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OTT and Moving up the Stack

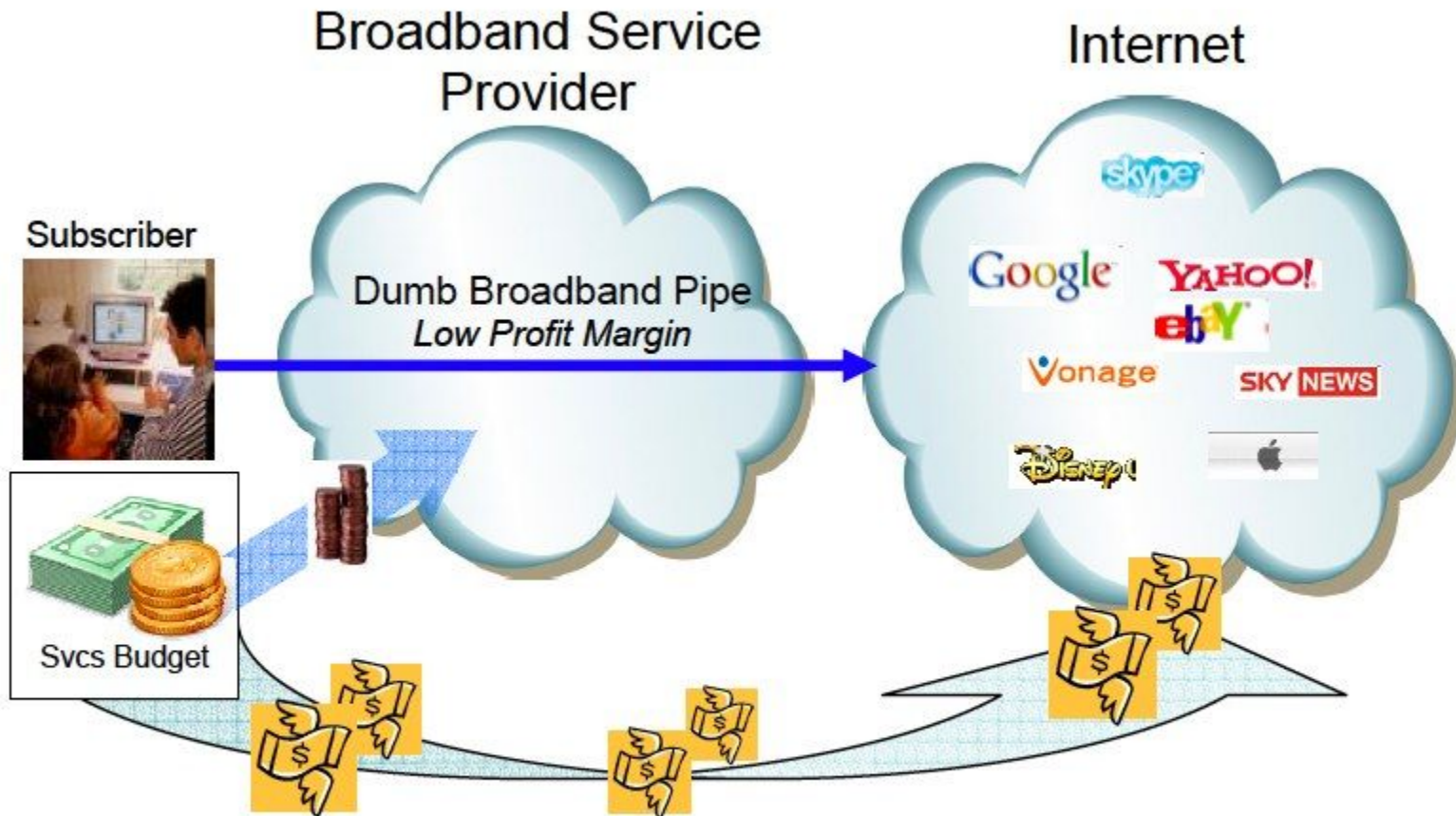
for PTC Academy
Bangkok, Thailand

By Gary Kim
gary@fatpipes.biz

Every Major Retail Telco Problem Starts With...

