Présentation à l'OSSIR
14 Sept. 2010

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Agenda

- Zscaler: société
- Défis du filtrage Web
  - Réponse Cloud / mode SaaS
- Briques technologiques et Architecture Cloud Zscaler
  - Distribuée et Multi-tenant
- Fonctionnalités
  - Sécurité
  - Contrôle d’usage
  - DLP
  - Reporting et analyse de logs

Zscaler, la société

Focus Unique

- Fondée en 2007 dans la Silicon Valley. Equipe de très forte expérience
- Focus unique: Services de Sécurité “in-the-Cloud”

Services Intégrés

- Services intégrés web et email “security-as-a-service (SaaS)”
- Permet d’éliminer les produits ponctuels et de réduire les coûts

Technologies Revolutionaire

- Conçu pour le SaaS – *pas une techno standard dans des data centers*
- Architecture *multi-tenant*; latence quasi-zero, support des nomades

Clients

- Protège plus d’1 million d’utilisateurs depuis 140 pays
- Plus de 300 entreprises, dont des noms prestigieux et Fortune 500
- Le plus grand client: 300,000 utilisateurs

Couverture Globale

- Equipes commerciales et support dans 15 pays
- Réseau global – plus de 40 data centers dans le monde

Reconnaissance

Gartner Most Visionary

SC Magazine Innovator 2009

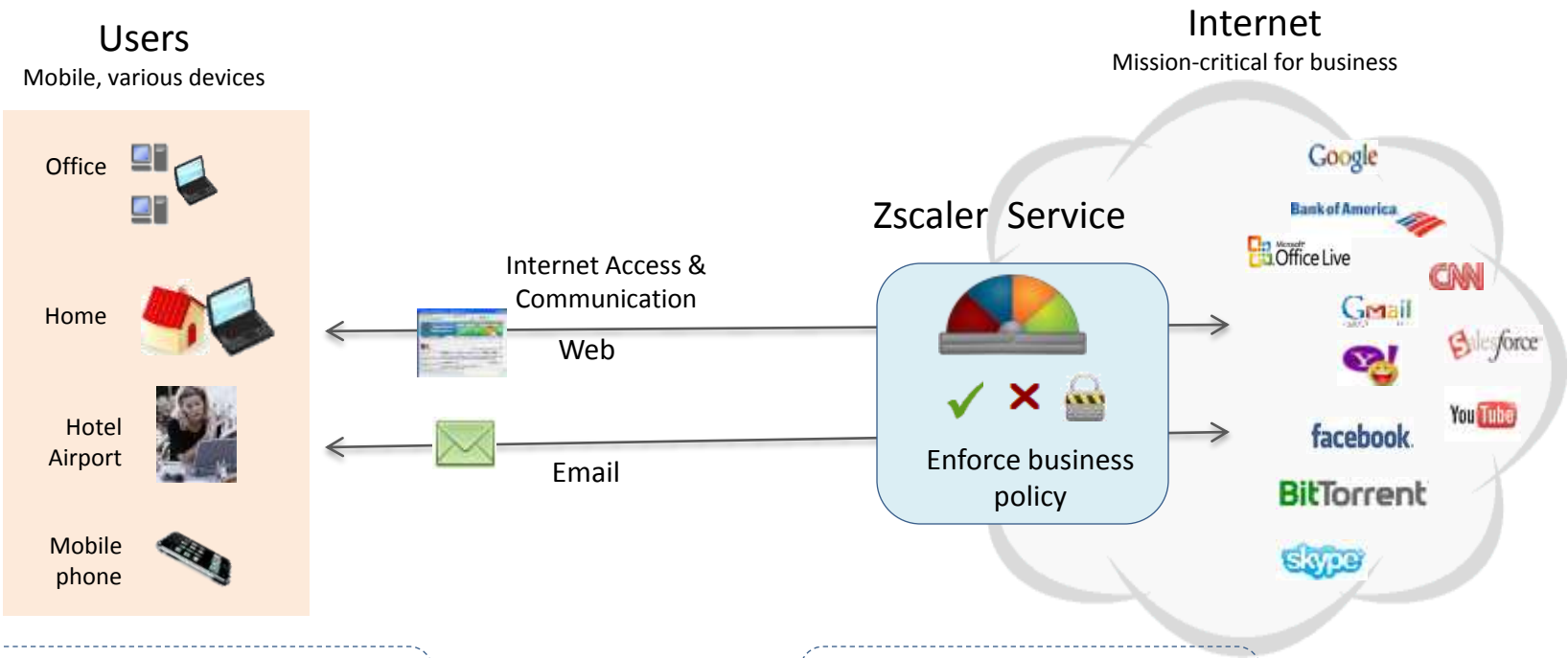
Top 10 Start-ups NetworkWorld outlook

InformationWeek 50 Startup

zscaler

Zscaler: Sécurité Cloud pour Web et Email

Permet d'imposer des politiques de sécurité et de contrôle d'usage pour l'accès à Internet (Web et Email)



Tout utilisateur, tout terminal, partout

Fourni comme service Cloud, global

Pas de hardware, pas de software! Pas d'investissement initial; Déploiement facile

Zscaler – Expertise sécurité

- Equipe de recherche en Sécurité
  - 9 personnes – en Californie et en Inde
  - Sous la direction de Michael Sutton, expert reconnu de l'industrie
- Voir blog de sécurité: http://research.zscaler.com
- Exemples de protection « zero-day »: http://www.zscaler.com/security-advisories.html
- Partenariat avec une douzaine de sociétés de sécurité pour les feeds en temps réel et échange d'informations de vulnérabilité, notamment Microsoft (programme MAPPS)

Quelques références dans le monde

Trusted By The World's Most Respected Companies

Allianz
German Insurance

LVMH
MOËT HENNESSY · LOUIS VUITTON
French Fashion

ALD Automotive
French Finance

Coca-Cola
US Beverages

News Corporation
UK/AU Media

ISUZU
Japanese Automotive

HUMANA
US Healthcare

WIPRO
Indian Services

Awarded & Recognized By The World's Most Respected Analysts

The Economist

THE WALL STREET JOURNAL.

