



**UNCUYO**  
UNIVERSIDAD  
NACIONAL DE CUYO



FACULTAD DE  
INGENIERÍA

# **INTRODUCCIÓN A LA TECNOLOGÍA**

**UNIDAD V: Computadoras con otros dispositivos.  
El futuro de la computación**

Dra. Ing. Carolina S. Díaz

# Contenido

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- Computadoras en medicina.
- Computadoras en transporte.
- Computadoras en la industria: robótica, integración de sistemas, industria 4.0
- Computadoras en nuestra vida cotidiana:
  - IoT salud.
  - IoT cities.
  - IoT consumer.
  - IoT industry

# Computadoras en medicina



# Sistemas diagnóstico por Imagen



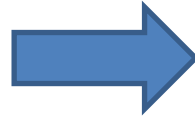
Digitalizar imágenes Rayos X



# Digitalizar imágenes Rayos X



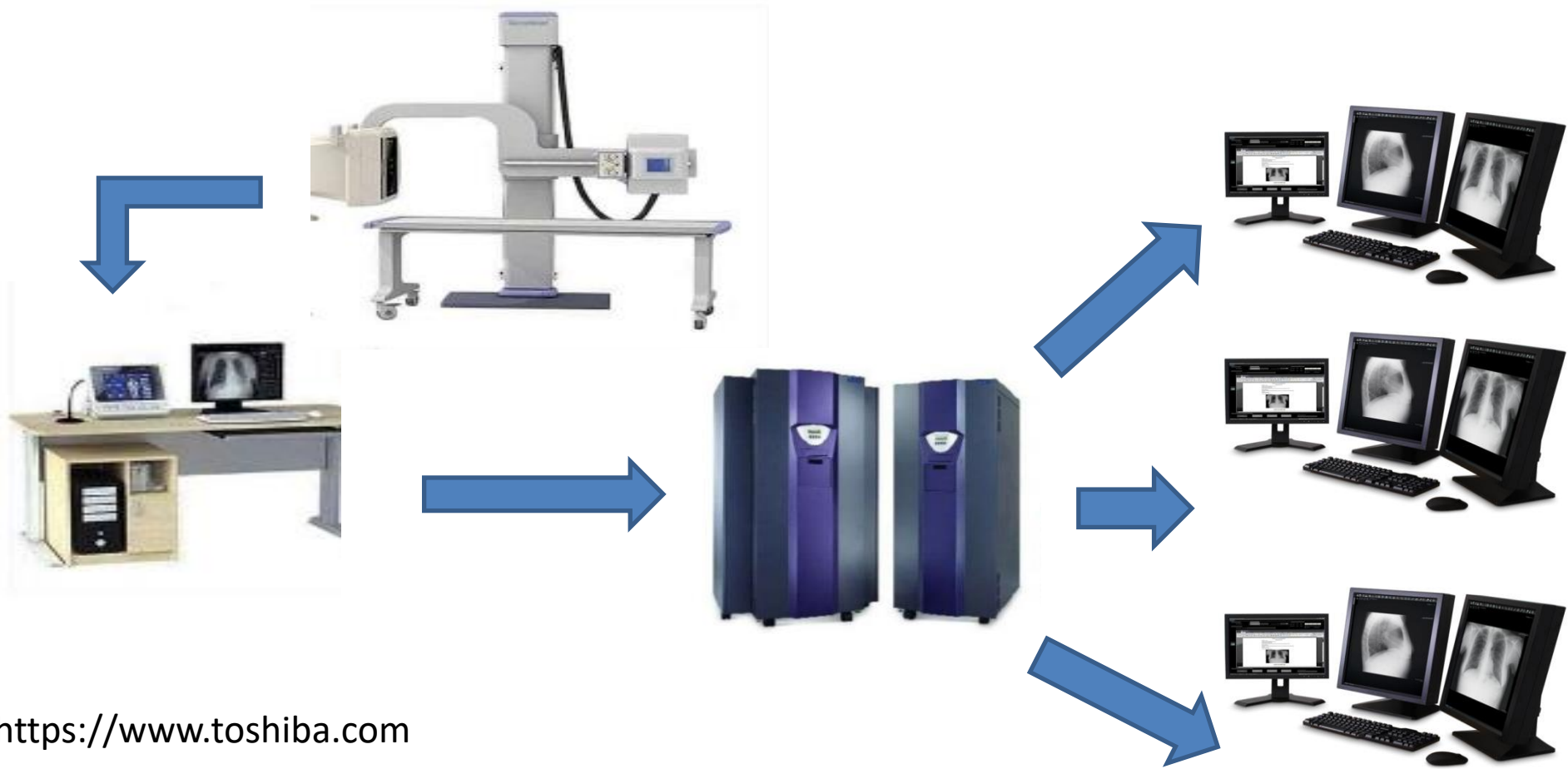
# Detectores Rayos X: analógico vs digital





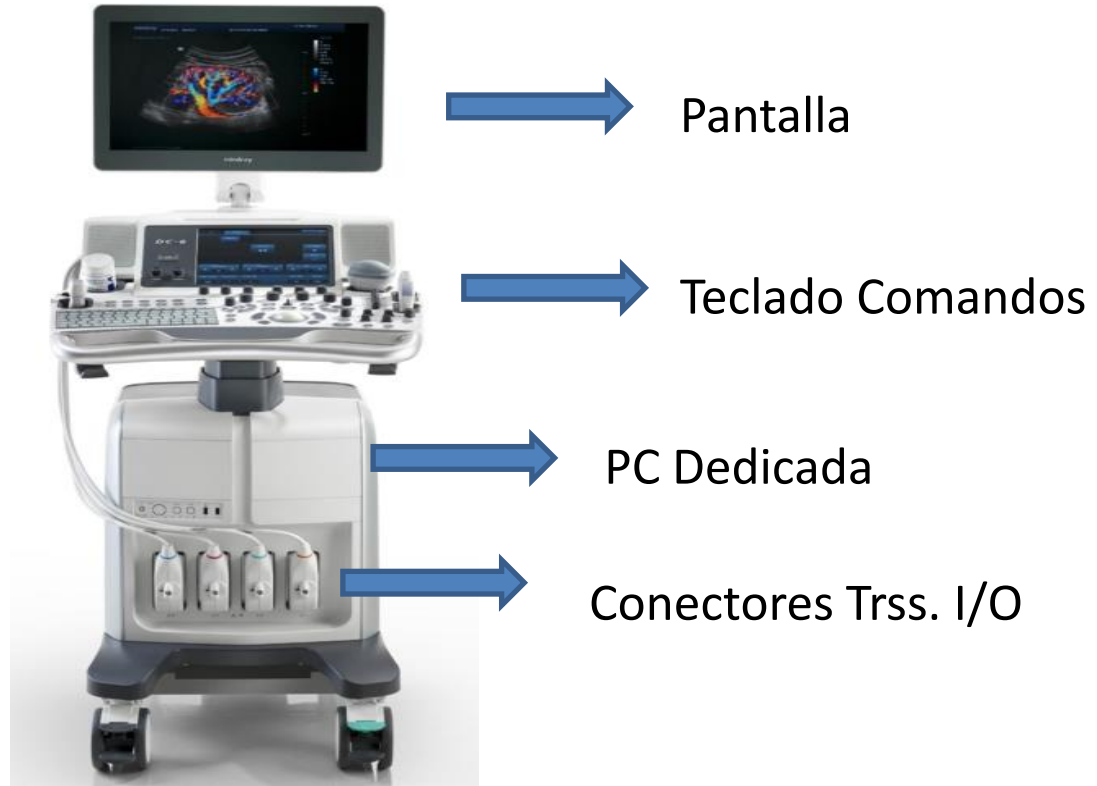
# Sistema digitalizador imágenes médicas



