

INNOVATION - WE ALWAYS FIND A BETTER WAY

INNOVATION MONTHLY RECOGNITION

June 2022



MONTHLY RECOGNITION

“What can we change to make things / processes / products better?”



PROJECT:

**Hyve Environmental
Monitoring System**

TEAM:

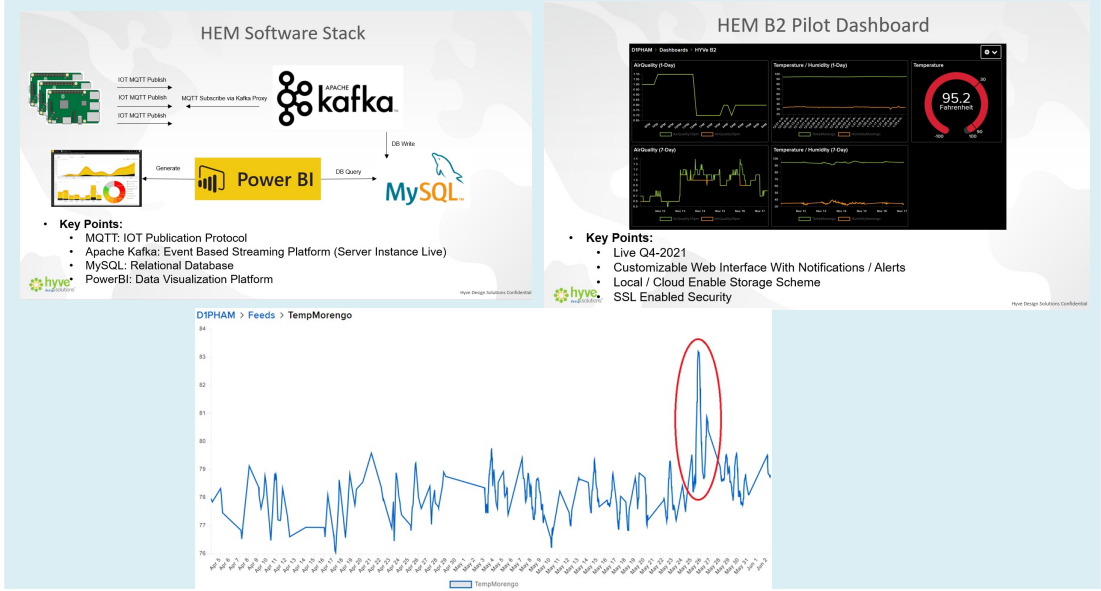
- Dennis Pham
- Steve Wei
- Jay Shenoy
- Myles Jiao

Hyve Environmental Monitoring System

Hyve Environmental Monitoring (HEM) system was designed for logging environmental parameters in our factories, labs & warehouses. Frequently we encounter questions or speculation on if we are testing our products at suitable temperatures, storing them in low humidity, etc. and have not had a way of answering this. Turns out this home-grown system is a great fit for addressing those

	Teamwork	Company Impact	Customer Delight	Comments
	L	M	M	Prototype & Pilot done, roll out for meeting Eve requirements
Team Members	Dennis Pham, Steve Wei, Jay Shenoy, Myles Jiao			

- HEM is a HW/SW stack that allows configuration of both the HW and SW components of monitoring
- Data goes into same databases as our shopfloor automation, visualized with same type of PowerBI dashboards
- Temperature, Humidity, Particulate contaminations (PM 0.5, 1, 2.5, 10) and sound levels are the sensors in the first generation
- Uses Raspberry Pi and Kafka/MQTT/MySQL
- Pilot running since Jan 2022
- BOM \$200/node allows a dozen+ nodes/factory for coverage
- Project started prior to Eve, but is able to meet Eve's requirement to monitor environment
- HEM node form factor allows rack mount to track RDT racks through entire test



HEM HW/SW in pilot in Fremont B2

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“What can we change to make things / processes / products better?”



PROJECT:

**Product Design of
Hyve Building Block
Systems**

TEAM:

- Jammy Liu
- Joe Hsiao
- Howard Tseng
- Nico Chen
- Alex Lee

Product Design of Hyve Building Block Systems

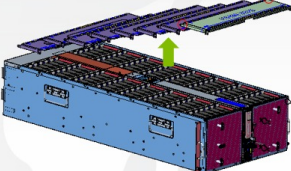
This nomination is for the ME product design team that does an exceptional job for each project that it is involved in. This allows us to create design concepts quickly and go over multiple what-if scenarios. Hercules is a very complex design, and this team has done an outstanding job on it, but deserves recognition for their entire impressive portfolio.

