

GMS

GeoSIG Measuring System



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Introduction

GeoSIG Measuring System, GMS



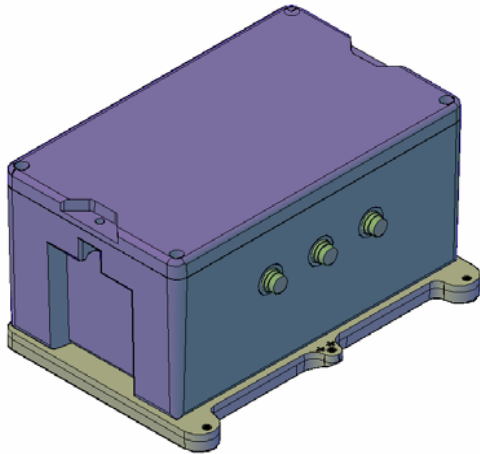
Major Features

GeoSIG Measuring System, GMS

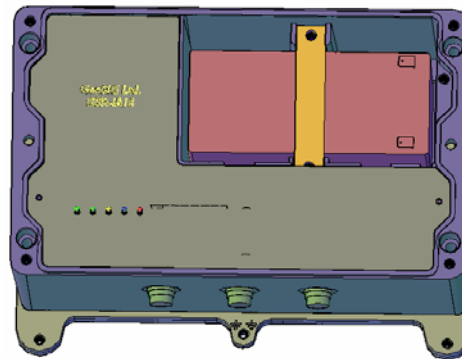
- ❑ Internet Enabled, Wireless Ready, Multifunctional 24 Bit Measuring System
- ❑ Latest Technology with Linux based Operating System
- ❑ On Board Processing and Evaluation Capabilities
- ❑ Timing via NTP (Network Time Protocol), GPS or 433 MHz Wi-Synch
- ❑ Enhanced Connectivity Options for GSM, GPRS, Satellite, Radio Telemetry or Landline Modem, Wired/Wireless Network
- ❑ Ring Buffer Continuous Recording
- ❑ Data Stream Output, Network Triggering
- ❑ Rugged, Water Resistant Cast Aluminum Housing
- ❑ Levelling Base Plate for easy installation and Replacement



