

User Guide App Experience

Version 01

Contents

1. What is App Experience?	
2.Getting Started	
3.Working with Operations Console	
3.1 Manage KPIs	4
3.2 Manage Scripts	6
3.3 Manage Orders	
3.4 Start Tests	
3.5 Check Status	
4.Working with Dashboard	
4.1 Monitoring	
a. Add a Card	
b. View More Cards	
e. Rearrange Cards	
f. Edit a Card	
g. Delete a Card	
h. Add a Graph	
i. Edit a Graph	
j. Delete a Graph	23
k. Delete the Graphs Tab	23
4.2 Benchmarking	24
a. Add a Card	
b. Add more cards	25
c. View More Cards	25
d. Rearrange Cards	
e. Edit a Card	
f. Delete a Card	
g. Add a Graph	
h. Edit a Graph	
i. Delete a Graph	
j. Delete the Graphs Tab	
4.3 Performance	
4.3.1 Pre-requisite	
4.3.2 Server Name Analysis	
4.3.3 View Video Capture (VCAP)	
4.3.4 Waterfall Analysis	

4.3.5 Burst Analysis	
4.3.6 Timeseries Analysis	
4.4 Diagnostics	
4.4.1 Select KPI	
4.4.2 Comparison Analysis	
4.4.3 Trend Analysis	
4.5 Wiki	
4.6 Settings	
5. Document History	46
6. Resources	
7. Support	47

1. What is App Experience?

Non-functional testing (QoE testing) measures product behaviour and characteristics. This type of test does not check whether the functionality is working, rather it tests if the functionality is effective. In a way, testing for QoE helps in measuring the app experience.

App Experience can measure app experience and perform software testing conveniently. It calculates a score called App QoE Index (AQI) and provides detailed analysis on the quality of experience (QoE) of the app, including temporal and geospatial analysis. AQI can be analysed further by breaking it into different components. The platform is highly customizable and enables users to analyse QoE on an app or a network through various cuts. There are various useful filters enabling QoE analysis in a city, network, download speed, time of the day, etc. Moreover, the KPIs cards highlight the value of key scores/KPIs. Above all, users can do analysis through customized views: trend line, comparison charts, distribution charts.

App Experience informs on how quality of experience (QoE) parameters are performing for a particular app.

To use App Experience, the first step is to sign up.

If you do not have an account on App Experience, please complete the following steps:

- 1. Open https://mozark.ai/apps/synthetic-experience-monitoring/
- 2. Follow the online instructions to ensure a successful sign up on App Experience.

2.Getting Started

This user manual shows you on how you can use App Experience to test a native Android or iOS app. You can use the App Experience operations console to create KPIs, upload scripts, create orders, select devices, run or schedule a suite of standard tests, and then view the results on App Experience dashboard.

After successfully signing up, sign into Operations Console and App Experience Dashboard using your credentials.

3. Working with Operations Console

This section explains on how to use operations console. Operations console helps a user to manage KPIs, scripts, orders, tests, status for the automated tests used to measure app experience.

3.1 Manage KPIs

This section explains on how to add, delete, and edit a KPI through operations console as given in Figure 01.

		KPIs	Scripts	Orders Start Tests	Check Status	
						+ Add New KPI Filter E
KPI No	KPI Category	KPI Name	KPI Unit	KPI Description	Default Thresholds	App category
1	ResponsiveScore	Time To Load Home Page	Secs	time to a home page	4: 0 to 4 3: 4 to 6 2: 6 to 9 1: 9 to 100	• GAMING • OTT • E-COMMERCE • CONFERENCE
2	StreamingScore	Play Start Time	Secs	time taken to play a video	4: 0 to 2 3: 2 to 4 2: 4 to 6 1: 6 to 100	• OTT 🗶
3	StreamingScore	Buffer Count	Count	calculate no.of buffer counts	4: 0 to 10 3: 10 to 200 2: 200 to 500 1: 500 to 1000	• OTT 🗶
4	StreamingScore	Buffer Percentage	x	Calculate buffer percentage	4: 0 to 10 3: 10 to 200 2: 200 to 500 1: 500 to 1000	• OTT 🗶 🖌
5	ListingPageExperienceScore	Time To Load First Add	%	calculate First Add	4: 0 to 10 3: 10 to 200 2: 200 to 500 1: 500 to 1000	• OTT 🛛 🗶
6	ResponsiveScore	Search Result Time	Secs	calculate Search Result Time	4: 0 to 10 3: 10 to 200 2: 200 to 500 1: 500 to 1000	• OTT 🛛 🗙

Figure 01: Manage KPIs

- a. Add a new KPI
 - To add a new KPI, click on "Add New KPI" as given in Figure 02.
 - Populate all the mandatory fields -
 - KPI Category
 - o KPI Name
 - o KPI Unit
 - KPI Description
 - Default Thresholds
 - o Outlier
 - Filling 'App Category Relevance' is optional.

After clicking Add, the new KPI gets added and can be seen in the KPIs table.

	Add New Kl	PI	×	^
KPI Category*:			\sim	
KPI Name [*] :				
KPI Unit [*] :			~	
KPI Description*:				ļ
	* Description allows	only 150 characters		
Default Thresholds (enter	number without u	nits)*:		
Score	Lower	Upper		
4				
3				~

Figure 02: Manage KPIs - Add KPI

b. Delete a KPI

To delete a KPI, click on **X** symbol as given in Figure 03. After clicking Yes, the KPI will be deleted.



Figure 03: Manage KPIs - Delete a KPI

c. Edit a KPI

To edit a KPI, click on the pen symbol as given in Figure 04. After editing the desired fields, the KPI will be edited.

			M AG	UAMARK				
		KPIs	Scripts	Orders Start Tests	Check St	atus		
							+ Ad	d New KPI Filter By
1	ResponsiveScore	Time To Load Home Page		Update KPI	× ^	4: 0 to 4 3: 4 to 6 2: 6 to 9	GAMING OTT E-COMMERCE	
			KPI Category*:	ContentExperienceScore	~	1: 9 to 100 4: 0 to 2	CONFERENCE	
2	StreamingScore	Play Start Time	Content Experience*:	StreamingScore		3: 2 to 4 2: 4 to 6 1: 6 to 100	• OTT	
3	StreamingScore	Buffer Count	KPI Name*:	Play Start Time		4: 0 to 10 3: 10 to 200 2: 200 to 500 1: 500 to 1000	• OTT	× 2
			KPI Unit*:	Secs	~	4: 0 to 10		
4	StreamingScore	Buffer Percentage	KPt Description*:	time taken to play a video		3: 10 to 200 2: 200 to 500 1: 500 to 1000	• OTT	×
5	ListingPageExperienceScore	Time To Load First Add	Default Thresholds (ente	* Description allows only ISO characters number without units)*:		4: 0 to 10 3: 10 to 200 2: 200 to 500 1: 500 to 1000	• OTT	
6	ResponsiveScore	Search Result Time	Score	Lower Upper	v	4: 0 to 10 3: 10 to 200 2: 200 to 500 1: 500 to 1000	• OTT	
7	ResponsiveScore	Time To Load Page From Carousal	Secs	time to Load Page From Carousal		4: 0 to 4 3: 4 to 6 2: 6 to 8	• OTT	

Figure 04: Manage KPIs - Edit a KPI

d. Filter By

Filter by helps in finding the KPIs by giving KPI Name as an input. The corresponding KPIs will get reflected in the tale.