	Teamwork	Company Impact	Customer Delight	Comments
	H	M	H	Prototype & Pilot done, roll out for meeting Eve requirements
Team Members	Jammy Liu, Joe Hsiao, Howard Tseng, Nico Chen, Alex Lee			

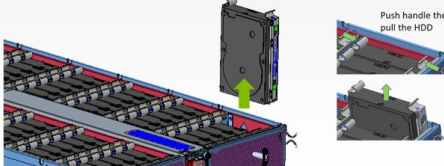
- Some projects in past 12 months
 - Hercules Storage Server – besides being a complex design, team enhanced the serviceability of this system.
 - Atta Snapdragon-in-rack cluster (was very useful in getting Hyve in a good position for this program)
 - Catalina3219 GPU system derived from Catalina2, this is designed to be either PSU or ORv3 powered
 - Pyxis Edge computing server
 - Modified ORv3 system portfolio of 1U 1S/2S/4S/JBOx
- Rapid response: new design concepts usually are done in 1 day (discussion in morning, finished by evening)
- Team also is active in design re-use

Serviceability for HDDBP -1 (about 12 min)

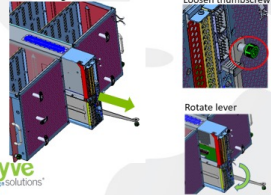
Step 1 : Remove all top lids



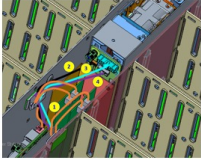
Step 2 : Remove 3.5" HDD X48 sets



Step 3 : Loosen thumbscrew then remove MB Tray





Step 4 : Un-plug cables from HBA Module



Remove below cables then go to step 5.

1. SlimSAS cable
2. SMBus cable
3. Power cable
4. SMBus cable



Example of product design with attention to serviceability

MONTHLY RECOGNITION

“What can we change to make things / processes / products better?”

PROJECT:

**Rapid Financial
Modeling for RFX
Responses**

TEAM:

- Anthony Sciortino
- Peter Pay
- Tom Philips



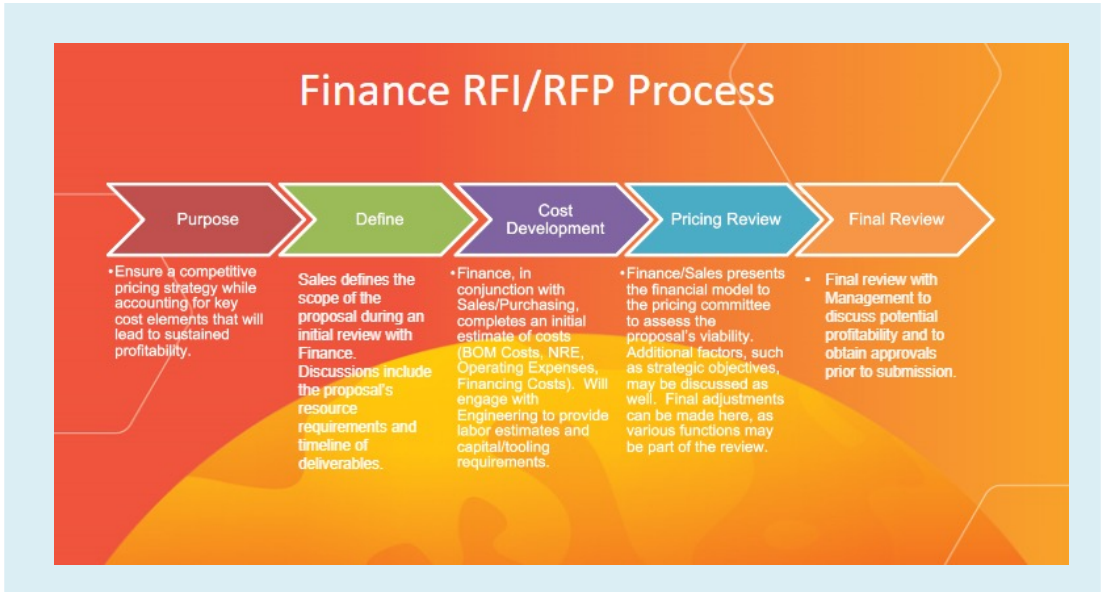
Rapid Financial Modeling for RFx Responses

Hyve has for a while sought to ensure that every RFx response we submit goes through a financial viability analysis so that we meet our profitability goals. This has been easier said than done until this recent iteration of financial modeling which is detailed, flexible and rapidly executed. This is one of the contributors to Hyve’s recently improving profitability.

	Teamwork	Company Impact	Customer Delight	Comments
	M	H	H	Modeling used for RFx for products, manufacturing and other services. Customer for this is

Team Members Anthony Sciortino, Peter Pay, Tom Philips

- Anthony has developed a detailed financial model that ensures consistency (lacking previously) and rigor
- This model is now structured to be very flexible to use in different types of RFI & RFPs
- Anthony incorporates new information in real time during finance review, so the "but this situation is different" factor is not an impediment to rapid analysis
- Peter uses his long Hyve experience to add appropriate guidelines to the model during review
- Very key to the smooth functioning of this process, the finance team responds promptly and ensures this modeling doesn't add more than a day or two to the RFx submission process (this includes managing Tom’s crowded calendar)



Financial modeling flow

MONTHLY RECOGNITION

“What can we change to make things / processes / products better?”