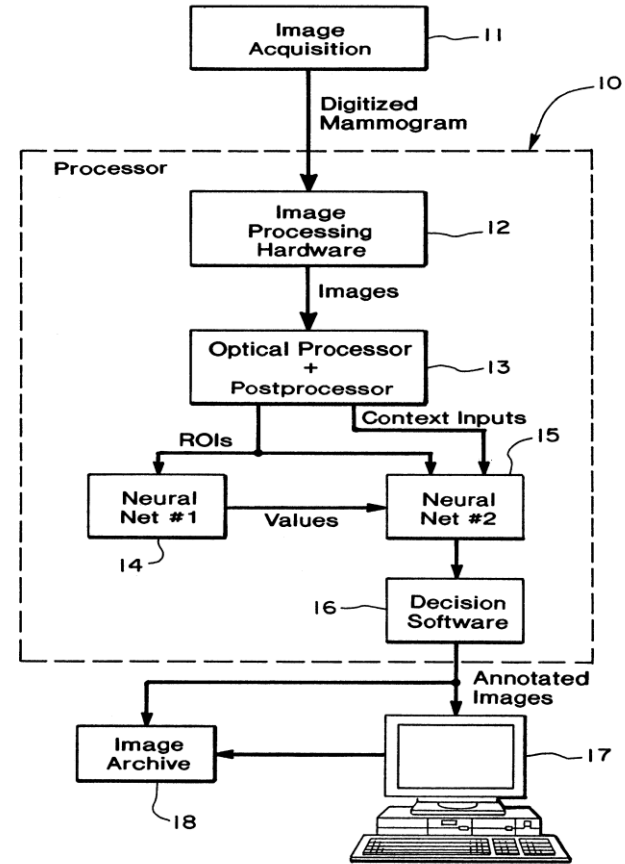




# Ecógrafos



# Mamografía

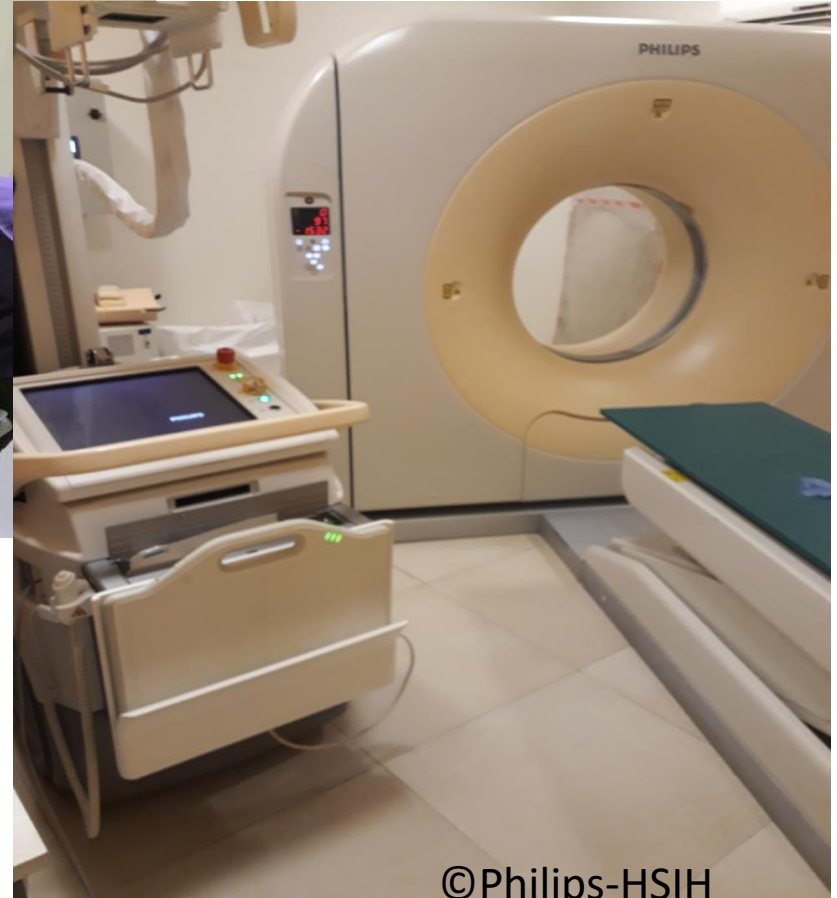


# Sistemas diagnóstico por imagen: Hemodinámica



©Philips-HSIH

# TAC: tomografía computada







4 GPUs  
(Tesla 8-series)