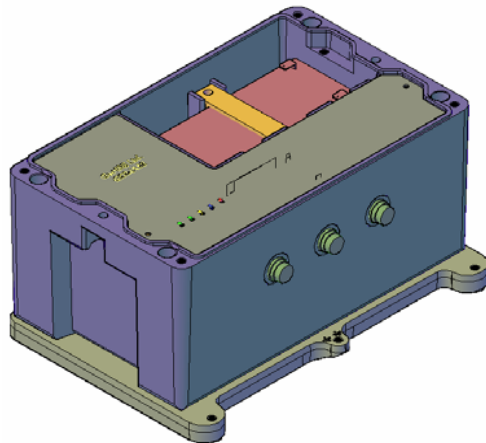
Mechanical Design



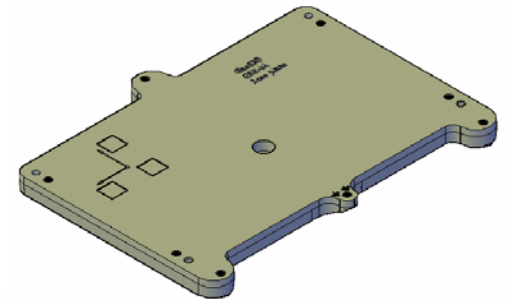
Innovative Cover



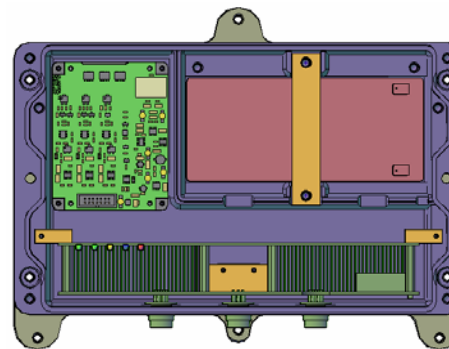
Innovative Battery Compartment



Innovative Housing Shape

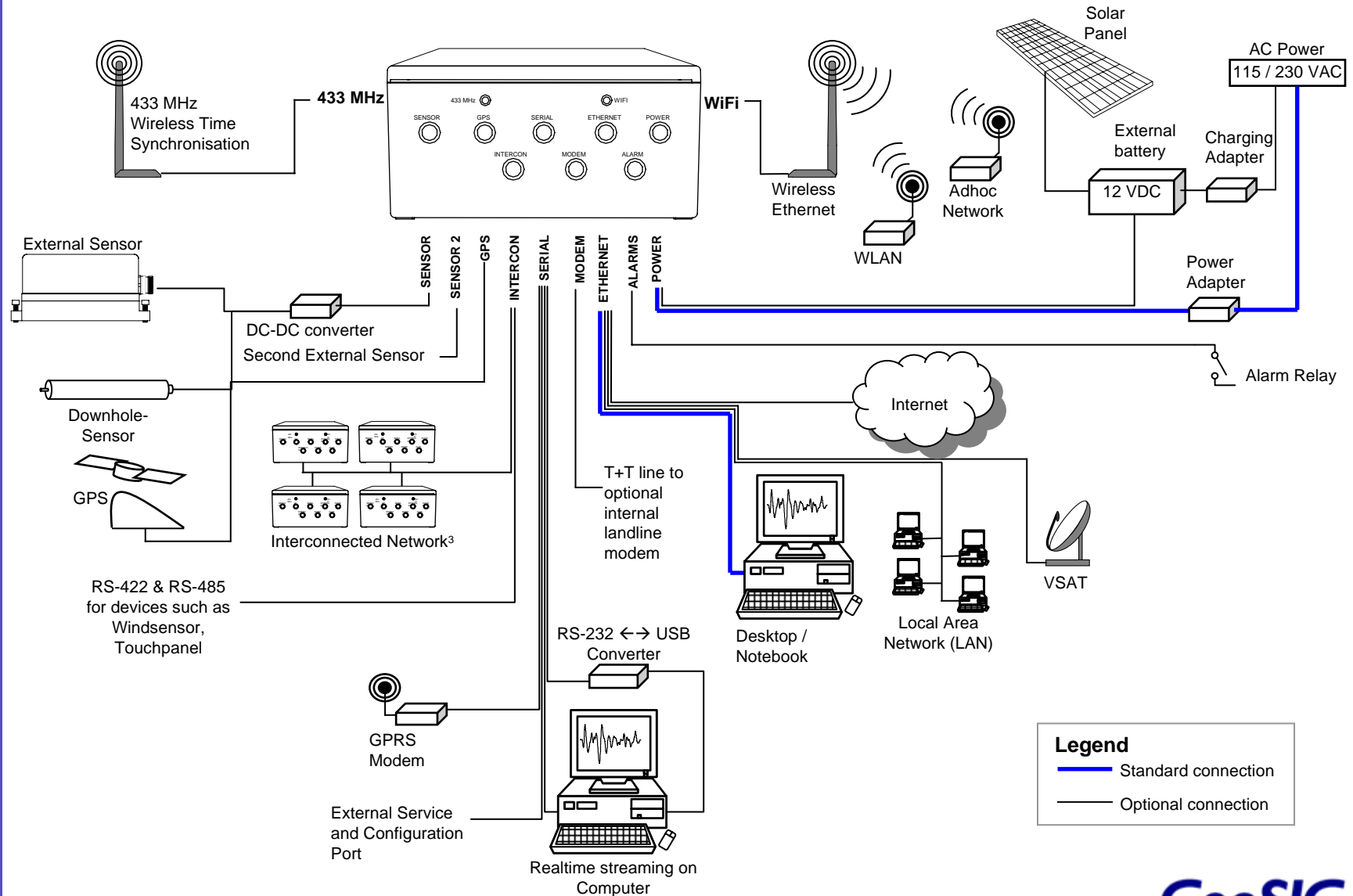


