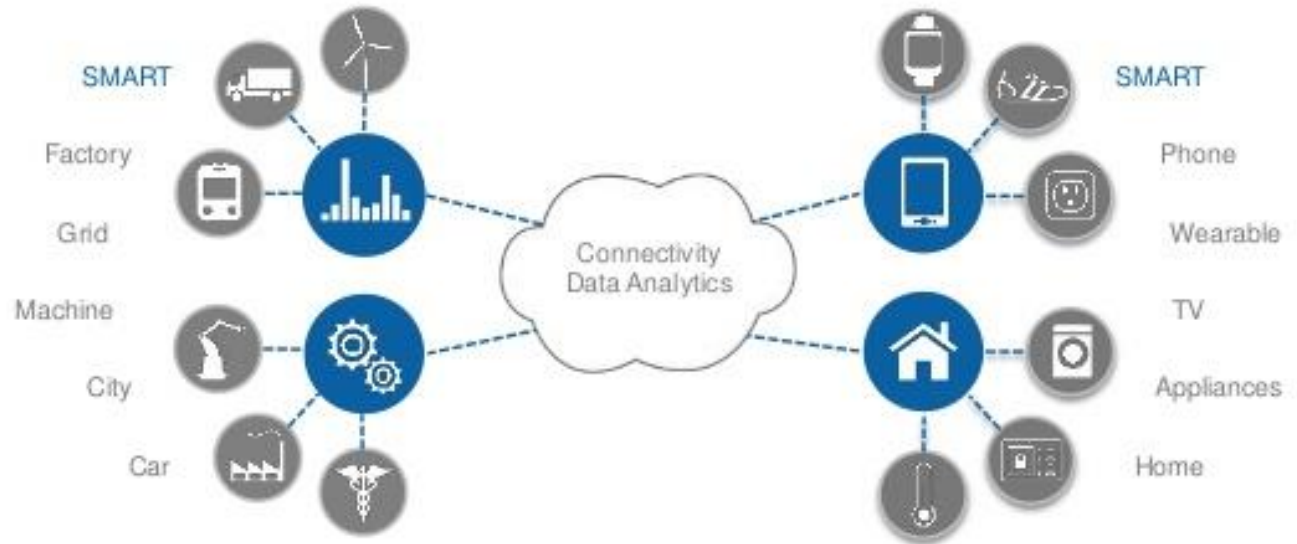


Industrial IoT Security – convergence of IT and OT worlds

Dr Theodoros Stergiou, CEng, CPMM, CISM
Security Solutions Product Manager & Cloud Security Officer

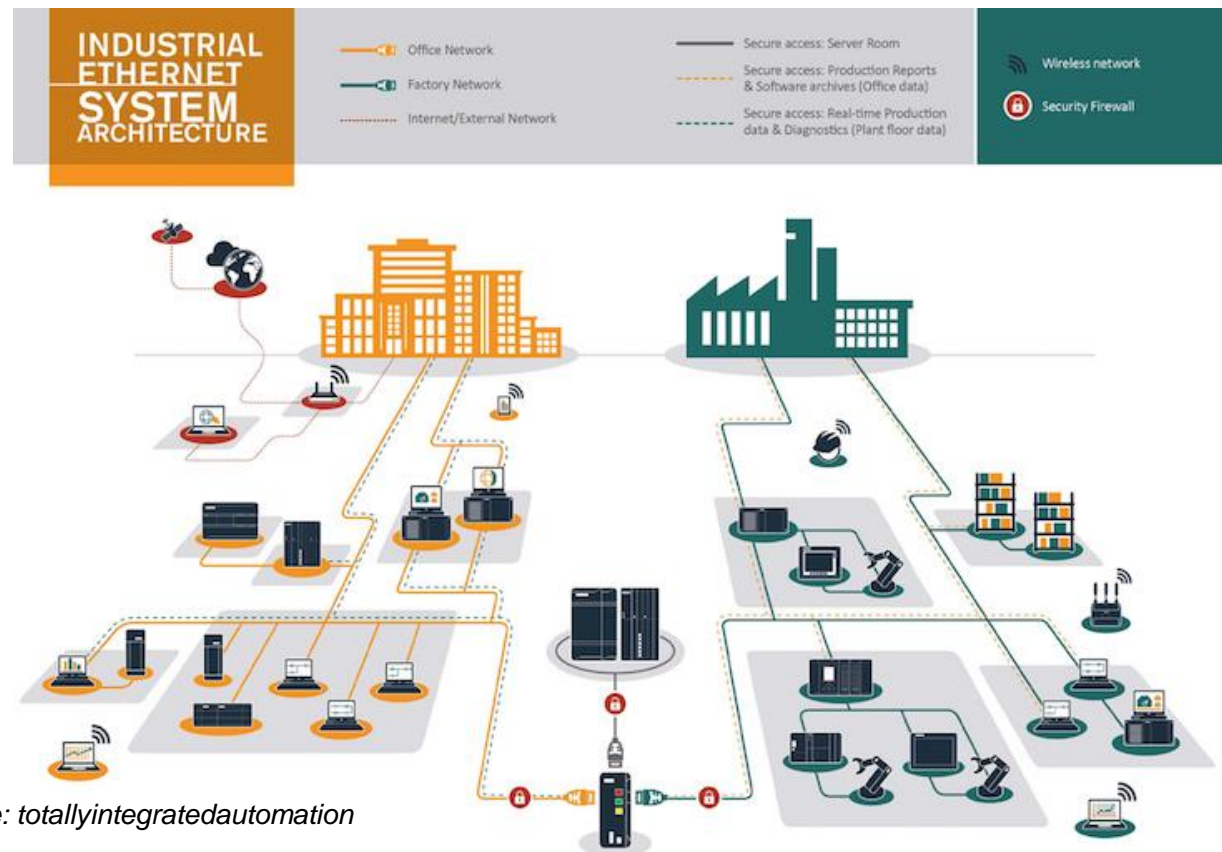
@thster, thster@intracom-telecom.com





Security Challenges

- ❖ Information Technology (IT) security involves protecting data
- ❖ Operations Technology (OT) security involves preserving safety and ensuring production availability.
- ❖ OT security involves compliance to additional set of standards



Source: *totallyintegratedautomation*

A whole range of different questions

IT Security

- ▶ Who are you?
- ▶ What systems you want to access?
- ▶ Are you coming from a trusted domain?
- ▶ Are you properly authorized?
- ▶ ...

OT Security

- ▶ Are you instructing the machine to do something unsafe?
- ▶ Are you requesting data the system should not be sending you?
- ▶ Are the instructions legitimate?
- ▶ ...

How do we converge these two worlds?

