

## Contracting Services

Changing industry trends such as Broadband Technologies, convergence of new standards and devices, and increasing consumer demands have made it essential for telecom companies to introduce innovative, new products and services to market, and do it quickly. With the need to meet compliance standards and reduced time to market, Telecom companies face huge challenges. We enable you to meet these limitations through its Engineering solution for the Telecom Industry. We Specialize in OSP Civil and Mechanical works, Fiber Optics, Telecom ISP Solutions, and RF Drive Test, Analysis and Optimization Network services for Wireless Technology (GSM, UMTS, LTE and Microwave System).

## Telecom OSP/ Fiber Optic Solutions

HAAPCOL provides its telecom customers with end-to-end Outside Plant (OSP) engineering and construction support services. HAAPCOL has provided its OSP services to leading Telecommunications companies nationwide including Saudi, Aramco, Siemens, GE Energy, SWCC, & SEC. Services that are now available to Commercial customers include:

- ✓ OSP design and engineering: Network Design and Architecture
- ✓ OSP Construction: Trenching, direct bury, and directional boring
- ✓ OSP conduit, duct bank and manhole construction
- ✓ OSP copper, fiber and CATV placement, termination, splicing, testing and labelling
- ✓ Infrastructure audits and documentation
- ✓ Rodding services
- ✓ Project Management
- ✓ Turnkey design-build capability

## TELECOMMUNICATION

## Telecom ISP Solutions

Data centres, Central office and Commercial Installations. HAAPCOL provide long term solutions for network infrastructure and transport architecture needs. Our Designs and installation activities focus on maximum flexibility and value. HAAPCOL provides end-to-end services with equipment provisioning as well as circuit continuity with the necessary cabling and line protocol testing. Our industry veteran engineers and electricians can also provide comprehensive AC/DC power and environment solutions. HAAPCOL has experience designing and installing Uninterruptable Power Systems and Smart network solutions.

Installation, Configuration, and Maintenance Support Services:

HAAPCOL has vast experience in implementation services for Cisco (3945, 7500, 12000 series) routers, Juniper (T1600, MX960, MX480) routers, HP switches (8212, 5406, 3500) and Huawei routers and switches. Installation and configuration services include site survey, hardware installation, cabling, link connectivity, software commissioning and testing, and verification of hardware and software functionality.

A wide variety of Technical Support Engineers are provided for maintenance and support services on client sites. The onsite support services include Onsite Hardware Replacement Service, and Onsite Troubleshooting Service. An Onsite Technical support report containing service request and operation records is submitted to the client.

## RF DRIVE TEST, POST PROCESSING AND OPTIMIZATION

HAAPCOL & its associates provide Cellular Network RF Drive Test, Analysis and Optimization services to various multinational telecom vendors, such as Alcatel Lucent, Huawei, and ZTE etc., well established in the Kingdom of Saudi Arabia. Services are provided for STC, Mobily, and Zain KSA, for all the three technologies, 2G, 3G, and LTE.

Drive Test is conducted to record the actual coverage, quality criteria and service parameters of the network from the field. Various RF drive test tools used are Ascom TEMS Investigation, NEMO, and Genex Probe, depending on the vendor's requirement. The drive test results are post Processed to evaluate various RF parameters of the network.

Network Optimization Tools used are mentioned below:

- ✓ Achieve the desired KPI
- ✓ Minimize the call drop and RF interference in the network
- ✓ Increase the indoor & outdoor coverage and better speech quality

Network Optimization Tools used are mentioned below:

- ✓ TEMS Investigation
- ✓ Agilent E6474A
- ✓ Neptune
- ✓ CDMA Air Interface Tester (CAIT)
- ✓ TEMS Desk Cat
- ✓ Actix Analyzer

## HAAPCOL CAD SERVICES

No project is complete until it is fully documented. HAAPCOL has the most sophisticated in-house CAD departments at the office, performing work for all companies. We have expertise in most major CAD and mapping programs including AutoCAD, Micro Station, and Visio Network Engineering Tool etc. We work with each customer's Facility/IT department, architect and /or general contractor to deliver as-build drawings of highest quality based on the customer's specifications.

**HAAPCOL SPLICE TEAM**  
Our Fiber Splicing team is fully equipped with Next Generation Fiber splicing equipment that are capable of creating better alignment between fibres to reduce loss. There machines are calibrated periodically which reduces splice loss drastically. Our services also include CD & PMD testing. Our Technical teams are always ready for any urgent needs from our clients.



## Trading Services

HAAPCOL is a leading Telecommunication Equipment Provider in the Kingdom. Since 1994, we have been supplying cutting edge technology products and solutions. We will continue to grow as a topclass specialized-technology trading company that provides "top-class products" incorporating "the most innovative" technology, expertise and information, with excellent coordination skills and global support systems.

## Authorized Resellers of the Following Telecommunication Agencies

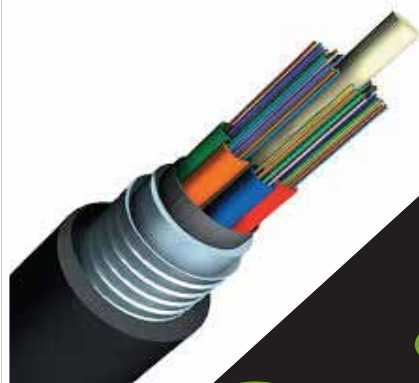


HAAPCOL SAUDI ARAMCO VENDOR NUMBER: 10046283  
EXCLUSIVE DISTRIBUTOR FOR RDM(REICHLÉ & DE - MASSARI)  
APPROVED BY SAUDI ARAMCO-VENDOR NUMBER-100015272, & SCECO  
EXCLUSIVE DISTRIBUTOR FOR FIS (FIBER INSTRUMENT SALES);  
APPROVED BY SAUDI ARAMCO - VENDOR NUMBER-10026366



### Our Tools and Equipments

- ✓ CISCO, HP, JUNIPER COMPONENTS
- ✓ NETWORK EQUIPMENT
- ✓ PATCH CORDS
- ✓ UTP CABLES
- ✓ PIGTAILS
- ✓ FOC



HANIAL HOTY AND PARTNER CO. LTD

شركة هاني الحوطي وشريكة المحدودة

25TH AL ZULFI STREET, P.O. BOX - 1122, AL KHOBAR - 31952

+966 13 897 1000 +966 13 898 1466 sales@alhoty.com - s.husain@alhoty.com

+966 550 552310 +966 567 747435 +966 569 824342



# Telecommunication Division

LEVERAGING COMMUNICATION NETWORKS



SOLUTIONS IN MAKING EVERYDAY EASIER IN ENTERPRISE AND CONSUMER MOBILITY