

Remote Access VPN

Helping enterprise businesses implement strong authentication for their remote workforce

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Security Sessions at NXTWORK

Dec 12th Mainstage

- *Make The Network Your New Security Platform* | Kevin Hutchins, SVP, Strategy and Product Line Management, Juniper Networks
- *Conversation*: Bob Worrall, SVP, CIO, Juniper Networks and Ed Glover, Vice President, Stroz Friedberg
- Panel Discussion | Anthony Belfiore SVP, CSO, Aon, John White, Vice President of Product Strategy, Expedient. Moderator: Mike Marcellin, CMO, Juniper Networks
- *Conversation* | Jeff Moss, President, DEF CON Communications and Mike Marcellin, Juniper Networks
- *Simulation of a Security Breach* | Christopher Crummey, Executive Director - IBM Security X-Force Evangelism & Outreach

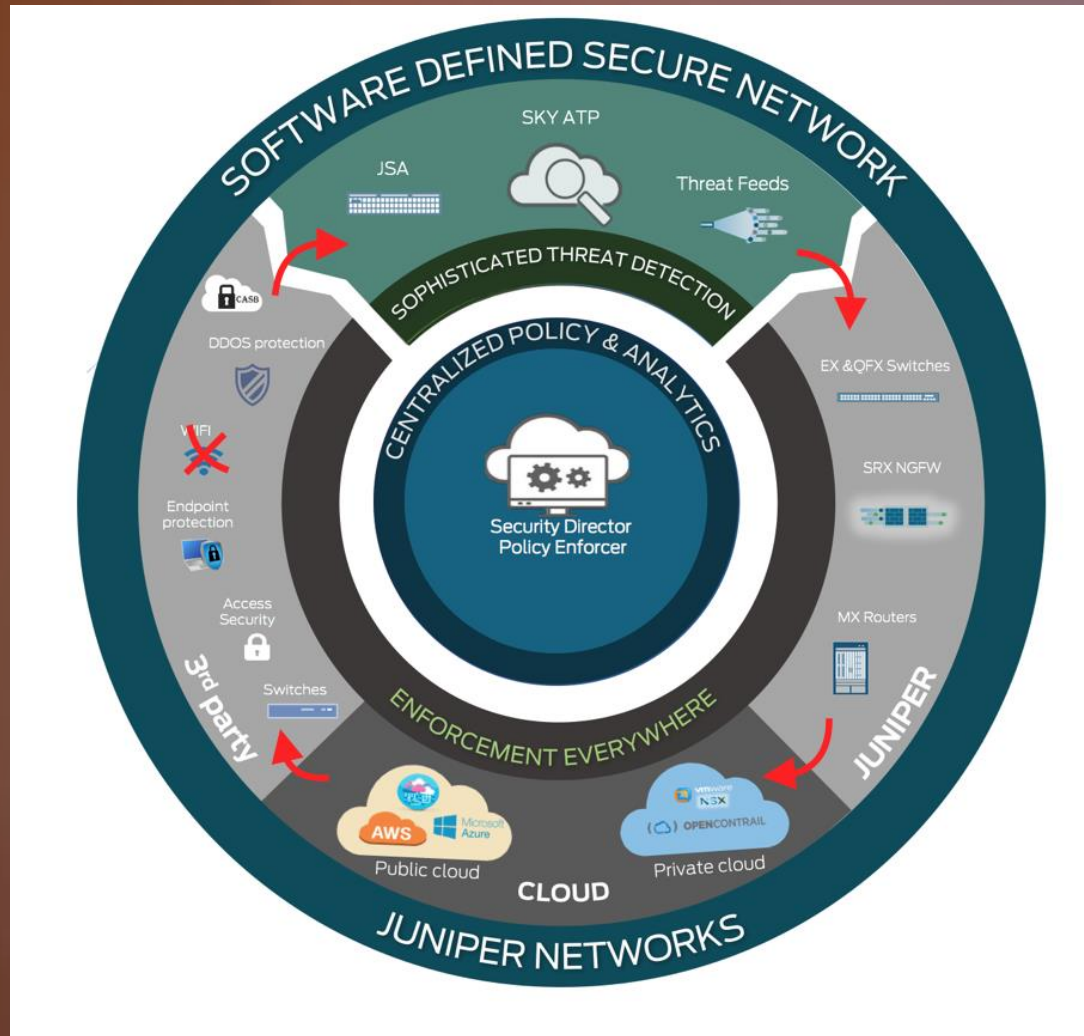
Dec 12th Salon 10-11

- Remote Access VPN for Juniper SRX
- Zero Security Trust with SDSN Networks
- Securing Hybrid Cloud
- Deploying Enterprise Scale User Firewall
- Secure Enterprise Branch Solutions with NFX and Automation
- Contrail Security: Diminishing Risk to Applications in Any Cloud
- Deploying Enterprise Scale User Firewall and Device Identity

Dec 13th Salon 10-11

- Extending Enterprise Security to Hybrid and Public Cloud
- MX Edge Security Solution for Cloud, Mobility & Wireline Providers
- Security NOW: Stop Threats Faster

Software Defined Secure Network



Network as a Security Enforcement System



Detection

Machine Learning & AI – Malware Detection
Intrusion Prevention, SIEM (JSA)
Threat Feeds: Command & Control, GeoIP etc