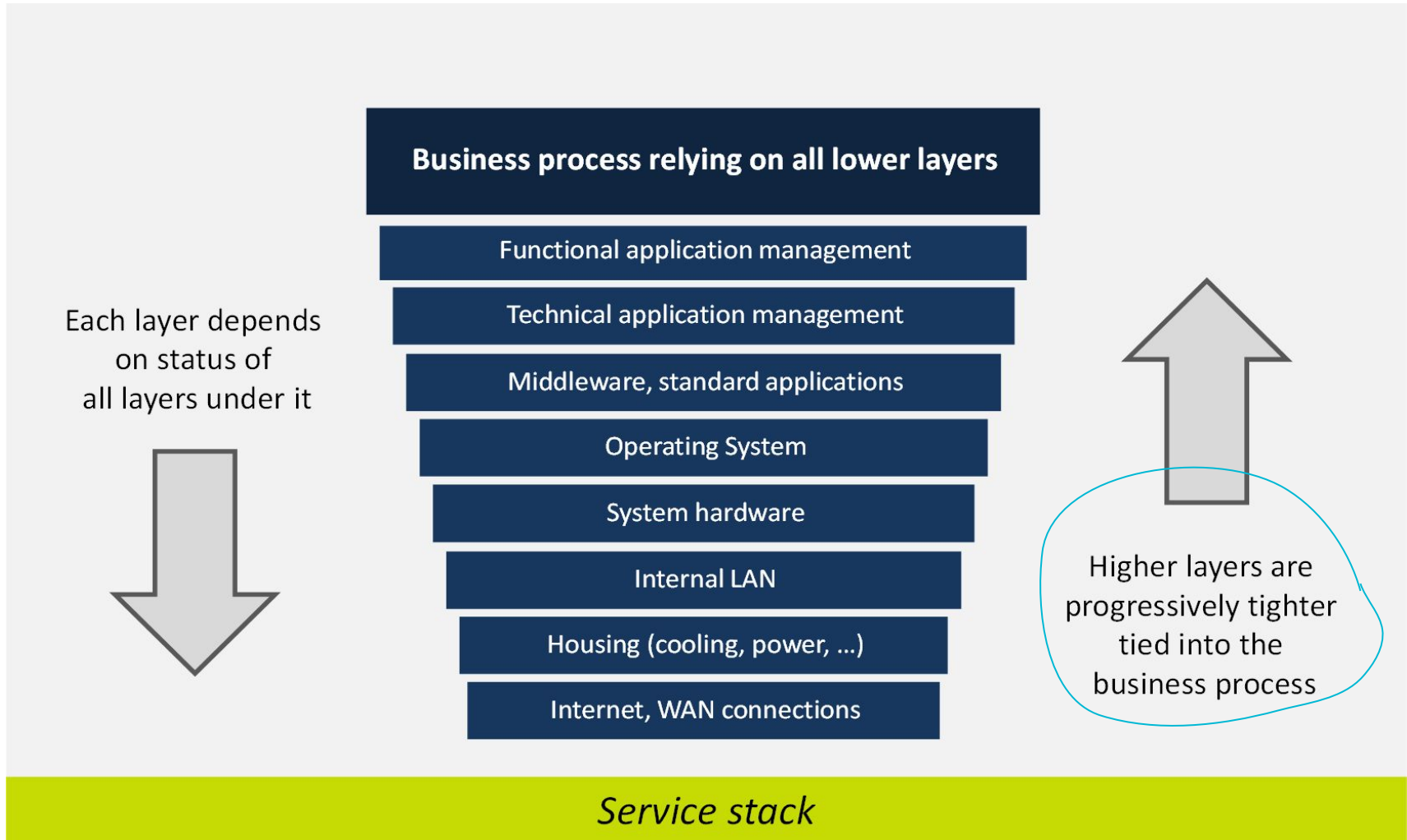


Can You Move Up the Stack?



Larger percentages of subscribers' budgets going to Internet Content

Up the Stack? Depends.