Innovative Baseplate



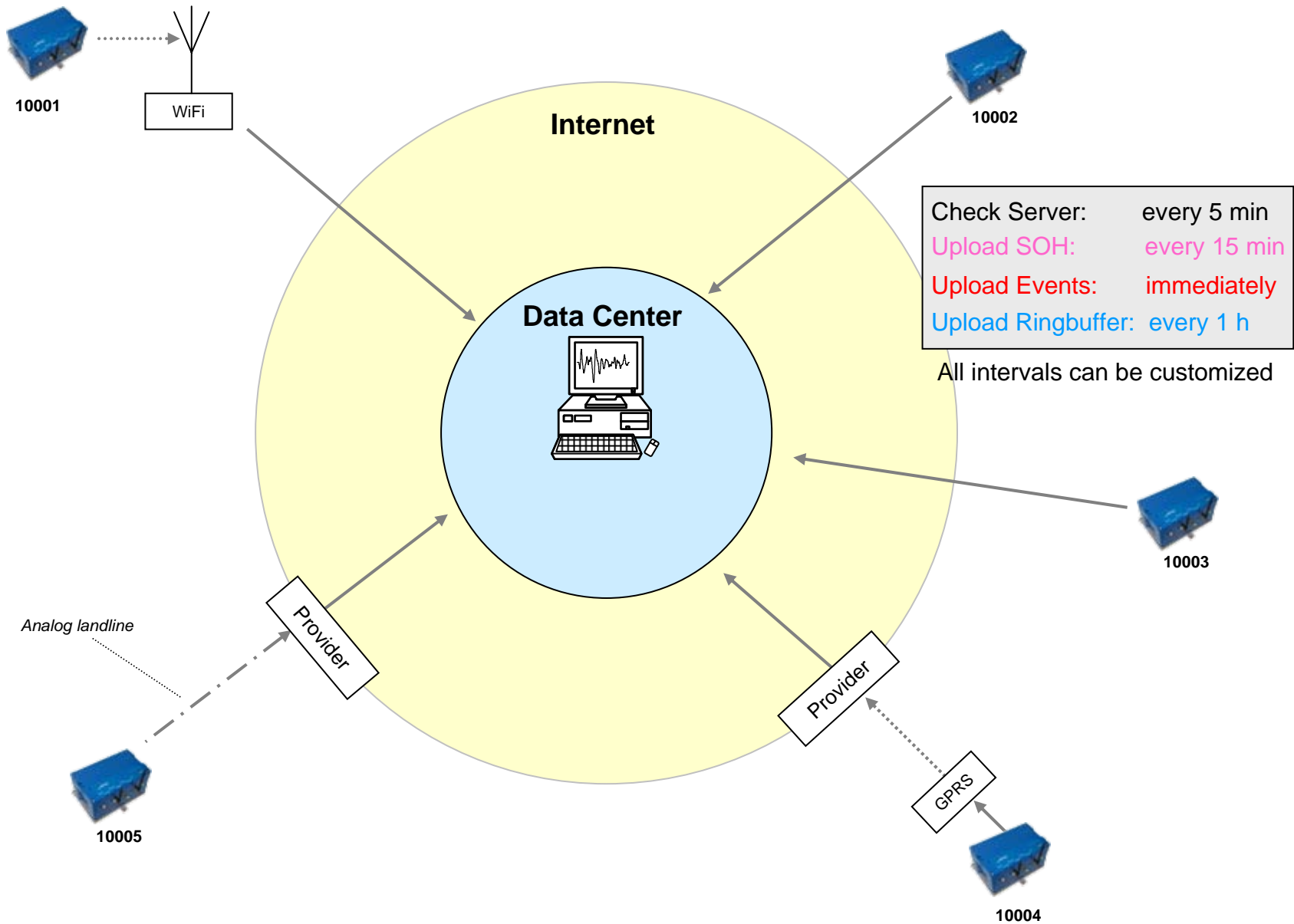
Innovative Internal Sections

Connectivity Options

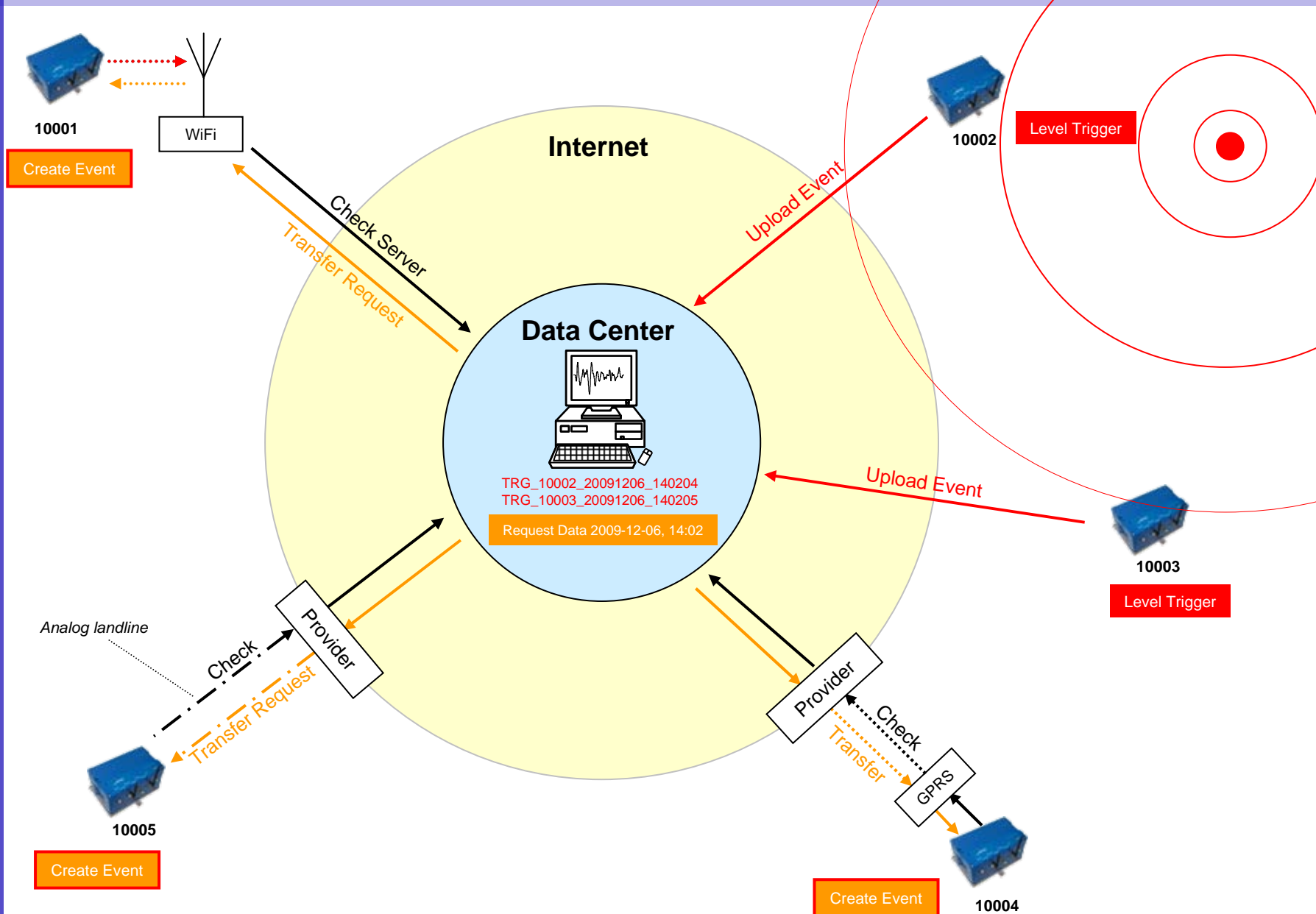


Legend
 — Standard connection
 — Optional connection