3.2 Manage Scripts

This section explains on how to add, delete, and edit a script through operations console as given in Figure 05.

AQUAMARK									(
			KPIs	Scripts	Orders Start Tests Ch	neck Status			
								+ Add New Script	Filter By
Script No	Script Name	Script Description	App Category	App Name	KPIs	OS	Platform	Framework	
1	<u>sony sonyliv</u>	SonyLiv	ττο	SonyLiv	Time To Load Home Page Play Start Time Buffer Count Buffer Percentage	ANDROID	Native	UIAutomator	
2	VODAFONE	VODAFONE	CONFERENCE	VODAFONE	 Search Result Time Time To Load Home Page Time To Load First Add 	ANDROID	Native	UIAutomator	/
3	netflix	demo	ΟΤΤ	Netflix	Time To Load Home Page Time To Load Page From Carousal Buffer Count Play Start Time Buffer Percentage	ANDROID	Native	UIAutomator	/



a. Add a Script

- Click on "Add New Script" to add a script as given in Figure 06.
- Populate all the mandatory fields
 - o App Name
 - App Category
 - Script Name
 - o OS
 - o Platform
 - o Framework
 - KPIs(after clicking next)

• Filling 'Script Description' is optional. After clicking Add, the new script gets added and can be seen in the scripts table.

		Add New Script	×	^
	App Name [*] :			
E	App Category*:			
l	Script Name*:			
	Script Description:			
		* Description allows only 150 characters		
	os*:	⊖ ^{Android} ⊖ ^{IOS}		
	Platform [*] :	⊖ ^{Native} ⊖ ^{Web}		
	Framework*:	○ Appium ○ UIAutomator ○ XCUITest		
		Next		~

Figure 06: Manage Scripts - Add a Script

b. Delete a Script

To delete a script, click on **X** symbol as given in Figure 07. After clicking Yes, the script will be deleted.



Figure 07: Manage Scripts - Delete a Script

c. Edit a Script

To edit a script, click on the pen symbol as given in Figure 08. After editing the desired fields, the script will be edited.

gory	App Name	KPIs	
		Update Script	× ^
	App Name [*] :	SonyLiv	
NCE	App Category*:	ΟΤΤ	
	Script Name [*] :	sony_sonyliv	
	Script Description:	SonyLiv * Description allows only 150 characters	
	os*:	Android OIOS	
	Platform*:	Native O Web	- 18
	Framework [*] :	⊖ Appium ● UIAutomator ⊖ XCUITest	
		Next	
			\sim

Figure 08: Manage Scripts - Edit a Script

d. Filter By

Filter by helps in finding the scripts by giving Script Name as an input. The corresponding scripts will get reflected in the table as given in Figure 09.

				M AC	QUAMARK				(
			KPIs	Scripts	Orders Start Tests	Check Status		+ Add New	Script Filter By
Script Name							Clear	Apply	
Script No	Script Name	Script Description	App Category	App Name	KPIs	os	Platform	Framework	
1	sony_sonyliv	SonyLiv	OTT	SonyLiv	Time To Load Home Page Play Start Time Buffer Count Buffer Percentage	ANDROID	Native	UIAutomator	* /
2	VODAFONE	VODAFONE	CONFERENCE	VODAFONE	Search Result Time Time To Load Home Page Time To Load First Add	ANDROID	Native	UIAutomator	× /
3	netflix	demo	ΟΤΤ	Netflix	Time To Load Home Page Time To Load Page From Carcusal Buffer Count Play Start Time Buffer Percentage	* ANDROID	Native	UIAutomator	× 2
4	Script 01_OTT		σττ	Script 01	Buffer Percentage	ANDROID	Native	Appium	×

Figure 09: Manage Scripts - Filter By

3.3 Manage Orders

This section explains on how to add, delete, and edit an order(app or telco) through operations console as given in Figure 10.

				M A	QUAMARK		
				KPIs Scripts	Orders Start Tests Check Status		+ Add New Order Filter I
Order No	Customer Name	Order Type	Benchmarks	Арря	KPas	os	Additional Analysis
1	VIDEOOTT_SHAHID	арр	Netfix	OTT • SonyLiv • sony_sonyliv • Netflix • netflix	DEI ResponsiveScore • Time To Load Home Rage: NO StamaningScore • Buffer Preventage: 40 • Buffer Count: 30 • Ray Start Time: 30	Android	Pcap analysis: true 🗙 🗸
2	VODAFONE GATAR	teico	Airtei	OTT • SonyLiv • sony_sonyliv <u>CONFERENCE</u> • VODAFONE • VODAFONE	OII LittingHapeExperienceticore • Time To Load First Add: 100 ResponsiveScore • Sarch Result Time 50 • Time To Load visione Page 50 <u>CONFERENCE</u> ResponsiveScore • Time To Load visione Page: 100	Android	Pcap analysis: true 🗙 🗸
1	Sonveloy_Page	арр	Netflix	OTT • SonyLiv • sony_sonyliv • Netflix • netflix	OII RegionativeScore • Time To Load Hope Term Carounal 50 • Time To Load Hope Term Carounal 50 StemaningScore • Pay Start Time. 40 • Buffer Court. 30 • Buffer Parcentage. 20	Android	Pcap analysis: true Vcap analysis: false
4	AIRTEL	telco	JEO. VODAFONE	OTT • SonyLiv • sony_sonytiv <u>CONFERENCE</u> • VODAFONE • VODAFONE	OTT ResponsiveScore • Time To Load Home Page: 100 <u>CONFERENCE</u> ResponsiveScore • Time To Load Hinst Add: 100	Android	Pcap analysis: true X Vcap analysis: false

Figure 10: Manage Orders

a. Add a new Order

There are two kinds of orders. One is App order and another one is a telco order. App orders take into account a specific industry segment and telco orders take into account multiple industry segments.

Populate the below fields in order to create a new order.

- i. App Order
 - 1. Select Script(multiple selection)
 - Specify if PCAP and Video needs to be processed PCAP: {default ON} Video: {default OFF}
 - 3. App Category(auto-select)
 - 4. Main App (select from a dropdown)
 - 5. Benchmark app(provides apps(scripts) based on app category except for the main app)
- 6. Weights

ii. Telco Order

- 1. Select Script (multiple selection)
- 2. Specify if PCAP and Video needs to be processed
 - 1. PCAP: {default ON}
 - 2. Video: {default OFF}
- 3. Main Telco (free text)
- 4. Benchmark Telco (free text, multiple inputs)
- 5. Apps categories (auto-select, inputs)
- 6. Apps inside each category(auto-select, multiple inputs)
- 7. Weights for every category

b. Assign Weights to KPIs

While adding weights, select the KPI category and assign the appropriate weights in % to it. Submit only when the summation of all the weights are equal to 100%.

After clicking Submit, provide weights for KPIs. KPIs will get selected from the dropdown as given in Figure 11.

For Telco order, weights for different apps will be added in the same way the weights for different apps are added as given in Figure 12 and 13.

A	dd App Order	×
Weights [*] :		
Choose AQI Component:		
KPI Category	Weight	
	×	+
		Submit
Back	Add App Order	

Figure 11: Assign Weights to KPIs for an App Order

Add App Order								
Weights [*] :								
Choose AQI Component:								
KPI Category	Weight							
VideoSubjectiveScore	✓ 100 X +							
VideoSubjectiveScore	Submit							
KPI Name	Weight							
	× +							
Back	Add App Order							

Figure 12: Assign Weights to KPIs for an App Order

TC	Add Telecom Order	×
le	Weights [*] : Choose AQI Component: CONFERENCE:	
T	KPI Category Weight	
0 0		
C C	Submit	
т о	Back Add Telco Order	
e		

Figure 13: Manage Orders - Add Weights to a Telco Order

c. Delete an Order

To delete an order, click on X symbol as given in Figure 14. After clicking Yes, the order will be deleted.

