



ADT IPO PREVIEW

ADDING ADT TO BEST IDEAS SHORT

January 16, 2018

DISCLAIMER

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POSITION MONITOR

HEDGEYE TECHNOLOGY POSITION MONITOR



BEST IDEAS - LONG		Market Cap (\$B)	Trend	Tail
Active Longs				
GLW	Corning Inc.	\$30.1	✓	✓
SNE	Sony Corp	\$62.8	✓	✓
CREE	Cree, Inc.	\$3.6	✓	✓
INTC	Intel Corporation	\$202.2	✓	---

Long Ben				
MU	Micron Technology, Inc.	\$49.5	---	✓
IIVI	II-VI, Inc.	\$3.2	---	✓
MXIM	Maxim Integrated Products Inc.	\$15.5	---	✓
LOGM	LogMeIn Inc.	\$6.4	---	✓

BEST IDEAS - SHORT		Market Cap (\$B)	Trend	Tail
Active Shorts				
CALD	Callidus Software Inc.	\$2.1	X	X
ADT	ADT Inc.	\$13.9	X	X

Short Bench or Bias				
MSCC	MicroSemi Corporation	\$6.8	---	X
KEYS	Keysight Technologies Inc.	\$8.4	---	X
AVGO	Broadcom Ltd	\$107.8	---	X
NOK	Nokia OYJ	\$28.1	---	X
AKAM	Akamai Technologies, Inc.	\$11.1	---	X
SABR	Sabre Corp.	\$5.6	---	X

Bench = Timing not right, or idea under construction



Description: ADT, Inc. is engaged in providing monitored security, interactive home, and business automation and related monitoring services. It offers residential, commercial, and multi-site customers a set of burglary, video, access control, fire and smoke alarm, and medical alert solutions. The company initially IPOed in September 2012 after being spun-off from Tyco. It was taken private in 2016 by Apollo Global Management and combined with ASG Security and Protection 1. (FactSet)

Company Profile:

Ticker: (NYSE: ADT)

Enterprise Value (\$MM): ~\$21,000

Expected IPO Date: Thursday 1/18/2018

Founded: 1874

CEO: Tim Whall

HQ: Boca Raton, FL

Top competitors: Vivint, AT&T, Comcast, Amazon, SimpliSafe, Moni, Netgear, Guardian, Frontpoint

PLEASE SUBMIT QUESTIONS* TO

QA@HEDGEYE.COM

**ANSWERED AT THE END OF THE CALL*

BULL AND BEAR CASE

BULL CASE

- Improving churn metrics are having a positive impact on revenue growth and FCF
- Price increases on a declining customer base
- ADT Canopy (service only option) reduces friction in customer onboarding process, serves as a potential near term growth catalyst and also potentially reduces ADT exposure to hardware installation costs and labor service costs
- Added a strong commercial business via the acquisition of P1
- With 30% market share they can reinvest in brand growth faster than peers in a growing market
- Sticky service, long (3-5 year) contracts
- ADT owns the customer, and the customer interface, has created and maintained brand equity and reliability
- Good PE firm, new management focusing on improving churn

BEAR CASE

- Non-existent home security service penetration curve (from ~19% penetration of US homes in 2010 to ~20% in 2017)
- False alarm problem has not been mitigated – puts company at a major risk of technological disruption
- Industry growing 7-8% CAGR, ADT Inc. Growing 3% pro forma
- Each incremental partner and integration removes customer's association with ADT brand and its benefits.
- Proclaimed opportunity to sell sophisticated cyber-security in the commercial realm is likely out of company's reach
- Isn't really growing much organically, penetration story is over stated, true FCF is considerably lower than storybook, and cash taxes should be a factor now as NOL can only protect 80% of the annual tax bill
- Sticky service means growth mainly through acquisition of smaller players and their contracts

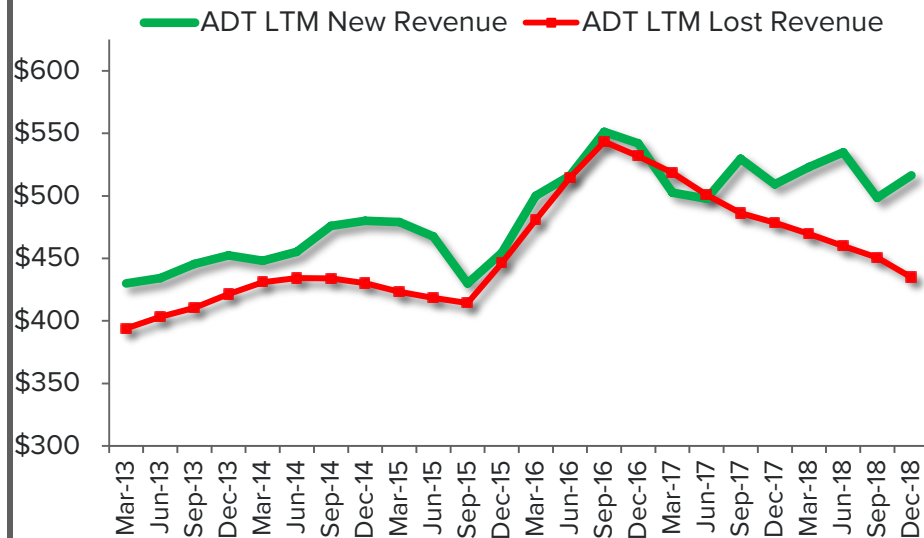
THEIR SELLING POINTS & OUR REPLY

MANAGEMENT'S KEY INDUSTRY SELLING POINTS + ... OUR COMMENTARY

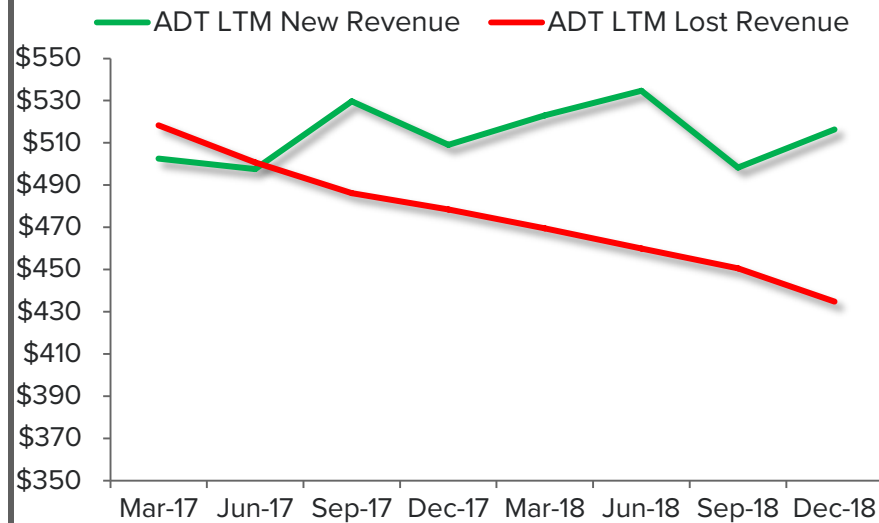
- Contractual Recurring Revenue → ... with d-d % customer churn rates
- Industry has grown every year for the past 15+ years → ... last ~8 at a stunning 1.8% real CAGR
- Attrition declines during economic downturns, due to reduction in home moves → ...think that through, you are buying a proxy for the US home movement market
- Commercial Sector with insurance mandated security requirements → ... FINE, but 100% penetrated
- Residential market is underpenetrated (at only 20%), especially relative to other consumer communication technologies → ... they tried this part before, same M.O. as 2012 IPO, only that was based on 2010 data showing 19% penetration. Wow, things are changing.
- Expansion opportunities through new devices and target markets, like cybersecurity → ... New technology and channels are Pandora's risks to the business model, not selling points.

THE BASIC BULL CASE

ADT Revenue Churn vs Revenue Capture



Falling Churn Drives Temporary Revenue Inflation



KEEPING GREEN ABOVE RED

When the green line stays above the red line, revenue grows. Management has revealed just enough for Sell Side analysts to program a gradually declining churn rate and forecast revenue growth.

1

MAJOR IMPROVEMENTS IN CHURN ARE MATH, NOT OPS

Look at the linearity of churn improvement. Compare that to the non-linear operations improvements the company is making. Does it smell fishy? It does. Consider the massive # of customers who left the company. Model the recurring quarterly revenue for ADT and see no real contraction. How are they affecting the change? The churn improvements, centerpiece in the bull case, are mostly fun with #s.

2

SOME IMPROVEMENT IN MODEL STILL LEAVES IT BROKEN

At the end of the day you are still looking at 1.8% industry CAGR offset by d-d% remaining churn rates and quarterly spend of >5x per incremental new revenue dollar.

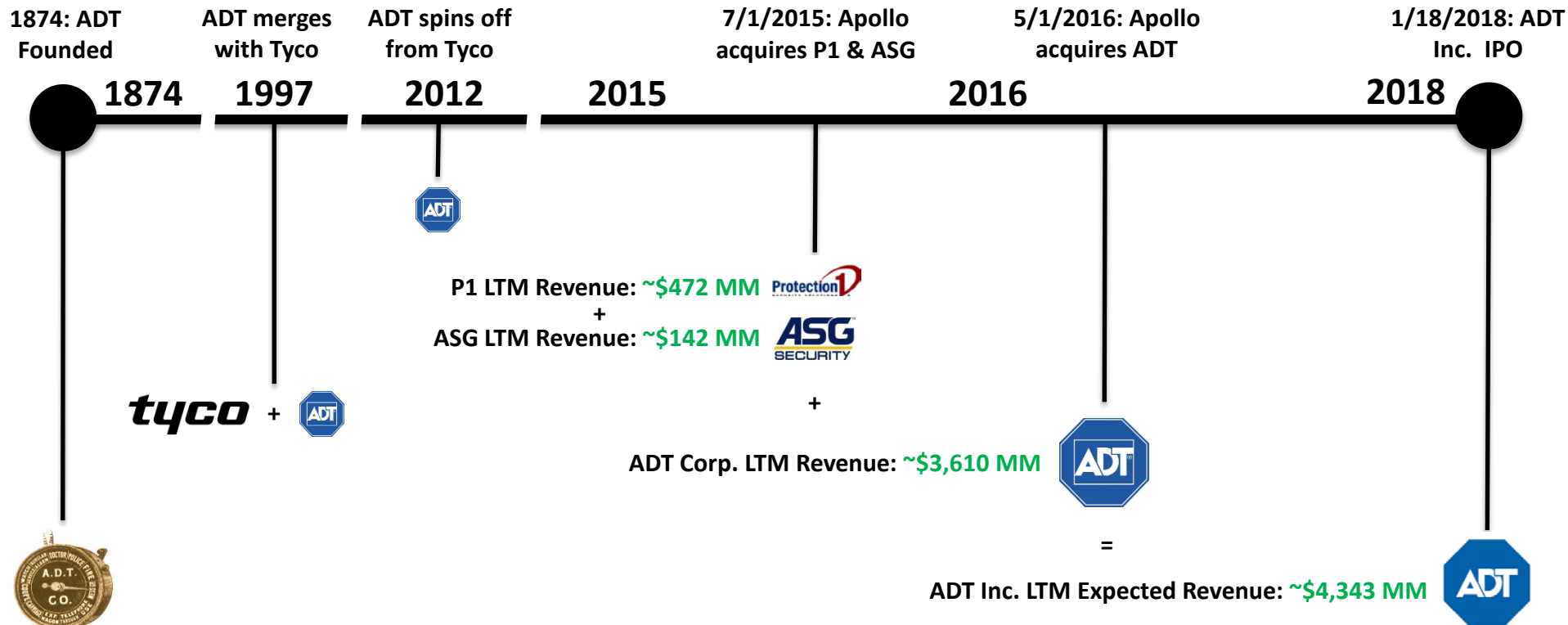
3

LONG TERM DISRUPTION NEEDS CHEAPER VALUATION AS OFFSET

Growth will peak, management will buy a cyber security company like McAfee, the balance sheet will not improve, and you will be paying so that the KOCH brothers can exit, and so that private equity owners can quietly slip out the back door while you foot the bill for de-levering.

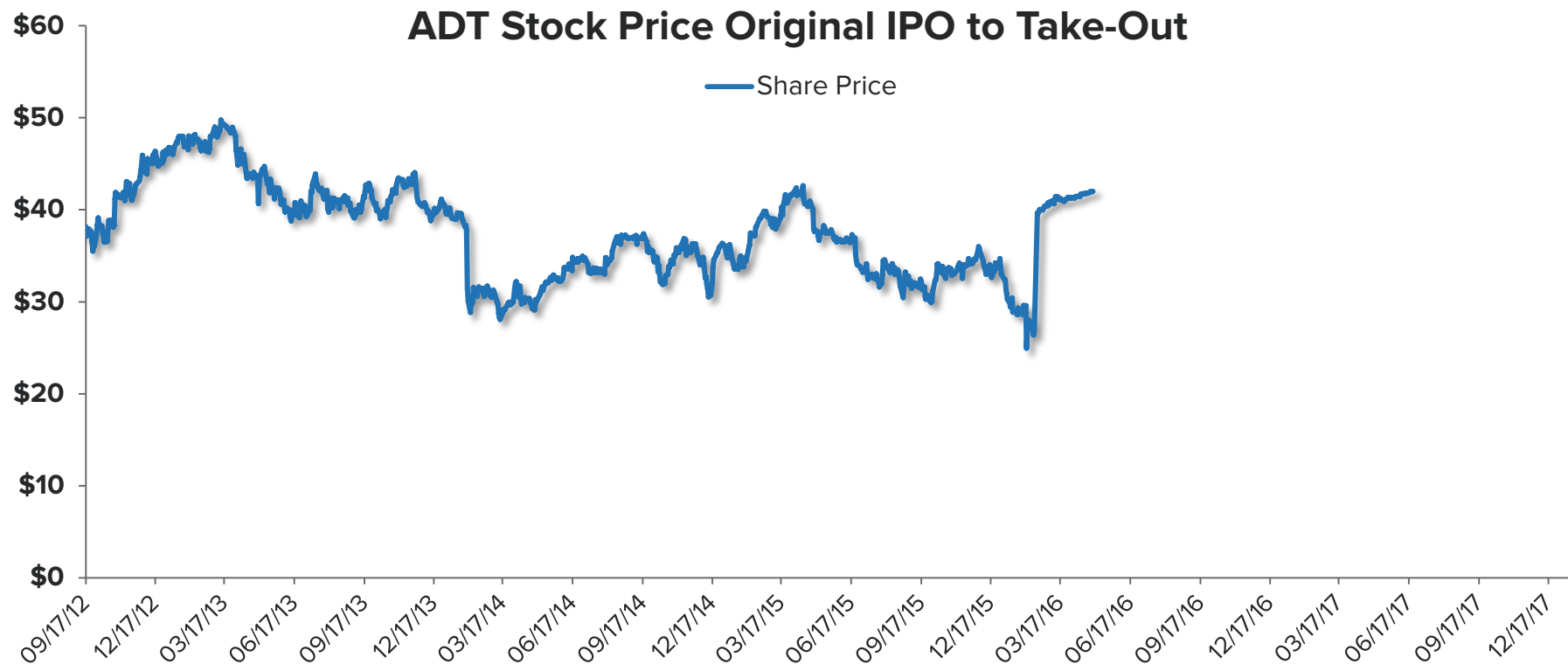
ADT THEN AND NOW

TIMELINE AND HIGHLIGHT REVENUE COMPONENTS OF TODAY'S COMPANY



ADT PRE TAKE-OUT STOCK PRICE CHART

ADT IPO: 9/17/2012, ADT TAKE-OUT: 4/29/16



SINCE YOU SAW THEM LAST

WHO IS PROTECTION 1?

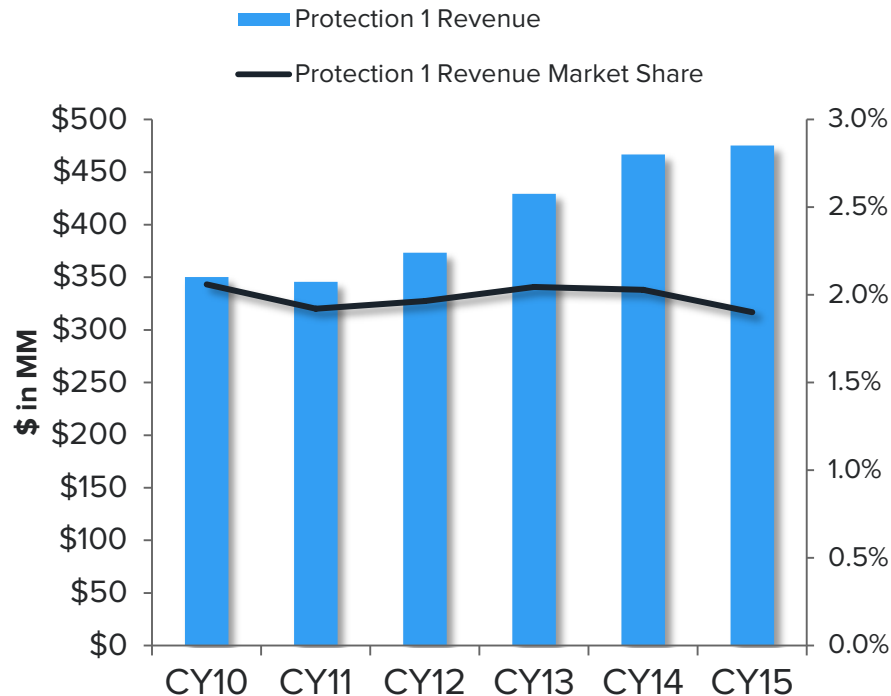
ACQUIRED BY APOLLO 7/1/2015

Company facts:

- 26 years old
- ~1.9M customers
- ~4K+ employees
- Residential and commercial full service security
- Remote door lock, lighting, appliances, temperature control
- Residential packages priced \$420-\$660
- Customized industry-specific commercial solutions
- At least 9 acquisitions since 2012
- Focused on high-end residential and commercial
- Protection 1 was named SDM's 2012 dealer of the year



P1 Estimated Revenue and Market Share



WHO IS ASG SECURITY?