FORRESTER®

The New York Times

Gartner
Most Visionary

SC MAGAZINE INNOVATOR 2009

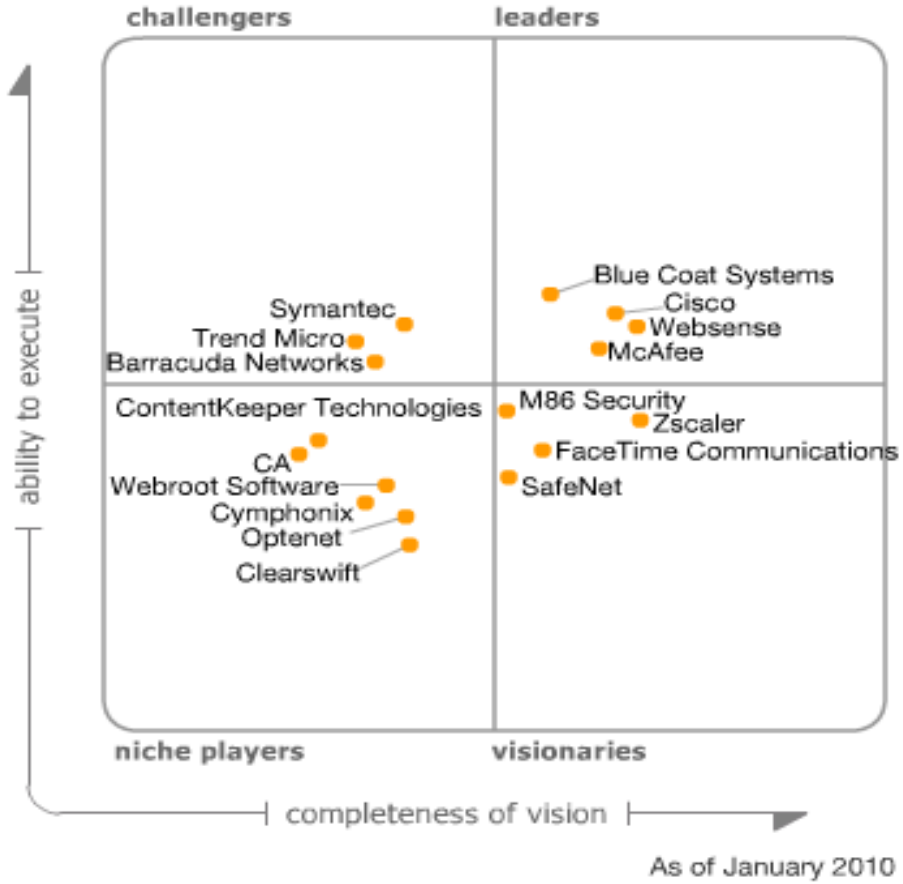
Top 10 Start-ups
NETWORKWORLD outlook

InformationWeek 50 STARTUP

Zscaler dans l'analyse Magic Quadrant de Gartner

Zscaler: jugé comme le plus "Visionnaire" dans l'analyse MQ de Jan. 2010 sur les "SWG" ("Secure Web Gateways")

http://www.gartner.com/technology/media-products/reprints/zscaler/172783.html



"All reports are based on live data and allow drill down into detailed log."

"The policy manager is very easy to use ….. follows roaming users, allows service at the nearest node."

"[Zscaler] offering already has the largest global footprint of data centers."

"Zscaler is a very strong choice for any organization interested in a Secure Web Gateway."

Source: Gartner

Défis des entreprises liés aux flux Web

Défis du Web 2.0: Sécurité, Contrôle, et Visibilité / reporting

Menaces de Sécurité

Viruses, Worms (signature)

Botnets , XSS, Active Content, Phishing
Can't be detected with signatures

Java

Anti-virus et catégorisation malware limités

Contrôle des usages / prévention des abus

URL Filtering
Static list (almost)
Allow or block

Web 2.0 – User created content
Social Sites, Streaming, Webmail, IM

WIKIPEDIA facebook

Filtrage d'URL traditionnel atteint ses limites avec le Web 2.0

Visibilité/ Reporting / Analyse consolidée des logs

Fuites d'information

Web 1.0
Read Only
No DLP

Web 2.0
Users can send and post content
DLP: Blogs, Webmail, IM

Gmail

Un risque réel pour l'entreprise

Problèmes de Bande Passante

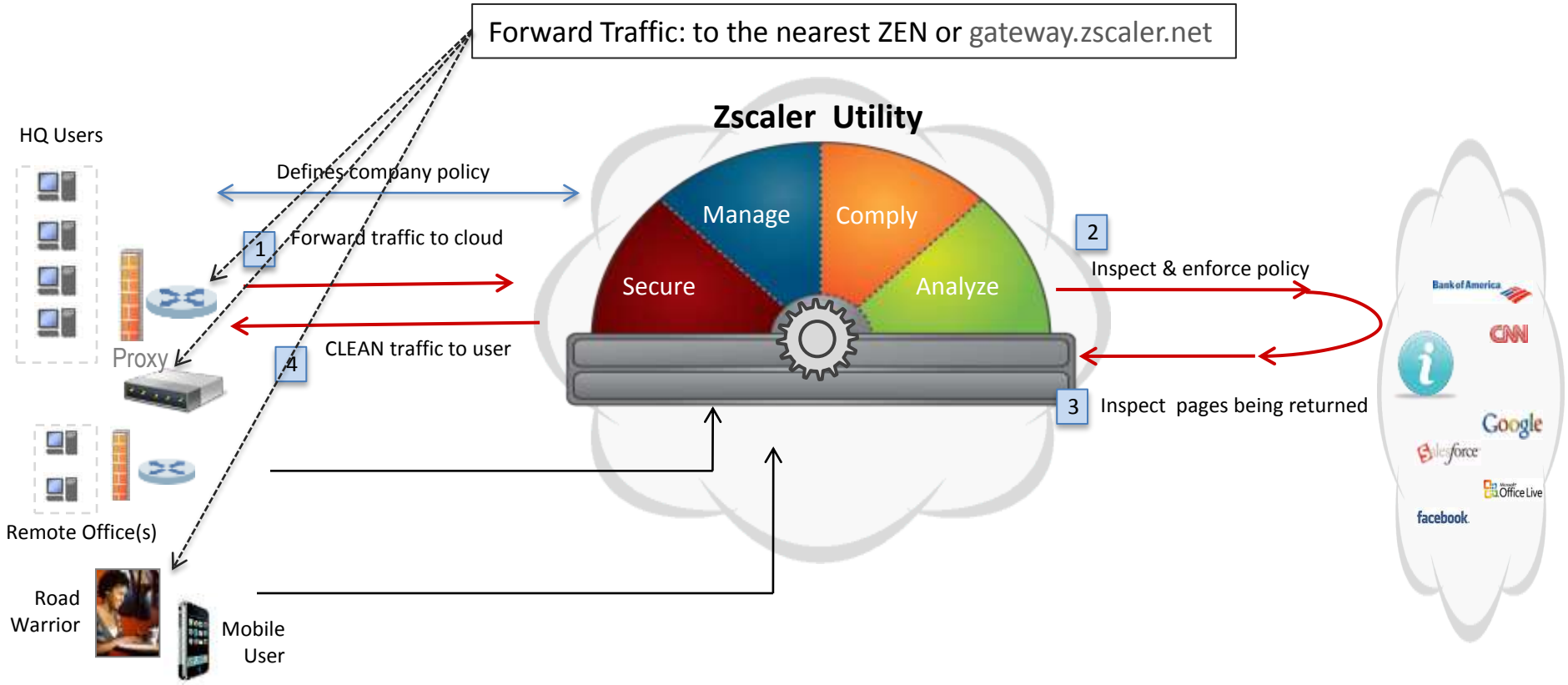
No bandwidth issues: HTML pages

Streaming & P2P
Bandwidth hungry apps (last mile)

skype YouTube BitTorrent

Besoin de prioritiser les flux Web (ex. streaming vs. pro.)

