

CONSUMER CYBER SECURITY BUSINESS

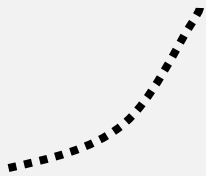
Kristian Järnefelt, Executive Vice President



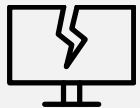
CONSUMERS' SECURITY NEEDS ARE GETTING BROADER

GROWING NUMBER OF INCIDENTS

> 1M IoT devices and routers get infected with Mirai

 Ransomware has peaked, while cryptomining explodes (229x YoY growth)

3.3B Data records compromised worldwide in H1/2018



Breaches of popular services have already had an impact on consumers

Security and privacy concerns shifting from a single device to overall online safety

NUMBER OF CONNECTED DEVICES

20B IoT Gadgets in Use by 2020

80% Early adopters are excited about the IoT and already have IoT devices

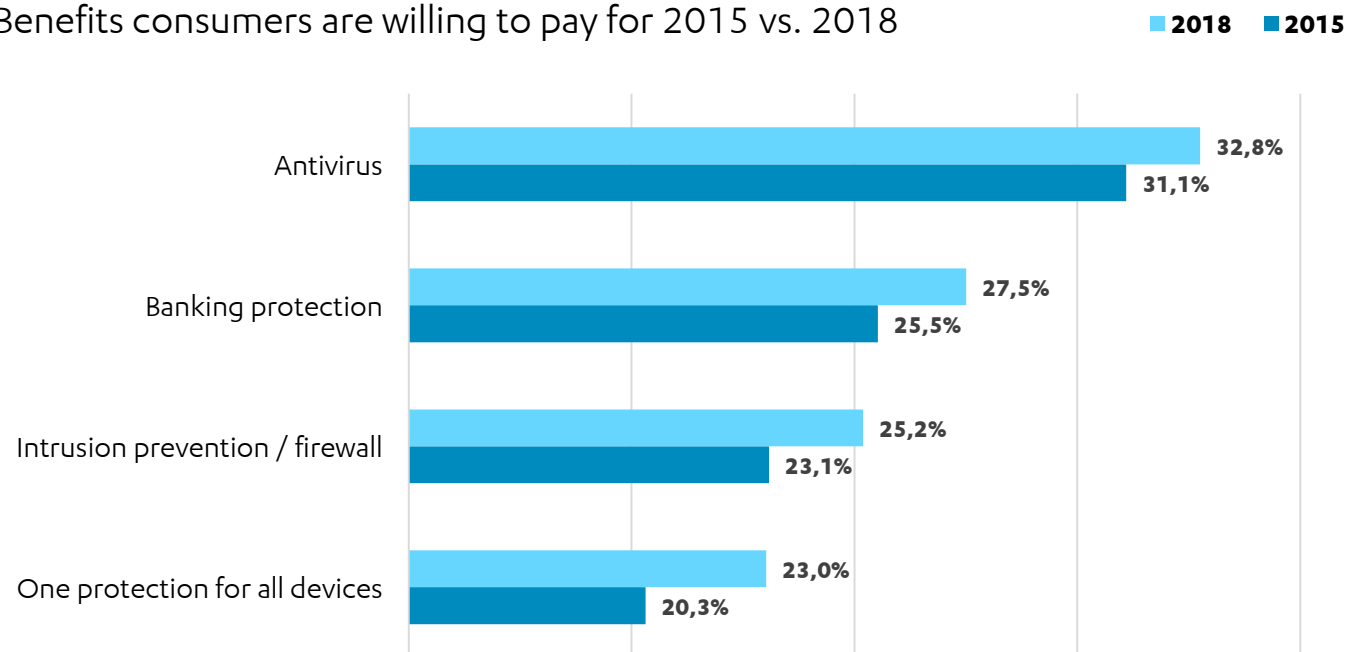
67% Concerned about devices leaking personal information

