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README



EXPERIMENT--08-CONFIGURING-THE-APPLICATION-SERVER-FOR-DATA-VISUALIZATION-

Aim: To configure the Application server and visualize the data on the dashboard

Components required: lot application server

Theory :

An application server is a modern form of platform middleware. It is system software that resides between the operating system (OS) on one side, the external resources (such as a database management system [DBMS], communications and Internet services) on another side and the users' applications on the third side. The function of the application server is to act as host (or container) for the user's business logic while facilitating access to and performance of the business application. The application server must perform despite the variable and competing traffic of client requests, hardware and software failures, the distributed nature of the larger-scale applications, and potential heterogeneity of data and processing resources required to fulfill the business requirements of the applications.

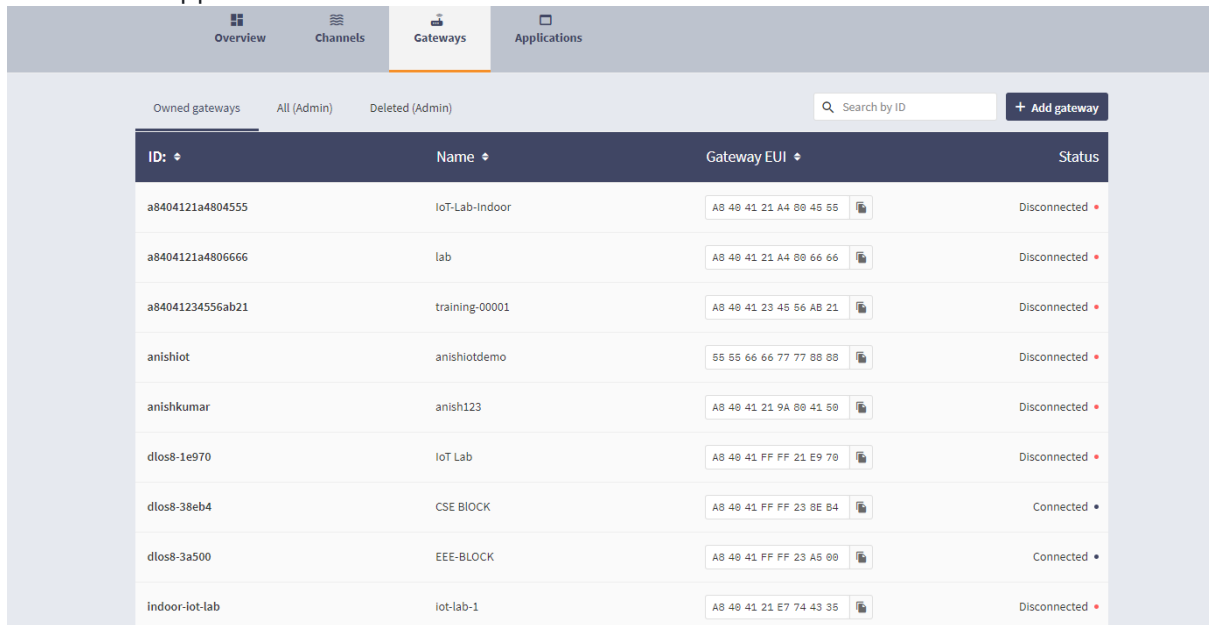
A high-end online-transaction-processing-style application server delivers business applications with guaranteed levels of performance, availability and integrity. An application server also supports multiple application design patterns, according to the nature of the business application and the practices in the particular industry for which the application has been designed. It typically supports multiple programming languages and deployment platforms. although most have a

particular affinity to one or two of these. Some application servers that implement standard application interfaces and protocols, such as Java Enterprise Edition (Java EE), are entirely proprietary. At present, the proprietary application servers are typically built into OSs, packaged applications, such as portals and e-commerce solutions, or other products and are not offered as stand-alone products. Proprietary and Java EE-compliant application servers are estimated in our Market Share and Forecast reports.

As the application server market matures, high performance becomes a stronger criterion, and thus where vendors now incorporate extensions to application servers, such as extreme transaction processing and event-based processing capabilities, these are also included in this market segment.