“Value” and Market Capitalization

2017 Global Market Capitalization Leaderboard =
Tech = 40% of Top 20 Companies... 100% of Top 5...

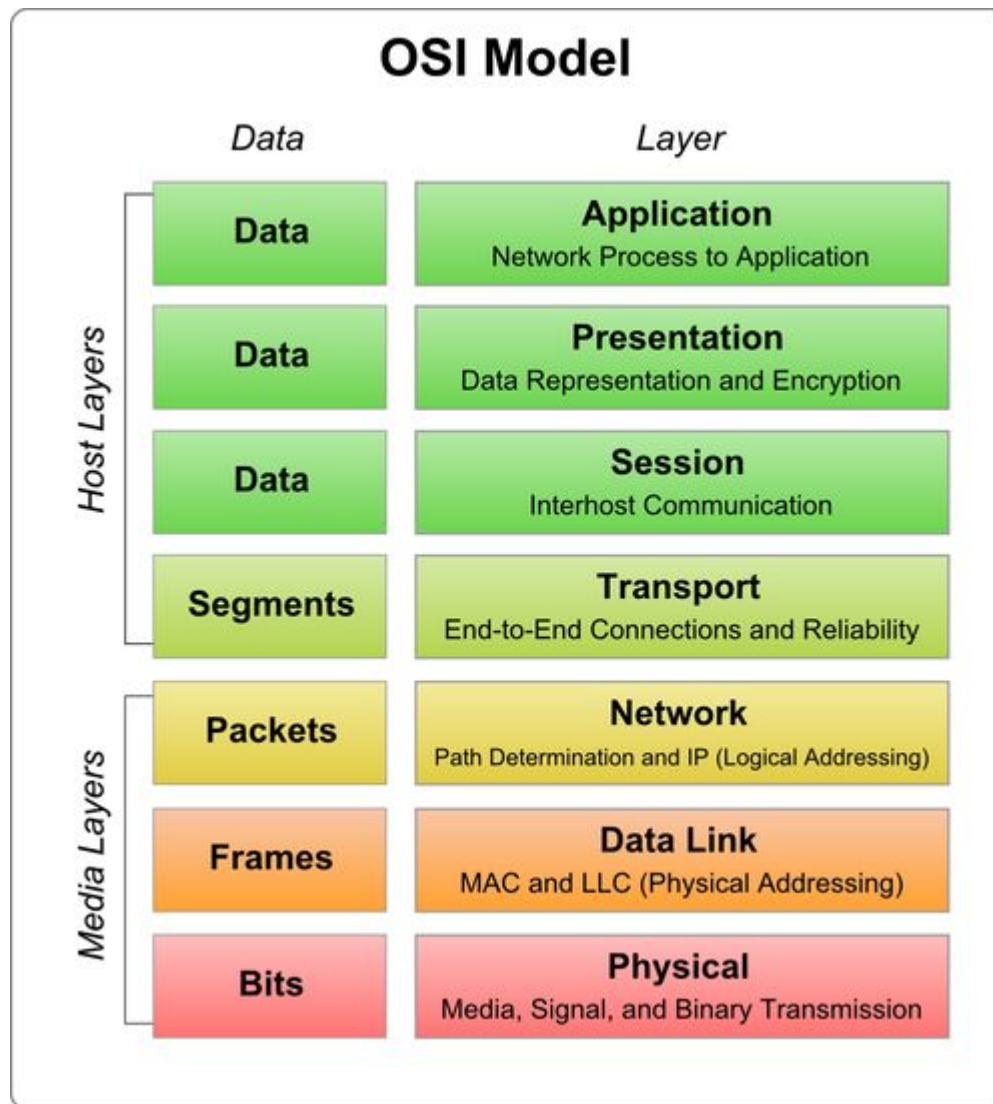
Rank	Company	Region	Industry Segment	Current Market Value (\$B)	2016 Revenue (\$B)
1	Apple	USA	Tech – Hardware	\$801	\$218
2	Google / Alphabet	USA	Tech – Internet	680	90
3	Microsoft	USA	Tech – Software	540	86
4	Amazon	USA	Tech – Internet	476	136
5	Facebook	USA	Tech – Internet	441	28
6	Berkshire Hathaway	USA	Financial Services	409	215
7	Exxon Mobil	USA	Energy	346	198
8	Johnson & Johnson	USA	Healthcare	342	72
9	Tencent	China	Tech – Internet	335	22
10	Alibaba	China	Tech – Internet	314	21
11	JP Morgan Chase	USA	Financial Services	303	90
12	ICBC	China	Financial Services	264	85
13	Nestlé	Switzerland	Food / Beverages	263	88
14	Wells Fargo	USA	Financial Services	262	85
15	Samsung Electronics	Korea	Tech – Hardware	259	168
16	General Electric	USA	Industrial	238	120
17	Wal-Mart	USA	Retail	237	486
18	AT&T	USA	Telecom	234	164
19	Roche	Switzerland	Healthcare	233	51
20	Bank of America	USA	Financial Services	231	80
Total				\$7,207	\$2,497

Source: CapIQ. Market value data as of 5/26/17

Note: For public companies, colors denote current market value relative to YY market value. Green = higher, red = lower.