46% Have put off buying a connected device due to security concerns

88% Worry about viruses and ransomware

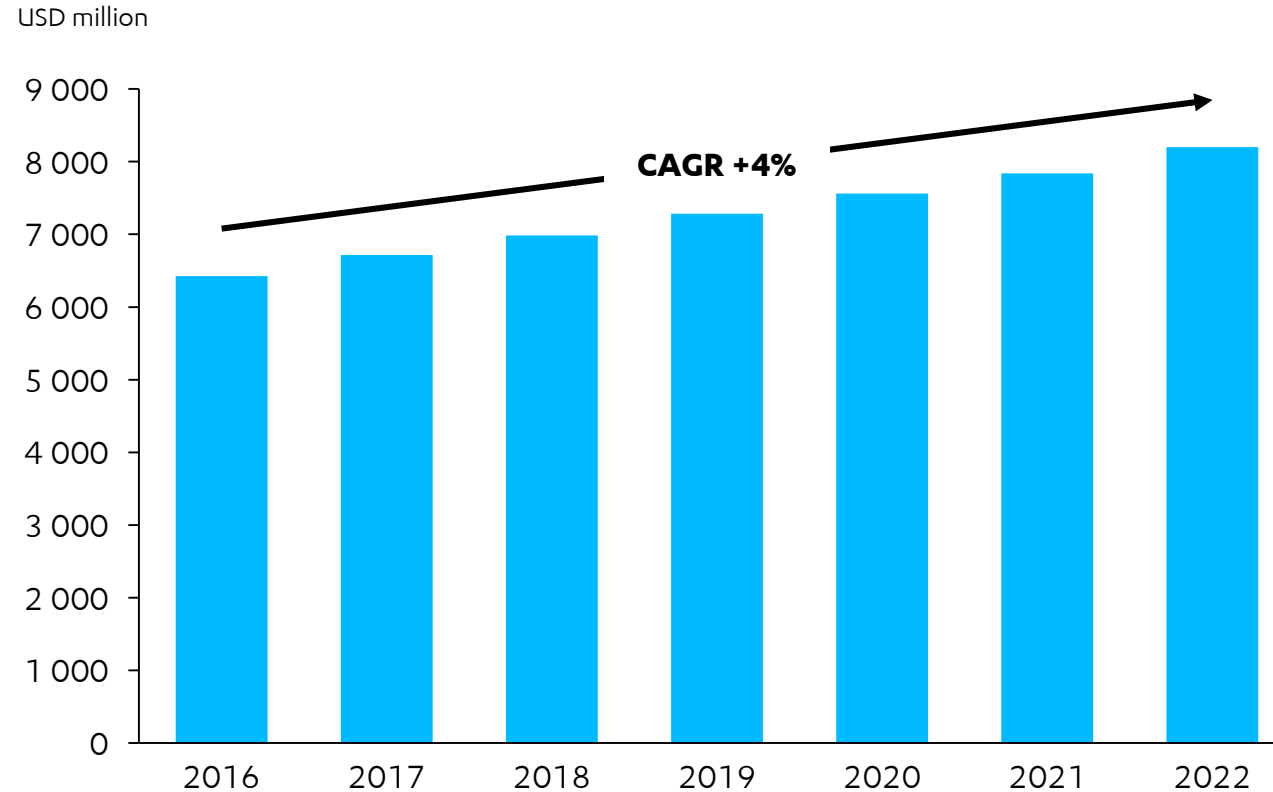
WILLINGNESS TO PAY FOR MULTI-DEVICE SECURITY INCREASING DUE TO SECURITY CONCERNS

Benefits consumers are willing to pay for 2015 vs. 2018



Results based on F-Secure global consumer survey ('n' = 4000 covering USA, UK, Germany, France, and Brazil)

CONSUMER SECURITY SOFTWARE MARKET CONTINUES TO GROW



Source: Gartner, Forecast: Information Security and Risk Management, Worldwide, 2016-2022, 3Q18