Policy

User intent based policy model
Robust visibility and management

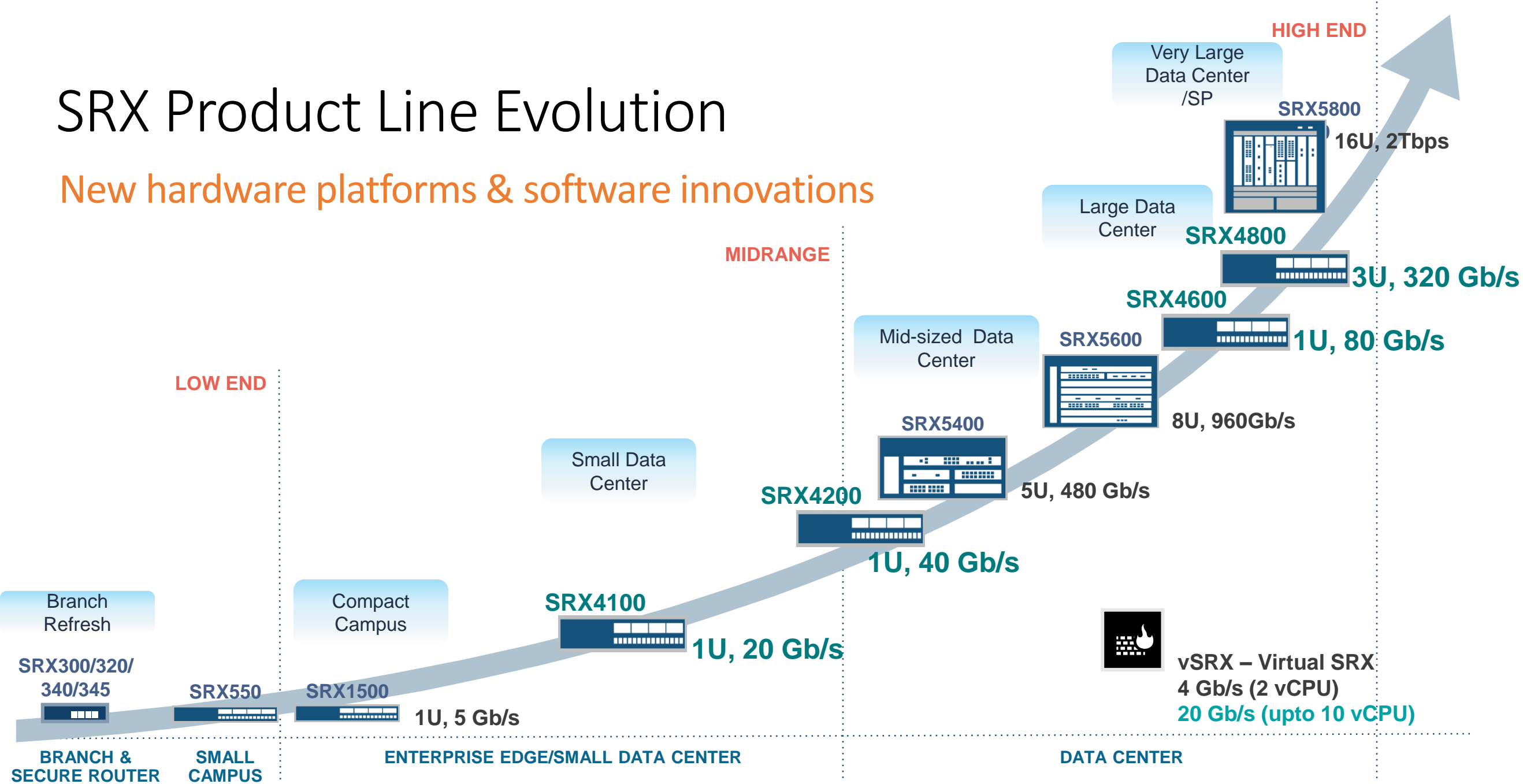


Enforcement

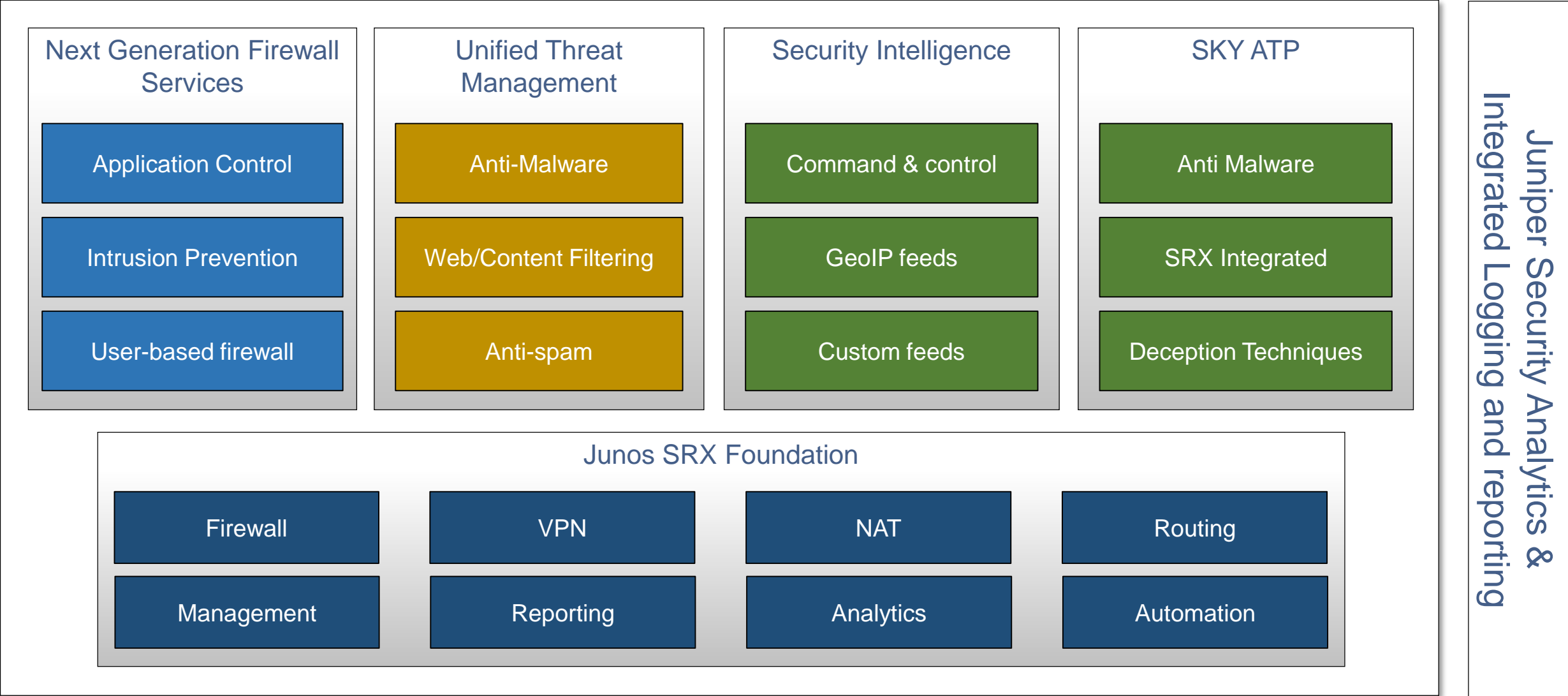
Perimeter Firewalls
