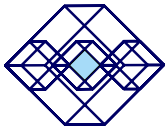


WLI

The Wandering Logic Intelligence

An Integral Approach
to Self-Organisation and Autonomy
in Next Generation Networks

Dr. Plamen L. Simeonov



The Network Evolution

1. Introduction

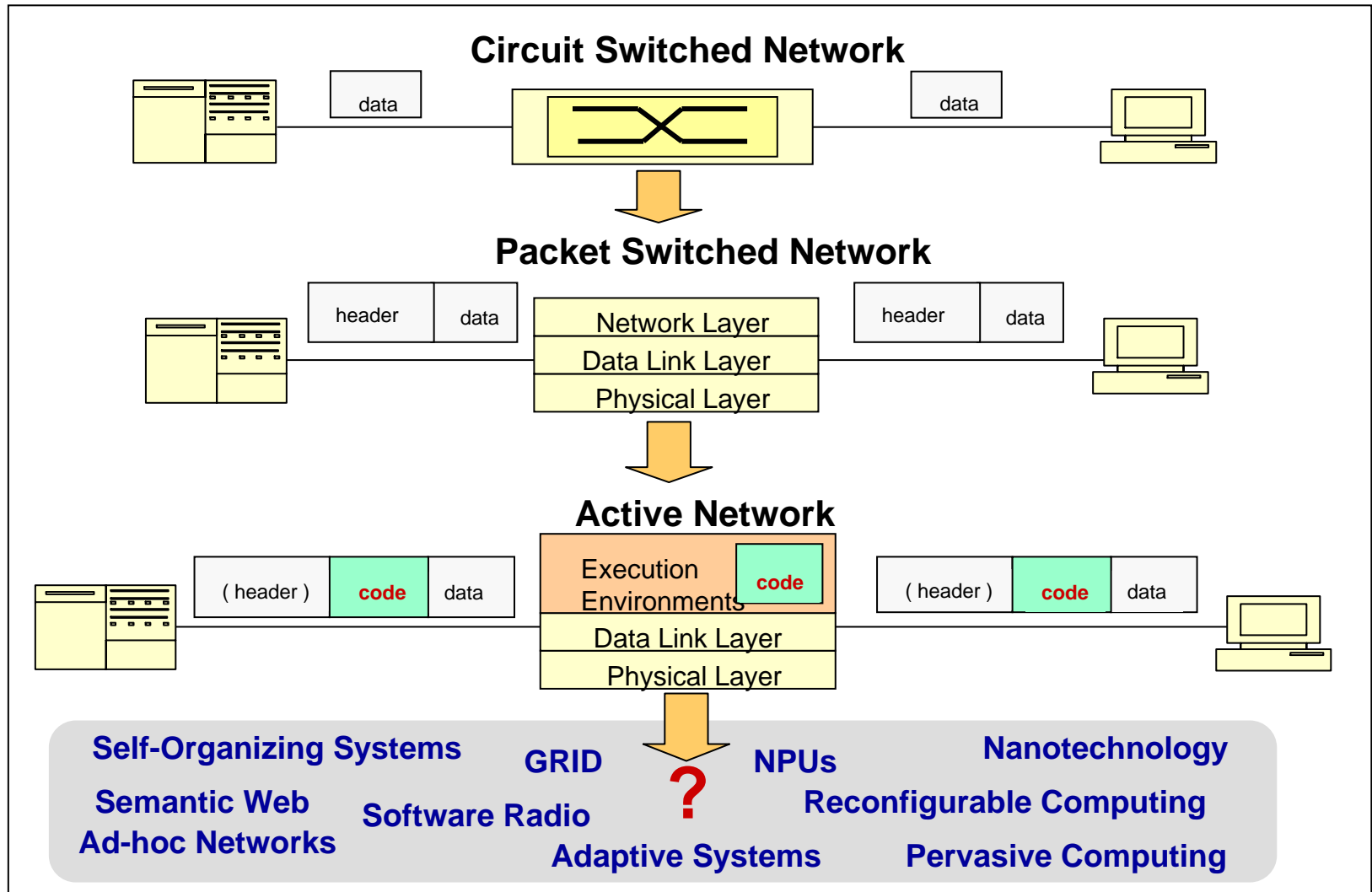
2. Related Work

3. Motivation

4. Our Approach

5. Summary

6. Outlook





The Research Landscape

1. Introduction
2. Related Work
3. Motivation
4. Our Approach
5. Summary
6. Outlook

“Resource sharing & coordinated problem solving in dynamic, multi-institutional virtual organizations”

