

BHOONIDHI PLANNER

Software

User Guide



**National Remote Sensing Centre (NRSC),
Indian Space Research Organization (ISRO),
Software User Guide, Nov 2023**

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1 Introduction

Bhoonidhi-PLANNeR is a future acquisition request placing service in Bhoonidhi which allows users to submit future satellite acquisition requests. This is an online web application facilitates the users to place requests for future dates; now enabled for EOS-04 mission.

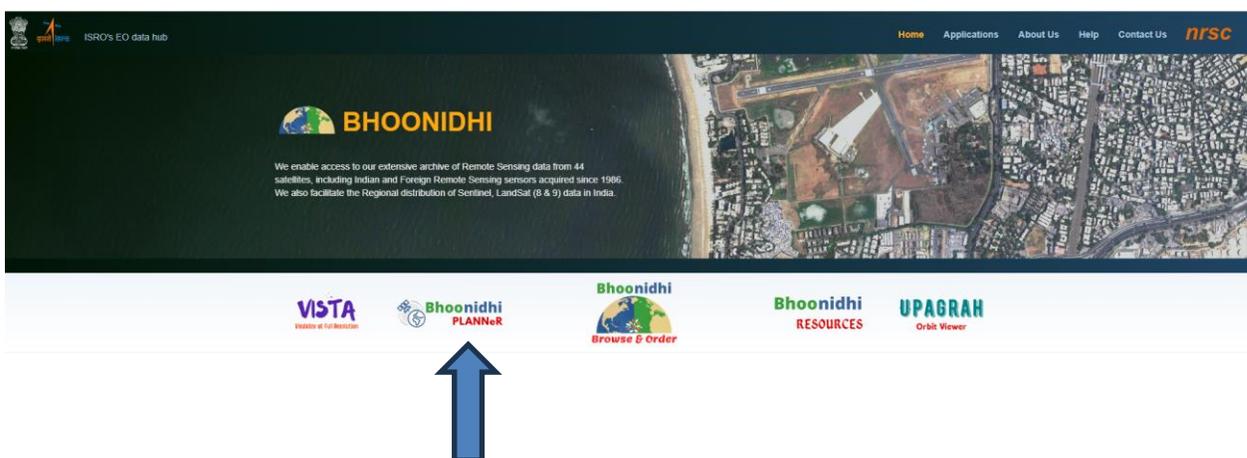
1.1 Scope

The scope of this document is to guide the user for placing and monitoring acquisition requests for EOS-04 mission.

1.2 URL

<https://bhoonidhi.nrsc.gov.in>

Select the Bhoonidhi-PLANNeR tool from the landing page.



1.3 Glossary

PPS	Payload Programming System
Proposal File	The list of available dates for the given segmented area
Request File	Inputs provided for availability as per user AOI and POI
AOI	Area of Interest
POI	Period of Interest
PLANNeR	PayLoad Acquisition PlaNNing Requests Service
SID	Search Identifier

2 Planning Request Placing Services

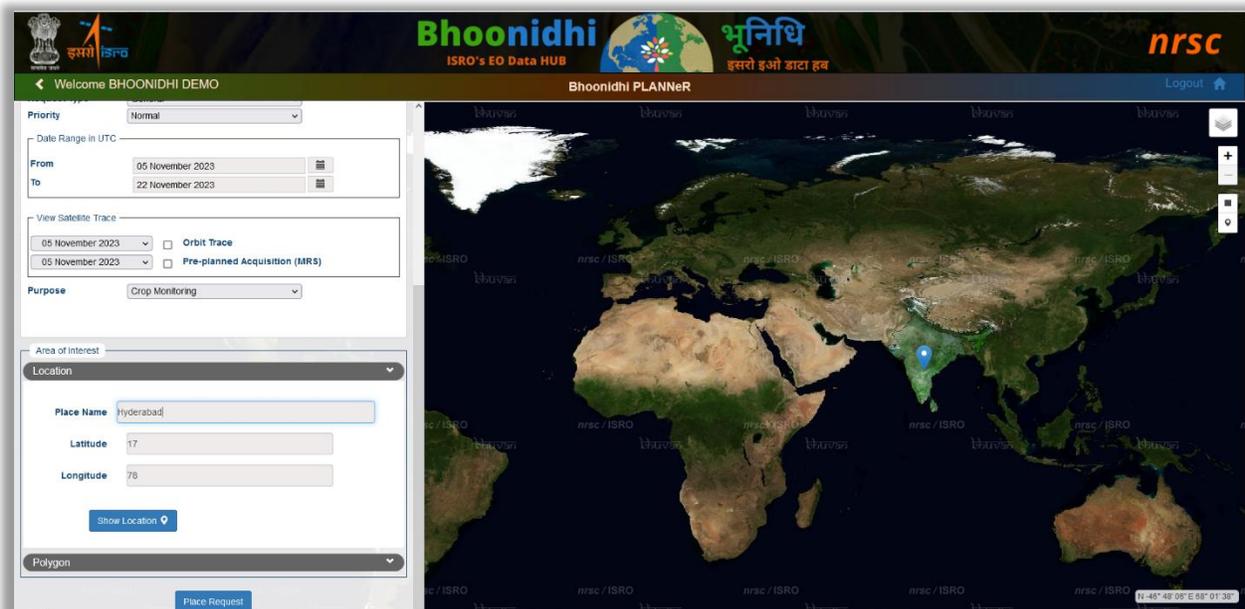
There are two major services provided to the users. Request placing service to submit the future acquisition request and the Request Monitoring Services using which the users can monitor the status of planning request submitted and also directly put it to Bhoonidhi CART once acquired.