1.mand		Peatities	SEEL • SomyLav • scong_scongeliev • Northie	OII DespensionEcore + Tener To Load Name Page 100 StreamingScore + Danke Pacindiane 40 × you want to delete VJDCOOTT_SHALED?	• Andread	Poip analysis, true Vicip analysis, take	
ne qatan	Mare	Artsi	OL. • SonyLav • sony_Lamptor COMPTENENCE • VODAYCOME	Yes No * Time To Load First Add. 100 Timeproximiticizes * Section Rendit Time: 50 * Time To Load Instead Rage, 50 Coard Educk	• Android	Pcap analysis true Vicap analysis true	

Figure 14: Manage Orders - Delete an Order

d. Edit an Order

To edit an order, click on the pen symbol as given in figure 15. After editing the desired fields, the order will be edited.

Apps	KPis	os	Additional Analysis	
OTT • SonyLiv • sory_sonyliv • Netflix • netflix	OTT ResponsiveScore • Time To Load Home Page: 100 StreamingScore • Buffer Percentage: 40 • Buffer Count: 30 Update New Order	Android	Pcap analysis: true Vcap analysis: false	× /
QI • So • Customer Name*: • So • VC • VC • Order Type*:	VIDEOOTT_SHAHID Android IOS App Telecom	Android	Pcap analysis: true Vcap analysis: true	× /
OT • SonyLiv • sony_sonyliv • Netflix • netflix	Next • Time To Load Home Page: 50 • Time To Load Page From Carousal: 50 StreamingScore • Play Start Time: 40 • Buffer Count: 30 • Buffer Percentage: 30	• Android	Pcap analysis: true Vcap analysis: false	× /

Figure 15: Manage Orders - Edit an Order

e. Filter by

Filter by helps in finding the orders by giving Customer(Order) Name as an input. The corresponding orders will get reflected in the table as given in Figure 16.

		M AQUAMARK							
				KPIs Scripts	Orders Start Tests Check Status		+ Add New Or	rder Filter By	
Customer Name	2						Clear Apply		
Order No	Customer Name	Order Type	Benchmarks	Apps	KPIs	OS	Additional Analysis		
Order No	Customer Name	Order Type app	Benchmarks Netflix	Apps OTT • SonyLav • sony_sonyliv • NetTix • netTix	KPRs <u>OII</u> ResponsiveScore • Time To Load Home Page: 100 StreamgGore • Butter Percentage: 40 • Butter Percentage: 40 • Butter Start Time: 30 • Pagi Start Time: 30	OS • Android	Additional Analysis Pcap analysis: true Vcap analysis: false	× 7	

Figure 16: Manage Orders - Filter by

3.4 Start Tests

This section explains on how to schedule both continuous and sporadic tests using operations console as shown in Figure 17.

				AQUAMARK			
			KPIs Scripts	Orders Start Tests	Check Status		
ielect Order*: VIDEOOTI Select OS*: Android Select Scripts*:	r_shahid v						
Service Scriptor :	Script Name		^				
	sony_sonyliv						
	netflix		~				
Capture*: Pcap V Time between start of tests; * Time interval should be minimum Recurrence*: Schedule t Time*: 10/11/2020	minutes)*: 10 🕼						
Monday Tuesday	a day and in certain days of the v		nday				
Siot 01: 00:00 Siot 02: 00:00 Get Devices Select Devices*:	00.00						Filter B
	Telco		IMEI			Clear Apply	
City						CHORE PUPPS	
	Device Model	OS	IMEI	Network	Telco	City	
City	Device Model moto e5 plus	OS Android 8.0.0	IME1 355528096800991	Network No network type if no inter			
City						City	
City Device No	moto e5 plus	Android 8.0.0	355528096800991	No network type if no inter	net VODAFONE IDEA	City NA	

Figure 17: Start Tests

- 1. To start a test, populate and click the below fields:
 - a. Select Order
 - b. Select OS
 - c. Select Scripts
 - d. Capture
 - e. Time between start of two tests
 - f. Recurrence
 - i. One Time
 - ii. Schedule
 - g. Get Devices
 - h. Filter By
 - i. Tray Description

Now click 'Start Tests'. You will get a success message that the tests are scheduled.

3.5 Check Status

This section explains on how to check, delete or edit the tests that are scheduled through operations console.

To view devices and test results, click as given in Figure 18.



Figure 18: Check Status - View Devices, Test Results

You can delete trays(a group of devices) and a device. But you cannot delete test results.

To delete a tray and to delete a device in a tray, click on X symbol as given in Figure 19. After clicking 'Yes' as given in Figure 20, the tray or a device in a tray will be deleted.

				M AQU	JAMARK			G
			KPIs	Scripts Orde	rs Start Tests	Check Status		
				Devices fo	r Tray - MOZARK_1			X Filter By
Tray No	Device No	Device Model	OS	IMEI	Network	Telco	City	
1	1	moto e5 plus	Android	355528096800991	No network type if no interr	Net VODAFONE IDEA	NA	
2								× 7
								×
3								
					End Time: NA			_
4	MOZARK_4	testing	10 Nov 2020 14	1:57	Type: simpleTest Type: NADays: NA		<u>Devic</u> <u>Test Re</u>	- X - /

Figure 19: Check Status - Delete Devices, Delete a Device

				AQUAMARI	ĸ			
			KPIs S	cripts Orders	Start Tests	Check Status		
								Filtor B
<u>я</u> ,	MOZARIC_1	testing first	06 Nov 2020 12 55	Start Time I End Time N Type simple Test Type N Days: NA Time Slot: N	а • •		Devices Just Results	
2	MOZARK_Z	testing from jagour	06 Nov 2020 1538	Start Time: N End Time: N Type: simple Test Type: N	а • а	×	Devices Test Results	
3	MOZARK_3	testing attemp2	06 Nov 2020 16 28	Are you sure you want to d Yes • Type: simple • Test Type: N • Days: NA • Time Slot: N	No		Devices Test Results	
4	MOZARK_4	testing	10 Nev 2020 14:57	Start Time: 1 End Time: N Type: simple Test Type: N Days: NA Time Slot: N	а , ,		Devices Test Streats	
5	MOZARK_S	test	10 Nov 2020 15:01	End Time: K Type: sched Teut Type: C Days: NA	Continous		Diminan Test Results	
					10 Nov 2020 00:00 2 Dec 2020 00:00		Dentes	

Figure 20: Check Status - Click 'Yes' to delete a device or a tray(a group of devices)

To edit a tray, click on the pen symbol as given in Figure 21. After editing the desired fields, the tray will be edited.