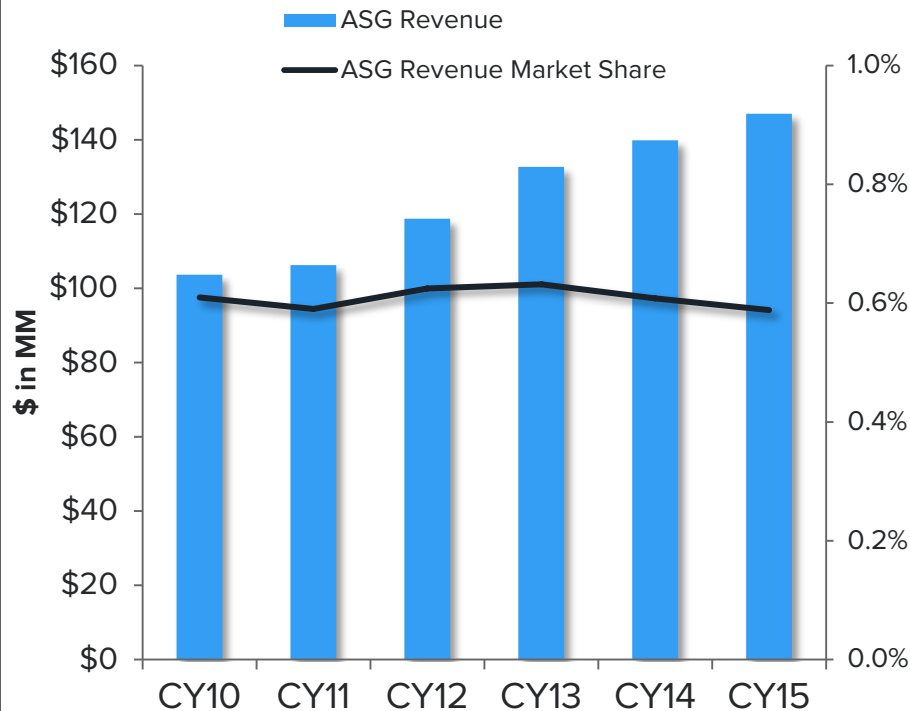
ACQUIRED BY APOLLO 7/1/2015

Company Facts:

- Founded in 2002
- ~215K customers when acquired by Apollo
- ~1.2K employees when acquired by Apollo
- 109 acquisitions since 2003
- “An acquisition of acquisitions”
- ASG had historically grown almost exclusively via acq
- 2008 SDM dealer of the year
- Specialized in residential and small commercial
- Intrusion and fire systems
- Home automation and access control
- 130K customers today

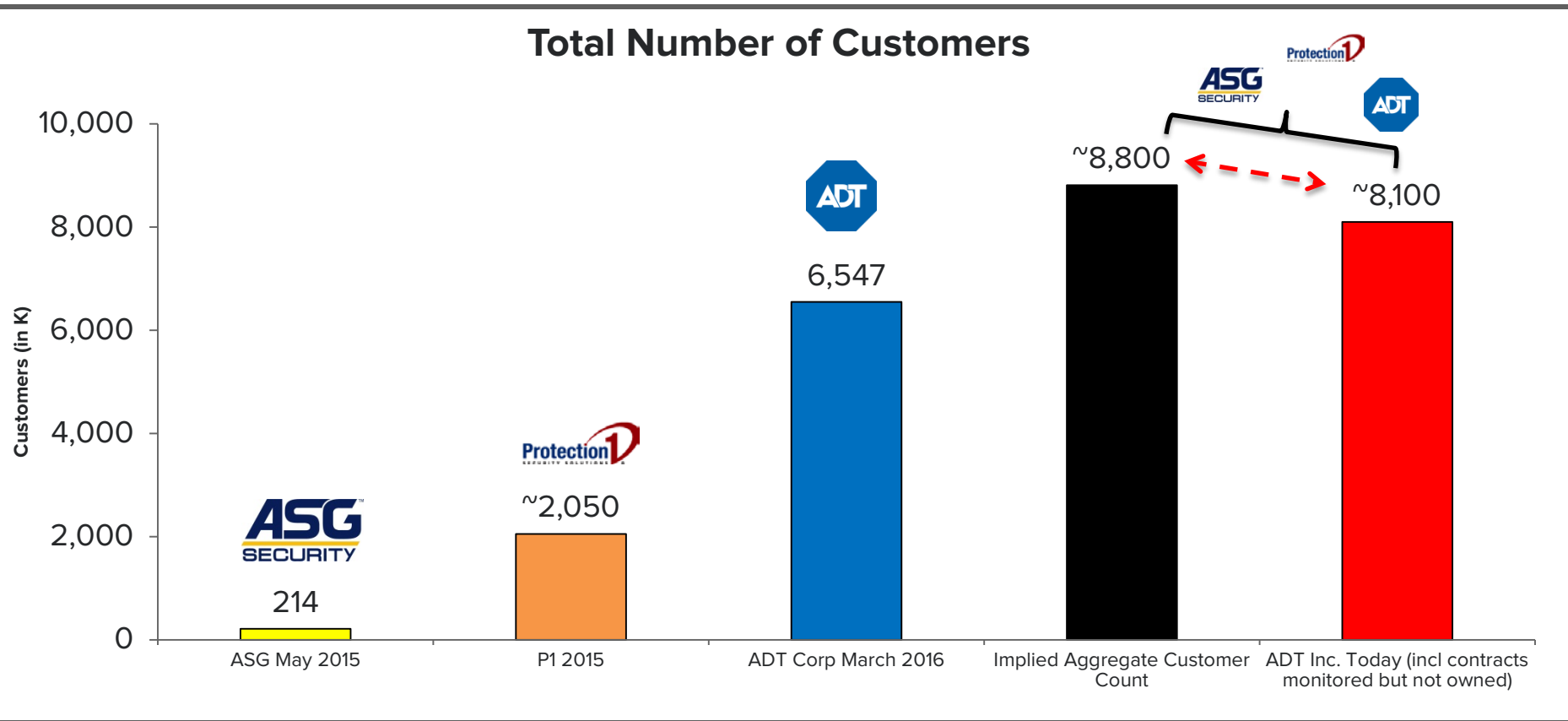


ASG Estimated Revenue and Market Share



TOTAL COMPANY CUSTOMERS DOWN

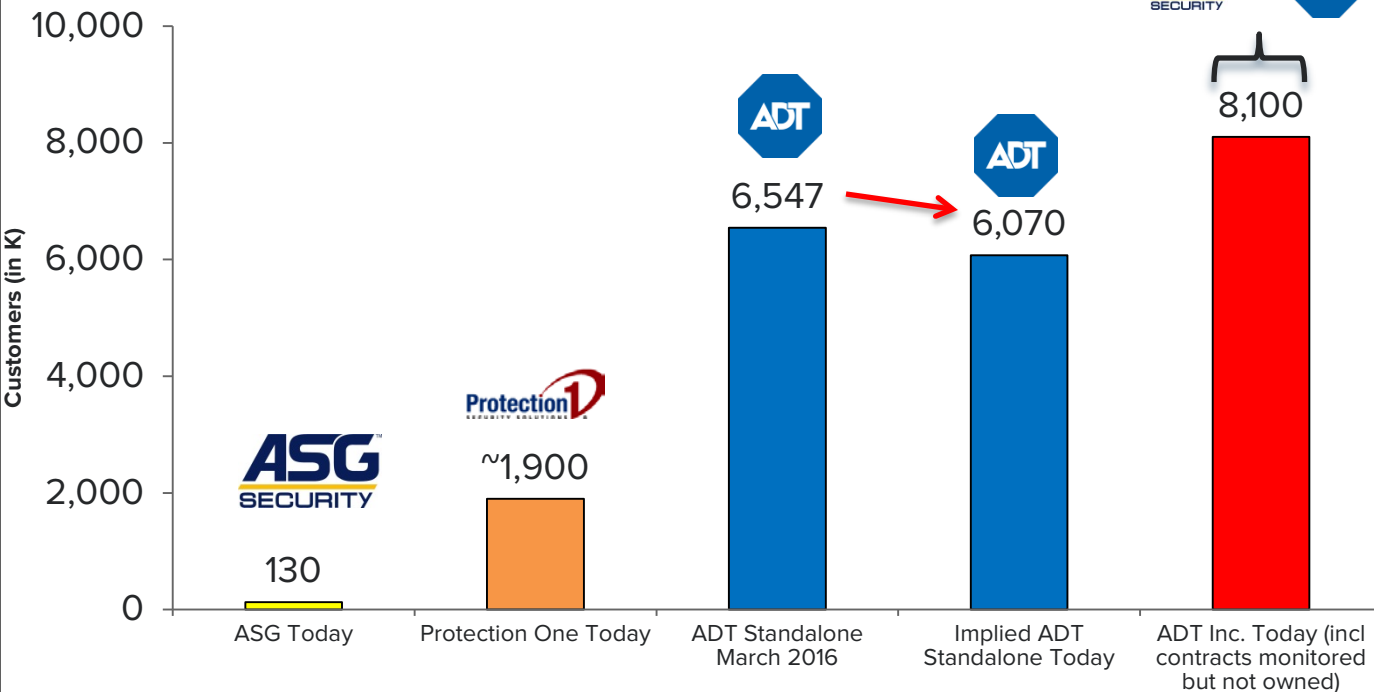
~700K REDUCTION IN IMPLIED AGGREGATE



FIRST GLANCE: BAD, NOT AWFUL

ADT STANDALONE CUSTOMER CHURN = ~500K OVER 18 MO.

Number of Customers



ASG change: Company documents at the time of the Apollo acquisition peg ASG customers at 214K. Today, ASG touts 130K customers.

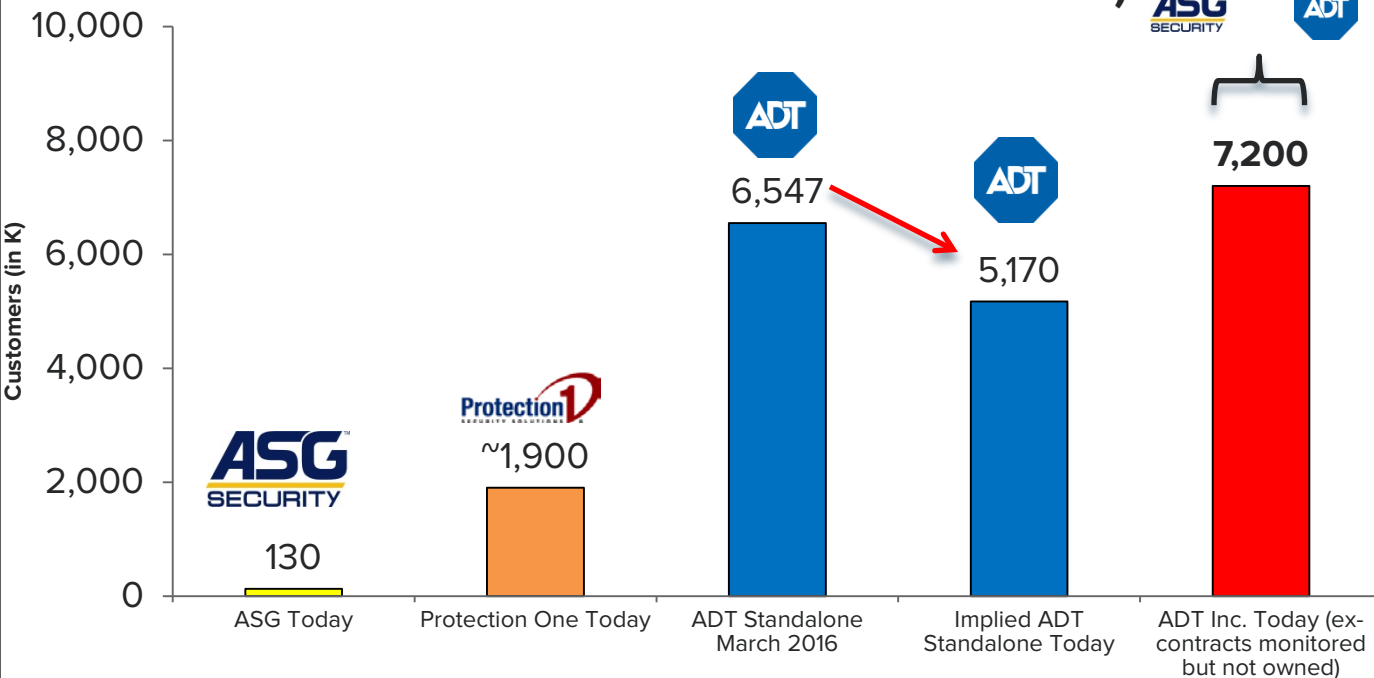
P1 change: Company documents at the time of the Apollo acquisition peg P1 customers at over 2 million. Today, company documents indicate that Protection 1 maintains just under 2 million customers.

ADT change: The difference implies that the remainder of customers that make up the 8.1MM total are ADT customers.

TAKE 2: THE APPLES-TO-APPLES VIEW

ADT STANDALONE CUSTOMER CHURN = ~1,400K OVER 18 MO.

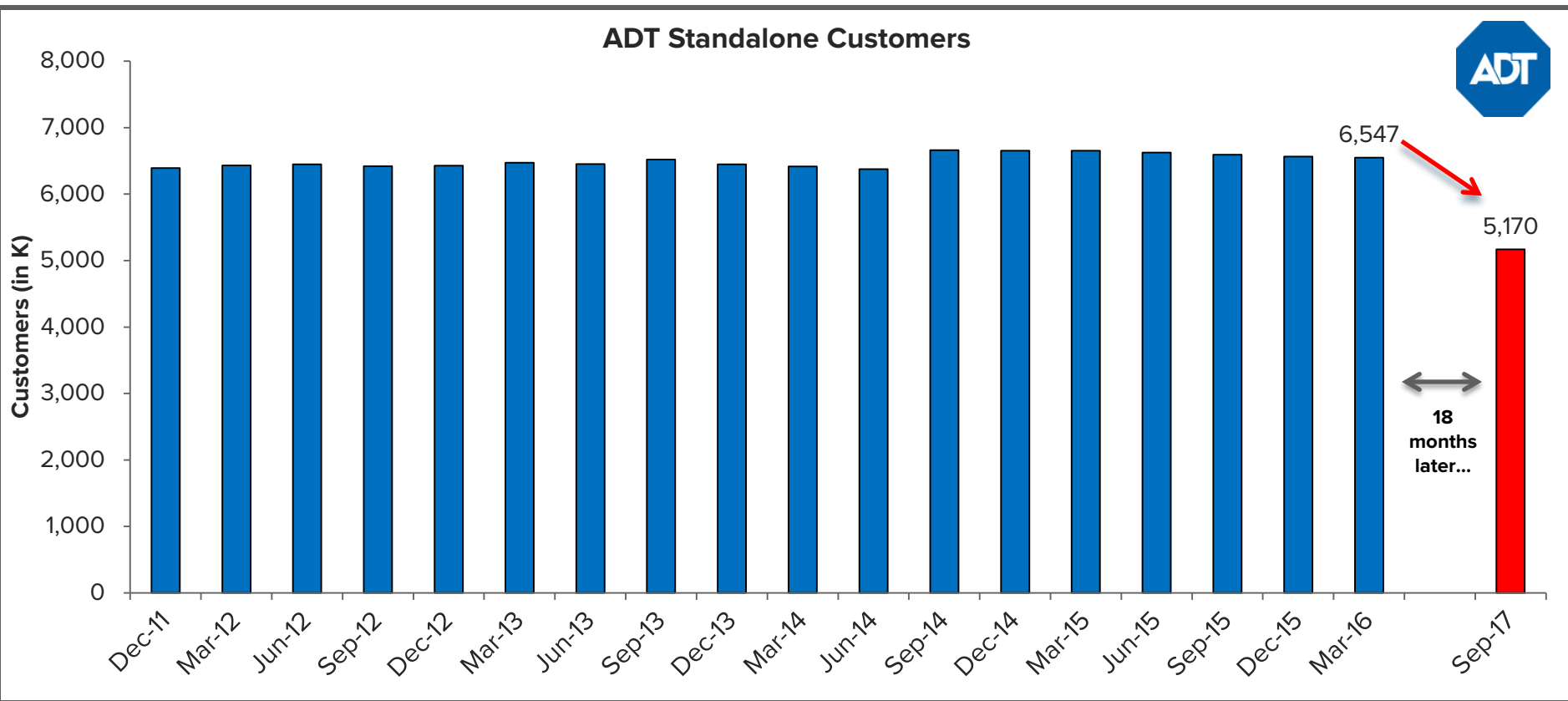
Total Number of Customers (ex-Contracts Monitored but Not Owned)



Pre-merger ADT standalone customer #s did **NOT** include contracts monitored but not owned. To see the accurate comparison, we would use the 7.2MM customer # ADT provides in its S-1 for total owned customer contracts and calculate churn based on KPI.

