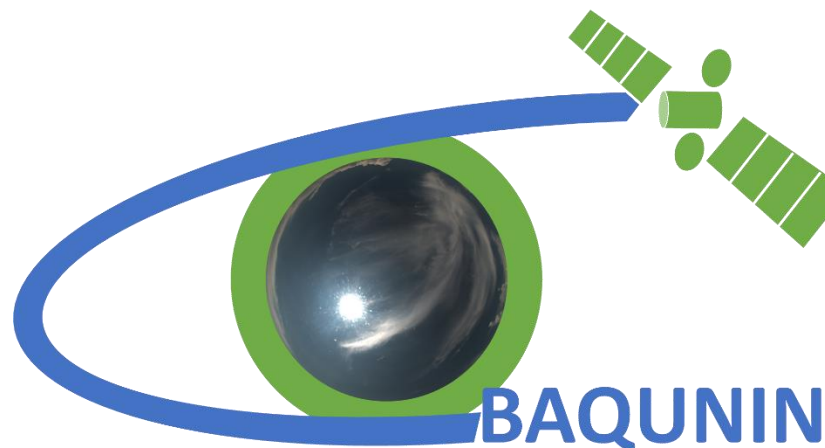




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## [D-6.5] Status and evolution of infrastructure (logbook that reports also on [D-6.1] status)

**Abstract** : Status and evolution of infrastructure status

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## **Change History**

This document shall be amended by releasing a new edition of the document in its entirety. The Amendment Record Sheet below records the history and issue status of this document.

ISSUE	DATE	REASON
1.0	31 May 2019	Infrastructure Logbook
1.1	22 Nov 2019	Document update
1.2	27 Feb 2020	Document update
1.3	25 Sep 2020	Document update



## **1. INTRODUCTION**

This document describes the Infrastructure updates and status for the period **27 February 2020 - 25 September 2020** (referring to WP6100 [R-24]).

Due to restrictions related to COVID-19, the planned works were delayed.



## **2. EXECUTIVE SUMMARY**

The **key activities** for the reporting period have been:

- Installation of UPS for all operative instruments
- Facilities for Database infrastructure

### 3. MAIN CHANGES

The details on the various activities are reported in the following sections.

#### 3.1 UPSs installation

The last missing UPS systems for SODAR and Pandora#117 were installed. **25/09/2020 Completed.**

#### 3.2 Actions to protect power and data cables of the instruments

The motivation for this action arises from the need to protect the long cables used for power and data transfer, and for internet connection of the BAQUNIN instruments located on the roof of the building, because these cables are subject to atmospheric In addition to the protection, also the separation of power and data cables is planned to avoid electromagnetic noise on the data transfer caused by power cables.

Planned actions are listed below.

1. Design of two separated paths for power and data/Ethernet cables, individuation of two different entrances from the roof to APL laboratory. **22/11/2019 Completed**
2. Consolidate existing metallic structure used to support the cables from the lift roof to the entrance of the laboratory: addition of new metallic parts to support both paths regards the treatment with anti-rust paint of each metallic part. **13/01/2020 Completed**
3. Construction of two channels for the two paths identified. The two channels will be built with uPVC guide, a resistant material suited to the purpose. The final path of the cables, between the uPVC guide and single instruments, will be covered by parts of corrugated, more flexible and easy to adapt than UPVC guides.  
**All the material for the installation of the missing protective cable guides has been purchased and has arrived. Due to restrictions related to COVID-19, the installation of the second line of protective cable guides has not been carried out (at the date of this report). For this reason, only one protective cable guide has been installed so far, in which all the cables are crammed together.**

#### 3.3 BAQUNIN Database

Database infrastructure will be hosted in the APL laboratory.

Planned actions are listed above:

1. Installation of additional Ethernet network sockets. **30/06/2020 Completed**



2. Choice, purchase and installation of two air conditioners, to refrigerate the rooms where the computers that manage the instrumentation are present and where the database hardware will be located. The chosen air conditioner are FUJITSU model ASYG18KMTA/AOYG18KMTA 18000 BTU each. **04/08/2020 Completed**



3. Installation of two new electrical panels and restoration of two pre-existing electrical panels. The new electrical panels will be used for database hardware and instruments. The additional electrical panels can be used to connect instruments during ad hoc measurement campaigns. **25/09/2020 Completed**



4. UPS power supply for database safety, we are looking for the proper UPS power supply to use.

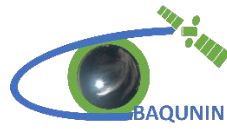
## 4. LOGBOOK

In the following table will be reported the status and evolution of the infrastructure, maintained up to date.

Data	Author	Motivation	Change performed
01/08/2018	AM Iannarelli M Cacciani	Safe access to instrumentation	Aluminium step ladder positioned near to the elevator cabin on the roof of the building, so that the instruments can be accessed safely
01/10/2018 – 26/10/2018	AM Iannarelli M Cacciani	Reorganization of the spaces in the laboratory	Reorganization of the laboratory, separated spaces created for: <ul style="list-style-type: none"> <li>• Students</li> <li>• Alignment/maintenance of the instruments</li> <li>• Meeting room</li> <li>• Computers for hosted instruments</li> </ul>
05/11/2018 – 30/11/2018	AM Iannarelli M Cacciani	Safe access to the laboratory	Additional protections were installed which cover the three beams produced by the laser all along the paths to avoid reflections inside the room
11/03/2019 - 30/04/2019	AM Iannarelli, S Casadio, M Cacciani, G Mevi, M Campanelli	QUATRAM campaign	<ul style="list-style-type: none"> <li>• Supports for the instrument</li> <li>• Arrangement of power and data cables</li> <li>• Computer accommodation and internet access</li> </ul>
30/09/2019 – 11/10/2019	AM Iannarelli, M Campanelli, G Mevi	QUATRAM campaign closed	Supports for the instruments disassembly
25/10/2019 – 15/11/2019	AM Iannarelli, G Mevi	UPS installation	Installation of the UPS to safe instruments by voltage spikes.
21/10/2019 – 31/01/2020	AM Iannarelli, S Casadio, M Cacciani, G Mevi, A Di Bernardino	Power and data cables protection	<ul style="list-style-type: none"> <li>• Design of two separated paths and individuation of two different entrances from the roof to APL laboratory</li> <li>• Consolidation and treatment with anti-rust paint of the existing metallic structure used to support the cables from the lift roof to the entrance of the laboratory</li> <li>• Identified needed material and started the procedure to buy it</li> <li>• Completed one guide for cable protection</li> </ul>
01/02/2020 - 30/06/2020	AM Iannarelli, A Di Bernardino, M Cacciani,	Add Ethernet network sockets	<ul style="list-style-type: none"> <li>• Identification of the position where to install the Ethernet sockets</li> <li>• Installation</li> </ul>
01/06/2020 - 04/08/2020	AM Iannarelli, A Di Bernardino, M Cacciani,	Refrigerate rooms where the database hardware will be located	<ul style="list-style-type: none"> <li>• Quote request to two suppliers</li> <li>• Identified the air conditioners to be installed and defined the purchase procedure</li> <li>• Choice of the best location</li> <li>• Installation</li> </ul>
13/05/2020 - 25/09/2020	AM Iannarelli, A Di Bernardino, M Cacciani,	New electrical panels for database infrastructure	<ul style="list-style-type: none"> <li>• Identification of the positions where to install the new electrical panels</li> <li>• Recovery of pre-existing electrical panels</li> </ul>

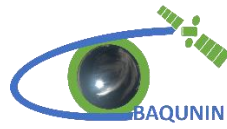


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Issue 1.0***

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