

# **NEC Mobile Backhaul**

**Intelligent Converged Network for Backhaul**

# Mobile Backhaul Network Transformation

LTE introduces new performance requirements for Backhaul



New solutions are required

## LAST MILE

**PROXIMITY** to RAN for increased peak throughput

**DIVERSITY** of wireless and wireline transmission

**SIMPLICITY** of transport with native hybrid architecture

## AGGREGATION

**EXTENSION** of reach for aggregation closer to the RAN

**CONVERGENCE** of multi-layer multi-service transport

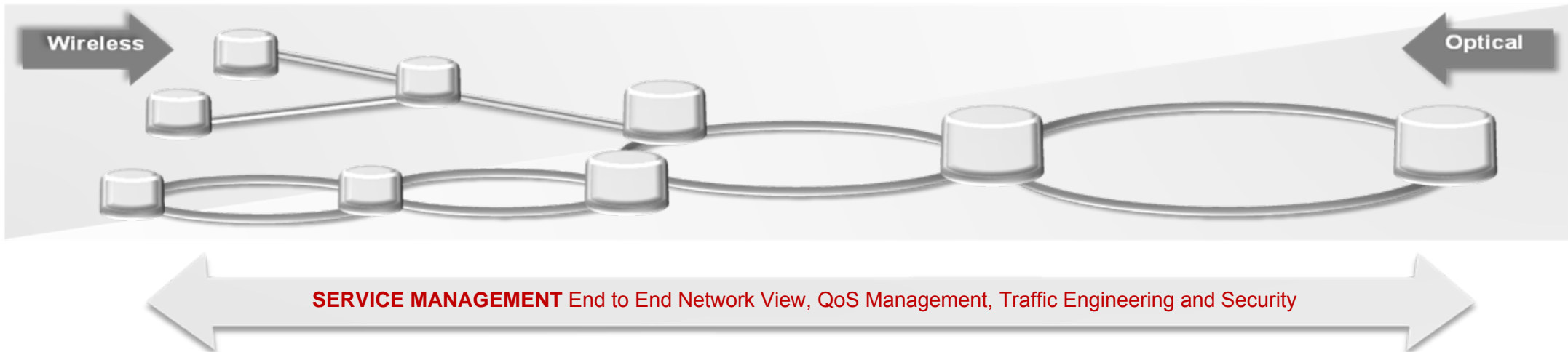
**SCALING** of throughput with ring and mesh topologies

## METRO

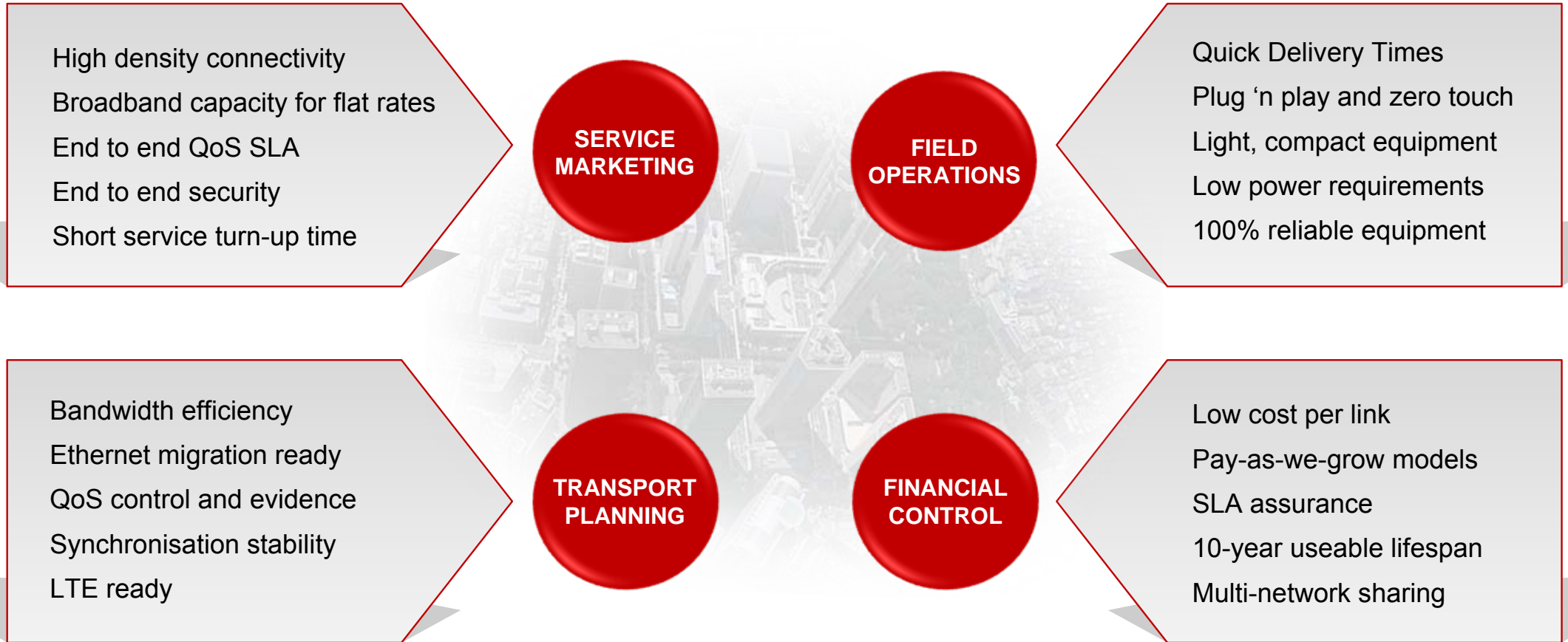
**MATURITY** of packet transport and extinction of TDM

