



Abbreviation:

AC	Alternating Current
DC	Direct Current
DMZ	Demilitarized Zone Firewall Architecture
DN4G	Dispatcher Centre NET4GAS in Prague
LVDG	Low Voltage Diesel Generator
EMCS	Electric Motor Compressor Set
EWS	Engineering Work Station
ESD	Emergency Shutdown
FC	Flow Computer
FDS	Fire Detection System
GDS	Gas Detection System
HVAC	Heating Ventilation Air Condition
KVM-E	Keyboard Video Mouse- Extension
LCPS	Local Cathodic Protection System
LV	Low Voltage
MV	Medium Voltage
OWS	Operator Work Station
OLM	Optical Link Module
RTU	Remote Terminal Unit
SCS	Station Control System
UCS	Unit Control System
UPS	Uninterruptable Power System

Legend:

	Redundant Controller
	Single Controller
	ESD Controller
	Input-/Output, Event. Ex-i (blue)
	Firewall
	Gateway/Repeater
	Wire Connection
	Fibre Optic Connection
	Bus-Communication
	Field

Notes:

- All bus and network connection are shown symbolic. The necessary switches, converter etc. shall be included in the related package.
- The OSW1 EMCS shall be used as an EWS for compressor units during comissioning or later modifications.
- The OWS3 SCS shall be used as an EWS during comissioning. For example testing the EMCS interfaces to SCS.
- The Remote Services are executed by the Dispatcher Centre in Prague (DN4G).
- Via Communication PLC a subset of data will be exchanged between SCS and the existing SCADA System (DN4G in Prague). The communication route shall be established via an existing FOC.
- The concept for EMCS UCS is specified in Diagram Schematic Interfaces for EMCS C4G-J173-ILF-KS007-GEN-DIA-100.
- The EMCS UCSs will be connected directly to the SCS via separate FOCs (Start connection).
- Time synchronization will be realized from DN4G (IEC60870-5-104)
- Standard office printers shall be excluded from Vendors scope of work. These printers shall be provided in different Sub-Projects. Only special alarm printers shall be provided by related vendors for SCS or EMCS.
- All necessary hardware for cyber security as required according to the foreseen risk analyses shall be included in the related package.
- Active network elements (e.g. routers and switches) for the N4G WAN/Lan will be supplied by other Sub-Projects.
- The remote access to EWS from DN4G (required by N4G) shall be only connected during maintenance operation for limited time.
- Control System interconnection to WAN has to follow N4G standards SM_F03_00

Annex 1
Attachment 1.21

001	26.06.2017	APP – Approved	Abdelhamid	Foltin	Schorling
000	10.05.2017	APP – Approved	Abdelhamid	Foltin	Schorling
B01	05.04.2017	IFR – Issued for Review	Abdelhamid	Foltin	Schorling
REV.	DATE	ISSUE, SCOPE OF REVISION	PREPARED	CHECKED	APPROVED



PHASE:
Basic Design

PROJECT:
CAPACITY FOR GAS – C4G
Compressor Station Jirkov 73 bar

DRAWING TITLE:
Compressor Station Jirkov
Control System Architecture
Overall Block Diagram

PROJ. NO.:	DRAWING NO.:
N663	C4G-J173-ILF-KS007-MAR-DIA-100
SCALE:	SHEET OF
original size A3	1 1
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