



Intelligence Games in the Power Grid

Deception-Denial-Manipulation

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Outline

Russian Views and Values – Russian Cyber Program (Cyber and Physical)

Possible Hypotheses

Delta Elektronics

Oleg Strekozov

The Matrix Group

Yuri Chekunov

BlackEnergy

Analysis

Russian company imitating Taiwanese firm.

Taiwanese firm linked from Russian firm pointing to software that is infected without (Deltaww) knowing.

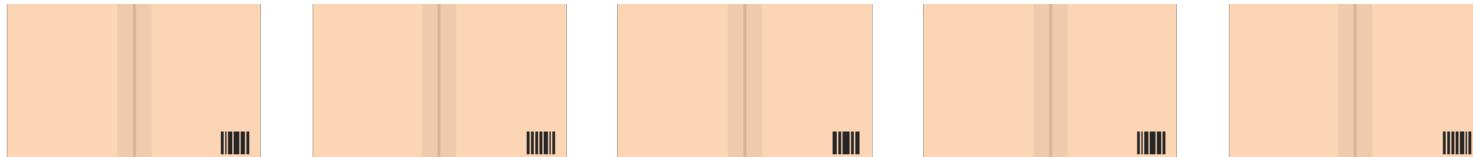
Malware aligns with a certain APT.

Russian oligarchs involved in SCADA equipment buying and selling.

Hybrid warfare intent for later issues associated with energy firms potentially to artificially push oil prices higher when required.



Russian Views - Values



Cyber operations part of information warfare
NOT seen as a separate function or command.

The expansion of NATO, potential addition of new EU countries to NATO, Western troops in Afghanistan, are a clear and present danger to Russia.

The use of information in Western countries to manipulate public opinion is a core function of hybrid warfare

Russians think geopolitically and physically with emphasis on their periphery.

Any voices of dissent, internal or external, are identified and targeted as threats.

Corruption is a mainstay and a required value providing monetary value to leadership and demonstrating loyalty

USA, NATO, allies—Georgia, the Ukraine, and Estonia—are (obviously) threats.

"First and foremost it is worth acknowledging that the demise of the Soviet Union was the greatest geopolitical catastrophe of the century"



The Russian Cyber Program



Federal Agency of
Government



Federal Protective Service
of Russia



Federal Security Service
of the Russian Federation



Russian Interior Ministry's
K Directorate



Youth Democratic Anti-
Fascist Movement -
NASHI



SEARCHINFORM
INFORMATION SECURITY

KASPERSKY



Trolls of Olgino



INFOWATCH®
WE WORK TO PROTECT



РОСКОМНАДЗОР

as-rbncus(member of as-sbtel)
Credolink ASN Credolink ISP Autonomous System St Petersburg
AKIMON AS Aki Mon Telecom
CONNECTCOM ConnectCom Ltd Autonomous System
DELTASYS Delta Systems network
RBN AS Russian Business Network
OINVEST AS Online Invest group LLC
SBT AS SBT Telecom
RUSTELECOM AS Rustelecom AS
MICRONET AS Micronet LTD
NEVSKCC AS NEVACON LTD



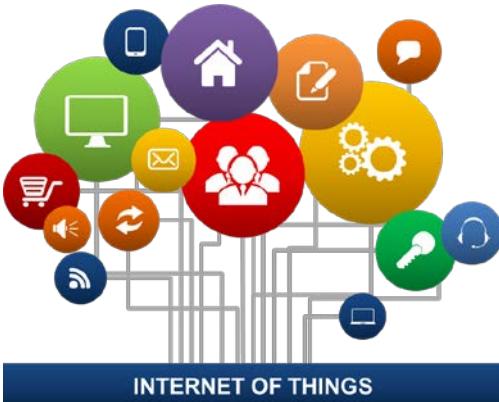
Cyber and Physical Intersection - Russia

- Cyber Adversaries
 - APT28 Fancy Bear
 - APT29 The Dukes
 - Energetic Bear
 - Sandworm Team
 - Turla Group
- Physical Adversaries
 - Delta Elektronics
 - Matrix Group LLC
 - Spektrum Elektro Servis
 - Centrospas-Yugoriya
 - Civil Protection Department of the Population of Khanty-Mansi Autonomous District - Yugra





Possible Hypotheses



Hypothesis One

Delta Elektronics is a legitimate reseller of Delta Electronics Taiwan hardware in business for profit.

Hypothesis Two

Delta Elektronics is a fake company set up by a nation state in collusion with criminal elements in order to generate revenue and launder money.

Hypothesis Three

Delta Elektronics is a fake company established with the support of the government used to sell legitimate SCADA hardware with malware backdoors in the PLC software for later exploitation.

Hypothesis Four

Delta Elektronics is a front company used by Russian intelligence/nation state actors and oligarchs to infect energy organizations for present day cyber espionage and targeted sabotage while generating money for oligarchs.

Hypothesis Five

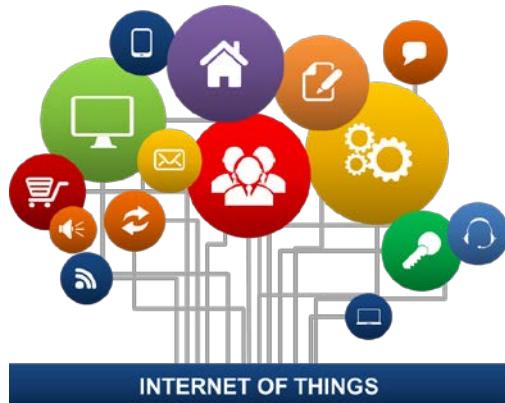
Delta Elektronics is a front company used by a criminal group to either defraud energy companies by providing fraudulent equipment or skim off the top.

A good hypothesis meets the following criteria:

- Is testable and falsifiable.
- Is written as a definite statement, not as a question.
- Is based on observations and knowledge.
- Predicts the anticipated results clearly.
- Contains a dependent and an independent variable—a “what” and a “why.” The dependent variable is the phenomenon being explained, and the independent variable does the explaining.



Possible Hypotheses



Hypothesis Six

Energetic Bear started after learning about PLCs from Delta Elektronics as part of a Russian hybrid warfare program and is now fully integrated with Delta Elektronics in a physical/cyber focused effort.