			MACHAMADIZ	
			Update Tray ×	•
		_	1. Select Order*: VIDEOOTT_SHAHD V	Filter By
Tray No	Tray Name	Tray Description	2. Select OS": Android V	View
			3. Select Scripts*:	
1	MOZARK_1	testing first	Script Name	Devices Test Results
2	MOZARK_2	testing from jajpur	nettix 🗆	Devices Test Results
3	MOZARK_3	testing attemp2	4. Capture*: → Pcap ↓ Vdeo	Devices Test Results
			5. Time between start of tests(minutes)*: 10 🔯	
4	MOZARK_4	testing	6. Recurrence*: One Time	Devices Test Results
			7. Select Devices": Filter By	
5	MOZARK_S	test	Drvice Drvice OS IHEI Network Telco City	Devices X
			1 moto e5 plus Android 355528096800991 No network type if VODAFONE IDEA NA	
	MOTADY C	dama	2 SM-M2OSF Android 9 355667104837155 MOBILE JIO Noida	Devices

Figure 21: Check Status - Edit a Tray

f. Filter by

'Filter by' helps in finding the trays by giving tray name as an input. The corresponding trays will get reflected in the table as shown in Figure 22.

				M A	QUAMARK		
			KPIs	Scripts	Orders Star	Tests Check Status	
							Filter
Tray Name							
							Clear Apply
Tray No	Tray Name	Tray Description	Creation Time			Schedule	Vitw
Tray No	Tray Name	Tray Description	Creation Time		• Start Time: NA • End Time: NA	Schedule	View
Tray No					 End Time: NA Type: simple 	Schedule	Devices X
	Tray Name MOZARK_1	Tray Description	Creation Time 06 Nov 2020 12:55		End Time: NA Type: simple Test Type: NA	Schedule	
					 End Time: NA Type: simple 	Schedule	Devices X
					End Time: NA Type: simple Test Type: NA Days: NA Time Slot: NA Start Time: NA	Schedule	Devices X
					End Time: NA Type: simple Test Type: NA Days: NA Time Slot: NA Start Time: NA End Time: NA	Schedule	Devices X
					End Time: NA Type: simple Test Type: NA Days: NA Time Slot: NA Start Time: NA	Schedule	Devices X

Figure 22: Check Status - Filter By

4.Working with Dashboard

This section explains on how to use App Experience dashboard. App Experience Dashboard helps the users to view the results from the automated tests and analyse the test results to assess the performance of the apps taken into consideration.

4.1 Monitoring

This section explains on how to use 'Monitoring' section of App Experience dashboard. You can add, delete, edit different kinds of cards aggregating indices and metrics and charts such as comparison charts, distribution charts, bar graphs to aid in your analysis across different networks conditions, geographies, network operators, etc.

a. Add a Card

1. To add a new card, click on 'Add Card' as given in Figure 23

2. Select KPI type to choose from metric (raw value) and index (aggregated score)

3. Select the KPI to display

4. Choose relevant conditions for which you want to create the card

5. Click on 'Add Score' to show the card on the dashboard as given in Figure 24



Figure 23: Monitoring - Add a Card

Q. Seec.				MANILA_VIDEO	OTT_TELCO_16	4 5	SUMITS *
	Add KPI Score						
OBE	KP1						
ar () Buffe	Select	Ŷ				AQI	
\sim	Location		Speed	-		6	
(2.8	Select	~	Select	× .5	; \	(3.	1 `
Charles	From Date		To Date	-			
5 A4 EE A	Select Date	Ċ	Select Date	0		27. 44	
D .	Time window		Device Category			(g . 44	
	Select	~	Select				View Mor
Netfix AGI							
Aqi-	Apps	~	Application Version Select		Aqi-x-axis		4
	Choose Platform		КРІ Тура				
	Select		Index		2.0	2. 2.8 2.9	2.0
(
	Close	Score					
06-2020) (16:06-2020) (17).			11 A				- 18

Figure 24: Monitoring - Add KPI Score

b. View More Cards

1. To view all cards together, click on 'View More' as given in Figure 25.



Figure 25: Monitoring - View More Cards

e. Rearrange Cards

1. To rearrange the cards after all cards are made, click on the green dragand-drop button present over one of the cards and drag and drop the cards to their new position as given in Figure 26. Newly created cards are added at the end of the rows. First five cards from the View more section are displayed on the dashboard.

Date						
	uffer Percentage	AQL ()	Buffer Percentage ())		A01	
	3.7	2.8	3.5	2.7	3.1	4.7
	Taries	(Statule)	nette 1	Terfin	Pine	
	0 AI	0.44	0.41	0 M	0 M	
	uffer Percentage	Responsiveness () Index	Responsiveness () Index	Responsiveness () Index	AGI	
(3.6	(1.9	2.8	(2.0	(2.7	
	Prove 0 -		10 -	Pantaka 12 - 0: As	55 10 at	
					Responsemant Index 1.8 Unsaming index 2.8	

Figure 26: Monitoring - Rearrange Cards

f. Edit a Card

1. To edit a card click on encircled i in the top right hand side of the card as shown in Figure 27.

Date						
-						
B.	ffer Percentage ())	AQI	Buffer Percentage 🕕	AQI (I)	AQI D	
(3.7	2.8	3.5	2.7	3.1	40
	Notate Al	Vestudæ 0 48	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9 Al	0. Al	
	ffer Percentage 🕥	Responsiveness () Index	Responsiveness ()	Responsiveness 💿	AGI	
(3.6	(1.9	2.8	2.0	(2.7	
	Prane - All	17 - 0 As	90%		ниты († - (9 Ал	
					Represeivenus India 1.9 Streaming Index 8.5	

Figure 27: Monitoring - Edit a Card

2. Edit the details of the card as you require and click on 'Add Score' as given in Figure 28.

Q. Salest				
	AQI			* Add Card
GLOBE	Apps Netflix X	City V Select	~	View More)
Notific Add	Speed	Date		
	Device	Choose Platform	8	1
,		v Select	×	22 28 29 29
	AQI 2.7		4	
17-06-2020 02-00 07-06-2020 05-00	Besponsiveness Index 1.9 (·	
	Streaming Index 1.5 ((inclusion)	
			0 Responsiveness Index Streaming Index	
			AGI-score(Breakup)	
			Close Add	Score

Figure 28: Monitoring - Add Score

g. Delete a Card

1. To delete the card, click on bin icon and your card will be deleted as given in Figure 29.

Q. Select						DTT_TELCO_16	
	AQI				Г		
GLOBE	Apps		City		-	-	
	Netflix X	~	Select	~			
Netfix AGI (8) Netfix forther (Speed		Date				
	Select	~	Select	8			
*	Device		Choose Platform				
1	Select	~	Select	~		222	
* ,	AQI						
	2.7			4	3.51		
17-04-2020 17-04-2020 02:00 06:00	Responsiveness Index	1.9 (1)				a 1 1	
	Streaming Index	3.5 ①		2			
				, ADICECO	1.60		
				•	Responsiveness Index Streaming Index AGI-score@reakup0		
					Close Add Score		

Figure 29: Monitoring - Delete a Card

h. Add a Graph



1. To add a new Graph page, click on the + icon as shown in Figure 30.

Figure 30: Monitoring - Add a Graph page

- 2. Double tap to rename the page tab and click outside the field to save it
- 3. Click on 'Add Graph' to add a new graph as given in Figure 31.

GLOBE				+ Add Card
Buffer Percentage 💿	AQI	Buffer Percentage	AQI	AQI
(3.7)	2.8	3.5	(2.7	(3.1
(B) +	(B) +	- 0 A1	B ·	0 All
Netflix AQI 🔹 Netflix Buffer	Prime Buffer R Prime AQI	Buffer X - ALL Time to Load	Hom (8) AGI(AII) - Distribut (8) Page 8	View More >
		Add Graph		

Figure 31: Monitoring - Add Graph

4. Choose from the 3 different graph types – Timeseries (trend analysis), Compare (condition wise analysis) and Distribution (histogram) as given in Figure 32.