- On-demand, ubiquitous access to computing, data, and services
- New capabilities constructed dynamically and transparently from distributed services

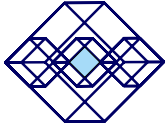
The Global Computer

FT: Grid Services & the Semantic Web



“When the network is as fast as the computer's internal links, the machine disintegrates across the net into a set of special purpose appliances”
(George Gilder)

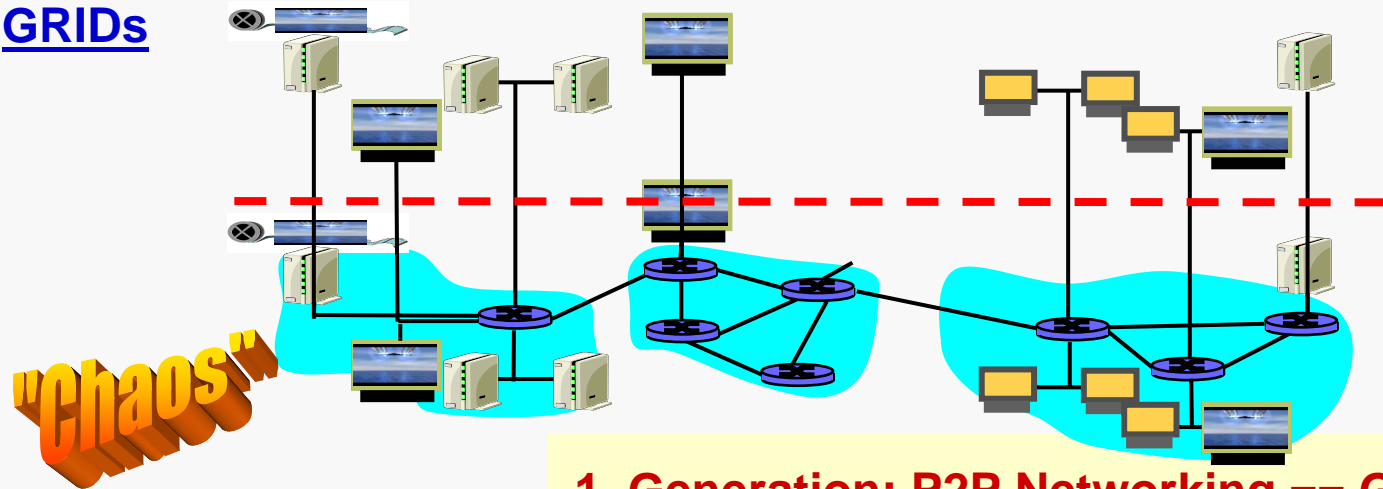




How to deal with the growing complexity ?

