



SCALABLE NETWORKS

EVOLVING IP TO 50BN CONNECTIONS ...

Applications based on the advantages that IPv6 offers will improve everyone's quality of life. All devices we use in our everyday life such as home and office appliances will be identifiable through the internet satisfying the growing demand of mobile devices. Provisioning of new applications will be automatic, end-to-end quality of service will be improved and mobility significantly enhanced.

Manage evolution

Operators face significant challenges as the numbers of fixed and mobile subscriptions grow along with the growth of Smart devices, such as Smartphones, gaming devices and tablets. This increased user demand is also reflected in the rapid expansion of active IP-based endpoints. Strategy Analysts forecast the growth of global active mobile broadband subscriptions – via Smartphones and other handsets, notebooks, tablets and other consumer electronics – from 300 million in 2009 to 1.3 billion in 2014. We also predict that if devices continue to grow, primarily driven by M2M, the number of global connections will grow to 50bn by 2020.

PLAN FOR GROWTH

With the exhaustion of the central pool of IPv4 addresses operators will not be able to apply for further addresses leaving them to use private addresses or to begin using IPv6. For these reasons, it is wise to start planning, gaining experience and be ready for the evolution towards IPv6 else risk impeding the growth of your business. Therefore, operators need to consider IPv6 Transition as an investment rather than a cost as it will be an enabler for new services and business models.

There are a number of other drivers to trigger migration towards IPv6 such as compliance to government regulations, requirement to introduce new services and improved technical capabilities of IPv6 addressing, such as embedded

security. There are many commercially attractive applications in the market that requires or will require IPv6 support in operators' network in the short to medium term and many operators may be tempted to go for a rapid transition from one standard to another. However, IPv6 does not provide backward support for IPv4 therefore, the evolutionary process from IPv4 to IPv6 must be gradual to mitigate any potential risks.

Smooth transition

Taking into account the operator's business strategy and end-users' expectations, we apply an end-to-end approach delivered in 4 phases. This program is defined as a combination of various service modules delivered flexibly according to specific requirements, which allows a gradual gain of experience and competence. The IPv6 Transition Offering is a smooth introduction of IPv6 into the network, starting by identifying the gap between the current status of the network and the wanted position, defining a transition strategy and impact analysis, planning the migration and finally, in a step-wise approach, enabling new IPv6-based services

The Impact Analysis will depend on your requirements and includes:

- Multi-vendor Technology assessment
- Operations assessment: competence, tools and processes
- Strategy assessment: cost and time analysis