Different worlds – same vulnerabilities

- Default credentials for more than 100 products (wireless gateways, routers, programmable logic controllers (PLC), servers and network modules)

Branch: master ▾ SCADAPASS / scadapass.csv Find file Copy path

scadastrangelove Merge pull request #2 from attritionorg/patch-2 7aa1139 5 hours ago

2 contributors

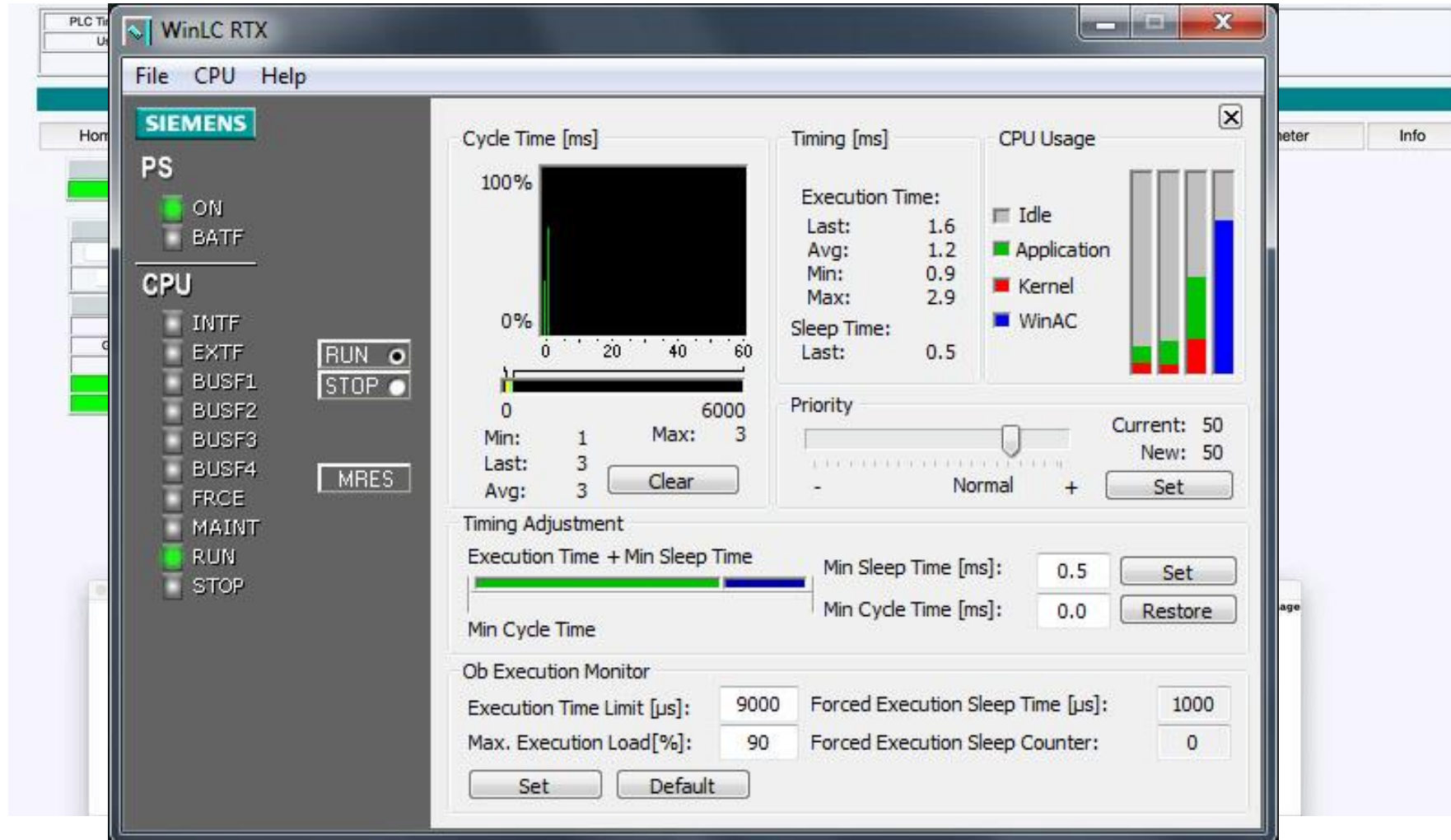
113 lines (112 sloc) 19.7 KB Raw Blame History

Q Search this file...

1	#SCADA StrangeLove Default/Hardcoded Passwords List	
2	#Find more at http://www.scada.sl	
3	#release 1.0 by Oxana Andreeva (oxana.andreeva@inbox.ru)	
4		
5	Vendor	Device
6	ABB	AC 800M
7	ABB	SREA-01
8	B&B ELECTRONICS	CR10 v2
9	B&B ELECTRONICS	Conel 4.0.1
10	B&B ELECTRONICS	SPECTRE Router
11	B&B ELECTRONICS	ER75i/ER 75i DUO/ER 75i SL/ER75i v2

Different worlds – same vulnerabilities

Hardcoded credentials



The image shows the WinLC RTX software interface, which is used for monitoring and configuring Siemens PLCs. The interface is divided into several sections:

- SIEMENS PS:** Includes status indicators for ON and BATF.
- CPU:** Includes a list of modules (INTF, EXTF, BUSF1, BUSF2, BUSF3, BUSF4, FRCE, MAINT, RUN, STOP) and buttons for RUN, STOP, and MRES.
- Cycle Time [ms]:** A graph showing the cycle time over time, with a scale from 0 to 6000 ms. The graph shows a sharp peak at the start of the cycle.
- Timing [ms]:** A table showing execution time statistics:

Execution Time:	Value [ms]
Last:	1.6
Avg:	1.2
Min:	0.9
Max:	2.9
Sleep Time:	
Last:	0.5
- CPU Usage:** A bar chart showing the percentage of CPU usage for different components: Idle (grey), Application (green), Kernel (red), and WinAC (blue). The chart shows that the Application and Kernel components are using a significant portion of the CPU.
- Priority:** A slider control for setting the priority of the PLC. The current value is 50, and the new value is also 50. The slider is labeled "Normal".
- Timing Adjustment:** A section for adjusting the execution time and sleep time. It includes a slider for "Execution Time + Min Sleep Time" and input fields for "Min Sleep Time [ms]" (0.5) and "Min Cycle Time [ms]" (0.0).
- Ob Execution Monitor:** A section for monitoring the execution of the PLC. It includes input fields for "Execution Time Limit [μs]" (9000), "Max. Execution Load[%]" (90), "Forced Execution Sleep Time [μs]" (1000), and "Forced Execution Sleep Counter" (0).