Hypothesis Seven

Energetic Bear performs full-scope cyber operations from reconnaissance and data collection, intelligence production and analysis, software obfuscation, infection, modification, and expansion as part of the Russian government's hybrid warfare efforts used to destabilize hostile regimes.

Hypothesis Eight

Energetic Bear is a criminal enterprise operating at the periphery of the Russian government for monetary gain.



Delta Electronics - Taiwan



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Our Business

Power Electronics

- Component
- Embedded Power
- Fan & Thermal Management
- Automotive Electronics
- Merchant & Mobile Power



Automation

- Industrial Automation
- Building Automation

Infrastructure

- ICT Infrastructure
- Energy Infrastructure

Solutions

- Industrial Automation Solutions
- Building Automation Solutions
- Datacenter Solutions
- Telecom Power Solutions
- Renewable Energy Solutions
- Display and Monitoring Solutions
- EV Charging Solutions



INTERNET OF THINGS

Features



Delta Electronics Wins Three Major Awards at the 2017 Global Views Monthly's CSR Awards
14 awards won since 2005 – the most by one company since the founding of the awards

News

- 2017/05/10 - Delta Electronics' Consolidated Sales Revenues for April 2017 Totaled NTS\$17,493 Million
- 2017/04/27 - Delta Electronics Announces 1Q 2017 Financial Results



Delta Electronics - Russia



*Matrix GROUP

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 - ▶ [Системы ЧПУ](#)
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Каталог

▣ Промышленная автоматизация Дельта Электроникс



Наши знания и опыт в автоматизации управления производством мы фокусируем в следующих видах продукции:

Преобразователи частоты



Сервоприводы



Системы ЧПУ



Энкодеры





Delta Elektronics

Registrations by Oleg Strekozov:

AVTOPAK-VOLGA (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU AVTOPAK-VOLGA, TIN: 6319701227, address: 443109, g Samara, ul Tovarnaya, d 8)

Ayut (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Ayut, TIN: 7720692855, address: 111395, g Moscow, ul Moldagulovo, d 10, korp 1, ofis 20)

IntelGrupp (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU IntelGrupp, TIN: 7719757272, address: 105275, g Moscow, ul Borisa ZHigulenkova, d 21 A, ofis 60)

Misteriya (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Misteriya, TIN: 7707733809, address: 127473, g Moscow, ul Delegatskaya, d 3, str 5)

NIKS (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU NIKS, TIN: 7728747658, address: 117133, g Moscow, ul Akademika Vargi, d 40 A)

Prima (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Prima, TIN: 7706743265, address: 119017, g Moscow, ul Bolshaya Ordinka, d 40, str 7)

TDSaturn (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU TDSaturn, TIN: 7707733848, address: 127473, g Moscow, ul Delegatskaya, d 3, str 3)

Tekstiltorg (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Tekstiltorg, TIN: 7725702200, address: 115280, g Moscow, ul Leninskaya Sloboda, d 23, ofis 5)

Emilina (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Emilina, TIN: 7714814618, address: 125040, g Moscow, ul Raskovoj, d 1, ofis 63)

Magnum (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Magnum, TIN: 7705930382, address: 115184, g Moscow, ul Bahrushina, d 1, str 2)

Rakurs (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Rakurs, TIN: 7733771014, address: 125430, g Moscow, ul Mitinskaya, d 52, korp 2, ofis 13)

Nyu-Lajn (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Nyu-Lajn, TIN: 7713731528, address: 127474, g Moscow, bulv Beskudnikovskij, d 11, korp 3 A)

StrojHolding (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU StrojHolding, TIN: 7724804136, address: 115409, g Moscow, ul Koshkina, d 5, str 8)

EkonomMarket (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU EkonomMarket, TIN: 7731412490, address: 121609, g Moscow, bulv Osennij, d 5, korp 3)

MTK (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU MTK, TIN: 5027181836, address: 140000, Moskovskaya area, g Lyubertci, ul Volkovskaya, d 43)

Inrost (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Inrost, TIN: 5038092948, address: 141206, Moskovskaya area, g Pushkino, Kudrinskoe shosse, d 3)

Delta Elektroniks (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Delta Elektroniks, TIN: 5001090038, address: 143903, Moskovskaya area, g Balashiha, ul Vladimirskaya, d 139)

Vintazh (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU Vintazh, TIN: 5027193398, address: 140006, Moskovskaya area, g Lyubertci, ul YUzhnaya, d 26 A)





Oleg Strekozov

195.88.209.6 has been listed on Cyberwarzone because it has a history of malicious activities. The IP has been reported on various domains which keep track of malicious IP's. The chance is very high that 195.88.209.6 has already been added to your blacklist service provider.

Reasons why 195.88.209.6 is listed on Cyberwarzone:

- History of being on a blacklist
- History of being used in an aggressive marketing campaign
- History of malicious traffic or use
- Triggered as a spam-bot or aggressive crawler
- We were lazy and we did not see that it is a false-positive

Information on the IP

In the table below you will be able to view information which is related to the IP address which is mentioned above.

IP Address	195.88.209.6
Country	Russian Federation
Network Name	IPSERVER
From IP	195.88.208.0
To IP	195.88.209.255
Classless Inter-Domain Routing (CIDR)	195.88.208.0/23

Owner name	Antaro Ltd.
Contact name	Strekozov Oleg Vladimirovich
Address	Russia, 107031, Moscow, proezd Dmitrovskiy 8
E-mail	
Abuse email	abuse@ipserver.su