KEEPING THINGS CONSISTENT

ADT STANDALONE CUSTOMERS (EX-MONITORED ONLY) PRE-MERGER TO NOW



ASG NOW JUST A REDIRECT TO P1/ADT

ADT STANDALONE “CHURN” APPEARS TO BE ~1,600K CUST.



Looking for the ASG website?

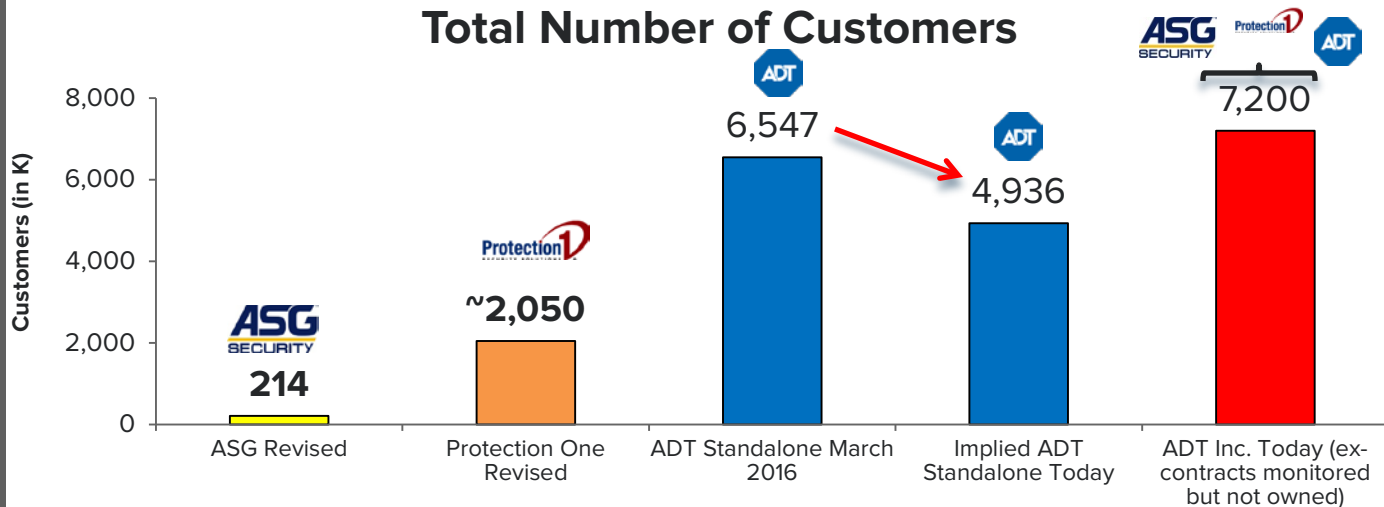
Don't worry, you're in the right place. ASG Security has merged with Protection 1 and ADT. You'll still enjoy customer service excellence from one of the most trusted companies in the security industry.



Protection 1

Asg
directs
new
cust. to
P1

Total Number of Customers

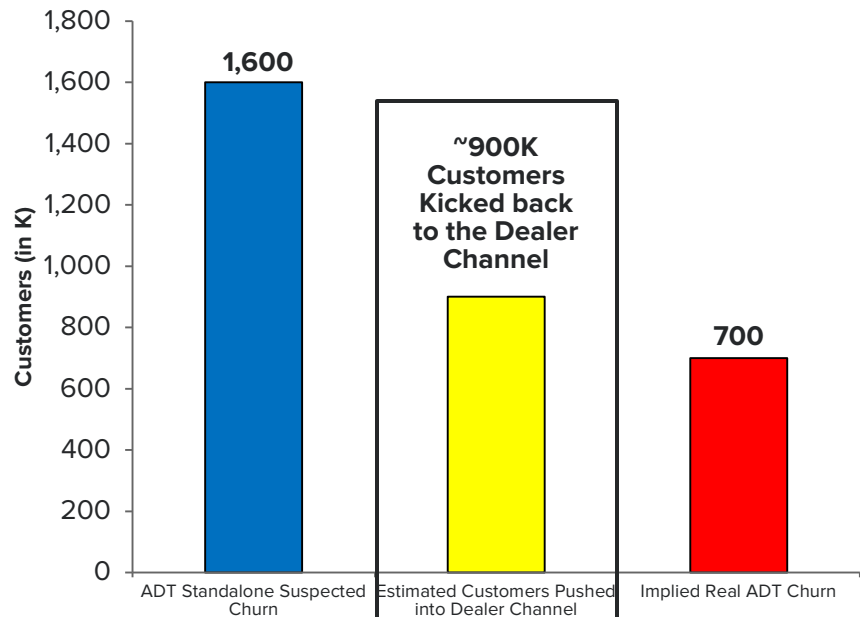


Implication: Before, we assumed that ASG and P1 both declined in customer count from previously reported. But based on the fact that ASG directs incoming website visitors to P1 and P1 is mostly high-end residential and commercial, we think the revised customer #s have been shifted to the ADT standalone count, meaning that ADT standalone churn is actually worse than otherwise thought, considering that ASG and P1 may not have lost their customers so much as transferred them over to ADT contracts.

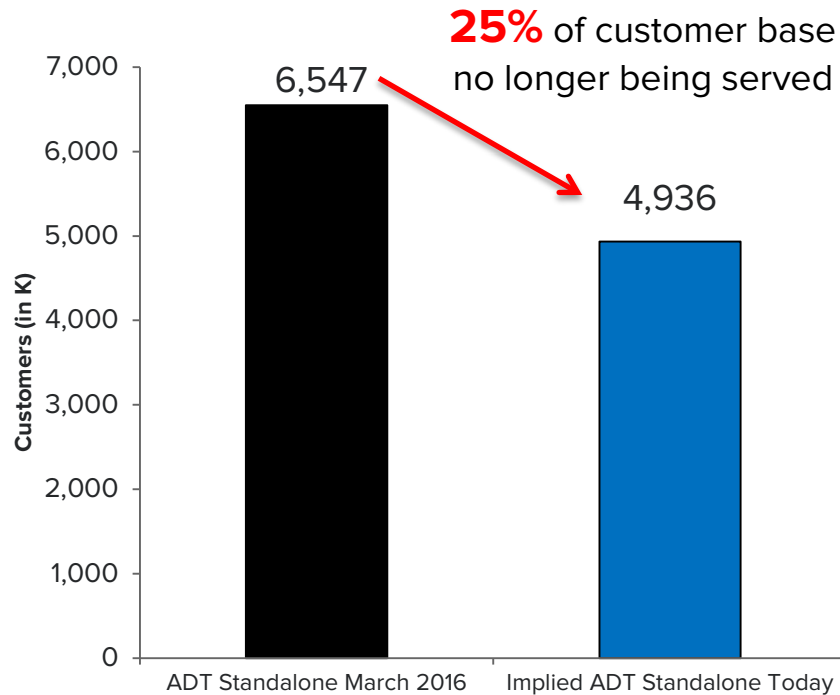
WHEN CHURN ISN'T EXACTLY CHURN

KICKING THE LOW-END CUSTOMERS TO THE DEALER CHANNEL

Churn Reconciliation



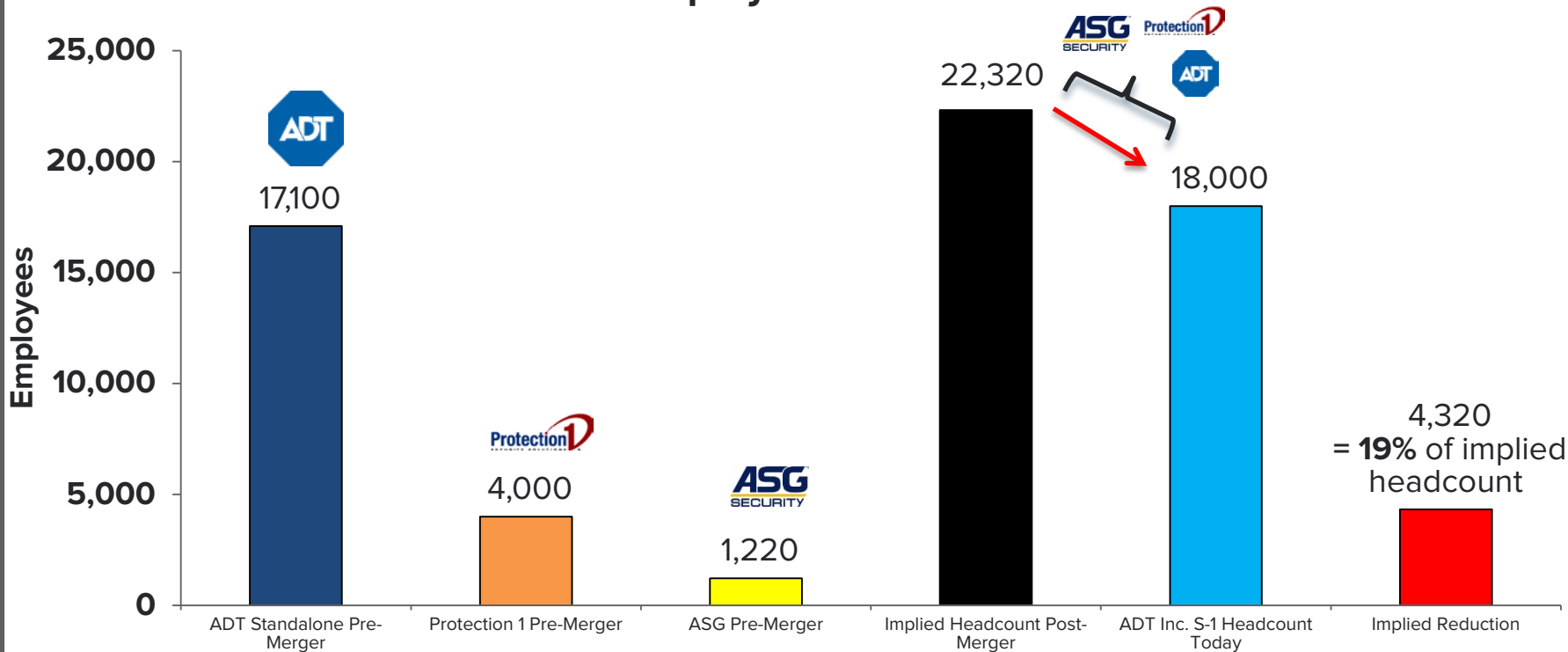
Customer Reduction



FEWER CUSTOMERS TO SERVE → FIRE AWAY

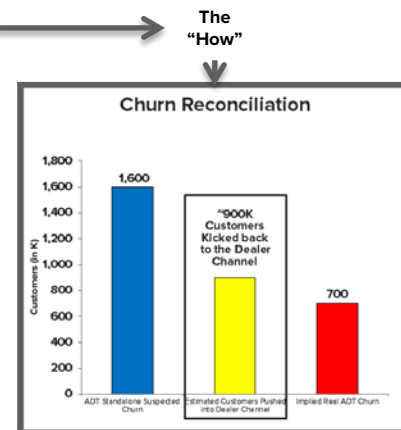
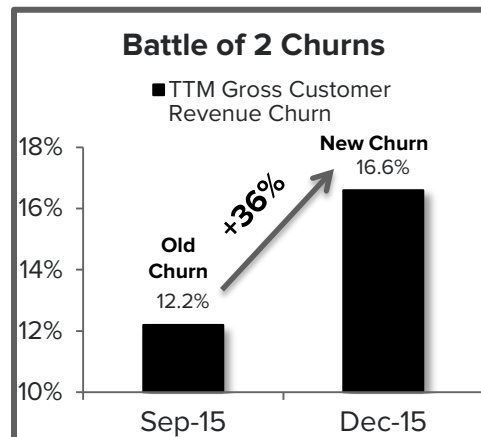
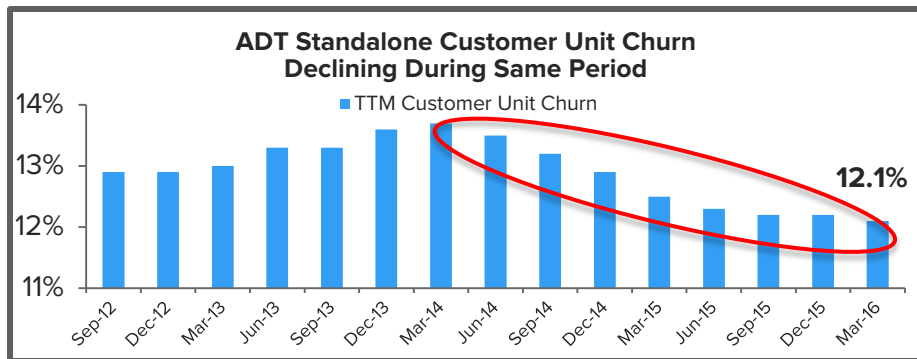
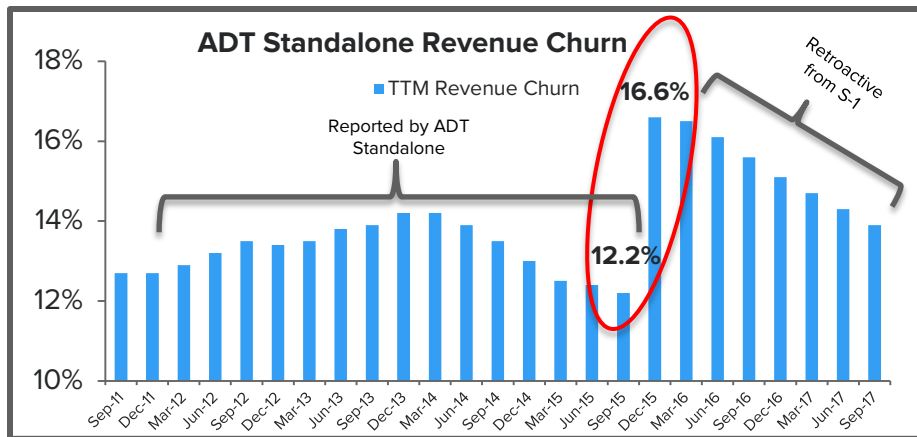
OFFLOADING ~25% OF CUST. ALLOWED ADT TO CUT 19% OF HEADCOUNT

Employee Reduction



A TALE OF 2 CHURNS

CHURN ROSE FROM 12.2% TO 16.6% BEFORE IT WAS BROUGHT DOWN TO 13.9%



Churn Formula (restated)

TTM recurring revenue lost as a result of customer attrition

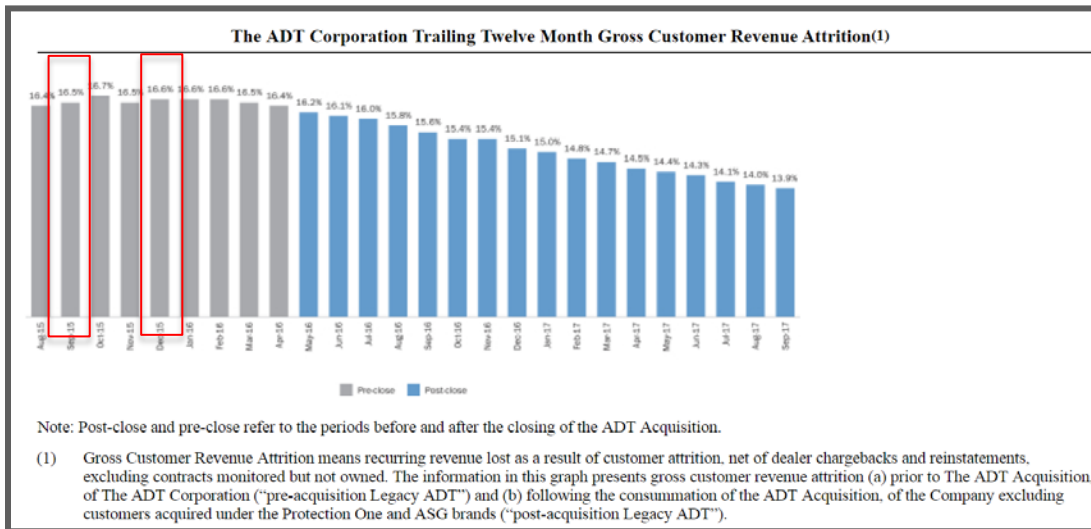
Recurring revenue under contract, excluding contracts monitored but not owned

****Explanation:** Moving customers with higher potential-to-churn to the dealer network created a baseline **decrease** to the formula's **denominator**, resulting in a restated **higher** initial churn. But going forward, it left **lower** potential-to-churn revenue in the denominator, and pushed higher potential to churn revenue in the dealer channel, both resulting in a smoothly decreasing forward churn rate.