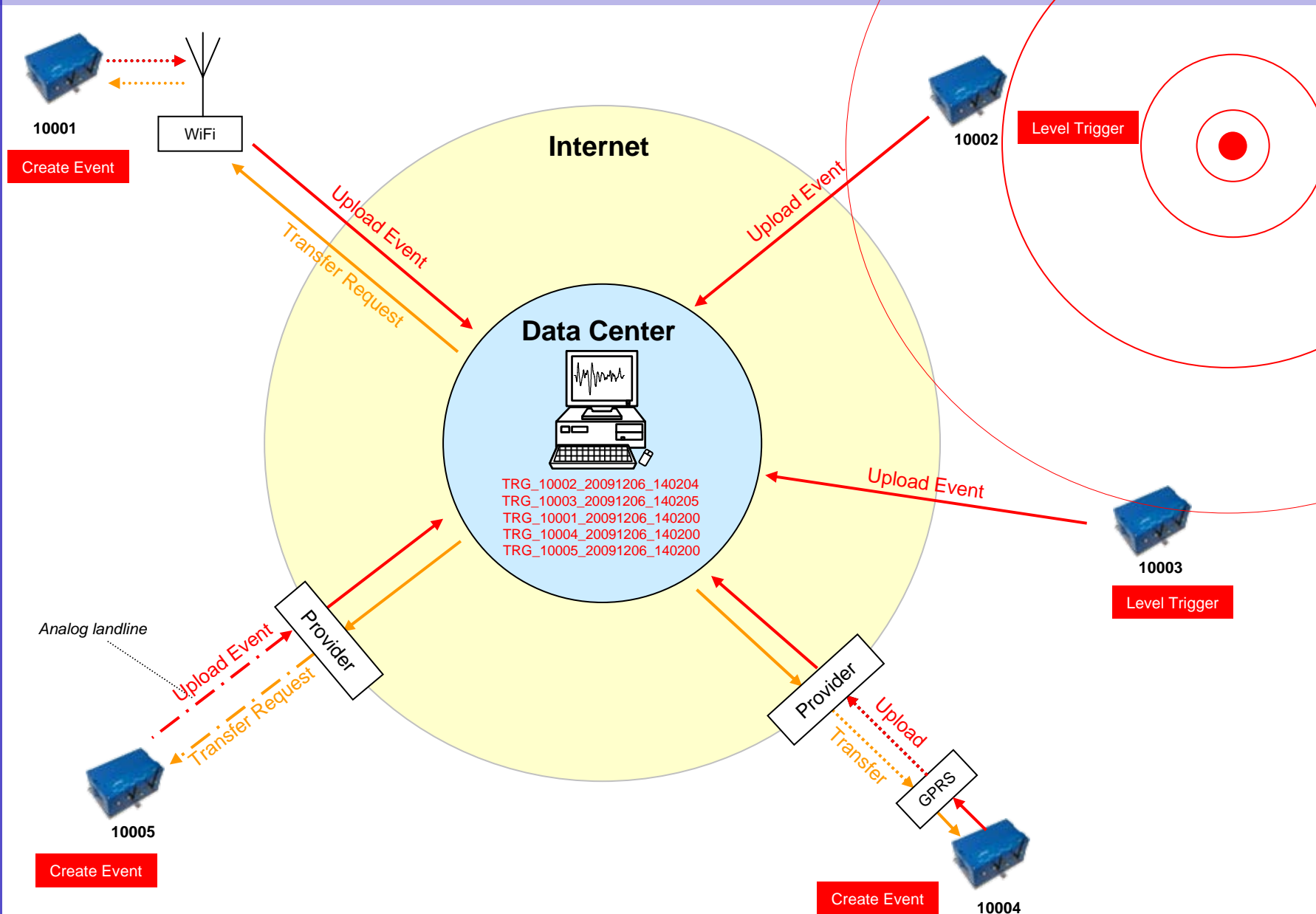
Application – Communication



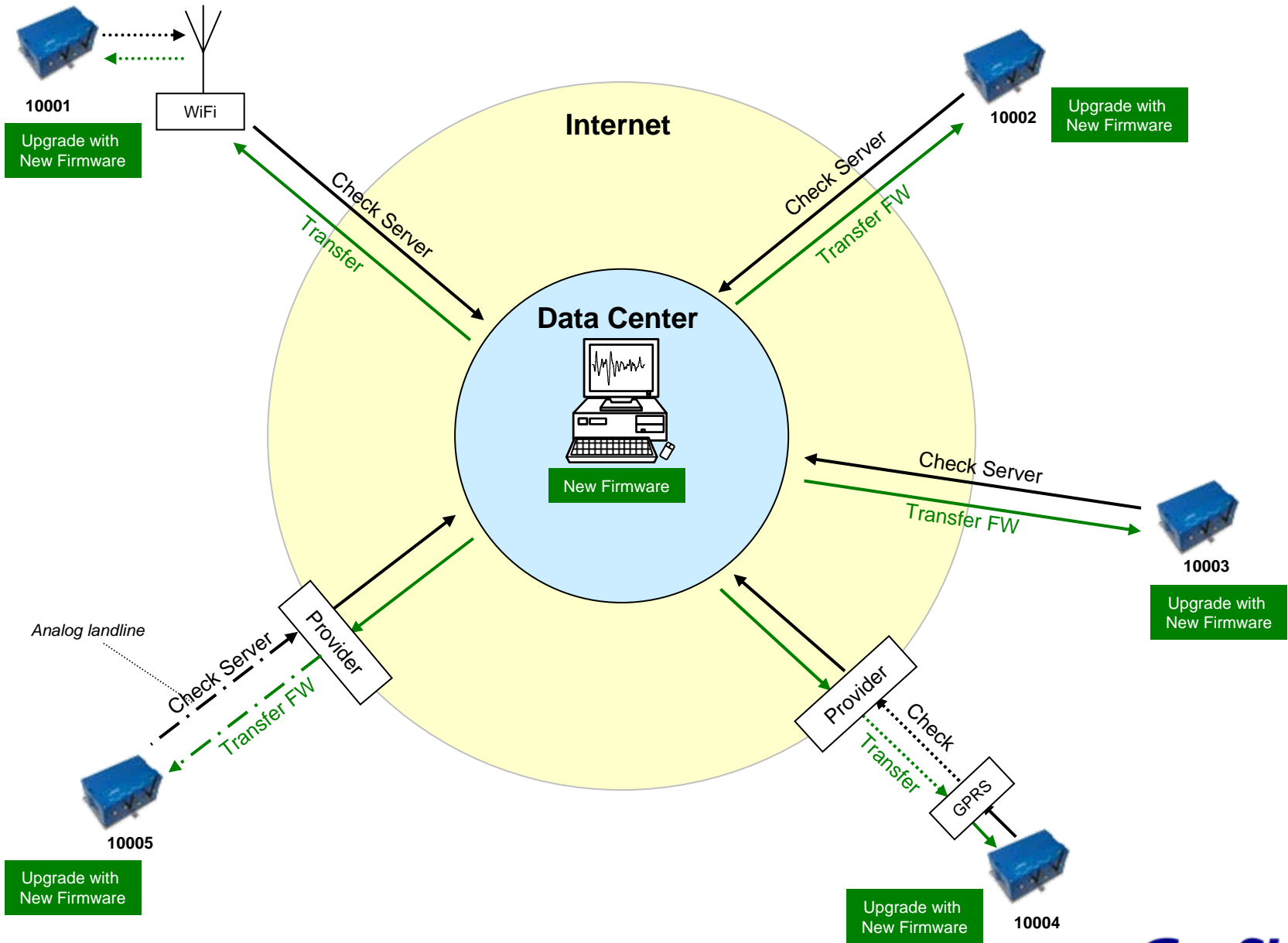
Application – Normal Operation Event



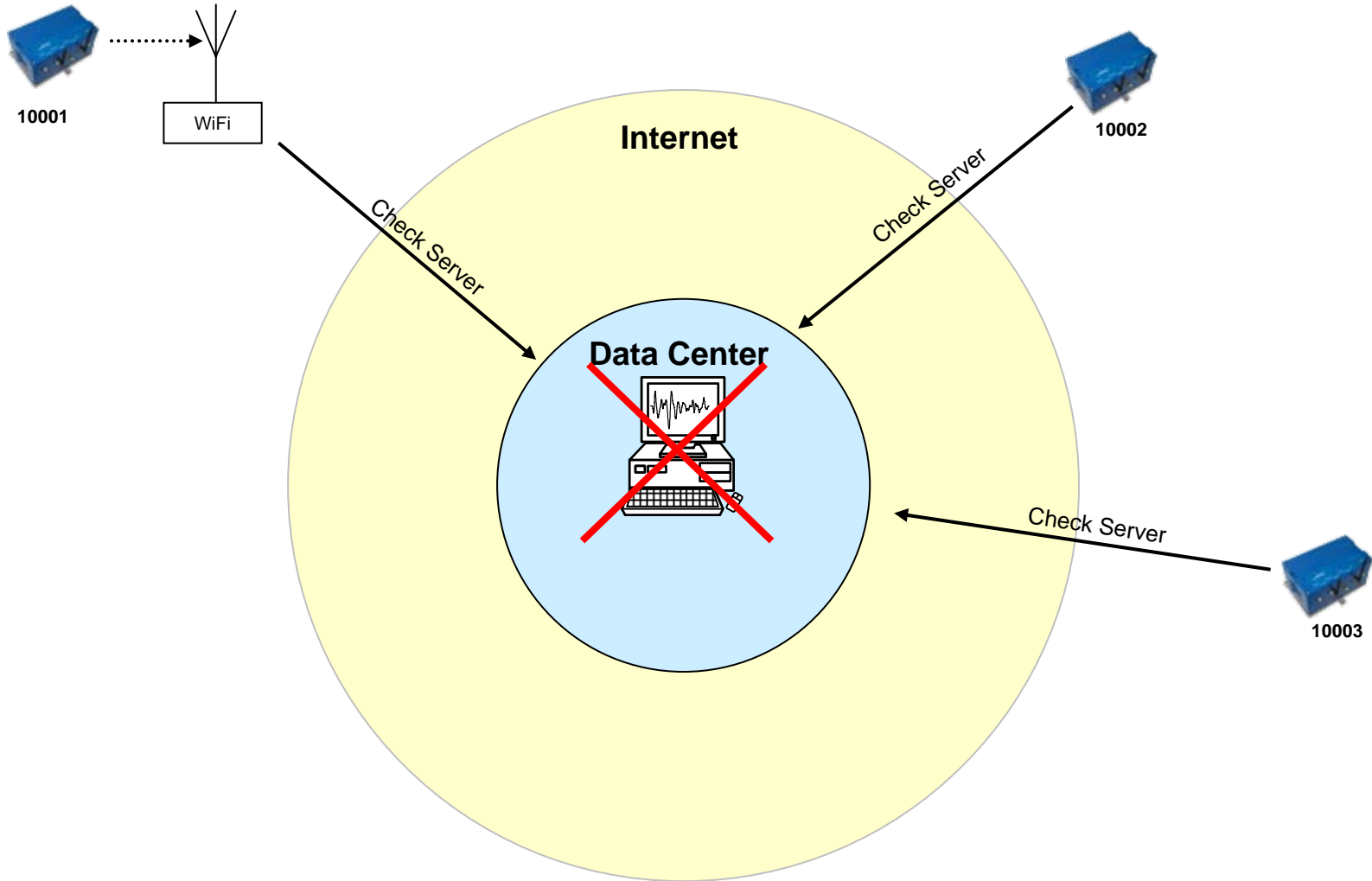
Application – Normal Operation Event



Application – Firmware Upgrade



