EIT Digital Offering

IEEE & EIT Digital:
Federated Testbeds Workshop
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Climate-KIC →
Climate change mitigation and adaptation

EIT Digital →
Future Information and Communication Technologies

EIT Health →
Healthy living and active ageing

EIT Raw Materials →
Sustainable exploration, extraction, processing, recycling and substitution

KIC InnoEnergy →
Sustainable energy
EIT Digital locations

- Silicon Valley Hub

Head Office
Node
Satellite
Associate Partner
EIT Digital partners
entrepreneurial education

innovation & entrepreneurship
EIT Digital in the Bay Area

Programs
1. Industry Engagement
2. Innovation & Acceleration
3. Entrepreneurial Education
4. Europe as One

SDN/NFV federated testbed & certification service
CityLab for smarter cities
Industrial Internet incubation
EIT Digital & Federated Testbed (1/2)

- Testbed is building on wide range of previous and current activities coordinated by EIT Digital, such as *SDN at the Edges*, and *SoftFIRE*.
- US testbed activity participants from EIT Digital: TIM, Deutsche Telekom, Ericsson, Nokia, Politecnico di Torino, University of Bologna
- Collaborations in US with ON.Lab, UC Berkeley (Prof. Scott Shenker), International Computer Science Institute (ICSI), IEEE.
- Discussions with AT&T, Cisco, Facebook (and others) on partnership around the testbed.
EIT Digital & Federated Testbed (2/2)

- First core of the testbed setup in US become operational at the end of 2015.
- Multi-domain controller based on ONOS / OpenStack.
- Connect Deutsche Telekom Silicon Valley and JOLnet (TIM) in Italy.
- Facilitate collaboration between European and US-based researchers (especially UC Berkeley).
- Open the testbed facilities to selected partners in 2016.
SDN/NFV federated testbed topics (1/2)

**Elastic Edge (E2)**

- NFV promises to bring the advantages of cloud computing to network packet processing.
- General management solutions for scaling, placement, fault-tolerance, and SLA-enforcement in an application-agnostic and coherent manner.
- E2 advanced prototype, with a wider variety of Network Functions, to be deployed within the context of the SDN testbed.
Declarative Infrastructure (DI)

- Modern enterprise infrastructures typically involve one or more distributed systems that must be configured to run in the particular underlying physical facility.
- DI allows users can specify their desired distributed system in a high-level policy language that handles all the site-specific configuration.
- Specify experimental distributed systems for the federated testbed, making it easier to run and share experiments.
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