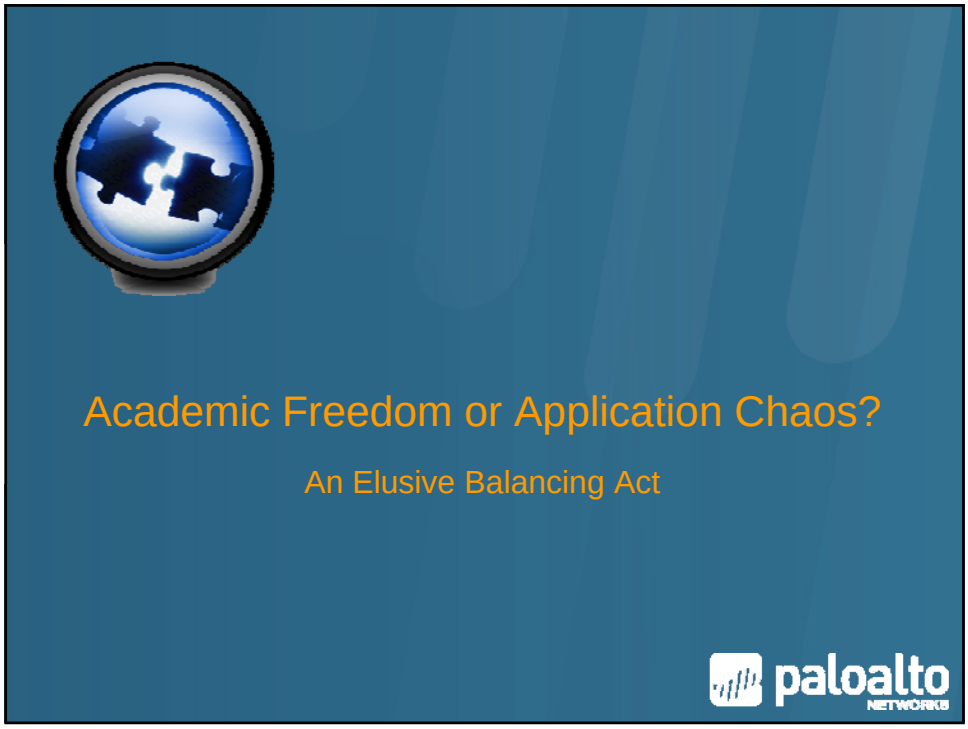
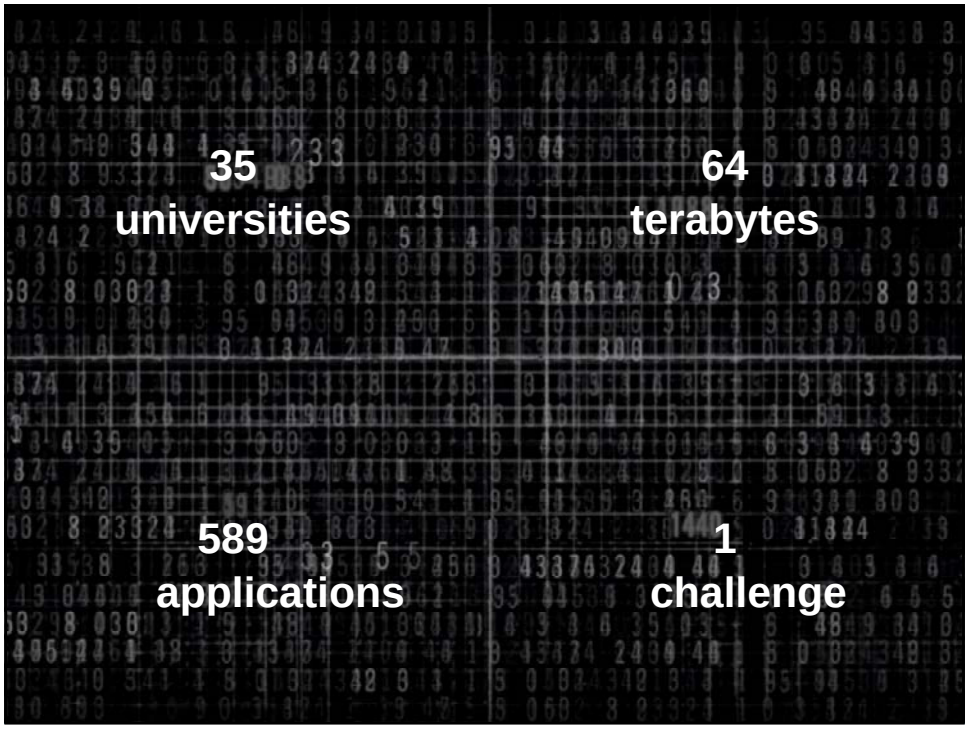

