Corporate Module

Case Study Problem Statement (Prelims)

Instructions

1. This document contains the problem statement for Case Study Prelims.
2. A team cannot have more than 4 members in any case.
3. We have tried to provide all the relevant data that should be required for framing the Case Study. Yet, the teams are free to make reasonable assumptions and use data from other sources. However, these sources must be listed separately in the submission.
4. We have tried to keep this problem statement brief. Yet, we strongly suggest the teams to refer to the sources mentioned in the end, for better insight into the problem presented.
5. In case any error is spotted, the corrections will be mailed to all the teams who have registered for the competition on the Techniche '17 portal (https://www.techniche.org/Techniche17/casestudy.php)
6. This case study problem statement may or may not hold any resemblance with the finals problem statement.
7. For the prelims round, there are no specific axes/parameters over which the submissions would be judged. Yet, the submissions are expected to be feasible, presentable and supported by facts and figures.
8. Along with the case study, the submission must contain the details of each of the team members including their name, institute, year of study, contact number, and E-Mail ID.
9. The submissions should be in Portable Document Format (PDF) only.
10. The submissions are to be mailed at corporate@techniche.org before 31st July '17 (12:00 PM IST), with the subject "Case Study Prelims Submission".
11. For any further queries, mail us at corporate@techniche.org with subject "Case Study Prelims Query".

$47 billion Question

"Shares of NXP Semiconductors (NXPI) soared Thursday on a report that the company might be acquired by Qualcomm (QCOM).

NXP stock shot up as much as 19% on the stock market today, matching a 14-month high of 98.09, and ended the day up 17%, at 96.12. Qualcomm stock rose 6%, to 67.23.

San Diego-based Qualcomm has a market value of about $99 billion."

A Background on NXP

NXP is based in Eindhoven, Netherlands. It originated as a subsidiary of Philips and was sold to private equity firms in 2006. In 2010, it was listed on Nasdaq, IPO'ing at $14 giving investors around a 9X return in under seven years.

Its current Enterprise Value is about $38 billion, while QCOM's offer implies $45 billion. It has $1.9 billion in cash and $9.2 billion of debt. Its 2016 revenue was $9.6 billion and adjusted EBITDA was about $3 billion.

NXP defines itself as a company providing secure connections and infrastructure for a smarter world, advancing solutions that make lives easier, better and safer.

What this means is that NXP is a leading provider of secure connectivity solutions for embedded applications, including secure connected vehicles, cyber security and the Internet of Things.

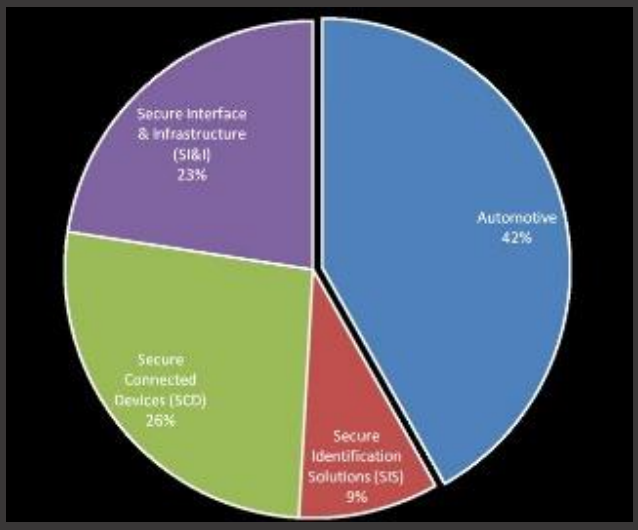
NXP is a non-fabless company which means it manufactures its own semiconductor chips rather than outsourcing it to a fab. It has chip fabrication facilities in Germany, the UK, China and Singapore as well as back-end assembly and test facilities in Asia. Qualcomm, on the other hand, is a fabless company and outsources its manufacturing. Becoming a semiconductor company with fabs is a lot to digest and Qualcomm's margins will ultimately suffer. NXP's gross margins are in the high 40% range while Qualcomm's are around 60%.

NXP breaks down its products into 2 main segments: that of High Performance Mixed Signal (HPMS) and Standard Products (STDP). However, NXP recently sold its STDP segment for $2.75

billion which is expected to close in the coming weeks and will be a nice addition to its cash level of only $1.9 billion. Thus, Qualcomm is effectively buying only the HPMS segment.