Delta Elektronics - Registrations

- ООО "DELTA-ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA-ELEKTRONIKS", TIN: 7731273670, address: G Moscow, UL MOLODOGVARDEJSKAYA, D 57, STR 3)
- ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA ELEKTRONIKS", TIN: 5012019982, address: MOSKOVSKAYA AREA, G ZHELEZNODOROZHNII, UL 1 MAYA, D 16)
- ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA ELEKTRONIKS", TIN: 4501112440, address: 640000, G KURGAN, UL K MARKSA, D 40, KV 13)
- ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA ELEKTRONIKS", TIN: 7733578268, address: 125373, G Moscow, BULV YANA RAJNISA, D 30, KORP 1)
- ООО "DELTA-ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA-ELEKTRONIKS", TIN: 7709829111, address: 109004, G Moscow, PER PESTOVSKIY, D 10, STR 1)
- ООО "Delta Elektroniks" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "Delta Elektroniks", TIN: 7718767630, address: 107392, g Moscow, ul Prostornaya, d 7, str 1, ofis 309)
- ООО "Delta Elektroniks" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "Delta Elektroniks", TIN: 7842414541, address: 191014, G St.Petersburg, PER SOLDATSKIY, 6 LITER A POM 12-N)
- ООО "DELTA ELEKTRONIKS" (Likvidatcionnaya komissiya ООО "DELTA ELEKTRONIKS" (reshenii o likvidatcii i o likvidatcionnoj komissii), TIN: 7716703381, address: 111024, g Moscow, ul Aviamotornaya, d 50, str 2, pom XI, komn 10)
- ООО "Delta Elektroniks" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "Delta Elektroniks", TIN: 5001090038, address: 143903, Moskovskaya OBL, Balashiha G, Vladimirskaya UL, 139)
- ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA ELEKTRONIKS", TIN: 7806516146, address: 195027, g St.Petersburg, rajon Krasnogvardejskij, munitcipalnij region Bolshaya Ohta, PROSP SHAUMYANA, 4 KORP 1 LITER A)
- ООО "DELTA-ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA-ELEKTRONIKS", TIN: 5003113629, address: 142715, Moskovskaya area, Leninskij rajon, Kartinskij selskij region, PR PROMISHLENNIJ, D 9)
- ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA ELEKTRONIKS", TIN: 6658037829, address: 620028, G EKATERINBURG, UL DOLORES IBARRURI D 2 K 1)

Org-info.com



Delta Electronics - Registrations

Evtyuhin Oleg Vladimirovich

ООО "NEOLAJT" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "NEOLAJT", TIN: 7722507360, address: 109052, G Moscow, UL PODEMNAYA, D 7)

ООО "MIRAZH" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "MIRAZH", TIN: 7722507346, address: 109052, G Moscow, UL PODEMNAYA, D 7)

ООО "DELTA-ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA-ELEKTRONIKS", TIN: 7731273670, address: G Moscow, UL MOLODOGVARDEJSKAYA, D 57, STR 3)

ООО "TRANSGAZREZERV +" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "TRANSGAZREZERV +", TIN: 7734258503, address: 123098, g Moscow, Severo-Zapadnij administrativnij region, rajon Horoshevo-Mnevniki, UL ZHIVOPISNAYA, D 21, KORP 4)

ООО "STEKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "STEKS", TIN: 7722293060, address: 109052, G Moscow, UL POD'EMNAYA, D 14, STR 1)

ООО "STROJSERVIS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "STROJSERVIS", TIN: 7722507378, address: 109052, g Moscow, ul Pod_emnaya, d 7)

ООО "NORDIS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "NORDIS", TIN: 7722507385, address: 109052, G Moscow, UL PODEMNAYA, D 7)

ООО "LIANA" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "LIANA", TIN: 7722507353, address: 109052, G Moscow, UL PODEMNAYA, D 7)

ООО "FIERA" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "FIERA", TIN: 7705585425, address: 113054, G Moscow, UL VALOVAYA, D 30/73, STR 4)

ООО "FINANSOVAYA I YURIDICHESKAYA EKSPERTIZA" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "FINANSOVAYA I YURIDICHESKAYA EKSPERTIZA", TIN: 7702527390, address: 129041, G Moscow, PROSP MIRA, D 52, STR 5)



Delta Elektronics - Registrations

ООО "DELTA-ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU)
Moscow, UL MOLODOGVARDEJSKAYA, D 57, STR 3)

ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU)
MOSKOVSKAYA AREA,G ZHELEZNODOROZHNIIJ,UL 1 MAYA, KOMN 10)

ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU)
G KURGAN, UL K MARKSA, D 40, KV 13)

ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU)
G Moscow, BULV YANA RAJNISA, D 30, KORP 1)

ООО "DELTA-ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU)
G Moscow, PER PESTOVSKIJ, D 10, STR 1)

ООО "Delta Elektroniks" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "Delta Elektroniks", TIN: 7718767630, address: 107392, g Moscow, ul Prostornaya, d 7, str 1, ofis 309)

ООО "Delta Elektroniks" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "Delta Elektroniks", TIN: 7842414541, address: 191014, G St.Petersburg, PER SOLDATSKIJ, 6 LITER A POM 12-N)

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ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA ELEKTRONIKS", TIN: 7806516146, address: 195027, g St.Petersburg, rajon Krasnogvardejskij, munitcipalnij region Bolshaya Ohta, PROSP SHAUMYANA, 4 KORP 1 LITER A)

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ООО "DELTA ELEKTRONIKS" (OBSHESTVO S OGRANICHENNOJ OTVETSTVENNOSTYU "DELTA ELEKTRONIKS", TIN: 6658037829, address: 620028, G EKATERINBURG,UL DOLORES IBARRURI D 2 K 1)

Bogdanov Dmitrij YUrevich
SHumakov Sergej Aleksandrovich

Total number of organizations: 497

Zibin Aleksandr Anatolevich
Konstantinov Dmitrij Vladimirovich

Total number of organizations: 92



Matrix Group LLC

aucom.info
autonic.su
broen-ru.com
china-drive.info
control-techniques.com
control-techniques.info
danfoss-bauer.info
danfoss-ru.com
delta-electronics.biz
deltaelectronics.info
deltronic.info
deltronic.su
deltronics.info
deltronix.info
deltronix.su
emotron-ru.com

fuji-ru.com
hyundai-ru.com
keb.su
matrix-group.info
matrix-group.su
matrixgroup.info
omron-hitachi.info
optidrive.su
privod.info
prostar.su
schneiderelectric.su
tecorp.info
toshiba-ru.com
vacon-ru.com
vesper-ru.com

The Matrix Group LLC lists over 260 domain names of varying legitimacy – owner of Delta Elektronics – Russia – Assumption part of the