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- 6. Outlook

GRIDs

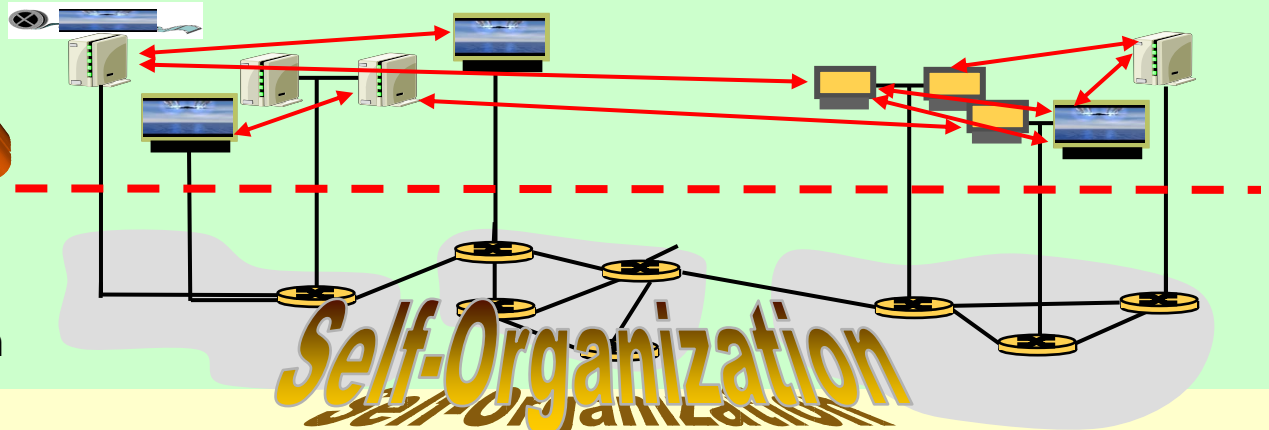


1. Generation: P2P Networking == GRIDng

Overlay(s)

Structure

Functional Specialisation



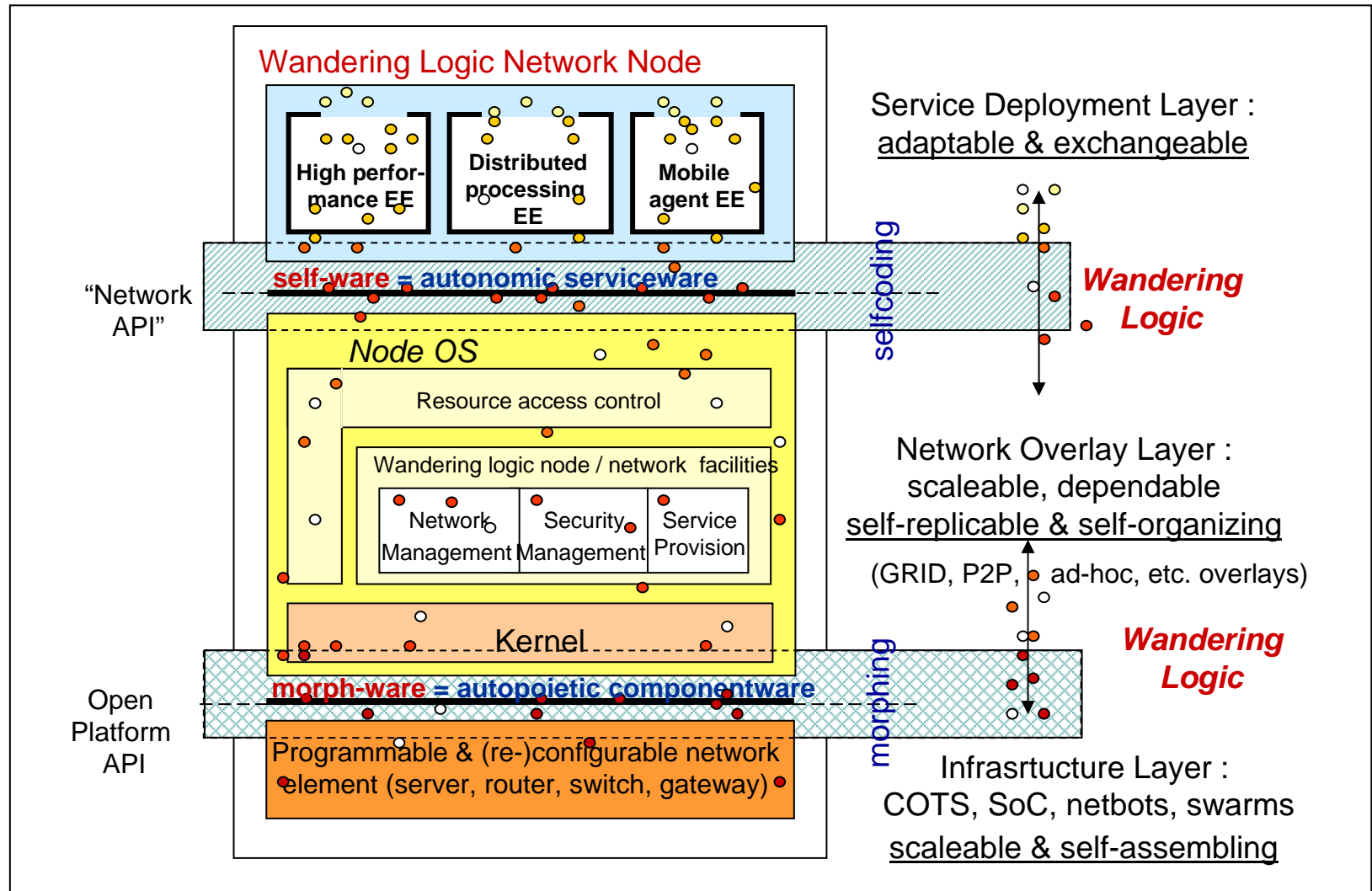
2. Generation: P2P-GRID Networking → focus application layer; ... and then?