CONFLICTING ATTRITION REPORTS

CHURN JUMP FROM 12.2% TO 16.6% ON A BACKWARDS LOOK

ADT Inc.
S-1



(in millions, except as otherwise indicated)

Key Performance Indicators:

	2015	2014	2013
Ending number of customers (thousands) ⁽¹⁾	6,594	6,663	6,430
Gross customer additions (thousands) ⁽¹⁾	1,051	995	1,097
Customer revenue attrition rate (percent)	12.2%	13.5%	13.9%
Customer unit attrition rate (percent)	12.2%	13.2%	13.3%

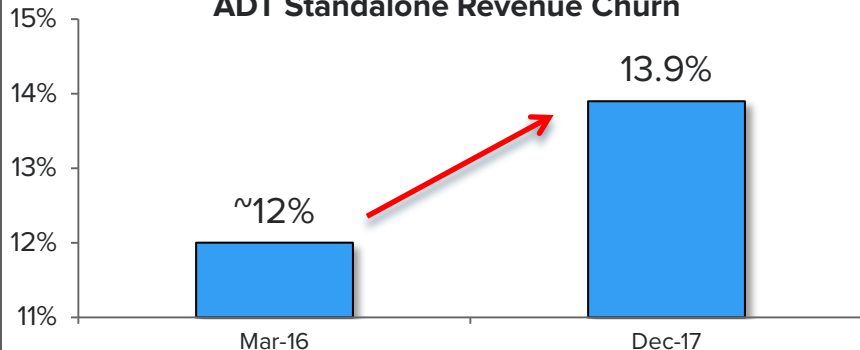
Customer Revenue Attrition Rate. We also evaluate our customer retention based upon the customer revenue attrition, which is defined as the recurring revenue lost resulting from customer attrition, net of dealer charge-backs and re-sales, excluding contracts monitored but not owned. The customer revenue attrition rate is a 52-week trailing ratio, the numerator of which is the annualized recurring revenue lost during the period due to attrition, net of dealer charge-backs and re-sales, and the denominator of which is total annualized recurring revenue based on an average of recurring revenue under contract at the beginning of each month during the period.

ADT Corp
10K 2015

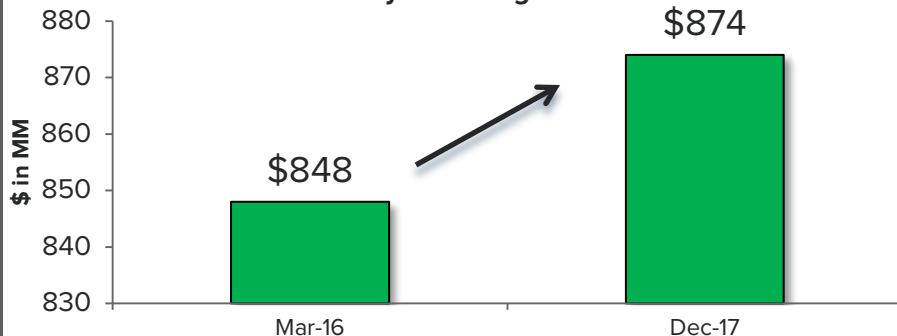
FUN WITH NUMBERS, NOT OPERATIONAL IMPROVEMENT

CUSTOMERS DOWN, REVENUE CHURN UP, RECURRING REVENUE UP

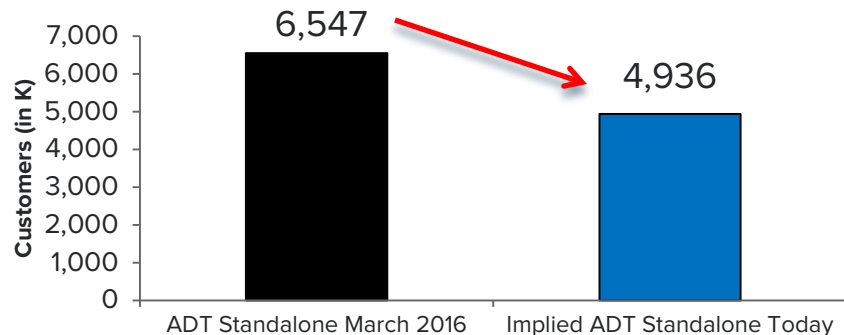
ADT Standalone Revenue Churn



Quarterly Recurring Revenue



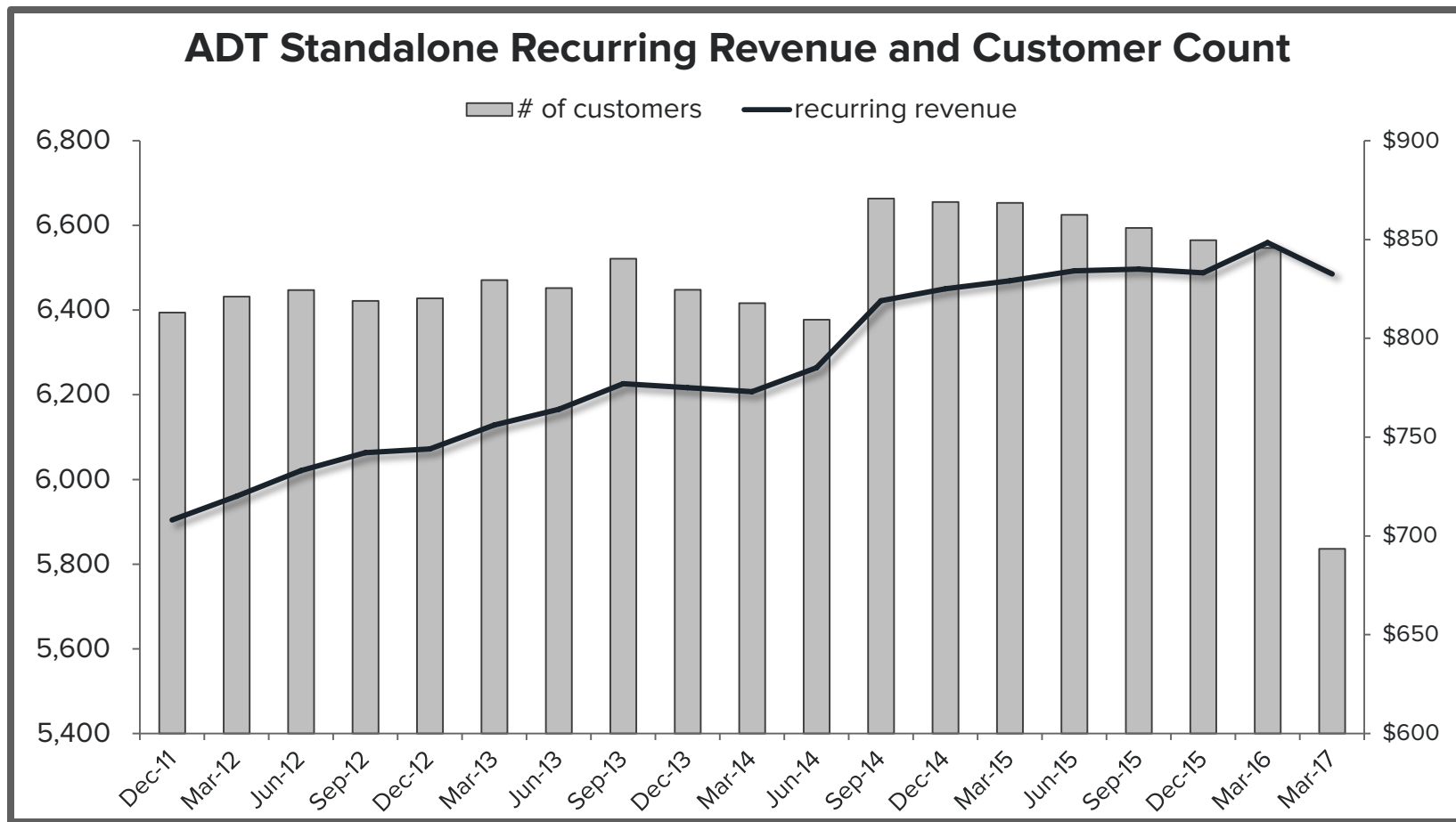
Customer #s Down



Question: How does a company grow recurring revenue while increasing revenue churn % and decreasing customer count?

Explanation: You kick out the low-end accounts from the churn metric so that their customer identity no longer applies while maintaining the recurring revenue stream from it.

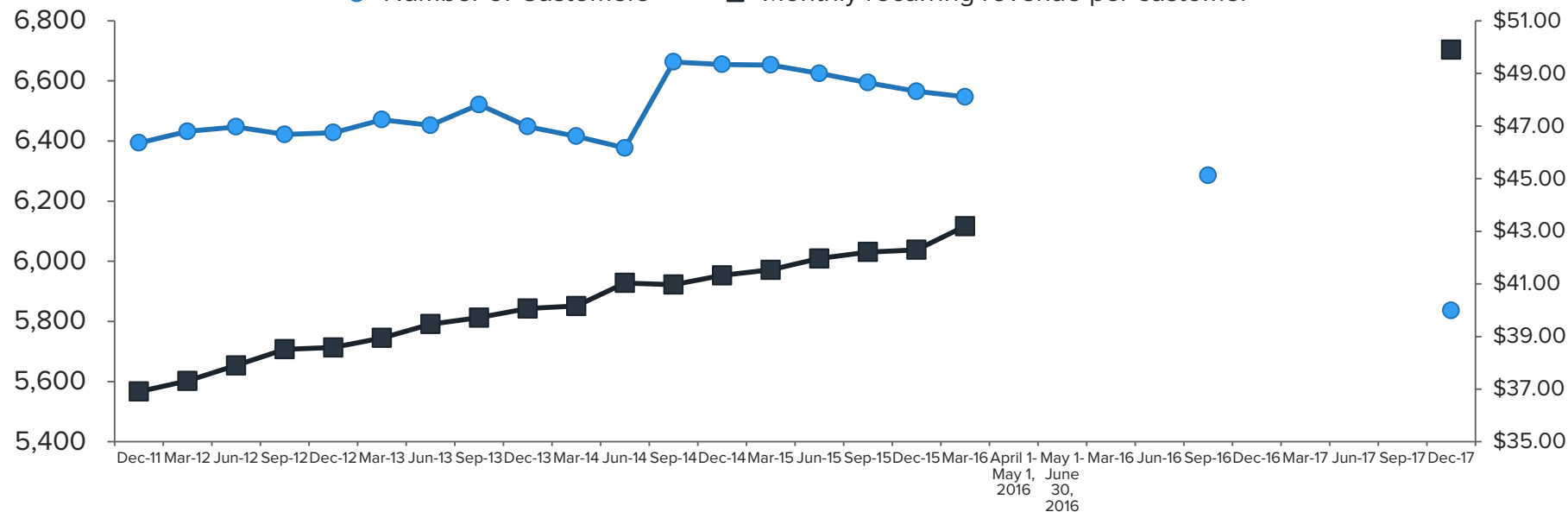
MAGIC: FALLING CUSTOMERS AND FLAT REVENUE



TAKING PRICE ON FALLING CUSTOMER BASE

ADT Customer Count & Monthly Recurring Revs/Customer

—●— Number of Customers —■— Monthly recurring revenue per customer



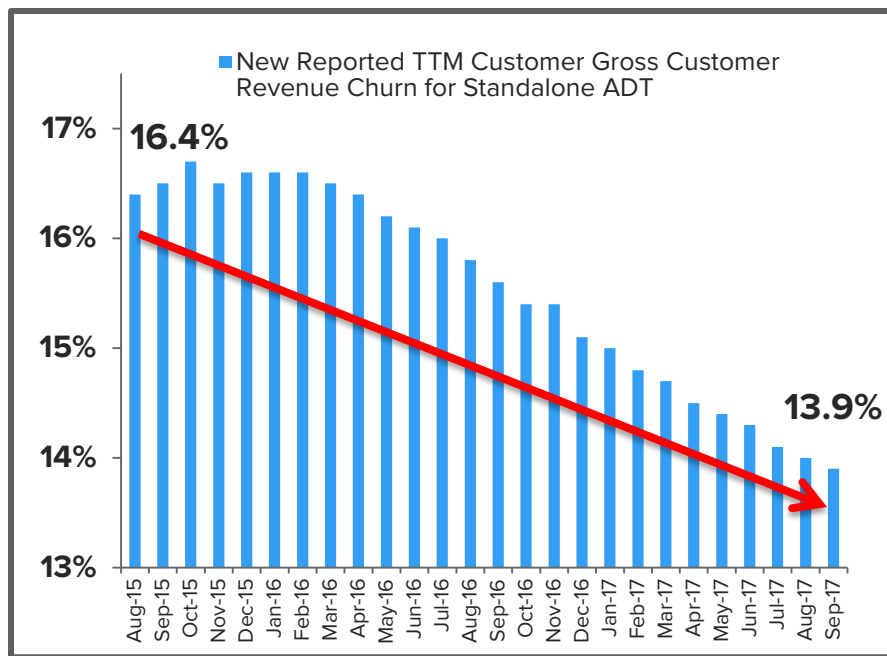
KICKING THE LOW END BACK TO THE DEALER CHANNEL

Cutting off the lowest tier of pricing, continuing the natural shift towards to ADT Pulse

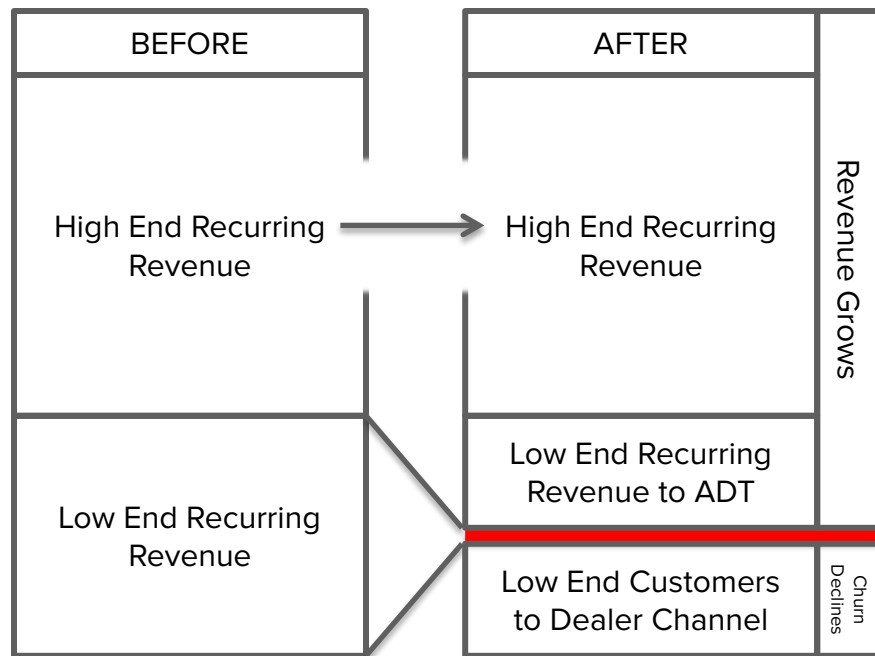
IT'S NOT WHAT THEY SAY IT IS

MGT IMPLIES THAT THEY WERE ABLE TO REDUCE CHURN FROM 16.4% TO 13.9% BY DOING THE FOLLOWING 4 THINGS:

- 1) REDUCING CALL WAIT TIMES
- 2) REDUCING CALL ABANDONMENT RATES
- 3) REDUCING EMPLOYEE TURNOVER
- 4) BETTER SAME/NEXT DAY SERVICE



BUT REALLY, THEY JUST PLAYED WITH THE MATH: YES, THESE 4 ARE REAL OPERATIONAL IMPROVEMENTS, BUT THEY **WORK IN A NON-LINEAR MANNER AND DID NOT DRIVE THE APPARENT IMPROVEMENT IN CHURN**. RATHER, MGT READJUSTED HISTORIC CHURN BY **REMOVING A BIG PIECE OF THE CHURN FORMULA AND INCREASING THE WEIGHT OF INFLATIONARY REVENUE**, THEREBY CREATING AN ARTIFICIAL FORWARD DECLINE IN THE CHURN RATE.



YA' EVER WONDER WHY A BUSINESS THAT "PROTECTS YOUR LOVED ONES" HAS A D-D CHURN %?

