

market[®]
simplified

Interactive Web Trading App for Top Broker in Indonesia

RHB  Securities

About RHB Securities

- One of the top 10 brokers in Indonesia Stock Exchange (IDX)
- Subsidiary of RHB Investment Bank
- Established in 1990
- Trades USD 490 Million worth stocks on an average annually

Challenges

- Legacy 3rd party trading backend systems that lacked performance and features.
- Desktop application is the only available online channel. The app is rigid in terms of feature expansion and requires additional cognitive efforts in installing and using the application.

Solution

The solution for the above challenges is given in 3 parts.

1) Responsive Web App

- Built on rich HTML5 and JavaScript
- Asynchronous Node.js based non-blocking framework
- Price streaming using secure web sockets
- Cluster Mode webserver for handling high load and traffic

2) Trading Platform

- Market Data derivation from exchange feeds
- High Performance
- Robust and Scalable
- Seamless 3rd party integration
- Omni-Channel APIs

Responsive Web App

- **Dashboard** - Separate widget based dashboard for demo and trading user. It displays collective information and helps users make quick decisions and act on them just as fast.

The dashboard displays the following data:

MARKET INDICES			
Code	Last	Chg	Chg(%)
COMPOSITE	4,546.29	15.84	0.34
LQ45	790.06	4.26	0.54
KOMPAS100	980.26	4.02	0.41
BISNIS-27	394.89	2.58	0.65

TOP STOCKS									
Code	Last	Chg	Chg%	Vol	High	Low	Ref	B(%)	
PPRO	186	8	4.49	154.91 M	190	179	178	55.15	
SRIL	380	5	1.33	131.26 M	381	370	375	53.43	
MYRX	620	-5	-0.80	123.81 M	625	610	625	96.28	
TLKM	3,145	-65	-2.02	121.21 M	3,190	3,130	3,210	48.45	
LPKR	1,035	25	2.47	81.82 M	1,035	1,000	1,010	70.56	
PWON	479	0	0.00	77.56 M	484	460	479	50.07	
ADHI	2,295	95	4.31	76.32 M	2,310	2,180	2,200	56.94	
KLBF	1,410	85	6.41	75.15 M	1,415	1,325	1,325	56.19	
SSMS	1,760	-15	-0.84	74.64 M	1,785	1,760	1,775	80.25	
SUGI	385	-1	-0.25	66.71 M	386	381	386	72.07	
SSIA	675	-20	-2.87	54.52 M	710	665	695	43.90	

INDEX MOVERS				
Code	Last	Chg	Index (+/-)	Mkt Cap
BBRI	11,600	350.00	9.27	283.30 T
KLBF	1,410	85.00	4.46	66.09 T
HMSP	93,100	900.00	4.45	433.16 T
BMRI	9,275	175.00	4.33	214.25 T
ASII	6,050	75.00	3.23	244.92 T

WATCHLIST			
Code	Last	Chg	Volume
ABBA	50	0	200

- **Live Trade & Streaming** - Updates the traders with the price and actively trading stocks with a minimal latency as low as 1 second.

The Live Trade interface displays the following data:

Time	Exch. Trade No	Code	Last	Lot	Chg	Chg(%)	Avg Pr	Vol	F/D	Buy	Sell	F/D
11:59:20	000322048115	INDF	5650	22	-200	-3.41	5717.981	2200	D	GR	ML	F
11:59:20	000322048116	ADRO	458	4	-15	-3.17	464.713	400	F	CS	ML	F
11:59:20	000322048117	TLKM	3115	48	-75	-2.35	3142.484	4800	F	RX	ML	F
11:59:20	000322048118	ASII	5700	2	-200	-3.38	5768.752	200	D	KI	ML	F
11:59:20	000322048119	SMGR	10325	12	-575	-5.27	10570.925	1200	D	YB	ML	F
11:59:20	000322048120	ADRO	458	11	-15	-3.17	464.712	1100	F	CS	ML	F
11:59:20	000322048121	NRCA-W	40	5	-6	-13.04	41.848	500	D	YP	YP	D
11:59:20	000322048122	LPKR	1025	100	-40	-3.75	1058.409	10000	D	PI	YB	D
11:59:20	000322048123	BBNI	4890	1	-95	-1.90	4920.063	100	D	KS	KK	D
11:59:20	000322048124	BBRI	11400	13	-200	-1.72	11517.518	1300	D	TP	GD	D
11:59:20	000322048125	TBIG	5575	9	-75	-1.32	5609.683	900	D	PD	ML	F
11:59:20	000322048126	ADRO	459	5	-14	-2.95	464.712	500	F	AK	CS	F
11:59:20	000322048127	UNVR	35725	5	-375	-1.03	35911.843	500	D	PD	ML	F

- **Alerts** - Set alerts based on stock price and change values. The alert notifications are delivered via web app and e-mail.

SET ALERT

Search: Equity & Indices

Select an Alert Criteria: Price drops below

Alert Value: [Input Field]

Deliver Alerts: Both Email and Push Notification

RESET SUBMIT

Code	Alert Criteria	Alert Value	Last	Deliver Report	Last Triggered	Delete
AAUJ	Price rises above	100	16,375	Push Notification	2016-01-13 08:55:06	[Delete]
ASII	Price drops below	100	5,900	Both Email and Push Notification		[Delete]
EUR/IDR	Price rises above	1	14,979	Push Notification	2016-01-13 00:00:19	[Delete]
EUR/IDR	Price rises above	2	14,979	Push Notification	2016-01-13 00:00:19	[Delete]

NOTE: Alert set in the system shall remain intact unless and until deleted or removed by you. For efficiency purposes, each pre-set alert shall trigger only once per day although there may be several occasions when your alert criteria match during the day

- **Stock Screener** - Helps user in searching stock based on certain criteria.