VFD-B-A2-PD-3D00.zip	DOP-B07S(E)415_IGS.zip	VFD-C-D1-PD-3D00.zip	DCISoftware V1.0.2.zip	phpBB-3.1.7-pl1_to_3.2.0-b2-
DELTA_IA-ASM_200V_FRAME-F180_BRAKE_5.5KW-7_EKM_2D_FN_20140702.rar	DELTA_IA-ASM_400V_FRAME-F100_3D_EN_20140702.zip	DELTA_IA-ASM_400V_FRAME-F180_BRAKE_2KW-7_EKM_2D_FN_20140702.rar	Delta_NC-TBM-R1616_2D_20140117.zip	AuCom_WinMaster.zip
KEB-DRIVE_2013.2.rar	test_gloris.rar	phpBB-3.0.7_to_3.0.15-dev.zip	Delta_NC-TBM-T1616_3D_20140117.zip	VFD-C-F2-PD-3D00.zip
usb-232.zip			DELTA_IA-ASM_400V_FRAME-F130H_BRAKE_2D_FN_20140702.zip	DELTA_IA-ASM_200V_FRAME-F80H_BRAKE_2D_20140702.zip
SR English2.zip				
CANopenBuilder V1.00.zip				
DCISoft_v1.04.zip				
DeviceNetBuilder V1.02.zip	phpBB-3.1.4_to_3.2.0-b2-dev.zip	DELTA_IA-TP_TPEditor-V1-85_SW_20141202.zip	DOP_application_manual_EH00_rus.part2.rar	DELTA_IA-ASM_200V_FRAME-F130H_3D_20140702.zip
DMT2.0.zip	phpBB-3.1.5_to_3.2.0-b2-dev.zip	Delta_TPEditor_V1.60.zip	DELTA_DISK1_32bit_2012.01.31.zip	Oprosnik_AS_motors.rar
ISPSoft_v1.01.zip	phpBB-3.1.6_to_3.2.0-b2-dev.zip	Delta_IFD6500 & 6530 Drivers V6.6.zip	Delta_NC-EIO-R3216_3D_20140117.zip	DMT1-1.rar
WPLSoft_v2.12.06.zip	phpBB-3.1.7_to_3.2.0-b2-dev.zip	DELTA_IA-PLC_DCISoft-V1.12_SW_20141211.zip	ASDA_Soft V3.02.09 Install Edition.rar	DELTA_IA-ASM_200V_FRAME-F130_BRAKE_3D_EN_20140702.zip
ScrEdit 2.00.15.zip	phpBB-3.1.7-pl1_to_3.2.0-b2-dev.zip	DELTA_IA-PLC_CANopen Builder-V5.00_SW_20141128.zip	cfd4200.part3.rar	DELTA_IA-ASM_200V_FRAME-F130_3D_EN_20140702.zip
ScreenEditor_1_05_82.zip	phpBB-3.2.0-a1_to_3.2.0-b2-dev.zip	Delta_EDS Builder V2.00.zip	Delta_NC-EXM-M01_3D_20140117.zip	DOP_Siemens_S7-300.rar
TPEditor 1.10.8.zip	phpBB-3.2.0-a2_to_3.2.0-b2-dev.zip	DELTA_IA-PLC_ISPSoft -V2.05_SW_20140924.zip	cfd4200.part4.rar	DOP-A80THTD1_DVP16EH00T.rar
TPEditor_V1.20.1.zip	phpBB-3.2.0-b1_to_3.2.0-b2-dev.zip	DELTA_IA-PLC_PMSoft -V2.10_SW_20141118.zip	cvfd4200.part1.rar	ASDA-A2_400V_IGS.zip
TPEditor_v109.zip	phpBB-3.2.0-b2-dev-files.zip	ISPSof t_v1.03.zip	Delta_NC-EIO-TAD08_3D_20140117.zip	QuickChoiceSetup.zip
WPL209.zip	phpBB-3.2.0-b2-dev-patch.zip	PMSoftV1.03.5.zip	Delta_NC-EIO-DAC04_3D_20140117.zip	DOP-
VFDSoft 1.30 Setup.zip	282_MV94CD20.zip	DTCOM_E(V1004).rar	cvfd4200.part2.rar	AE57BSTD_MODBUS_RTU_DELTA_DVP.rar
phpBB-3.1.6_to_3.1.7-pl1_FR17a5.zip	esc.zip	DELTA_IA-PLC_NetViewBuilder-V2-02_SW_20150209.zip	Katalog_Fotek.rar	DOP-AE80THTD_DTC.rar
lang_fr-3.1.7-pl117a5.zip	Delta_IA-PLC_DeviceNet Builder 2.02_TE_20140825.zip	Delta_OPC_V1.00.zip	Delta_NC-EIO-T3232_3D_20140117.zip	ASDA_MSizing_V1.02.04 Install Edition.zip
Deltaservo1301B.zip	VFD-CT-D1-PD-3D00.zip	sh300.rar	Delta_NC300A-MI-AE_3D_20140117.zip	ASDA_A_catalogue_en.zip
Deltaservo1003A.zip	Delta_C200-A04-PD-3D00.zip	Quick2004-1.0.0.13.rar	TP.rar	DOP-AS34BSTD_DVP-60_ES_SOM2_RS485.rar
array_quick2_en.zip	Delta_C200-A01-PD-3D00.zip	Delta_COMMGR V1.04.zip	DOP.rar	DOP-AS38_DELTA_DVP.rar
ASDA_Soft_V5.03.01.zip	VFD-EL-B1-PD-3D00.zip	5011602801.zip	DELTA_IA-CNC_CNCsoft-V1.00.69_SW_TSE_20141219.zip	QuickChoiceLite.zip
DOP-B10S(E)615_STP.zip	Delta_VFD-C-D02_20130904.zip	QuickII6.1.09E.rar	Delta_NC310A-MS-A_3D_20140117.zip	DVP20PMDOBP-PS_G-Code_download_example.rar
DOP-B07S211-stp.zip	VFD-C-H1-PD-3D00.zip	SuperCAD2005_30.rar	test_fito.rar	ServProg_ECL.zip
DOP-A80-stp.zip	VFD-C-F1-PD03.zip	Delta_NC-PAN-300AM-FE_3D_20140117.zip	test_bad.rar	Danfoss_ECL Comfort OPC DA Server (version 3.00).zip
ScreenEditor 1.05.78.zip	VFD-C-A1-PD-3D00.zip	Delta_DISK1_64bit_2012.01.31.zip	ASDA-A&AB_IGS.zip	Indirect_register_example.rar
DELTA_IA-HMI_DOP_eRemote-2-00-12-13_SW_TC-SC-EN-SP_20150417.zip	Delta_VFDSoft V1.48_20130903.zip	DOP_application_manual_EH00_rus.part1.rar	Delta_NC300A-MS-A_3D_20140117.zip	TP_VFD.rar
ScreenEditor_1_05_86.zip	Delta_VFDSoft v1.47.zip	geared_motors_opr.rar	Scada3.36.rar	ECA 87 Installer 104 III.zip
DELTA_IA-PLC_SYCONnet-V1-35_SW_20150213.zip	VFDSoft v1.45.zip	Delta_NC-PAN-300AM-FE_3D_20140117.zip	OpcServer.rar	ECAT 2.zip
Cyntec Components Library for Agilent ADS_RelatedInfo_001.zip	Delta_SVG2000-63A-A_3D_20131126.zip	DELTA_DISK1_64bit_2012.01.31.zip	Delta_NC311A-MS-A_2D_20140117.zip	EmoSoftCom2.0_v2.98.rar
	DELTA_IA-ROBOT_DRS40L-D_3D_20150108.zip	DOP_application_manual_EH00_rus.part1.rar	ASDA-B2_IGS.zip	ECL Modbus OPC Server 1.1.1.zip
			Programs_SR.rar	Frame D0-1, Delta_VFD-C-D01_20130904.zip
			geared_motors_opr.rar	
			ASDA-A2_220V_Igs.zip	

