



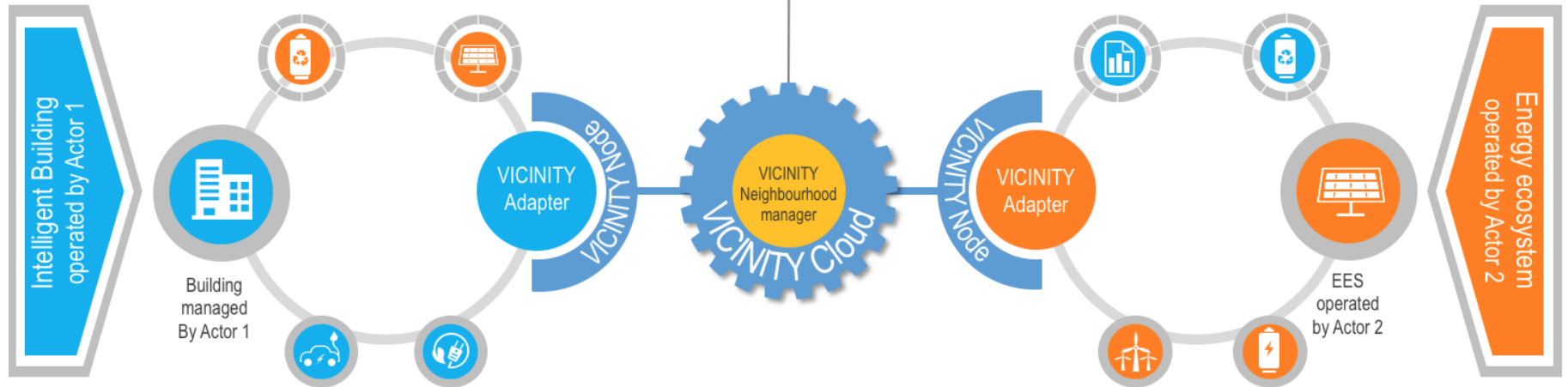
1st Open call – Technical details - Webinar

Grant agreement: 688467

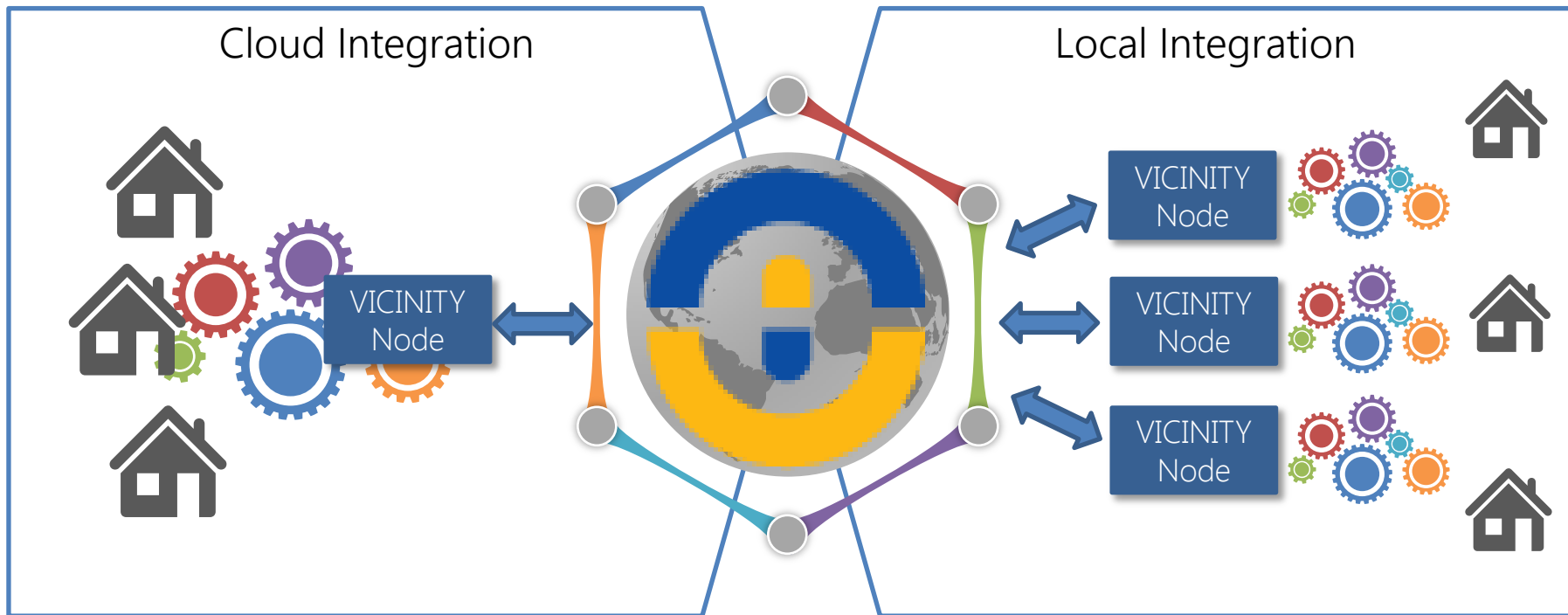
Open virtual neighbourhood network to connect
intelligent buildings and smart objects