ICS/SCADA related protocols are not that proprietary

📍 Modbus – published in 1979, runs on serial, **502/TCP**

No.	Time	Source	Destination
1	0.000000000	192.168.1.15	192.168.1.1
2	0.000183000	192.168.1.15	192.168.1.1
3	0.001765000	192.168.1.1	192.168.1.15
4	0.001955000	192.168.1.1	192.168.1.15

Modbus

Function Modbus/TCP (port 502) :rs (3)

Byte Cou

Register

Register

Register

Register

Register

Register

Register

Register

Register

Register

Register 10 (UINT16): 46

Register 11 (UINT16): 800

Register 12 (UINT16): 8800

0000	60	02	92	00	21	ff	00	30	de	06	ba	6c	08	00	45	00
0010	00	f9	3c	39	00	00	40	06	ba	65	c0	a8	01	01	c0	a8
0020	01	0f	01	f6	c0	b2	c5	86	cc	ff	a1	da	af	d9	50	18
0030	3e	80	09	98	00	00	08	a6	00	00	00	cb	01	03	c8	00
0040	06	00	3c	00	2c	00	2e	03	20	00	2e	00	3c	00	3c	00

Google Code Archive

Search this site

Projects Search About

Project modbus-tk

Source

Issues

Wikis

Downloads

Export to GitHub

Implementation of the Modbus protocol in the Python programming language

modbus-tk: Create Modbus app easily with Python

The project has moved to Git Hub : See <https://github.com/ljean/modbus-tk>

Download / Install

Current version is 0.4.3. It is available on PyPI
https://pypi.python.org/pypi/modbus_tk

License

This is distributed under GNU LGPL license

Description

Make possible to write modbus TCP and RTU master and slave.

It can be used for testing purpose : It is shipped with slave simulator and a master with a web-based hmi (ok the hmi need to be improved :).

It can also be used to create any application which need to communicate over modbus. It is a full-stack implementation and is used on "real applications".

Thanks to Python and the incredible set of existing libraries, it can fit a lot of different needs : database logging, HMI, report generation ...

modbus-tk is different from [pymodbus](#) which is another implementation of the modbus stack in python.

Project Information

• License: GNU Lesser GPL

• 49 stars

• hg-based source control

Labels:

python modbus unit-testing automation SCADA PLC

ICS/SCADA related protocols are not that proprietary

📌 Dnp3 – published in 1990, 20000/TCP-UDP

Google Code Archive

Search this site

Projects Search About

Project

Source

Issues

Wikis

Downloads

DNP3

dnp3

Export to GitHub

File	Summary + Labels	Uploaded	Size
libdnp3java.so.1.0.0-rh6.1-x64.tar.gz	1.0.0 SO for Redhat 6.1, 64bit Type-Archive OpSys-Linux	Oct 12, 2011	797.88KB
libdnp3java.so.1.0.0-rh6.1-x32.tar.gz	1.0.0 SO for Redhat 6.1, 32bit Type-Archive OpSys-Linux	Oct 7, 2011	793.6KB
libdnp3java.so.1.0.0-lucid-x32.tar.gz	1.0.0 SO for Ubuntu 10.04 Lucid, 32bit Type-Package OpSys-Linux	Oct 3, 2011	815.57KB
dnp3java_1.0.0_win64.zip	1.0.0 Java DLL for Windows, 64bit Type-Archive OpSys-Windows	Oct 3, 2011	301.32KB
TestSetInstaller_1.0.0_vcrist_x86.zip	Testset intaller package for windows Type-Installer OpSys-Windows	Oct 3, 2011	4.92MB
TestSetInstaller-0.9.4-win32.zip	TestSet 0.9.4 - Installer for Win32 Featured Deprecated	Jan 27, 2011	3.15MB
dnp3java-0.9.4-win32.zip	0.9.4 DLL for Windows, 32bit Deprecated	Jan 27, 2011	272.56KB
libdnp3java-0.9.4-lucid-x64.tar.gz	0.9.4 SO for Ubuntu 10.04 Lucid, 64bit Deprecated	Jan 27, 2011	741.43KB
libdnp3java-0.9.4-lucid-x32.tar.gz	0.9.4 SO for Ubuntu 10.04 Lucid, 32bit Deprecated	Jan 27, 2011	727.77KB
TestSet-0.9.3-win32.zip	DNP3 master/slave test set, version 0.9.3 Type-Installer OpSys-Windows Deprecated Featured	Jan 12, 2011	3.15MB
dnp3java-0.9.3-win32.zip	0.9.3 DLL for Windows, 32bit Deprecated	Jan 12, 2011	272.21KB
dnp3java-0.9.3-win64.zip	0.9.3 DLL for Windows, 64bit Deprecated	Jan 11, 2011	271.95KB
libdnp3java-0.9.3-lucid-x64.tar.gz	0.9.3 SO for Ubuntu 10.04 Lucid, 64bit Deprecated	Jan 11, 2011	740.06KB
libdnp3java-0.9.3-lucid-x32.tar.gz	0.9.3 SO for Ubuntu 10.04 Lucid, 32bit Deprecated	Jan 11, 2011	726.9KB
TestSet_0.9.0.zip	DNP3 master/slave test set, version 0.9.0 Type-Installer Deprecated	Jun 26, 2010	4.85MB

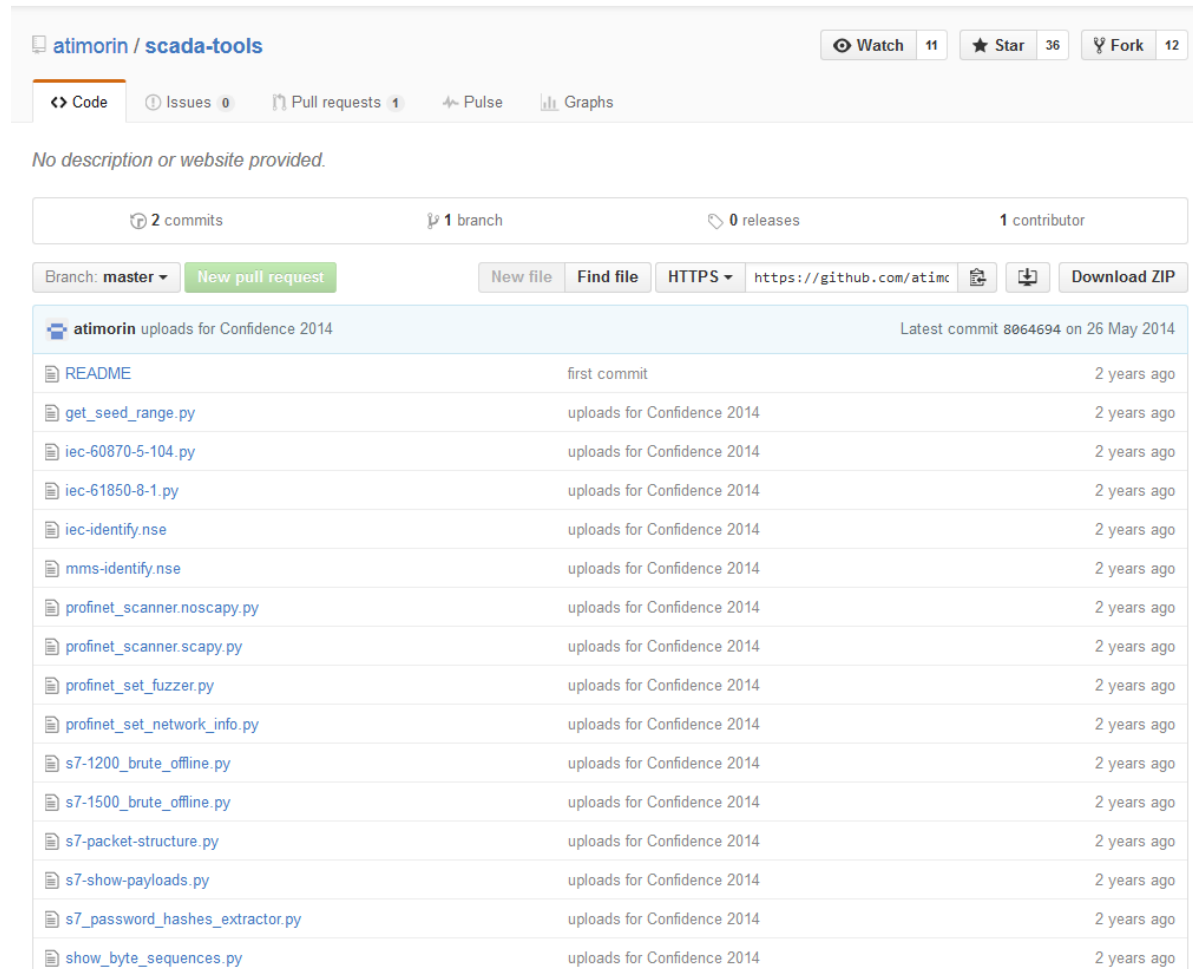
ICS/SCADA related protocols are not that proprietary