The sale of the STDP business, as well as the purchase of Freescale, focuses NXP squarely on the fastest growth and the current hot areas of connected vehicles, cyber security and IOT, with almost half of revenues coming from Automotive.

Focusing on High Performance Mixed Signal Semiconductor Chips



NXP's HPMS segment consists of application-specific integrated circuit solutions and is subdivided into 4 lines: Automotive, Secure Identification Solutions (SIS), Secure Connected Devices (SCD) and Secure Interface & Infrastructure (SI&I).

The SIS segment includes chips for IDs in general, object tagging, the chips that appear on credit cards, NFC. This segment is the smallest of the NXP's non-automotive technologies making up 9% of 2016 HPMS revenues.

SCD includes all IoT (Internet of Things) technologies and was about 26% of HPMS revenues in 2016. It includes microcontrollers, secure mobile transaction and connectivity solutions. SI&I (23% of HPMS revenue) includes digital network processors, secure interfaces, RF power amplifiers and smart antenna.

Over the coming years, billions of smart sensors or devices will connect to the Internet. Further than that, many of these devices will be almost disposable, or at least whose life expectancy is that of the battery powering it (perhaps a year or two), which will mean an ongoing demand for IoT chips.

"Thus, NXP happens to be in the exactly the right markets, at the right time."

Why Qualcomm is Interested in NXP?

NXP is a huge acquisition for Qualcomm - by far its largest - and will be a complex company for it to digest, especially since it brings Qualcomm manufacturing capabilities which it has never had before. A fabless semiconductor company such as Qualcomm is basically a pure technology company. Having to deal with manufacturing makes the business significantly more complex, the company will lose some of its pure technological focus and margins will suffer. It gives Qualcomm large ongoing costs as well as very significant capex requirements, which it never had before.

It also adds a substantial debt load to Qualcomm. As of year-end, Qualcomm had $30 billion in cash and $12 billion in debt. However, it will have to pay NXP shareholders $38 billion cash and will gain NXP's $4.7 billion in cash (current cash plus that from the STDP sale) and $9.2 billion in gross debt. This moves Qualcomm to a net debt position of around $24 billion from a net cash position of $18 billion, pre-acquisition.

"It very much changes Qualcomm."

However, on the positive side, it makes Qualcomm very relevant in the fast growing IoT space.

It also places Qualcomm in a strong position in what is now a very hot and growing market - semiconductors for automotive - and allows Qualcomm multiple entry points into the connected and ultimately self driving car. It builds Qualcomm a strong competitive moat in this sector: a design win with a car OEM takes many years to achieve and once a product has been designed in, as we mentioned earlier, the life of the product is normally beyond a decade. NXP already works with the vast majority of the major car OEMs.

Moreover, a slowdown in the Smartphone market has hit Qualcomm's chipset revenue, which accounts for more than 60% of its total revenue. The company has been searching for alternative revenue sources for quite some time, but its growth in adjacent markets has been slow due to strong competition from incumbents such as NVIDIA and Texas Instruments.

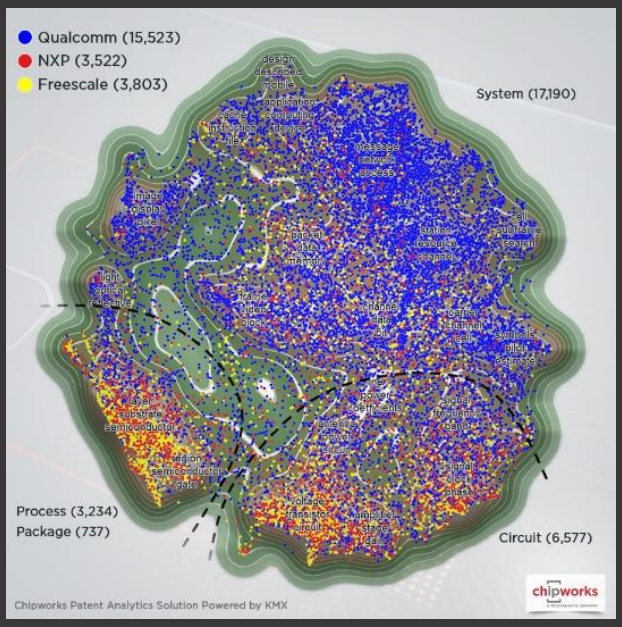
The acquisition of NXP could jump-start Qualcomm's initiatives in the automotive, IoT (Internet of Things), and digital networking spaces and increase its chipset business by 40%. NXP's higher operating margin could also improve QCT's profit margins and help Qualcomm to offset any falls in its QTL segment.