**Files downloaded from Russian
Delta and Taiwanese Delta – Russian
Delta links to files in Taiwan**

519 files from the Deltaww.com site – 261 from delta-electronics.info site



[Custom search](#)

Id	Type	URL
0	xls	http://www.delta-electronics.info/content/files/12_na_operatorskie_paneli_HMI_seri_TP_i_DOP_i_moduli_ih_rasshireniya.xls
1	xls	http://www.delta-electronics.info/content/files/11_na_isto4niki_besperebonogo_pitaniya_UPS.xls
2	xls	http://www.delta-electronics.info/content/files/2012_Pras_na_produkciju_DELTA_AuCom_Elhand_s_soderjaniem.xls
3	xls	http://www.delta-electronics.info/content/files/20091014_price_PLC_DVP_i_ih_aksessuarov.xls
4	xls	http://www.delta-electronics.info/content/files/20090820_price_enkodery_DELTA.xls
5	xls	http://www.delta-electronics.info/content/files/20091110_Pras_na_servoprvoda_Detyl.xls
6	xls	http://www.delta-electronics.info/content/files/20100301_Pras_servoprvod_DELTA.xls
7	xls	http://www.delta-electronics.info/userdata/files/2010828_Pras_na_produkciju_DELTA_s_soderjaniem.xls
8	xls	http://www.delta-electronics.info/userdata/files/20140520_Pras_list_ASD_Servoprvoda_DELTA_3.xls
9	xls	http://www.delta-electronics.info/content/files/11_na_servoprvoda_seri_ASDA_A_B_AB_A_V2.xls
10	xls	http://www.delta-electronics.info/content/files/11_na_operatorskie_panelli_HMI_seri_TP_i_DOP_i_moduli_ih_rasshireniya.xls
11	xls	http://www.delta-electronics.info/userdata/files/11_na_vrashayushiesya_opti4eskie_inkrementalnye_enkodery.xls
12	xls	http://www.delta-electronics.info/userdata/files/11_na_radio4astotnye_filtr_dlya_preobrazovatele_4astoty_VFD.xls
13	xls	http://www.delta-electronics.info/userdata/files/12_na_temperaturnye_kontrollyery_DT_i_pribory_KIPiA.xls
14	xls	http://www.delta-electronics.info/content/files/13_na_servoprvoda_seri_ASDA_A2_V2.xls
15	xls	http://www.delta-electronics.info/content/files/12_na_preobrazovateli_4astoty_seri_VFD.xls
16	xls	http://www.delta-electronics.info/userdata/files/11_na_setevye_drosseli_tipa_ED3N_2_kompanii_Elhand.xls
17	xls	http://www.delta-electronics.info/userdata/files/11_na_aksessuary_dlya_preobrazovatele_4astoty_VFD.xls
18	xls	http://www.delta-electronics.info/content/files/11_na_temperaturnye_kontrollyery_i_pribory_KIPiA.xls
19	xls	http://www.delta-electronics.info/userdata/files/11_na_motomye_du_dt_drosseli_tipa_ED3DU_kompanii_Elhand.xls
20	xls	http://www.delta-electronics.info/userdata/files/11_na_setevye_drosseli_tipa_ED3N_4_kompanii_Elhand.xls
21	xls	http://www.delta-electronics.info/content/files/20090120_price_na_IP_DVPPS_DRP_PMC_DELTA.xls
22	xls	http://www.delta-electronics.info/userdata/files/11_na_motomye_drosseli_tipa_ED3S_kompanii_Elhand.xls
23	xls	http://www.delta-electronics.info/content/files/20091012_price_HMI_DELTA_DOP-B05S101.xls
24	xls	http://www.delta-electronics.info/content/files/20090528_price_tomm_aksessuary_VFD_BUE_2015.xls
25	xls	http://www.delta-electronics.info/content/files/20090615_price_aksessuary_VFD_kabeli_pulty_platy.xls
26	xls	http://www.delta-electronics.info/userdata/files/20081210_price_aksessuary_VFD-VL.xls
27	xlsx	http://www.delta-electronics.info/content/files/Pras_na_isto4niki_besperebonogo_pitaniya_UPS.xlsx
28	xlsx	http://www.delta-electronics.info/content/files/20170125_prais-list_PLC_DELTA_i_aksessuarov.xls
29	xlsx	http://www.delta-electronics.info/userdata/files/20140901_Pras-list_VFD_DELTA.xls
30	pdf	http://www.delta-electronics.info/userdata/files/certificate_ASD_2012-2015.pdf
31	pdf	http://www.delta-electronics.info/userdata/files/Kontrollyer_certificate_PLC_2013-2015.pdf
32	pdf	http://www.delta-electronics.info/userdata/files/Operat.panelni_certificate_HMI_2013-2015.pdf