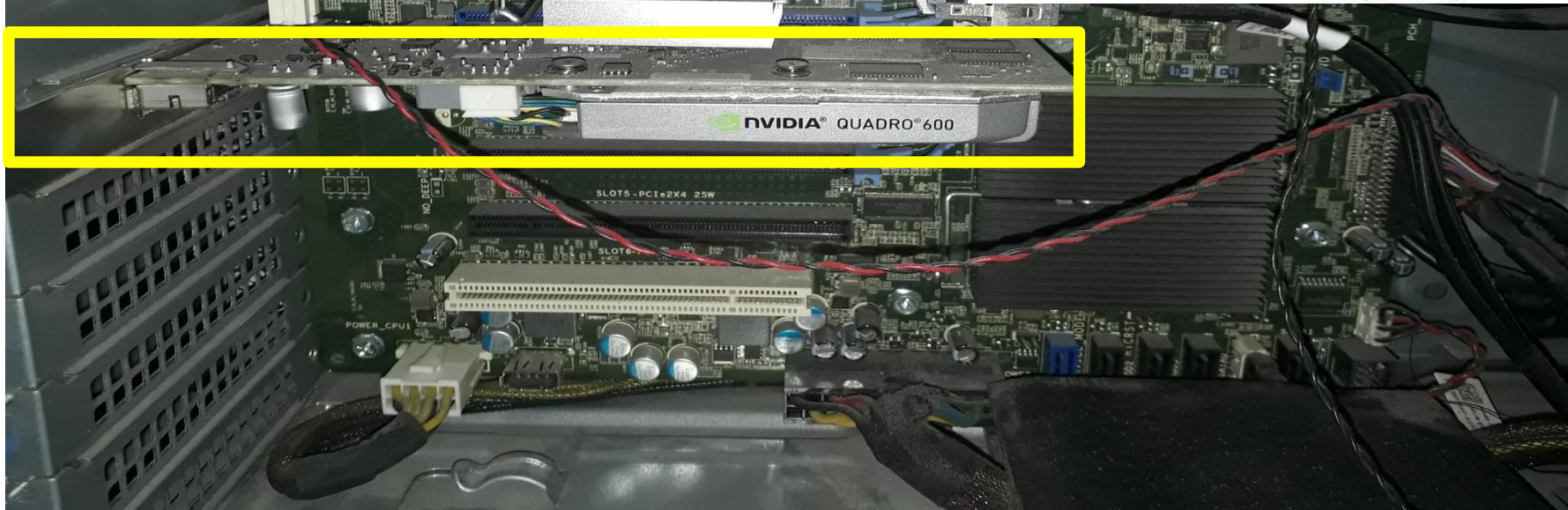
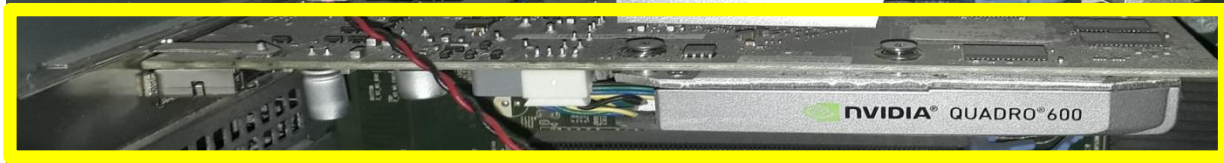
97  
seconds

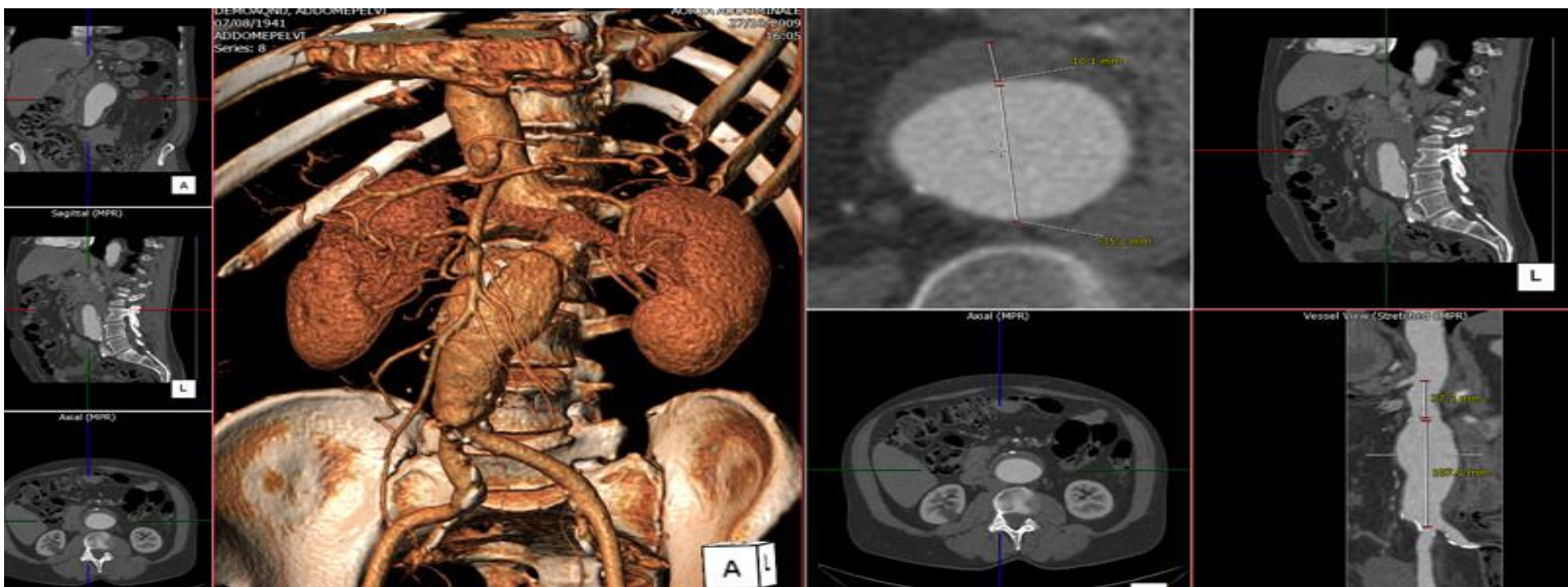
Quad-core Intel Core 2  
Extreme (2.66 GHz)

23.2 mins

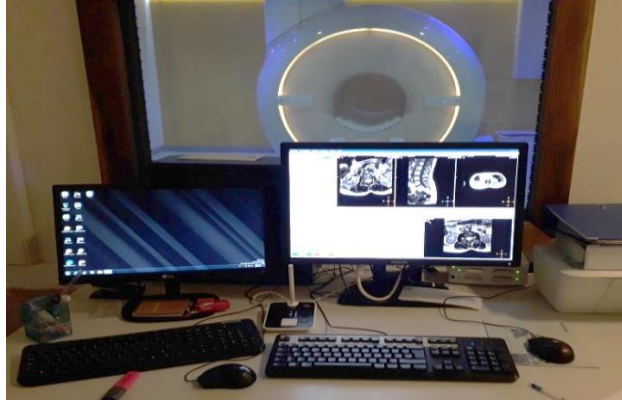
0 5 10 15 20 25

Time (Minutes)