**UPGRADE** of capacities to accommodate traffic growth

**ENHANCEMENT** of routing functionality for decentralised EPC



# Multiple Needs of Different Network Stakeholders



New solutions need to fulfil a full set of operator's needs: technical, operational and commercial

# Intelligent Converged Network for Backhaul

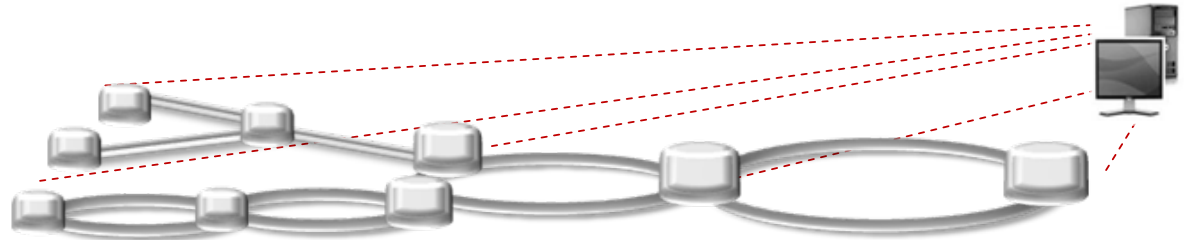
## EVOLUTION

Radical control plane thinking for easier network transformation and sharing



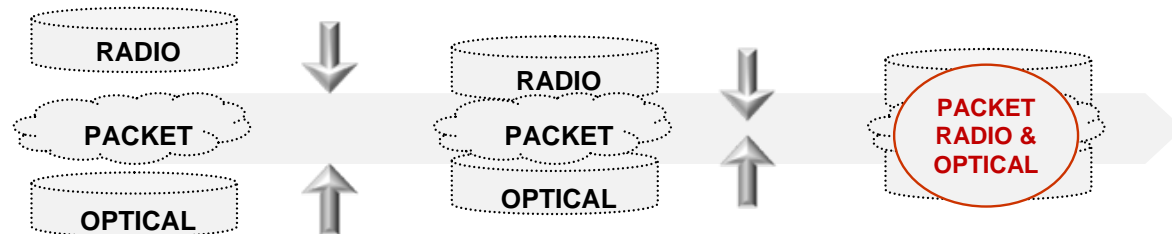
## INTELLIGENCE

Software tools for simple end to end management of complex networks



## CONVERGENCE

Unified portfolio, multiple technologies, high performance with reduced cost

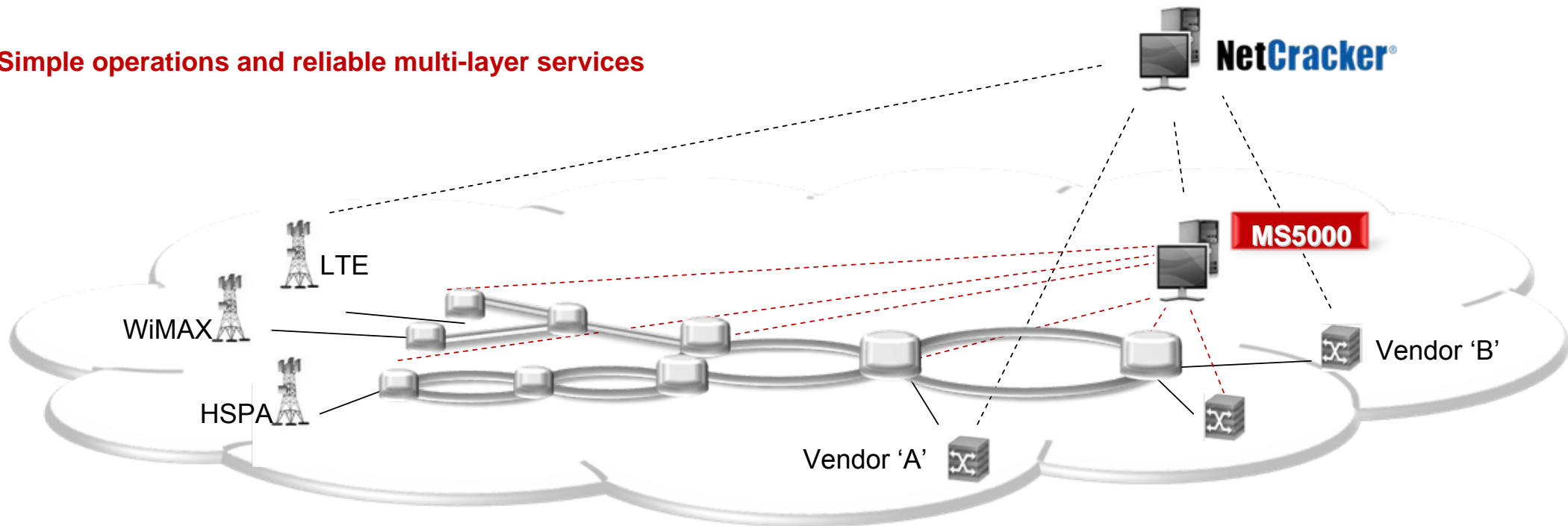


# One Network Management: Multi-Service and Multi-Vendor

NEC provides end-to-end and multi-vendor network management solution:  
Mobile IP Core, Core Transport Network, LTE infrastructure

**MS5000 NMS** seamlessly integrates with **NetCracker OSS** to manage  
multi-technology, multi-layer and multi-vendor environment

**Simple operations and reliable multi-layer services**



# Wireless Backhaul for the Last Mile and Aggregation

The PASOLINK Series brings together top class radio performance and a vast array of multi-service transport and traffic engineering functions to address the needs of the Last Mile and Aggregation networks