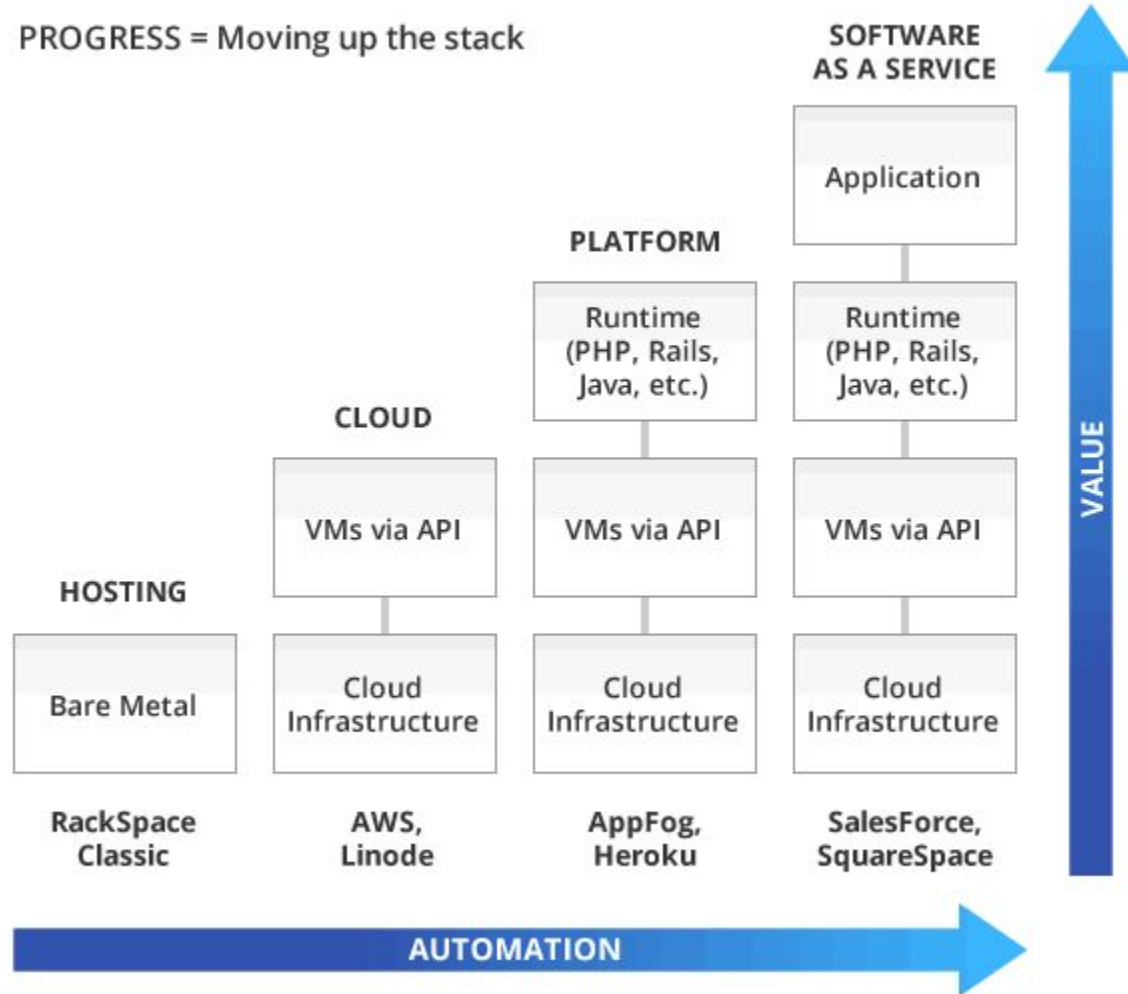


All Apps are Now OTT, Ownership is the Issue

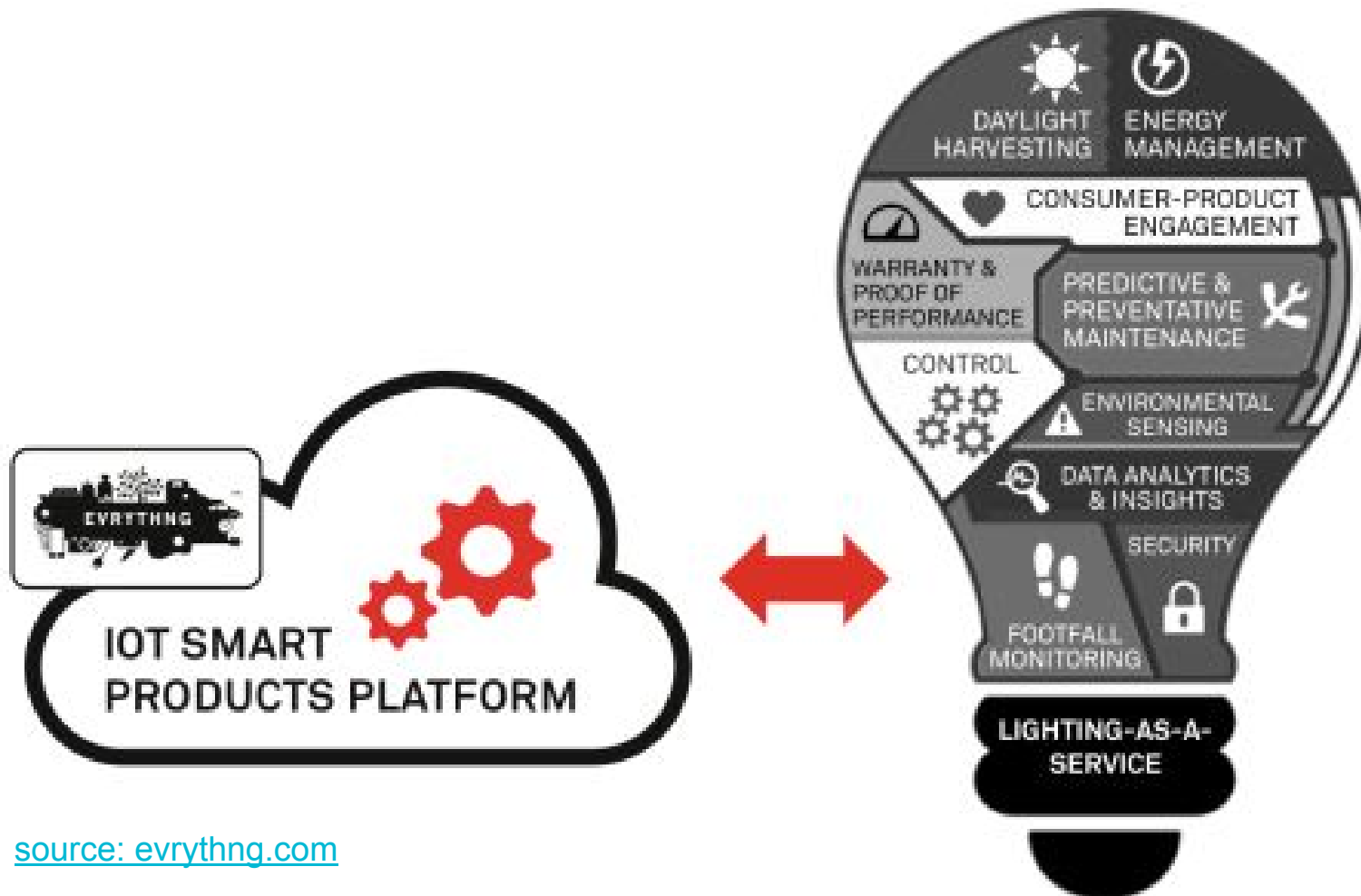


Up the Stack in Computing Services