Procedure :

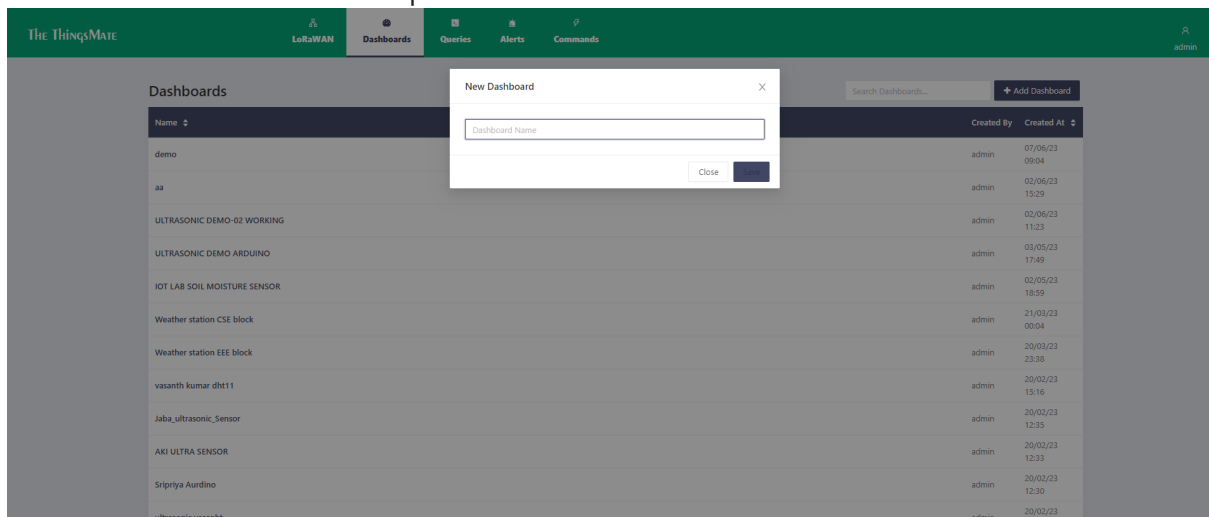
1. login to the network server using login link <https://iot.saveetha.in/>
2. click on the Application server as shown below



The screenshot shows the 'Gateways' tab in the IoT Gateway Management interface. It displays a table of owned gateways with columns for ID, Name, Gateway EUI, and Status. The table lists several gateways, including 'IoT-Lab-Indoor', 'lab', 'training-00001', 'anishiotdemo', 'anish123', 'IoT Lab', 'CSE BLOCK', 'EEE-BLOCK', and 'iot-lab-1'. The status of each gateway is indicated as either 'Disconnected' or 'Connected'.

ID	Name	Gateway EUI	Status
a8404121a4804555	IoT-Lab-Indoor	A8 40 41 21 A4 80 45 55	Disconnected
a8404121a4806666	lab	A8 40 41 21 A4 80 66 66	Disconnected
a84041234556ab21	training-00001	A8 40 41 23 45 56 AB 21	Disconnected
anishiot	anishiotdemo	55 55 66 66 77 77 88 88	Disconnected
anishkumar	anish123	A8 40 41 21 9A 80 41 50	Disconnected
dlos8-1e970	IoT Lab	A8 40 41 FF FF 21 E9 70	Disconnected
dlos8-38eb4	CSE BLOCK	A8 40 41 FF FF 23 8E B4	Connected
dlos8-3a500	EEE-BLOCK	A8 40 41 FF FF 23 A5 00	Connected
indoor-iot-lab	iot-lab-1	A8 40 41 21 E7 74 43 35	Disconnected