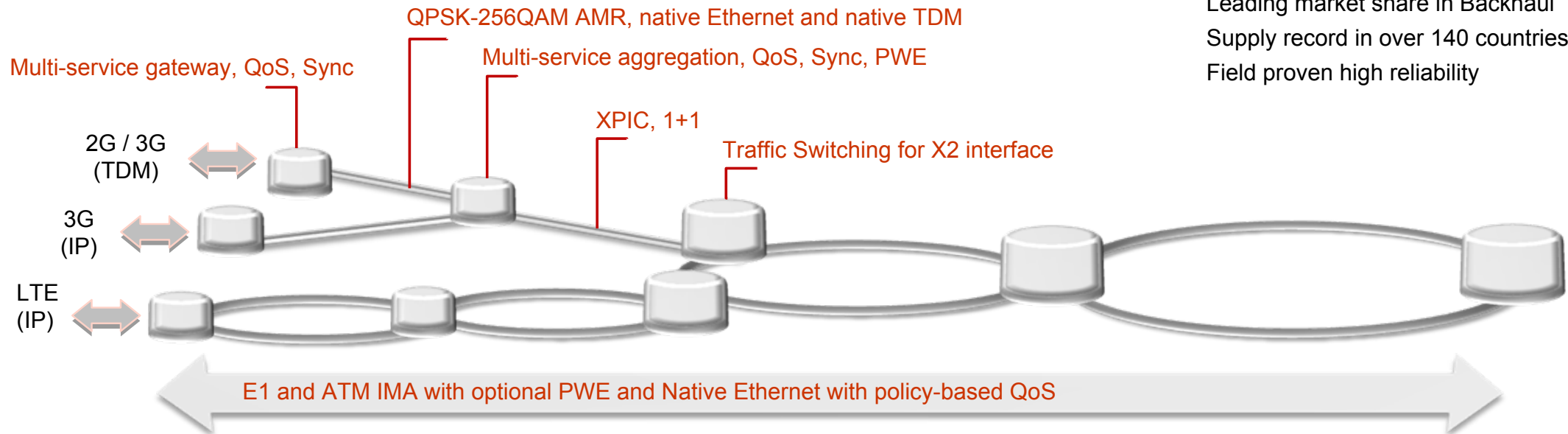
**PASOLINK Series**

## High Performance Packet Radio

High Transmission Capacity  
Advanced QoS Control with AMR  
Ready for LTE

## Global Leadership

Leading market share in Backhaul  
Supply record in over 140 countries  
Field proven high reliability



# Optical Packet Backhaul for Aggregation and Metro

NEC's optical and packet transport solutions with industry leading innovation provide high quality and high reliability multi-service transport network with cost efficiency