Switches & Routers
SDN Platforms (Vmware NSX, Contrail)
Public Cloud (AWS etc)

SRX Product Line Evolution

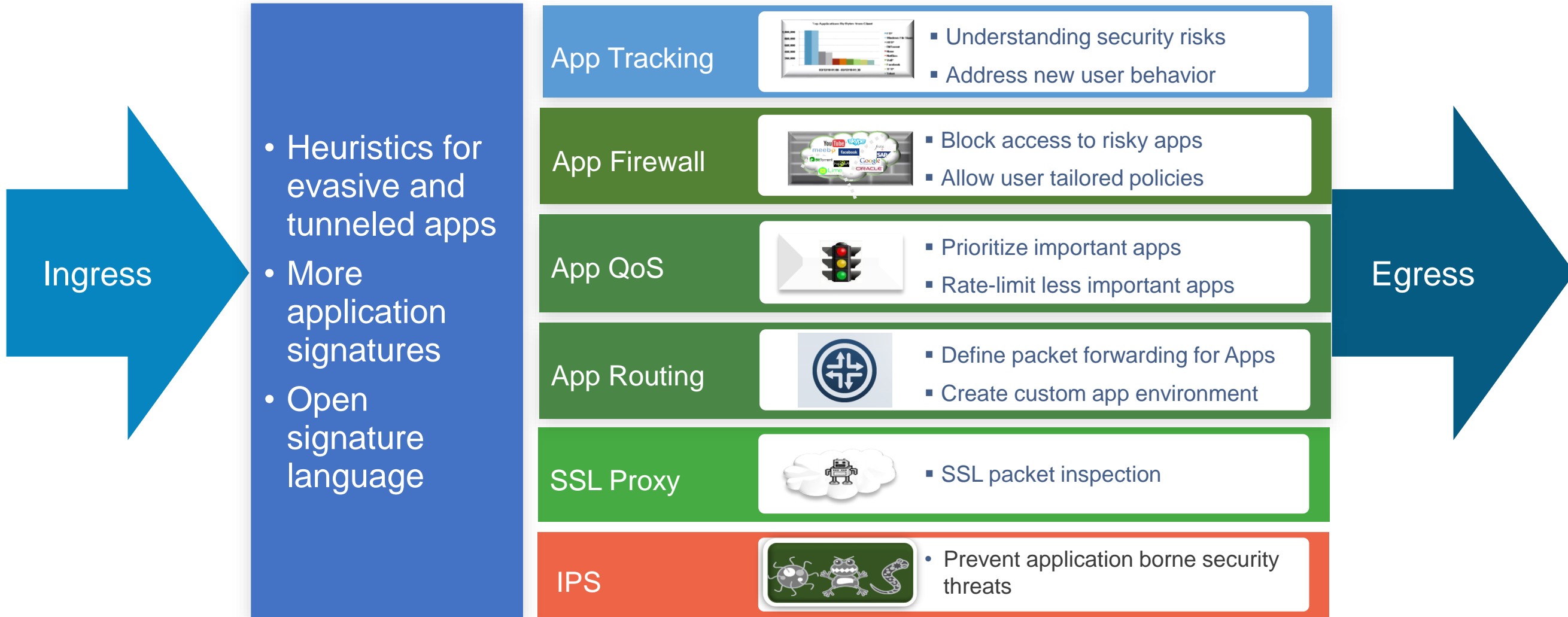
New hardware platforms & software innovations