PROGRESS = Moving up the stack

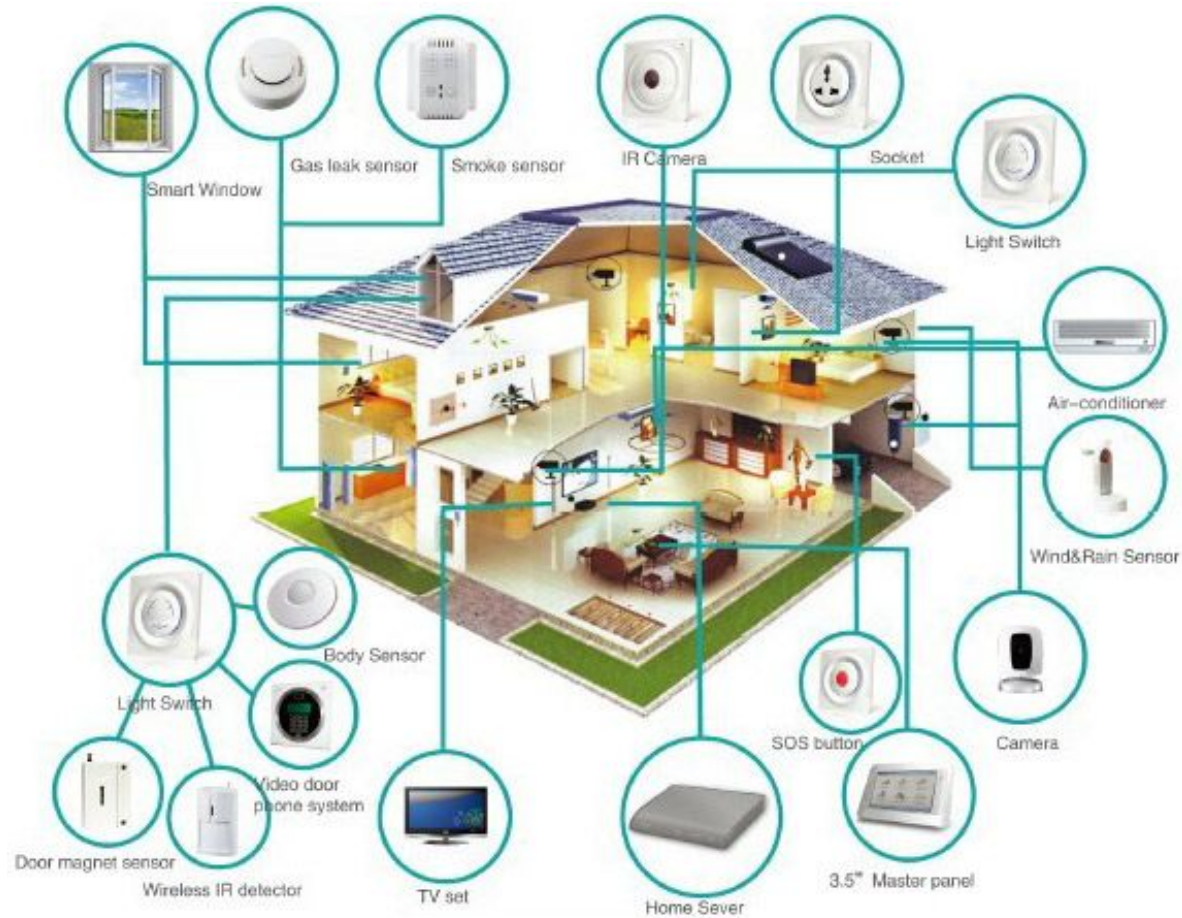


Electricity < Lighting < Smarter Lighting



[source: evrythng.com](http://source:evrythng.com)

