



The Standards People

ETSI NfV Conference

Evolving NFV towards the Next Decade
Celebrating the 10th Anniversary of ETSI NFV

Transformation by Collaboration

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Eppur Si Muove

A changing network landscape

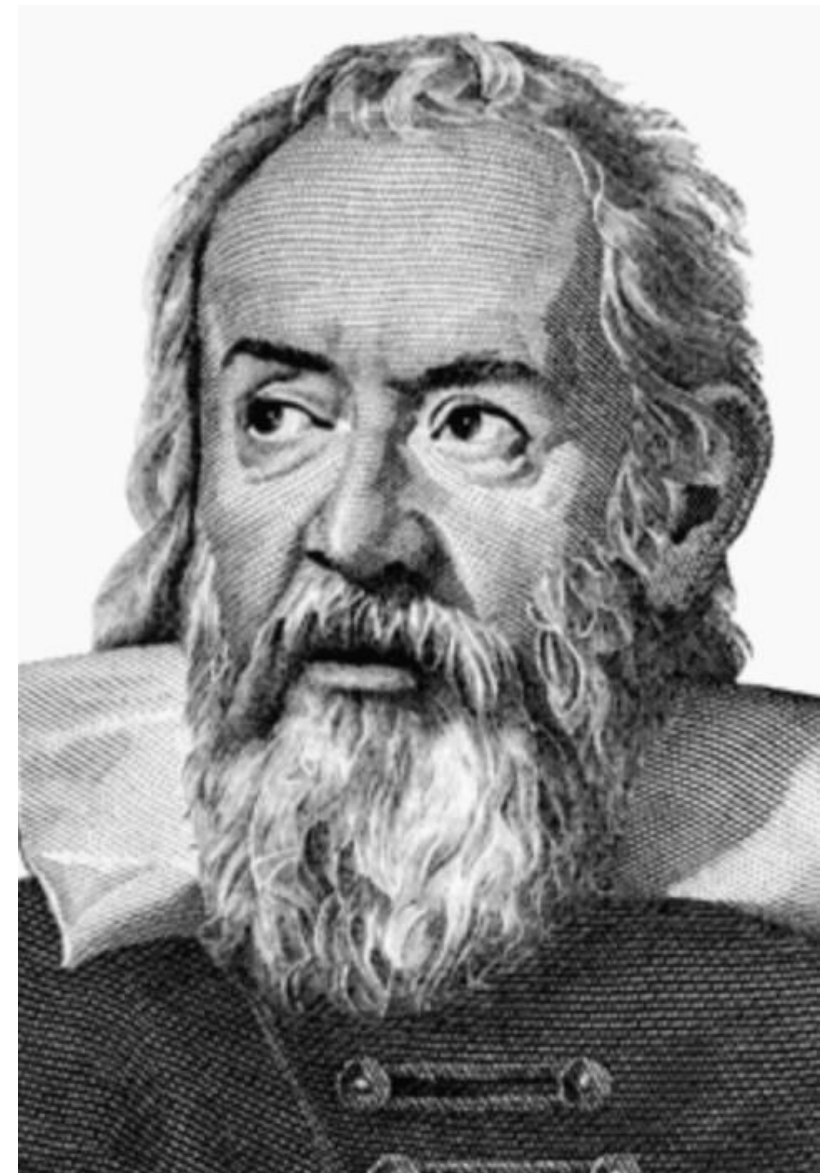
- Next-generation networks
- Network stack evolution
- Cloud convergence

New ways of shaping it

- The emergence of open source
- (Much) shorter cycles
- More agile processes, more freedom of choice