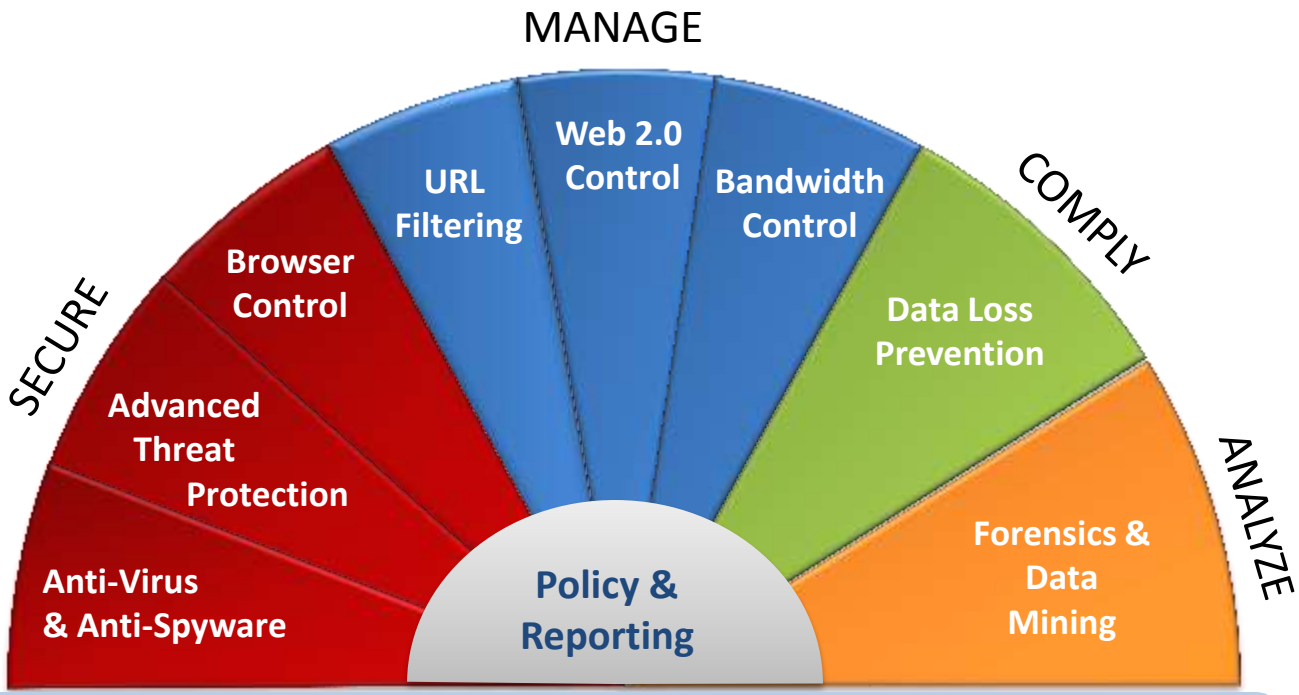
Comment le système Cloud Zscaler fonctionne



- 2 grands sujets techniques pour le déploiement:
  - Traffic Forwarding
  - Authentification des utilisateurs

Fonctionnalités Zscaler

Cloud Web Services



Technologies

- 10 GBPS Proxy
- ShadowPolicy™
- NanoLog™
- Transparent Authentication

Infrastructure

- 40+ Data Centers Worldwide
- High Reliability and Availability 99.99%
- Near-Zero Latency < 10MS
- Privacy and Data Security

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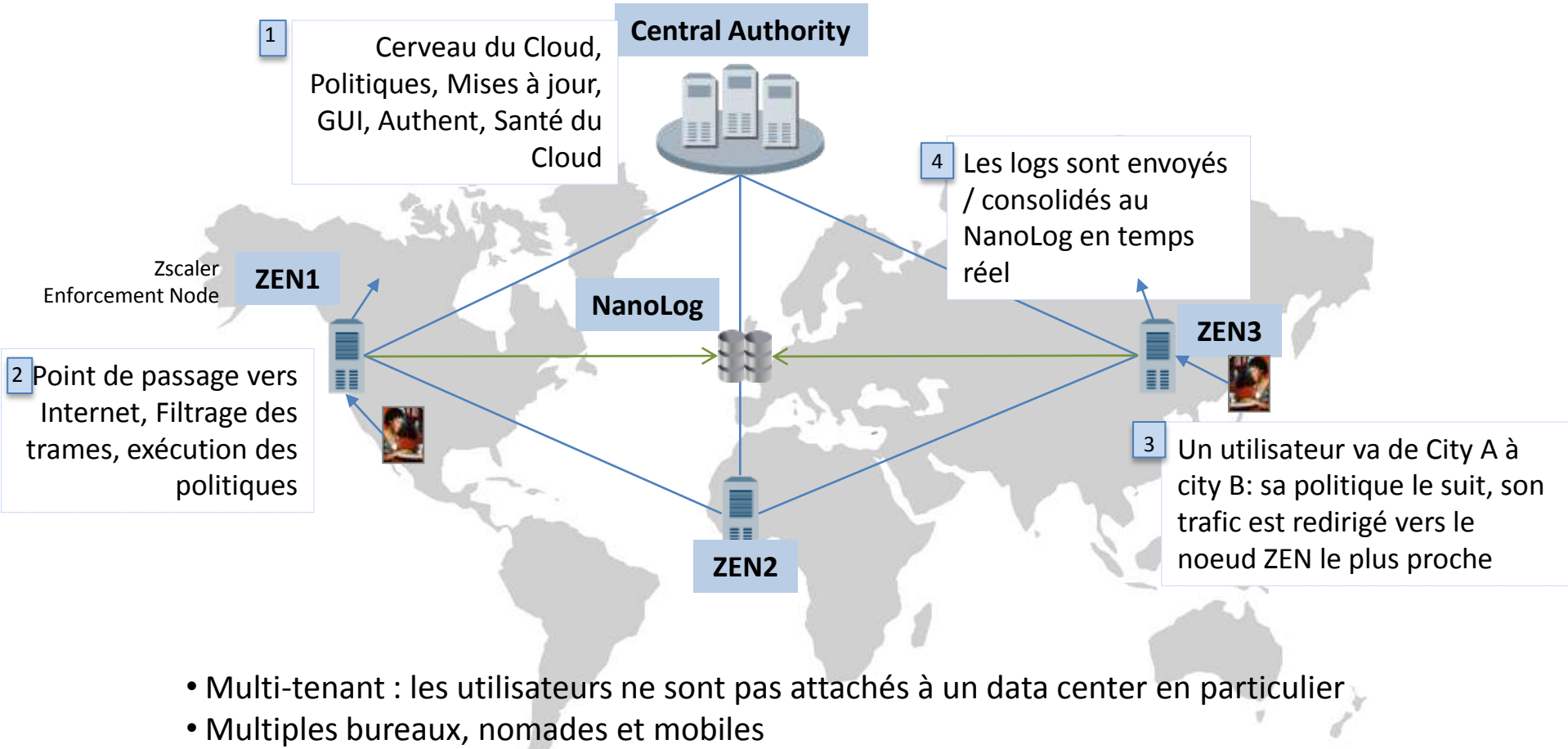
Cloud Security Multi-tenant Architecture