2.1 Request Placing

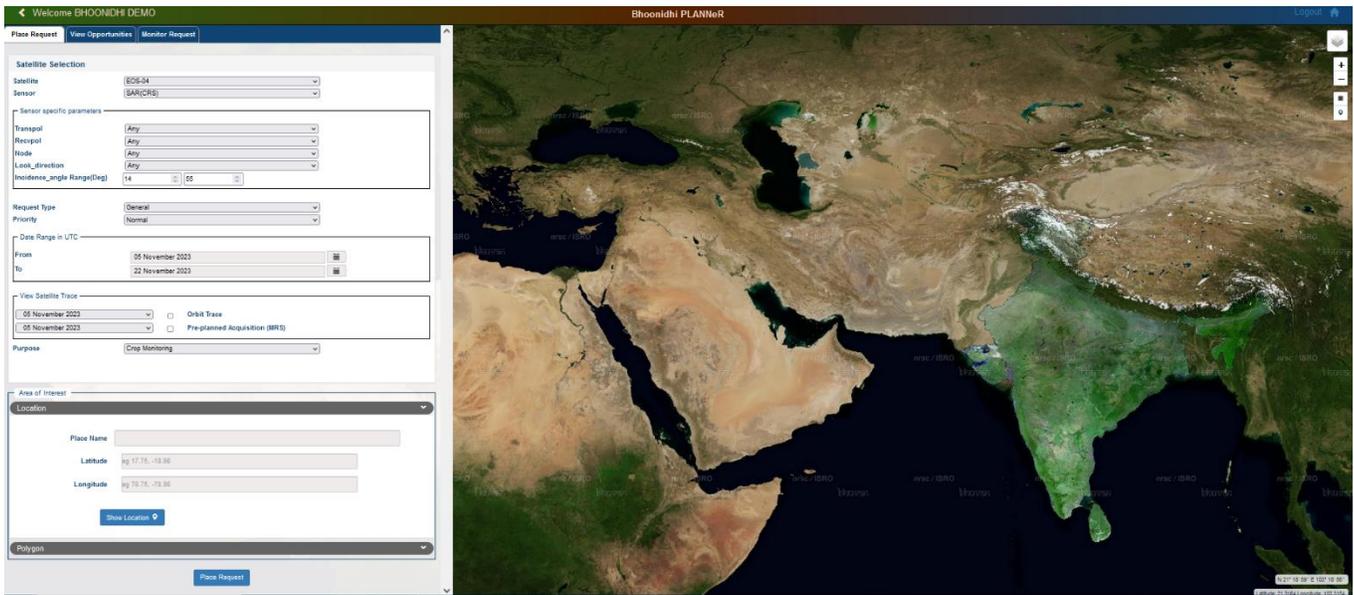
Future acquisition request is to be placed by selecting the sensor parameters, area of interest and date range.

