

Telecommunication infrastructure for oil and gas fields

INTERSYST-Service LLC is the company-integrator of complicated solutions of Telecom and IT spheres; its history has begun in 1997. Today it provides the full range of services for the weak-current system construction.



Director of INTERSYST-Service LLC,
Vladimir CHEZHIN

They include:

- Pre-site inspection;
- Design of the project documentation;
- Procurement;
- Construction of object, installation and commissioning of equipment;
- Putting the object into operation, carrying the acceptance tests of systems;
- Warranty service and repair works;
- Post-warranty service and repair works.

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Since 2011, the company has been developing in the new sphere – design and construction of Telecom and IT infrastructure of oil and gas fields located abroad. All work is done in accordance with the international standards.

The INTERSYST-Service takes part at all stages of design - pre-FEED, FEED, Detailed Design, and takes part at all following stages of object construction.

During last three years, INTERSYST-Service has carried out the design works for such companies as Technip (France-Italy), KNM (Malaysia), Samsung (Korea), Hyundai (Korea), Toyo (Japan).

All technical solutions for IT and Telecom infrastructure are based on IP technology (IPBS, IP Base Solution). The general IT and Telecom infrastructure diagram of a field is shown on the picture.

The main carrying systems are: Data Transmission System, Structured Cabling System, IT-Security System, Network Management System, Telephone Communication System, Public Address and General Alarm System, TETRA Radio System, etc.

Detailed information about the company and executed projects is on the site www.intersyst.ru.

Project activities are one of the company business priorities to the development of which the considerable attention is paid. INTERSYST-Service is a member of the construction and design self-regulatory organization and it offers the services of the turnkey solution for design and construction of Telecom and IT systems. As a result, nowadays, the company has successfully realized more than a hundred projects for oil, gas, and energy companies, government institutions, hospitality companies, banking sector organizations, and communications providers.

Since 2011, INTERSYST-Service has been actively developing in a new sphere – design and construction of Telecom and IT infrastructure of oil and gas fields located abroad. All work is done in accordance with the international standards. The INTERSYST-Service takes part at all stages of design - pre-FEED, FEED, Detailed Design stages, and takes part at all following stages of object construction. The international standards, the standards that are valid in each country where the project is carried out and regulatory documents of the Customer are used when developing the technical documentation.



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Among more than 20 systems we use, the main are:

- Data Transmission System, which provides the access to all information resources and services for a field staff and makes the connections with external public (Internet) and corporate Data Transmission Network. The equipment of the vendors Cisco and Hewlett Packard is used at the corresponding levels of the network hierarchical model (core level, access level, distribution level, etc.);

- Structured Cabling System, which provides the basis infrastructure for all IT and Telecom systems of the territory of field and is made using copper and fiber cables. The equipment of the vendors Systimax and NEXANS is used as the main one;

- IT-Security System, which defends all IT and Telecom resources of the field from all kinds of information attacks. The equipment of the vendors Cisco and Check Point is used for it;

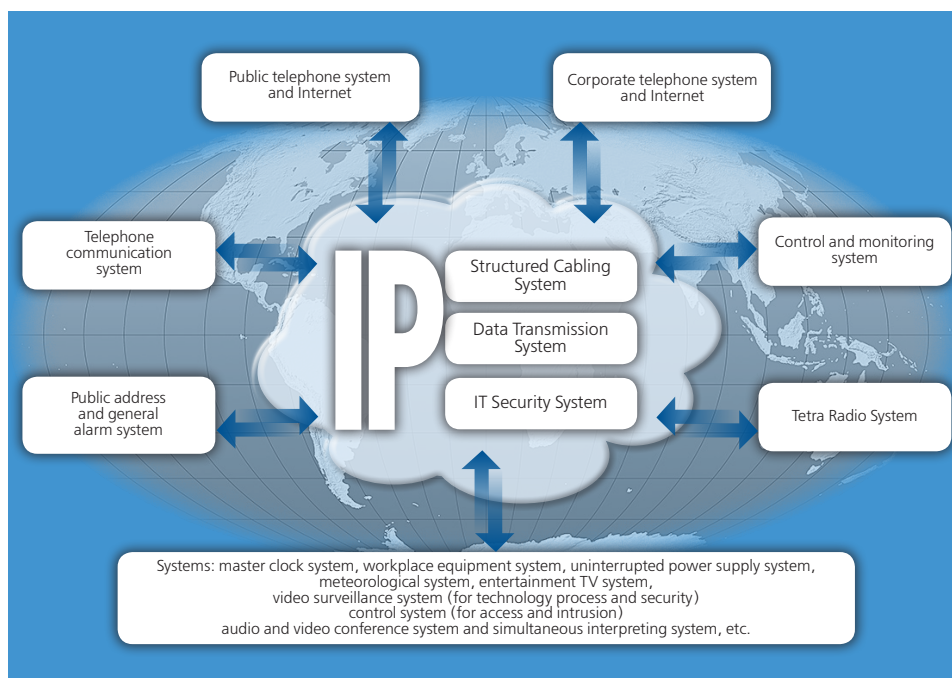
- Network Management System, which monitors all systems and network statuses and controls the resources of all networks in centralized way. The equipment of the vendor Hewlett Packard shows good results in this sphere;

- Telephone Communication System, which provides the operative communication between all staff of the field and makes the connection with the external public and corporate telephone network. The equipment of the vendors Alcatel-Lucent, Avaya, or Cisco is used as the main one;

- Public Address and General Alarm System, which provides the operative communication between dispatchers and field staff and generates the general alarm to all objects of a field where there is a staff (in case of need). The equipment of the vendors Neumann Electronic and Industronic is used as the main one;

- TETRA Radio System, which provides the mobile communications (TETRA standard) for the field staff over the whole territory of the field. The equipment of the vendors Motorola and EADS is used as the main one.

The systems, which additionally generate the telecommunication infrastructure of oil and gas field, are also represented: master clock system, workplace equipment system, uninterrupted power supply system, meteorological system, entertainment TV system, video surveillance system (for technology process and security), control system (for access and intrusion), audio and video conference system and simultaneous interpreting system and others.



INTERSYST-Service pays considerable attention to the design quality and have had the ISO 9001:2008 certificate during 5 years. The company constantly increases the professional skill level of staff and provides the training and/or retraining of engineers in Russian and foreign training centers regularly. Engineers have the certificates of such vendors as EADS, Motorola, Alcatel-Lucent, Avaya, Cisco, APC, Systimax, Nexans, and others. Moreover, the project management system based on PMI standard is implemented to all business processes of projects and is actively used by the company (Oracle Primavera and MS Project software is used).

The wide use of the modern cloud technologies allows us to organize the effective document management system, managing the design information and storing it in the most efficient and convenient way in the Internet. The document management system is controlled by the applications based on specialized software and documents become available for all users, wherever they are, immediately after the moment when the contractor or subcontractor publishes them.

Large experience and practice in high technology, high-qualified personnel, and reliable partnership with suppliers permits the INTERSYST-Service to complete tasks in such spheres as design, procurement, and construction of weak-current systems, communication systems, security systems and other specialized systems of oil and gas fields.



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