



PROIECTE ROMÂNEȘTI DE SERVICII SOFTWARE ÎN PROGRAMUL FP7

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UNDE ESTE UTILIZATA E-INFRASTRUCTURA PENTRU SERVICII SOFTWARE IN FP7

○ FP7-ICT:

- Obiectivul 1.2 “Cloud Computing, Internet of Services and Advanced Software Engineering” : ICI (apel 1), UVT (apel 4), IeAT, Romtelecom (apel 5)
- Pentru domenii de aplicatii: de exemplu, servicii pentru energie – UTCN si IeAT (apel 2)

○ FP7-Capacities:

- Research e-infrastructures, EGI sau HP-SEE: ICI, IFIN, UPB, UVT, UTCN, ITIM
- REGPOT: UPB, UVT

Date despre contributiile romanesti in categoria serviciilor software disponibile www.sprers.eu (FP7-SPRERS, UVT)



STUDIUL DE CAZ/FP7-ICT: PROIECTUL MOSAIC (IEAT – SCIENTIFIC COORDINATOR)

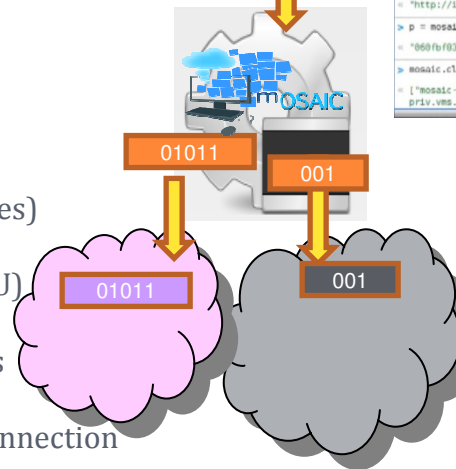
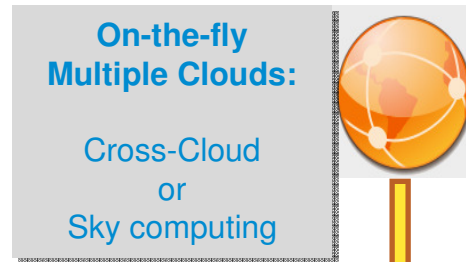


Resurse: IBM Blade Center

CPU: 100x Intel Quad-Core 2.00Ghz (400 cores)
 RAM: 10GB/CPU
 HDD: 145GB local SAS / blade-server (2x CPU)
 Inter-connect: 40Gbps 4xQDR Infiniband
 Remote storage: 4Gbps FiberChannel Fabrics
 Administrative network: 2x 1Gbps Ethernet
 Internet connection: 8x 1Gbps aggregated connection

Portability of applications between Clouds

Open-source code: bitbucket.org/mosaic
 Documentation: developers.mosaic-cloud.eu



The top screenshot shows the 'Process create' interface with a 'Components' list including mOSAIC Cloudlet, mOSAIC Driver, mOSAIC HTTP-G, RabbitMQ, and RedisKV. A 'Create' button is visible.

The middle screenshot shows a terminal window with the following commands and output:

```

p = mosaic.processes.create({"#mosaic:examples-realtime-feeds:http"})
> mosaic.processes.create({"#mosaic:examples-realtime-feeds:rabbit", null, 2})
["ac3528f6f6d6c118c2c639d7849d413f8bd9d11f9cb3149531e1081c01819d9d2396d764942"]
> mosaic.processes.call(p, "mosaic-rabbit-kv")
["http://1-41106FF-priv.vms.mosaic.ieat.ro"]
p = mosaic.processes.create({"#mosaic:examples-realtime-foods:rabbit", null, 2})
["ad1c10a22a3d19a80c5d5c508d9c2a680af1c2aa"]
> mosaic.processes.call(p, "mosaic-rabbitmq-get-management-endpoint")
["http://1-44D187A6-priv.vms.mosaic.ieat.ro:35422/"]
p = mosaic.processes.create({"#mosaic:examples-realtime-foods:rabbit", null, 2})
["668fbf0378ee0c20494ed149c7ea8d1b0fdcc9"]
> mosaic.cluster.nodes()
["#mosaic-cluster01-411909FE-priv.vms.mosaic.ieat.ro", "#mosaic-cluster01-44D187A6-priv.vms.mosaic.ieat.ro"]
    
```

The bottom screenshot shows the 'Processes' table in the mOSAIC interface:

Type	Key	Actions	Configuration
#mosaic-components:http	28178a6d304110210466d23f0204300d9375	Configure, Call, Destroy	["#http://193.226.12.137/#mosaic-components:http", "#ieat-cloudlet:001"]
#mosaic-components:rabbitmq	588401150a67080702414122020302240305	Configure, Call, Destroy	["#http://193.226.12.137/#mosaic-components:rabbitmq", "#ieat-cloudlet:001"]
#mosaic-components:rabbitmq	3412106376d5644a02040302148d305705	Configure, Call, Destroy	["#http://193.226.12.137/#mosaic-components:rabbitmq", "#ieat-cloudlet:001"]
#mosaic-components:rabbitmq	40217271432030304030403031338E8A0306	Configure, Call, Destroy	["#http://193.226.12.137/#mosaic-components:rabbitmq", "#ieat-cloudlet:001"]
#mosaic-components:rabbitmq	02940013047702403040304030202020202020	Configure, Call, Destroy	["#http://193.226.12.137/#mosaic-components:rabbitmq", "#ieat-cloudlet:001"]
#mosaic-components:rabbitmq	278000337704210203040304030403040304030	Configure, Call, Destroy	["#http://193.226.12.137/#mosaic-components:rabbitmq", "#ieat-cloudlet:001"]

STUDIUL DE CAZ/FP7-CAPACITIES HOST AND HP-SEE (UVT)



IBM Blue Gene/P ,
1024 CPUs, 4TB RAM memory.
11.7 TFlops sustained performance.

Computational power:
1x BG/P Rack

CPU: 1024x Quad-Core PowerPC-450 850Mhz;
RAM: 4GB/CPU
inter-connect: 3D-Torus network

Storage systems:

2x I/O Nodes

delivering storage, to the BlueGene/P rack, on a 10GbE
Ethernet network;

2x IBM DS3524 SAN's

HDD: 48x 320GB SAS

connectivity: 10GbE Ethernet

HOST (<http://host.hpc.uvt.ro>) – coordonator UVT

2.4 mil Euro pentru a creste vizibilitatea centrului HPC de la UVT
Pozitii pentru cercetatori in HPC
Organizare workshopuri

HP-SEE (<http://www.hp-see.eu>): UVT participant

Efficient unsupervised classification of large satellite images