Id	Type	URL
34	pdf	http://www.delta-electronics.info/userdata/files/Liniya_dlya_rezki_plyonki.pdf
35	pdf	http://www.delta-electronics.info/content/files/DVP_communication_Protocol_rus.pdf
36	pdf	http://www.delta-electronics.info/content/files/DVP_ES2_manual_rus.pdf
37	pdf	http://www.delta-electronics.info/content/files/DTA_manual_rus_DAE07.pdf
38	pdf	http://www.delta-electronics.info/content/files/TP_user_manual_rus.pdf
39	pdf	http://www.delta-electronics.info/content/files/DVP28SV_manual_rus.pdf
40	pdf	http://www.delta-electronics.info/content/files/BUE_manual_rus_bu00.pdf
41	pdf	http://www.delta-electronics.info/userdata/files/chocolate.pdf
42	pdf	http://www.delta-electronics.info/content/files/VFD4132_instruction_rus.pdf
43	pdf	http://www.delta-electronics.info/userdata/files/VFDEL_pump_application_rus.pdf
44	pdf	http://www.delta-electronics.info/content/files/Installation_Note_240W3PH_rus.pdf
45	pdf	http://www.delta-electronics.info/content/files/DTC_manual_rus_DCE3.pdf
46	pdf	http://www.delta-electronics.info/userdata/files/DOP_gabarts.pdf
47	pdf	http://www.delta-electronics.info/content/files/Installation_Note_480W3PH_rus.pdf
48	pdf	http://www.delta-electronics.info/content/files/Installation_Note_240W1PH_rus.pdf
49	pdf	http://www.delta-electronics.info/content/files/Installation_Note_120W1PH_rus.pdf
50	pdf	http://www.delta-electronics.info/content/files/DTB_manual_rus_DBE4.pdf
51	pdf	http://www.delta-electronics.info/userdata/files/TVFD_rus.pdf
52	pdf	http://www.delta-electronics.info/userdata/files/Zaklyopo4naya_mashina.pdf
53	pdf	http://www.delta-electronics.info/content/files/DVP_EC3_manual_rus.pdf
54	pdf	http://www.delta-electronics.info/content/files/VFD_accessories_1.pdf
55	pdf	http://www.delta-electronics.info/content/files/DTD_manual_rus.pdf
56	pdf	http://www.delta-electronics.info/content/files/Braking_manual_rus_ue02.pdf
57	pdf	http://www.delta-electronics.info/content/files/Function_card_instruction_sheet.pdf
58	pdf	http://www.delta-electronics.info/content/files/DTV_manual_rus.pdf
59	pdf	http://www.delta-electronics.info/content/files/VFDL_manual_rus.pdf
60	pdf	http://www.delta-electronics.info/content/files/RTU_485_manual_rus.pdf
61	pdf	http://www.delta-electronics.info/content/files/Installation_Note_480W1PH_rus.pdf
62	pdf	http://www.delta-electronics.info/content/files/Installation_Note_60W3PH_rus.pdf
63	pdf	http://www.delta-electronics.info/userdata/files/Paketodelateinaya_mashina.pdf
64	pdf	http://www.delta-electronics.info/content/files/Installation_Note_60W1Phplastic_rus.pdf
65	pdf	http://www.delta-electronics.info/content/files/DVP04AD_S_rus.pdf
66	pdf	http://www.delta-electronics.info/content/files/BUE_brake_unit_announcement.pdf

shkafa.pdf
_VFD-F.pdf
ificate_2012-2015.pdf
net.pdf
t_rus.pdf
ed_VFD-VE.pdf
124.pdf

112.pdf	http://www.delta-electronics.info/content/files/Serifikat_servoprvody_Delta_Electronics.pdf
113.pdf	http://www.delta-electronics.info/userdata/files/Ustanovka_HI-Speed_VFD-B1.pdf
114.pdf	http://www.delta-electronics.info/content/files/VFD_Ext_cable.pdf
115.pdf	http://www.delta-electronics.info/content/files/Sertifika_temmoregulyatory_Delta_Electronics.pdf
116.pdf	http://www.delta-electronics.info/content/files/Sertifikat_HMI_Delta_Electronics.pdf
117.pdf	http://www.delta-electronics.info/userdata/files/DOP-A_v_proety_dlya_DOP-B.pdf
118.pdf	http://www.delta-electronics.info/userdata/files/Filtry_2012-2015.pdf
119.pdf	http://www.delta-electronics.info/content/files/Temperaturnye_kontrollyery_certificate_2012-2015.pdf
120.pdf	http://www.delta-electronics.info/userdata/files/Temperaturnye_kontrollyery_certificate_2012-2015.pdf
121.pdf	http://www.delta-electronics.info/content/files/Filtry_2012-2015.pdf
122.pdf	http://www.delta-electronics.info/userdata/files/Servodvigateli_certificate_2012-2015.pdf
123.pdf	http://www.delta-electronics.info/content/files/VFD_RC-01.pdf
124.pdf	http://www.delta-electronics.info/content/files/Servodvigateli_certificate_2012-2015.pdf



Sample Malware Analysis of Delta Elektronic (Delta Electronic) Online Files

DELTA_IA-PLC_DCISoft-V1.12_SW_20141211.zip **Trojan.DownLoader22.26498**

VFDSoft 1.40 setup.zip **Backdoor/Sandrator.c** "Systems Affected: Windows 2000, Windows 95, Windows 98, Windows Me, Windows NT, Windows Server 2003, Windows XP, Windows Vista, Windows 7 (x86/x64), Windows 8 (x86/x64), Windows 10 (x86/x64) - virus.win32.virut.bn - Trojan.KillFiles.24350 - virtool.win32.obfuscator.xy - Trojan.Generic-hlwMZB8tkIL (cloud) - virtool.win32.injector.bg!bit - Trojan.Win32.Agent"