ALTERNATIVE WAYS OF SAYING: "THE PRODUCT IS MEH"

The Churn Stack:

(why customers leave ADT,
according to former ADT)

Competition:
10%

Involuntary non-paying:
20-25%

Voluntary – no longer see
the value proposition:
20-25%

Relocation:
30-40%

Historically
~12%
customer
unit churn:

The Churn Stack:

(Hedgeye translations)

Competition:
10%

I have more important things to pay for:
20-25%

"The product is meh":
20-25%

**ADT's offering is so mediocre that it isn't
worth reinstalling and continuing after
relocating:**
30-40%

Adapted from former CFO quote 1/9/2013

DECLINING RELOCATION SHOULD BE A NATURAL TAILWIND

STILL ACCOUNTS FOR A LARGE PORTION OF TODAY'S CHURN

The Churn Stack:

(why customers leave ADT,
according to former ADT)

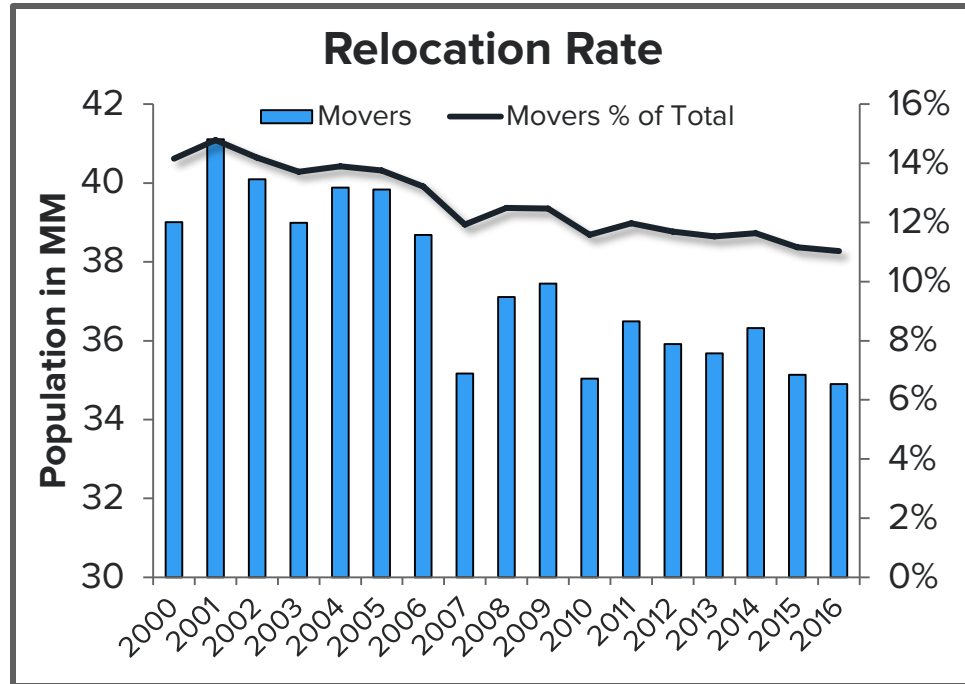
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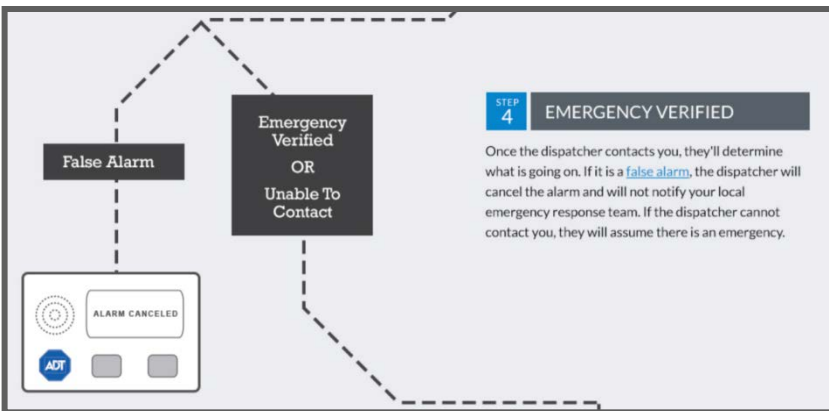
Relocation:
30-40%

Declining Relocation Rate



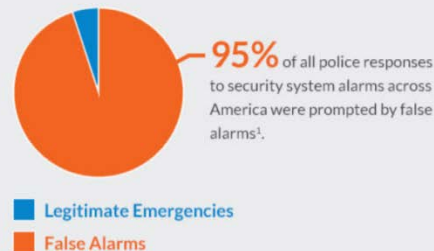
“C’MON, MAN” – FALSE ALARMS

~95% FALSE ALARM RATE IN THIS INDUSTRY



The False Alarm Dilemma

Police Responses to Security System Alarms



Case Study: Security Alarm Calls in Seattle



False Alarm Prevention

How many false alarms occur?

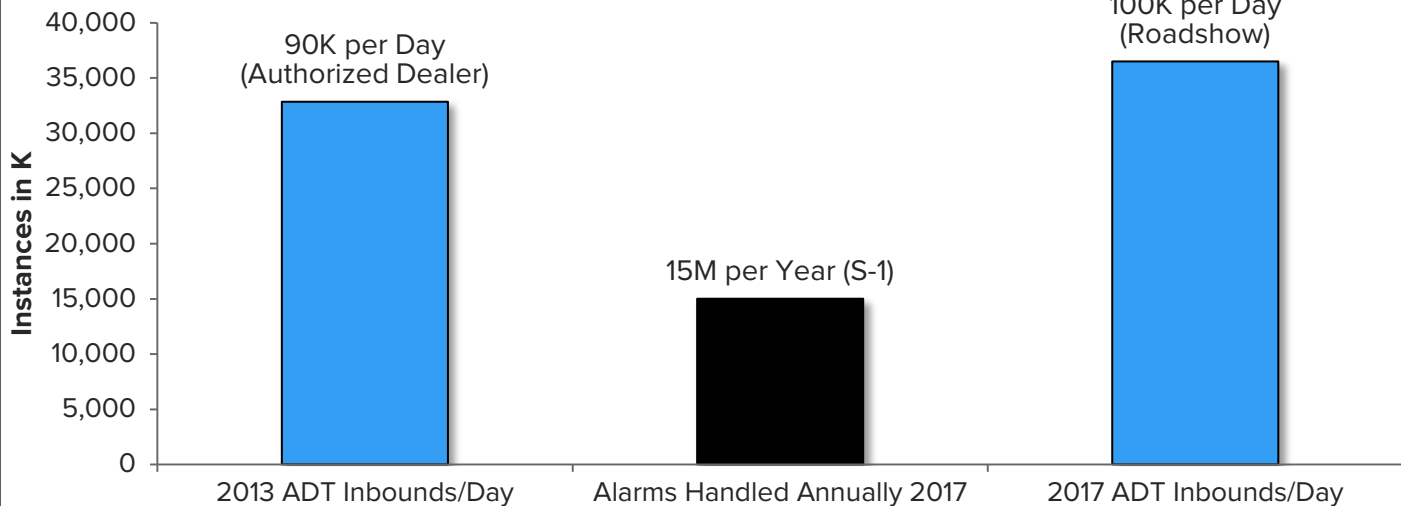
Of all police calls, alarm dispatches comprise of anywhere between 10 to 20 percent of calls. Yet, of these, as much as **94 to 99 percent are false alarms**. It's a huge number that could easily be reduced, since most false alarms are caused to human error. To put this into perspective, here are three city reports, which show how many false alarms occurred in the year 2000.

- Dekalb, GA: There were 144,000 burglary alarm calls; only 39 of were actual burglaries or burglary attempts. The rest were false alarms.
- Seattle, WA: There were 30,000 burglary alarm calls; 97.5 percent of these were false alarms.
- Chicago, IL: There were 300,000 burglary alarm calls; 98 percent of these were false alarms.

QUANTIFYING THE COST OF FALSE ALARMS

FEES FROM FALSE ALARMS BOTH COMMON AND COSTLY

Alarms Handled AND
Inbounds Received (Source)




Many cities are starting to issue fines to homeowners who cause unwarranted alarm dispatches. On average these false alarms can cost homeowners \$50 - \$250 per incident³. Minimizing false alarms will help reduce costs for everyone and keep police available for real emergencies.

Explanation: Using our 2 consistent data points, we assume that the 15MM annual alarms handled is the subset between the 2 inbounds which gets transferred to police/emergency services.

If we assume that **95% of these calls are false alarms**, consistent with company-given data, that is **~2.4 false alarms per customer**, at an average fee of **\$150** from the local municipality. Using our estimates, this can add up to **an additional \$360/year/user or \$30/month/user just for false alarm fees** on top of the subscription plan the user is already paying for.

AND IT'S NOT LIKE ADT IS FOOTING THE BILL

FALSE ALARM FEE AND ADT'S REJECTION OF REIMBURSEMENT REQUEST

 City of Los Angeles - False Alarms
P.O. Box 30879
Los Angeles CA 90030-0879

Invoice # [REDACTED]


INVOICE

RESPONSIBLE PARTY [REDACTED] **ALARMED LOCATION** [REDACTED]

REGISTRATION #	INVOICE DATE	DUE DATE	BALANCE FORWARDED
[REDACTED]	09/27/2011	10/31/2011	\$0.00

ALARM #	DESCRIPTION	DATE/TIME OCCURRED	DATE PROCESSED	CHARGE
1	[REDACTED] Dispatch: 906B4 Cleared: FALS N Offer/Unit: 40747 Recvd : 16:12:39 Dptch: 16:19:30 OnScene: 16:22:16 Clear: 16:34:23	09/24/2011	09/26/2011	\$149.00

INVOICE AMOUNT: \$149.00
TOTAL OUTSTANDING: \$149.00

 MAKE CHECK/MONEY ORDER PAYABLE TO CITY OF LOS ANGELES.

Invoice # 844866

Remit To: City of LA - False Alarms
P.O. Box 30879
Los Angeles, CA 90030-0879

FROM: [REDACTED] LOCATION: [REDACTED]

Invoice Amount \$149.00
Total Outstanding \$149.00

PAYMENT _____



ADT Security Services
10550 Deerwood Park Boulevard
Building 400
Jacksonville, FL 32256

November 8, 2011

Customer Billing Number: [REDACTED]

Dear [REDACTED]

A review of your false alarm charge from the City of Porter Ranch indicates that we will not be able to reimburse you for your false alarm fines received. After a thorough investigation of all circumstances surrounding the false alarm fines, it's clear that ADT's operator handled your system's alarm activation in accordance with your instructions on the account and our standard operating procedures.

Rebuttal FAR comp: 11-8-2011 reviewed for alarm event that occurred on 9-24-2011 standard operating procedures was followed client ineligible for reimbursement of the citation.

While ADT will consider reimbursement for false alarm fines under certain circumstances, please note that ADT's contracts preclude or limit responsibility for false alarm charges. Please also note that you are required to test your alarm system once a month to detect any possible malfunctions with your security system. Accomplishing this task will help identify early on any issues you may be having with your system. In order to test your system, please call 1-888-238-2727 and let our associate know that you'd like to test the alarm system.

If you have additional information regarding your request, please send it in writing to:
ADT Security Services
ATTN: False Alarm Research/CRD
10550 Deerwood Park Blvd. Bldg 400
Jacksonville, FL. 32256

Sincerely,

False Alarm Research Team

ADT RECOGNIZES THIS...AND GIVES USERS “ADVICE”

ADT SHOULD BE ASKING WHY A “BREEZE OR DRAFT” CAN PROMPT A FALSE ALARM

5 Easy Ways to Prevent False Alarms



1. Place Sensors in Proper Places

Turn sensors away from air/heat vents, fans, and windows so they don't pick up any breezes or drafts that could prompt a false alarm. Additionally, make sure you keep all moving objects away from the sensors when your alarm is set.



2. Properly Train All Users

Properly train everyone, whether it's your kids, a babysitter, a relative, or yourself, to arm and disarm your system properly. The most effective way to train them is to explain how the system works, demonstrate it yourself, and then have them arm and disarm the system multiple times under your supervision.



3. Equipment Checkups

Make sure you schedule regular inspections of your security system equipment a few times each year to ensure it is still running properly. Alarm monitoring companies can even set up annual tests to make sure signals are transmitting properly. If you have glass-break detectors, make sure they are adjusted properly so they aren't set off by loud noises, like thunder. Also, check the battery backup—low batteries are the second most common cause of false alarms.



4. Secure Your Doors and Windows

Have a professional technician check your system at least once a year to ensure you don't have any broken sensor connections or loose-fitting doors or windows. Also, make sure you close and lock all your doors and windows before you set the alarm.



5. Pet Friendly Sensors

There are motion sensors that are immune to movement caused by pets up to 80 pounds. If you have household pets that roam the house while you're away, these sensors are worth the investment.

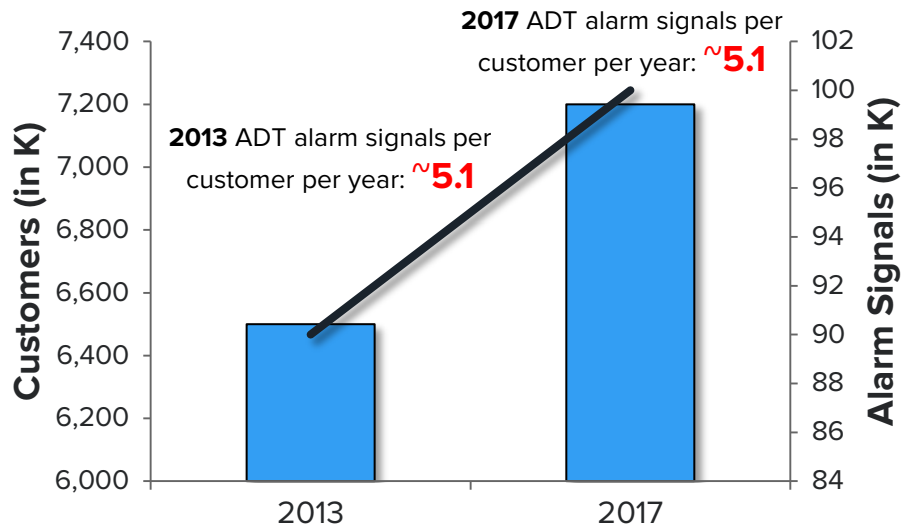
Takeaways:

1. A breeze or draft can prompt a false alarm.
2. Glass-break detectors can be set off by loud noises like thunder.
3. “Low batteries are the second most common cause of false alarms”
4. A power outage can set off your alarm.
5. A balloon swaying near the alarm can set it off.

WHAT AM I EVEN PAYING FOR?

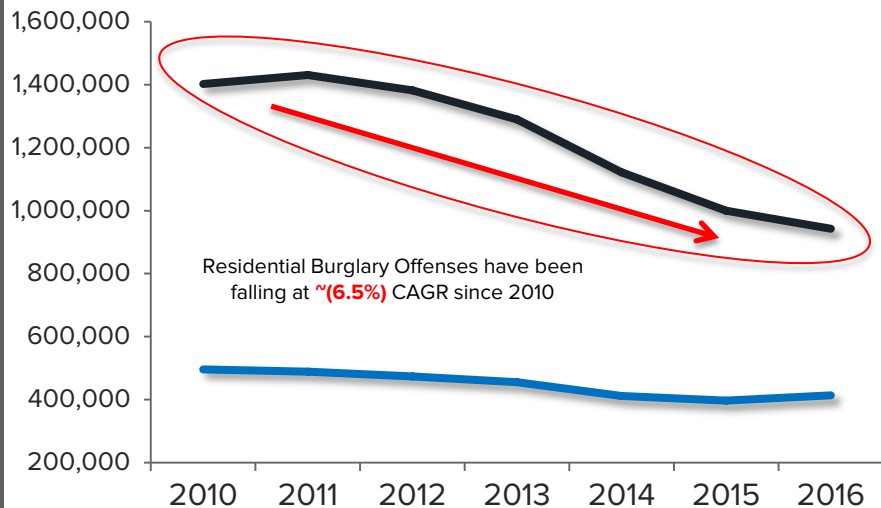
Alarm Signals Per Customer Per Year

Customers (in K, x - Contracts Monitored but Not Owned)
Alarm Signals Received per Day (in K)



U.S. Residential Burglary Offenses

Residence (dwelling):
Nonresidence (store, office, etc.):