# RM: resonancia magnética



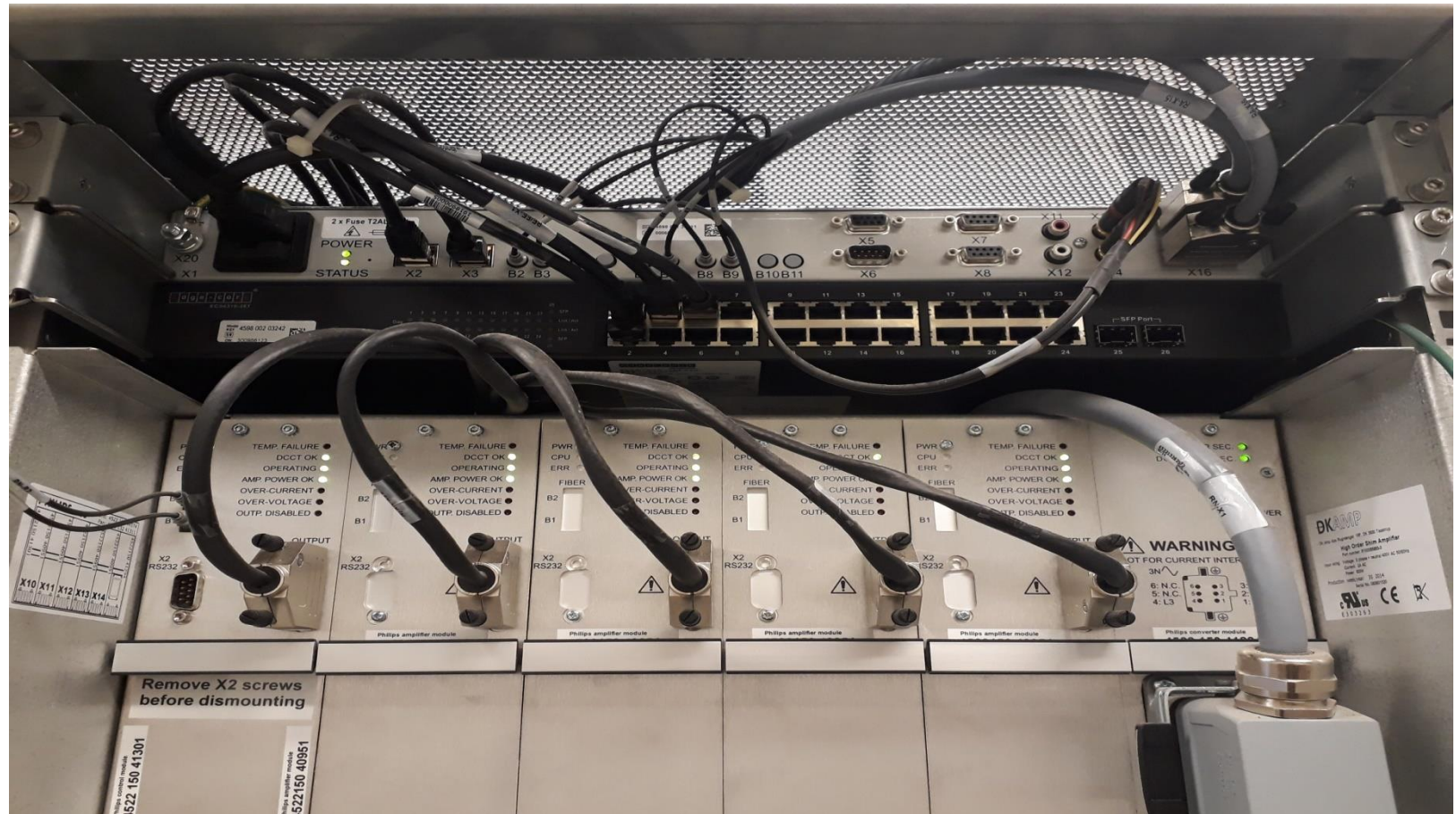
Consola, Reconstructor, CDAS,  
Sistema RF, LCC, etc.

<https://www.philips.com>

©Philips-HSIH







# Otros Sistemas: DaVinci



[http://www.diariodesevilla.es/salud/futuro-inmediato\\_0\\_1183682135.html](http://www.diariodesevilla.es/salud/futuro-inmediato_0_1183682135.html)