EFFICIENT DISTRIBUTION THROUGH A GLOBAL ECOSYSTEM OF PARTNERS

OFFERING TO CONSUMERS THROUGH SERVICE PROVIDERS

Fixed broadband
operators

Mobile
operators

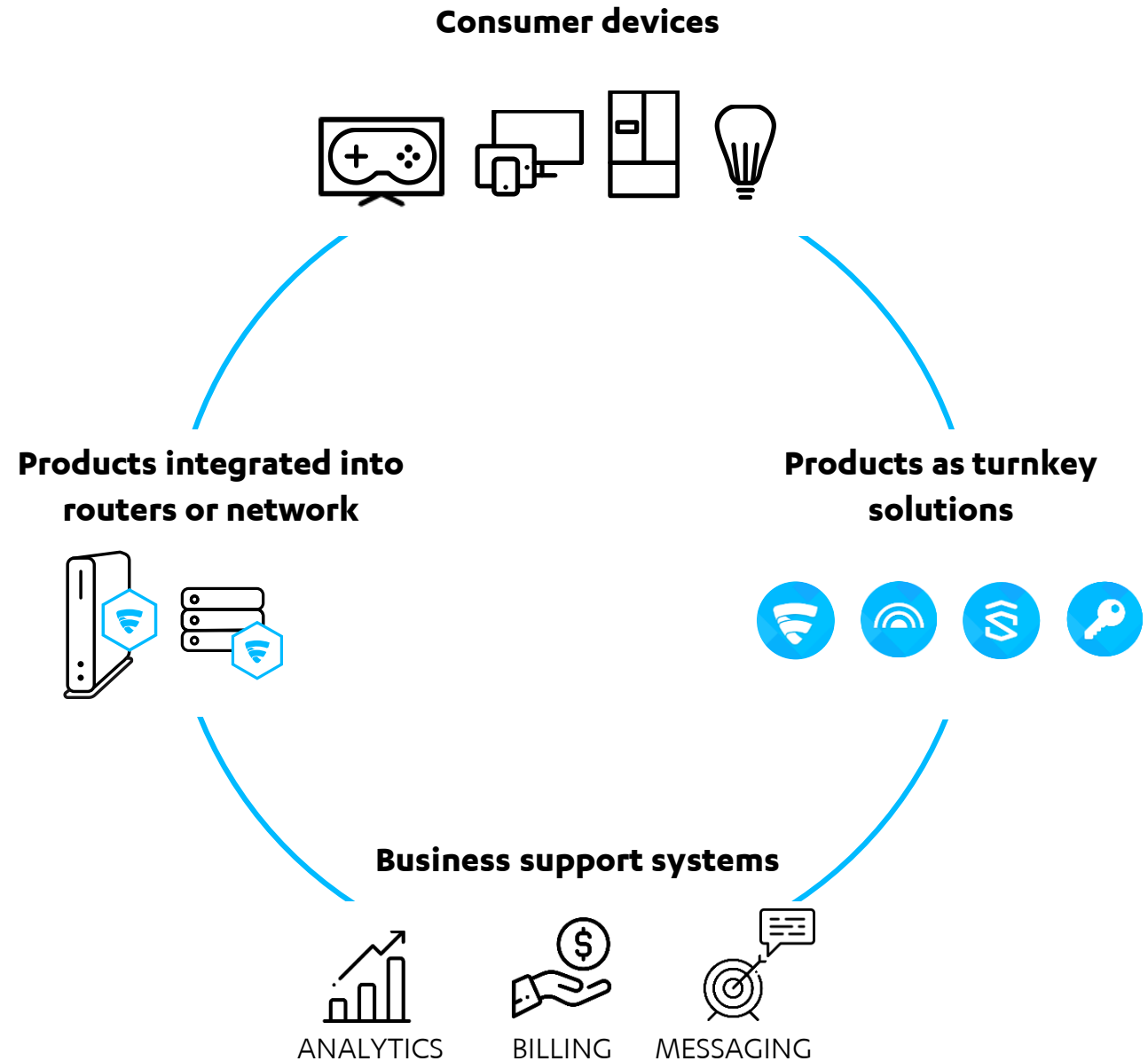
xSP

OFFERING DIRECTLY TO CONSUMERS

F-Secure eCom
and
app stores

Retail and
eTail
channels

SECURITY DELIVERED ACCORDING TO THE NEEDS OF THE CUSTOMER



F-SECURE TOTAL – PREMIUM CYBER SECURITY FOR YOU AND YOUR DEVICES



YOU

Avoid being scammed by fake websites, protect your identity and privacy, and keep your **passwords** in a secure and easily accessible place.