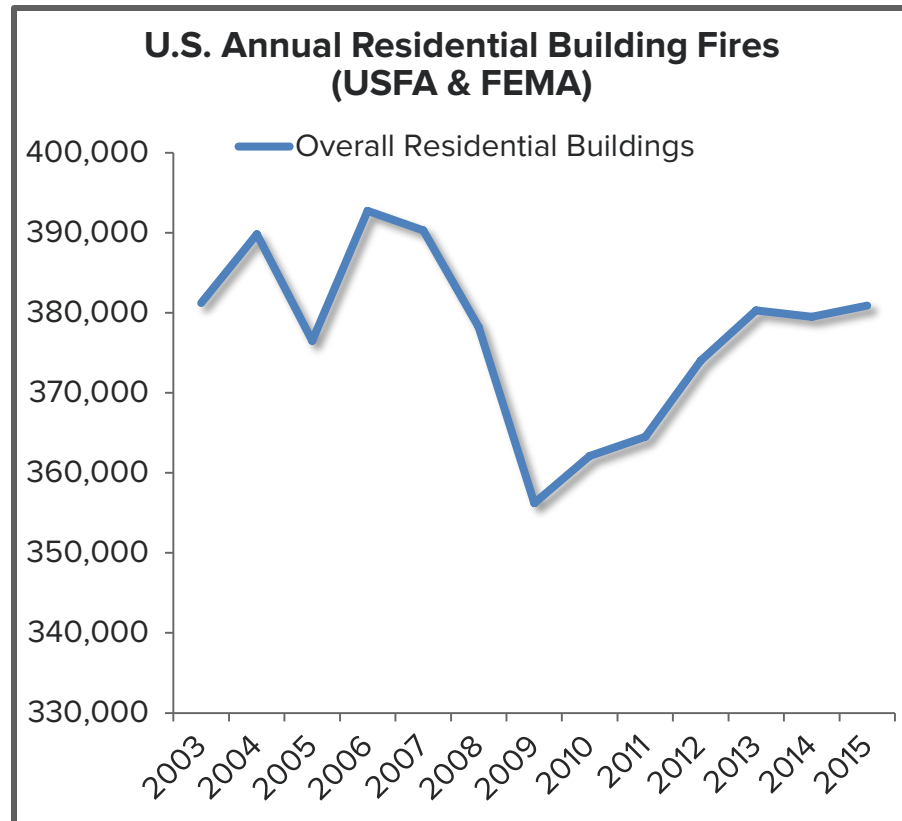
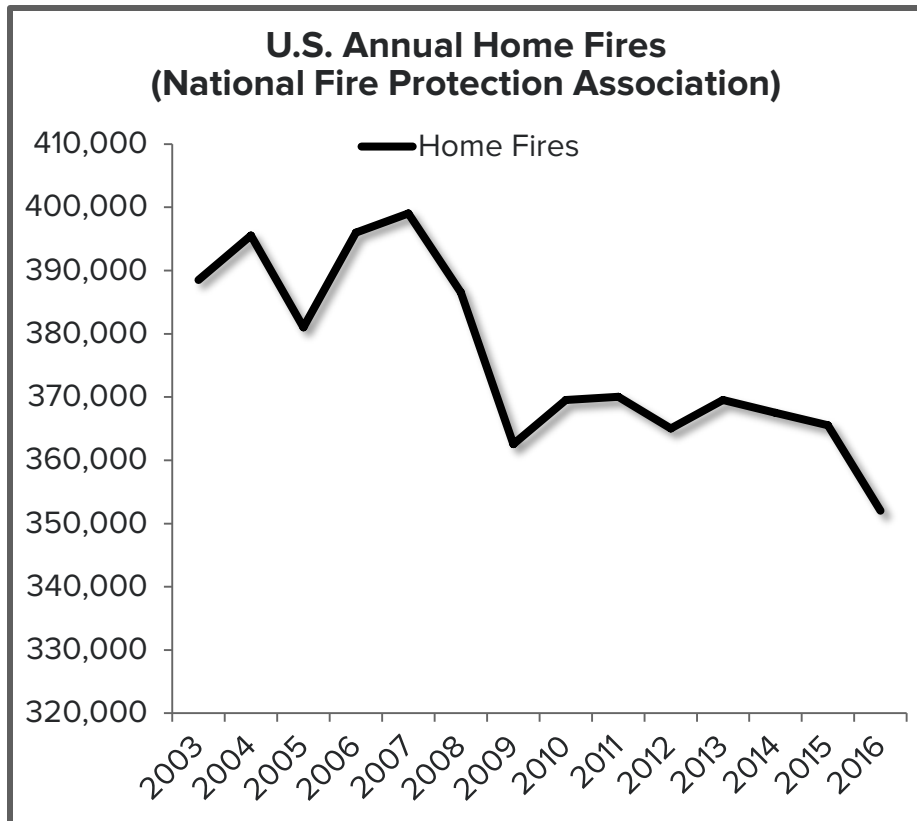


FLAT # OF ALARM SIGNALS PER CUST. SUGGEST ADT HASN'T IMPROVED THE TECH

There are at least 2 reasons why the lack of improvement is a problem: 1) The false positive rate on alarms being triggered has been >90% since 2000, so one would expect that assuming there is no increase in real alarm signals (i.e. true positives), ADT would address this false positive problem over time with improved technology/devices. 2) The number of true positives (i.e. times that the alarm should actually have been signaled) should correlate with a true-signaling event like burglary offenses (i.e. attempted break-ins). The decrease in residential burglary offenses (-6.5% CAGR since 2010 and -10% since 2013) should have been a natural catalyst to decrease the alarm per customer rate.

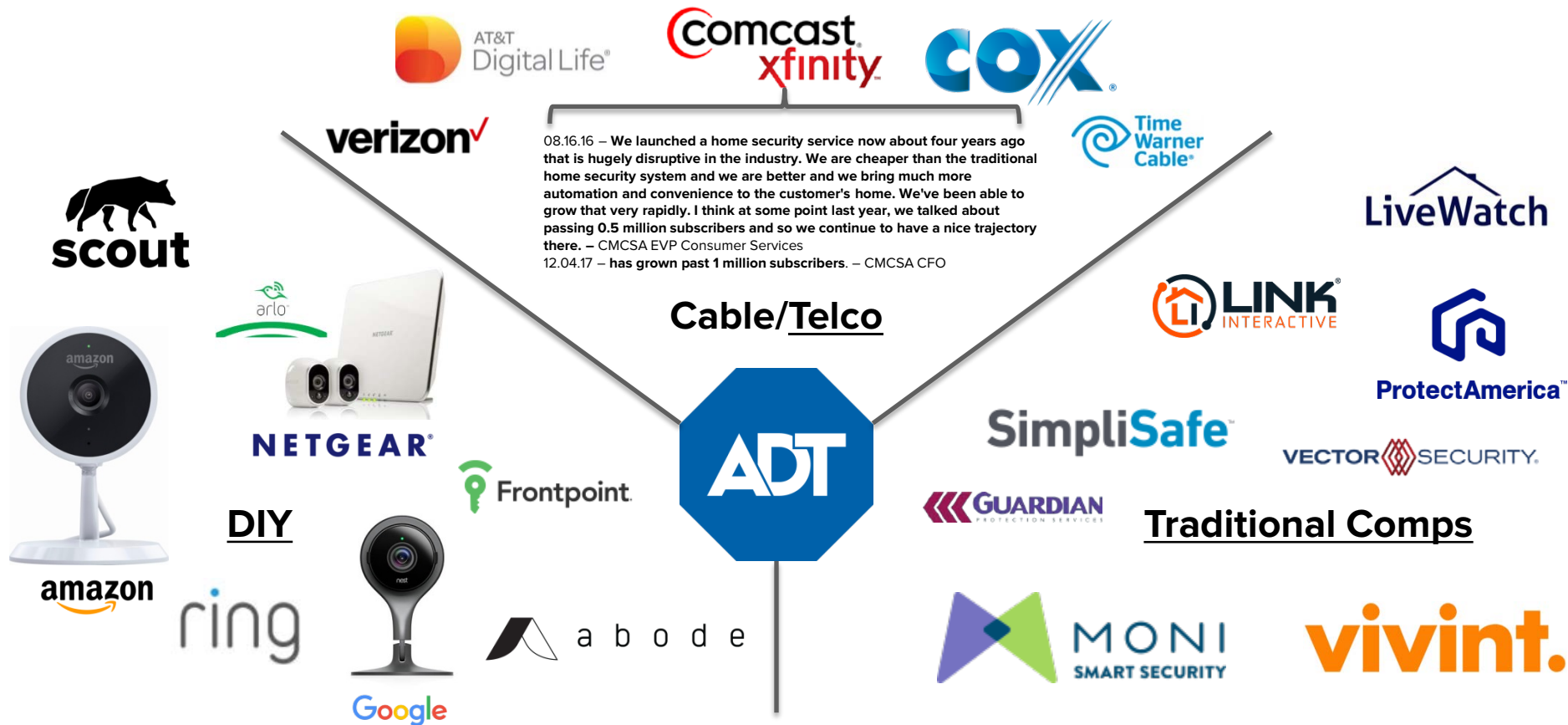
OF FIRES DON'T JUSTIFY THIS CONSTANCY EITHER

RESIDENTIAL FIRE INCIDENTS FLAT TO DOWN SINCE 2003



COMPETITIVE LANDSCAPE

MANY COMPETITORS PROVIDING >= VALUE W/ GROWING CUSTOMER BASE

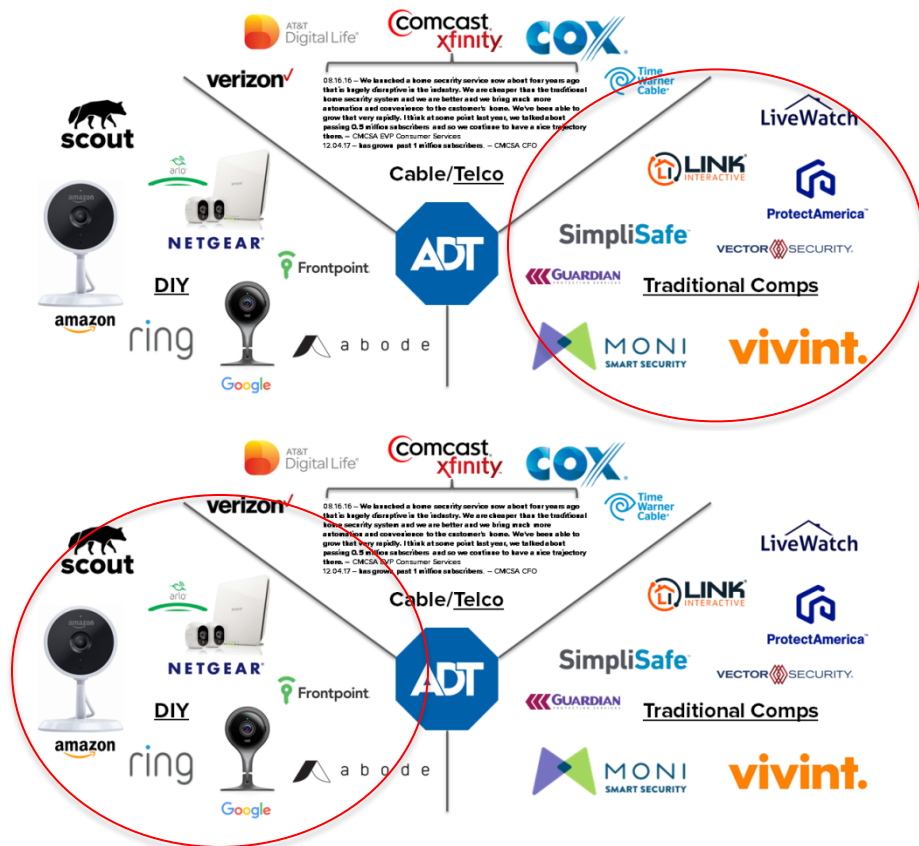


THE TECHNOLOGY VS. NETWORK CONUNDRUM

BETTER TECHNOLOGY SHOULD LOWER THE NEED FOR MASSIVE CC NETWORK

Option 1: ADT stays in the traditional (professional grade, 24/7 monitored network category) and risks the technology efficiency from the DIY category.

Option 2: ADT pursues improved input recognition technology and reduces need for large investment in call center network. But can no longer position that as a major barrier to entry acting in the co's favor.



MODERN SOFTWARE'S ABILITY TO BRING FALSE POSITIVES DOWN

CAN BRING DOWN FALSE POSITIVES BY 50-90%

“With figures showing it costs the UK economy hundreds of millions of pounds a year in lost productivity due to false alarms being triggered by staff on site when a system is still armed, environmental issues and even insects on the camera, **Calipsa is claiming to reduce false alarm rates by up to 50%, according to customer trials.**”

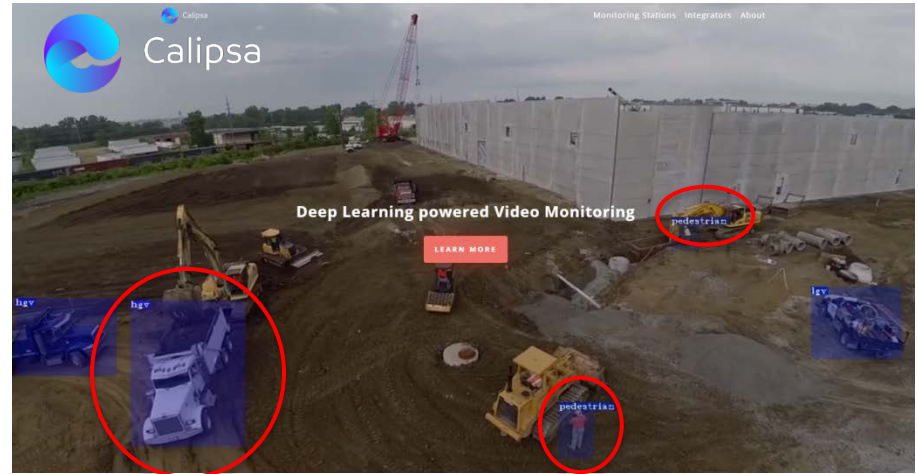
“Security cameras by their nature are sensitive and are often falsely triggered by pretty much anything from spiders to trees blowing in the wind,” explains Anthony Fulgoni, Sales Director, Calipsa. “Apart from human operators deciding the validity of an alarm, the current state of the art is either anti-dither settings, which allow you to set the length of the motion to be detected, and masking, which allows you to ignore certain parts of the camera view. **But both of these solutions are archaic, but are still deployed even in modern day alarm receiving centres. They lack the capabilities to take into account a wide range of factors, mostly environmental.**” (PSI Magazine, UK, November 29th, 2017.

How it Works

- 1 Remote cameras send alarms to Calipsa
- 2 Calipsa uses Deep Learning algorithms to process the alarms and forward relevant ones to the monitoring station
- 3 Human operators review the alarms sent by Calipsa

Improved operator efficiency by reduced false alarms

Legacy analytics systems suffer from false alerts due to anything from lighting to insects. Calipsa reduces the false alarms by 50-90% thereby increasing operator productivity and efficiency, all the while saving cost. The increased capacity can be utilised to expand the customer base or provide additional services.



SOFTWARE TOOLS CAN ELIMINATE MUCH OF THE NOISE

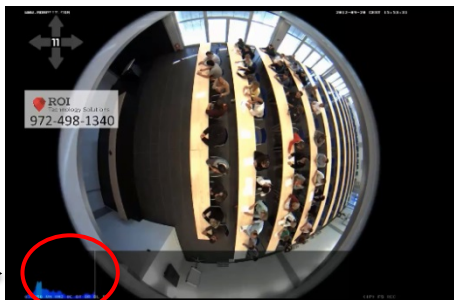
EX. OF 2014 CAMERA SOFTWARE WHICH ONLY REGISTERS CRITICAL ACTIVITY



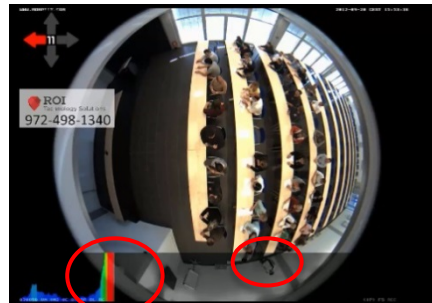
+ **MOBOTIX**

Demo #1: Highly active classroom with ~50 people, sensor doesn't register disruption unless student leaves or enters the room. Software enables camera to ignore regular "noise".

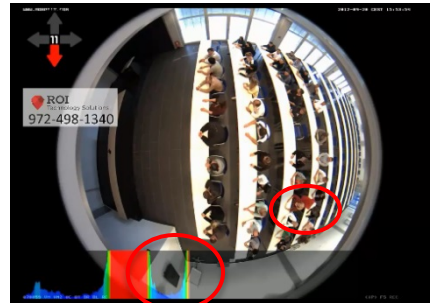
Activity Registration →



1



2



3

Demo #2: In hurricane-like weather, camera sensor ignores strong winds and heavy rain and only registers activity when human or car approaches.

Activity Registration →



AMAZON REKOGNITION

AMZN'S FUTURE OFFERING IN THE SPACE

FACE-BASED USER VERIFICATION

With Amazon Rekognition, your applications can confirm user identities by comparing their live image with a reference image.

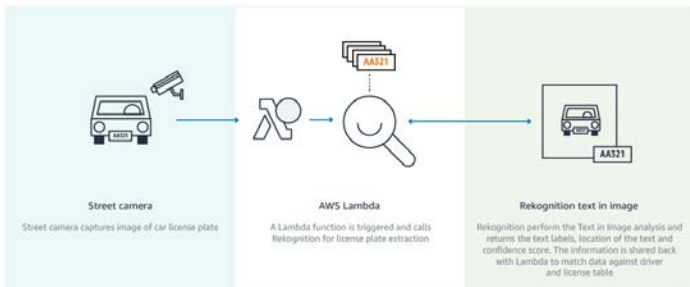
Example: Employee badge scan



LICENSE PLATE VERIFICATION

With Amazon Rekognition, your applications can identify vehicles driving in front of a camera by recognizing license plate numbers

Example: Employee badge scan



What is **Amazon video Rekognition**? Introduced at AWS re:Invent 2017, Amazon Rekognition Video is a real time video analytics tool. The two main functions of relevance here are facial recognition and person tracking. Person tracking uses skeletal imaging to track a person who is in the frame but out of the shot (aka blocked from the camera's view). Facial and image recognition allows the camera to know if it is a human entering the home or a non-critical disturbance. Person-tracking would allow the camera to "follow" a clever intruder who is purposefully using the camera's blind-spots.

In the same vein, image recognition would know if it's your car parked out front by analyzing the license plate number.

IMMEDIATE RESPONSE FOR PUBLIC SAFETY AND SECURITY

Amazon Rekognition Video and Amazon Kinesis Video Streams allow you to create applications that perform real time recognition of persons of interest from camera live streams against your private database of face metadata. Amazon Rekognition Video also allows you to easily and quickly review hours of video footage to search for persons of interest, track their movement, and detect their activities.

Example: Public Safety - Law enforcement bodycams



ALEXA + ADT PULSE: GRADUAL DISINTERMEDIATION

Pre-2017



Traditionally, users would need to manually interact with their ADT Pulse controller or the ADT Pulse mobile application to toggle their device.