Security Services: Physical and Virtual SRX



Next Generation Firewall Services



SRX Unified Threat Management (UTM)



Antivirus

- Sophos Live Protection against Trojans, Viruses, Phishing Attacks
- Reputation-enhanced capabilities

Antispam

- Multilayered spam protection from security experts
- Protection against APTs

Web Filtering

- Block malicious URLs
- Prevent lost productivity
- Websense TSC with more than 140 categories

Content Filtering

- Filter out extraneous or malicious content
- Maintain bandwidth for essential traffic

Subscription Based Software Services for a Turnkey Fully Integrated Offering

NCP

SECURE COMMUNICATIONS





REMOTE ACCESS VPN FOR JUNIPER SRX Joint Solution NCP & Juniper Networks





REMOTE ACCESS VPN FOR JUNIPER SRX Joint Solution NCP & Juniper Networks

■ Secure – Cost Efficient – Ease of use - Mobile



IPsec and SSL VPN in one VPN client



One interface across all devices



One solution for Juniper SRX/vSRX Series



Strong authentication built in



Everything combined in one GUI



Automated Media Detection



Always On



Automatic Network Detection



High scalable



REMOTE ACCESS VPN FOR JUNIPER SRX

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REMOTE ACCESS VPN FOR JUNIPER SRX

User passwords are not enough

- Many recent breaches have one thing in common: compromised passwords
- If your network security relies solely on user passwords for access, you're putting your corporate data at risk
- Two-factor authentication adds a layer of security for clear identification of every user
- Added protection reduces the risk and enormous costs associated with a potential data breach





REMOTE ACCESS VPN FOR JUNIPER SRX

Why Two- or Multi-Factor Authentication?

- Many industries, network architectures and corporate policies demand that remote access VPN infrastructures are protected with two-factor authentication
 - Higher level of security
 - Regulatory industry compliance
 - Enterprise information security policies
- Other single factor authentication methods are
 - Don't provide necessary level of security
 - Too complex for administrator compared to level of security





REMOTE ACCESS VPN FOR JUNIPER SRX

Session Agenda

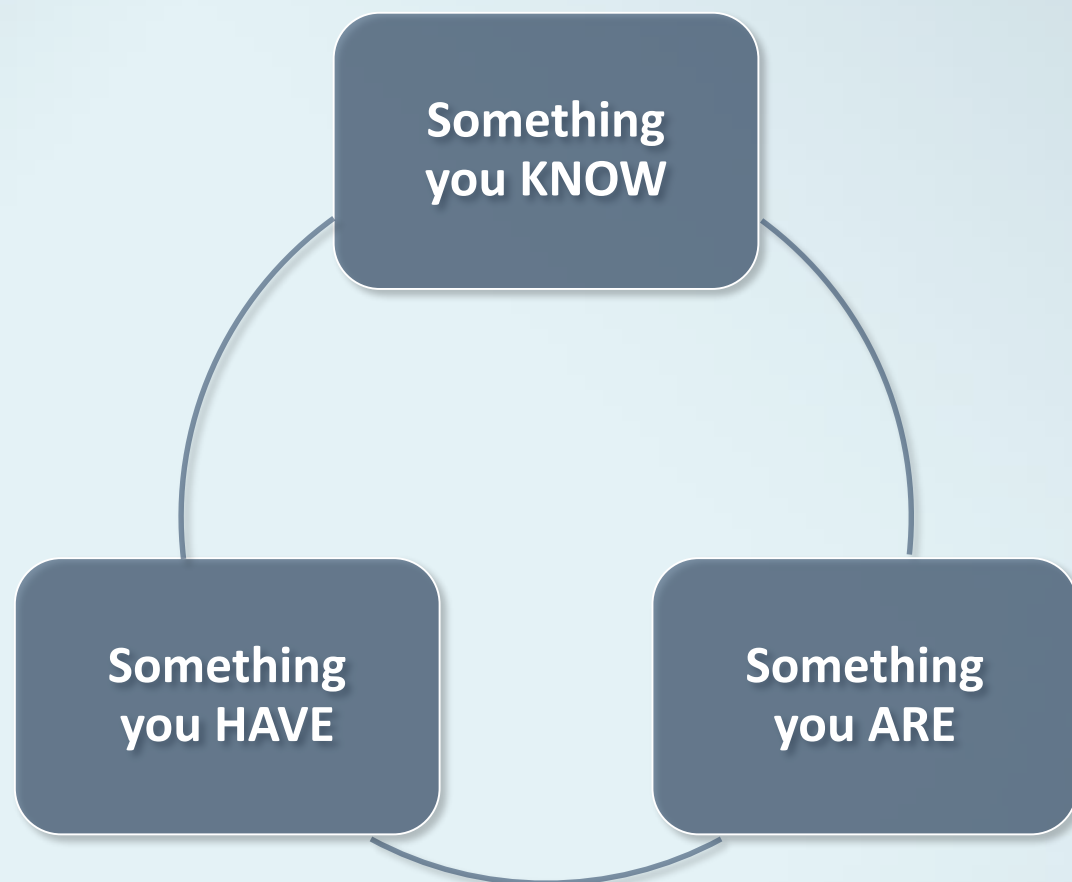
- Methods of user authentication
- Putting two (or more) factors together
- Barriers to adoption
- Balancing security and simplicity
- Challenges for strong authentication in remote access environments
- Solution for Juniper SRX
- Q&A