Academic Freedom or Application Chaos?
An Elusive Balancing Act
paloalto
NETWORKS

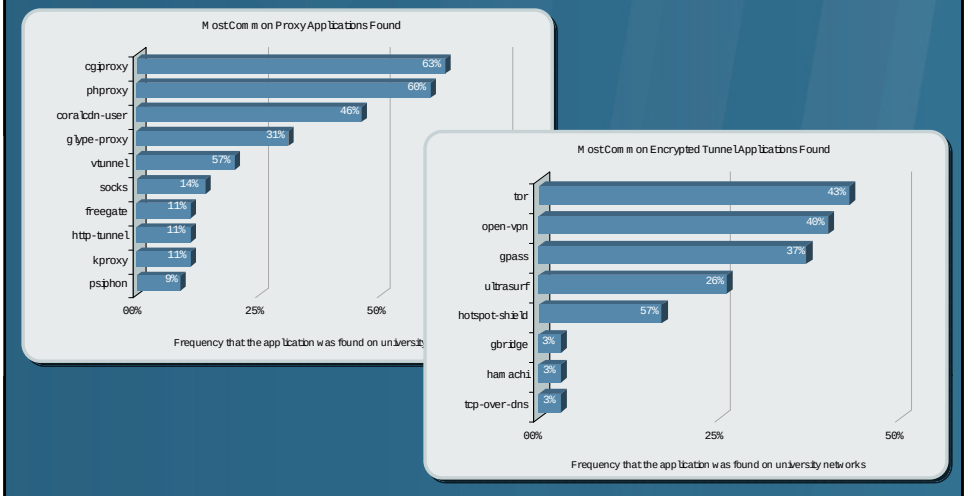

35
universities
64
terabytes
589
applications
1
challenge

academic freedom or application chaos?

- Application chaos leads to increased threat propagation
- P2P file sharing and the risks
- Unable to see many of the newer applications
- Cannot identify who is using the applications
- Must balance control with educational freedom
- Shrinking budgets and increased malware cleanup costs
- Increasingly complex security infrastructures
- The list goes on…

