INNOVATION - WE ALWAYS FIND A BETTER WAY

# INNOVATION MONTHLY RECOGNITION

## October 2022

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# MONTHLY RECOGNITION

*"What can we change to make things / processes / products better?"*

## PROJECT:

**SCOUT Assembly Fixtures**

## TEAM:

- Steve Pulos
- Chris Pulos (non-employee)
- Pantea Nakhaei
- Binh Thai



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# SCOUT Assembly Fixture

Month: Oct. 2022
Nominator: D. Pham

This assembly fixture is designed to increase manufacturability of SCOUT host and prevent particulate creation. This fixture allows a single assembly worker to integrate a SCOUT compute host into the external bay, allowing the SCOUT team to move forward to pre-production with the existing NC5.X chassis design.

| | Teamwork | Company Impact | Customer Delight | Comments (-> Add your own assessment on each criteria as Low/Med/High) |
|---|---|---|---|---|
| | M | M | H | Increased NPI yield and solved a critical problem visible to the customer. |
| Team Member List | Steve Pulos, Chris Pulos (non-employee), Pantea Nakhaei, Binh Thai | | | |

- Demo:
  - https://tdworldwide-my.sharepoint.com/:v:/g/personal/t805142u_tdsynnex_com/EVcbfA6YrJlPphG-Bwnoj7sBQetD5l8pEqPzaQPD6VTDjg?e=e2fqcK
- Rapid Prototyping:
  - Initial concept prototyped via wood.
  - Final concept completed out of a plastic composite.

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## PROJECT:

**Desktop CPUs for Trending Server Performance**

## TEAM:

- Vani Pulendra
- Jay Shenoy



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# Desktop CPUs for trending Server Performance

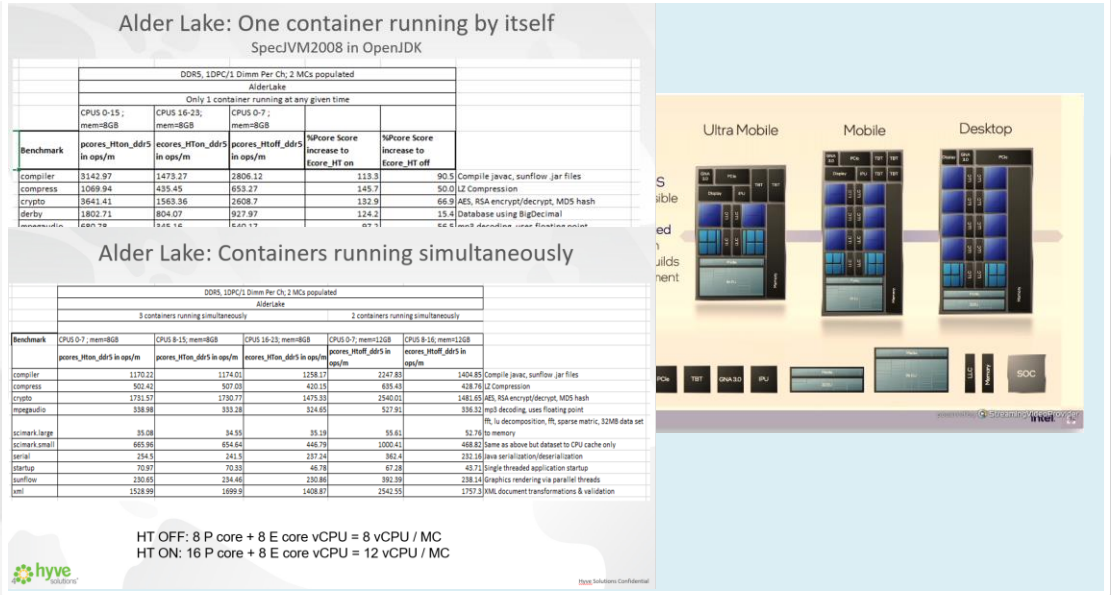
Month: October 2022
Nominator: Jay Shenoy

With a significant number of server CPU changes upon us, even discussing broad CPU choices with customers becomes challenging. To gain a quantitative basis for comparisons, we took up a methodology of using high end desktop CPUs. These CPUs typically house the same CPU cores as servers but 1-2 years in advance. and running server performance tests on them – a suite of Linux containers, Intel MLC, SpecJVM, SpecJBB.

| | Teamwork | Company Impact | Customer Delight | Comments (-> Add your own assessment on each criteria as Low/Med/High) |
|---|---|---|---|---|
| | L | M | H | First time in years we discuss trends in server performance and even seasoned Hyperscalers (e.g WallE) are pleasantly surprised with our data |
| Team Member List | Vani Pulendra, Jay Shenoy | | | |

- Started with realization that Adler Lake CPU is a benchmarker's dream. Now adopted as a standard methodology for us.
- Clearest apples-to-apples comparison of DDR5 vs DDR4 on memory bandwidth and impact on workload types
- Comparison of Intel P-Core vs E-Core (in servers in 2024!)
- Comparison of Zen3 (Milan) vs GoldenCove (ICX) cores
- Effect of memory bandwidth on CPU performance (/w WallE)
- 3 desktop systems so far each is ~ $1200 for the parts (Alder Lake DDR5, Alder Lake DDR4, Ryzen 5500X DDR4)
- Easy to assemble systems and test

- Coming soon: Zen4 (Genoa), updated Intel cores




Alder Lake and one key result

# MONTHLY RECOGNITION

*"What can we change to make things / processes / products better?"*

## PROJECT:

**Hyve Design Projects at Conferences**

## TEAM:

- Stacey Duncan
- Ashley Chang
- David Fu
- Doris Wu
- Dennis Pham
- Eric Moran
- Miguel Galaza
- Alex May



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# Hyve Design Projects at Conferences

Month: October 2022
Nominator: Jay Shenoy

Recognizing the people who were able to put up great displays at Intel Innovations and OCP Global summit. This is not a single team, but a cross departmental global effort. Hyve's displays, especially at OCP, came together well for key customer meetings. This team faced many challenges including the TWN JV uncertainty.

| | Teamwork | Company Impact | Customer Delight | Comments (-> Add your own assessment on each criteria as Low/Med/High) |
|---|---|---|---|---|
| | H | H | H | Was very important to demonstrate Hyve's engineering competence, this helped more than the words we were speaking. |
| Team Member List (2-7) | Stacey Duncan, Ashley Chang, David Fu, Doris Wu, Dennis Pham, Eric Moran, Miguel Galaza, Alex May. | | | |

- Hyve Expo Floor booth
  - Modified ORv3 rack with Challenger sleds
  - Catalina9219 with ICX, Flex GPU (also in Intel Innovation)
- Hyve Meeting Room
  - Hercules9120 mockup (customer interest – Buzz, Sally)
  - HDCat9420 4S/1U – example of Hyve EE & FW capability
  - Pyxis9121D – AMD Genoa design, edge computing
  - Polaris9220 with SPR, Flex GPU (also in Intel Innovation)
- Two projects capable of record performance, two with GPUs, two capturing OCP trends (DC-SCM, ORv3)
- Some of these projects have their own stories, e.g. Catalina9219 was created for shows and has a potential customer, Buzz

Hyve exhibits on OCP floor and meeting room