

PANAMA CANAL AUTHORITY	VARIATION	PAGE 1 OF 4
1. REQUEST FOR PROPOSAL No.:  RFP-76161	2. CONTRACT No.:  CMC-221427	3. DATE: June 13, 2013
		4. VARIATION No.: 068 (R)

5. ISSUED BY:

PANAMA CANAL AUTHORITY  
Employer's Representative  
Locks Project Management Division  
Building 740, Corozal  
Panama, Republic of Panama

6. NAME AND ADDRESS OF CONTRACTOR (INCLUDE PHYSICAL & POSTAL ADDRESS)  Grupo Unidos por el Canal, S.A. Building 22B, Brujas Road Cocoli, Republic of Panama	7. CONTRACTOR'S TELEPHONE NUMBER:  507-316-9900
	8. CONTRACTOR'S FACSIMILE NUMBER:

9. VARIATION:

☒ The contract referred to in item No. 2 is hereby varied as set forth in item 10, entitled "DESCRIPTION OF VARIATION".

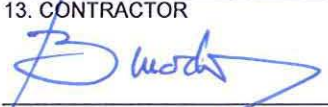
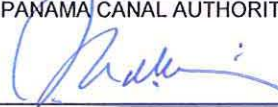
☒ YES. ☐ NO. The contractor shall send a copy, duly signed, of this Variation to the Employer's Representative/Contracting Officer.

	9 A. THIS VARIATION IS EXECUTED ON THE BASIS OF: (Specify the legal authority).  THE VARIATION DESCRIBED IN ITEM 10 IS HEREBY INCORPORATED AND MADE A PART OF THE CONTRACT.
	9 B. THE CONTRACT REFERRED TO IN ITEM NO. 2, IS VARIED TO INCORPORATE ADMINISTRATIVE CHANGES (such as the paying office, account numbers, etc.).
X	9 C. THIS BILATERAL AGREEMENT IS SIGNED AND INCORPORATED INTO THE CONTRACT REFERRED TO IN ITEM NO. 2 OF THIS FORM, ON THE BASIS OF: (Specify the legal authority) Volume III, Conditions of Contract, Sub-Clause 1.16 [Entire Agreement], 4 <sup>th</sup> Paragraph
	9 D. OTHER. (Specify manner and the legal authority).
	9 E. ACCOUNT NUMBER (If required):

10. DESCRIPTION OF THE VARIATION (List in accordance with the order of the Contract. If additional space is required, use blank sheets).

**See attached**

Except for the variation(s) herein specified, all other terms and conditions of the Contract remain unchanged.

11. NAME AND TITLE OF THE PERSON AUTHORIZED TO SIGN (Type or print)  Bernardo Gonzalez Contractor's Representative	12. NAME AND TITLE OF THE EMPLOYER'S REPRESENTATIVE/CONTRACTING OFFICER (Type or print)  Jorge de la Guardia, Employer's Representative
13. CONTRACTOR   (Authorized signature)	14. DATE:  15. PANAMA CANAL AUTHORITY   (Employer's Representative/Contracting Officer's signature)
	16. DATE:  13/01/2013

26/06/2013

Variation No. 68 is issued to incorporate the following changes:

1. **Volume II, Part 2, Section 33 81 26 [Outside Plant Pathways for Underground Communications]**- At the end of Paragraphs 1.03 D.8.a.2), 1.03 D.8.a.5) and 1.03 D.8.a.6), add the following (without any number format):

The Contractor shall be responsible for the overall design of the fiber optic cable route for the relocation of the permanent fiber optic cable, and for the construction of the necessary infrastructure to run the cable (duct bank, manholes, pull holes, cable trays, etc.). The Employer will supply, install and test the fiber optic cable and will coordinate all these activities with third parties.

( IAE-UPC-1261)  
(GUPC-IAE-1671)  
(IAE-UPC-1523)

2. **Volume II, Part 2, Section 33 81 26 [Outside Plant Pathways for Underground Communications]**- Delete Paragraph 1.03 D.8.a. 4) and replace it with the following:

- 4) Pathways in the Atlantic locks complex shall include a bypass of Cable & Wireless Panama's duct line in the vicinity of the area shown in Figure 33 81 26 10. The permanent bypass shall go across the new locks via the north Crossunder and shall consist of one ITU-T G.653 (Dispersion Shifted) compliant fiber optic cable with four or more fibers, four 100 mm (4 in) HDPE ducts, three 32 mm (1.25 in) HDPE inner-ducts in each one of two ducts, and a manhole at each end of the bypass. The Contractor shall be responsible for the overall design of the fiber optic cable route for the relocation of the permanent fiber optic cable, and for the construction of the necessary infrastructure to install the cable including, but not limited to duct bank, manholes, pull holes and cable trays. The Employer will supply, install and test the fiber optic cable and will coordinate all these activities with third parties.