YOUR DEVICES

Endpoint protection keeps your devices and files safe against online threats. **VPN** makes them invisible on the internet for absolute privacy.

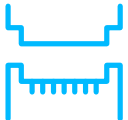


YOUR HOME

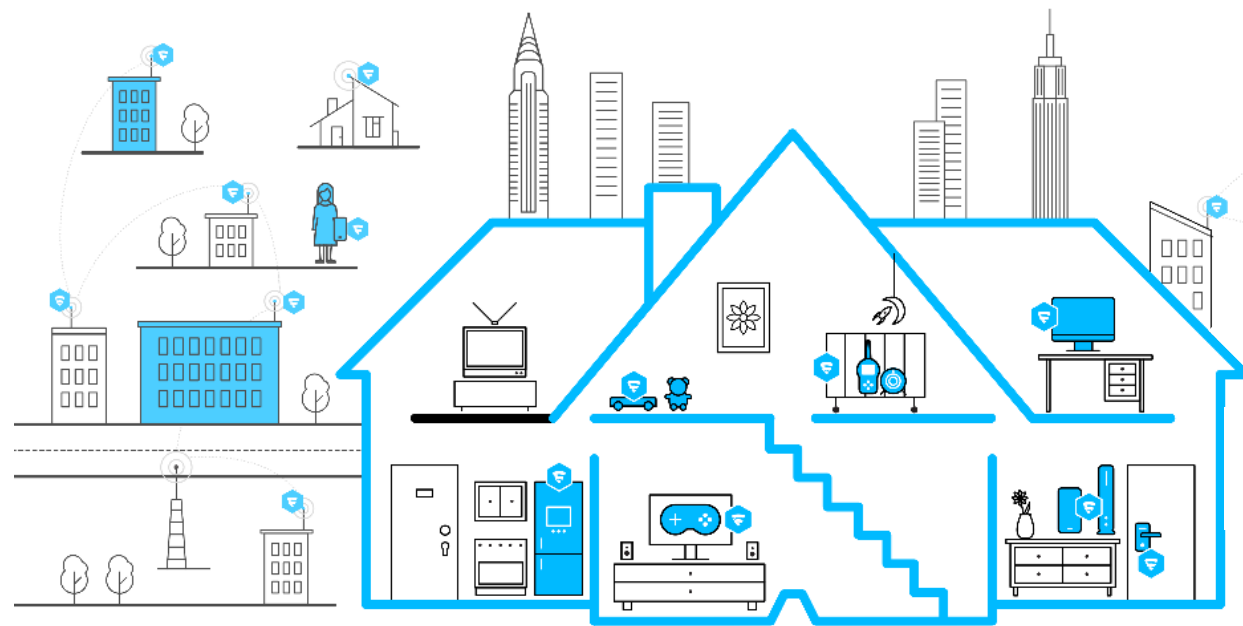
Protect every smart device and appliance connected to your home network with the **SENSE** security subscription, a compatible router required.

OPERATORS MODERNIZING THEIR NETWORKS AND MOVING INSIDE THE HOME

Operators are investing billions in upgrading home internet connections to enable new smart devices


Faster connection
(Fiber/LTE)


Optimizing
Wi-Fi experience



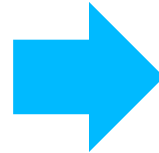
CONNECTED HOME SECURITY FOR OPERATORS, AND CONSUMERS