Electricity < Appliances < Sensors < Insight < Control < Value



source: McKinsey

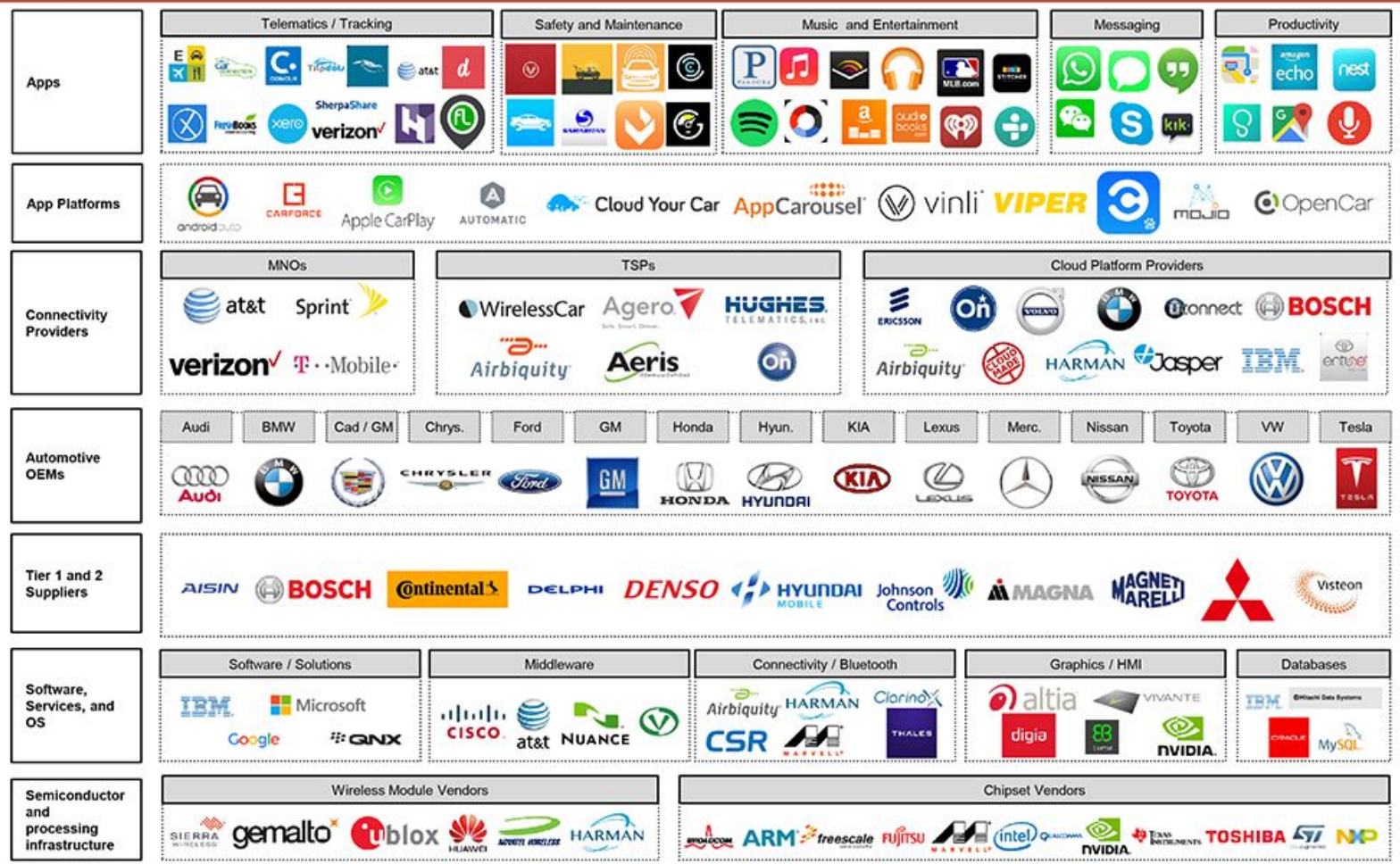