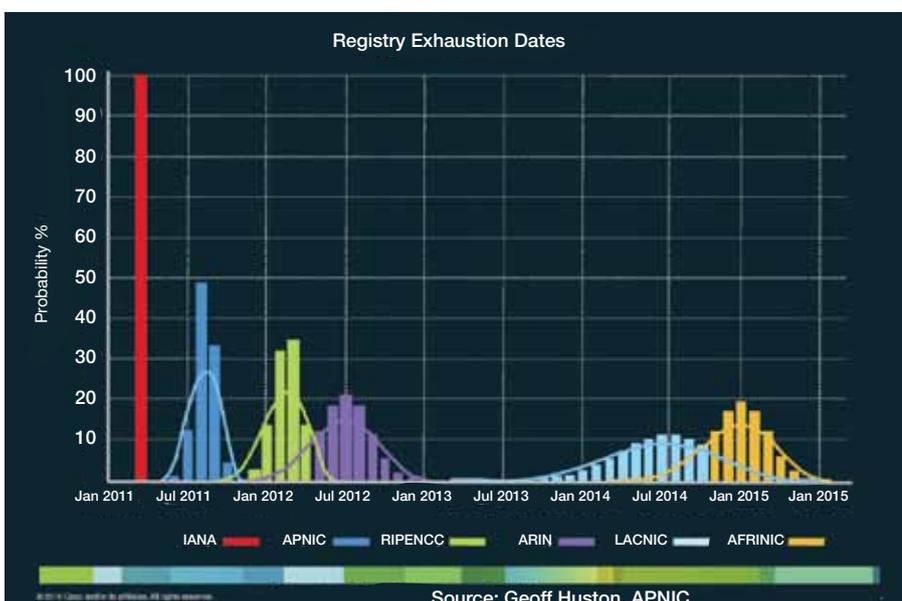


Figure 1: Registry Exhaustion Dates

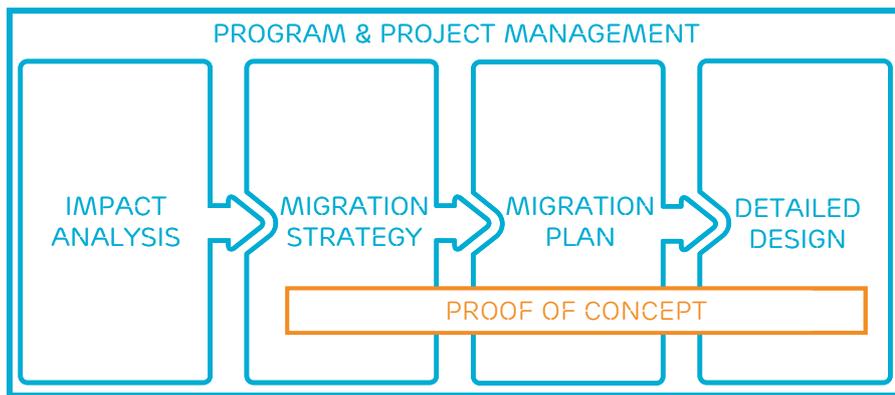


Figure 2: IPv6 Transition Offering

The IPv6 Transition Strategy workshop is where key stakeholders in the IPv6 Transition program exchange information needed for creating the IPv6 strategy. The business and regulatory needs must be balanced with the costs of the transition and the availability of equipment such as mobile terminals and infrastructure capabilities. The IPv6 strategy report outlines the following:

- Identification of strategic business objectives
- Identification of Transition priorities activities
- Selection of coexistence mechanisms to support IPv4/IPv6 interoperability

The Migration Plan will specify the technical steps of the migration described in the strategy report allowing the detailed planning of the migration project to start. Proof-of-concept testing will be identified and planned if required.

The Design provides the solution architecture, dimensioning and specifications per migration step with the details required for the configuration of the IPv6-enabled network. Proof-of-concept testing results will directly affect the details of the design, and deliverables could consist of Network Detailed Design and Configuration scripts for equipment. A successful transition will minimize the risks of the IPv6 migration, by taking small steps, allowing you to gain experience gradually and making step-wise investments.

Start the journey

Every operator has different needs and market conditions that require an individually adapted transition process. Ericsson has the capabilities and experience to manage your continuous change and offer:

- A partnership approach which focuses on transforming network and service scalability. As a trusted partner, we work collaboratively with our customers to achieve optimum quality taking into account end-user reality, the competitive landscape, and overall business strategies.
- A modular approach to IPv6 Transition, not purely focusing on products and technology to achieve the desired target architecture, but can also include operational and competence readiness, an end-to-end scope including multi-vendor environments and business process improvements.
- Through our Managed Services Operations, we deliver services to over 750m mobile subscribers. This provides unique insights into driving operational excellence and network architectures, as well as hands-on experience of assessing, designing, planning and implementing IPv6 architectures.
- End-to-end thinking is the key to the success of IPv6's introduction. The processes, methods and tools used in Ericsson's network design services are well proven, allowing cost-effective network design.

**GRADUAL
EVOLUTION
TO SECURE
SUCCESS**

ERICSSON ENGAGEMENTS FACTS

TECHNOLOGY CONSULTING
Technology Consulting
More than 300 consulting projects delivered by Ericsson every year. Advanced IPv6 competence and experience from many years of IPv6 testing and standardization, in both IETF and 3GPP, combining mobile and fixed networks with IPv6.

OPERATIONAL CONSULTING
As Ericsson is the largest operator of mobile networks, through our Managed Services contracts, we have extensive experience of operational efficiency and best practice in work methods.

LEARNING SERVICES
300,000 education days delivered every year and specific courses on IPv6 to improve Operator's competence in this area.

INNOVATION CENTRES
Customer Proof of Concept facilities available globally for demonstrating bespoke IPv6 services and migration expertise.

Contact:
Fabio Santos
Global IPv6 Driver
Fabio.Santos@ericsson.com