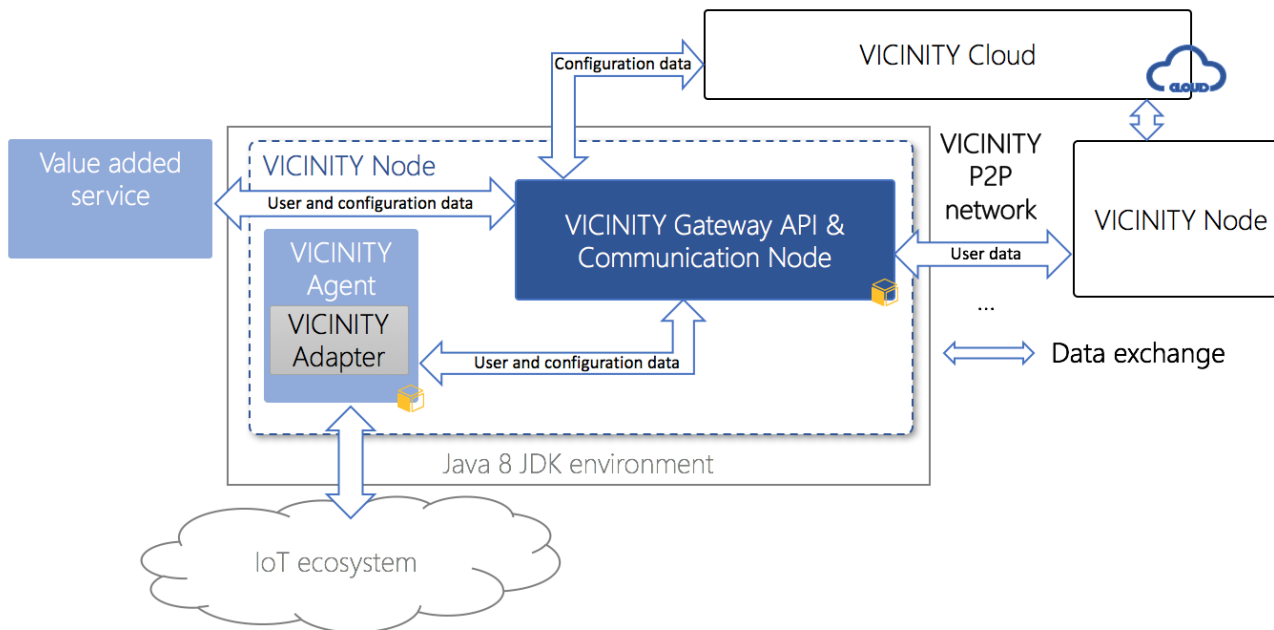
Value - added services over distributed ecosystems




1st VICINITY Open call for integration of new an IoT infrastructures in the VICINITY



What is the VICINITY Node architecture?



 Zigbee, WLAN, Bluetooth Mesh, TinyMesh, ...

1. **Analysis** and study of VICINITY APIs;
2. **Describe devices** in VICINITY Common Format;
3. **Implement and integrate** the VICINITY Adapter for the connected IoT infrastructure;
4. **Connect real device** and IoT infrastructure into VICINITY;
5. **Demonstrate** accessibility of exposed device through VICINITY;

GitHub including:

- VICINITY Gateway API:
 - <https://github.com/bAvenir/vicinity-gateway-api>
- VICINITY Adapter API,
 - <https://app.swaggerhub.com/apis/intersoft.sk/vicinity-adapter/1.0.0>
- VICINITY Adapter examples:
 - https://github.com/heinzc/VICINITY_Adapter_Kura
 - https://github.com/mkoutli/linksmart_adapter
 - https://github.com/mkoutli/sitewhere_adapter
 - https://github.com/mkoutli/iotivity_adapter

Documentation included in VICINITY Gateway API and examples VICINITY Adapter examples.

Specify device description templates for each supported device type

Each device visible in the VICINITY needs to be described by simple JSON object.


```
{
  "oid" : "hvacs_HVAC_LG_02",
  "type" : "HVACSensor"
  "actions" : [
    {
      "affects" : "OnOff",
      "aid" : "status",
      "input" : {
        "datatype" : "",
        "units" : "Adimensional"
      },
      "read_links" : [
        {
          "href" : "/objects/b347e0e4-a23f-4896-bd0b-6692d5eac529/prop",
          "mediaType" : "application/json"
        }
      ],
      "write_links" : [
        {
          "href" : "/objects/{oid}/actions/UCtrlOnOff",
          "mediaType" : "application/json"
        }
      ]
    }
  ]
},
],
}
```

```
  "properties" : [
    {
      "monitors" : "AmbientTemperature",
      "output" : {
        "datatype" : "",
        "units" : "B°C"
      },
      "pid" : "setTemp",
      "read_links" : [
        {
          "href" : "/objects/b347e0e4-a23f-4896-bd0b-6692d5eac529/prop",
          "mediaType" : "application/json"
        }
      ],
      "writable" : true,
      "write_links" : [
        {
          "href" : "/objects/{oid}/properties/UCtrlTempSetPoint",
          "mediaType" : "application/json"
        }
      ]
    }
  ]
}
```

Implement and integrate the VICINITY Adapter for the connected IoT infrastructure

- There are several services which needs to be implement to expose access to properties, actions and events from connected IoT infrastructures;

```
curl -X GET "https://virtserver.swaggerhub.com/intersoft.sk/vicinity-adapter/1.0.0/objects/0729a580-2240-11e6-9eb5-0002a5d5c51b/properties/energy" -H "accept: application/json"
```



```
{  
  "value": 24.5,  
  "timestamp": "2015-07-20T15:49:04-07:00"  
}
```


Connect real device and IoT infrastructure into VICINITY

Connect real
devices to new
IoT infrastructure

Configure sharing
rules for the
connected device
in VICINITY

Provide support
and cooperation



Support from consortium



Demonstrate accessibility of exposed device through VICINITY

Simple test scenario for connected devices through VICINITY Adapter.

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VICINITY System architecture