Application – Recovery / Support

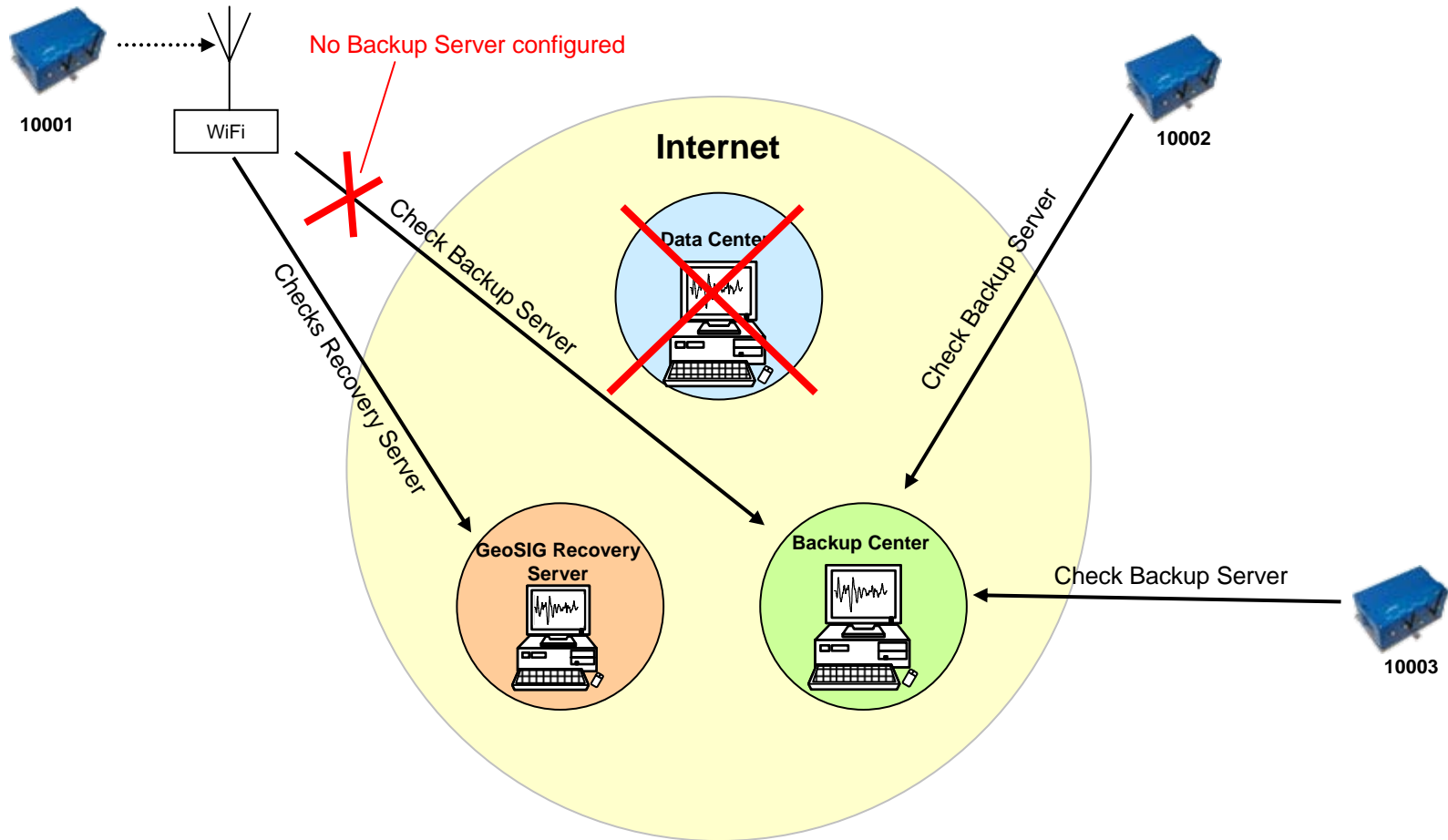


What to do in case...

... Data Center is down or

... A Configuration with a wrong Server address has been sent?

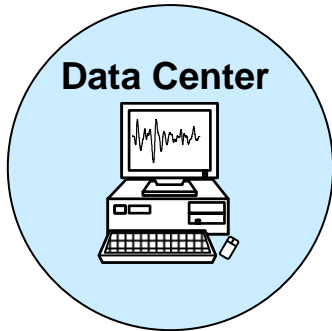
Application – Recovery / Support



If there is no connection for 24 h to the Main Server
→ Instrument checks Backup Server (Configured in Bootloader)
If there is no connection to the Backup Server too
→ Instrument checks Recovery Server (Hard coded)