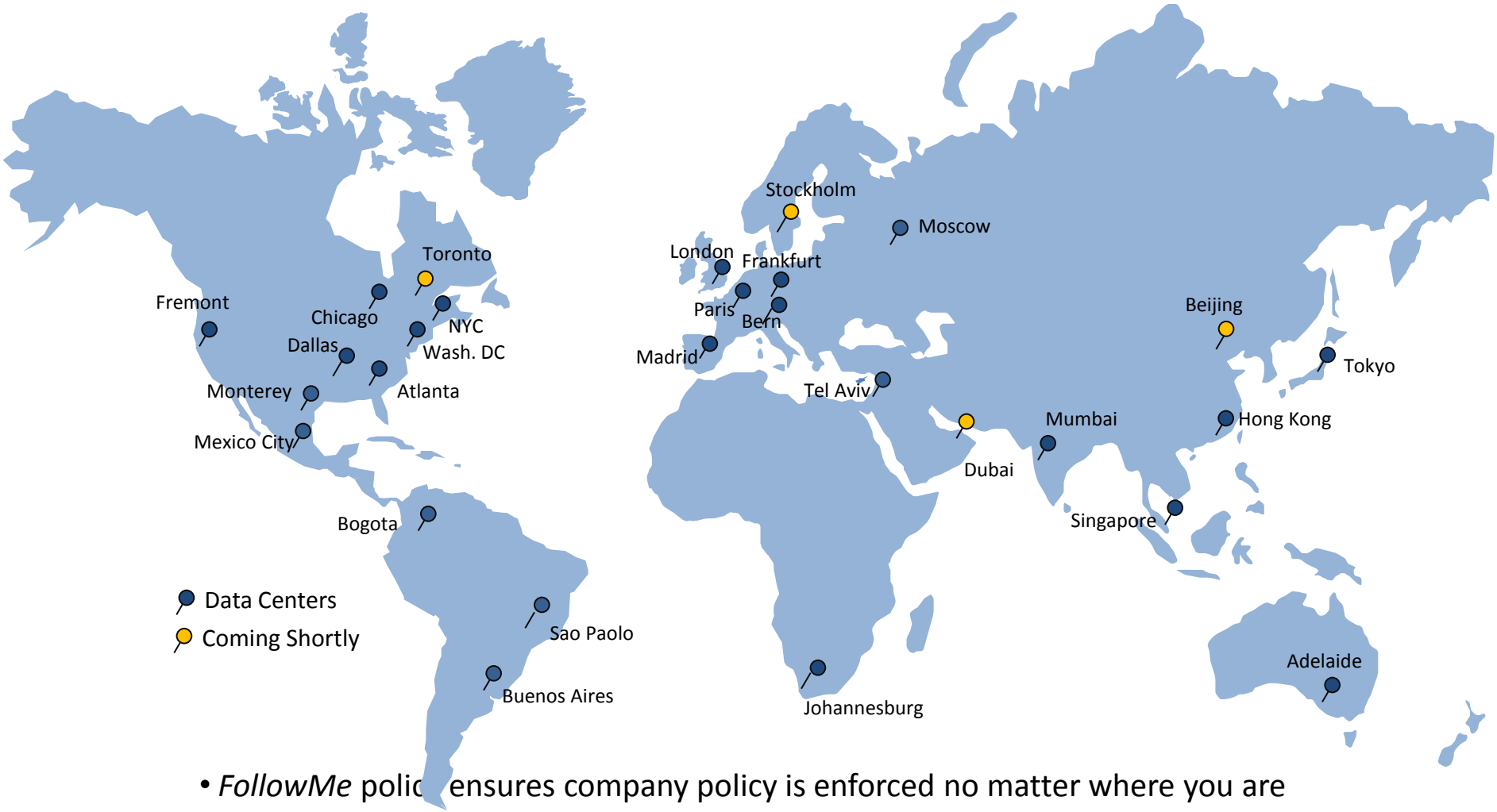
Zscaler Architecture: Multi-tenant, Distribuée



- Multi-tenant : les utilisateurs ne sont pas attachés à un data center en particulier
- Multiples bureaux, nomades et mobiles
- "*FollowMe* Policy": la politique d'un utilisateur le suit et s'applique à lui partout et toujours
- Mise à jour immédiate de tous les ZENs face à une menace ou pour une politique.
- Technologie "NanoLog": Logs consolidés et corrélés en temps réel, interrogeables en qq. Sec.

Temps de réponse rapides, et Haute Disponibilité

Le Cloud le plus global: environ 40 Data Centers



- *FollowMe* polic ensures company policy is enforced no matter where you are

Benefits: 1. Near-zero latency; 2. High reliability; 3. BW savings (no backhauling)

Fonctionnalités: Sécurité

Why Traditional Technologies No Longer Work

• URL Categorization • Domain Control List	• Virus • Spyware	• Unauthorized Apps • Tunneling Protocols	• Malicious Active Content, Botnets, XSS • User generated pages
Black Listing	**Signature Match**	**Header Inspection**	**Content Inspection**

Knowledge of Destination	**Knowledge of Payload**	**Knowledge of Application**	**Knowledge of Content (Body)**
www.google.com	Hash ⟷ Hash	Header | Body	Request / Response

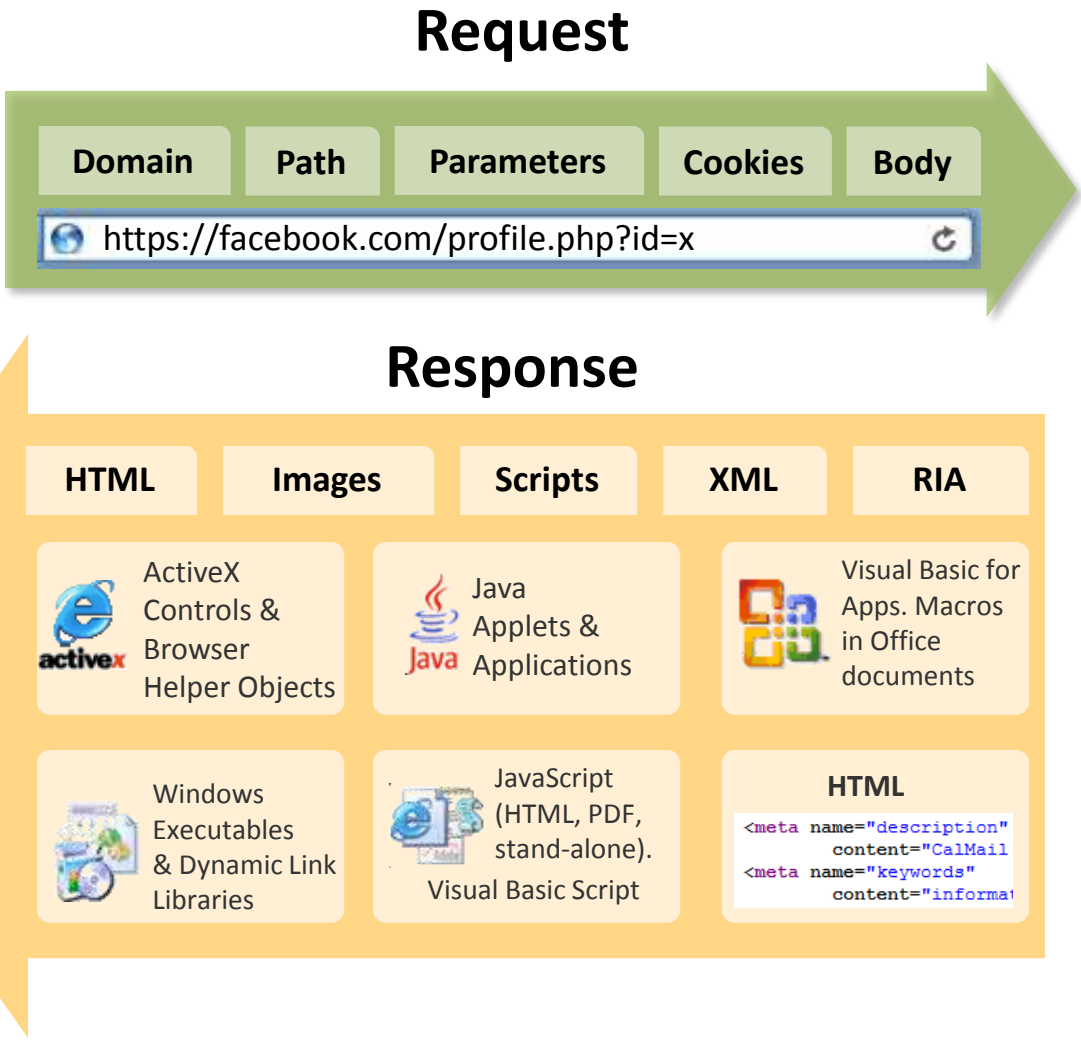
Full Content (page) inspection is required to detect today's threats