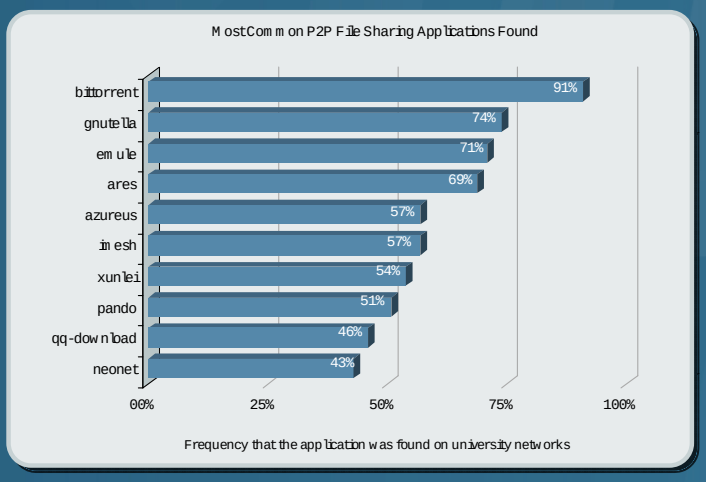
paloalto NETWORKS

circumvention applications are in use



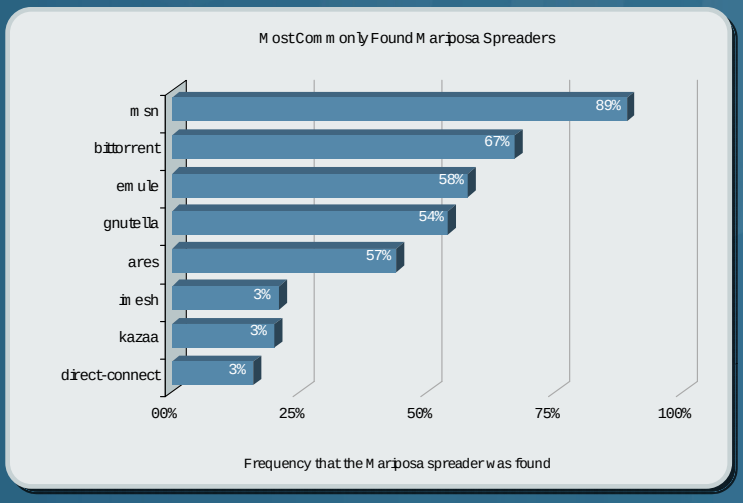
100% incidence

p2p usage continues to be a challenge

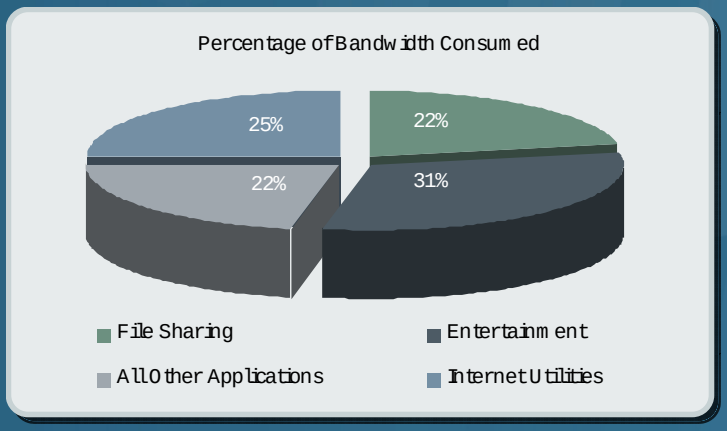


97% incidence

p2p and msn spread the mariposa threat



students are adept at staying entertained



34% consumes 78%

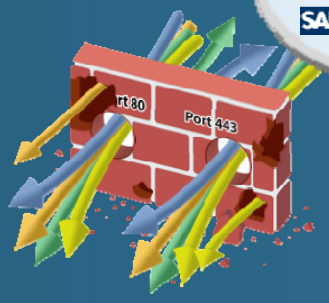
a delicate balancing act between freedom and chaos

Why?

paloalto NETWORKS

applications have changed – firewalls have not

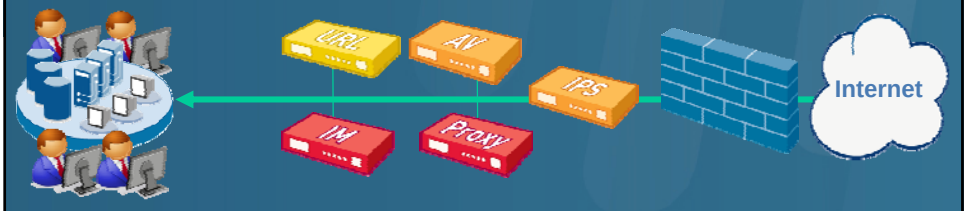
- The gateway at the trust border is the right place to enforce policy control
  - Sees all traffic
  - Defines trust boundary



- But applications have changed
  - Ports ≠ Applications
  - IP addresses ≠ Users
  - Headers ≠ Content

paloalto

adding more stuff doesn't solve the problem



- Complexity and cost increase
- Performance decreases
- Still no visibility into the applications students are using

paloalto

enough! it's time to fix the firewall!

