NEW

HATTELAND TECHNOLOGY
an EMBRON Company

HATTELAND® Internet of Things

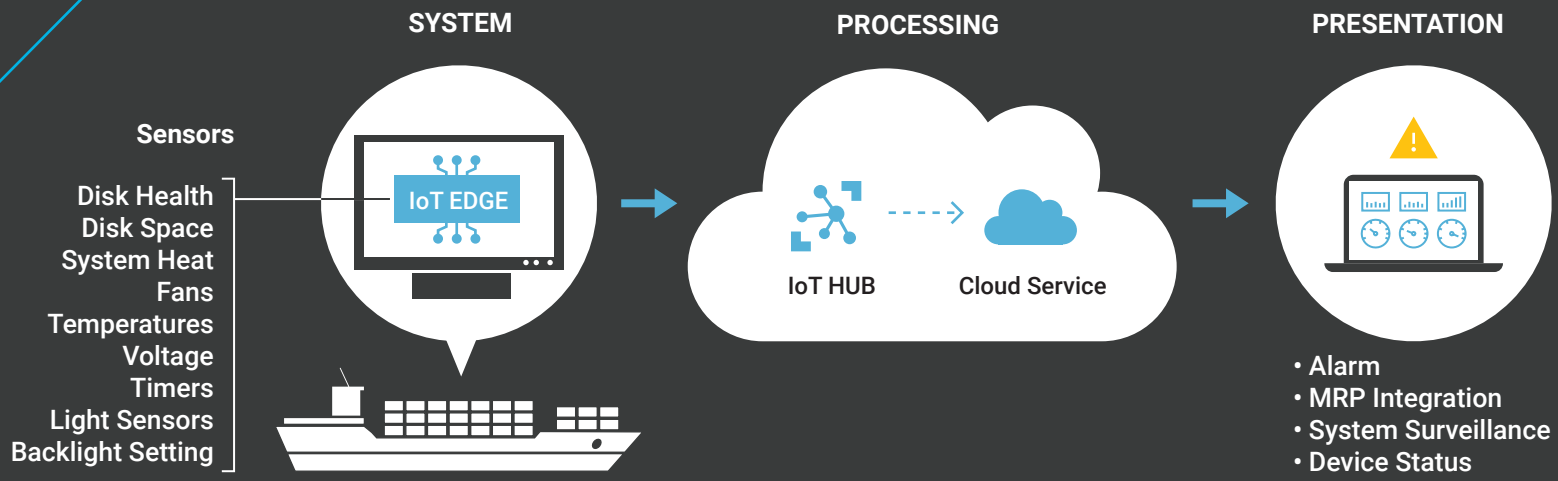
IoT ENABLED

Hatteland Technology products

With **IoT** you can easy, fast and secure review any product parameters, Accessible from anywhere on any device, Monitor and estimate health of products to ensure optimal operation today and tomorrow, Keep track of events down to seconds or past years to plan future maintainance and more!

Did you know that our products have been **IoT** compatible for the past 15 years, even before **IoT** was the latest buzzword in the industry?

Via an **IoT EDGE** application you can collect data from the various sensors in our products, and send this information to a Cloud Service for further processing and analytics!



IoT SUPPORT

WHAT PRODUCTS FROM HATTELAND TECHNOLOGY SUPPORTS ALREADY IoT?

This document provides an overview of onboard **IoT** parameters of Computer motherboards and their access methods for our Computer and Panel Computer products. The motherboards and the system built around are equipped with features of sensoring temperature, voltage, environmental luminance and other diagnostic parameters. The end-user can utilize the parameters to analyze the working status of the system. The **IoT** parameters are distributed in different modules, examples SuperIO, VCOM and S.M.A.R.T.

