

# INCD

## Information Management System



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(LIP)

# Topics

1. INCD
2. System
3. Challenges
  1. New Users
  2. Users
  3. Admins/Managers
4. Solution Design
5. Current Status



# 1. INCD

# INCD

is a digital infrastructure to support investigation. It provides computing and storage services to the national scientific and academic community, in all areas of knowledge.

The infrastructure is especially designed to provide scientific calculation services, supporting researchers and participation in national and international projects.



# Partnerships



LABORATÓRIO DE INSTRUMENTAÇÃO  
E FÍSICA EXPERIMENTAL DE PARTÍCULAS



# Projects





## 2. System

# Requirements

- ✓ Manage request to access infrastructure
- ✓ National calls for Advance Computing/HPC resources
- ✓ Integration of national solutions for academia
- ✓ Manage resources with multi-services in a distributed infrastructure
- ✓ Keep track of users and resources
- ✓ Training and Helpdesk on Advance Computing and HPC
- ✓ Report the status and usage of infrastructure

## Person / User

Central point of information and contact

Request resources

Update information of scientific production

Check information on infrastructure problems

Helpdesk

FAQ's

## Admins / Managers

Manage users requests for resources

Easily maintain resources availability

Keep update info about infrastructure

Helpdesk

Reports



# 3. Challenges

## 3.1

# New users



### Casual apply

This type of user is a researcher involved in an academic research project, or is a student that is finishing is project and need resources for thesis purposes

Normally request for cloud resources

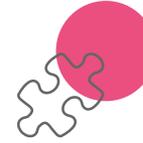


### National Calls

Researchers already connected to national scientific structure

All projects will also connected to national scientific structures

Normally request multiple resources, Cloud and HPC



### Projects

In this case users can be from academic with or without connection to National Scientific infrastructures, or can be also from the civil participation

Projects may be or not connected to national scientific structures.