REMOTE ACCESS VPN FOR JUNIPER SRX

Authenticating data types



Two-factor authentication makes use of (at least) two types, and at least one from two different categories



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Methods of User Authentication

■ Something You KNOW

- Password/PIN
- OTP (one-time password)
- User certificates

■ Something You Have

- Token or calculator
- Phone
- Machine/Hardware certificate
- Smartcard
- TPM





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Methods of User Authentication

■ Something You ARE

- Fingerprint
- Face recognition
- Iris recognition
- Keystroke dynamics





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Putting two factors together

- Common examples of combining “something you KNOW” and “something you HAVE/ARE” to clearly validate user identity include:
 - OTP + phone
 - Certificate + smartcard
 - Certificate + TPM (virtual smartcard)
 - Password + fingerprint
 - Certificate + fingerprint
 - OTP + token
 - OTP + calculator





REMOTE ACCESS VPN FOR JUNIPER SRX Going overboard

- Combining a super-secure authentication solution that includes, for example, a token, OTP, smartcard, and certificate isn't likely to be acceptable to an end user





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Barriers to adoption

- If the need for two-factor authentication is understood, why is the adoption rate still low?
 - Another layer of security means another layer of work
 - Some VPN clients, operating systems, and application do not support it
 - An enterprise's user directory – using single sign on – may not support it
 - Most second factors require hardware, adding rollout and maintenance costs





REMOTE ACCESS VPN FOR JUNIPER SRX

Challenges in a Remote Access VPN environment

■ Costs

■ Additional hardware

- Tokens
- Smartcards
- Card reader
- Fingerprint Scanner
- ...

■ Service/Software

- Authentication Server
- Service fee
- ...





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Challenges in a Remote Access VPN environment

■ Rollout

- How to get the second factor of authentication to the end user
 - Shipping
 - Administrative costs
 - ...





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Challenges in a Remote Access VPN environment

■ Overhead

■ For the user

- Training
- Actual usage of the second factor

■ For the Enterprise

- Helpdesk calls
- Shipping and return of hardware
- Hardware damage
- Administration
- ...





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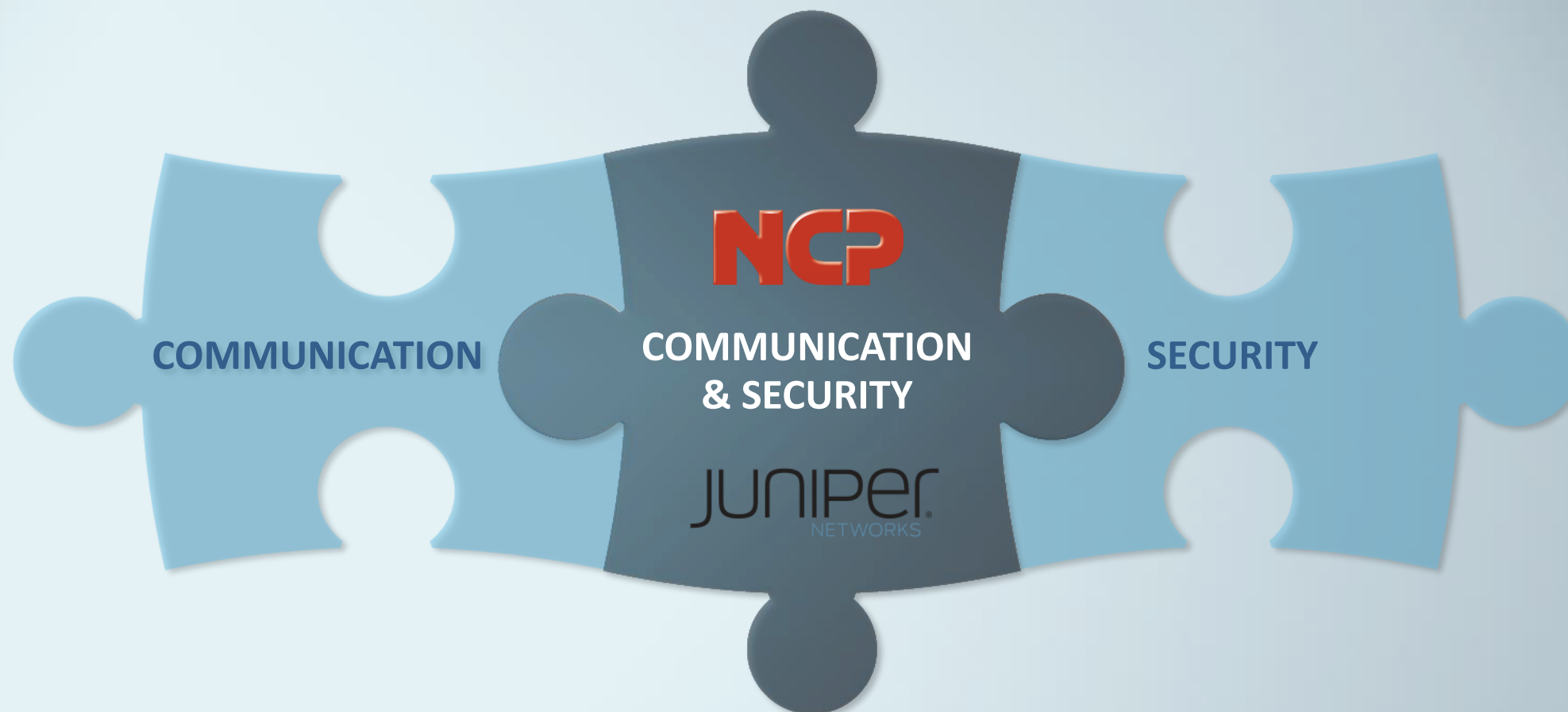
Where should you start?