📌 IEC 60870-5 – published in 2000, 2404/TCP

```
~nmap -script iec-identify.nse --script-args='iec-identify.timeout=500' -p 2404 <host>
```

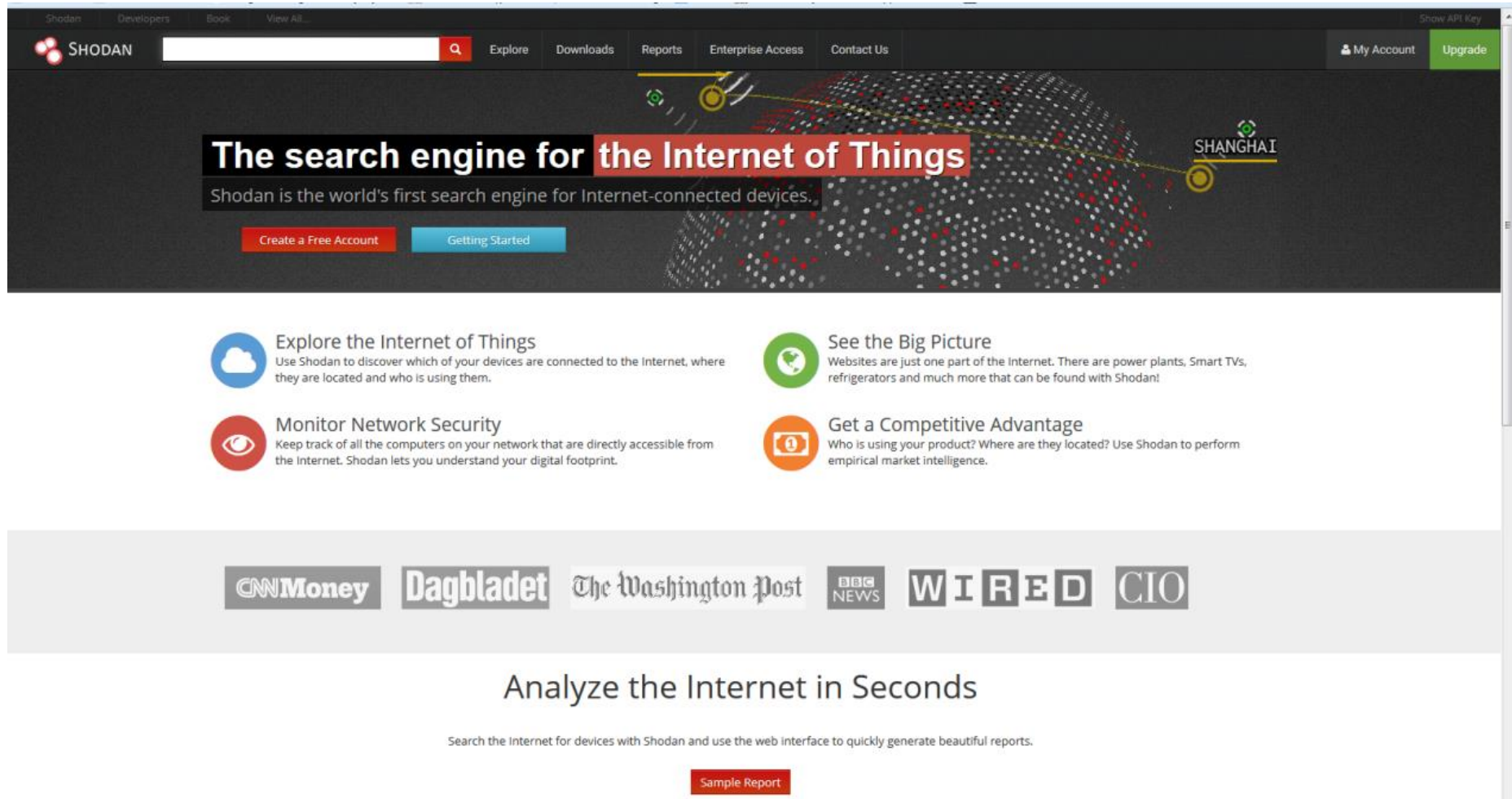
```
Host is up, received user-set (0.0037s latency).
Scanned at 2013-10-31 07:09:06 EDT for 1s
PORT      STATE SERVICE      REASON
2404/tcp  open  IEC 60870-5-104 syn-ack
| iec-identify:
|   testfr sent / recv: 680443000000 / 680483000000
|   startdt sent / recv: 680407000000 / 68040b000000
|   c_ic_na_1 sent / recv: 680e0000000064010600ffff00000000 / 680e
|_  asdu address: 65535
Final times for host: srtt: 3654 rttvar: 5000  to: 100000
```

- For every known protocol, at least one exploit tool is freely available – for educational purposes of course



The screenshot shows the GitHub repository page for 'atimorin / scada-tools'. The repository has 2 commits, 1 branch, 0 releases, and 1 contributor. The 'Code' tab is selected, showing a list of files. The files are all Python scripts, mostly related to SCADA protocols like IEC 60870-5-104, IEC 61850, and PROFINET. The latest commit is 8064694, dated 26 May 2014.