"Alexa, ask
ADT to disarm
the system
with pin 1234"

March 2017



ADT Pulse already integrated with Amazon Echo devices



ADT Pulse and Google Home planned integration announced at CES 2018

Spring 2018e

BETTER FOR THE JOINT CONSUMER WHILE DISTANCING FROM ADT INTERFACE

By enabling integrations with devices such as the Amazon Echo and Google Home, ADT actually reduces the role consumers perceive it to play in their daily lives. We think that ADT has attempted to mitigate the L-T negative effects of this by requiring users to add "ask **ADT**" to the voice command. Potentially a strategic fix, however also paving the way for Amazon to more easily poach the consumer onto their own security offerings.

TECHNOLOGY HALF-MEASURES

CAN'T CONTROL ADT THERMOSTATS OR CAMERAS VIA ALEXA

In order to be able to use features such as disarming your system and unlocking your door, you will need to set up a PIN that your Alexa device will need to hear to perform the given command. ADT recommends making this PIN different from the ones that you use with your panel and ADT Pulse app.

FEATURES

COMPARE

REVIEWS

SPECIALS

7. How do I set up my ADT Pulse skill PIN?

You will be prompted to create a PIN while enabling the ADT Pulse skill if you choose to control certain security features through your Amazon Alexa device. You can set your PIN to any 4-digit combination that you want. We recommend making this PIN different from the ones that you use with your panel and ADT Pulse app.

For your added security, ADT recommends that you change your PIN every 60 days. However, you are not required to change it unless you have given your PIN incorrectly 3 consecutive times. In this situation, the ADT Pulse skill will disassociate from your Amazon Alexa app, requiring you to re-enable the skill and reset your 4-digit PIN. If you have forgotten your ADT Pulse skill PIN, you can reset it through the Amazon Alexa app.

8. Can I change the verbal PIN that disarms my system, unlocks my doors, and opens my garage door?

Yes. You can change it any time. All you need to do is disable the ADT skill in the Alexa app and re-enable it.

9. Will all of my home automation devices be accessible through the ADT Pulse skill?

You can arm and disarm your system and control your ADT Pulse connected lights, locks and garage door through your Alexa device. Please note that your thermostats and cameras cannot be controlled by Amazon Alexa at this time.

10. Where does the ADT Pulse skill store my PIN?

Your PIN and ADT Pulse account information will not be associated with your Amazon account. ADT highly recommends that the ADT Pulse skill PIN you choose when enabling the Amazon Alexa ADT Pulse skill be different than the PIN associated with your ADT Pulse account. We highly recommend that you do not share your ADT skill PIN, or any other PIN or password associated with your ADT account, with others to ensure the security of your home.

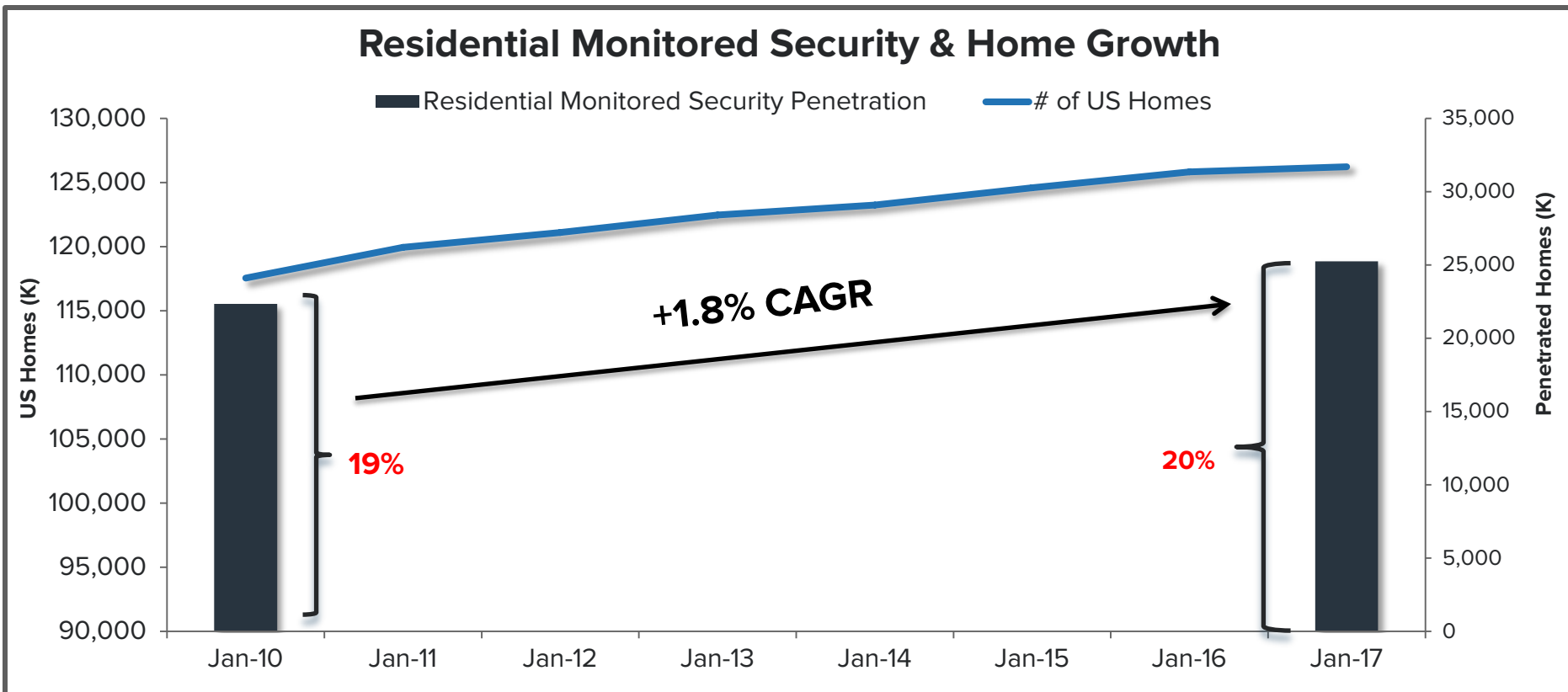
Please note, however, that your PIN may nevertheless be visible in transcribed voice recordings of your commands to your Amazon Alexa device in your Amazon account. For your added security, ADT recommends promptly deleting any recording in the history that references your ADT Pulse skill PIN. ADT also recommends creating a passcode to access your smartphone as an added measure of security.

Why can't consumers control their cameras and thermostats via Amazon Alexa?

LOOKING FORWARD

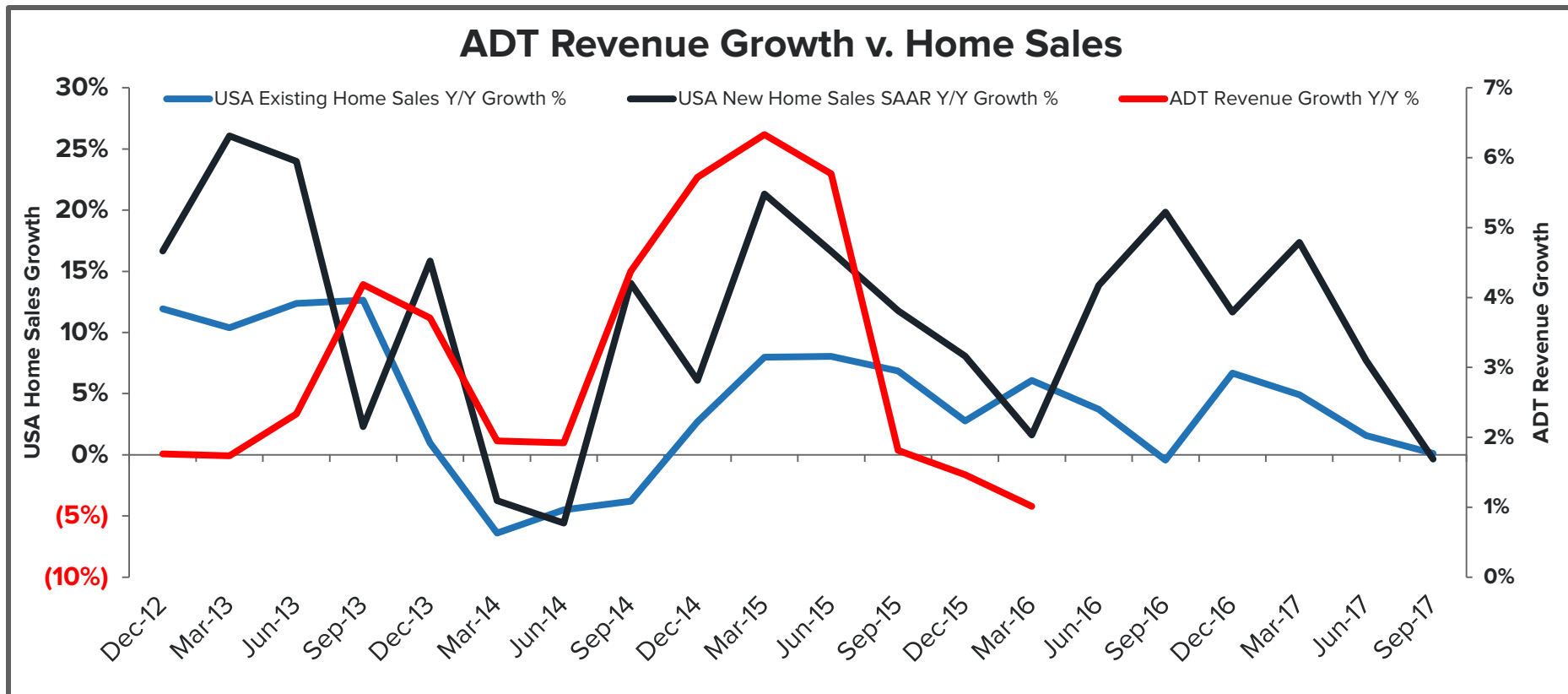
BARELY EXISTENT PENETRATION CURVE

+1.8% PENETRATION CAGR WHILE HOUSING UNITS +1% CAGR OVER SAME PERIOD



EXISTING HOME SALES AND ADT REVENUE GROWTH

PARTIAL CORR. WITH EXISTING HOME SALES, LESS SO WITH NEW HOME SALES

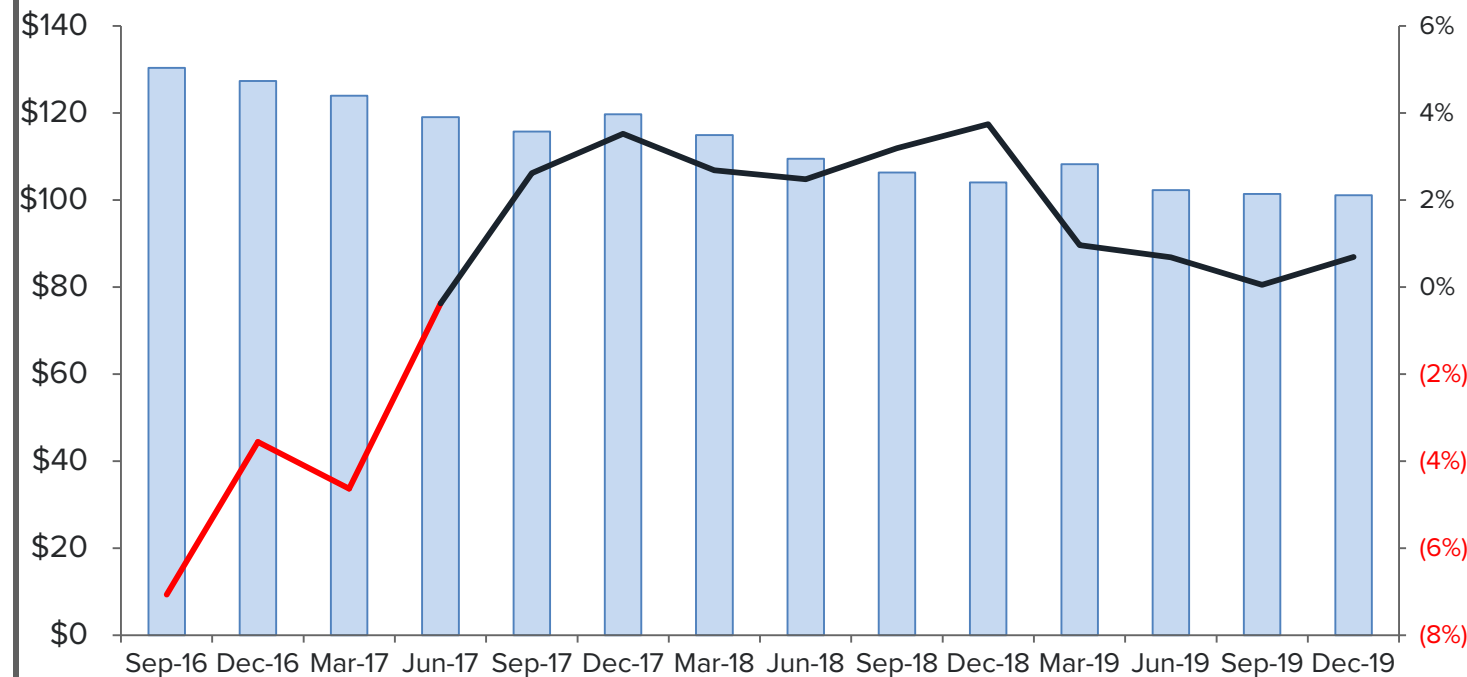


PEAKING GROWTH AS CHURN FLATTENS

BENEFITS OF CHURN IMPROVEMENT PEAK

Core ADT Churn Headwind & Revenue Growth

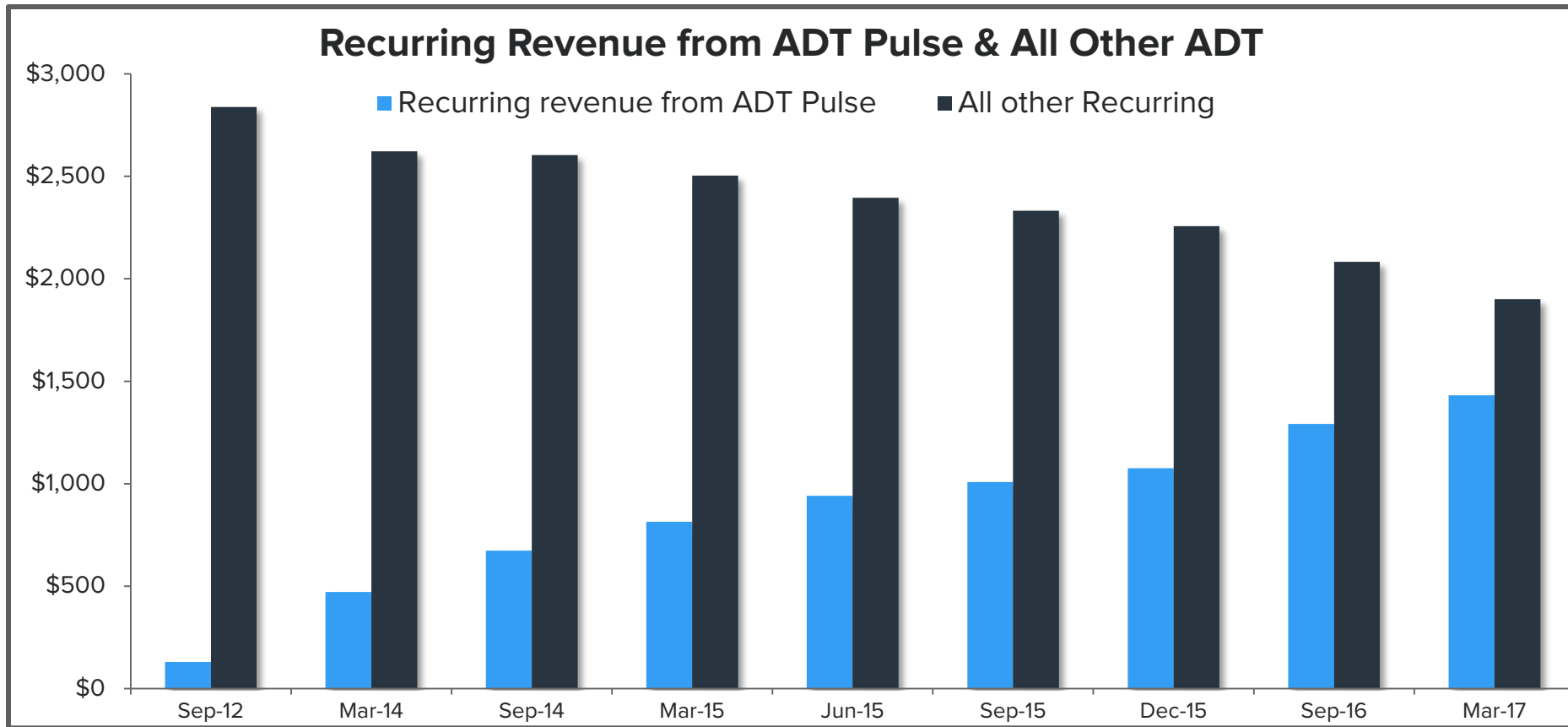
Quarterly revenue lost to attrition Revenue growth y/y % (core ADT)



Incremental benefits from slower revenue churn peak as churn approaches the long term trend line.

