



highstreet
technologies
Network solutions

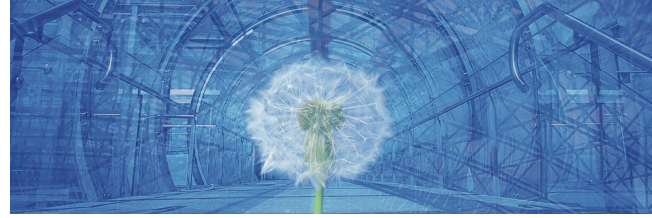
highstreet General Systems and Network Engineering Service Flyer

OVERVIEW

The highstreet General Systems and Network Engineering Service is intended to support equipment manufacturers and network operators on a technical level. With its long-term experience in access and transport technologies like DSL, GPON, PDH, SDH, WDM, Microwave Radio, ATM, Carrier Ethernet, MPLS, and IP, highstreet technologies is able to assist equipment manufacturers over the whole product lifecycle. Network operators can benefit from highstreet technologies' competence in network planning, commissioning, and operation. The tasks assigned to highstreet technologies can be manifold and can be flexibly adapted.

The requirements in the highly innovative transport equipment market change quickly. New technologies and architectures are frequently introduced. Equipment manufacturers may not always dispose of enough staff with the right skills. Increasing the own staff is often not the best choice since the needs for additional professionals may come in peaks.

Many network operators have outsourced a good deal of their technical staff leading to a shortage when new transport technologies and architectures need to be introduced in their networks. highstreet technologies has the technical proficiency in supporting and complementing the network operator's core team whenever new networks are to be built or existing ones upgraded or extended.



AREAS OF ENGINEERING SUPPORT

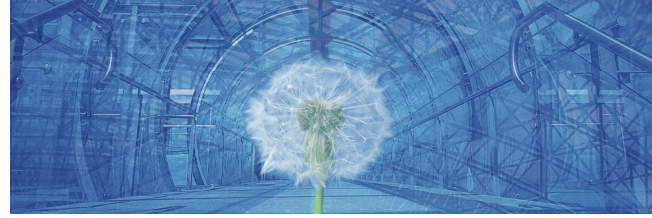
highstreet technologies disposes of the skills and the experience necessary to successfully support equipment manufacturers and network operators for instance in the following activities

- Technology evaluation,
- Standardization,
- Requirements engineering,
- System design,
- Technical sales,
- RFI / RFQ preparation and evaluation,
- Network integration.

SERVICE PACKAGES

The following tables summarize the optional packages of the highstreet General Systems and Network Engineering Services and the corresponding deliverables for both network operators and equipment manufacturers. On request, any other packages in the field of transport networks can be defined on request.

Service packages for network operators	Deliverables
RFI / RFQ support	<p>RFI / RFQ preparation considering</p> <ul style="list-style-type: none">• Potential transport technologies and network architectures• Constraints by existing network and services• Requirements from novel services• Network scalability <p>Evaluation of answers to RFI / RFQ</p>
Network integration	<p>Network plan including</p> <ul style="list-style-type: none">• Location and equipping of nodes• List of material <p>Interoperability test specifications</p> <p>Network configuration guidelines</p> <p>Operational concept</p>



Service packages for equipment manufacturers	Deliverables
Technology evaluation	Study paper including <ul style="list-style-type: none"> • Comparison with so far used technologies • Analysis of the maturity of the technology • Impact on development effort and manufacturing cost on box level • Impact on CAPEX and OPEX on network level • Proposal roadmap of technology introduction
Standardization support	Study paper on business impact of upcoming standards Review comments on draft standards Contribution (draft) to standardization process
Requirements engineering	Development-oriented feature list based on <ul style="list-style-type: none"> • Input from market research, sales, customer workshops, customer presentations, competitor analysis, and RFI / RFQ • Availability of underlying technologies • Constraints by budget and time lines
System design	Functional specifications Concept papers Interface specifications Design specifications Test specifications Operational concepts
Technical sales support	Training material and training courses for local sales Customer workshops Customer documentation Answers to RFI / RFQ incl. network dimensioning and list of material