3. Click on the Add dashboard option as shown below

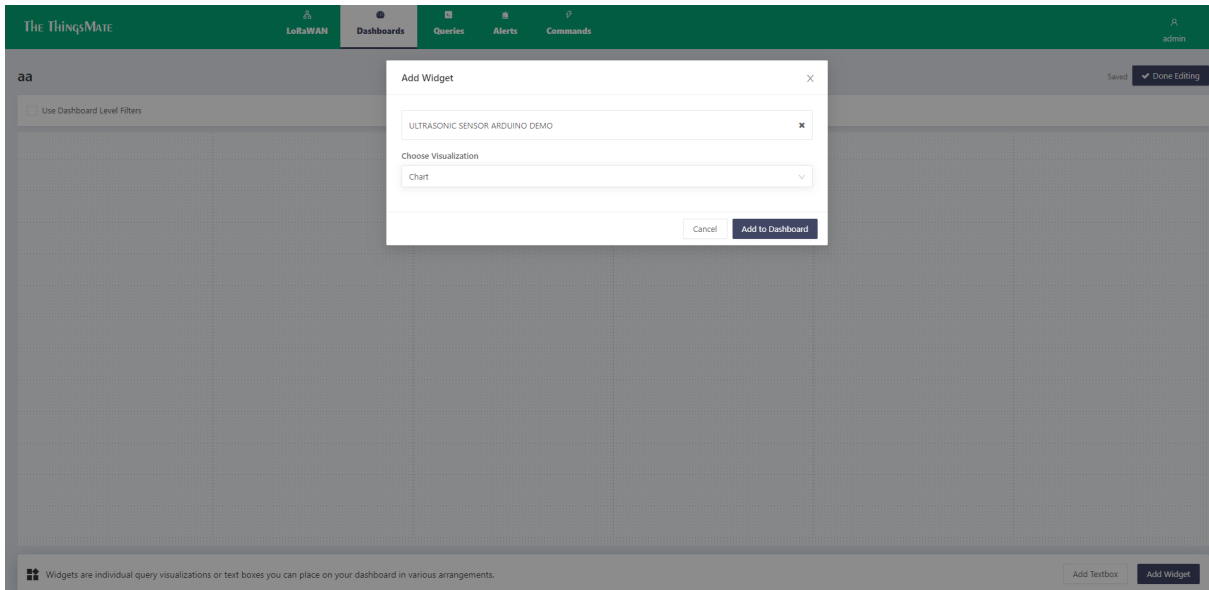


The screenshot shows the 'Dashboards' tab in the The Things Network interface. It displays a table of dashboards with columns for Name, Created By, and Created At. A 'New Dashboard' modal is open, allowing the user to add a new dashboard.

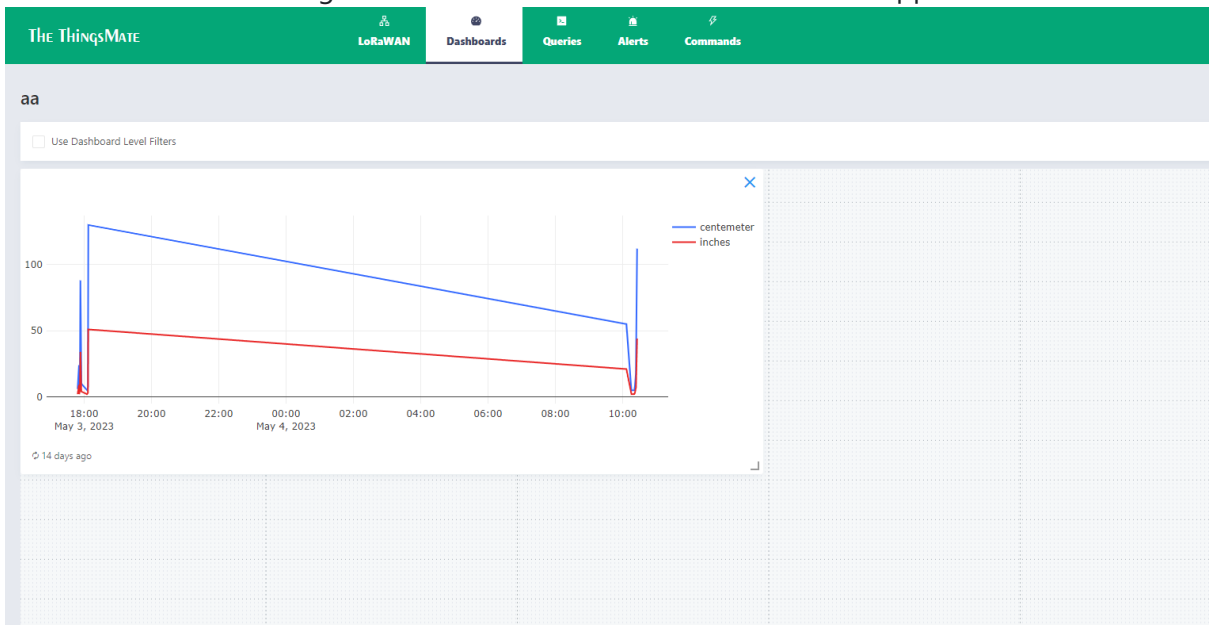
Name	Created By	Created At
demo	admin	07/06/23 09:04
aa	admin	02/06/23 15:29
ULTRASONIC DEMO-02 WORKING	admin	02/06/23 11:23
ULTRASONIC DEMO ARDUINO	admin	03/05/23 17:49
IOT LAB SOIL MOISTURE SENSOR	admin	02/05/23 18:59
Weather station CSE block	admin	21/03/23 00:04
Weather station EEE block	admin	20/03/23 23:38
vasanth kumar dht11	admin	20/02/23 15:16
Jaba_ultrasonic_Sensor	admin	20/02/23 12:35
AKI ULTRA SENSOR	admin	20/02/23 12:33
Sripriya Aurdino	admin	20/02/23 12:30
ultrasonic vasanht	admin	20/02/23 12:30

