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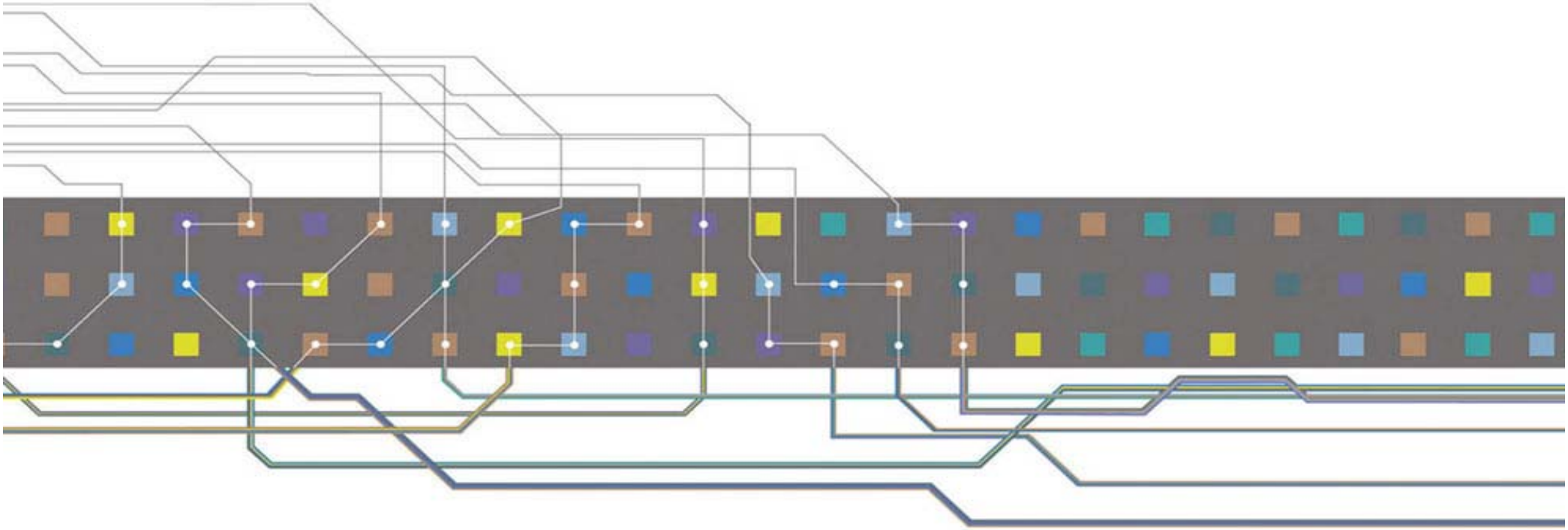

How the methodology could facilitate the shorter time to product development
FIA, Stockholm, 23 Nov 2009

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The Internet of Services

- How to make the Future Internet more efficient for supporting Software services ?
- To answer this question requires discussions between two communities
  - The service/software community
    - who are used not to see the network
    - Whose priorities are data management among servers (on a LAN most of the time)
  - The network community
    - who have a very coarse view of the traffic types (elastic, real-time, …)
- Bringing both communities to work together is a challenge
  - The approach is probably to look for domains where the Internet hypothesis (of quasi infinite bandwidth and instantaneous transfers) do not hold
  - Radio devices (phones, smart phones, sensors), on people, in cars, …
  - …

How to proceed ?

- To include the Service approach into the testbed facilites which will help to expose TestBed facilities as services with
  - Industrial constraints and needs, business models
  - Service Level Agreement, Quality of Service, Security
- To make sure that the Future Internet Services meet the future European societal needs
  - Pervasiveness, Green, ehealth, content delivery network, transport, …
- Bridge between existing network-focused testbeds and existing user-focused living labs to evaluate
  - Technical trials in various conditions
    - Mobility, low bandwidth, large number of nodes, high demand
  - User trials in various conditions (living labs)
    - User acceptance, Human machine interactions, disability support… Scalability, mobility, security, energy efficiency

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What we need

- Address full-development cycles of Future Internet services and applications
- Work toward the definition of Testbed-as-a-Service (TaaS)
  - Model for standardized and service-based access to Testbeds and Experimental facilities.
- That would include
  - Ambitious large-scale development and deployment of Future Internet services
  - Innovative experimental facilities which could span from network components (Onelab,…) to service-oriented facilities.
  - A common OPEN components or Testing toolkit (open source)
    - Including middleware on the nodes to run experiments
    - Including tools for defining and monitoring experiments

What it could look like

- The users are able to locate the Testbed that meets there needs
- The users are able to deploy their applications on the platform remotely through a common WS interface
- The users are capable of defining scenarios and to run them on the platform (conforming to standard developing tools)
- The users are capable of monitoring the trials remotely on short or long term periods
- The users gets access to the log of experimental data and is provided a dynamic report

An example: a world of robots…

- Are ‘pet’ robots going to be the next generation of devices, after the PC at work and the mobile phone in our pockets ?
- Mobile robot technology has matured in the last decade, with increased miniaturisation of the required electronics, to the point that affordable, autonomous solutions can be envisioned on the short to medium term to provide help to the elderly or the sick at home, or company to all.
- Imagine a world (home, public spaces, workplace) full of these mobile and autonomous devices – communicating with one another locally and from afar (through the network)…
- How should the Future Internet be designed to support all this ?

Thank you!

- Better intertwine the service approach and network innovations
- Provide service hooks to testbed facilities
- Combine both in holistic scenarios

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