Announcements

IBM and C-DAC aim to accelerate India’s processor design and manufacturing capabilities for High Performance Computing (HPC)

BENGALURU, INDIA, March 06, 2024 – IBM (NYSE: IBM) and the Centre for Development of Advanced Computing (C-DAC), an autonomous scientific society of MeitY, today entered into a Memorandum of Understanding (MoU) to collaborate on the creation of a joint working group to accelerate High Performance Computing (HPC) in India. This collaboration is intended to spur and support the growth of India’s developer community, with a focus on processor design, system design, firmware, and application development, including contributions to open source initiatives.

As part of this MoU, both parties will promote IBM’s Power processor for HPC applications across Indian start-ups, MSMEs, research organizations, and academic institutions. Through the HPC working group, IBM and C-DAC plan to collaborate in several key areas spanning across skilling, competency and ecosystem building in HPC design research across the full technology stack for processor development. This will be achieved through:

- Guiding and enabling start-ups and companies to develop reliable and High Performance Computing systems.
- Supporting co-development and innovation in areas ranging from architectural implementations to advanced system management and control structures.
- Conducting capacity-building workshops and design reviews for implementation partners.

Speaking on the collaboration, Union Minister of State for Skill Development & Entrepreneurship, Electronics & IT and Jal Shakti, Shri Rajeev Chandrasekhar said, “We are living in the most exciting time in the history of technology, specifically India's tech ecosystem. Even segments which were counterintuitive to embracing technology—Government and governance, public services, water supply, subsidy delivery, things that were absolutely outside the ambit—are now embracing tech. In this context, semiconductors are changing how all industries operate and reimagining how conventional architecture is being designed and used. In line with our Hon’ble PM Narendra Modi ji’s vision to transform India into a semiconductor hub for the world, we believe that the future is not only about manufacturing semiconductors but about designing chips and IPs for all industries. We are doubling down on a strategy that includes RISC V and IBM’s Power—these two families will be the Indian families of semiconductors around which we will build multiple applications—microprocessors, IoT among others."

Sandip Patel, Managing Director, IBM India & South Asia said, “As we accelerate the adoption of technologies like AI, the demand for HPC will grow significantly as most HPC systems are created with these workloads in mind. This presents a great opportunity for our country to be among the leaders in this space – provided there are sufficient resources and skills available to scale the industry. This collaboration aims to create such a conducive environment. As IBM, we are proud to partner with C-DAC to take the next step towards our continued commitment to enhance India’s digital transformation and economic growth through such technologies.”

Under the HPC working group, IBM will work with C-DAC identified partners to kick-start designing and building competitive indigenous processors based on the IBM Power architecture, which is designed for data-intensive, mission-critical workloads that require superior availability, reliability, security, and performance. By enabling rapid learning through knowledge sharing, the indigenous developer community in the HPC space could be set for success much faster than what would otherwise require multiple design iterations and silicon validation leading to longer timelines.

About IBM

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industries. Thousands of government and corporate entities in critical infrastructure areas such as financial services, telecommunications and healthcare rely on IBM's hybrid cloud platform and Red Hat OpenShift to affect their digital transformations quickly, efficiently and securely. IBM's breakthrough innovations in AI, quantum computing, industry-specific cloud solutions and consulting deliver open and flexible options to our clients. All of this is backed by IBM's long-standing commitment to trust, transparency, responsibility, inclusivity and service. Visit www.ibm.com for more information.

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