Requirements

- A remote location with low radio frequency interference
- Electrical power to supply Callisto (4W) and a PC (< 200 W)
- Internet connection (directly or via a server 1MBit/sec min)
- People for installation and operation and maintenance (~2% job)
- A standard PC running on Windows XP or Windows 7
- A power supply for Callisto 12V 0.25A min
- An antenna directed to the sun, if possible tracking the sun
- Coaxial cable between Antenna, preamplifier and Callisto
- A rf-preamplifier ~20dB gain, low noise, high IP3
- A power supply for preamplifier, may be the same as for Callisto
- A water proof box containing preamplifier
- Allow FTP connection to copy data to Zurich-archive
- Allow remote desktop (RDP) or TV to help remotely, if needed
- All other users of the Callisto network shall have access to the data collected by the system
- Full support for travel and accommodation for one engineer
Deliverables

- A Callisto spectrometer tested with operating manual (English)
- A serial cable to connect it to the PC
- An adapter RS232 – USB, if needed
- A cable to connect Callisto to a power supply
- Complete source and exe-files for application (Windows compatible)
- Support during site evaluation by email/telecon etc.
- Support during evaluation of antenna by email/telecon etc.
- Support during evaluation of preamplifier by email/telecon etc.
- Full access to all existing data of the e-Callisto network
- Example programs in IDL and Python to analyze FIT files
- Help during installation, set up, configuration
- 1 … 3 day education for local technicians, engineers, if needed
- Option: Low noise preamplifier
Processes needed

1. Memorandum of Understanding (MoU takes 1 day ... sometimes many years)

2. Schedule preparation (takes days)

3. Education (Demo-Installation + Configuration + Operating + Analysis 2-3 days at host location)

4. Site evaluation -> report (host by themselves takes a few days ... months)

5. Installation (depending on antenna size 1/2 day .... a few weeks by local people)

6. Operating and maintenance (software updates, etc.)

7. Fully automated data transfer to ETH Zurich
## Skills needed for Callisto

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<tr>
<th>Phase</th>
<th>Needs</th>
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<tbody>
<tr>
<td>Planning, MoU</td>
<td>Director, Scientist, Engineer</td>
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<tr>
<td>Installation</td>
<td>El. Technician + Mechanic</td>
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<tr>
<td>Configuration</td>
<td>El. Techn., Engineer, Scientist</td>
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<tr>
<td>Operating</td>
<td>El. Techn., Eng., Sci., PhD</td>
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<td>Maintenance</td>
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<td>PhD, Plasma-Scientist</td>
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