The following inputs are to be provided

- Satellite based parameters (E04)
 - Polarization
 - Node
 - Look Direction
 - Incidence Angle
- Acquisition Request Type
 - General
 - Ground Truth
 - Temporal
- Priority Normal/Urgent
- Date Range (Max of 17 days can be given)
- Purpose of request placing
- Area of Interest – Point / Polygon / Map based selection

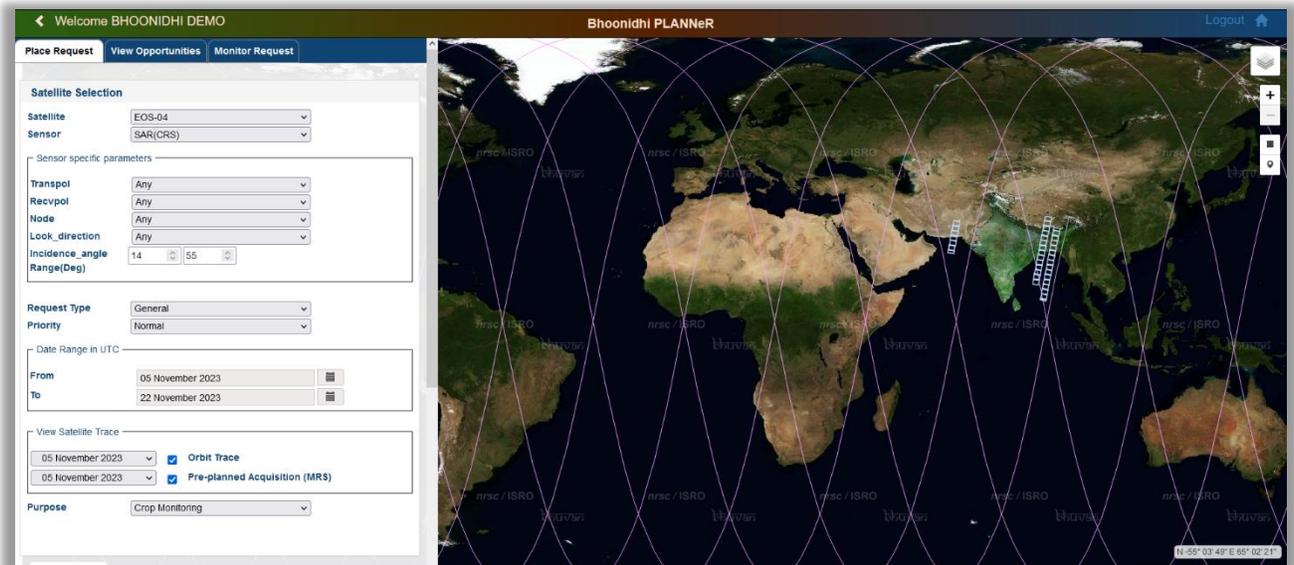


Place Request Button: On click this places request, generates proposal with various opportunities (availability across dates as per POI)



Orbit Trace: View the trace of the satellite for the give POI

Systematic Coverage (MRS data): There is preplanned acquisition as a part systematic coverage of Indian region in MRS HH+VV, Descending, Right look direction.



