adani

DEVELOPMENT OF AVAILABILITY DASHBOARD

Asset availability is a critical parameter for transmission and generation assets. Ensuring near 100% availability helps smooth transfer of power in grid without causing system overloads. To enable active monitoring of Adani assets, a centralized dashboard application capturing the availability of various sites has been developed in house. The centralized application has helped enable active monitoring of system availability and also helped in anticipating and addressing operational issues well in advance, thus aiding fast and accurate decision making.

The application went live in July 2020 and after ironing out of few minor issues, publishing flash report is being started from September 2020 onwards.

Key Features of the solution:

1. The dashboard is an intranet based application with integrated site based authentication.

2. The application can be accessed via laptop / desktop / mobile devices.

3. The technology platform is on Microsoft (.Net as front end and SQL Server as backend).

4. Application offers the facility to circulate the dashboard as email notifications.

Data Points Captured:

- There are 4 fields being captured plant wise, on daily basis from all sites.

Sr. #	Field Name	Nature
1	System Availability	Free Text
2	Tripping (No.)	Free Text
3	Forced Outages (No.)	Free Text
4	Schedule Outage (No.)	Free Text

- For transmission assets, in addition to above details, additional tripping details are also captured (as applicable). These details are as below.

Sr. #	Field Name	Nature
1	SPV	Free Text
2	Name of Element	Free Text
3	Trip Time	Date and Time
4	Restored Time	Date and Time
5	Anticipated Time	Date and Time
6	Reason of outage / tripping	Free Text

- The application also has provision to capture / fill the 'Major Events and Remarks' plant wise. The consolidated value is reviewed at Head Office and published post review.
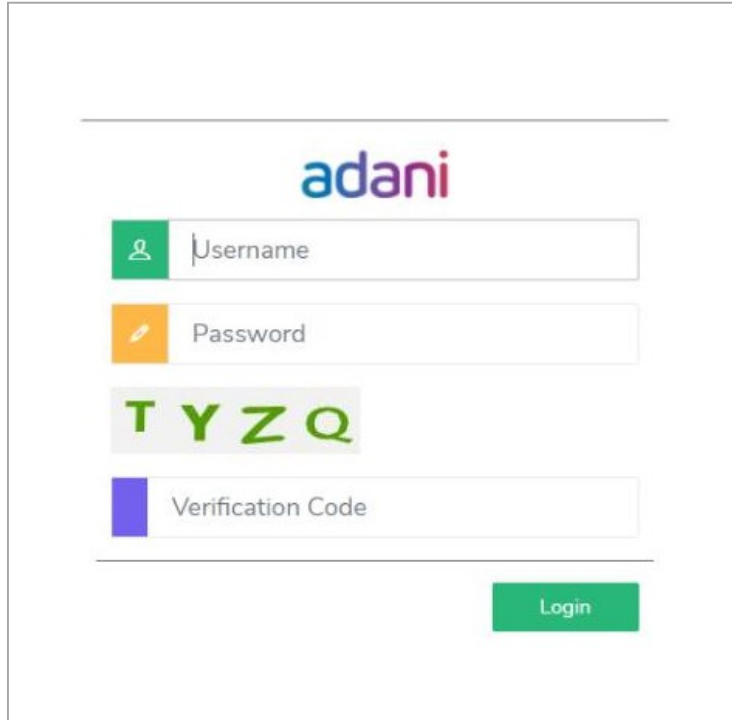
  For solar sites, data is captured in the following format.

