr A+B+C [kWh]	Energy con last 1yr [\$]
			-			-				
SERVER AX1	OK	2.7	2.7	0.27	79.4	79.4	7.94	967	967.0	96.70
SERVER A3	OK	14.1	14.1	1.41	400.4	400.4	40.04			
0A00-0000-0000-3A27	OK				1023.9	1023.9	102.39	12553	12553.0	1255.30
0B00-0000-0000-39E4	OK	48.2	48.2	4.82	1498.9	1498.9	149.89	16594.9	16594.9	1659.49
0F0000000002203	OK		34.5	3.45	A: 403.9	1037.2	103.72	A: 5457.0	13696.6	1369.66
					B: 297.9			B: 3600.6		
					C: 335.2			C: 4638.9		
1000-0000-0000-3013	OK	20	20.0	2.00	602.2	602.2	60.22			
14000000000449C	OK	A: 10.9	30.4	3.04	A: 308.8	877.6	87.76	A: 3466.3	10252.1	1025.21
		B: 10.9			B: 323.9			B: 3685.5		
		C: 8.6			C: 244.9			C: 3100.2		
1500-0000-0000-2134	OK	6.9	6.9	0.69	224.2	224.2	22.42	288.8	288.8	28.88
1700-0000-0000-2034	OK	24.1	24.1	2.41	719.2	719.2	71.92	11049.9	11049.9	1104.99
170000000003027	OK				A: 187.1	589.5	58.95	A: 2431.0	8175.0	817.50
					B: 293.7			B: 3868.1		
					C: 108.8			C: 1876.1		
1800-0000-0000-3544	OK	11.5	11.5	1.15	377.8	377.8	37.78	4730.1	4730.1	473.01
1800-0000-0000-39F3	OK	50.8	50.8	5.08	1514.2	1514.2	151.42	19042	19042.0	1904.20
1900-0000-0000-304F	OK	44.5	44.5	4.45	1292.3	1292.3	129.23	14307.3	14307.3	1430.73
1900-0000-0000-3A20	OK	35.9	35.9	3.59	1078.7	1078.7	107.87	13237.6	13237.6	1323.76
1000-0000-0000-3555	OK	0.2	0.2	0.02	89.1	89.1	8.91	1370.7	1370.7	137.07
2000-0000-0000-3A38	OK	5.7	5.7	0.57	171.1	171.1	17.11			
210000000004495	OK	A: 6.4	10.4	1.04	A: 178.8	289.5	28.95	A: 1869.9	3056.7	305.67
		B: 3.9			B: 110.6			B: 1185.2		
		C: 0.0			C: 0.1			C: 1.6		

**Simplify your reporting:** Create energy usage and environmental reports by user, location or device along using the many standard reports or create a custom report. Report information can also be exported into universal formats.



**Create custom dashboard web pages:** Any information can be assigned to a custom dashboard which will have a unique URL and can be viewed as a web page for "at a glance" status checks.



**Charting and Trending:** Any parameter can be presented graphically to show historical or real time data and assist in data analysis.