File	Commit	Time
README	first commit	2 years ago
get_seed_range.py	uploads for Confidence 2014	2 years ago
iec-60870-5-104.py	uploads for Confidence 2014	2 years ago
iec-61850-8-1.py	uploads for Confidence 2014	2 years ago
iec-identify.nse	uploads for Confidence 2014	2 years ago
mms-identify.nse	uploads for Confidence 2014	2 years ago
profinet_scanner.noscapyp.py	uploads for Confidence 2014	2 years ago
profinet_scanner.scapy.py	uploads for Confidence 2014	2 years ago
profinet_set_fuzzer.py	uploads for Confidence 2014	2 years ago
profinet_set_network_info.py	uploads for Confidence 2014	2 years ago
s7-1200_brute_offline.py	uploads for Confidence 2014	2 years ago
s7-1500_brute_offline.py	uploads for Confidence 2014	2 years ago
s7-packet-structure.py	uploads for Confidence 2014	2 years ago
s7-show-payloads.py	uploads for Confidence 2014	2 years ago
s7_password_hashes_extractor.py	uploads for Confidence 2014	2 years ago
show_byte_sequences.py	uploads for Confidence 2014	2 years ago


A screenshot of the Shodan website. The top navigation bar is dark grey with links for 'Shodan', 'Developers', 'Book', and 'View All...'. Below this is a search bar with the Shodan logo and a magnifying glass icon, followed by links for 'Explore', 'Downloads', 'Reports', 'Enterprise Access', and 'Contact Us'. On the right side of the navigation bar are links for 'My Account' and 'Upgrade'. The main banner features a dark background with a globe made of small white and red dots. A yellow line with a magnifying glass icon points to a specific location on the globe labeled 'SHANGHAI'. The text 'The search engine for the Internet of Things' is prominently displayed in white, with 'the Internet of Things' highlighted in a red box. Below this, it says 'Shodan is the world's first search engine for Internet-connected devices.' and provides two buttons: 'Create a Free Account' (red) and 'Getting Started' (blue). Below the banner, there are four feature cards: 1. 'Explore the Internet of Things' with a cloud icon, describing how Shodan helps discover connected devices. 2. 'See the Big Picture' with a globe icon, explaining that Shodan finds more than just websites, including power plants and smart TVs. 3. 'Monitor Network Security' with an eye icon, stating that Shodan helps track computers directly accessible from the Internet. 4. 'Get a Competitive Advantage' with a magnifying glass icon, mentioning empirical market intelligence. Below these cards is a row of logos for various media outlets: CNNMoney, Dagbladet, The Washington Post, BBC NEWS, WIRED, and CIO. At the bottom, the text 'Analyze the Internet in Seconds' is centered, followed by a description of the service and a 'Sample Report' button.

Shodan


Developers

Book

View All



SHODAN



[Explore](#)

[Downloads](#)

[Reports](#)


[Enterprise Access](#)

[Contact Us](#)

[My Account](#)


[Upgrade](#)

[Show API Key](#)



Industrial Control Systems


Spotlight



XZERES Wind Turbine

XZERES Wind designs & manufactures wind energy systems for small wind turbine market designed for powering homes farms or businesses with clean energy.

[Explore](#)



PIPS Automated License Plate Reader

The PIPS AutoPlate Secure ALPR Access Control System catalogs all vehicles entering or exiting an access point to a site or facility.

[Explore](#)

What Are They?


In a nutshell, Industrial control systems (ICS) are computers that control the world around you. They're responsible for managing the air conditioning in your office, the turbines at a power plant, the lighting at the theatre or the robots at a factory.

Common Terms

ICS	Industrial Control System
SCADA	Supervisory Control and Data Acquisition
PLC	Programmable Logic Controller
DCS	Distributed Control System
RTU	Remote Terminal Unit

Protocols

Shodan
Developers
Book
View All...




[Explore](#)
[Downloads](#)
[Reports](#)
[Enterprise Access](#)
[Contact Us](#)

[My Account](#)
[Upgrade](#)

[Exploits](#)
[Maps](#)
[Share Search](#)
[Download Results](#)
[Create Report](#)

TOP COUNTRIES



United Kingdom 10

TOP CITIES

Chesterfield 2
Whitland 1
Trentham 1
Skipton 1
Market Harborough 1

TOP ORGANIZATIONS

BT 9
Virgin Media 1

TOP PRODUCTS

Apache httpd 10

Total results: 10

XZERES Wind -- 442SR Wind Turbine
86.170.146.162
host86-170-146-162.range86-170.btoentralplus.com
BT
Added on 2016-03-24 03:37:55 GMT
United Kingdom, Annbank
Details

HTTP/1.1 200 OK
Date: Sat, 17 Jan 1970 10:28:23 GMT
Server: Apache/1.3.31 (Unix)
Last-Modified: Sat, 17 Jan 1970 10:28:23 GMT
ETag: W/"bd3-32e-4ff7797b"
Accept-Ranges: bytes
Content-Length: 814
Content-Type: text/html

XZERES Wind -- 442SR Wind Turbine
81.149.236.18
BT
Added on 2016-03-24 01:54:03 GMT
United Kingdom, Market Harborough
Details

HTTP/1.1 200 OK
Date: Fri, 13 Mar 1970 17:42:33 GMT
Server: Apache/1.3.31 (Unix)
Last-Modified: Fri, 13 Mar 1970 17:42:33 GMT
ETag: W/"a6e-32e-4ff7797b"
Accept-Ranges: bytes
Content-Length: 814
Content-Type: text/html

XZERES Wind -- 442SR Wind Turbine
86.170.245.225
host86-170-245-225.range86-170.btoentralplus.com
BT
Added on 2016-03-18 01:05:37 GMT
United Kingdom, Skipton
Details

HTTP/1.1 200 OK
Date: Thu, 17 Mar 2016 22:16:17 GMT
Server: Apache/1.3.31 (Unix)
Last-Modified: Fri, 06 Jul 2012 23:49:15 GMT
ETag: "ad1-32e-4ff7797b"
Accept-Ranges: bytes
Content-Length: 814
Content-Type: text/html

XZERES Wind -- 442SR Wind Turbine
86.12.128.106
106-128-12-86.static.virginm.net
Virgin Media
Added on 2016-03-15 22:04:45 GMT
United Kingdom, Whitland
Details

HTTP/1.1 200 OK
Date: Tue, 15 Mar 2016 22:04:30 GMT
Server: Apache/1.3.31 (Unix)
Last-Modified: Tue, 16 Apr 2013 22:53:24 GMT

Shodan

Developers

Book

View All...