VFDSoft 1.42 setup.zip **Backdoor/Sandrator.c**

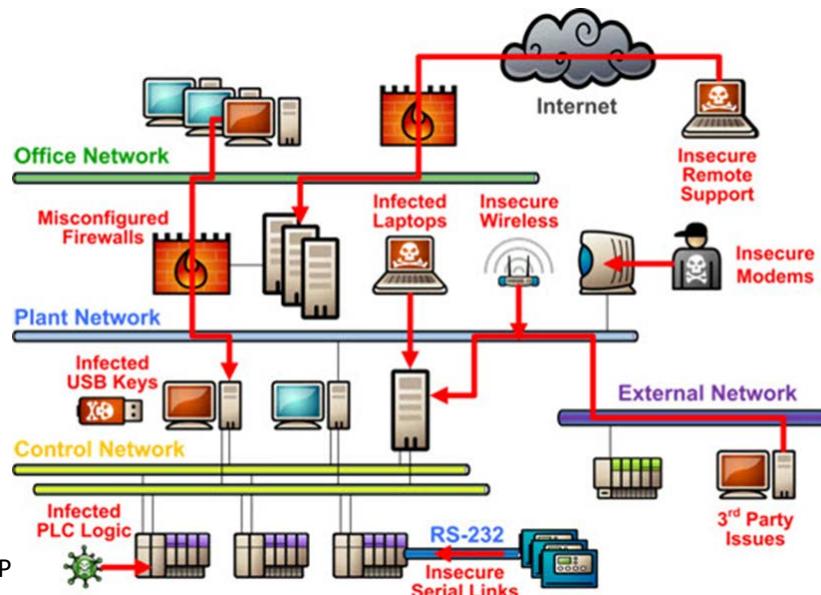
VFD-VE_monitor_software.zip **Adware.OutBrowse.Win32.102234**

WPL2.11.60.zip **Backdoor/Sandrator.c**

DMT2.0.zip **Win32.Trojan.WisdomEyes.16070401.9500.9988**

PC-PLC_comunication_libraries.rar **W32.Malware.Heur**

PC-PLC_comunication_libraries.rar **Trojan.Kryptik.Win32.801938** backdoor / steals sensitive information:
searches for .doc .docx .eml files / searches for TellerPlus BanCLine Fidelity



Files found on Deltaww.com site that goes out to all vendors. Pre-infected malware meaning their site is likely open to hack, files infiltrated, downloaded, infected, uploaded back to the Taiwanese site.



Yuri Chekunov

Director of public institutions "Tsentrospas-Yugoria"

Yuri Chekunov said:

- "The recognition of our achievements - is a definite indicator of a good job agencies in this area, because the work of firefighters and rescuers specifically associated with risk to life and is always traumatic. This is a huge incentive to continue to work in this direction at the highest level. Life and health of workers - the main goal and concern for the employer, it can not be measured by any awards."
 - In "Tsentrospas-Yugoria" today, 9 branches, which cover 158 settlements. Public safety provides a staff of over 2500 people - it's fire departments, emergency rescue teams and civil defense units and emergency situations.

Director of public institutions of the Khanty-Mansiysk Autonomous Region –

Civil Protection Department of the Population of Khanty-Mansi Autonomous

District - Yugra

Yuri Chekunov

Owner of Spektr Elektro Servis and Centrospas-Yugoriya

Works for the government, has his own businesses, responds to Government RFPs, awards them to his own companies, sells SCADA Gear. Likely he pockets a cut and provides the Kremlin a cut. - Oligarch

KU "TCentrospas-YUgoriya" (kazennoe uchrezhdenie Hanti-Mansijskogo avtonomnogo regiona - YUgri "TCentrospas-YUgoriya", TIN: 8601025290, address: TYUMENSKAYA AREA.HANTI-MANSIJSKIJ AVT. OKRUG.G HANTI-MANSIJSK,UL POSADSKAYA, D 17)

filial KU "TCentrospas-YUgoriya" po Nizhnevartovskomu (filial kazennogo uchrezhdeniya Hanti-Mansijskogo avtonomnogo regiona - YUgri "TCentrospas-YUgoriya" po Nizhnevartovskomu rajonu, TIN: 8601025290, address: TYUMENSKAYA AREA.HANTI-MANSIJSKIJ AVT. OKRUG,NIZHNEVARTOVSKIY REGION,RP IZLUCHINSK,UL KEDROVAYA, D 5)

filial kazennogo uchrezhdeniya "TCentrospas-YUgoriya" po Nefteyuganskому rajonu (filial kazennogo uchrezhdeniya Hanti-Mansijskogo avtonomnogo regiona - YUgri "TCentrospas-YUgoriya" po Nefteyuganskому rajonu, TIN: 8601025290, address: 628331, Tyumenskaya area Nefteyuganskij rajon, rp Pojkovskij, promzona, d 16a)

filial kazennogo "TCentrospas - YUgoriya" po Berezovskomu rajonu (filial kazennogo uchrezhdeniya Hanti-Mansijskogo avtonomnogo regiona - YUgri "TCentrospas-YUgoriya" po Berezovskomu rajonu, TIN: 8601025290, address: 628140, Tyumenskaya area, Berezovskij rajon, rp Berezovo, ul Lyutova, d 13a)

filial KU HMAO- YU "TCentrospas-YUgoriya" po Beloyarskomu rajonu (filial Kazennogo uchrezhdeniya Hanti-Mansijskogo avtonomnogo regiona - YUgri "TCentrospas-YUgoriya" po Beloyarskomu rajonu, TIN: 8601025290, address: G TYUMEN,UL PERMYAKOVA, D 43A KAB 410)

filial "TCentrospas-YUgoriya" po Oktyabrskomu rajonu (filial kazennogo uchrezhdeniya Hanti-Mansijskogo avtonomnogo regiona-YUgri "TCentrospas-yugoriya" po Oktyabrskomu rajonu, TIN: 8601025290, address: 628126, Tyumenskaya area, Oktyabrskij rajon, rp Priob, ul YUgorskaya, d 5)

Производство лицевых панелей

- ▼ Встраиваемые системы
- ▼ Монтажное оборудование
- ▼ Источник бесперебойного питания
- ▼ Аккумуляторные батареи
- ▼ Системы постоянного тока
- ▼ Стабилизаторы

Новые адреса складов компании "Спектр РС"

Уважаемые партнеры!

Группа компаний «Спектр» активно развивается, расширяет ассортимент продукции, в связи с чем увеличивает складские мощности.