How to Make the Firewall Useful Again

1. Identify applications regardless of port, protocol, evasive tactic or SSL
2. Identify users regardless of IP address
3. Identify and prevent potential threats associated with all high risk applications
4. Granular policy-based control over applications, users, functionality
5. Multi-gigabit, in-line deployment with no performance degradation

paloalto NETWORKS

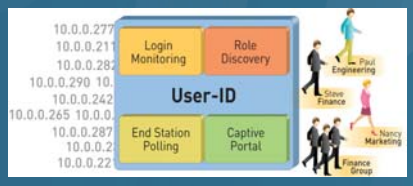
unique technologies transform the firewall

App-ID

Identify 1000+ applications

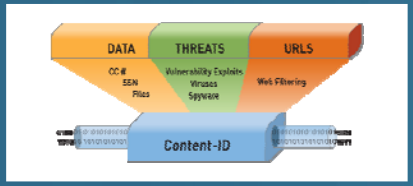
User-ID

Identify every user – by name



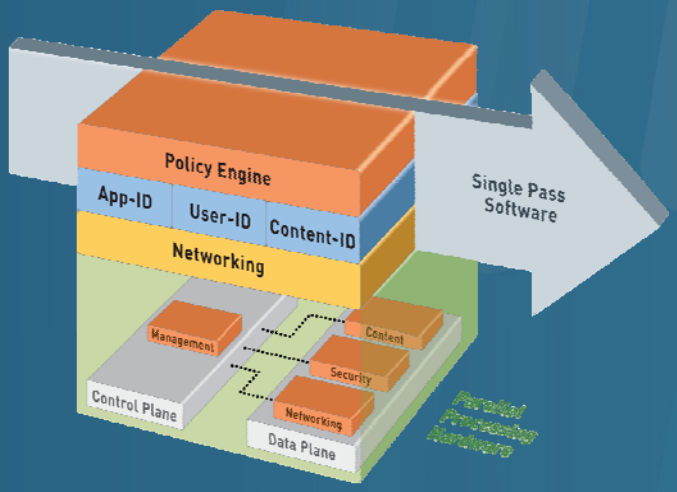
Content-ID

Scan and control all content



paloalto NETWORKS

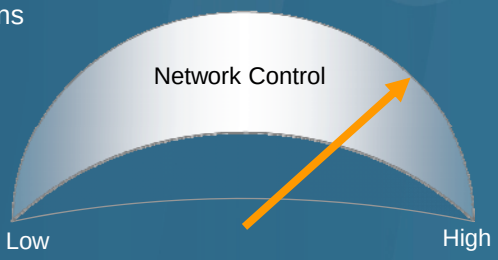
single-pass parallel processing (SP3) architecture



paloalto

you decide the levels of policy control

- Visibility enables more informed policy decisions
  - Allow
  - Allow but scan
  - Allow certain users
  - Allow certain functions
  - Deny known bad applications
  - Decrypt where appropriate
  - Shape (QoS)
  - …any combination



paloalto

palo alto networks next-gen firewalls

PA-4060
- 10 Gbps FW
- 5 Gbps threat prevention
- 2,000,000 sessions
- 4 XFP (10 Gig) I/O
- 4 SFP (1 Gig) I/O

PA-4050
- 10 Gbps FW
- 5 Gbps threat prevention
- 2,000,000 sessions
- 16 copper gigabit
- 8 SFP interfaces

PA-4020
- 2 Gbps FW
- 2 Gbps threat prevention
- 500,000 sessions
- 16 copper gigabit
- 8 SFP interfaces

PA-2050
- 1 Gbps FW
- 500 Mbps threat prevention
- 250,000 sessions
- 16 copper gigabit
- 4 SFP interfaces