( IAE-UPC-1261)  
(GUPC-IAE-1671)  
(IAE-UPC-1523)

As a result of the changes to Paragraphs 1.03 D.8.a.2), 1.03 D.8.a.4), 1.03 D.8.a.5) and 1.03 D.8.a.6) above, the Contractor and the Employer have agreed in a reduction of the Contract price in the amount of \$37,343.19.

3. **Volume II, Part 2, Section 40 70 00 [Electrical Supervisory Control and Data Acquisition (SCADA) System]**- Add subparagraph 1.02 B. to provide up to date background information on existing SCADA hardware and software:





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## "B. Background Information

1. Existing EAA and EAEG SCADA master stations are made by Survalent Technology ([www.survalent.com](http://www.survalent.com), Mississauga, ON, Canada), and include the following:

Table 40 70 00-2: Existing SCADA Master Stations' Data as of December, 2011		
	EAA SCADA System	EAEG SCADA System
Servers	Dell SC620	Dell Power Edge 2850
Operating System	Microsoft Windows Server 2003	
SCADA Software	Survalent Worldview Professional software version 1.10.1008 ( <a href="http://www.survalent.com/solutions/worldview-gui">http://www.survalent.com/solutions/worldview-gui</a> )	
RTUs	Survalent Scout Station Controller (large RTU, <a href="http://www.survalent.com/pdfs/scout.pdf">http://www.survalent.com/pdfs/scout.pdf</a> )	<ul style="list-style-type: none"> <li>• Siemens (Telegyr) 5700 Station Manager II (<a href="http://www.energy.siemens.com/us/en/automation/power-transmission-distribution/substation-automation/remote-terminal-units/tg5700rtu.htm">http://www.energy.siemens.com/us/en/automation/power-transmission-distribution/substation-automation/remote-terminal-units/tg5700rtu.htm</a>).</li> <li>• Survalent Hunter Station Controller (small RTU, <a href="http://www.survalent.com/pdfs/hunter.pdf">http://www.survalent.com/pdfs/hunter.pdf</a>)</li> </ul>

(RFI-0385)  
(IAE-UPC-1165)  
(GUPC-IAE-1573)  
(IAE-UPC-1392)

4. **Volume II, Part 2, Section 40 70 00 [Electrical Supervisory Control and Data Acquisition (SCADA) System]**- Delete Paragraph 1.03 C.1.a. and replace it with the following:

"a. Remote electrical SCADA equipment shall be compatible with EAEG's SCADA system in use at the time of installation. Note that:

- 1) The Employer periodically upgrades SCADA master station software.
- 2) The Employer is implementing its plans to move SCADA systems away from the corporate intranet into a separate MPLS cloud, and to consolidate EAA and EAEG SCADA systems in FY 2013."

(RFI-0385)  
(IAE-UPC-1165)  
(GUPC-IAE-1573)  
(IAE-UPC-1392)

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**5. Volume II, Part 2, Section 40 91 00 [Primary Process Measurement Devices]-** Delete Paragraph 1.03 B.4.f.1 and replace it with the following:

- "1) All instruments or sensors with 4 to 20 mA output signal shall be enabled with HART protocol in at least one output of each type and in accordance with HFC KIT-I3. Allowable exceptions are wind direction/speed sensors, specialty or proprietary instruments that cannot be replaced by standard devices enabled with HART communications, and others if approved by the Employer."*

(RFI-460)  
(IAE-UPC-1162)  
(GUPC-IAE-1559)  
(IAE-UPC-1394)  
(GUPC-IAE-1739)

**6. Volume II, Part 2, Section 40 91 00 [Primary Process Measurement Devices]-** Delete Paragraph 1.03 A.2.a., previously agreed upon in Variation No. 38, and replace it with the following:

- "a. Use 24 VDC power (unless self powered) or 12 VDC or 125 VDC power (where necessary), and shall not require batteries."*

RFV-0171  
(IAE-UPC-1535)  
(GUPC-IAE-1937)

**7. Volume II, Part 2, Section 40 91 00 [Primary Process Measurement Devices]-** Delete without replacement Paragraph 1.03 C.11.b, which currently specifies the following:

- "b. One anemometer shall be provided for a nearby isolated area, with data for use by the Employer's "Sección de Recursos Hídricos" (EACR)'s ALERT hydro-meteorological system."*

As a result of deleting Paragraph 1.03 C.11.b above, the Contractor and the Employer have agreed in a reduction of the Contract price in the amount of \$4,132.00.

(RFI-480)  
(IAE-UPC-1252)  
(GUPC-IAE-1548)  
(IAE-UPC-1393)

As a consequence of this Variation No. 68, the Contractor and the Employer have agreed in a reduction of the Contract price in the amount of \$41,475.19, with no time impact to the Locks Contract.

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