С 15 мая 2017 года работают новые складские помещения по адресам:

I. Источники бесперебойного питания, батареи, шинопровод, сервисное обслуживание будут отгружаться и осуществляться со склада в Санкт-Петербурге, Коломяжский проспект 10 Р. Завод с улицы Генерала Хрулева, д.14 по указателю:

Акции

Производство панелей

РАСПРОДАЖА автоматических выключателей Legrand

РАСПРОДАЖА автоматических выключателей Legrand



BlackEnergy

Identified several years ago, BlackEnergy is a Trojan malware designed to launch distributed denial-of-service (DDoS) attacks, download custom spam, and banking information-stealer plugins.



- BlackEnergy malware was known to have been used to deliver KillDisk, a feature that could render systems unusable and could obliterate critical components on an infected system.
- It was reported to have possessed remarkable functions that could place Industrial Control Systems (ICS) at risk.
- An attack scenario involves a target receiving an email that contains a malicious attachment.
- The attacker spoofs the sender address in order to appear to be coming from Rada (the Ukrainian parliament).
- Once the target opens the attachment, the victim is asked to run the macro in the document.

BlackEnergy

2007 1st version of BlackEnergy appeared in 2007 DDoS attacks, create botnets, steal banking credentials

2008 - Russian-Georgian conflict, BlackEnergy used to conduct cyber-attacks against Georgia.

2009 - In Citibank attack, the attacker had stolen tens of millions of dollars.

2010 - BlackEnergy2 is released in 2010 supporting more plug-in features.

2014 - BlackEnergy defined Ukraine and Poland as its attack targets.

April-May 2007 Estonia angers Moscow planning move of Russian WWII memorial

June 2008 Lithuanian government outlaws display of Soviet symbols

August 2008 Georgia sends troops into breakaway republic backed by Moscow

January 2009 Persuading president of Kyrgyzstan to evict American military base

April 2009 Kazakhstan media publishes statement by their president criticizing Russia

2014 Pentagon blames Russia hack into White House's email with State Dept

March 2014 Russian-armed (little green men) pro-Russian rebels Russian Spetsnaz seize control of Crimea

May 2014 3-days prior to Ukraine's pres. election, Russian proxy groups take down election commission

October 2014 BlackEnergy attacks GE, Advantech WebAccess, SiemensWinCC.

October 14, 2014 BlackEnergy sample which is delivered via CVE-2014-4114.

November 2014 - Attack the devices of Linux and Cisco.

December 2014 Cyber-attack against the infrastructure of Germany

November 2015 – Election in Ukraine, KillDisk infected several media agencies.

December 2015 BlackEnergy should responsible for energy blackouts

April 2015 Russia sought to destroy France's TV5Monde channel via cyberattack

May 2015: Germany discovered hackers penetrated computer network of German Bundestag

May 2015 Hackers tried to penetrate the computers of Chancellor Angela Merkel party

October 2015 NATO meeting in Bulgaria, websites of the council of ministers of Parliament and the central election committee were attacked

November 2015 Increased Russian incursions into their Bulgarian airspace

November 2015 Turkey shoots down Russian plane in its airspace

December 2015: Russian attack on Turkey forces closing of web traffic to .tr addresses

July-Dec 2016: 16 US Intel Agencies say Russian hacks Dems emails

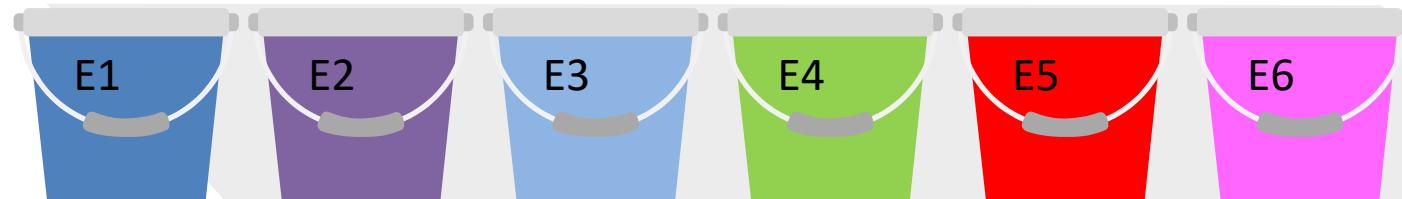


Analysis of Delta Elektronics and BlackEnergy

We believe with moderate confidence that Delta Elektronics (DE) is likely a front company, and the equipment purchased from DE is vulnerable to supply chain threats. The possible supply chain threats introduce vulnerabilities impacting organizational supply chain functions and daily operations.

Evidence 1 (E1)	Evidence 2 (E2)	Evidence 3 (E3)	Evidence 4 (E4)	Evidence 5 (E5)	Evidence 6 (E6)
Embedded Malware	Oleg Strekozov – Fake Malware in Delta online software – docs – DeltaTW unaware	Oleg aligned with malware –Strekozov Dragonfly	Matrix Group LLC Chekunov – Oligarch Integrated with Gov Institutions	BlackEnergy progress, Maturity, targeting, Intent, speed, automation, motivation	Russian cyber Capabilities – org Structure – geo political tied to cyber

We believe with moderate confidence that Delta Elektronics (DE) and BlackEnergy are part of an integrated, hybrid warfare effort targeting actual and perceived threats to the Russian Federation. It is likely the behaviors exhibited are part of strategic positioning, maturation of the program, and demonstrated success of Russian cyber maskirovka and dezinformatsiya.





Final Analysis

Although there is an absence of evidence supporting a direct alignment of BlackEnergy, Dragonfly, and Delta Elektronics, the similarity of the targets, assumed adversary intent, the behaviors and methods of deception are consistent with nation-state actions.



Some of the information is fragmented and poorly corroborated to make solid analytic inferences. Some sources are difficult to validate. Typical compartmentalization of intelligence activities may be used to ensure complete lack of awareness of activities at the operational level. Leadership over the groups behind BlackEnergy, Dragonfly, and Delta Elektronics may be limited in a "*Dunbar's number*" method of maintaining secrecy.

We estimate the likelihood of Russian complicity to be probable. The evidence collected and subsequent analysis using structured techniques *does not render our judgment to be fact or a certainty, however, and such judgments still carry a risk of being wrong.*



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Intelligence Games in the Power Grid

Deception-Denial-Manipulation

Jeff Bardin – Treadstone 71

jbardin@treadstone71.com