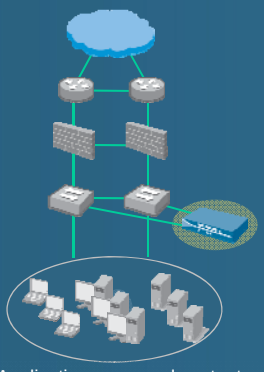
PA-2020
- 500 Mbps FW
- 200 Mbps threat prevention
- 125,000 sessions
- 12 copper gigabit
- 2 SFP interfaces

PA-500
- 250 Mbps FW
- 100 Mbps threat prevention
- 50,000 sessions
- 8 copper gigabit

paloalto NETWORKS

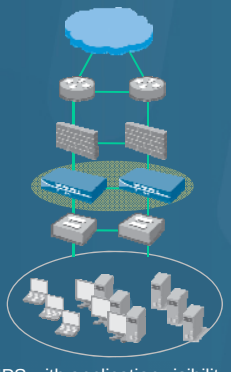
flexible deployment options

Visibility



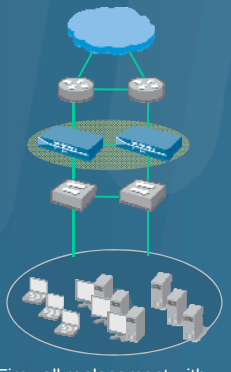
- Application, user, and content visibility without inline deployment

Transparent In-Line



- IPS with application visibility & control
- Consolidation of IPS & URL filtering

Firewall Replacement



- Firewall replacement with application visibility & control
- Firewall + IPS
- Firewall + IPS + URL filtering

paloalto NETWORKS

enable academic freedom and minimize chaos

- Identify more than 1000 applications including P2P, encrypted tunneling and proxies
- Determine who is using these applications through Active Directory integration / LDAP
- Apply firewall policies to monitor and log, apply QoS or block where warranted
- Inspect and protect application traffic with high speed threat prevention

paloalto NETWORKS

about palo alto networks

- Founded in 2005 by security visionary Nir Zuk
- Next generation firewalls with control of over 1000 applications
- Named Gartner Cool Vendor in 2008, Visionary in 2010
- Top 10 most influential business technology products in 2008
- Best of Interop Grand Prize, Best of Interop Security 2008
- Top 50 Startup Information Week 2009

paloalto NETWORKS

Customer Examples

texas women's university controls security costs

- Problem
  - Primary focus was firewall replacement - Cisco PIX was end-of-life
  - Saw added opportunity to replace open source threat prevention tool and Packeteer - also end-of-lifed
- Palo Alto Networks Solution
  - Consolidated firewall, threat prevention and traffic control into one device – dramatically reduced security infrastructure costs
  - Able to tie applications to users through Active Directory
  - Immediately identified and stopped use of bandwidth hogging application from Russia (Tagoo)

TEXAS WOMAN'S UNIVERSITY

"Palo Alto Networks designed their firewall to deliver exactly what every security guy wants –visibility, control and ease of use. The PA-4050 allowed us to consolidate devices increasing network security.

Bob Neal, Senior Director of Network Services, San Jose State University

san jose state clamps down on p2p and threats

- Problem
  - Same P2P file sharing issues that plague every university
  - Existing infrastructure couldn't evaluate content
  - Couldn't stop malware from piggybacking on applications
- Palo Alto Networks Solution
  - PA-4000 Series behind network firewall
  - Stopped L7 threats
  - Detected 15 types of P2P file sharing applications
  - Able to rein in P2P use and maintain compliance with RIAA

San José State University

"The PA-4000 Series enables us to block threats and understand and control applications on our networks to ensure IT resources are used appropriately."

Bob Neal, Senior Director of Network Services, San Jose State University

paloalto

peirce college replaces aging firewalls

- Problem
  - Outgrowing Cisco PIX firewalls (performance, reporting)
  - Couldn't see or control modern applications and threats
- Palo Alto Networks Solution
  - PA-4000 Series as their primary firewall
  - Visibility into the applications traversing the network along with who is using them
  - Able to generate reports to address internal and external requirements

PEIRCE COLLEGE

"Since we've replaced our firewalls with the PA-4000 Series, we can monitor users at a level not possible before, and set and enforce more effective policies, which help protect our users and networks."