5. Select KPI type to choose between metric (raw value) and index (aggregated score)

- 6. Select the KPI to display
- 7. Choose relevant conditions for which you want to create the graph
- 8. Click on 'Add Score' to show the graph on the dashboard

	Add A Gra	ph					
LOBE	Step 01	Select a widget type *	Timeseries 🔝	Compare 🚮	Distribution 🛦		+ Add Card
AQI	Step 02	Choose KPI *	Select	~	KPI Type Index	~	
(2 N	Step 03	Choose Aggregator*	Date Range Select	8	Choose Aggregator Select	~	(J.I Prime
0 Al	Step 04	Choose condition	Speed Select	~	Location Select	~	All View Mor Page 9 × +
			Time Window Select		Choose Apps Select	~	
			Device Category Select	~	Widget Name mywidget1		
			Choose Platform Select	~			

Figure 32: Monitoring - Choose different graph types

i. Edit a Graph

1. To edit a graph, click on the pen located on top right hand side of the selected graphs in Figure 33.



Figure 33: Monitoring - Edit a Graph

2. Edit your KPI's and conditions as required and click on Update to publish the updated graph as shown in Figure 34.

GLOBE	Edit Widget- Compare			8			+ Add Card
	KPI						
AQI 🕕 Buff	Buffer Percentage	~			0	AQI	
\frown	From Date		To Date			6	
(2.8	Select Date		Select Date		.5 \	(3	3.1
Youtube	Time window		Location		ettix	•	
E All	Select	\sim	Select	\sim		E All	
O All O						O All	
	Aggregator On		Speed				
	networktag	\sim	Select	\sim			View More >
🗧 Netflix Buffer 🛞 Prime Buffer 🔞					B PST		
	Device Class		Name				1
Buffer Percer	Select	\sim	Buffer Percentage-VOD-x-axis		r Percentage-VOD-T	rend	
					$ \land$		
2 4 4	Choose Apps		Choose Platform		-		
33	Select	\sim	Select	\sim			
25							
	KPI Type						
2.	Index	\sim					
0-1 1-2 2-3 3-4					17-06-2020 10:00	17-06-2020 15:00	
the state of the s	Close Update				hour		
		_					

Figure 34: Monitoring - Edit KPIs

j. Delete a Graph

1. Click on the bin icon to delete a graph as shown in Figure 35.

GLOBE		Edit Widget- Compare						+ Add Card
Butter Percentage	AGI	Play Start Time	v	- 8		AQI		
3.7	(2	From Date Select Date	To Date Select Date	A	2.7	(3.1	
The second se		Time window Select	Select					
		Appropriator On	Speed					
			V Select	- v. 📕				View Mone >
herite () seconds ()		Device Class	Kana	Propini				
	Play Start Time-VOD-x-a	Select		Play	Start Time-VOD-Dist	ribution		1
		Choose Apps Netflix X Prime X Youtube X +1	Choose Platform					
		Close Update						
Note	Acres 100	Tubbe					7-1	
				Poor (score 1 to 2)	Average (scare: 2 to 3)	Bood (astes: 3 to 4).		

Figure 35: Monitoring - Delete a Graph

k. Delete the Graphs Tab

Click on the X on the tab to delete the complete Graph Tab as given in Figure 36.



Figure 36: Monitoring - Delete the Graphs tab

4.2 Benchmarking

This section explains on how to use 'Benchmarking' section of App Experience dashboard. You can add, edit, delete different kinds of cards aggregating indices and metrics and charts such as comparison charts, distribution charts, bar graphs to aid in your analysis across different peers.

a. Add a Card





Figure 37: Benchmarking - Add a Card

b. Add more cards

1. Select KPI type to choose from metric (raw value) and index (aggregated score)

2. Select the KPI to display

3. Choose relevant conditions for which you want to create the card

4. Click on 'Add Score' to show the card on the dashboard as given in Figure 38.

GLOBE		Add KPI Score					41	
GLOBE		KPI		Choose Peers				
GLOBE	SMART	Select		Select	dband	, inc. 🕕	GLOBE RESPONSIVESCORE	
		Location		Speed				
2.9	(Select	~	Select	2.	7	(2.2	2
	1	From Date		To Date			1	
		Select Date	8	Select Date	8			
	5 ·							
	0 41	Time window		Device Category				
		Select	~	Select	~			View More >
AQI Streaming score	Response	Apps		Application Version	Count			
	AQI - Across	Select	~	Select	AQI	- Across Network	s	1
4 1 1 1 1 1 1 1 1 1 1 1 1 1	33 30 70 90 90 90 90 90 90 90 90 90 90 90 90 90		d Score	•	CCOSE DIMAT	estworklage (Htsps)	a sa a s	

Figure 38: Benchmarking - Add more cards

c. View More Cards

1. To view additional cards click on View More as given in Figure 39.



Figure 39: Benchmarking - View More Cards

d. Rearrange Cards

To rearrange the cards after all cards are made, click on the green dragand-drop button present over one of the cards and drag and drop the cards to their new position as shown in Figure 40.

Newly created cards are added at the end of the rows. First five cards from the View more section are displayed on the dashboard





e. Edit a Card

1. To edit a card click on pen at top right hand side of the card as given in Figure 41.



Figure 41: Benchmarking - Edit a Card

2. Edit the details of the card as you require and click on 'Add Score' as given in Figure 42.

4 mm				MANLA_VE	
GLOBE	ResponsiveScore				+ Add Cave
GLOBE	Apps City Select V Select	Choose Peers GLOBE	~		
All R Conserver d'Announces of the	Spend Data Select V Select	 Device Select	,		
ADI - Across A	Choose Platform		_		
	Select ~				
	ResponsiveScore				
	2.2				
And the second	Time To Land Haven Page 22				
	White the second				

Figure 42: Benchmarking - Add Score

f. Delete a Card

To delete the card, click on bin icon as shown in Figure 43 and your card will be deleted.

a			HANKA, VOROOTT, TELCO, N & C 😨 🥵 MARTA
	ResponsiveScore Area Cry Seed V Seed Ore Seed Ore Seed Ore Seed V Orean Influe Seed V	Oversities • • • • • • • • • • • • •	
	The Number Age 23	Per Nostenses Bernesses Class Add laws	POPUC (Marked V) POPUC (Marked V)
	With State W		

Figure 43: Benchmarking – Delete a Card

g. Add a Graph

1. To add a Graph, click on the + icon as shown in Figure 44.



Figure 44: Benchmarking - Add a Graph

- 2. Double tap to rename the page tab and click outside the field to save it.
- 3. Click on 'Add Graph' to add a new graph as given in Figure 45.



Figure 45: Benchmarking- Add Graph

3. Choose from the 3 different graph types – Timeseries (trend analysis), Compare (condition wise analysis) and Distribution (histogram)

4. Select KPI type to choose between metric (raw value) and index (aggregated score)

- 5. Select the KPI to display
- 6. Choose relevant conditions for which you want to create the graph

7.Click on 'Add Score' to show the graph on the dashboard as given in Figure 46.