- Choose a two- or multi-factor authentication solution that meets these criteria:

Feature	Benefit
Fully integrated with VPN services	Not having to deal with two different vendors speeds up implementation and reduces helpdesk support costs
Easy to implement	Using existing hardware, such as phones, doesn't introduce new admin challenges
Easy to maintain	Cumbersome authentication steps or specialized hardware add support headaches
Scalable	Central management, with automated updates, makes it easy to support your growing business needs

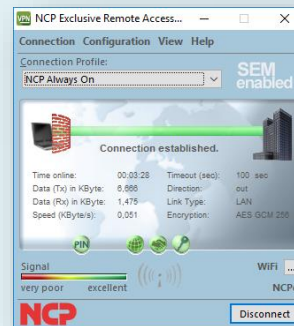


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Windows



macOS / OS X



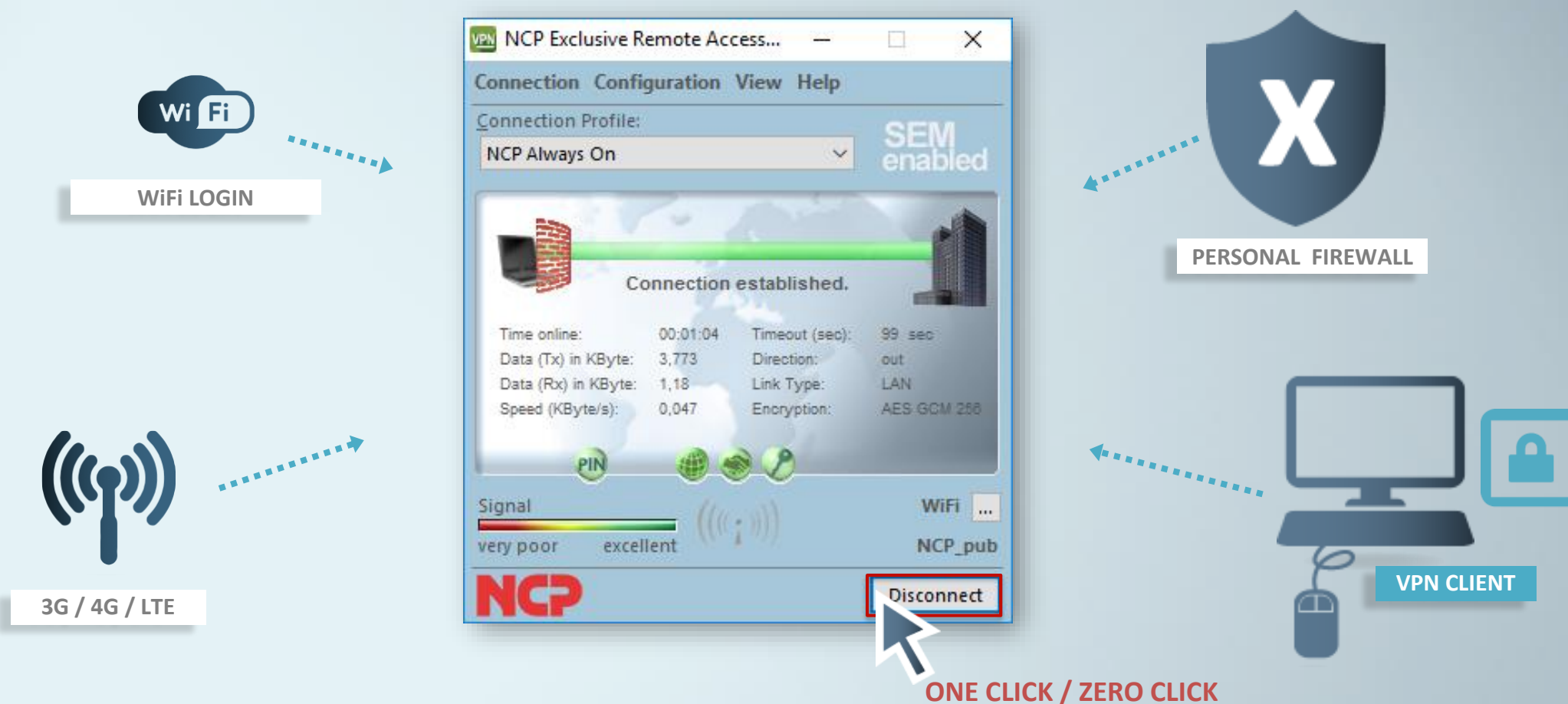
Android



iOS

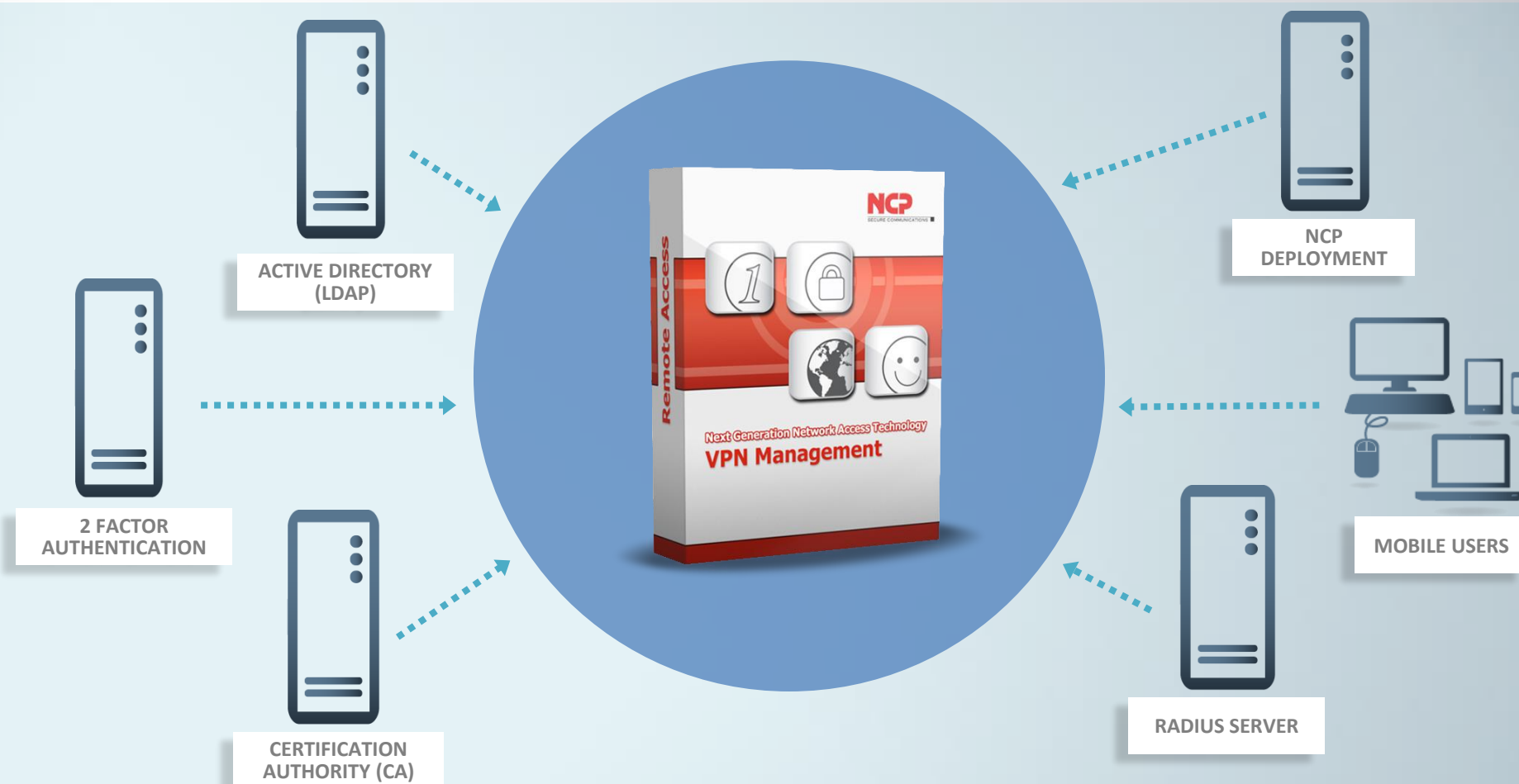


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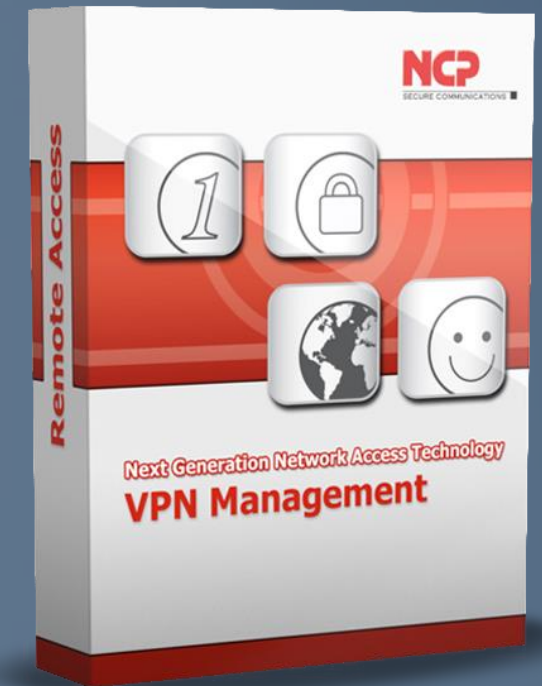
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REMOTE ACCESS VPN FOR JUNIPER SRX Joint Solution NCP & Juniper Networks

