Fourvees India

Area of Work

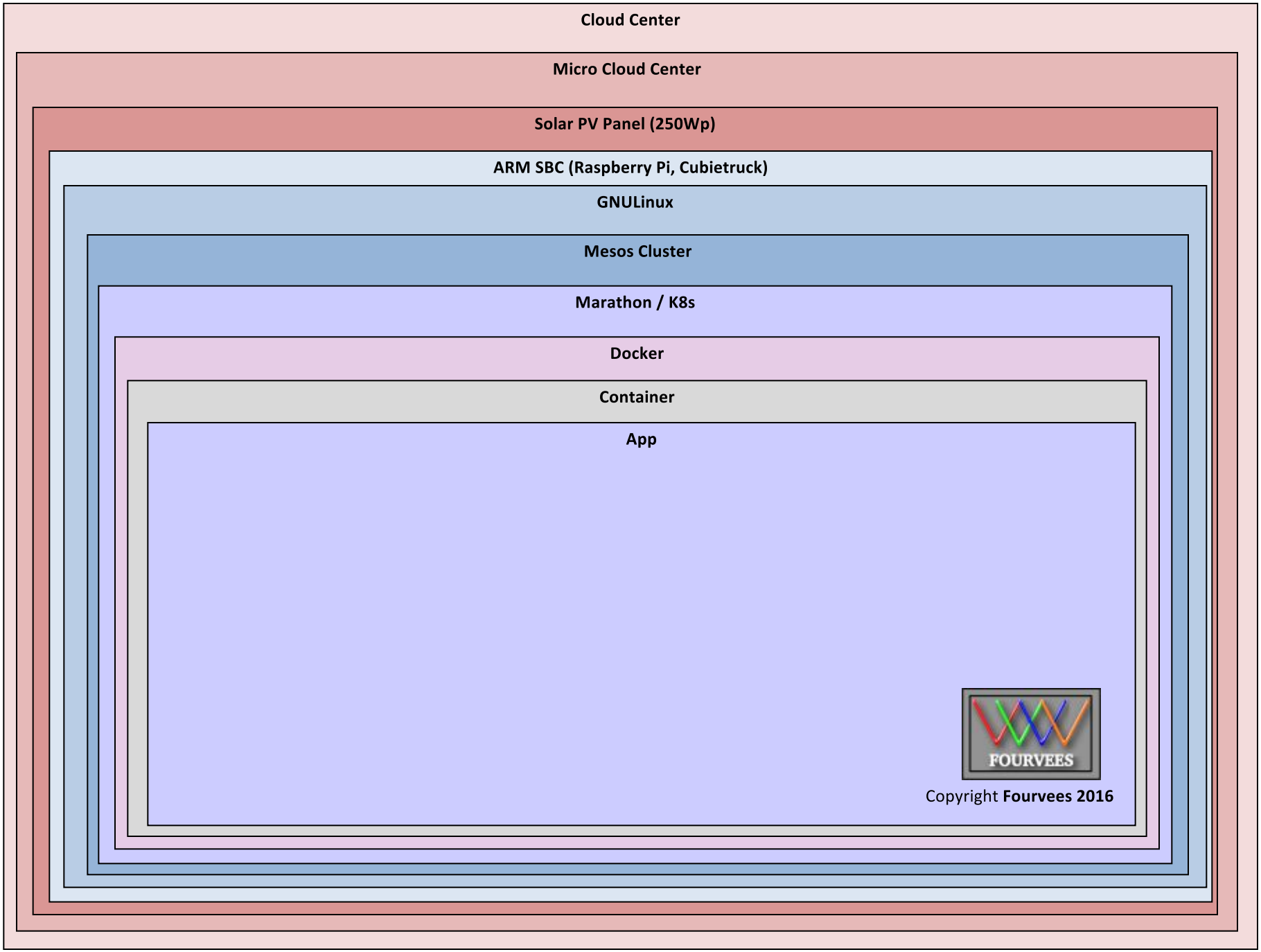
Expression of Interest for Incubation / Partnership

1. About Entrepreneur(s) – Team, Location

- Vishnu Vijayaraghavan, Aged 33 years with 10 years experience in IT industry.
- Fourvees India located in Anakaputhur, Chennai is planning to build a Cloud App Appliance and build a Micro Cloud Center using Clean energy and energy efficient low power devices with standard modern technology.