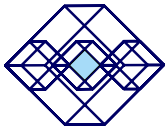




The Wandering Logic Intelligence

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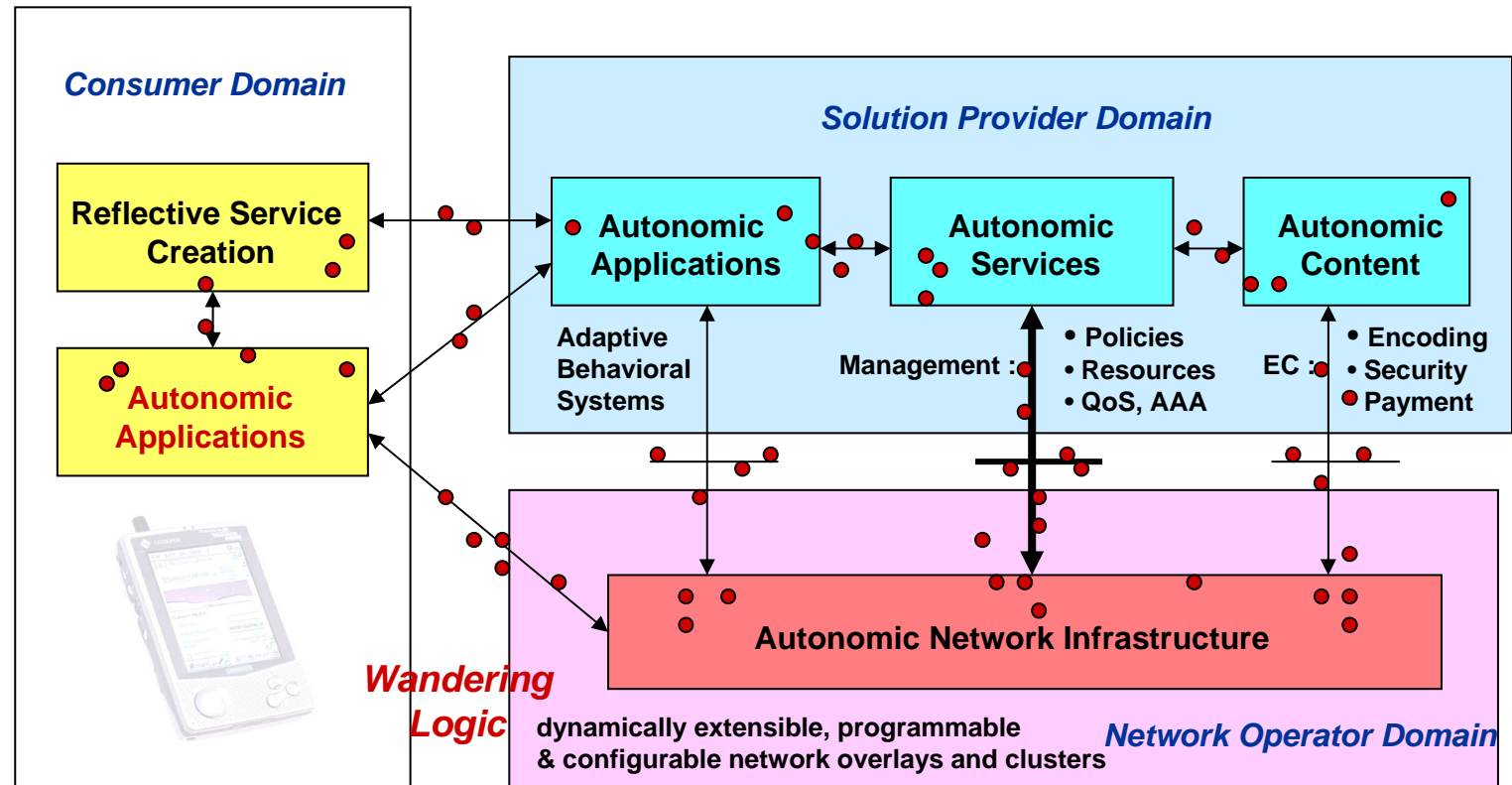