	Add A Graph					416	- Chillorda
GLOBE	Step 01	Select a widget type *	Timeseries 🛃 Compare	V Distribution			+ Add Card
GLOSE ACS	Step 02	Choose KPI *	Buffer Count-VOD	Ŭ D		GLOBE	
(2.9	Step 03	Choose Aggregator"	Date Range Select	Choose Aggregator	~	(2.2	
			GLOBE X SMART X	× .			
	Step 04	Choose Peers *		<u> </u>			View More >
	Step 05	Choose condition	Time Window	Choose Apps	<u> </u>		
			Device Category	V Select Widget Name V Buffer Count-VOD-Trend	~		
			Choose Platform Select	~			
					Close Add Score		

Figure 46: Benchmarking - Add Score

h. Edit a Graph

1. To edit a graph, click on the pen located on top right hand side of the selected graphs as given in Figure 47.



Figure 47: Benchmarking - Edit Graph

2. Edit your KPI's and conditions as required and click on Update to publish the updated graph as given in Figure 48.

						<i>.</i>
	Edit Widget- Timeseries					+ Add Carl
GLOBE	629	Choose Peers	_			
GLOBE C SHART	Buffer Count	GLOBE X WIFI-SKYBroadband	1X - 10	band, Inc.	GLOBE MOROMITATION	
60 (From Date Select Date	To Dote Select Date	1	27	60	
(2.9 (Time window	Location	- (2.7	(2.2	
	Satect	Select	~			
	Choose Agompator	Speed	_			
	hour	V Select	~			View Mone >
Buffer Count-TREN	Device Class	Name		Buffer Count-VOD-x-0		1
* Burner Count - FREM	D Select	Buffer Count-TREND	_	Burrer Count YOU'Y		
	Choose Acos	Choise Platform				
	Select	Select	8			
	Close					
		<u> </u>	_			
	10 00	\$10m 142m	a	8-4100. 1-5100	1-110. 1-710. J.I.B.	+ 6 8875
			Calobe SH	ANT 🕷 WIF- SilyBroadbard	Wift-linest Broadband, Hc.	

Figure 48: Benchmarking - Edit KPIs

i. Delete a Graph

Click on the bin icon to delete a graph as given in Figure 49.

		Edit Widget- Timeseries			4.7
GLOBE		kai	Choose Peers		+ Add Card
GLOBE	SPART	Buffer Count		IX	GLOBE
					INTER-OFFICIENCE
	\cap	From Date	To Date	\frown	
	(2.9) (2	Select Date	Select Date	(2.7	(2.2
	·	Time window	Location	1.144.01	*
	90 - C		Select	~	
	* **	Choose Aggregator	Speed		
		hour	Select	~	View More >
	0 0	Device Class	Norm		
	Buffer Count-TREND	Select 🗸	Buffer Count-TREND	Buffer Count-VOD-x	axis
	and have	Choose Apps	Choose Platform	2 10 10 200	
		Select v	Select		
		Close Update			
	1766 mm 1766 mm				
	View and the second sec	18.00	3 - 1 ML 1 - 2 M	a. 2+314. 1++34. ++3.48. 1010	1-ENL 6-796. 7-198
				GLOBE GHART GINFF-SKYBroadband	© WP-bear Broatland, Inc.

Figure 49: Benchmarking – Delete a Graph

j. Delete the Graphs Tab

Click on the X on the tab to delete the complete Graph Tab as given in Figure 50.



Figure 50: Delete the Graphs Tab

4.3 Performance

This section explains on how to use 'Performance' section of App Experience dashboard. You can analyse the test results from different PCAPs processed and captured when testing was done through server wise analysis, capturing videos, waterfall analysis, burst analysis, timeseries analysis.

4.3.1 Pre-requisite

1. To check Performance of a particular Test ID, click on 'Change' as shown in Figure 51.



Figure 51: Performance - Change

2. Select your KPI's to find a custom test you are looking for or Select a test from Results Part with us without Video Capture available as shown in Figure 52.

	Custom Te:	st							
Test ID	KPI		Condition			Value			
d20c9bd99bc896671597196501063	Select	~	Select		~				Change
	Location		Date Range			Speed			
Network	Select	~			8	Select			
KPI	Network		Time Window			Device Category			
	Select	~	Select		~	Select	~		
	Application Versi Select	n V	App Name Select		Ý				5 % (#5 % of HTTP & TLS packets)
12	Results							Has video 🖌	6 % (by bytes)
	PCAP Availabilit;	r Test ID	Dete			City	App Name		
	¥	cf5c5dd9d228fa831592 303834955	2020-06-16 18:36:32			Pasig	Prime		TP 1/0 % (% of HTTP packets using v1/0)
	¥.,	cf5c5dd9d228fa831592 303469234	2020-06-16 18:30:27			Pasig	Netflix		Show
CDN	1	cf5c5dd9d228fa831592 298989741	2020-06-16 17:15:35			Pasig	Youtube		
			First	Previous 1	icat	Last			
1								Close	dshake Data exc time

Figure 52: Performance - Select your KPIs

3. View Network and KPI Values

Click on the + icon on left hand side of Network and KPI Parts to view it's respective values as given in Figure 53.

Test ID	Date	City	App Name	
cf5c5dd9d228fa831592298989741	2020-06-16 17:15:35	Pasig	Youtube	Change
Network				
1 longitude 121.0592004		latitude 14.5734389	SignalQuality	
SignalStrength -96	C	cellid 84527944	d dbm -96	
1 lac n				
KPI				
Time To Load Home Page 4.8	PS	Play Start Time 10.3	BC Buffer Count	t
BP Buffer Percentage 17.5				

Figure 53: Performance - View Network and KPI Values

4.3.2 Server Name Analysis

This part shows you all types of ESNI's being called by the app. (E.g.: YouTube). Either they are by CDN, 1st Party or 3rd Party. The count of each type of ESNI called is shown within the pie chart as given in Figure 54.

	3rd Party				
		utube.com	HTTP 1/1% (% of HTTP packets using v	VD HTTP % (as % of HTTP 8 N/A	TLS bytes)
	http://aquamark.m ODQ/auth/device// vicetentiatus/cf5s ta83/Running	updatede	UDP % in Transport Layer(by packets)	% of TCP Packets with Pa O	ylaad
12	http://aquamark.m OBO/auth/devicas/ d228fa63 Inttp://aquamark.m OBO/auth/devices/	cr5c5dd9	TCP Duplicate Ack %	CP Retransmission %	
CON 1st Party 2nd Pa	ny .	Reset	Protocol O Latency		Show Al
	DNS Guery	ONS TCP delta	TCP handshake time	TLS handshake time	Data excha time
3534	time	LITTIC			

Figure 54: Performance - Server Name Analysis

4.3.3 View Video Capture (VCAP)

In this section of the Performance dashboard, you can view the Video Capture of the whole test being conducted as marked in Figure 55. If the VCAP is not on, it won't show any video.





4.3.4 Waterfall Analysis

- 1. Across the Video Capture part, you can see all the protocols that are called and at the timing when the apps open as given in Figure 56.
- 2. You can select the time frame depending on how detailed analysis you wish to do. You can also save the waterfall analysis as an image.