2.1.1 Area of Interest (AOI) Identification

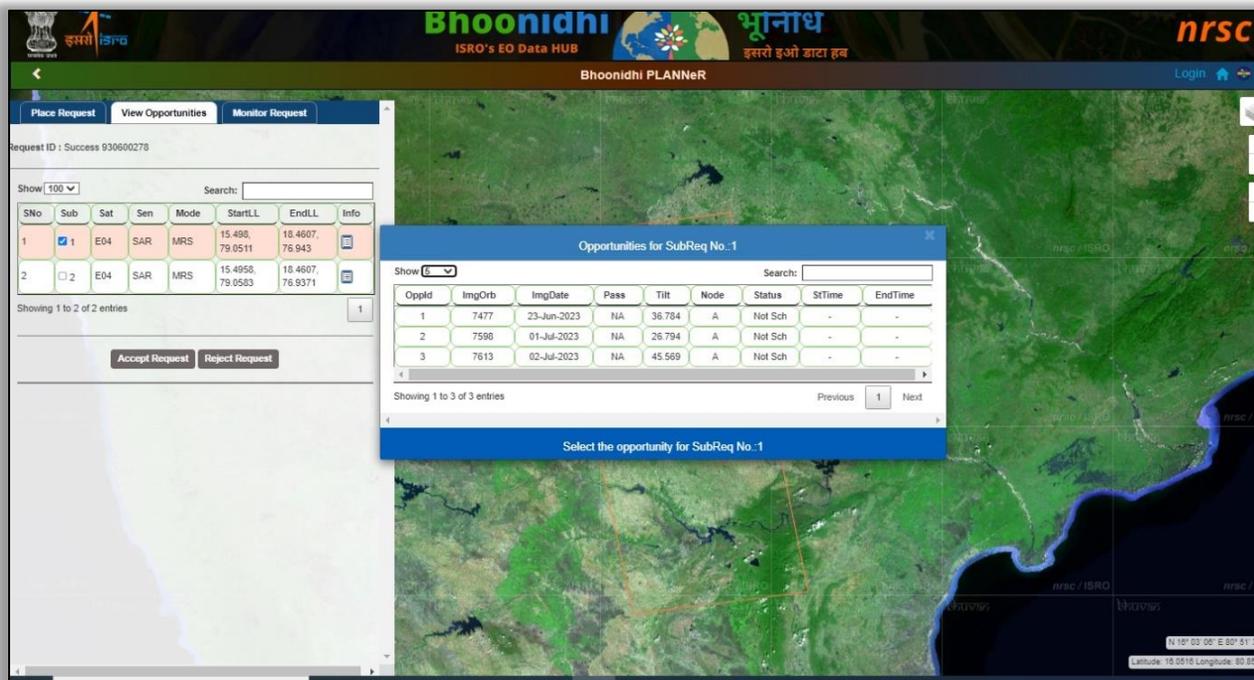
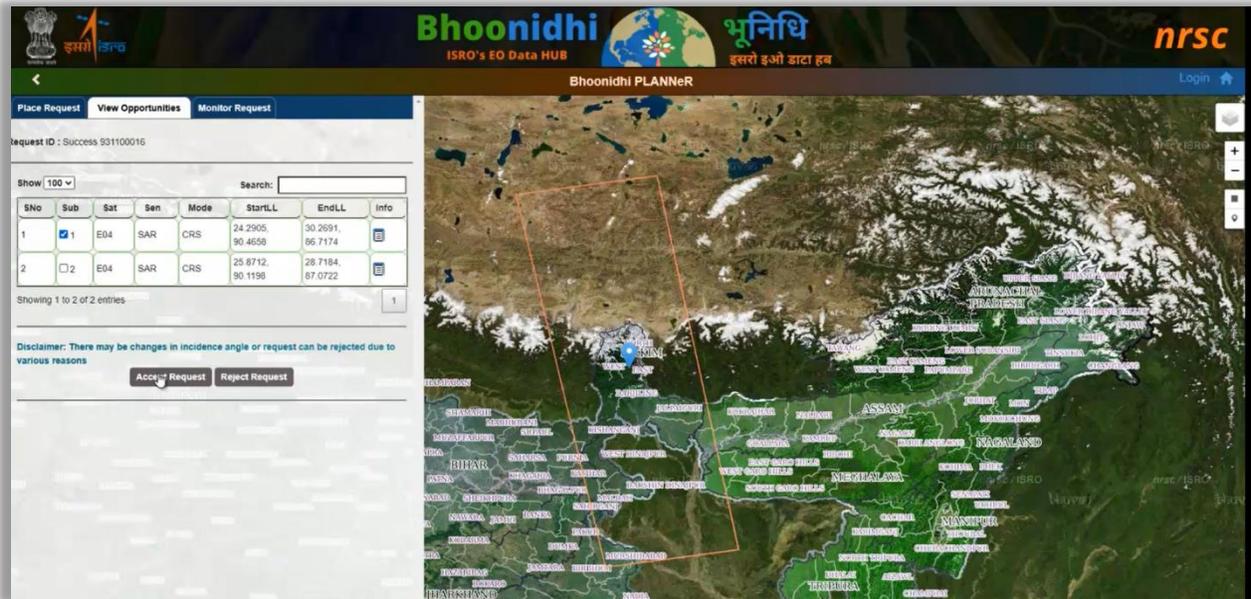
The user can specify the area of interest by using any one of the following options:

- Location/Point
 - By specifying the location name or by providing few characters in the location name, the software will automatically fetch the matching locations. The user can then select the desired location from the list.
 - The user can specify the scene count.

