



Integrated Management of Software-Defined Infrastructure panel contribution

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The FP7 UNIFY project in a nutshell



Major Service Providers:



Research Institutes:



Major Vendors:



Universities:

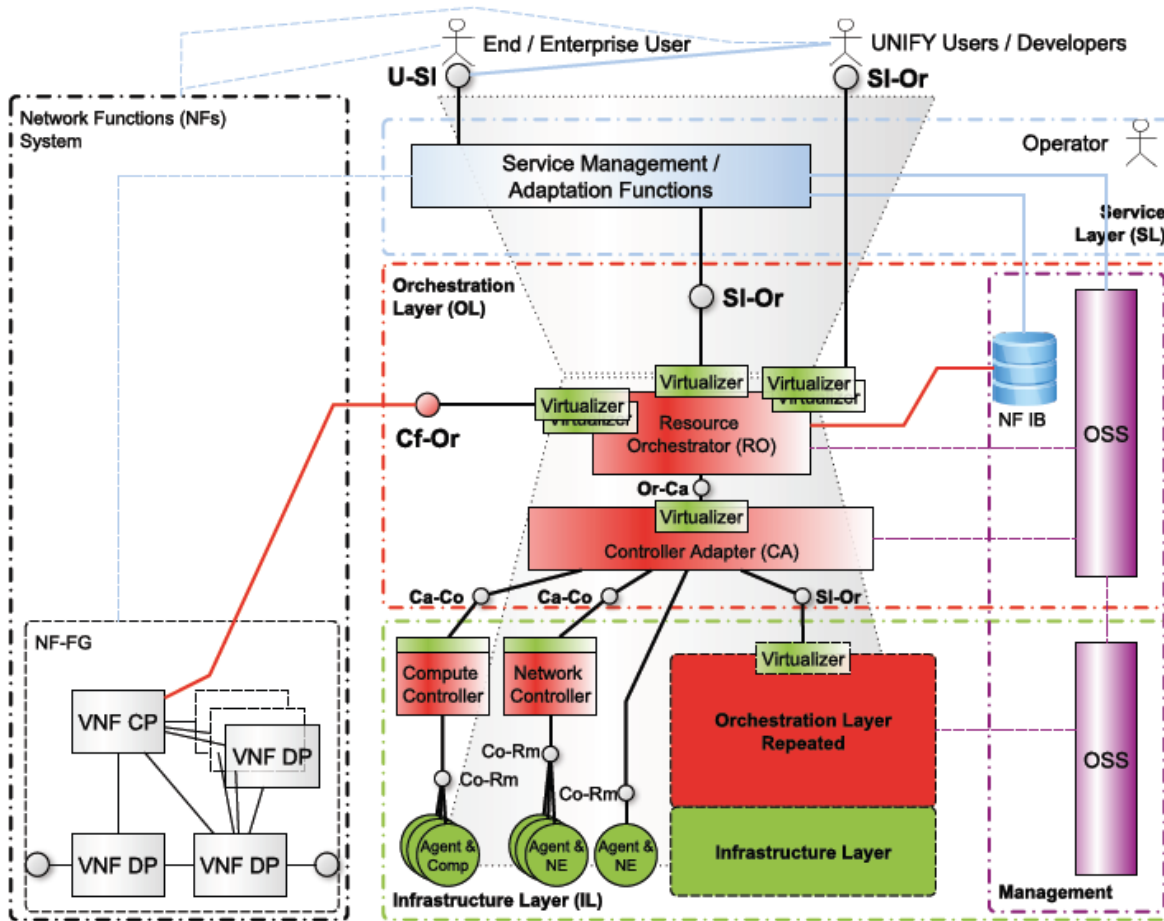


SMEs:

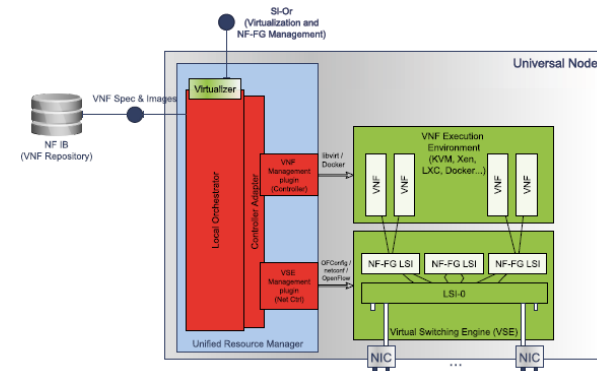


- Increase velocity of service introduction
- Unified network-cloud programming abstraction: orchestration and generic processing
- Novel observability and verification features

How do we realise the SDI model ? What functions do we need for it?



UNIFY architecture



UNIFY Universal Node

source: UNIFY D2.2

What is the management system for SDI ?

- Key components
 - Service orchestration
 - Virtual Function and Resource orchestration
 - Dynamic activation and verification
 - Situation and context building observability functions
 - Large-scale information dissemination pathway
 - Model-based reasoning for troubleshooting
 - Model-less as next step



eTOM Fulfillment
space

eTOM Assurance
space

What are the differences with past management systems ?

- Software-Defined Operations
 - Management systems optimized for automation
 - APIs
 - Workflows
 - Policy control
 - APIs
 - More open
 - Better scripting capabilities
 - Big-data ready
 - Automated reasoning for model building, situation and context awareness vs. expert-generated rules

What is the benefit ? To whom? How big is the benefit ?

- Benefits for end-users
 - Choice: let 1000s of services bloom
 - Flexible pay-as-you-consume billing with clear policies
- Benefits for operators
 - Fast new service introduction and removal cycles
 - Increased opportunities for customization enabling better serving of customer needs
 - Avoid explosion of operations costs for extreme-scale infrastructure
- Benefits for manufacturers
 - Sell more software than boxes: faster innovation cycle

What is the key skills required for operating SDI ?

- Key Roles from draft-unify-nfvrg-devops-01
 - Service developer
 - VNF developer
 - Operator
- Key skills
 - Soft skills: communication and collaboration, conflict management
 - Technical skills: data and situation analysis capabilities, programming-scripting

Conclusion

- The management of SDI can only be integrated. The FP7 UNIFY research project leads the way by integrating orchestration with advanced observability and verification functions
- SDI benefits end users, operators and manufacturers
- DevOps skills key to SDI implementation