3634	 DNS Query time 	 DNS TCP delta time 	 TCP handshake time 	 TLS handshake time 	 Data exchange time
	From		То		
	- •		+ • 5		
	0 1	i i ii	2 1 1 3	1	11
	Waterfall Analysis				
No Video Available	sezzionz.bugzna g.com				
	android-apploat .eeffix.com				
	android geod ct oud extitu.com				
	occ-0-2586-195. 1. mBxoo.mm	1			
	ecc-0-2186-195. E.effesio.net	I			
	sor-0-2586-195. 1.affaso.net	I			
sues	acc-0-2186-195. 1.eftxio.net	II.			
Errors such as The Network Path Cannot Be Found, IP Address Could Not Be Found, or DNS Name Does Not Exist	occ-0-2586-195. Lafkso.net	I			
	android prod ft Leeffix.com				
Your application had little user- visible content on screen for more than 1 second in these regions of the video.	android good ft Leadfla.com			1.00	
Your application had a loading	android prod R Linetfix.com			1	
animation on the screen for more than 1 second in these regions of	android prod A Linetfix, com			1	

Figure 56: Performance - Waterfall Analysis

4.3.5 Burst Analysis

1. Select what protocol's Burst Analysis you would like to review by selecting from the dropdown as given in Figure 57.
| than 500 ms to receive the tirst
byte in HTTP responses from these
hosts. | La policienca
(p.4022. excl0)
La policienca | |
|---|---|---------------------|
| than 300 ms to complete TLS
handshakes with these hosts. | Timeseries Analysis | ТСР 🗸 |
| \frown | Burst Analysis | |
| 2.16% | | |
| TCP V Select V
Duplicate Ack - 2334
Out of Order - 46.07 | | \Box |
| Retransmission - 14.88 Lost Segment - 10.12 | | 1 |
| | Timeseries Analysis TCP Window Size | TCP Window Size 🛛 🗸 |
| | 17. weeksee taken
18 | \ |
| | | 4 1 |

Figure 57: Performance - Burst Analysis

4.3.6 Timeseries Analysis

Select the Protocol from the drop down to view its Timeseries Analysis Score as given in Figure 58.

Timeseries Analysis	TCP Window Size
TCP Window Size	
170	
160_	λ
152	PA
140	
120	j V
110.	
100.	
700. 600.	
600	
400.	
300	
200	

Figure 58: Performance - Timeseries Analysis

4.4 Diagnostics

This section explains on how to use 'Diagnostics' section of App Experience dashboard. You can analyse the test results from different PCAPs processed and captured when testing was done through comparison analysis, trend analysis across different peers, network conditions, network layers.

4.4.1 Select KPI

Click on 'Change' as shown in Figure 59 and select the KPI's you wish to diagnose.



Figure 59: Diagnostics - Select KPIs

2. Select the KPI's and click on 'Update' as given in Figure 60.

		Update Co	mparison								
Network											
All	All	Location			Speed						Change
		Select		~	Select	~					
		From Date			To Date						
		Select Date			Select Date	•					
Commonloon Anolysis											
Comparison Analysis		Time window Select		~	Device Category	~					
Latency Analysis											
Average TCP Handshake Time		Apps			Application Version						
		Select		~	Select	~					
		Choose Peers									
		Select		~							
					_						1.05
					Close	Update			0.79		
0.28							0.63	0.45		0.61	
	0.18 0.16										
e CLO. NA.	SMA. WF.	0.03	w.	wr.	e		SMA.	w/.	10	WF.	117.

Figure 60: Diagnostics - Update

4.4.2 Comparison Analysis

Select the Latency, Protocol and Error KPI's from individual dropdowns to compare with each other as given in Figure 61.



Figure 61: Diagnostics - Comparison Analysis

4.4.3 Trend Analysis

Select how do you wish to see the trends – Weekly, Daily, or Hourly as given in Figure 62.

				г			
Trend Analysis					Weekly	Daily	Hourly
				-			
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	26-07-2028	8-87-8020	1 05-06-2020	1.0000 10-08-2020		10-09-2020	30-06-2020
AQI				GLOBE	~ Netflix	~) (AQ	1
4.000							
1.000						-	- 1
							~
2.000							
1.000							
5.000 Million ange	JP-47-2020	31.67.2020	11-10-2020	10-08-2010		1.10.2017	11-10-1

Figure 62: Diagnostics - Trend Analysis

a. App KPI based

1. Select the Network, App and App KPI whose trend you want to analyse as shown in Figure 63.

									Weekty	Daily		Hourty
35-07-200 D	1.54447.1	28-07-2020	1.0000	29-07-2020	$(1, (\cdot) + 1)$	03-08-2020	1.1.1.1.1.1.	10-08-3020	LOUGE	8-08-3520	$1 \to 0 + 1$	29-08-2020
ND1							6	LOBE	~ Netflix	~	AQÍ	~
4.000												
1 000											~	
2.000												
1000												
8.000 - 67.3999		29-57-2020		31-02-0026		05-06-2020		10-00-0507		76-66-2020		20 OF 211



b. Network KPI based

Select the Network, App and Network KPI whose trend you want to analyse as given in Figure 64.

0.000	28-07-2020	21-07-2020	05-08-2020	10-08-2023	16-08-3030	20-
Average TCP Handshake Time			[GLOBE V	ix v	rage TCP Handshak
1.000			_			
						~
0.000						\frown
8.00 Not State	36-07-2029	2049-2008	55 08-2020	Nore 200	548.022	204
1-07-2020	8.67.008	2.42.828	10.008.0000			
Average TLS Handshake Time	31-07-000	2-07-2020	65 68-352 0	U U U U U U U U U U U U U U U U U U U		so- rage TLS Handshak
1-07-2020	31-00-3032	D 49-200	0.09.000			
Average TLS Handshake Time	35-00-2003	10.07.000	65 GH-2020			
Average TLS Handshake Time	34 40 3038	2049 2848	80.04.800			

Figure 64: Diagnostics - Network KPI based

4.5 Wiki

In this section, you can view UX KPIs, Diagnostic KPIs and details regarding data collection.

1. UX KPI's

Scroll down to see the UX KPIs and their respective weightage scores as shown in Figure 65.

Choose Apen				
PERING				
UX KPI				
Application Quality Index				
Responsiveness index + Streaming index				
Overall index to represent the quality of experience on t	the application:			
Weights				
Responsiveness Index		50,0 %		
Streaming Index		50.0 %		
Responsiveness Index				
Time To Load Home Page				
Overall index to represent the quality of experience on t	the application			
Weights	ane appropriation.			
Time To Lood Home Page	100.0 %		0 to 4 socs = subScore 4 4 to 6 socs = subScore 3 6 to 9 socs = subScore 2	
			9 to 10000 secs + subScore 1	

Figure 65: Wiki - UX KPIs

2. Diagnostic KPI's

When you scroll down to Diagnostic KPIs section, you will view the apps KPIs in their respective categories and units mentioned as shown in Figure 66.

Diagnostic KPIs					
Category		KPI - available for every ESNI (server) communicated	by client		Unit
Time series KPIs (cit every 100 ms inforwal)	The series XPIs (dt wwy 100 ms Harve0) TCP window size Number of concentral TCP connections Bunt state for TCP Bunt state for TCP in TC				Bytes Number Number Number Number Units Units Units Units
Ney NTe - Latercy		Aug DHS Time Aug DCP Anadhalas time Aug TLS hundhalas time Aug data exchange time Aug data exchange time Aug data exchange time Aug DCP widow size Aug number of concurrent TCP connections Aug number of concurrent TCP connections	Secs Secs Secs Secs Secs Dyten/h Dyten Dyten Number Number		
Key KPs - Potscol		PA 5. (by number of packed) PA 5. (by number of packe	5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5		
Error analysis		TCP error % HTTP error % DMS error % TCP - Deplete Ada % TCP - Loat segment % TCP - Loat organiset %			****
Resource usage		Avg Battery Usage Rate Avg CRU Usage Avg Memory Usage			mAHU's % Bytes
Data Collection					
Cities Covered	Apps Tested		# of Samples - Hain App	# of Samples - Other Apps	
Pasig	Youtube,Netflix,Prime		0	298	
NA	Prime,Netflix/Joutube		0	477	
Manita	Marcal Anna Marcalline Parlament			75.0	

Figure 66: Wiki - Diagnostic KPIs

3. Data Collection

In the date section, you can set the dates to view the data/results for a particular data collection period as shown in Figure 67.