- Polygon
 - By specifying the top-left and bottom-right coordinates.
- Map draw tool for AOI drawing

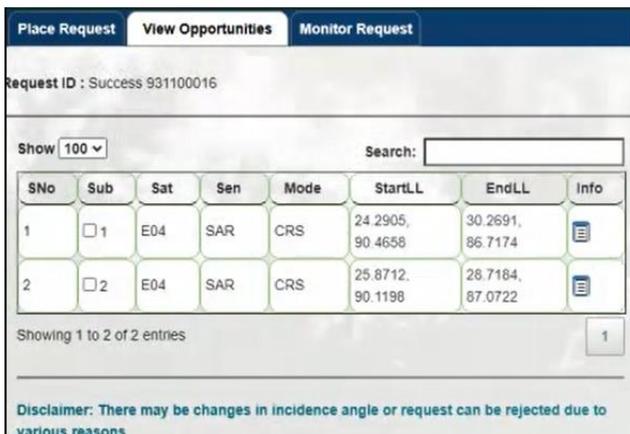
2.1.2 View Opportunities

Displays the proposal to the user for selection of the sub-requests and confirm them or cancel the entire request. For confirmation the user should have been registered and authorized by NDC/NRSC.

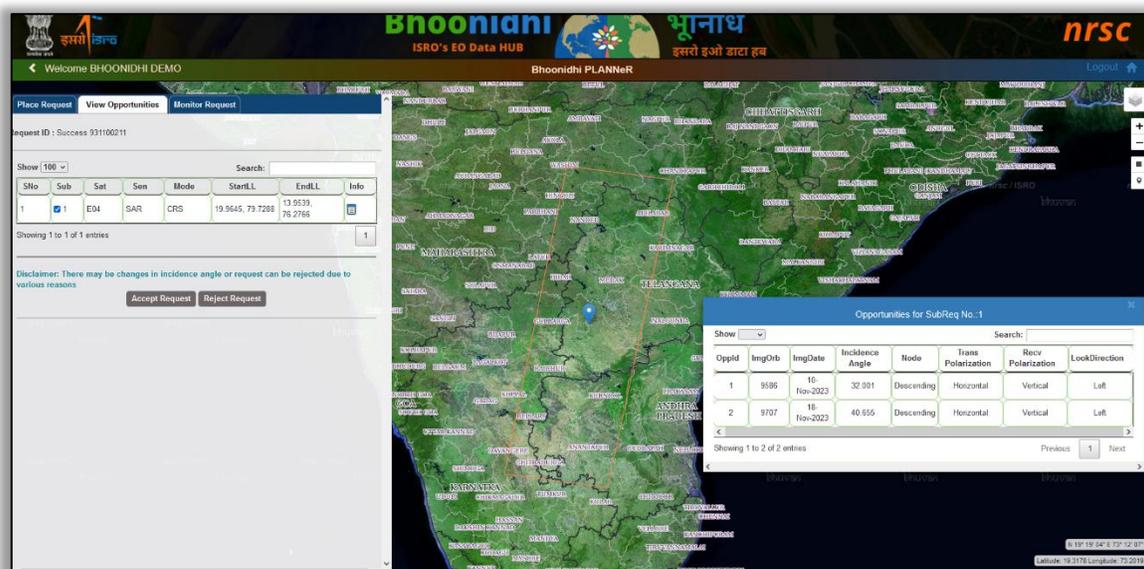


2.1.3 Sub Requests

Each request can have multiple sub-requests covering the user area of interest scheduled to be acquired on a given day.

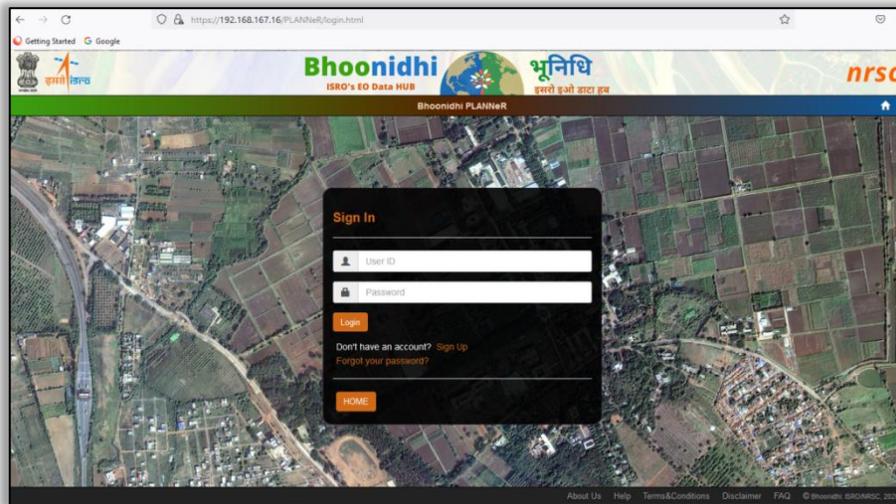


Each Sub request has multiple opportunities. Opportunities mean the date availability in the given period of interest.