# Otros Sistemas: ROSA



Video: Rosa Neuronavegador

# Otros Sistemas Redes Hospitalarias



BOX 1



BOX 2



BOX 3

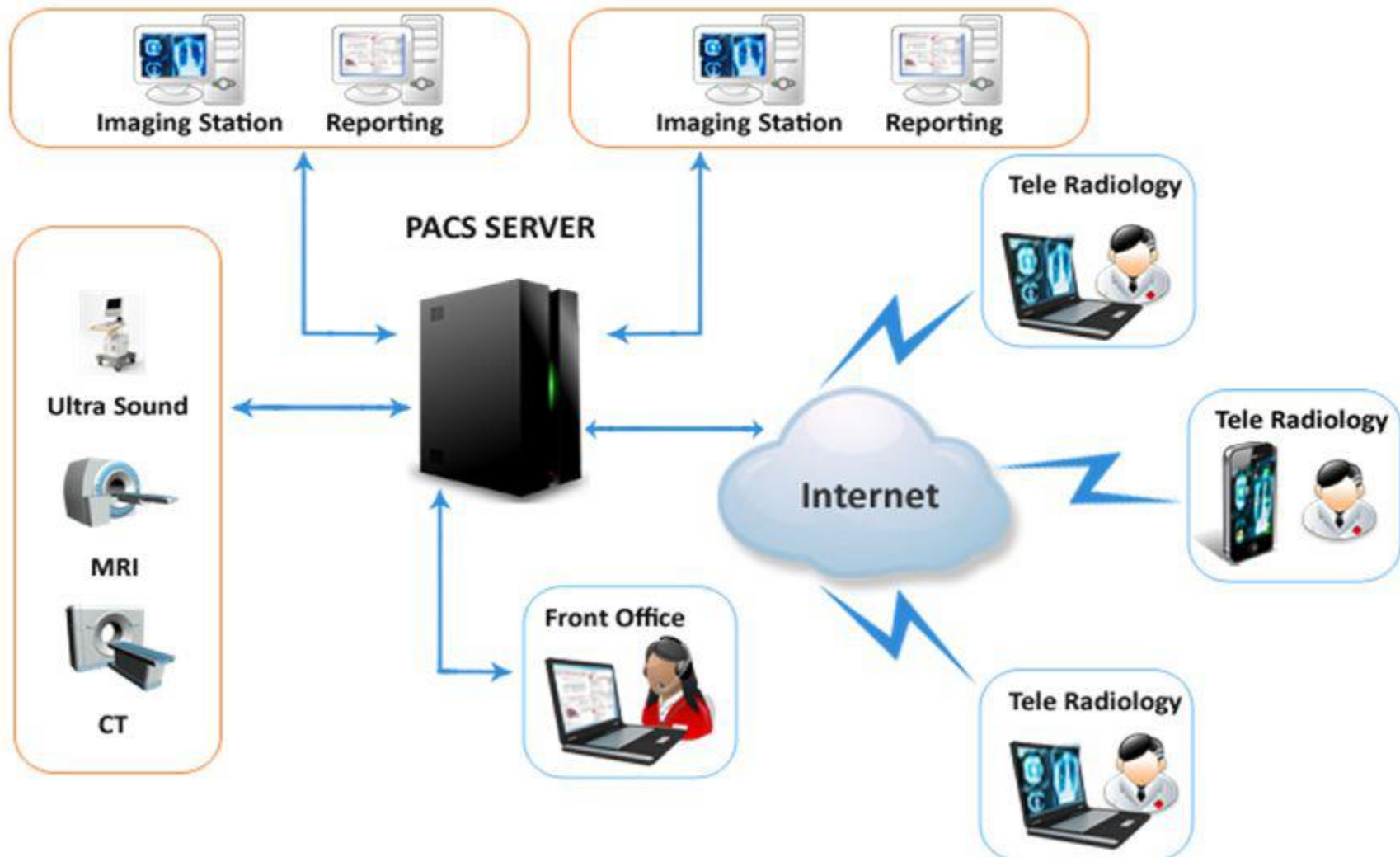


CENTRAL

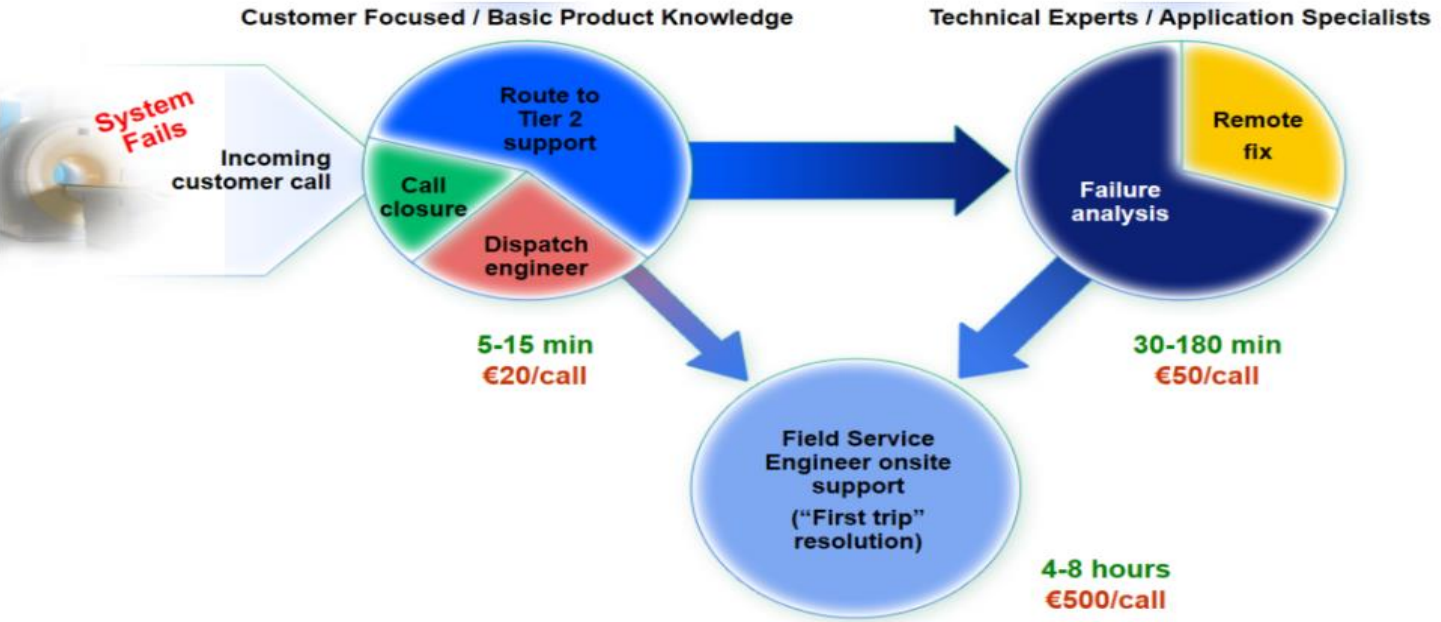
# Integración

Caso práctico: Hospital Santa Isabel de Hungría





# Remote Service RSN

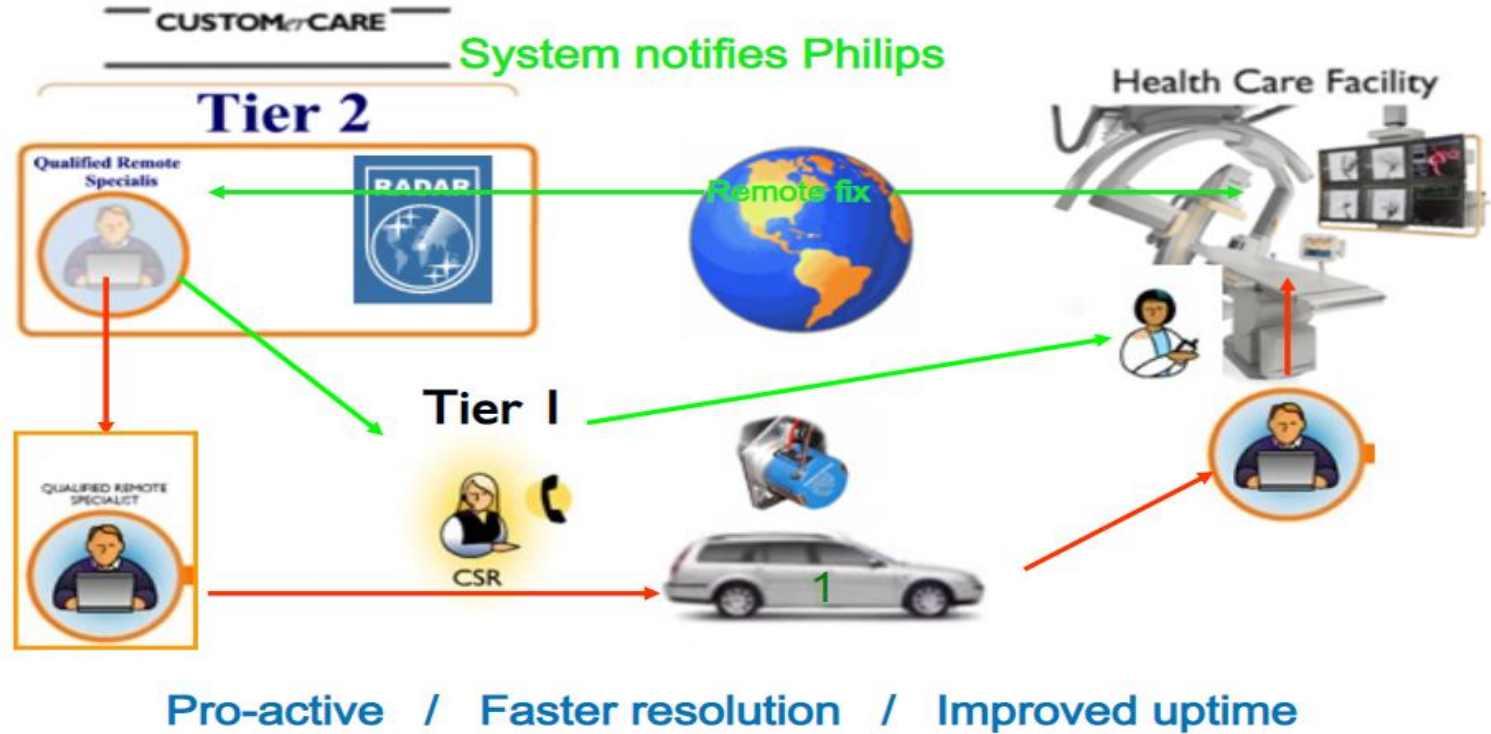


Traditional Service Model ©PHILIPS



# Remote Service RSN





Remote Service Implementation ©PHILIPS

Radars 2.2.5

- Home
- Site Overview
- System Info
- Search
- Downloads
- Notification
- Help

Filter Off

Locations

- All
- APAC
- EMEA
- LATAM
- NA



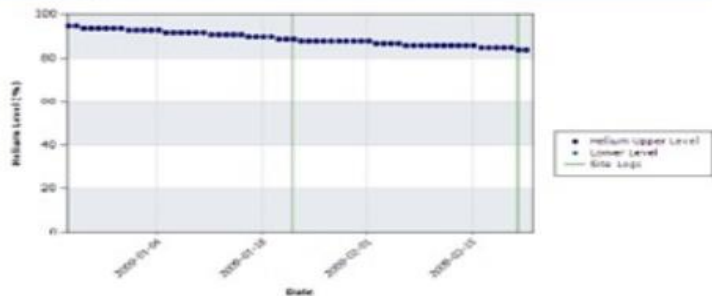
Choose your preference:

- Connectivity and Defects

Severity Overview

Location	System	Severity	Log Date	Hours Ago	Type
Philips - Training-Emea - THE NETHERLANDS - Best - ITF Imaging - CV Xray	CV_QA_System_Pagode	<span style="background-color: orange;"> </span>	2009-02-2074		Allura XPer FD10
Philips - Training-APAC - SINGAPORE - Singapore - PMS Academy - Singapore Learning Center	CV_693038_PLB40	<span style="background-color: orange;"> </span>	2009-02-2077		Allura XPer FD20
Philips - Training-Emea - THE NETHERLANDS - Best - ITF Imaging - CV Xray	CV_1321a_QA_VV3	<span style="background-color: yellow;"> </span>	2009-02-2078		Allura XPer FD20