"AV signatures or URL filtering is obsolete for newer threats. High-speed scanning of content/pages is needed." -- Gartner

Zscaler Inspects Full Request & Response

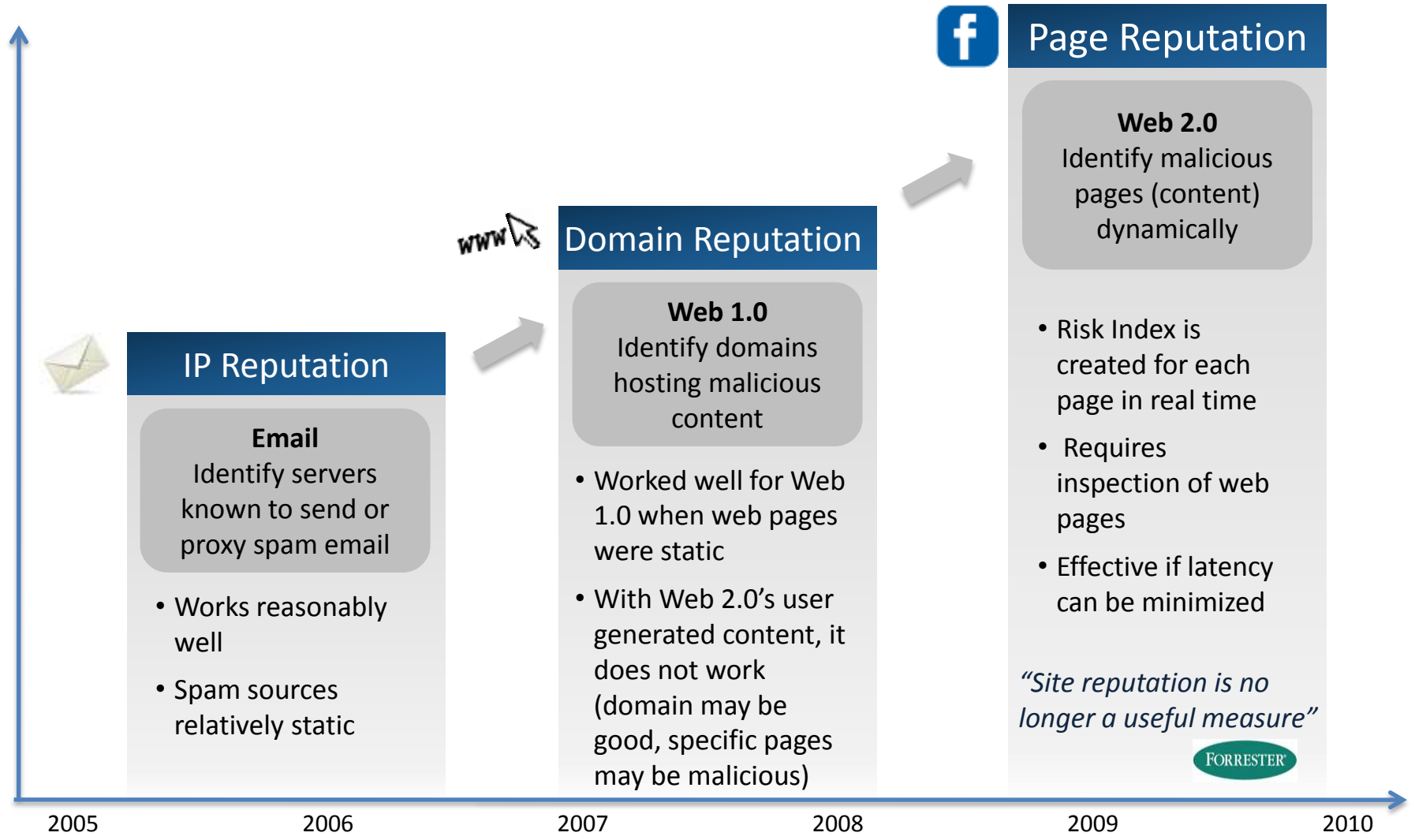
- Most vendors analyze only domain and block based on a black list
- Domain represents < 5% of a total URL

- URL represents < 1% of a total page
- Most newer threats are hidden in the pages being served and require full page inspection



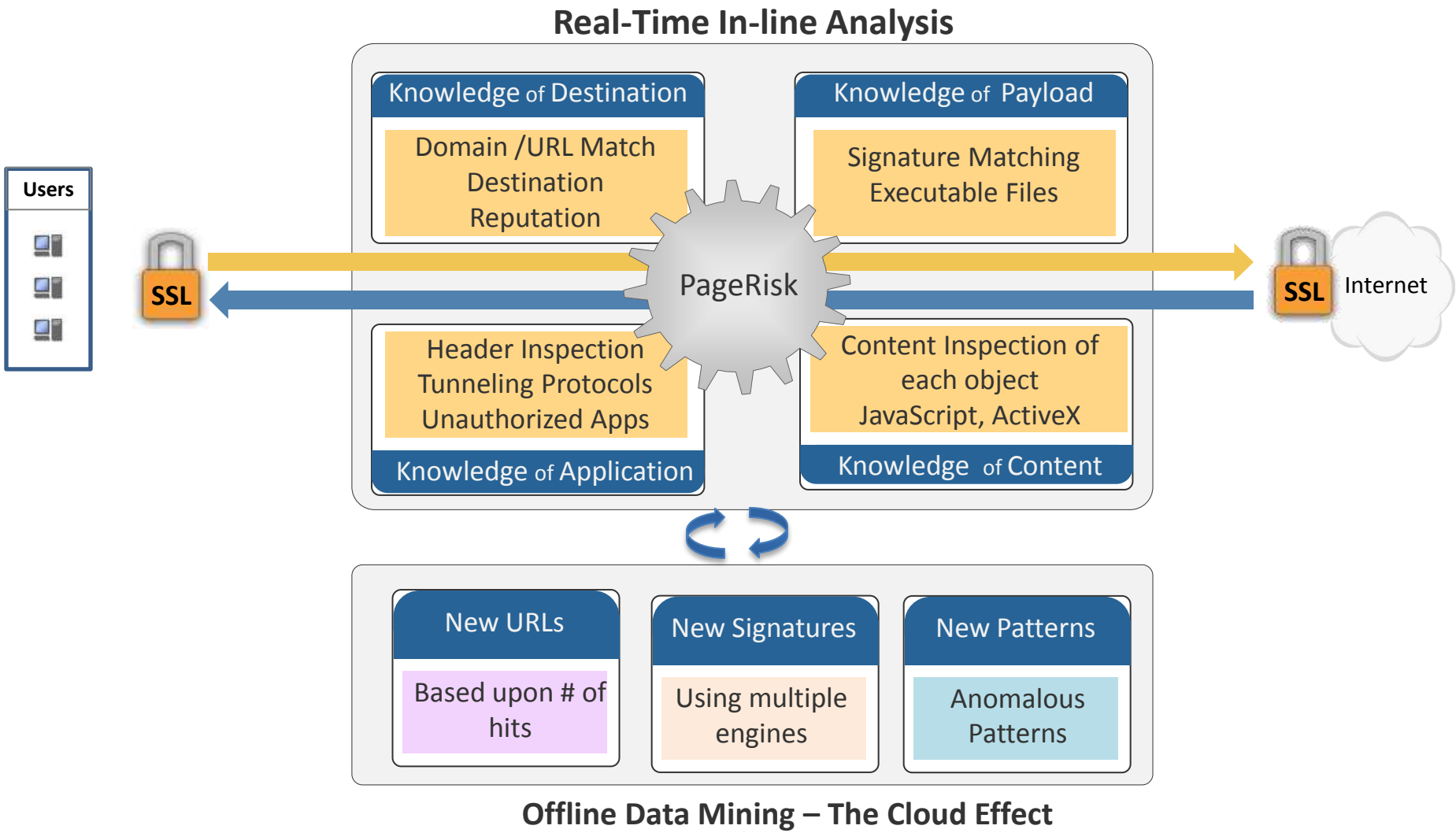
Analysis of Request/Response is critical but can introduce latency