Vasanth dashboard ultrasonic	admin	20/02/23 12:21
LED_Blinking	admin	01/02/23 13:04
		01/02/23

4.After creating dash board , using the edit option on the right corner add the widgets as shown



3. After addition of the widget on the data dash board the data should appear as shown belwo



4. Create a query as shown below

The ThingsMate			LoRaWAN	Dashboards	Queries	Alerts	Commands	admin
ULTRASONIC SENSOR ARDUINO DEMO			DEMO		Centimeter x inches x	Apply Changes	Refresh Schedule: Every minute	Refresh
Table	Chart x	Add Visualization						
time	centimeter	inches						
04/05/23 10:25	112	44						
04/05/23 10:23	18	7						
04/05/23 10:21	8	3						
04/05/23 10:20	5	2						
04/05/23 10:15	5	2						
04/05/23 10:15	7	3						
04/05/23 10:06	55	21						

03/05/23 18:07	130	51
03/05/23 18:07	7	3
03/05/23 18:05	5	2
03/05/23 17:55	10	4
03/05/23 17:53	88	34
03/05/23 17:52	10	4
03/05/23 17:52	15	5
03/05/23 17:51	5	2

17 rows 0 seconds runtime

Refreshed 14 days ago

5. Using the visualization editor modify as per the requirements

Visualization Type

Chart

Visualization Name

Chart

General

Range

X Axis

Y Axis

Series

Colors

Data Labels

Chart Type

Bar

Horizontal Chart

X Column

Y Columns

Choose columns...