The Wandering Logic Intelligence

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Wandering Logic Network: Adaptable, Ubiquitous, Self-Organizing, Self-Emerging



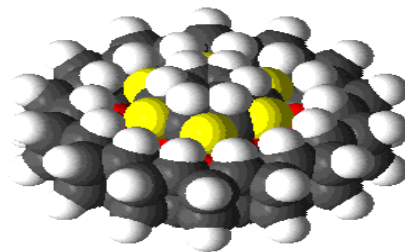
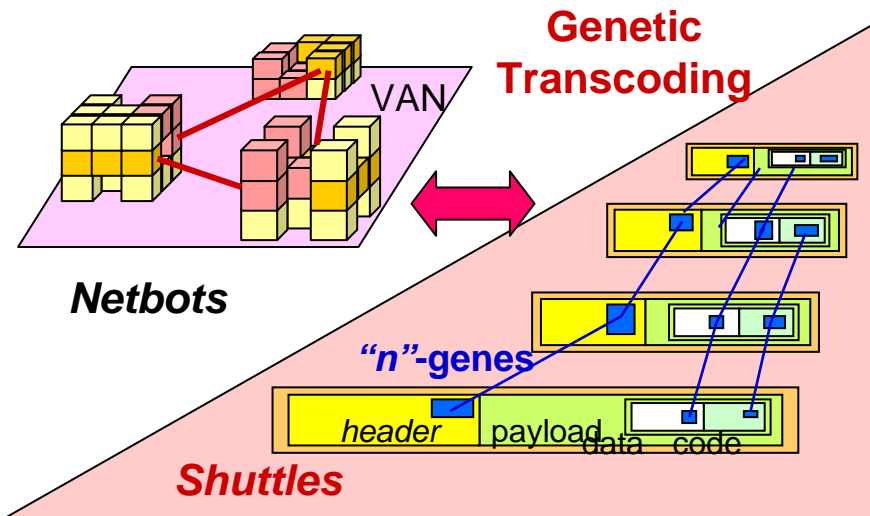
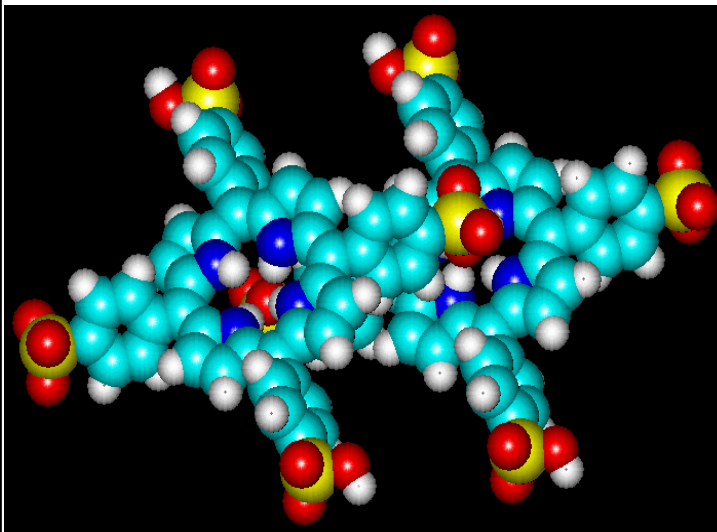
Software and hardware components are autonomous, self-generating and self-organizing structures based on intelligent evaluation of multiple user and environment feedback mechanisms.





Vision: E2E Self-Organisation

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The WLI Approach:

Wandering Networks, Morphing Roles,
Self-Replication, Genetic Transcoding
and Adaptive Self-Distribution