Traditional Reputation Score Ineffective for Web 2.0



Integrated & Comprehensive Threat Detection

Zscaler uses dynamic PageRisk to detect threats accurately



Zscaler: Comprehensive Detection Technologies

Zscaler Security Technologies

Data Mining	Offline Scans	URL Database	Pattern Match	Malicious Content
• Network effect • Identify emerging threats	• Multiple Engines • Continual Scans • URL DB updates	• Continuously updated • Proprietary	• Custom signatures • Real time • High speed	• Real time, in-line detection

Third-Party Technologies

Malicious URLS	Phishing	Botnets	AV Signatures	Vulnerabilities
• Feed #1 • Feed #2	• Feed #3 • Feed #4	• Feed #5 • Feed #6	• Inline – Feed #7 • Offline - Feed 8 & 9	• Feed #10 • Feed #11 • Feed #12

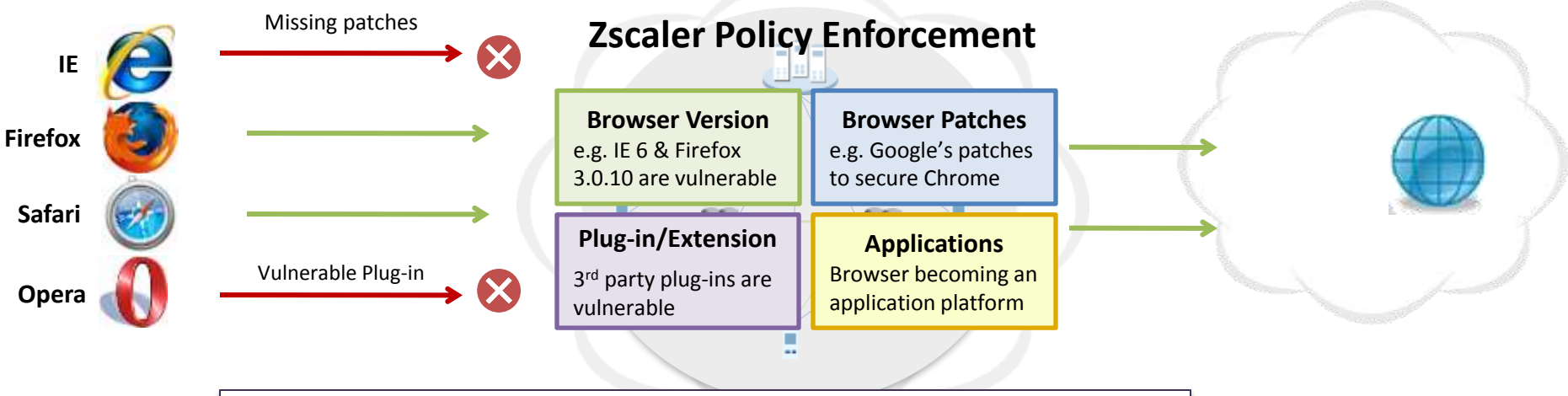
Combination of internal research & best external feeds results in the best threat detection

Browser Control

Challenge: Hackers are exploiting browsers to infect users' computer. Older and unpatched browsers are vulnerable.

> "There are more browser capabilities to be exploited, more potential for vulnerabilities." Gartner

Solution: Enforce browser policy: browser versions, patches, plug-ins & applications



- Configurable scans frequently (daily, weekly, monthly, etc)
- Warn if outdated or vulnerable
- No client-side software or download required

Benefit: Reduce security risk with least effort (centrally configured)

Fonctionnalités: Manage

Zscaler Manage

Challenge:

> "URL Filtering is mostly reactionary. It has a fundamental flaw to be an effective security filter; it does not monitor threats in real time." Gartner

> "Internet bound traffic should be inspected for more than URL filtering. Web 2.0 applications require granular policies for control." FORRESTER

Solution: Granular control of Web 2.0 applications. Policies by location, user, group, location, time of day, quota

URL Filtering	Web 2.0 Control	Bandwidth Control
• URL DB, multiple languages • Enforcement by URL, not domain, Safe Search • Real-time Dynamic Content Classification • 6 classes, 30 super categories, 90 categories	• Action-level control for Social sites, Streaming, Webmail & IM • Allow viewing but block publishing • Allow webmail but not file attachments	• 40 – 50% of BW is consumed by streaming • Enforce policies by type of web application • Ensure enough BW to mission critical apps
Enforce traditional URL policies at low TCO	**Enable use of Web 2.0 with right access to right users**	**Tangible savings due to proper use of BW (last mile)**

