

# FIGARO - Future Internet Gateway-based Architecture of Residential netWorks

*Future Internet services are rapidly moving towards an increasingly heterogeneous landscape with end users capable of creating, storing and delivering content and applications. To address this diversity FIGARO proposes an evolvable Future Internet architecture based on gateway-oriented federation of residential networks.*

## At A Glance: FIGARO

**FIGARO - Future Internet Gateway-based Architecture of Residential Networks**

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## Main Objectives

The Internet has evolved from a technology-centric core networks to a user- and content-centric scenario that must support millions of users creating and consuming a variety of content and applications. It must be able to accommodate new services with diverse requirements while coping with heterogeneous networks and systems.

Through a strong and committed industry-driven consortium, **FIGARO proposes a Future Internet architecture that is structured around residential networks.** In this architecture, **federated home gateways have a key role** as integrator of different networks and services, and as a coordinator of Internet-wide distributed content management. As “always on” devices interconnecting the residential networks with the Internet and responsible for aggregating a multitude of devices and services, **home gateways become essential components for an efficient management of physical resources and applications.**

***FIGARO provides an evolutionary path to the Future Internet, departing from centralized cloud-based architectures towards federation of residential networks.***

By building on an experimental approach that includes testbed prototyping of solution, **FIGARO will deliver:**

- The design of a novel content management architecture that enables distributed content backup, search and access.
- A network optimization framework, leveraging community networks and heterogeneous networks.
- A network management architecture with new network monitoring and real-time troubleshooting techniques.
- A deeper understanding of novel Internet-based communication and service solutions for emerging sectors, such as energy management and e-health care.

Furthermore, the integration of new sectors into the future Internet will spur trans-sector innovation and create new businesses. Finally, FIGARO is expected to result in technologies that will strengthen Europe's position and give competitive advantage to European industry in the areas of Future Internet technologies and services, residential gateways and home automation.