ROUTER MANUFACTURERS & PARTNERS

Actiontec®

SERCOM

ZYXEL

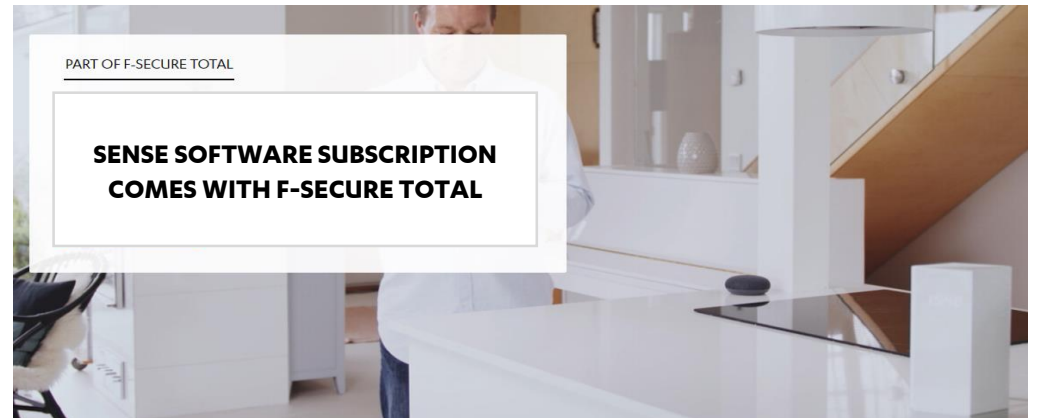


SECURITY INTEGRATED IN OPERATOR ROUTER

elisa



SECURITY INTEGRATED IN 3rd PARTY ROUTERS

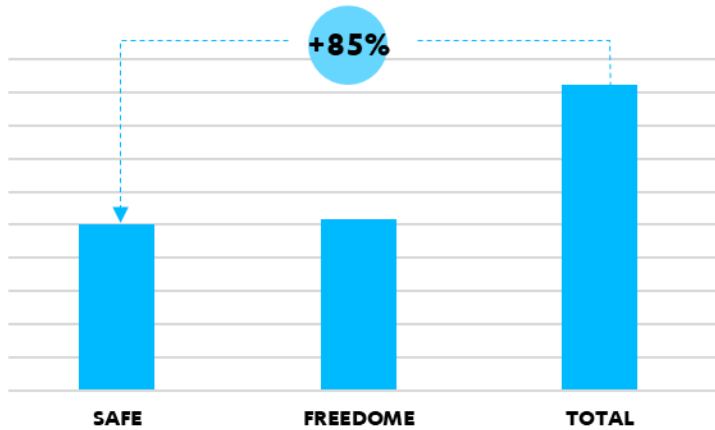


WE ARE REINVENTING AND SIMPLIFYING THE SECURITY EXPERIENCE

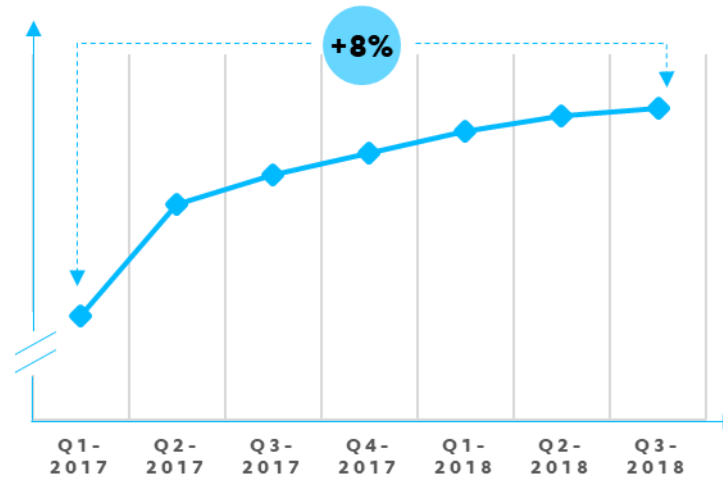


OUR STRATEGY IN DIRECT BUSINESS IS GROWING ARPU AND PRODUCT USAGE

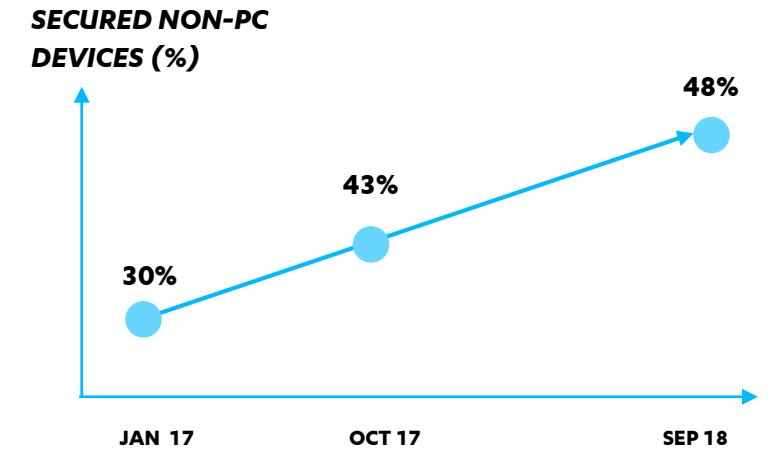
1. AARPU* uplift with F-Secure TOTAL



2. Quarterly AARPU development