Right access to right resources to empower users and optimize resource use

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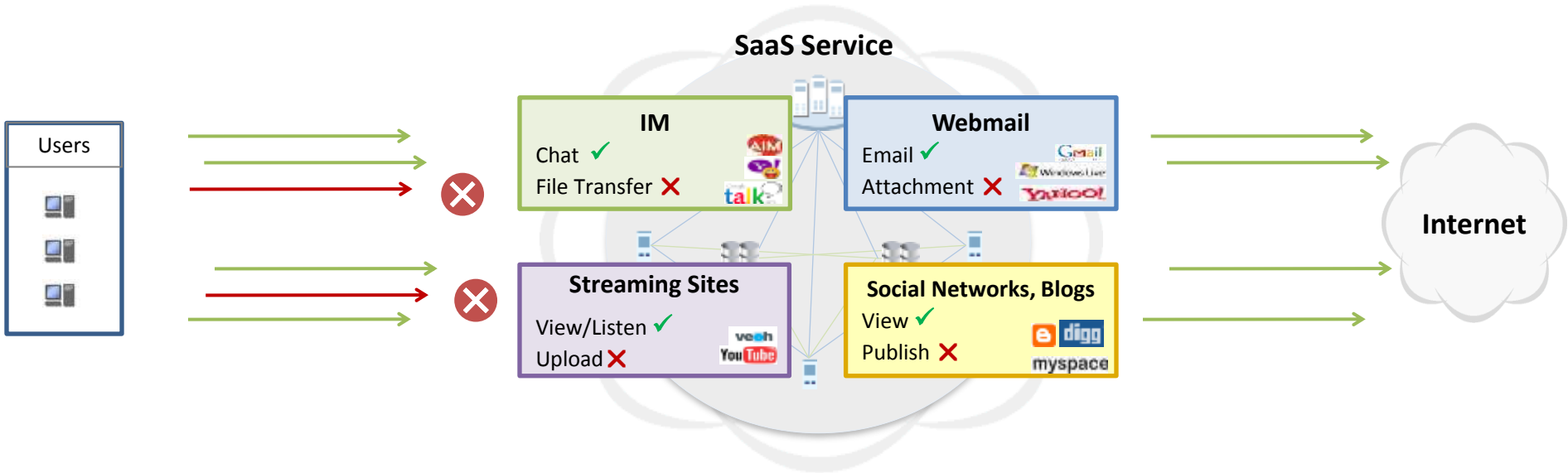
Manage - Managed Access to Web 2.0

Challenge:

> "The advances in Web 2.0 technologies require a new generation of Web security tools that go well beyond traditional URL filtering." — IDC

> "Discerning one app from another is far from just a URL recognition game" — FORRESTER

Solution: Managed access - Granular policies by action, location, group, etc.

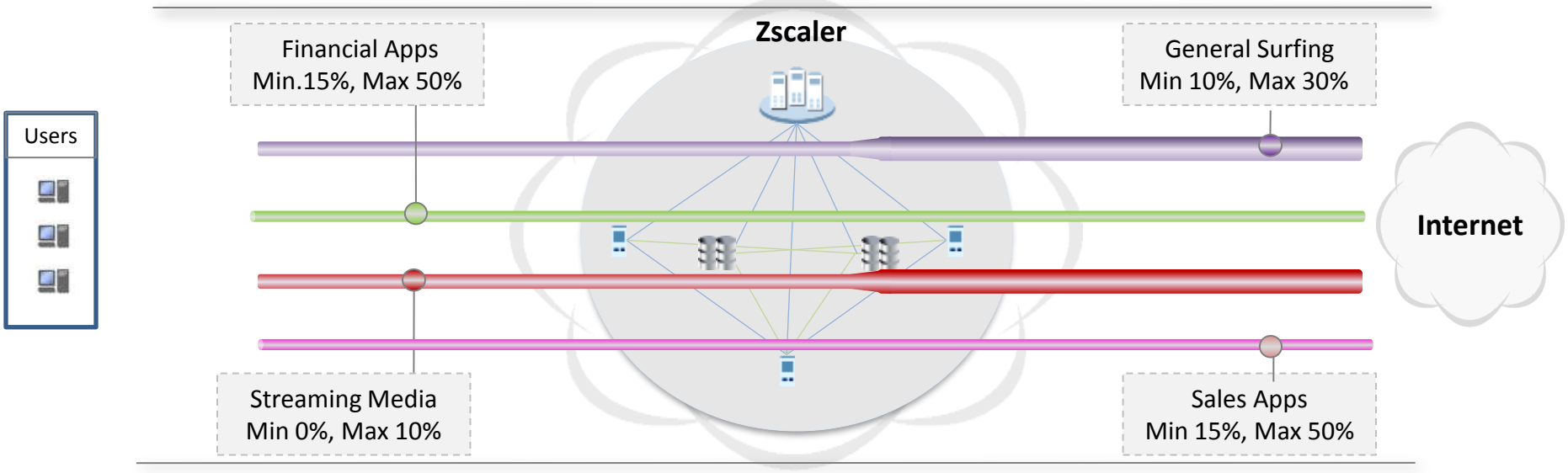


Benefits: Provide right access to right users

Manage - Policy-based Bandwidth Control

Challenge: 40% - 50% of bandwidth is consumed by streaming applications

Solution: Bandwidth allocation by application type



Benefits: Right applications get the right bandwidth; cost saving

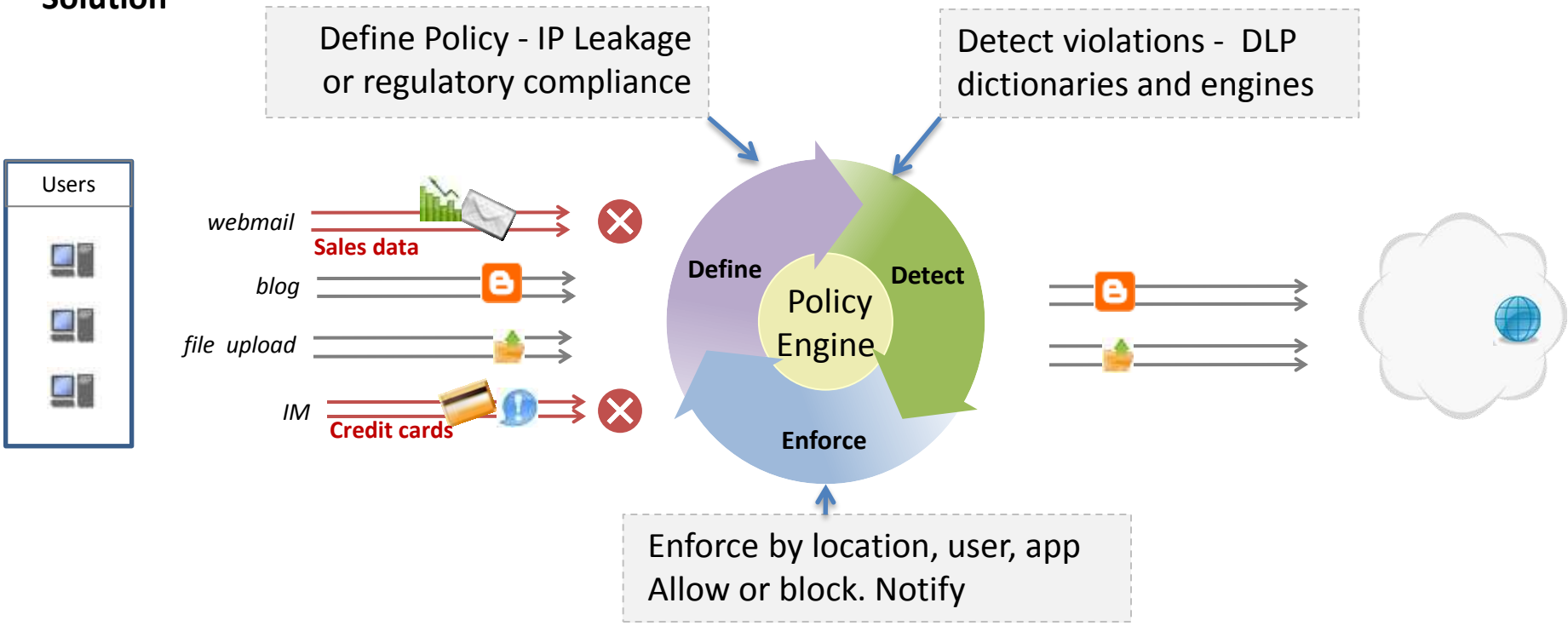
Fonctionnalités:
Data Leakage Prevention

Comply - Data Leakage Prevention (DLP)

Challenge

Social networks, Blogs, Webmail/IM are easily accessible from any browser and are dangerous backdoors. May lead to accidental or intentional leakage of proprietary and private information.