2. Background and Business Idea/Concept

- A Cloud Application Appliance and a Micro Cloud center based on it using clean energy (Solar PV) and low power ARM devices (Raspberry Pi, Cubietruck) with advanced modern technologies like GNU Linux,Mesos Distributed Kernel, Docker containers etc.
- Setting up of Advanced state of art Micro Cloud Centers requiring low cost, low power, less real estate center meeting India's needs for use in applications like ecommerce, analytics, mobile etc.


Cloud Center
Micro Cloud Center
Solar PV Panel (250Wp)
ARM SBC (Raspberry Pi, Cubietruck)
GNULinux
Mesos Cluster
Marathon / K8s
Docker
Container
App
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3. Market Research, Competition Analysis and Risks

- As per the current market research and competitive analysis we will be getting a first mover advantage as I don't find anyone attempting to do the same.
- Geographic Market Segment
  - Small scale rural centers
  - Developing nations like India(as Digital India)
  - Enable to set up Micro Cloud Centers across villages with less carbon foot print
- Demographic
  - All mobile app developers looking to host their applications
  - Data analysts
- Target Market
  - All digital enterprises (Small to Big)
  - Big Data and Data analytics firms
  - E-commerce vendors
  - Govt. Agencies
  - Logistics Providers
  - Pharmaceuticals
  - Research Agencies
  - SaaS & PaaS providers
  - IoT requirements
- Risks : The acceptance of Cloud industry by core enterprises will have to be closely watched. But there is a sure market in the consumer, analytics and research world which can mitigate our risk.

4. Idea Status

- At a very early stage. No PoC.
- Domain registration and Wordpress company site done. Site available at www.fourvees.in
- Testing the reliability of low cost commodity devices like Raspberry Pis and Cubietruck. Very much satisfied with their performance.
- Building Mesos on ARM. Refer https://gist.github.com/moderation/9ccee6b32a2d44d0391e
- Distributed systems kernel (Apache Mesos) or DC kernel is an ongoing research area and the aggregation and allocation of resources by these kernels will have to be thoroughly tested.
- Adoption of Containers(Docker) for application are again at a very early advanced stage.
- Submitted the idea @ RTBI, IIT-M.

5. Current Financial Status

- Currently no finance is committed or planned. It will be done at a latter stage when the idea gets accepted by a larger target audience and experts.

6. Business Plan and Price Point

- Cloud App Appliance (Product)
  - A specialized and standardized enclosure for the commonly available SBC (Single Board Computers).
  - Each SBCs can be hot plugged and powered on based on the requirement. Each SBC is considered as a cartridge and is varied based on the end user requirement.
  - The appliance will be made up of
    - A networking (Ethernet) switch
    - A specialized USB power hub with per port switching.
    - Any number of SBCs (Pi A,B, B+, Pi2 B, Cubietruck, Hummingboard, Odroid etc.) powered on demand by the appliance USB hub controller.
    - Each appliance will have a specific SBC (Appliance Controller) for controlling the whole appliance.
    - Each SBC of an appliance will run either in Mesos master or slave mode.
  - Revenue Stream
    - Customizing and Selling of App appliance according to industry requirements.
    - After sales service of Appliance.
    - Selling of cartridge cards (consumables)
  - Price Point
    - Per Appliance
    - Per Consumable

6. Business Plan and Price Point

- Micro Cloud Center Service with Captive Solar PV Plant (Service)
  - Each app container will be categorized with each having a base cost
    - Heavy App (4 CPU, 4GB RAM)
    - Large App (2 CPU, 2GB RAM)
    - Medium App (1 CPU, 1 GB RAM)
    - Small App (0.5 CPU, 512 MB RAM)
    - Lite App (0.25 CPU, 256 MB RAM)
  - Each app to be charged based on its category.
  - Running cost to be calculated based on per app/per watt consumption.
    - For eg. A small app container can be accommodated on a Pi2 B model with a power requirement of 10 watts. Thus, the small app will be charged with a running cost of the power consumption of Pi2 B model.
  - Each micro cloud center will have a captive solar PV plant.
  - Revenue Stream
    - Each user will be charged with the base cost and running cost.
    - Selling of excess generated power by our Micro Cloud Center Solar farms to Power grids (Captive).
  - Price Point
    - Per Application
    - Per Watt

7. Requirement from NASSCOM

- Anything and Everything. As I am new to the world of startups and incubation I am in need of the following
  - Mentoring
  - Support
  - Finance