Philips - Training-Emea - THE NETHERLANDS - Best - ITF Imaging - CV Xray	CV_1326e_QA_VV13	<span style="background-color: orange;"> </span>	2009-02-2078		Allura XPer FD20
Philips - Training-Emea - THE NETHERLANDS - Best - OXB_NPI	CV_QL1_System-Box-101	<span style="background-color: orange;"> </span>	2009-02-18120		Allura XPer FD10/10
Philips - Training-NA - UNITED STATES - Ohio - Cleveland - PMS Training Center Cleveland	CV_Lab3_AlluraFD10	<span style="background-color: orange;"> </span>	2009-02-18124		Allura XPer FD10
Philips - Training-APAC - SINGAPORE - Singapore - PMS Academy - Singapore Learning Center	CV_691778_xtravision5-1	<span style="background-color: green;"> </span>	2009-02-18125		XtraVision XtraVision
Philips - Training-APAC - SINGAPORE - Singapore - PMS Academy - Singapore Learning Center	CV_000037_PBL30	<span style="background-color: orange;"> </span>	2009-02-17146		Allura XPer FD10
Philips - Training-Emea - THE NETHERLANDS - Best - ITF Imaging - CV Xray	CV_1326c_QA_VV6	<span style="background-color: orange;"> </span>	2009-02-17151		Allura XPer FD20

## Helium Level (%)



## Boil Off (liters/hour)

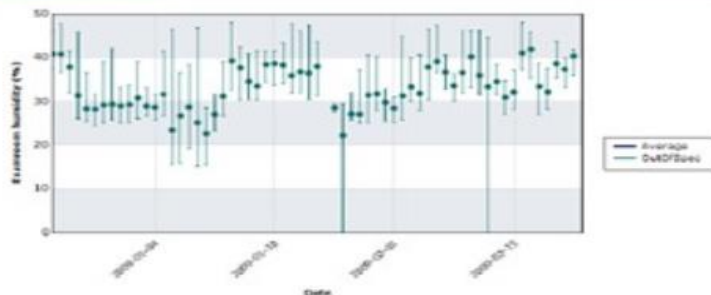


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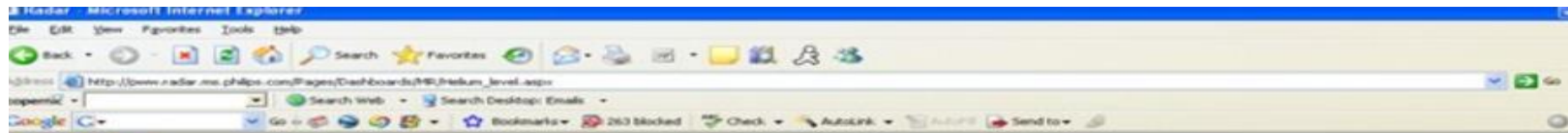
## Examroom Temperature (°C)