STOCK SCREENER

Sector: All

Share Price (IDR): MIN 100 MAX

Market Capitalization (IDR): [Input Fields]

Operating Profit Margin (%): MIN 20 MAX

Net Profit Margin (%): MIN 10 MAX

Earning Per Share: MIN 100 MAX

Price / Earning (x): [Input Fields]

Price to Book Value (x): [Input Fields]

Return on Asset (%): [Input Fields]

Return on Equity (%): [Input Fields]

Buy (%): [Input Fields]

Code	Share Price	Operating Profit Margin	Net profit Margin Incl	Earning per share
BBCA	13,000	39.09	31.04	722.95
BBNI	4,890	21.29	16.93	428.84
BBRI	11,400	29.76	25.64	995.40
BIRD	6,500	22.88	16.65	354.91
BJBR	835	28.97	22.01	118.44
BMRI	9,150	25.75	19.89	833.29
BNLI	770	26.39	20.28	140.92
BSDE	1,770	46.80	37.32	119.79
CMNP	1,915	33.89	30.84	162.43
CTRS	2,170	34.53	31.98	310.56
DLTA	5,200	29.50	25.79	9,996.84
EMTK	10,000	42.34	30.27	342.30
INTP	19,550	28.65	24.98	1,165.70
JSMR	5,825	36.18	15.35	188.42

Trading Platform

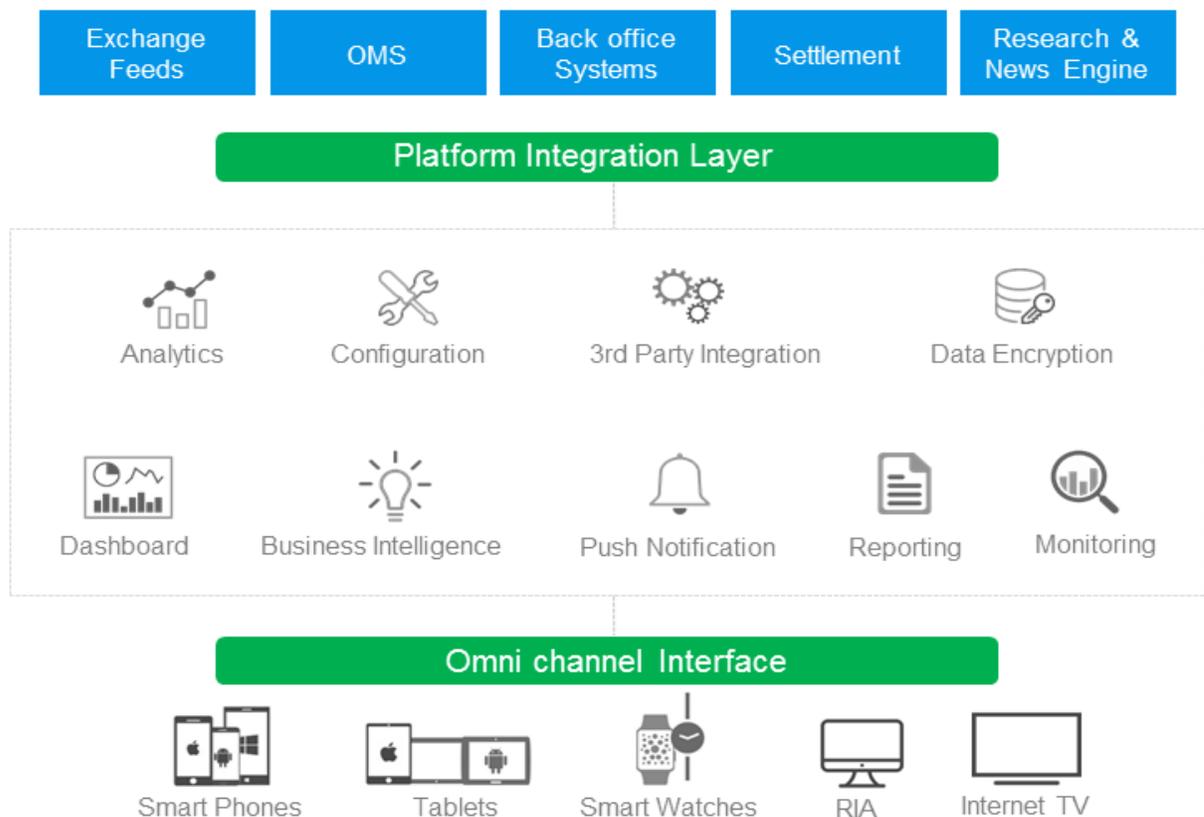
Capabilities

- 1 Million Information processed daily
- USD 2 Billion worth transactions processed
- 25 Thousand peak concurrent connections

Functionalities

- Integrate Multiple Backend Systems
- Manage App Versioning and Updates
- Provide Additional Security
- Manage Notifications
- Manage Configurations

Architecture



Benefits

- USD 100 Million worth stocks traded
- 5000 + Unique users trading via this channel

About Market Simplified: Market Simplified is a thought leader in handcrafting custom solutions by continuously innovating and simplifying finance. We have maximized the revenues of industry leaders like OptionsXpress (Charles Schwab), Currenex (State Street), MB Trading, Maybank Kim Eng, Kotak Mahindra Bank and National Stock Exchange of India by providing enhanced and sustained user engagement through Experience Engineering.