PROJECT:

**Pure Ramses SLT & RLT
Monitoring**

TEAM:

- Alex Matias
- Ford Wang
- Billy Santos
- Joe Austin
- Ben Fernando



Pure Ramses SLT & RLT Monitoring

- Phase 1: Customer request to know the status of each testing slots with real time visual monitoring system
- Phase 2: Add alert every step when it close to designed testing time or over testing time

	Teamwork	Company Impact	Customer Delight	Comments
	H	H	H	The request was come from customer, and we provided the solution also made the improvement on the monitor

Team Members Alex Matias, Ford Wang, Billy Santos, Joe Austin, Ben Fernando

- Went thru the detailed requirement of customer RP team
- Alex developed the whole monitoring system to show the real time testing status of each testing slot
- The monitoring system matches the physical locations at B4 testing area, making it easier for testing operators to locate the servers or racks
- Added physical monitors for each area and SLT rack for easy checking
- Added color coding for different status and to show how long the testing step already took

Manufacturing Collector																											
Home Server Details Device Details Rack Details Rack Config Rack Summary Reports																											
Ramses Pure SLT																											
U	RP-TEST-001	RP-TEST-002	RP-TEST-003	RP-TEST-004	RP-TEST-005	RP-TEST-006	RP-TEST-007	RP-TEST-008	RP-TEST-009	RP-TEST-010	RP-TEST-011	RP-TEST-012	RP-TEST-013	RP-TEST-014	RP-TEST-015	RP-TEST-016	RP-TEST-017										
45	blank	QBA19M02235029 -SLT 1 - 00:52	QBA19M02235036 -SLT 2 - 00:45	blank	QBA19M02235087 -SLT 2 - 07:20	QBA19M02235096 -SLT 1 - 00:20	QBA19M02235143 -SLT 1 - 00:01	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank
44	TRK19M02235016 -SLT 2 - 07:09	QBA19M02235030 -SLT 2 - 05:39	QBA19M02235039 -SLT 1 - 00:20	QBA19M02235085 -SLT 2 - 07:21	QBA19M02235095 -SLT 2 - 05:38	QBA19M02235140 -SLT 1 - 00:15	blank	blank	QBA19M02235086 -SLT 00:48	QBA19M02235107 -SLT 2 - 07:37	TRK19M02235011 -SLT 2 - 07:39	QBA19M02235242 -SLT 2 - 07:40	blank	blank	blank	QBA19M02235045 -SLT 14:48	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank
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42	QBA19M02235094 -SLT 2 - 07:40	QBA19M02235016 -SLT 1 - 01:34	blank	QBA19M02235032 -SLT 2 - 05:49	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank
41	blank	QBA19M02235087 -SLT 1 - 00:50	QBA19M02235039 -SLT 2 - 05:37	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank
40	blank	QBA19M02235080 -SLT 1 - 01:03	QBA19M02235036 -SLT 2 - 05:39	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank	blank
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MONTHLY RECOGNITION

“What can we change to make things / processes / products better?”

PROJECT:

**Manufacturing Data
Collector Site**

TEAM:

- Alex Matias
- Steve Wei



Manufacturing Data Collector Site

Month: June 2022

Nominator: Dennis Pham

Web (PHP) based portal for MFG reporting, data logging and quick queries of relevant manufacturing data for all sites. This site was created back in **2014** and has been maintained by Alexander Matias since.

	Teamwork	Company Impact	Customer Delight	Comments
	M	H	H	This site is used daily by many cross-functional teams to pull relevant manufacturing data for internal and external use.
Team Members	Alex Matias, Steve Wei			

- Feature Set:
 - QC Reporting
 - FPY SLT / RLT / IST
 - WDY Test Time Dashboard
 - Production Reporting
 - Pure Ramses SLT / RLT
 - Rack Cycle Time
 - MAC Report
 - Asset File Reporting
 - Host Data Reporting
 - Custom Reports
 - Lost Connection Metrics
 - GI Checks
 - WDY Agile Check

ID	Started (UTC)	Finished (UTC)	Status	Note
386435	2022-06-28 08:18:32	2022-06-28 11:15:26	PASS	

Manufacturing Collector

Home Server Details Device Details Rack Details Rack Config Rack Summary Reports

Reports

QC Reports

[QC Burn Report](#)
[QC Report](#)
[DB Query](#)
[QC IST Report](#)
[QC AWS SLT-1 Report](#)
[QC AWS SLT-2 Report](#)
[AWS Test Times](#)

Production Reports

[IST Report](#)
[Test Report](#)
[Rack Utilization](#)
[Yield Report](#)
[Asset File](#)
[MAC Report](#)
[Risk Report](#)
[Dashboard](#)
[Rack Cycle Time](#)
[Fvul Report](#)
[Ebay PDU MAC](#)
[Rack Test Result](#)
[IST List](#)