SHODAN

Explore

Downloads


Reports

Enterprise Access

Contact Us

My Account

Upgrade



162

host86-170-146-162.range86-170.btcentralplus.com

City	Annbank
Country	United Kingdom
Organization	BT
ISP	BT
Last Update	2016-03-24T03:37:55.472937
Hostnames	host86-170-146-162.range86-170.btcentralplus.com
ASN	AS2856

Ports

80

4567

Services

80

tcp

http

Apache httpd Version: 1.3.31

HTTP/1.1 200 OK
Date: Sat, 17 Jan 1970 10:28:23 GMT
Server: Apache/1.3.31 (Unix)
Last-Modified: Sat, 17 Jan 1970 10:28:23 GMT
ETag: W/"bd3-32e-4ff7797b"
Accept-Ranges: bytes
Content-Length: 814
Content-Type: text/html

4567

tcp

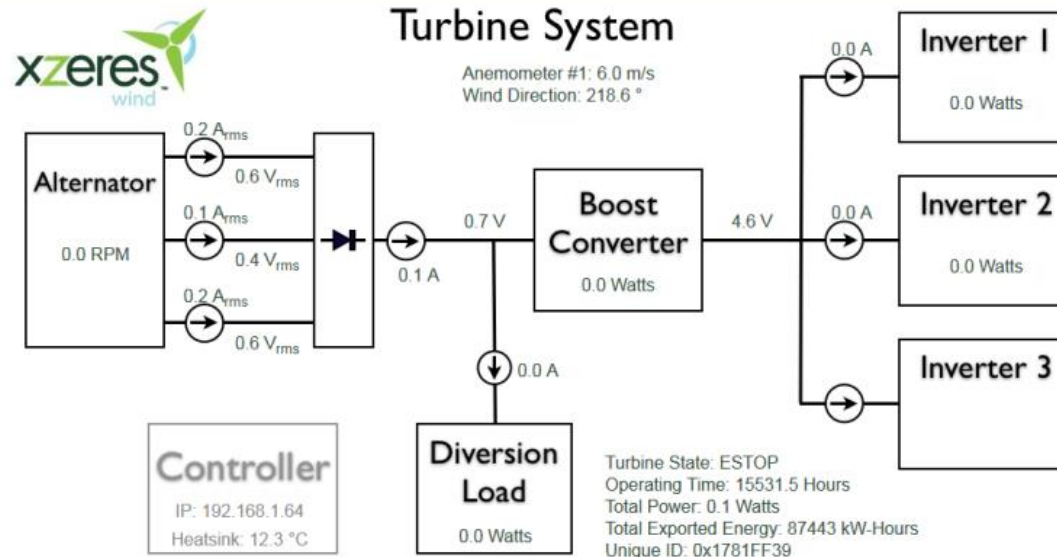
http

HTTP/1.1 401 Unauthorized
WWW-Authenticate: Digest realm="", qop="auth", nonce="6f818095d1db257a1f40fd391e19910b:56b71d52:1259f488", op



[HOME](#) [DESKTOP](#) [MOBILE](#) [DIAGNOSTICS](#) [INSTALLER](#) [DOCUMENTATION](#)





HOME | DESKTOP



Boost Detailed Channel List

Channel	Value	Channel	Value
VBOOST	4.6	ENABLE_BOOST	OFF
DB_OCFLT	209584	DB_OVFLT	0
Configuration			
BOOST_LOOP_P	512	BOOST_LOOP_I	150
INV_LOW_V	250.0		
INV_MID_V	450.0	INV_MID_P	1000
INV_MAX_V	500.0	INV_MAX_P	6100

BACK



Turbine		Controller	
Turbine State:	ESTOP	Up-Time:	23153.3 Hrs
Exported Energy:	87443 kWh	Operating Time:	15531.5 Hrs
Action: Contact Customer Support			

[HOME](#) | [DIAGNOSTICS](#)

For Internet Explorer: Click the Compatibility View Button to see the Dials



WIKIPEDIA
The Free Encyclopedia

Main page
Contents
Featured content
Current events
Random article
Donate to Wikipedia
Wikipedia store

Interaction

Help
About Wikipedia
Community portal
Recent changes
Contact page

Tools

What links here
Related changes
Upload file
Special pages
Permanent link
Page information
Wikidata item
Cite this page

Print/export

Create a book
Download as PDF
Printable version

In other projects

Wikimedia
Commons

Languages

Русский

 Edit links

Article [Talk](#)

Read

[Edit](#)

[View history](#)

Search



Wind power in Greece

From Wikipedia, the free encyclopedia

Wind power in Greece was due to expand by 352% by 2010 to meet the European target of 20% coverage of energy needs from renewable sources. Previously, there were 1,028 wind turbines installed throughout Greece and the number was set to reach 2,587 wind turbines before the end of 2010.^[1]

According to the [Ministry of Environment and Public Works](#), the system would have a [nameplate capacity](#) of 3,372MW of power from wind alone compared to 746MW at the end of 2006.^[2] Greece chose to invest primarily to wind power by 77%, while the rest of renewable sources altogether comprise the remaining 23% of production with hydroelectric power being second with 11%.^{[3][4]}








Capacity [\[edit \]](#)

Wind Energy Capacity (MW) ^{[5][6]}																	
Country	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Greece	39	112	189	272	297	383	473	573	746	871	985	1,087	1,208	1,634	1,749	1,865 ^[7]	1,980 ^[8]

See also [\[edit \]](#)

- Energy in Greece

Sources [\[edit \]](#)

- ↑ Greece commits for 2,587 wind turbines 
- ↑ Rising to the Challenge:the growth of wind power generation in Greece 
- ↑ Greek Ministry of Environment 
- ↑ Greece Renewable Energy - Europa Fact Sheet 
- ↑ EWEA Staff (2010). "Cumulative installed capacity per EU Member State 1998 - 2009 (MW)"  . European Wind Energy Association. Retrieved 2010-05-22.
- ↑ EWEA Staff (February 2011). "EWEA Annual Statistics 2010"   (PDF). European Wind Energy Association. Retrieved 2011-01-31.
- ↑ Greek wind power market picks up again 
- ↑ http://eletaen.gr/wp-content/uploads/2015/01/2014_-HWEA_Statistics_Greece.pdf  

V T E	Wind power	[show]
V T E	Wind power by country	[show]
V T E	Renewable energy by country	[show]

Categories: [Wind power in Greece](#)



View of a wind farm, Panachaiko mountain.



The first French expert
in wind resource assessment

CONTACT

Search



Home

Databases

Online order

Online access

Online access > Wind farms > Andros (Greece)

[\[Back to previous page\]](#)

Generalities

- Wind farm name: Andros
- Country: [Greece](#)

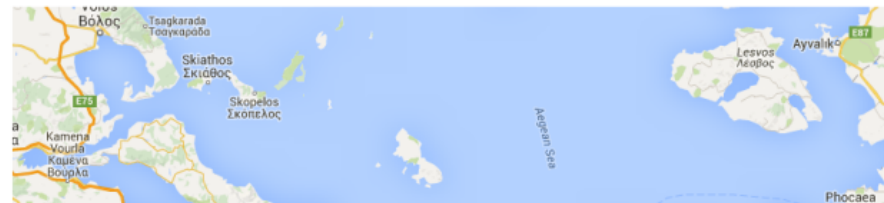
Details

- City: Kalivari (Idroussa)
- 7 turbines: Vestas V27/225 (power 225 kW, diameter 27 m)
- Total nominal power: 1,575 kW
- Operational
- Onshore wind farm
- Operator: Public Power Corporation

Localisation

- Latitude: 37° 57' 36"
- Longitude: 24° 45' 0"
- Geodetic system: WGS84
- Precise location: yes
- [Google Maps view](#)

Global map



IREC Index

Your wind energy index
for France designed by Eoltech

Enter Shodan – Greek WIND farms



Shodan

Developers

book

View All...