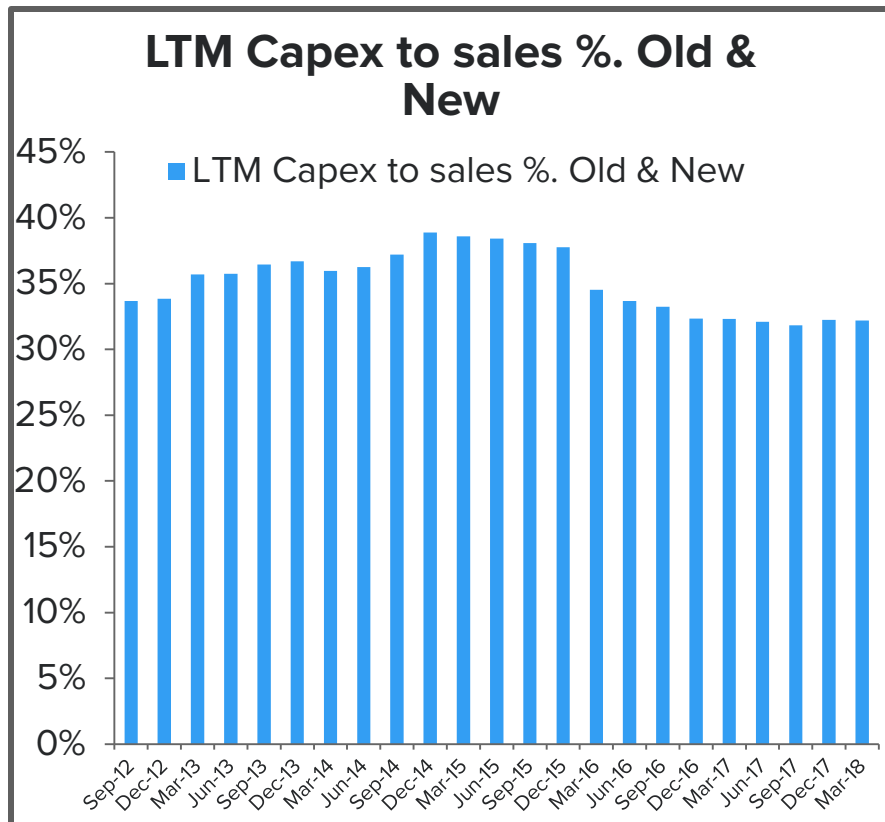
ADT PULSE IS PRICED MUCH HIGHER THAN BASIC SERVICE

PENETRATION OF PULSE IS FAIRLY COMPLETE

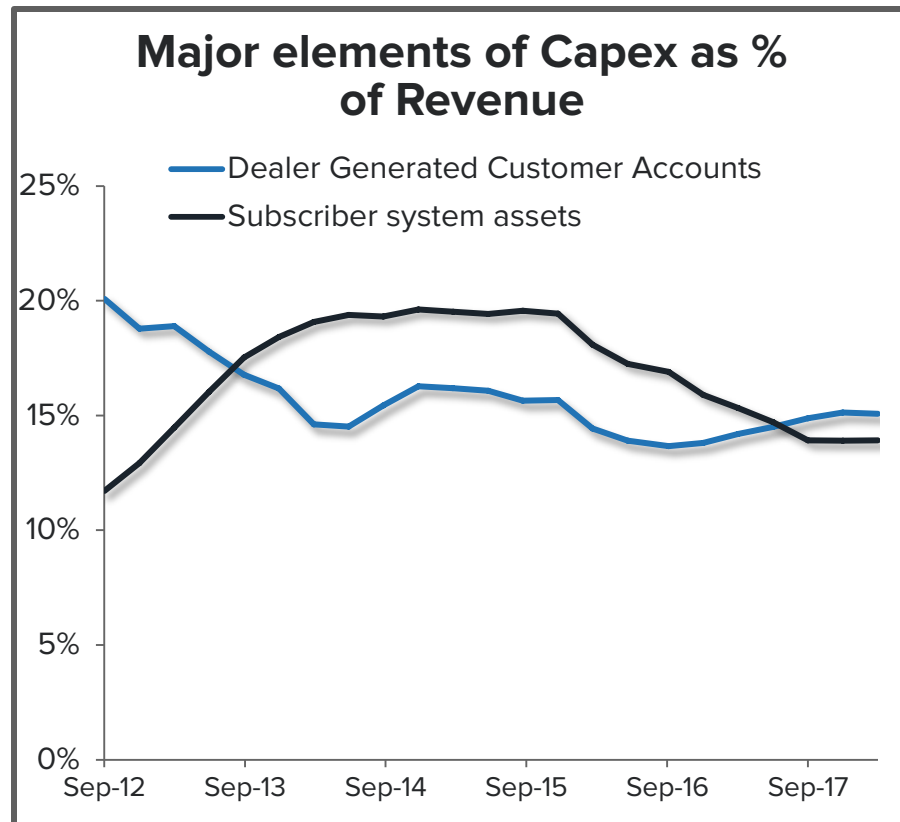


PUSHING USERS TO DEALER CHANNEL HELPS CAPEX

FALLING OVERALL CAPEX TO SALES



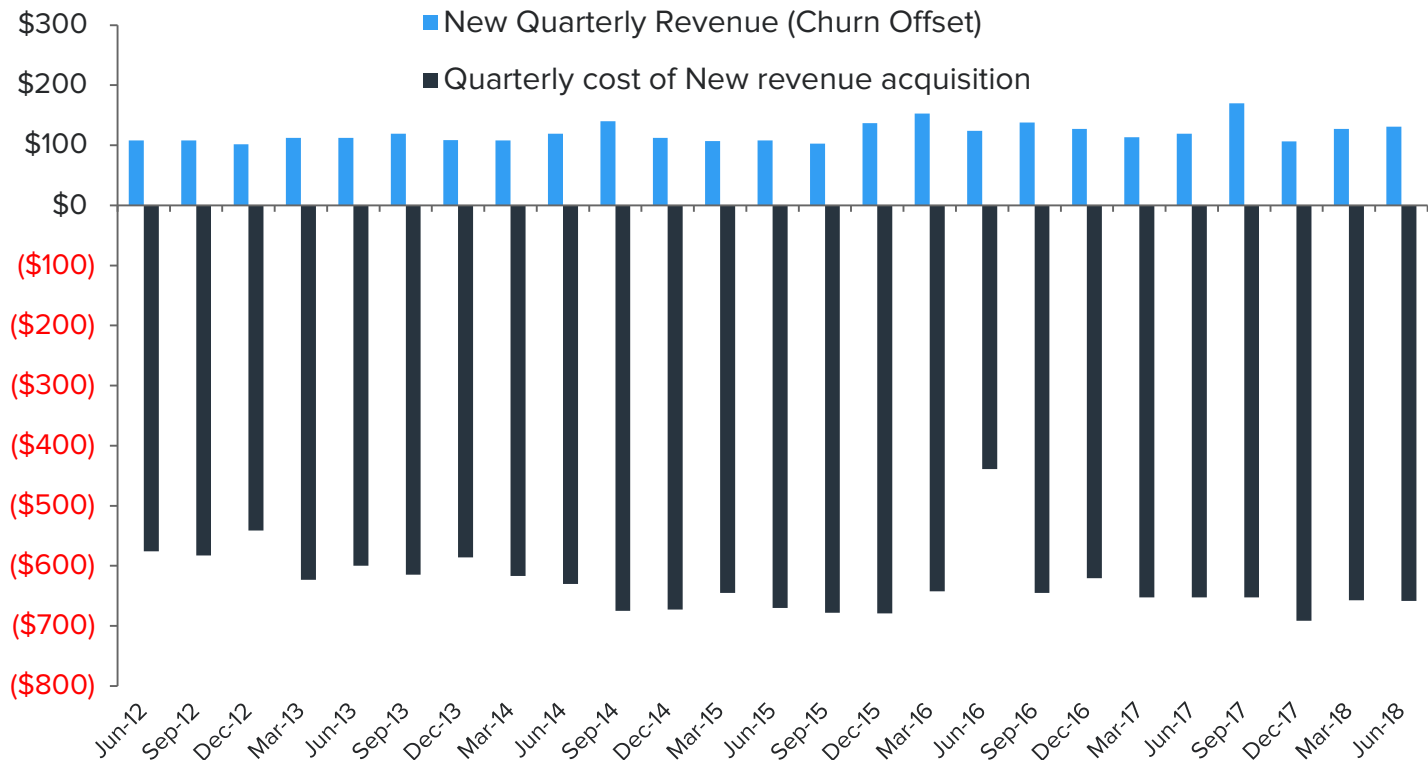
COMPONENTS OF CAPEX



MODEL STILL DOESN'T REALLY MAKE MUCH SENSE

IT COSTS >\$5 TO PURCHASE \$1 INCREMENTAL DOLLAR OF REVENUE

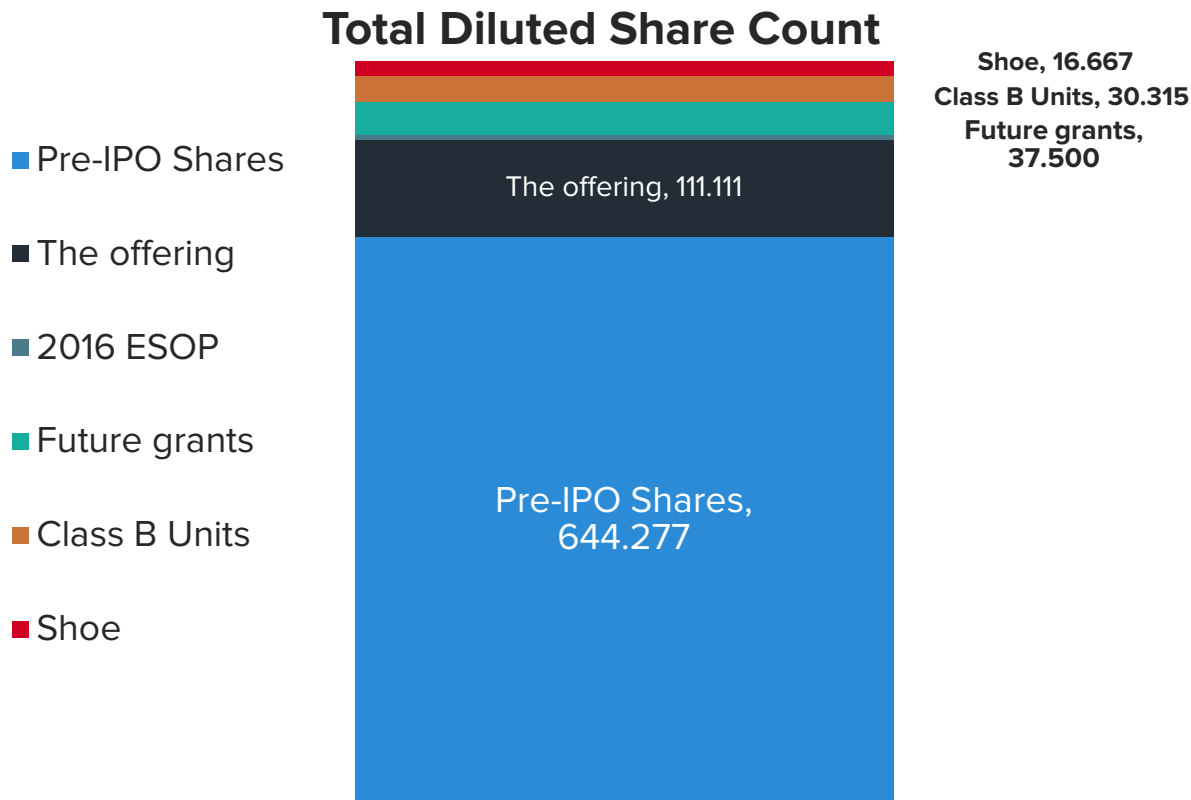
Acquired revenue & Cost of Acquisition



If 90% of revenue is under long term contracts, and many customers stay with ADT well beyond their initial 3-5 year contract, **why is new revenue so hard to come by?**

YOU ARE BEING ASKED TO LOOK THE OTHER WAY ON SO MUCH

AT LEAST GET DILUTED SHARE COUNT IN THE BALLPARK



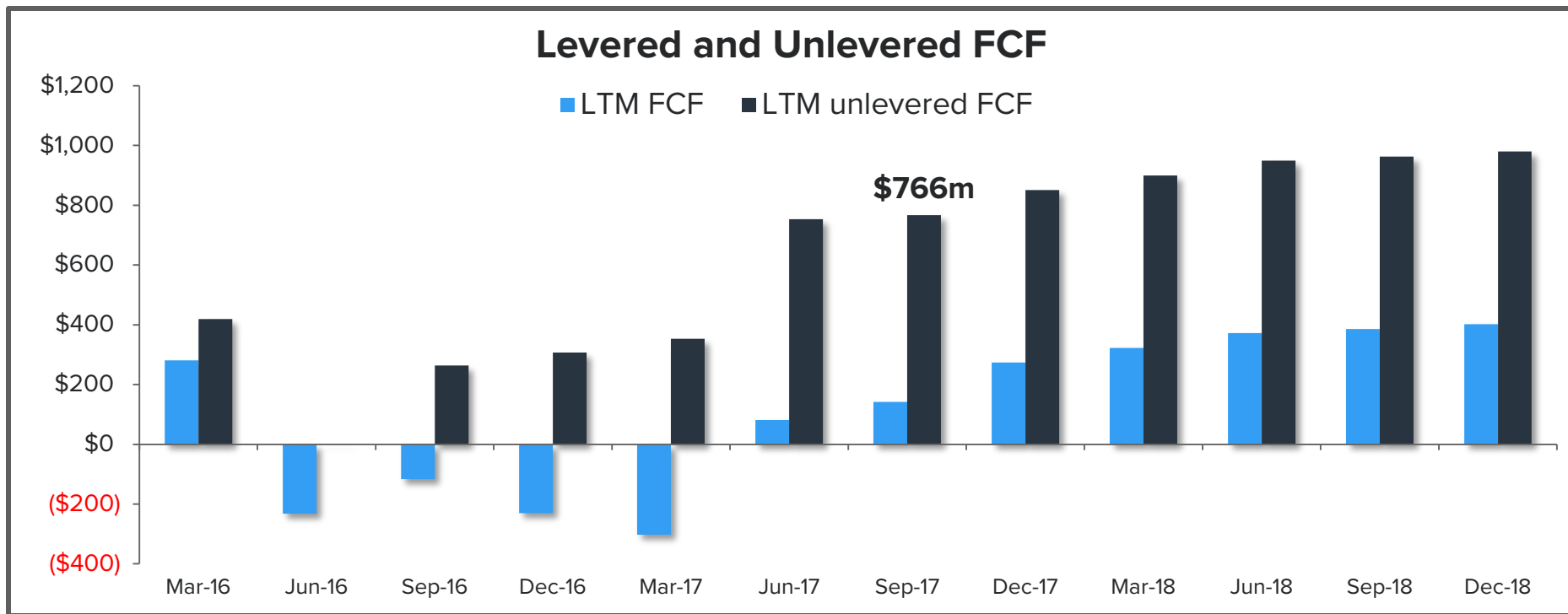
A note on the IPO: there are a # of dilutive securities which in aggregate dilute the base pre-offer + offer share count by ~12%

COMPS TABLE

THE HIGHLY LEVERED, LOW GROWTH, GREAT GRANDDADDY'S OF TECH

Ticker	Mkt Cap (\$MM)	Net Debt (\$MM)	Debt/Equity	Div. Yield	FCF Yield	EV/LTM FCF	EV/LTM S	Expected Revenue Growth CY19 over CY18
WU	\$9,700	\$2,499	498%	3%	6%	11x	2x	2%
SABR	\$5,642	\$3,201	541%	3%	8%	17x	2x	7%
T	\$226,540	\$114,780	130%	5%	7%	16x	2x	(1%)
IBM	\$151,035	\$34,088	232%	4%	8%	13x	2x	0%
XRX	\$8,343	\$4,217	108%	3%	7%	9x	1x	(4%)
HPE	\$25,200	\$1,075	59%	2%	NM	18x	1x	1%
ADS	\$15,269	\$19,581	1474%	1%	19%	13x	5x	9%
FDC	\$16,308	\$18,147	889%	0%	10%	18x	3x	5%
ADT	\$13,897	\$8,992	66%	0%	2%	29x	5x	1%

USE CLEAN FCF FOR VALUATION



\$766M IN LTM UN-LEVERED FCF COMPARES TO MGT CLAIM \$814M FOR 9MOS

The difference is in all the adjustments which are real cash spending, many of which are ongoing expenses

FINAL THOUGHTS ON ADT

THE SELLER IS ASKING INVESTORS TO LOOK AWAY FROM ALL THE FLUFF IN ADJUSTED FCF #S. BUT LOOKING AT REAL UNLEVERED FCF THE IPO IS SET AT ~25X EV/FCF. THE SELLER OWNS THIS ASSET AT A COST BASIS OF \$6-7 AS OF MAY 2016, AND THE IPO PRICE RANGE IS \$16-\$18. HALF THE IPO PRICE WOULD BE ~17X UNLEVERED FCF AND STILL GIVE THEM SOME CREDIT FOR IMPROVING THE BUSINESS.



FOR MORE INFORMATION, CONTACT US AT:

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(203) 562-6500