According to Qualcomm, in terms of cost synergies, there are expected to be around $500 million in savings per year within two years, two-thirds of which will come from opex savings and a third from cost of goods savings.

Thus, while Qualcomm will have a lot complexity, challenges and a debt burden upon integrating NXP, ultimately it makes Qualcomm a very relevant player in the hottest sectors of today's market.

Adding NXP to Qualcomm's Patent Assets

Now, if we consider the combined portfolio of Qualcomm and NXP the landscape changes. The NXP portfolio, which includes a number of original assignees other than NXP as well, consists of 7,325 US patents. The landscape below shows the NXP (painted in red) and Qualcomm (painted in blue) portfolios mixed together. Freescale is highlighted as well (painted in yellow) as they are a major contributor to the NXP portfolio. It is evident from the landscape that the NXP portfolio is heavily focused on process/package and circuit assets. This is not surprising given the nature of NXP's business.



"If you also consider how the two portfolios overlap on the landscape, or rather don't overlap, it becomes evident that NXP/Freescale patent assets cover areas that complement the existing Qualcomm portfolio, while also diversifying the portfolio into new areas."

What needs to Happen?

The deal is expected to close by the end of 2017 and a lot has to happen before closure.

It is important to note is that if either side pulls out of the deal for whatever reason, it has to pay the other a separation fee. Qualcomm pulling out will have to give NXP $2 billion in cash, while NXP would have to give Qualcomm $1.25 billion. This payment is a tough pill to swallow for either side.

Regulatory and antitrust approval are required in nine jurisdictions, which likely includes the US, the Netherlands (the EU), China, Japan and Korea.

"This has the potential to provide a stumbling block, especially bearing in mind that Qualcomm has various legal issues with Apple in the US, with the US FTC, with the EU antitrust authorities and in Korea."

The Real Problem

"The $47bn acquisition of Dutch chip company NXP is central to Qualcomm's strategy to expand its Internet of Things and connected car activities, getting to scale more quickly than it could through in-house developments alone, even with its renowned engineering teams. But it may face obstacles in the European Union….."

Although the US Department of Justice has cleared the deal without conditions, the next stage is a preliminary review by the EU competition authority. The EU could approve the deal with or without conditions, but clearly it will take a keen interest.

One possible area of sensitivity is, apparently, NXP's smartcard technology, Mifare, which enables contactless payments and other transactions. Reuters' unnamed sources said that "rivals had urged the European Commission to ensure they would still be able to use NXP technology known as Mifare once the deal is done".

There were two possible areas of concern – that Qualcomm would sell Mifare on to a Chinese business "as part of its efforts to win approval from China for the acquisition of NXP"; or that chip firms fear having to pay higher sums for licences to Mifare technology under Qualcomm's ownership.

"My hunch is that rivals, systems makers, and companies using NXP's Mifare technology, are worried that Qualcomm will play hardball with making that IP available and might try to leverage it to sell ICs - something that the company has been accused of doing in processors for smartphones and tablet computers."

Qualcomm will also have to convince the Chinese competition authority, MOFCOM, to clear the NXP deal without significant conditions or delays. China may aim to force Qualcomm to divest certain key technologies or businesses – such as Mifare – in order to strengthen the national policy of building a homegrown semiconductor industry and IPR base.

Latest patent battles

"Other battles are wearing Qualcomm down this month. On June 15, the US Federal Trade Commission's antitrust case goes to court in San Jose, alleging the chip giant used "anti-competitive tactics to maintain its monopoly in the supply of a key semiconductor device used in cellphones and other consumer products".

Also, Qualcomm agreed to pay $940m to BlackBerry to settle a licensing dispute, though its far more important royalties war with Apple rolls on. An arbitration panel ruled in May '17 that BlackBerry had overpaid Qualcomm in royalty payments from 2010 to 2015 under terms of a licensing deal. Qualcomm was ordered to pay the Canadian company roughly $815m plus attorneys' fees and interest.

Fast Forward to Future…..

Suppose, the EU competition authority orders Qualcomm to allow access to Mifare to it's rivals without any hike in prices. Also, MOFCOM demands that Qualcomm divulges some of the key technologies – including Mifare – to the Chinese businesses, should Qualcomm proceed with the $47 billion deal, in the backdrop of recent lawsuits by Apple and Blackberry against it?

References –

1. https://www.theregister.co.uk/2017/06/07/eu_and_china_may_demand_concessions_for_nxp_acquisition/
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