SHODAN

vestas country:"GR"

Q

Explore

Downloads

Reports

Enterprise Access

Contact Us

My Account

Upgrade

Exploits


Maps

Share Search

Download Results

Create Report

TOP COUNTRIES



Greece1

TOP ORGANIZATIONS

OTEnet S.A.

1

Total results: 1

149

vestas.static.otenet.gr

OTEnet S.A.

Added on 2016-03-22 13:45:27 GMT

Greece

Details

NetBIOS Response

Servername: N41384

MAC: 10:0b:a9:cf:4b:a0

Names:

N41384<0x0>

VESTAS<0x0>

VESTAS<0x1e>

N41384<0x20>

Enter Shodan – Greek WIND farms


Shodan Developers Book View All...

SHODAN


Explore Downloads Reports Enterprise Access Contact Us

My Account Upgrade

Show API Key



Mapbox © OpenStreetMap Improve this map © DigitalGlobe

 ooskm5.static.otenet.gr

Country	Greece
Organization	OTEnet S.A.
ISP	OTEnet S.A.
Last Update	2016-03-22T10:59:04.861594
Hostnames	
ASN	AS6799

Ports

21

80

81

502

554

8080

37777

Services

21

tcp

ftp

bftpd Version: 2.2
220 bftpd 2.2 at
530 Login incorrect.
530 Login incorrect.
500 Unknown command: "HELP"

80

tcp

http

Boa HTTPd Version: 0.94.13
HTTP/1.0 401 Unauthorized
Date: Sun, 20 Mar 2016 02:22:50 GMT
Server: Boa/0.94.13
Connection: close
WWW-Authenticate: Basic realm="H100NS"
Content-Type: text/html; charset=ISO-8859-1
Set-Cookie: SESSIONID=6473e423;

Enter Shodan – Greek WIND farms

WEB SERVICE v3.0

Live Setup Alarm Logout

Camera

- Conditions
- Video
- Network
- Event
- Storage
- System
- Information

Conditions

Brightness 50

Contrast 50

Hue 50

Saturation 50

Gain Mode ☒ Auto ☐ Manual

Gain Upper Limit 50

Exposure Mode ☒ Auto ☐ Manual

Manual_1/50

Scene Mode Sunny

Day & Night Black & White

BLC Mode BLC

Mirror ☒ ON ☐ OFF

Flip ☒ ON ☐ OFF

Default Cancel

Enter Shodan – Greek WIND farms

WEB SERVICE v3.0

Live Setup Alarm Logout

Account

No.	User Name	Group Name	Remark	Modify	Delete
1	admin	admin	admin's account		
2	888888	admin	888888's account		
3	666666	user	666666's account		

Delete User

Are You Sure to Remove This User?

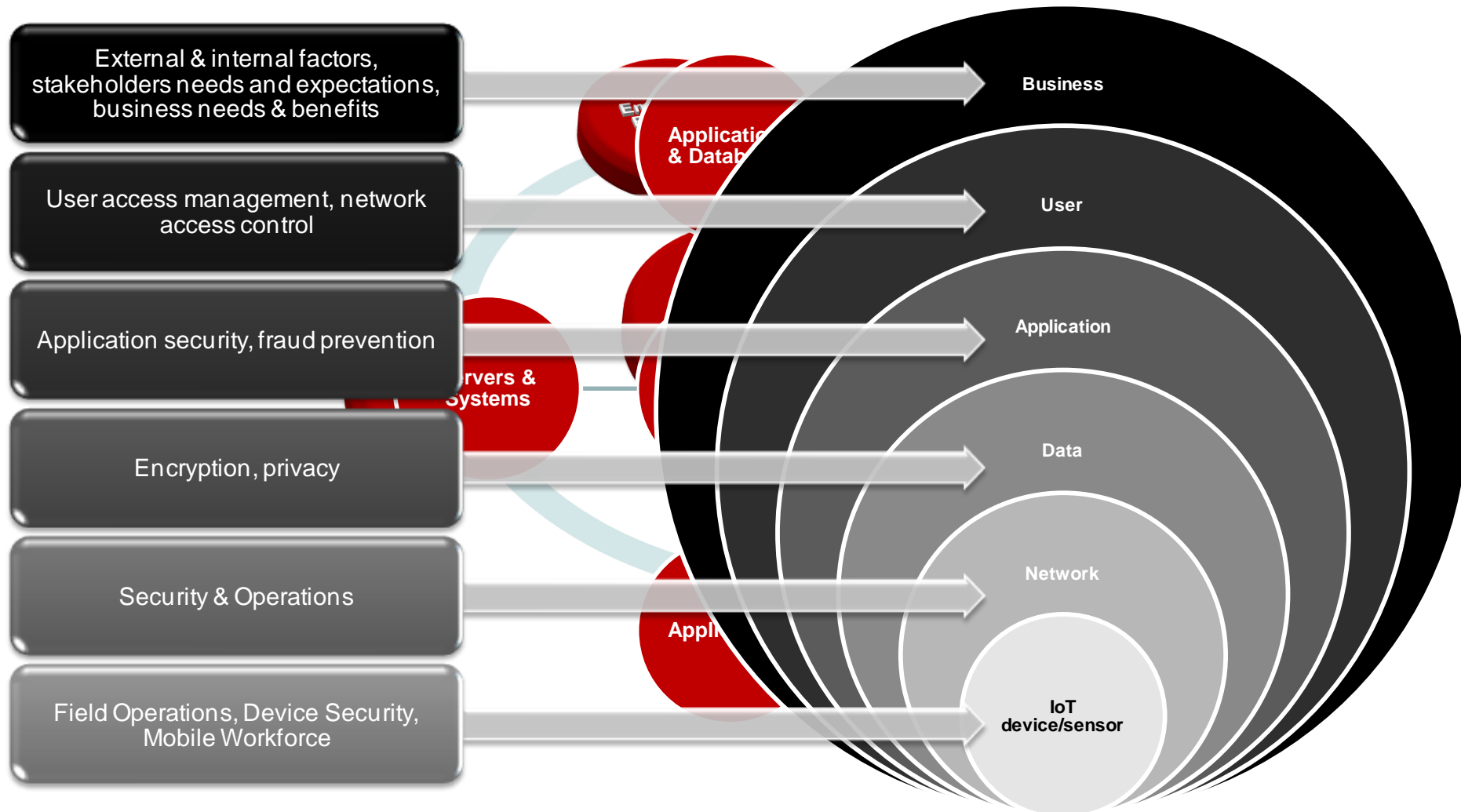
Ok Cancel

Authority List

Shutdown/Reboot	Live	Record control	Storage	Account	Alarm	Log Search	Clear Log	Upgrade	Auto Maintain	General
Video/Audio	Schedule/Destination Network	Abnormality	Video Detect	Alarm Default/Import /Export	Log Search Conditions					