- Central Management System for VPN clients
- Automated configuration and software update
 - Configuration and software update
 - Mass rollouts
 - Create, renew and revoke certificates
- Multi-tenancy capability
- Manageability of all VPN clients
 - Full control of VPN clients
- Integration with any directory service (LDAP, AD, RADIUS, ...)
- Two- and multifactor authentication
 - Support of 3rd party solutions
 - Built-in two-factor authentication





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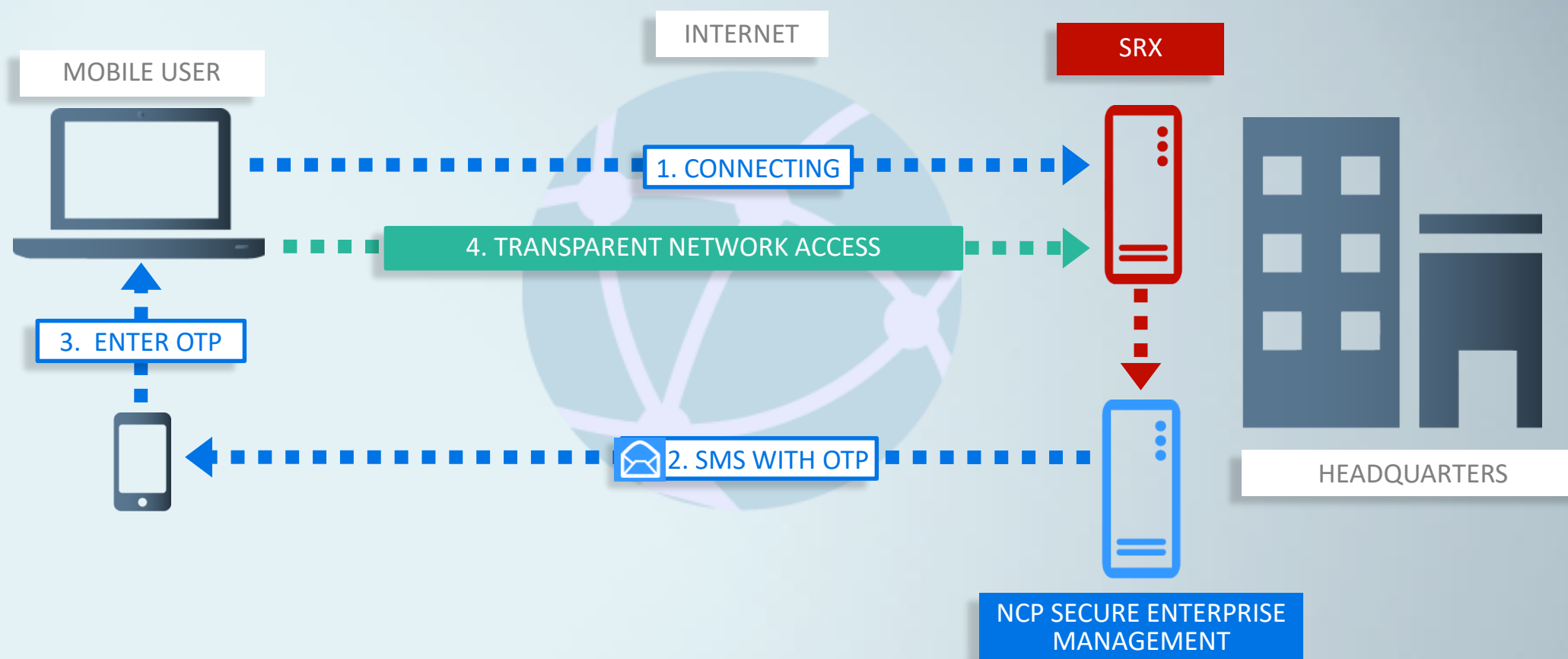
■ Built-in two-factor authentication

- NCP & Juniper Networks provide a built-in two-factor authentication for Juniper SRX
 - Based on OTP
 - Uses text messages to deliver the OTP to user's phone
 - Interface to text message provider
 - Interface to mobile broadband cards
 - Easy and scalable





REMOTE ACCESS VPN FOR JUNIPER SRX Joint Solution NCP & Juniper Networks





REMOTE ACCESS VPN FOR JUNIPER SRX Summary

- Depending solely on user passwords for VPN access puts corporate secrets at risk
- Two-factor authentication adds a layer of security to identify users clearly
- Authenticating data is based on something you KNOW, HAVE and/or ARE
- Overcome barriers to adoption with solutions that are:
 - Integrated with VPN services and user directory
 - Easy to implement and maintain
 - Scalable
- NCP & Juniper Networks provide you with sophisticated two-factor authentication solutions for your Juniper SRX





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- Sign up at **www.ncp-e.com** to get access to
 - Free 30 days trial versions of the software
 - Pricelist
 - Sales presentation
 - Data sheets
 - Step-by-step configuration guides
- Visit our booth
 - Booth #7
 - Get a demo by a System Engineer
 - Receive further information about the solution
 - Or just say “Hi”





THANK YOU FOR YOUR ATTENTION

PLEASE FEEL FREE TO ASK ANY QUESTIONS

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