		Lensing on these factors and a concernent constraint out that its	-			1141140	
Error analysis		TCP error % HTTP error % DHS error % TCP- Lossificate Ack % TCP- Lossificate Ack % TCP- Lossificate Ack % TCP- Loss sugment % TCP- Cut of order %				16 16 16 16 16 16 16 16 16 16 16 16 16 1	
Resource usage		Avg Battery Usage Rate Avg CPU Usage Avg Memory Usage				mAH(s % Bytes	
ata Collection							
Cities Covered	Apps Tested		If of Samples - Hain App		# of Samples - Other Apps		
Pasig	Youtube,Netflix,Prime		0		298		
NA	Prime,Netflix,Youtube		0		477		
Hania	Youtube,Netflix,Prime		0		750		
Maynila	Youtube,Netflix,Prime		0		6		
Imus	Youtube,Netflix,Pvime		0		441		
Harlao	Youtube,Netflix,Prime		0		209		
et Data 10 totals							
74	-						
Al Province Province Al Provin			FL B0	-	3 Diffedute bises	1 BET-PUTgate Long Datases Traphone Co.	
	post						

Figure 67: Wiki - Data Collection

4.6 Settings

This section is only available to admin users. Click on Continue under any card to open that section as given in Figure 68.

A	<i>"</i> 8	<i>"</i> ®	$\langle \hat{Q} \rangle$					
Define Threshold Please define your threshold. Continue	Manage Users Please manage the users here.	Define Weights Please manage the weights. Continue	Classify Esni's Please manage Esni's here. Continue	Manage Orders Please manage Orders here.				
Figure 68: Settings - Continue								
	Please define your threshold.	Please define your threshold. Continue	Please define your threshold. Continue Please manage the users here. Please manage the weights. Continue Continue	Please define your threshold. Please manage the users here. Please manage the weights. Please manage the users here. Continue Continue Continue Continue V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V V				

1. Define Threshold

a. Select Index

In this section, you can change cut-off values in raw KPIs that determine index scores from a range of 1 to 4. Select the index whose thresholds you want to edit by clicking on the name as given in Figure 69.

00		Define Th	reshold	
@ X	Time To Load Home Page	Play Start Time	Buffer Count	Buffer Percentage
0	<u> </u>			
P				
0				
	Samaniaga Januar Saman			
	Continue	Continue	Continue	Continue

Figure 69: Settings - Define Threshold

b. Configure Index

Edit value by assigning values to each score. Keep note of not missing out on score range, i.e. the value in "greater than" for a score should be equal to the value in "less than or equal to" in the previous row. Proceed ahead by pressing on Continue as given in Figure 70.

M UX	Q. Select				м	IANILA_VIDEOOTT_TELCO_16	
Analytics			Enter Range	For			
			Greater than	Less than or Equal to	Score		
			0	2	4		
			2	3.5	3		
			3.5	5	2		
	A		5	10000	1	÷	
	Define Threshold Please define your threshold.	Ma Please m				assify Esni's manage Esni's here.	Manage Orders Please manage Orders here.
	Continue	I		c	Continue	Continue	Continue

Figure 70: Settings - Configure Index

2. Manage Users

In this section, you can Add (by pressing the create user button), edit and enable/disable users as given in Figure 71.

0	Manage Users						Create User
0	Name	Email	Access	Time	Date	Edit	Enable/Disable
×	sumit	sumit@mozark.ai	Admin	12:41	17-Feb-2020	1	C00
P	shubham	shubham@mozark.ai	User	12:36	29-Feb-2020	1	C10
•	voot	vootpoc@mozark.al	User	10:49	20-Mar-2020	1	
	vodafone_gatar_poc	vodafone_gatar_poc@mozark.ai	User	13:40	20-Mar-2020	1	
	SonyLiv	sonyliv@mozark.ai	User	22:46	9-Apr-2020	1	0
	Nirav	nirav®Mozark.ai	User	17:02	21-Apr-2020	1	0
	Guest	guest@mozark.ai	User	Q9:44	4-Jun-2020	1	C10
	Sourabh	sourabh@mozark.ai	Admin	12:34	18-Jun-2020	1	C0
	Abdou	Guest1@mozark.ai	User	16:16	19-Jun-2020	1	0
	Abdou	Guest2@mozark.ai	User	16:19	19-Jun-2020	1	0
	Abhishek	TESTI@mozark.ai	User	11:24	30-Jun-2020	1	0
	Chandrasekar	chandra@mozark.ai	Admin	11:38	1-Jul-2020	1	C0

Figure 71: Settings - Manage Users

- 3. Define Weights
 - a. Select Weight

_	_		-	41× conso
		Define Weights		
		AQI Weights		
		KPI Index Weight		
A	ß	18	Ŷ	
Define Threshold Please define your threshold.	Manage Users Please manage the users here. Continue	Define Weights Please manage the weights.	Classify Esni's Please manage Esni's here.	Manage Orders Please manage Orders here:

Figure 72: Settings - Select Weight

b. Configure Weight

Configure weights assigned to base index to configure calculation methodology of aggregate index in this section. Click on the Weight name to proceed ahead. Assign weight out of 100 to the scores as per desired configuration. Please ensure that all weights add up to exactly 100%. Press Save to save configuration and continue as given in Figure 73.

		AQI - 100 % ResponsiveScore		41×
		50 StreamingScore 50		
A	<i>,</i> 8	VideoSubjectiveScore O AudioSubjectiveScore O	Ŷ	
Define Threshold Please define your threshold. Continue	Manage Us Please manage the u Continue	PunctionalScore O	Classify Esni's Please manage Esni's here. Continue	Manage Orders Please manage Orders here.
		Close		

Figure 73: Configure Weights

4. Classify ESNI

Configure ESNIs in to 1st party, 3rd party, and CDN categories to view network performance across different ESNI on a categorical level. Select the App, whose ESNIs you want to edit. Next, select the ESNI class. Finish by assigning keywords from the ESNI that you want to assign under App-ESNI class combo. Previous settings can be edited/deleted as given in Figure 74.

	Classify E	sni's								ALD DEVELOPER
	Select App			ESNI Class		Keyword			1	
	Select		~	Select	~					
l	Test ID	App Name		ESNI Type	Keyword		Action			
	1	Prime		1st Party	amazon		1			01
X	1	Youtube		1st Party	google, yt		I			
	1	Netflix		1st Party	netflix, nflx		1			_
Define Threshold				First Previous 1	Next Last					Manage Orders
Please define your thresh						ſ	Close	Update		Please manage Orders here.
Continue		_		_						Continue

Figure 74: Settings - Classify ESNIs

5. Document History

S.No	Date	Version Number
1.	Dec 4, 2020	1.0

6. Resources

This section contains links to product video tutorials that can help you in getting started with App Experience.

Product Videos

(https://www.youtube.com/channel/UCdcRlhyX-ZzYWRCvrSillHg):

1. How to perform experience testing on MOZARK? https://www.youtube.com/watch?v=UQ4mSY-uGvM

2. How to measure app experience? https://www.youtube.com/watch?v=Px5-bHOwXwk

7. Support

For further assistance, you can reach out to enquiry@mozark.ai.