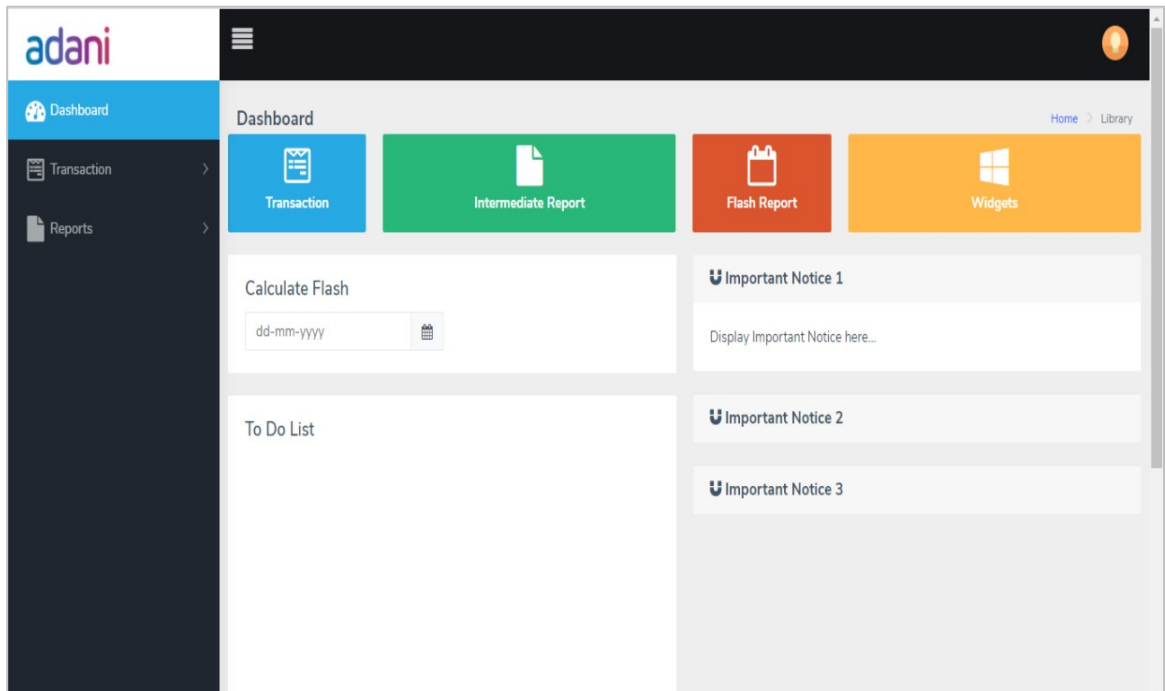| Sr. #	Field Name	Nature
1	Capacity (MW)	Static
2	Performance Ratio	Free Text
3	MU's	Free Text
4	Plant Availability (%)	Free Text
5	Grid Availability (%)	Free Text
6	PLF (%)	Free Text

Application Screenshots:

Few snapshots of the application are below:

A. Login window of application

B. Landing page of dashboard

C. Availability Window

Flash Report

Select Date

| 02-Oct-2020 | 🔍 Search |

Date: 02-Oct-2020	FLASH REPORT FOR TRANSMISSION BUSINESS - O&M														

		Asset-1 HVDC			Asset-1 HVAC			Asset-2 HVAC			ATIL-TW			CWRTL		
		Daily	MTD	YTD	Daily	MTD	YTD	Daily	MTD	YTD	Daily	MTD	YTD	Daily	MTD	YTD
	System Availability (%)	100%	100%	98.99%	100%	100%	99.97%	100%	98.07%	99.60%	100%	100%	99.96%	100%	100%	99.96%
	Trippings (No.)	0	0	5	0	0	0	0	0	4	0	0	2	0	0	2
	Forced Outages (No.)	0	0	3	0	0	1	0	0	3	0	0	0	0	0	2
	Scheduled Outages (No.)	0	0	0	0	0	0	0	1	3	0	0	0	0	0	3

		RRWTL			STL			WTGL			WTPL			ATBSPL		
		Daily	MTD	YTD	Daily	MTD	YTD	Daily	MTD	YTD	Daily	MTD	YTD	Daily	MTD	YTD
	System Availability (%)	100%	100%	99.98%	100%	100%	99.95%	100%	100%	99.89%	100%	100%	99.99%	100%	100%	100%
	Trippings (No.)	0	0	0	0	0	2	0	0	6	0	0	1	0	0	0
	Forced Outages (No.)	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0
	Scheduled Outages (No.)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0

		ATSCL			MTSCL			PPP-8 (HPTSL)			PPP-9 (BPTSL)			PPP-10 (TPTSL)		
		Daily	MTD	YTD	Daily	MTD	YTD	Daily	MTD	YTD	Daily	MTD	YTD	Daily	MTD	YTD
	System Availability (%)	100%	100%	99.98%	100%	100%	99.98%	100%	100%	99.92%	100%	100%	99.97%	100%	100%	99.99%
	Trippings (No.)	0	0	1	0	0	3	0	0	35	0	0	3	0	0	4
	Forced Outages (No.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Scheduled Outages (No.)	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0

	Mohindergarh HVDC	Koradi	Akola	Major Events

Left vertical label: TRANSMISSION

Sidebar navigation: Transaction, Reports, Intermediate Report, Flash Report