3 Registration & Login

Only registered users from Bhoonidhi can place the request. New users need to place form Bhoonidhi Browse and Order Login. PPS Manager takes the decision to activate or reject the user to use the PLANNer services.



Who can view Proposal?

- Any user can request for proposal - **login not required**

Who can Place Planning Request?

- User has to register with Bhoonidhi (*if not yet registered*)
- Send **Planning Request Placing Authorization Request** to PPS manager
- Once the user is authorized by PPS manager, user can place a request

3.1 Service Activation

On successful login, if the user is not enabled for placing planning request, UI is to be popped to send a request for “Grant Planning Request Placing Privilege”.

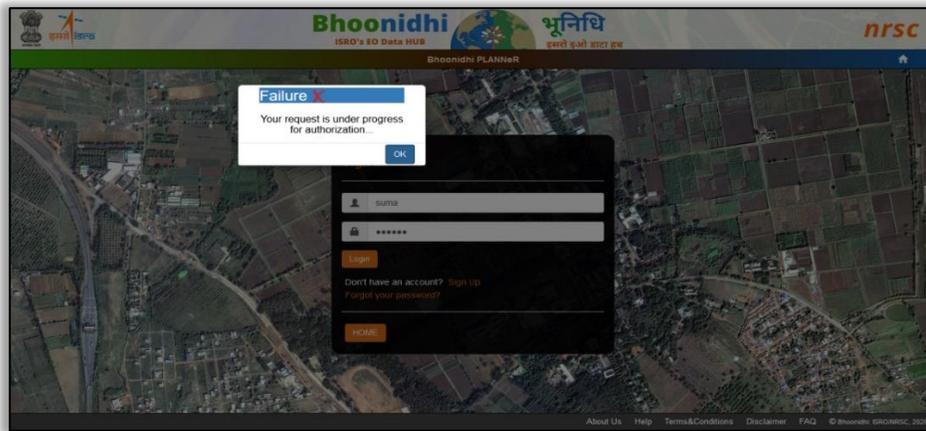


3.1.1 Activated User

If the user is enabled/authorized for placing planning request, on login the page directly lands at Bhoonidhi-PLANNeR home page.

3.1.2 Rejected User

If the user is rejected by PPS manager, then message pops up “You are not authorized to use the services”



3.2 Proposal processing

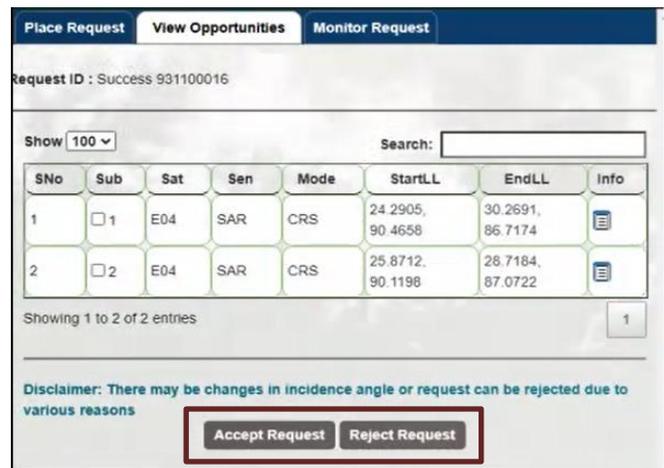
The activated users can accept or reject the request proposal.

3.2.1 Accept Proposal

The user has to login for accepting the proposal. the proposal will be sent to manager for further approval.

3.2.2 Reject Proposal

The user can reject the proposal, the status gets updated accordingly.