Normally request multiple resources, Cloud, HPC and/or HTC

## 3.2

# Users

### **Deal with authentication**

*local, National, External*

### **Keep user data updated easily**

*Institutions*

*Projects*

*Scientific production*

### **Provide info regarding the use of infrastructure**

*Quotas Individual/project*

*Problems at infrastructure*

### **Helpdesk**

### **FAQ's**

## 3.3

# Admins

**Maintain systems updated (users/projects)**

**Manage resources**

**Provide information to users related to infrastructure**

Problems on services

Interventions on infrastructure

**Report status and infrastructure usage**

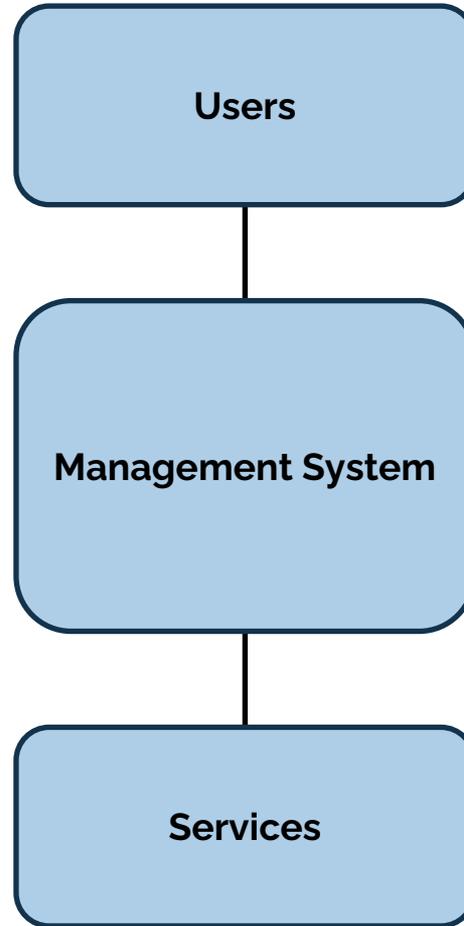