## Examroom Humidity (%)



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**PHILIPS**

global home site-finder yellow pages telephone search

**Radar**

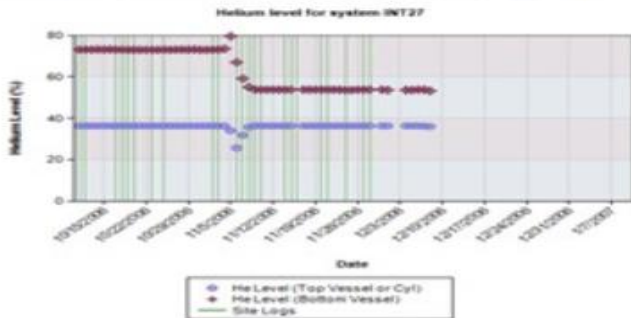
Home Site Selection **Status overview** System info Downloads Email Service Help

system INT27 selected

## Hellum level and boil off for site INT27

Select time period from: 10/10/2006 to: 1/10/2007

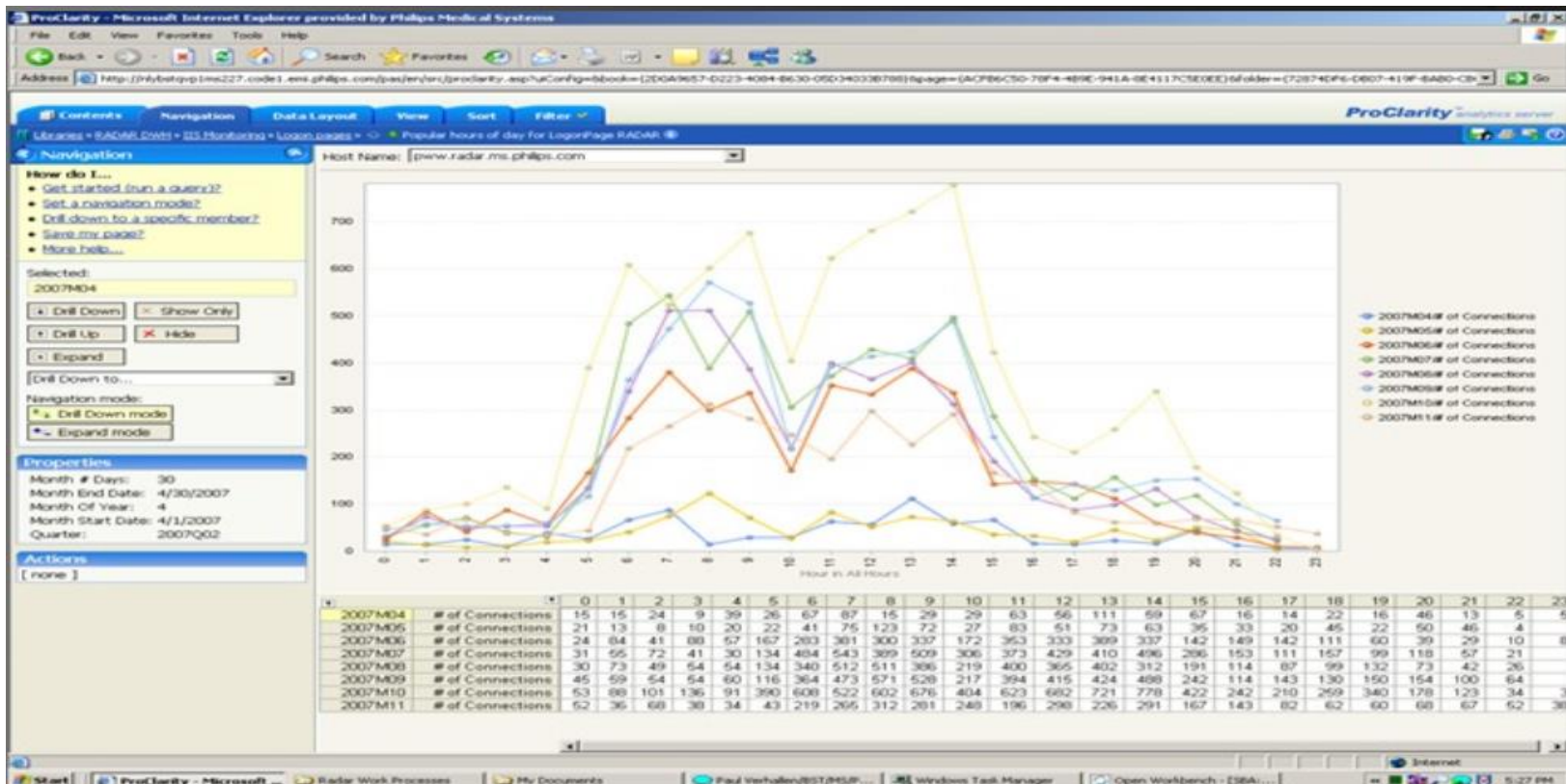
Gray values indicate that the value is more than two days older than the selected date.



No Hellum Boil off data available

Site logs for selected time period:

Access Date	User name	General Remark	Access Type
11/26/2006	Erin Meyer	a	local
11/27/2006	ing		remote
11/24/2006	mark umstam	Verification ceiling: operator connection to prevent local RF resonances	local
11/21/2006	a	a	local
11/20/2006	roger	testing	local
11/20/2006	gff		remote
11/16/2006	a	a	local
11/14/2006	a	a	local
11/14/2006	dfs	Full	local
11/15/2006	asa	at	local
11/14/2006	ee-9a	del	local
11/10/2006	FG		local
11/09/2006	g		local
11/08/2006	teyt	teyt	local
11/07/2006	gh	ghh	local
11/07/2006	g		local