Solution



Benefits

Rapid deployment. Highly accurate, Ultra-low latency, Complete inline inspection (not a tap node)

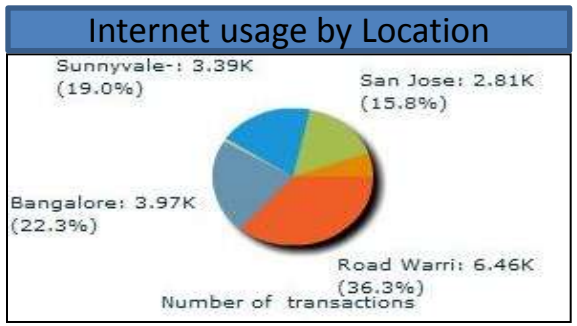
Fonctionnalités:
Reporting & log analysis

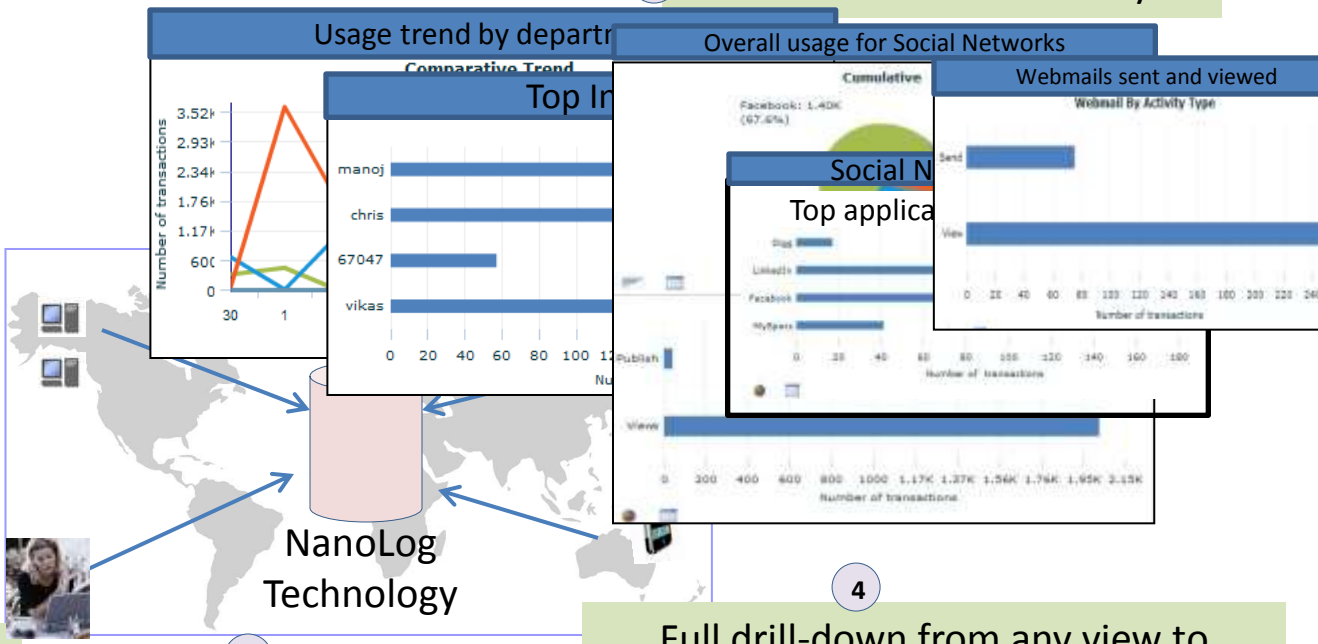
Reporting interactif: 5 Avantages uniques

1

Real-time log consolidation across the globe

2 Real-time interactive analysis





3

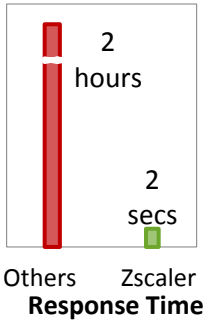
Real-time correlation across apps – email, web, DLP, security, etc.

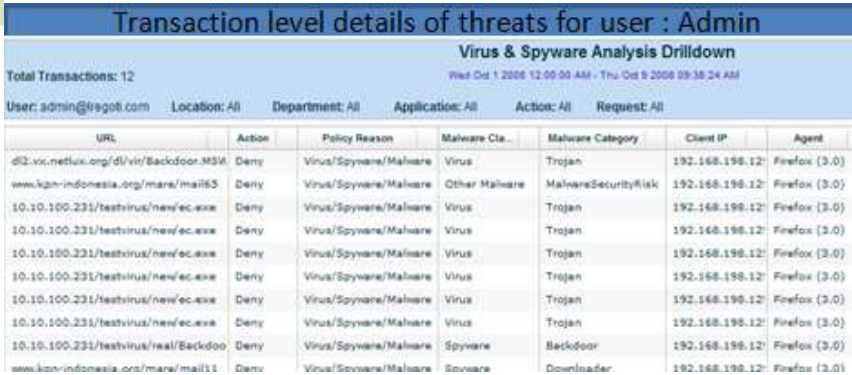
4

Full drill-down from any view to transaction level within SECONDS

5

Query Response time





Analyse interactive du reporting et des logs

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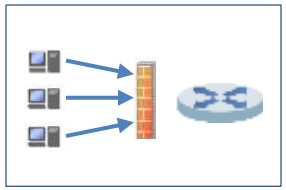
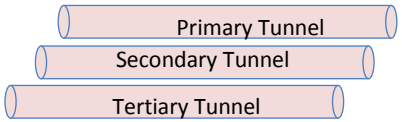
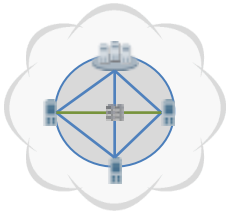
Multiple and Easy Traffic Forwarding Options

GRE Tunneling

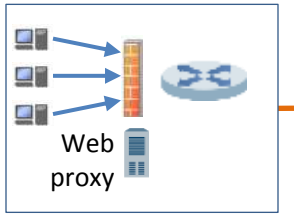


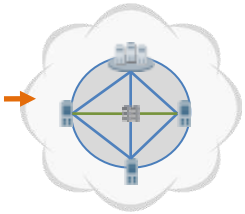




Create a GRE tunnel to forward Port 80/443 traffic our SaaS Service

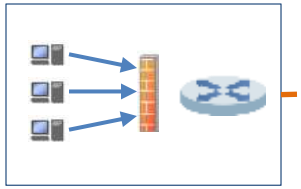
Forward Proxy Chaining

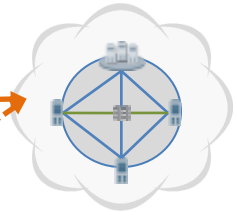




Forward port 80/443 traffic from Squid, ISA, Bluecoat, etc.

Proxy / PAC File





PAC File/Explicit Browser to SaaS Service

Browser based PAC file or explicit proxy setting support Road Warriors

No device needed on customer premise, no software to deploy.
Simply forward the traffic from each location to Zscaler

Questions / Réponses

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