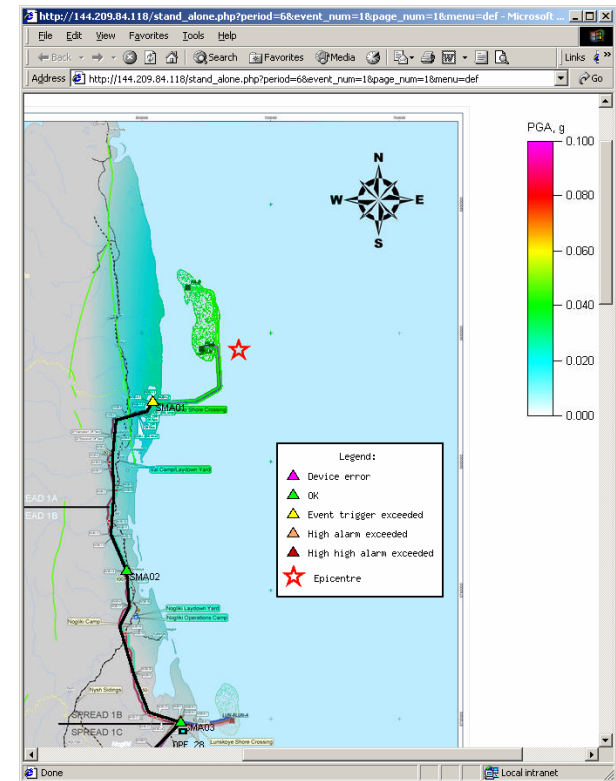
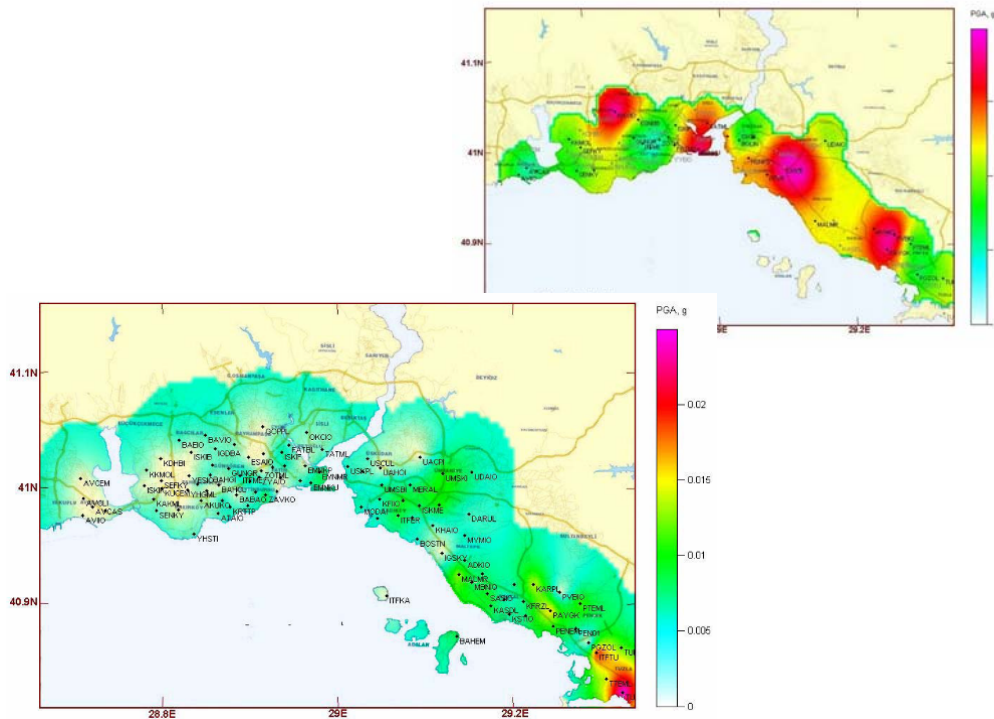
No Data will be uploaded to Backup or Recovery Server
To recover of instrument/configuration only

Application – Shakemap

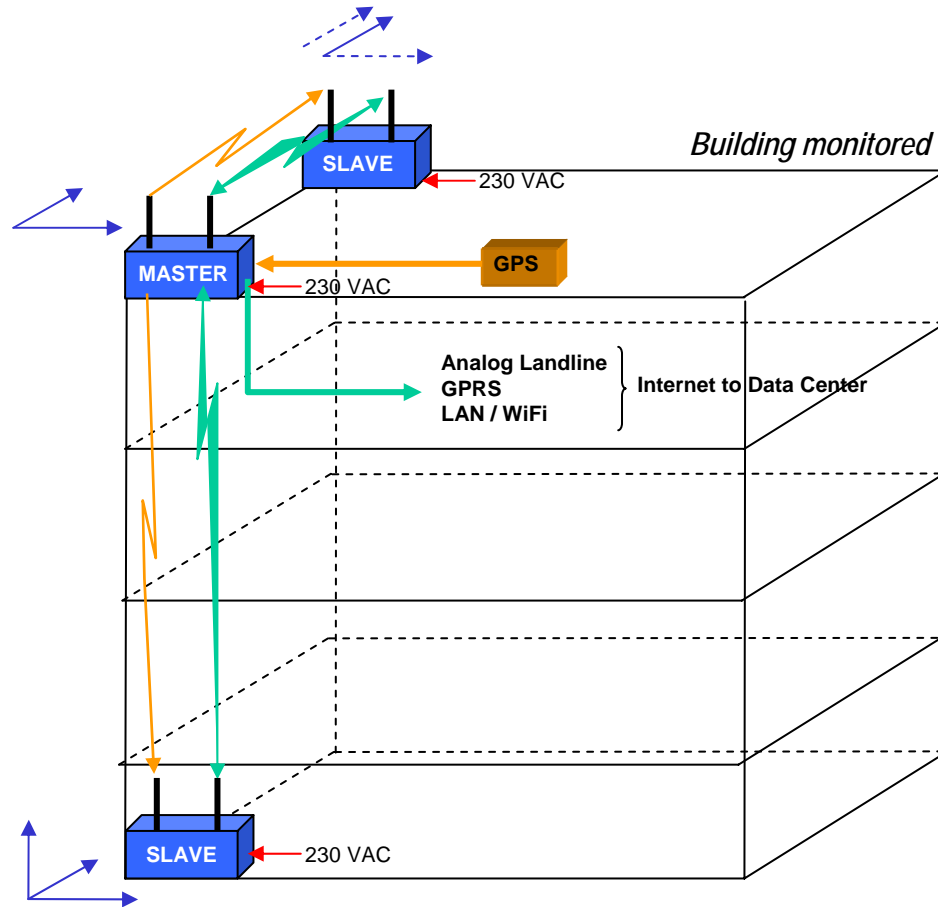


Creation of Shakemaps

- Created with the measured data from the stations
- Improved by Epicenter Data from USGS Public Server
- Further improved by Shakemap from USGS Public Server