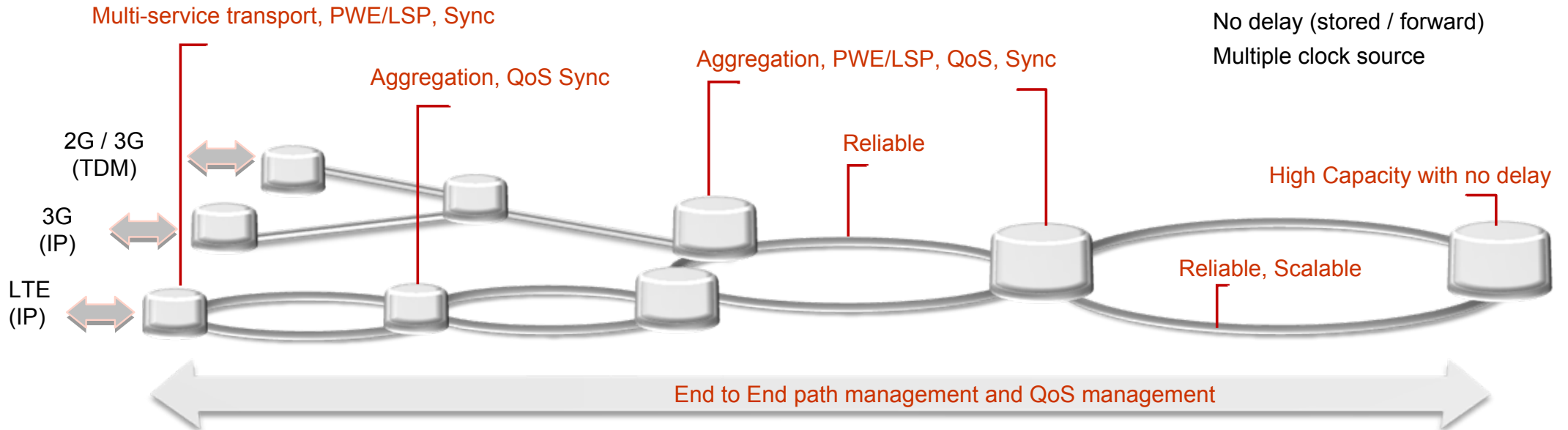


## Packet Transport

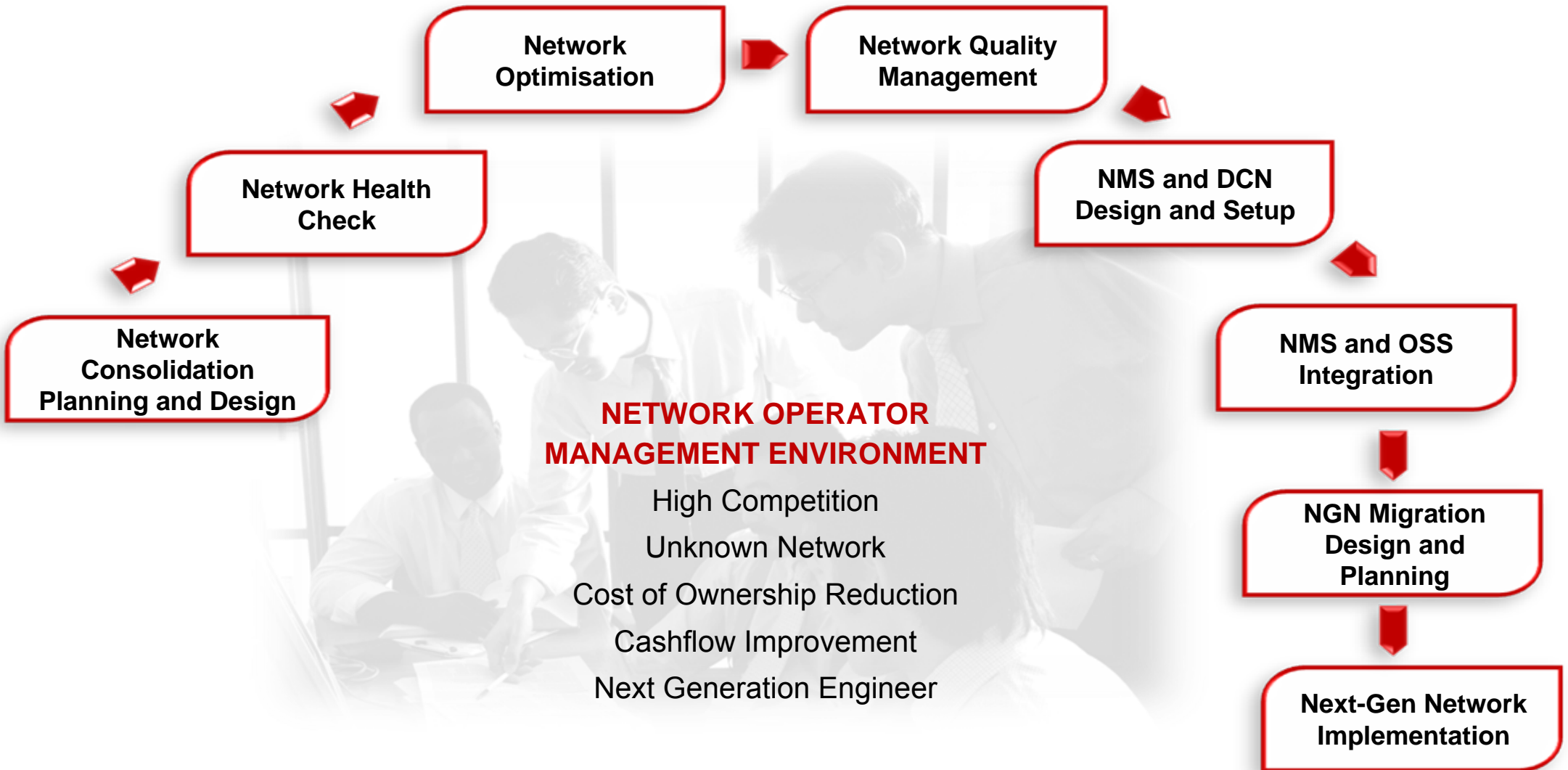
Aggregation, PWE and LSP  
Connection Oriented Ethernet  
Traffic flow control with QoS, MPLS-TP and PWE  
E2E Path Management

## Metro WDM Transport

Multi-service over one Fibre  
High Capacity,  $\lambda$  aggregation  
No delay (stored / forward)  
Multiple clock source



# Professional Services for the Network Lifecycle



# NEC Backhaul: Performance, Confidence, Profitability

## More performance: advanced technology for any migration scenario

- High throughputs with high modulation, high wavelength count and fast switching
- High level of packet networking functionality: Ethernet, MPLS, IP
- High QoS multi-service support for TDM, ATM, Ethernet and IP (including PWE)

## Less risk: reassurance for future changes in network capability

- Application flexibility with a wide range of scalable products for any migration case
- Extensive support for resilient topologies and backward compatibility
- Easy addition of functionality with pay-as-you-need software upgrades

## More value for money: optimised cost of ownership

- Low CAPEX as technology convergence reduces the number of hardware units
- Low OPEX in energy and contribution to environment with low power consumption
- Low OPEX of reduced maintenance due to high engineering quality

Empowered by Innovation

**NEC**