Connected Car Ecosystem



REDCHALK
GROUP

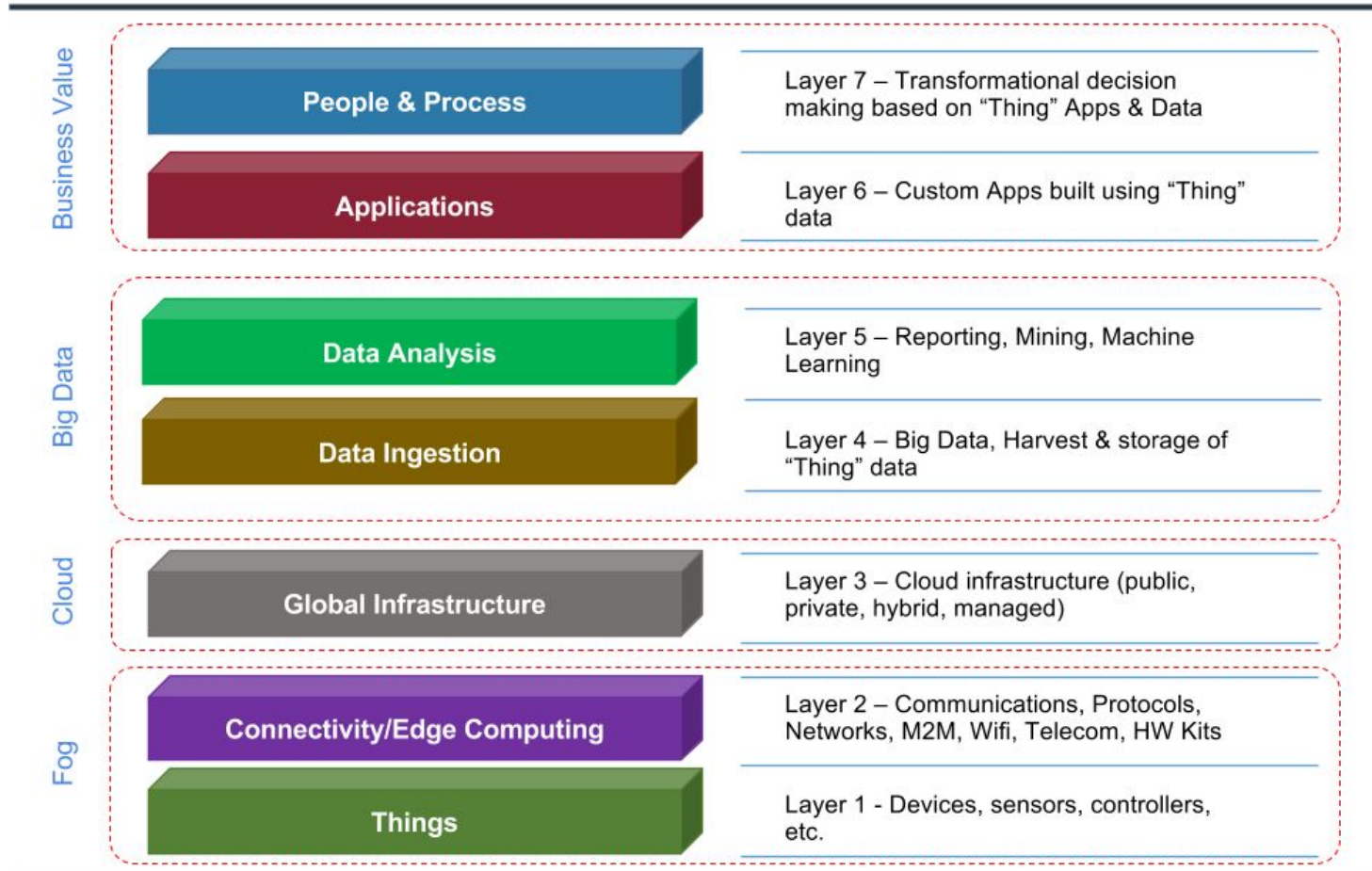
The Connected Car Landscape – An Application Focus