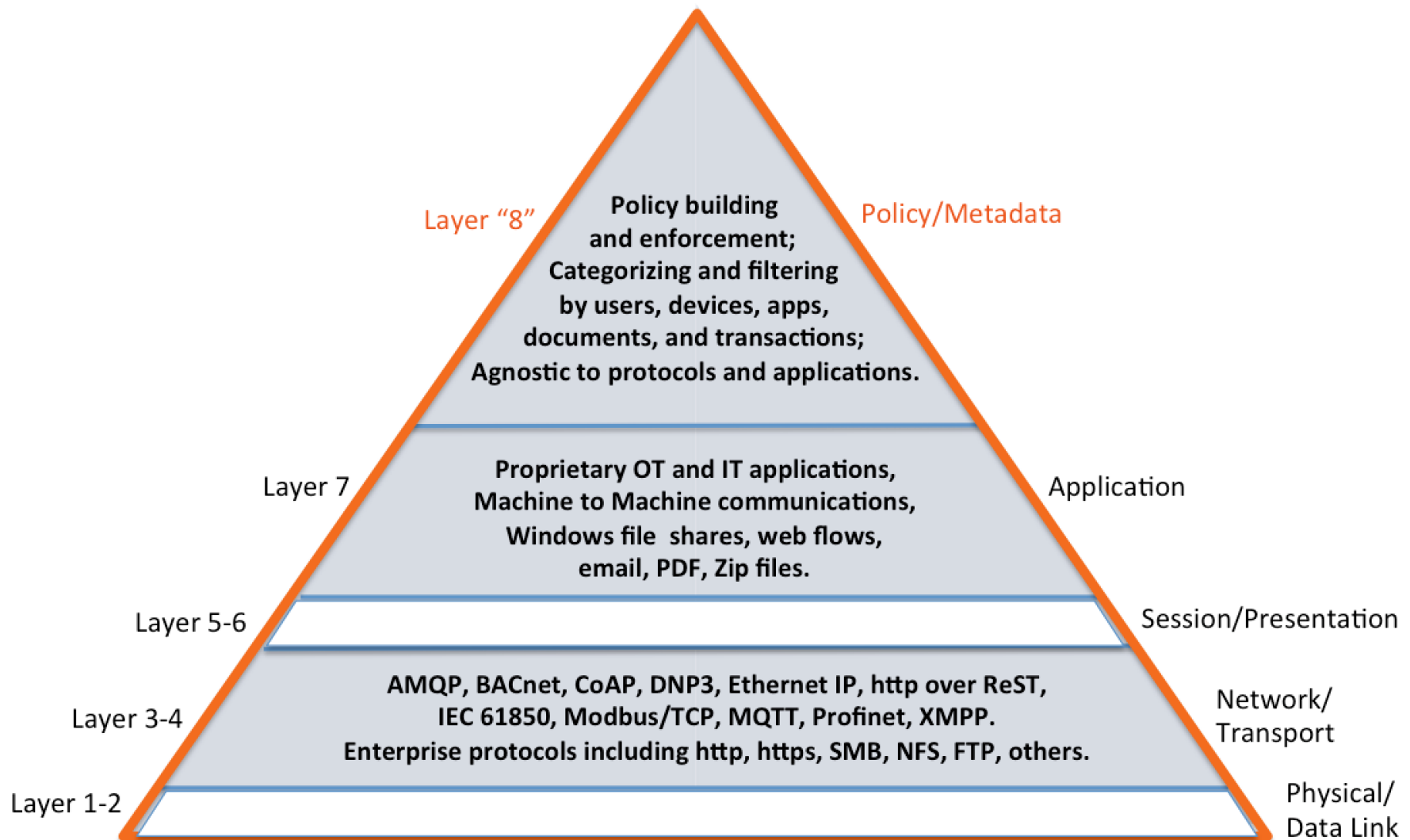
Add User

Addressing Converged Security [1]



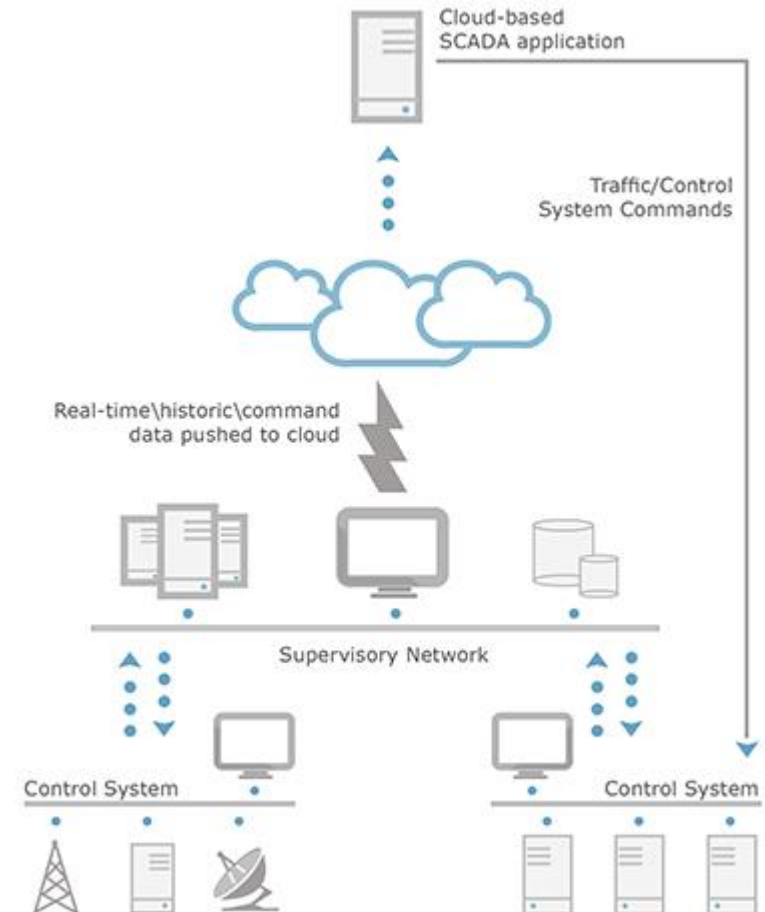
- ## Understanding of OT and what needs to be protected





Addressing Converged Security [4]

- ❖ Cloud-based platforms
- ❖ Cloud Federation
- ❖ Partnerships with service providers
- ❖ Legal and regulatory requirements (data protection, etc)



- ❖ Operations Technology (OT) environment features unique characteristics
- ❖ IT and OT security must be addressed in a converged manner
- ❖ New challenges, new approaches, new capabilities
- ❖ Intracom Telecom is the trusted advisor for the industrial cybersecurity sector
- ❖ Intracom Telecom is the cloud enabler and provider to fulfill IIoT requirements

thank you

For more information, visit
www.intracom-telecom.com



INTRACOM
TELECOM



Follow



Link



Watch