Christopher Duffy, Chief Information Officer, Peirce College

paloalto

sinclair enables positive application usage policies

- Problem
  - Unable to determine business value of applications due to lack of visibility
  - Exposure to threats and non-compliance an increasing concern
- Palo Alto Networks Solution
  - Positive application enablement through improved visibility and control over traffic traversing the network
  - Application knowledge facilitates business assessment and appropriate policy control

Sinclair Community College

"With the PA-4000 Series, we are able to not only see which applications were on our network, but we are also able to understand the benefits and risks associated with them, allowing the enforcement of specific policies appropriate to our needs."

Scott McCollum, IT Services Director, Sinclair Community College

paloalto

tamag simplifies infrastructure, lowers costs

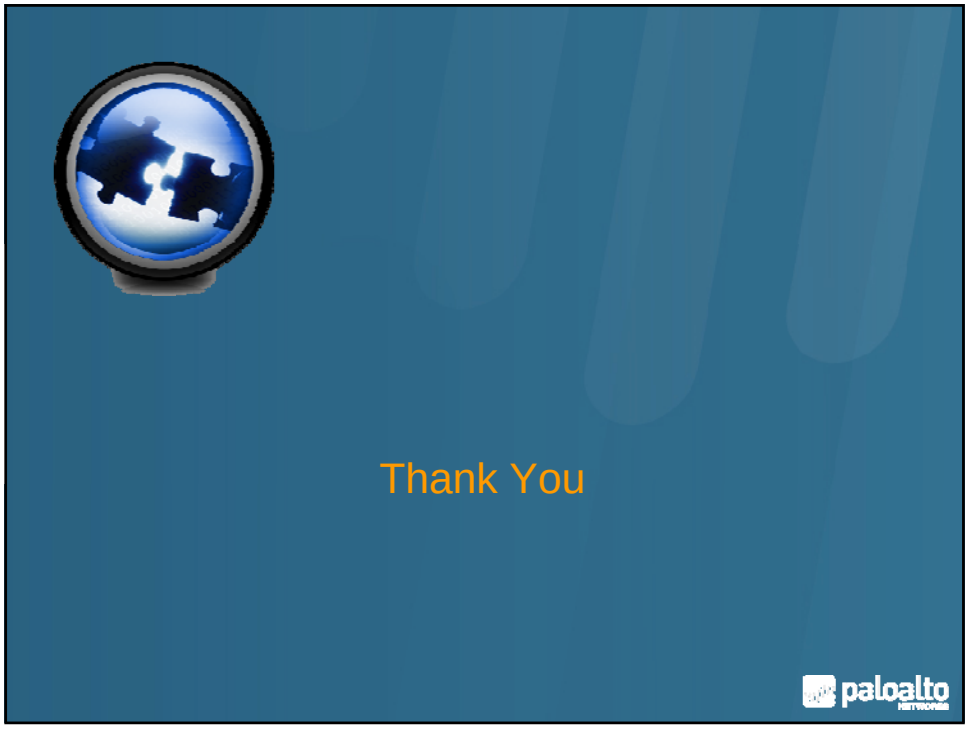
- Problem
  - Faced with high licensing renewal, Texas A&M University at Galveston (TAMAG) chose to evaluate alternative offerings
  - Exposure to threats and non-compliance (RIAA) were an ongoing issue
  - Application visibility, improved threat prevention were top priorities
- Palo Alto Networks Solution
  - Replaced Packeteer and added threat prevention for less than the renewal costs
  - Improved visibility into applications between dorms – enabled them to modify policies
  - Able to block wide range of threats at the network level

TEXAS A&M UNIVERSITY at GALVESTON

"Palo Alto Networks not only protects us much better, it is far more affordable than the other solutions. Being a state organization, budgets are tight and we need to do more with less. Palo Alto Networks lets us do that, and makes us more responsible with the money we have."

John Kovacevich, Systems Analyst

paloalto


Thank You
paloalto