And the risks related to

- Ossification
- The appealing of one-headed solutions



Evolutionary Factors

NFV is a technology-enabler

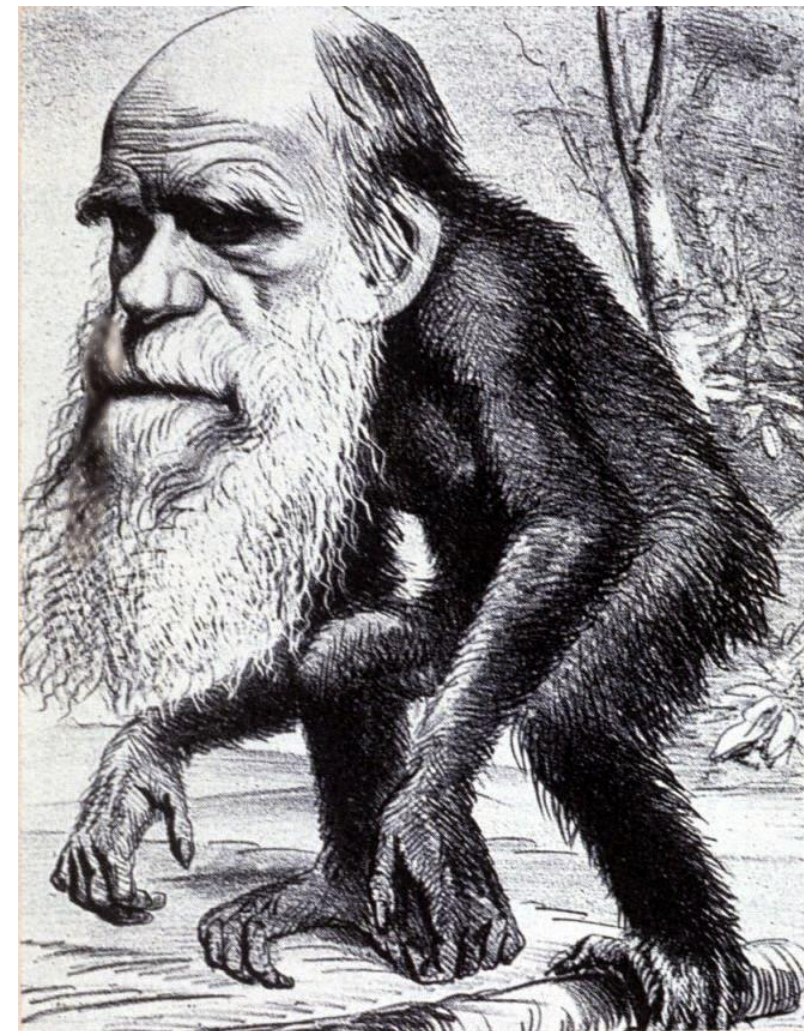
- Relevant to a large number of use cases
- Different stakeholders and organizations
- Consuming upstream technologies
- Enabling an ecosystem for other technologies to make use of it

Explore beyond the current standardization models

- Even if it becomes much more agile because of virtualization
- It is not only moving the control plane to the cloud
- Support for industry-wide transformation
- Lead by example

Address the technical challenges

- Certification, enabled by (a new way to) conformance
- Agile operational integration
- Address the network-cloud continuum
- Support closed-loop management



Collaboration is a Must

The times require standards in an unusual way

- A model open to industry at large and based on strong consensus rules
- Help shape standardization while shaping the technology

Seek for common activities as much as rules allow

- Keep links among all relevant activities
- Including relevant (and productive) informal contacts
- Take advantage of common participants

Shaping the interaction with open-source and research communities

- Bi-directional relationship
- And a potential common ground for interaction



Making the ETSI ISGs Work Paradigm Evolve

Keep the process open and agile

- Open access to drafts
- Take advantage of open-source collaboration
- Interoperability (at all levels)

Early interoperability assessment

- Encourage development of an open ecosystem
- Look for practical results
- Explore technology options and facilitate gap analysis
- A key tool for collaboration with research and industrial initiatives

A few general principles

- Diversity is not fragmentation
- Architecture should not limit differentiation
- Focus on models and interfaces



At the Core of Industry Transformation

Fulfill the ICT promise

- You can call it evolution to the cloud (or anything else...)
- Integrate network and IT technology evolution
- Provide the foundations for next generation networking
- Facilitate innovation and fight ossification

The four main ETSI transformation initiatives

- Shaped as independent ISGs
- Actively collaborating applying the principles we have seen
- And shaping other related ones

NFV, spearheading transformation

MEC, consolidating full cloud-network convergence

ENI, incorporating AI technologies

ZSM, building full network autonomy



Useful Things



Communication needs standards

- Think of human language itself
- Multi-vendor, multi-operator, multi-national, multi-...
- In despite of recent moves through one-headed implementations

NFV has contributed to change the standards landscape

- Aligning with new practices
- Providing new architectural options
- And new ways of applying standards to planning and procurement

"Everything needs to change, so everything can stay the same"