**Helpdesk**

**FAQ's**



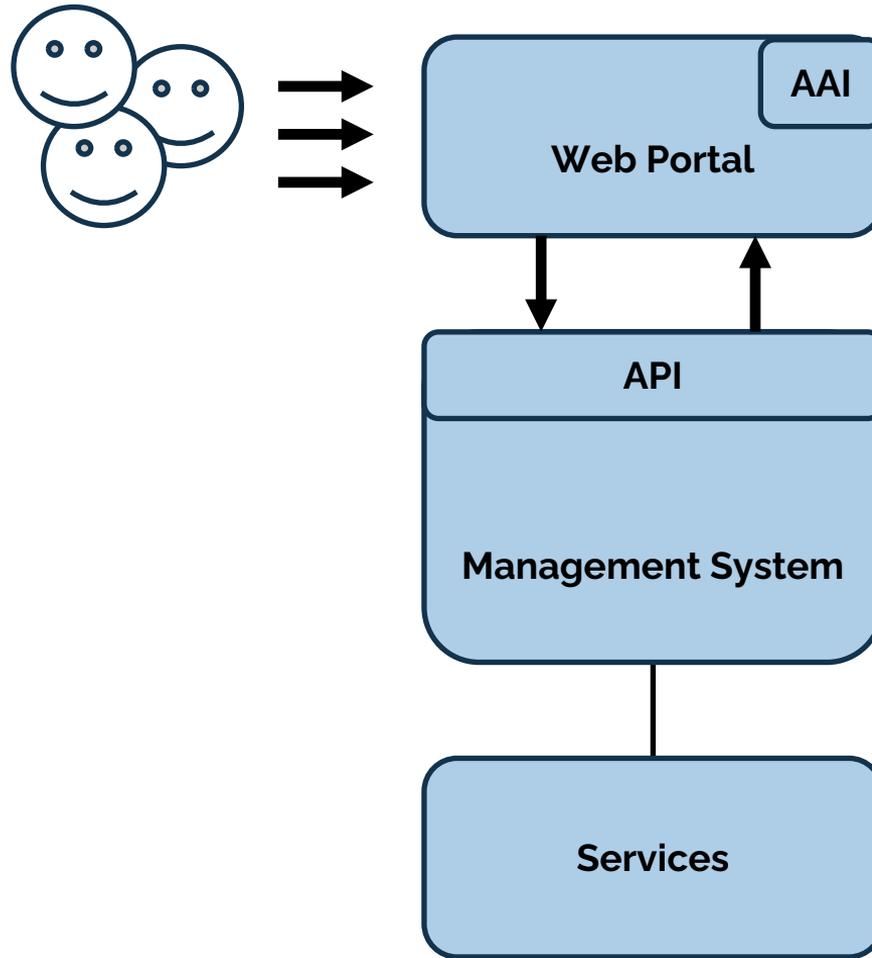
## 4. Solution design

# Solution Design



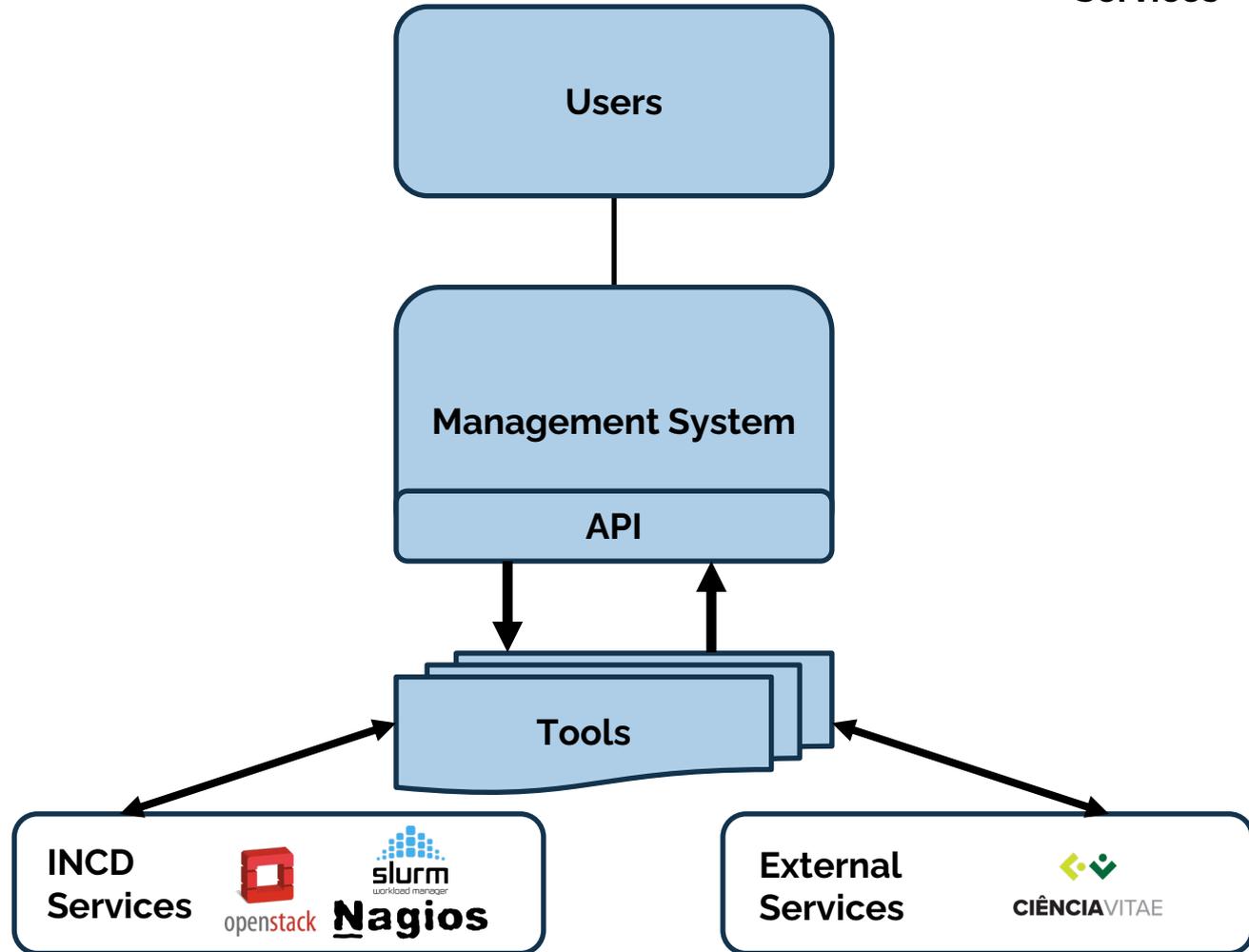
# Solution Design

Users

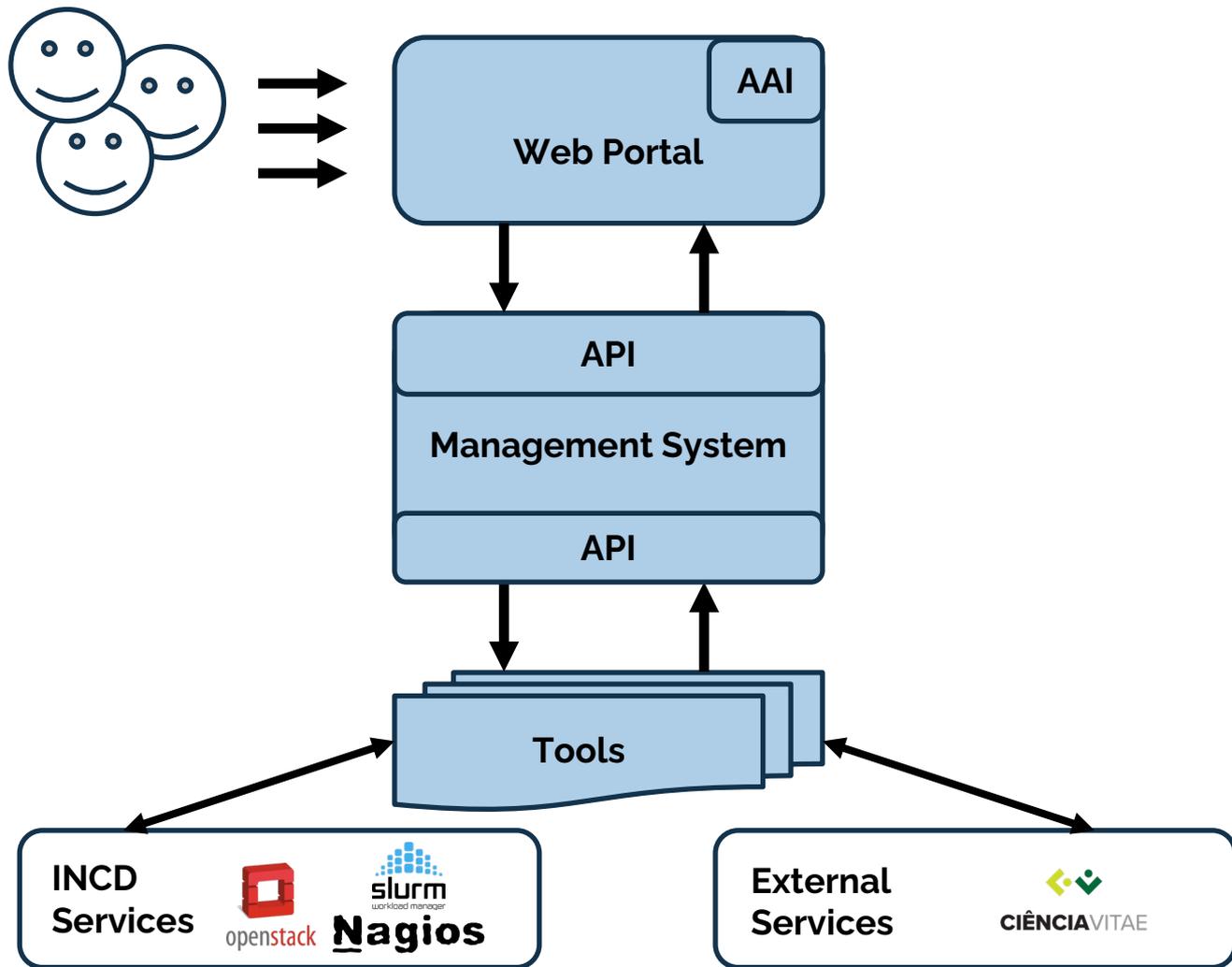


# Solution Design

Services



# Solution Design





## 5. Current Status

# Current Status

Prototype implemented

Information Models defined

Web Portal without AAI

API to web Portal implemented

API to services partially implemented

Consolidate tools



**Thank you  
very much for  
your time!**



Infraestrutura  
Nacional de  
**Computação**  
Distribuída