	Typenumbers	Chipset	Parameters available for monitoring
Panel Computers Series X Generation 1 (G1)	HD 12T21 MMC, HD 15T21 MMC, HD 17T21 MMC, HD 19T21 MMC, HD 19T21 MMC, HD 24T21 MMC, HD 26T21 MMC	Intel® BD82QM57	VBAT (CMOS Battery Voltage) VCore (CPU Core Voltage) V5V (+5V) V12V (+12V) V3VSB (3.3V Standby) V3VCC (3.3V Active) CPUTEMP (CPU temperature PECI) SYSTEMP (SYS Temperature onboard) SYSFAN (System FAN speed) LIS (Light Sensor via SCOM) S.M.A.R.T. Data (for HDD/SSD) + System Parameters provided by Operating System, like CPU load, RAM load, Disk load etc.
Panel Computers Series X Generation 2 (G2)	HD 19T22 MMC, HD 24T22 MMC, HD 26T22 MMC, HD 27T22 MMC	Intel® GL82Q170 PCH	
Panel Computers Series E	HD 16T30 MMC, HD 21T30 MMC, HD 24T30 MMC, HD 27T30 MMC	Intel® SOC	
Compact Fanless Computer	HT B22	Intel® BD82QM57	
Compact Fanless Computer	HT B30	Skylake U	
Compact Computers	HT C02 / HM C02	Intel® Q87	
Rackmount Computers	HT 221	Intel® Q87	

ACCESS TO PARAMETERS

(where applicable for Product Family)

Windows: Via "InpOut" library [Third-party]
http://www.highrez.co.uk/downloads/inpout32/default.htm

Linux: Generic IO port access (inb, outb) [Third-party]
http://linux.die.net/man/2/ioperm

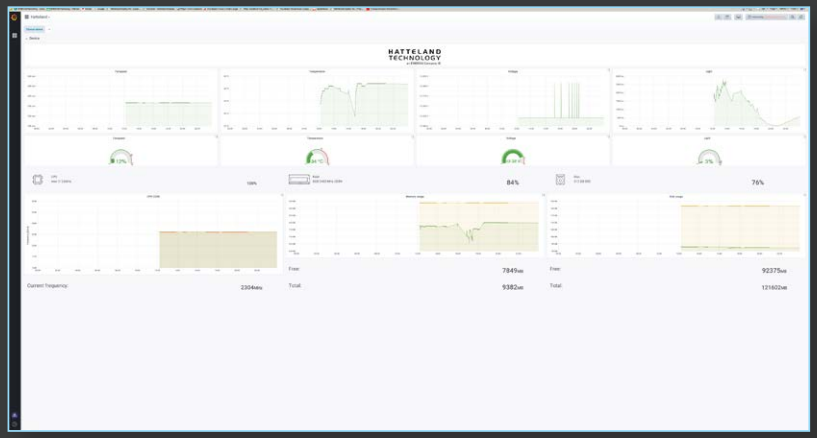
Serial Remote Control Interface (SCOM) [Hatteland Technology]
https://www.hattelandtechnology.com/hubfs/pdfget/inb100018-4.htm
https://www.hattelandtechnology.com/hubfs/pdfget/inb100018-7.htm

S.M.A.R.T monitor tools [Third-party]
https://www.smartmontools.org

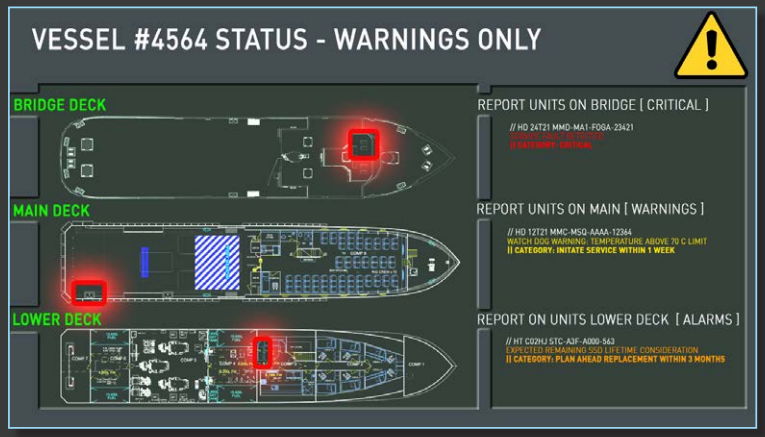
OpenHardwareMonitor [Third-party]
https://www.github.com/openhardwaremonitor/openhardwaremonitor

DATA RECEIVED CAN BE USED IN UNLIMITED WAYS!

Since the data sent to Cloud Service is stored in a structured plain text format and accessible via standarized API, there is no limits on how you can use this data further in any type of application, part of software development or even design your own customized graphical layouts to easily illustrate the data - in near real-time!



Actual Screenshot of IoT Sensor demo



Artistic illustration of IoT Sensor Software Graphical Layout