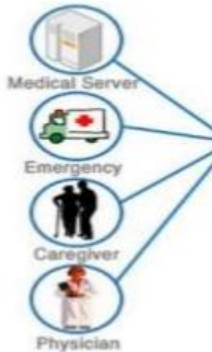


# IoT en Salud

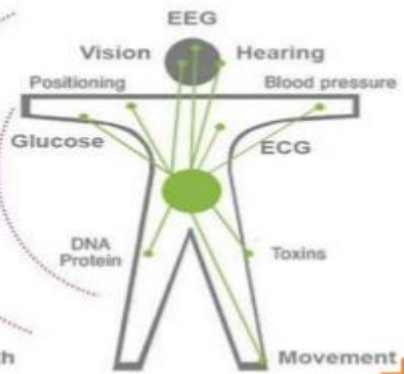


## CONNECTED HUMAN

### Connected Healthcare



### Body Area Network



# Computadoras en transporte









# IoT en Transporte



# Computadoras en la industria



## ◀ NIFE 103

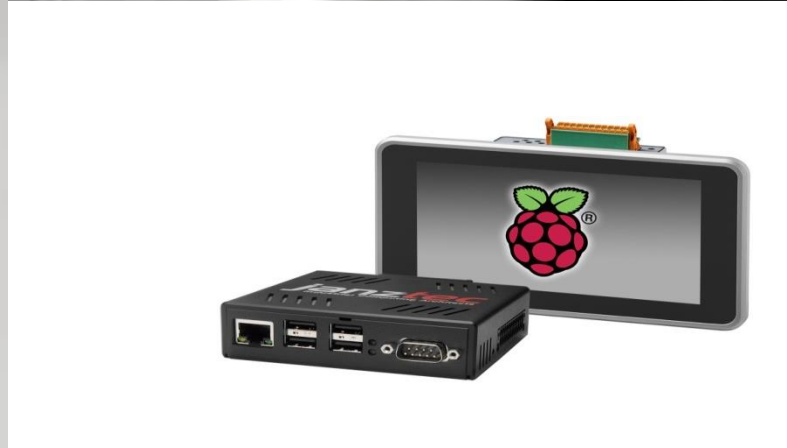
PC-Based Controller Powered by Dual Core Intel



# Robótica en la industria







# Industria 4.0

## INDUSTRY 4.0

Automation 

IOT 

System integration 

 Connection

 Big Data

 Cloud computing





- Empty label
- Favourites
  - Weld robot 1
  - Home
  - Duchon Assembly
  - Anterby Casting
  - Revington Service
  - Albany Assembly
  - Sameton Molding
  - Stockerton Assembly
  - Weld robots
    - Weld robot 1
    - Weld robot 2
    - Weld robot 3
    - Weld robot 4
  - Top Assembly
  - Bottom Assembly

### Weld Robot 1 (Online)

Dashboard Events Data Viewer Diagnostics About

#### ROBOT OVERVIEW

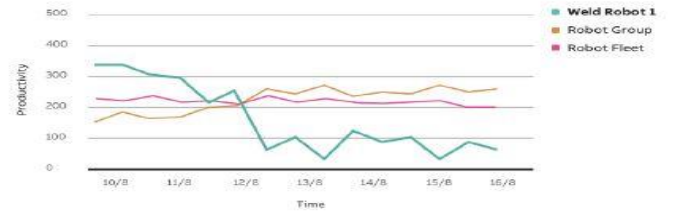


**Connection:** Connected  
**Operation mode:** Manual full speed  
**Controller state:** MotorsOff  
**Program execution:** Stopped  
**Serial number:** 193SE2U883  
**Robotware version:** 6.05.0542  
**Next service:** 04.01.2019

#### EVENT ANOMALY SCORE



#### PRODUCTIVITY INDEX



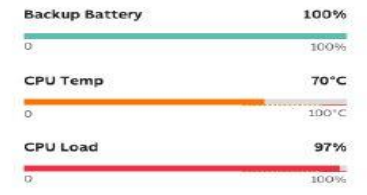
#### ACTIVE ALARMS

TIME	PRIO	ID	TITLE
17:12:45	P2	203.01	Motor failure detected
15:39:12	P2	3.53	Axis failsafe gaurd activated
hh:mm	P1	000	Event titel
hh:mm	P1	000	Event titel
hh:mm	P1	000	Event titel
dd/mm	P1	000	Event titel
dd/mm	P1	000	Event titel
dd/mm	P1	000	Event titel
dd/mm	P1	000	Event titel
dd/mm	P1	000	Event titel

#### ROBOT PRODUCTIVITY



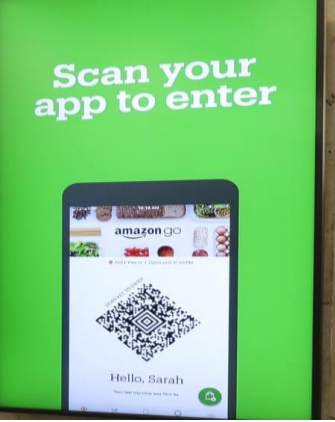
#### DIAGNOSTIC RESULTS



#### BACKUP STATUS

- 2019/09/19 - 19:32:05 Completed
- 2019/09/18 - 19:31:07 Completed
- 2019/09/17 - 19:32:23 Failed

# Computadoras en nuestra vida cotidiana



Log in

Community

Catalog

About

Home

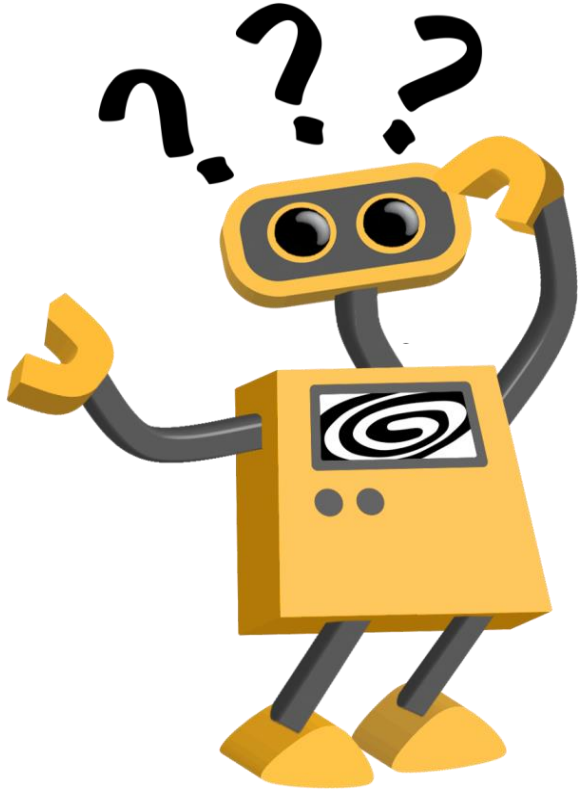


# Online Food Delivery 24/7

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.



Get started



Muchas gracias

Preguntas??