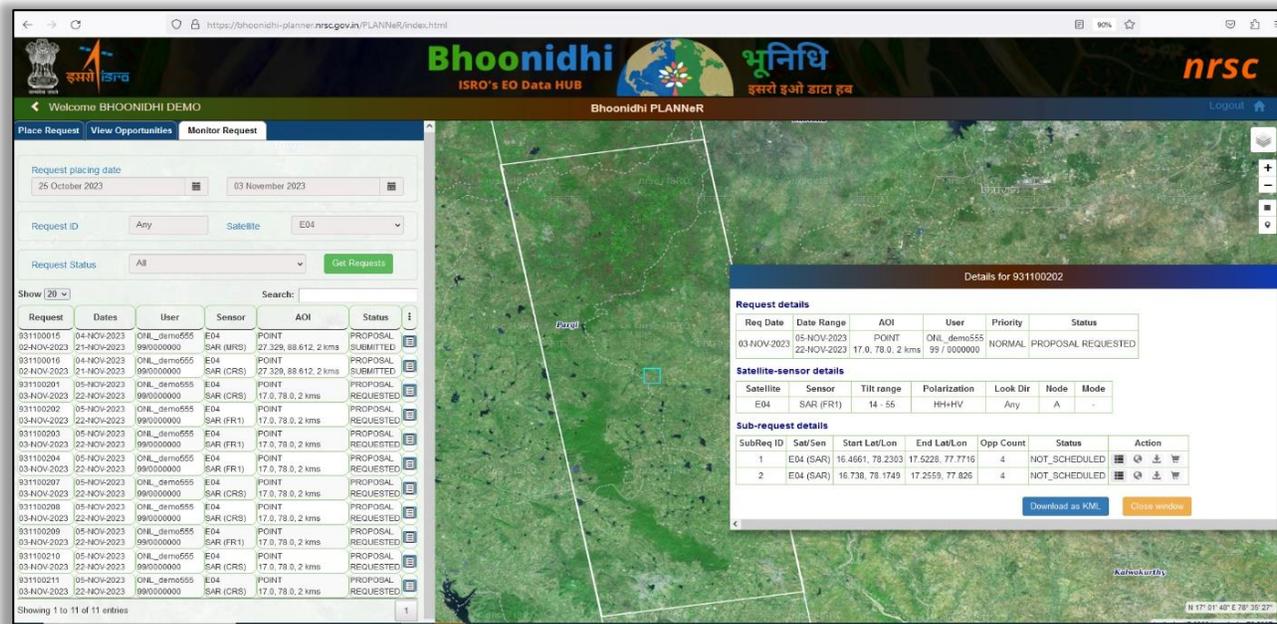
3.3 Planning Request Status Monitor

All the request ids placed by the user are displayed with respective status and SID (details added to cart) is generated for the acquired data.

The request status based on the planning stage will have following values:

- Proposal Requested
- Proposal Submitted
- Scheduled
- Rejected
- Being Considered
- Partially Scheduled (for polygon)

Details of the request along with the map views are available to the users for a given planning request Id.



User can view the all the opportunities and download the foot prints. Once the request is acquired, users can check the acquired data scenes and directly add the products to the Bhoonidhi CART from where subsequently these can be downloaded. User can then login to Bhoonidhi and convert the SID to order. Opportunities in KML format also can be downloaded.

Details for 931100202

Request details

Req Date	Date Range	AOI	User	Priority	Status
03-NOV-2023	05-NOV-2023 22-NOV-2023	POINT 17.0, 78.0, 2 kms	ONL_demo555 99 / 0000000	NORMAL	PROPOSAL REQUESTED

Satellite-sensor details

Satellite	Sensor	Tilt range	Polarization	Look Dir	Node	Mode
E04	SAR (FR1)	14 - 55	HH+HV	Any	A	-

Sub-request details

SubReq ID	Sat/Sen	Start Lat/Lon	End Lat/Lon	Opp Count	Status	Action
1	E04 (SAR)	16.4661, 78.2303	17.5228, 77.7716	4	NOT_SCHEDULED	⌵ ⌵ ⌵ ⌵
	OppId	ImgDate / ImgOrb	PassType	Node / Tilt	Status	
	1	06-Nov-2023 / 9533	-	A / 36.408	Not Scheduled	
	2	14-Nov-2023 / 9654	-	A / 26.333	Not Scheduled	
	3	15-Nov-2023 / 9669	-	A / 45.24	Not Scheduled	
	4	22-Nov-2023 / 9775	-	A / 14.652	Not Scheduled	
2	E04 (SAR)	16.738, 78.1749	17.2559, 77.826	4	NOT_SCHEDULED	⌵ ⌵ ⌵ ⌵

Download as KML
Close window