3. Shift to mobile era continues, PC stable



*AARPU = Annualized Average Revenue Per User

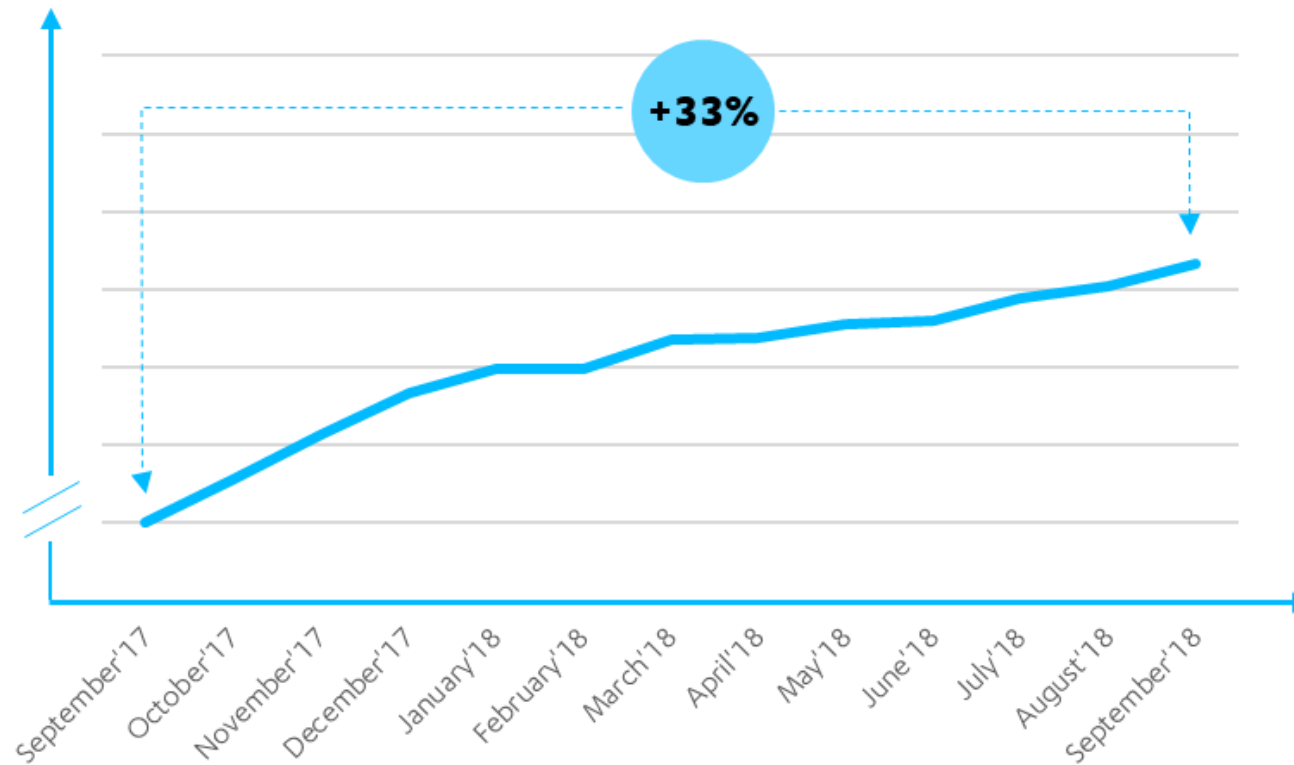
SERVICE PROVIDER BUSINESS CONTINUES TO WIN NEW ACCOUNTS



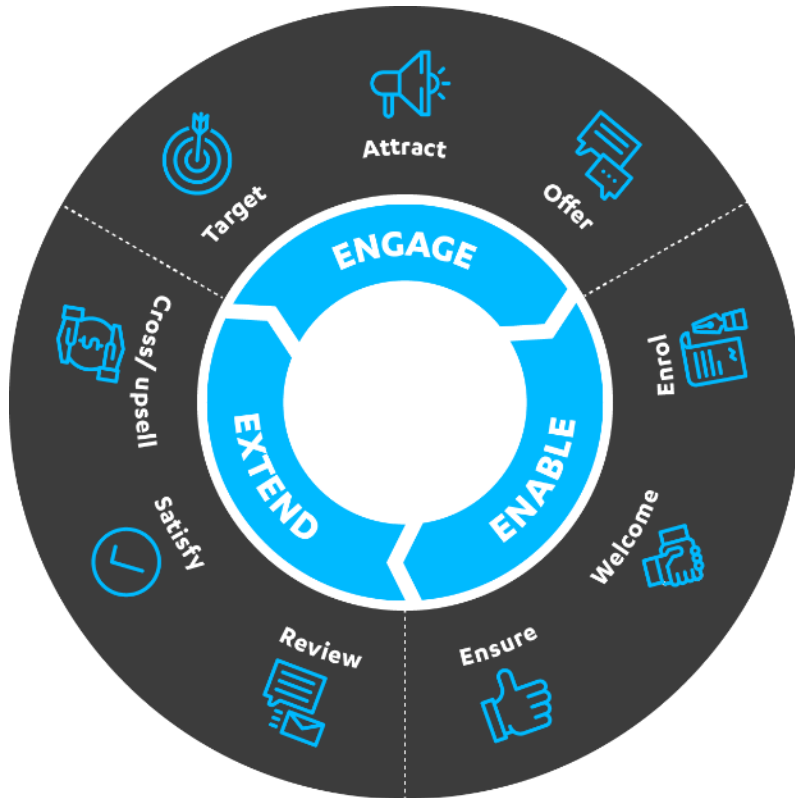
HEALTHY UNDERLYING OPERATOR BUSINESS

of ACTIVE DEVICES
PROTECTED

Active endpoint protection apps behind operators up 33%



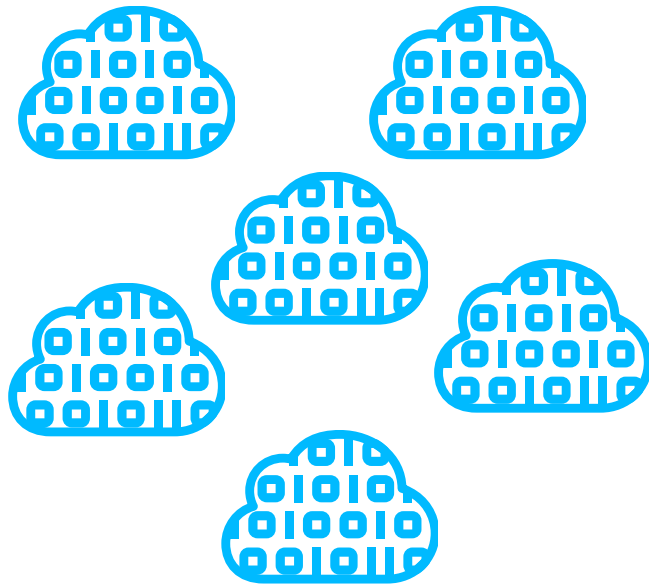
PORTFOLIO AND SERVICES UNIQUELY INTEGRATE WITH PARTNER PROCESSES



DRIVING SERVICE PROVIDER SUCCESS

- Best practices from around 200 operators and Direct Business
- Focus in Operators' business outcomes and full customer lifecycle
- Analytics and data driven customer journey optimization
- Customer lifecycle messaging
- NPS measurement
- Churn prediction

CHURN PREDICTION WITH ARTIFICIAL INTELLIGENCE



Pseudonymized customer data



AI



**Identifying churn candidates and
managing their lifecycle proactively**

FOCUS AREAS

- Deliver profitable growth
- Re-invent and simplify security user experience
- New market opportunities from connected home security