Group by

Errors column

Legend Placement

Right

Legend Items Order

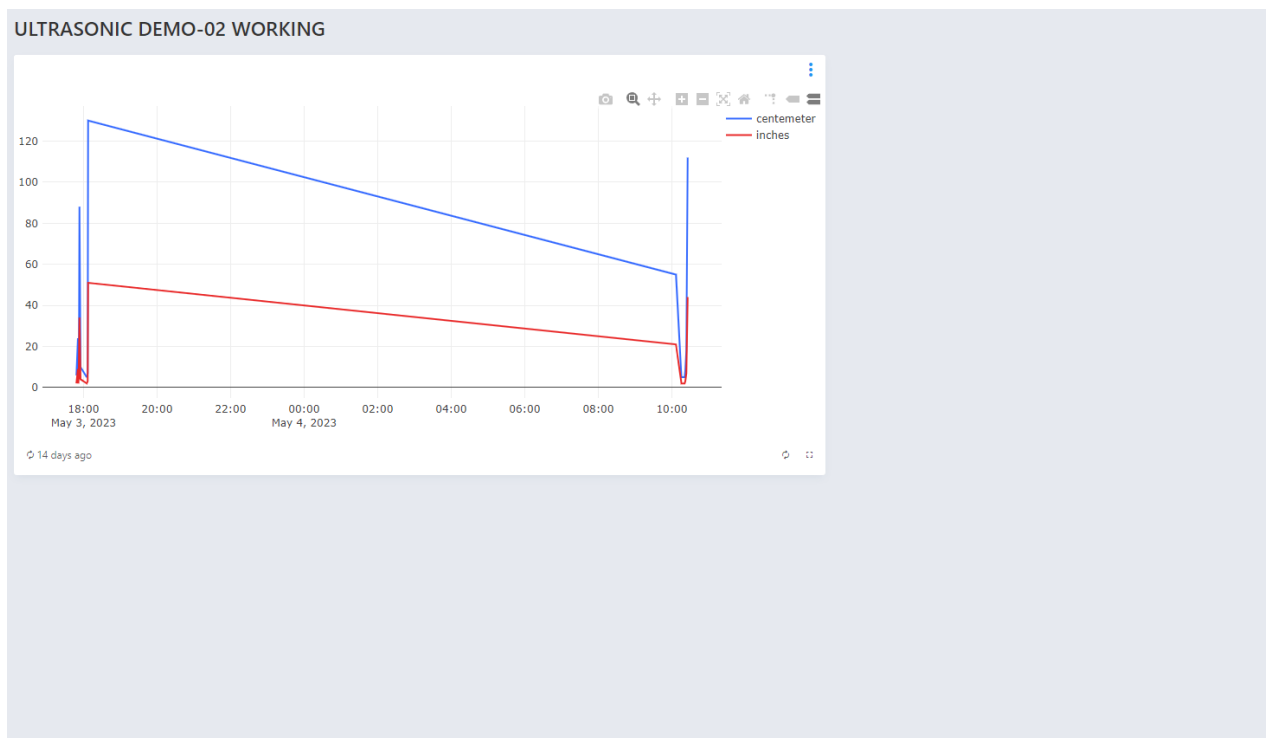
Normal

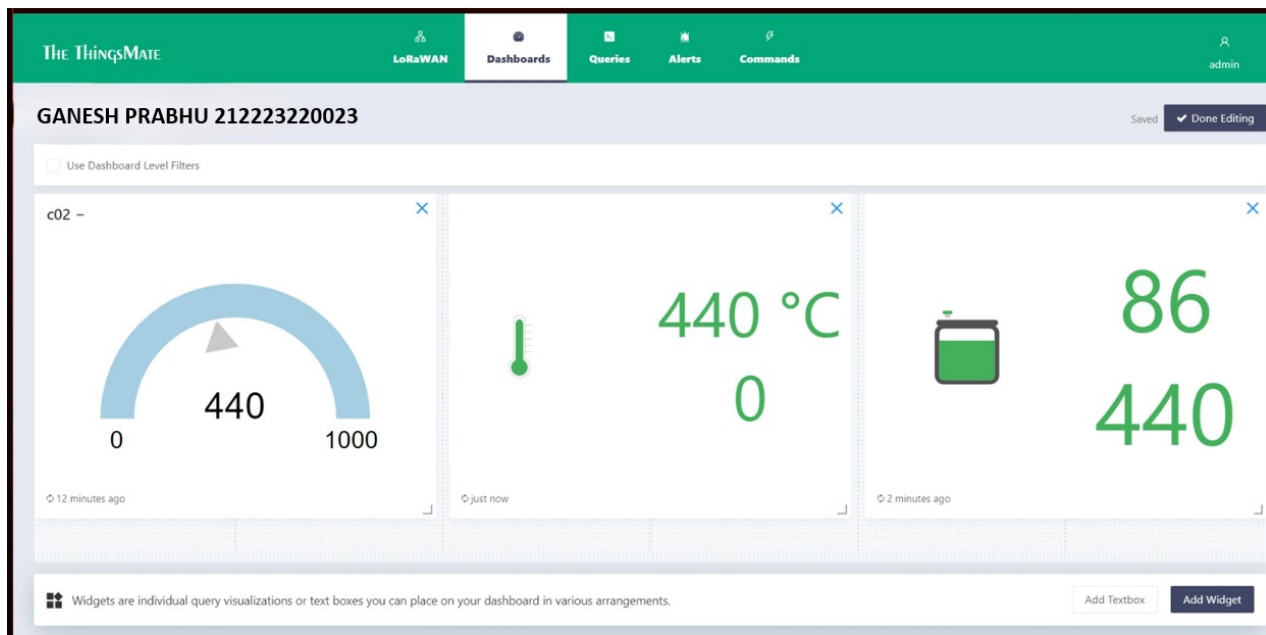
Cancel

Save

6. save to update the visualization on the dashboard as shown in the output

OUTPUT





Results:

The Application server and network server data is add on the data dashboard using visualiztion editor

Releases

No releases published

Packages

No packages published