Innovation – Structural Health Monitoring

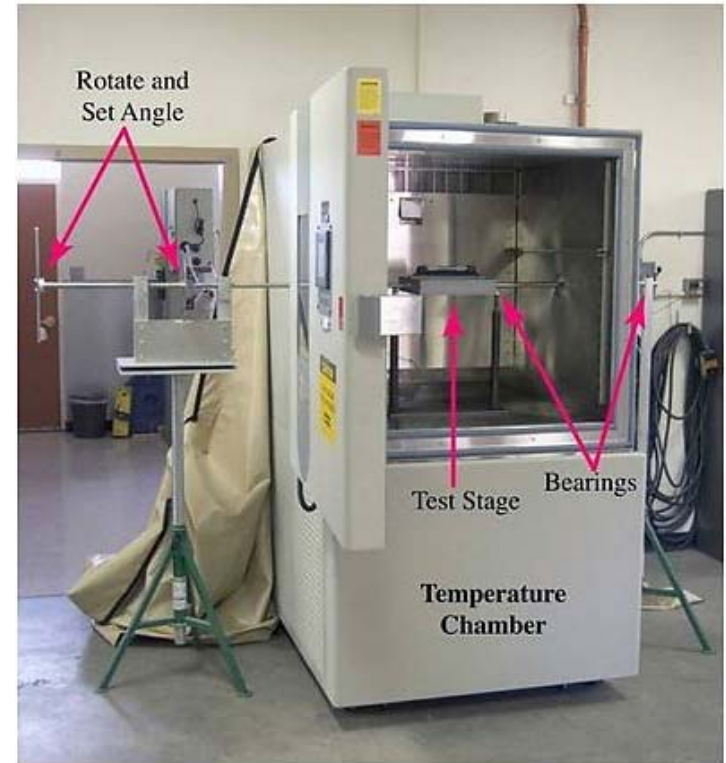


Wireless 433 MHz Synchronisation
- Time Synchronisation
- Source: NTP or GPS

(Wireless) Ethernet Link (LAN/ WLAN):
- Data Transfer to Master
- Firmware / Config Upgrades
- Network Trigger

- Wireless Time Synchronisation and Data Communication
- No cabling between the Stations: Very fast Installation Time
- For permanent and temporary Installations
- Network Triggering
- Automatic Event Report creation
- Data Upload over LAN, WiFi, GPRS or Analog Landline
- Ring Buffer Continuous Recording

Tests: Qualification at USGS



Tests: Qualification at USGS



The GMS-18 successfully passed the intensive USGS Testing and up to now more than 300 instruments have been purchased by USGS

David Oppenheimer, Chief of the northern california seismographic network, USGS:

Instruments were never tested that much before

“The instruments were extensively tested and we didn’t accept them until they met all the performance specs “

Tests: EMC Test



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Accredited according to ISO / IEC 17025 by:
Swiss Accreditation Service SAS
Registration number 034
Notified Body number 1932



STS 034



TEST CERTIFICATE TEST-ZERTIFIKAT

Product : GeoSIG Measuring System (GMS)
Produkt

Trade mark : GeoSIG Ltd.
Handelsmarke

Type : GMS
Typ

Manufacturer : GeoSIG Ltd.
Hersteller
Europa Business Center
Ahornweg 5A, CH-5504 Othmarsingen / Switzerland

Test results : Ref. No.: EMCKP1325.1A
Testresultate

A sample of this product was tested and found to be in conformity with the following harmonized standards:

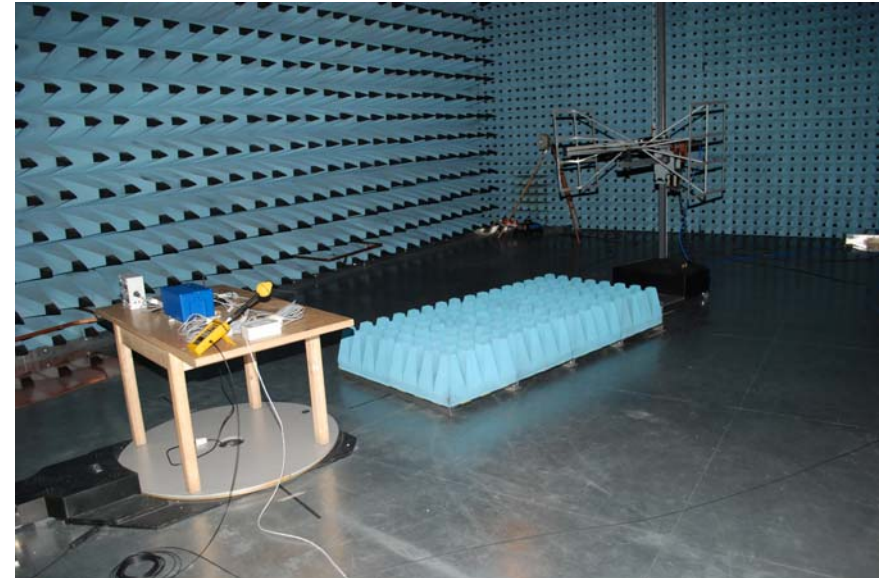
Ein Exemplar dieses Produktes wurde getestet und die Übereinstimmung mit den folgenden harmonisierten Normen festgestellt:

EN 61000-6-4: 2007
IEC 61000-6-4: 2006
EN 61000-6-2: 2005
IEC 61000-6-2: 2005

Zurich, 18. February 2009

EMC-TESTCENTER ZÜRICH AG

Max Hunziker
General Manager Technics



Thank you...

Questions?

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Thank you...