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IoT Value Stack

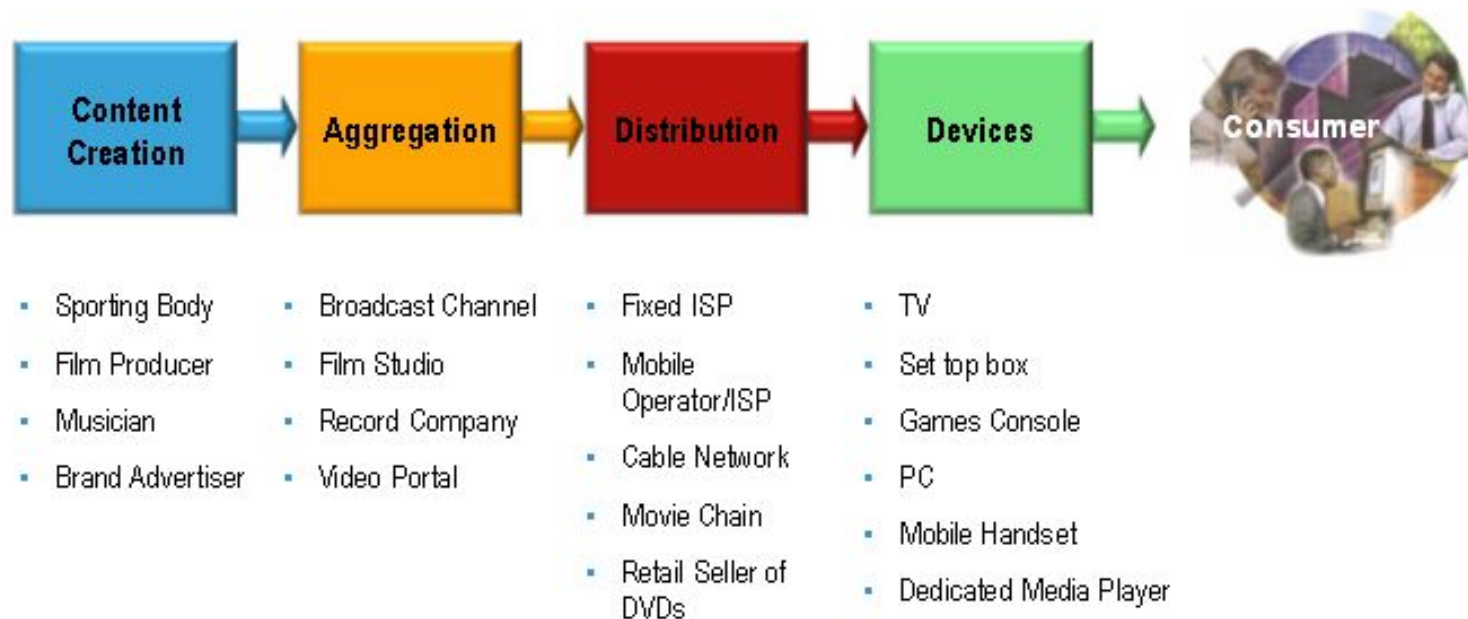
7 Layers of the Internet of Things (IoT)



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Up or Down the Stack in Video

Examples of Video Value Chain Players



[source: Survey Monkey](#)



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THANK YOU