

What You Need to Know About Web Services Security

presentation for
SearchWebServices

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The risks inherent in emerging technologies

- Web Services represent a new set of approaches to distributed computing, based on open standards.
- Standards are always changing, and so are the technologies.
- How should companies reduce the risks of Web Services?



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Security is critical to Web Services

Security is the primary roadblock for Web Services adoption

- Pent up demand in the enterprise for B2B applications of Web Services
- Many new vendors and products coming to market
- Established IT security vendors Web Service-enabling their products

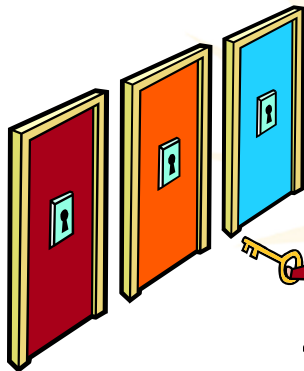


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The "20 doors" problem

If your company has 20 doors, and you lock 19, then you are not secure



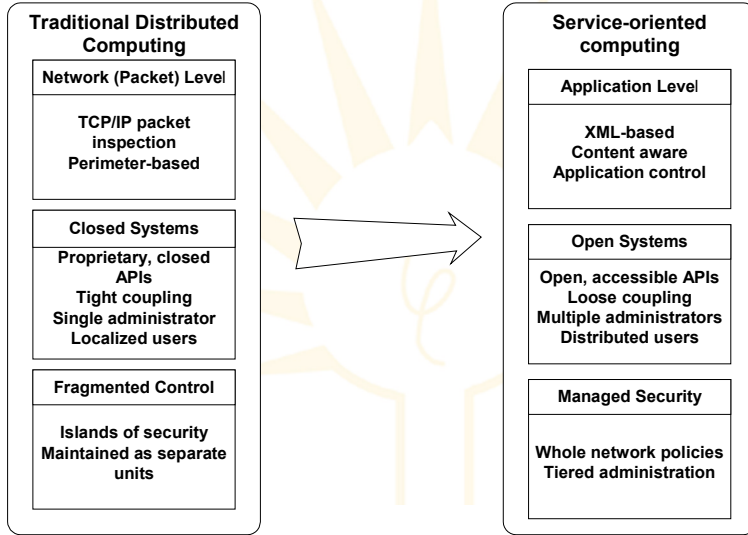
- Any Web Services security approach must be a part of a comprehensive enterprise security initiative
- Web Services can help secure the enterprise, and the enterprise must secure their Web Services

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A new approach to computing

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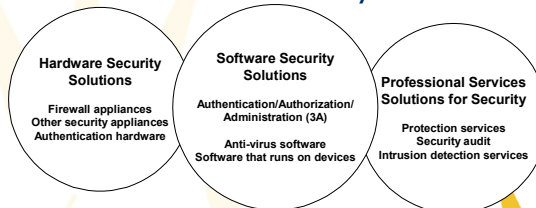
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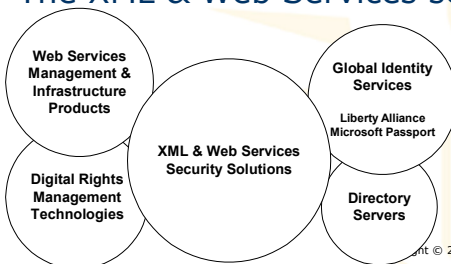
Context for Web Services security

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• The overall IT security market



• The XML & Web Services security market



Both
Perimeter network security
and
application-level security

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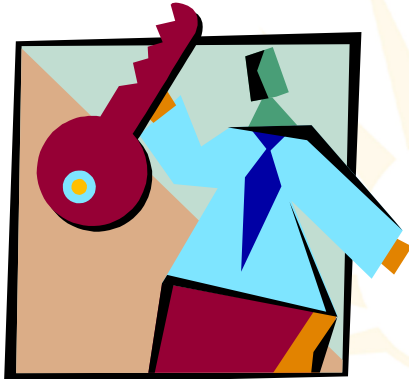
Principles of application security

- Authentication
 - Are you who you say you are?
- Authorization
 - Are you authorized to send the message?
- Confidentiality
 - Is the message safe from prying eyes?
- Data integrity
 - Can you guarantee the message hasn't been tampered with?
- Non-repudiation
 - Can you confirm the sender sent the message?

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XML & Web Services security technologies



- XML Digital Signatures
- XML Encryption
- XACML (XML Access Control Markup Language)

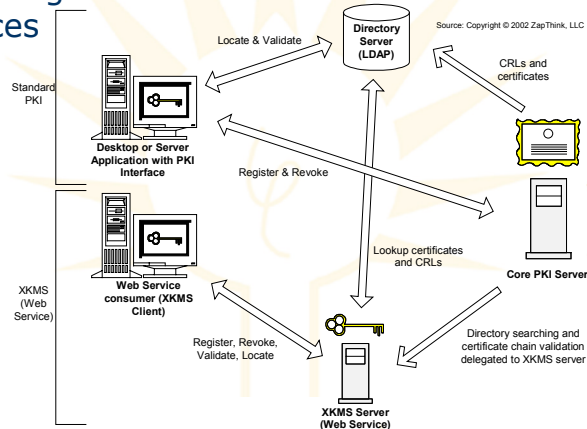
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XML & Web Services security technologies (cont.)

XKMS (XML Key Management Services)

- Extending PKI to Web Services



XML & Web Services security technologies (cont.)

- SAML (Security Assertion Markup Language)
 - A standard for exchanging authentication and authorization information (known as *assertions*) between security domains
- WS-Security
 - The first of a broad set of specifications that cover authentication, authorization, privacy and confidentiality, trust, delegation, and auditing (non-repudiation) across a broad range of existing security frameworks and technologies, including both PKI and Kerberos.

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What are vendors doing?

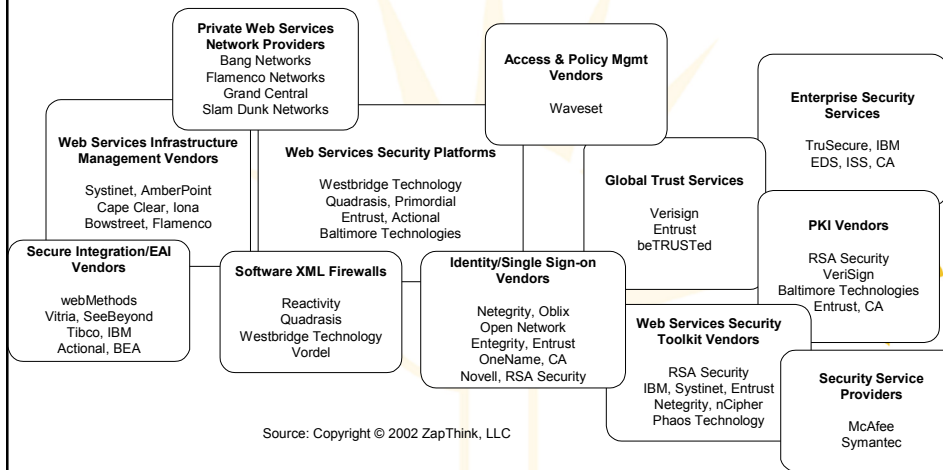


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Market segmentation



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Approaches to the market

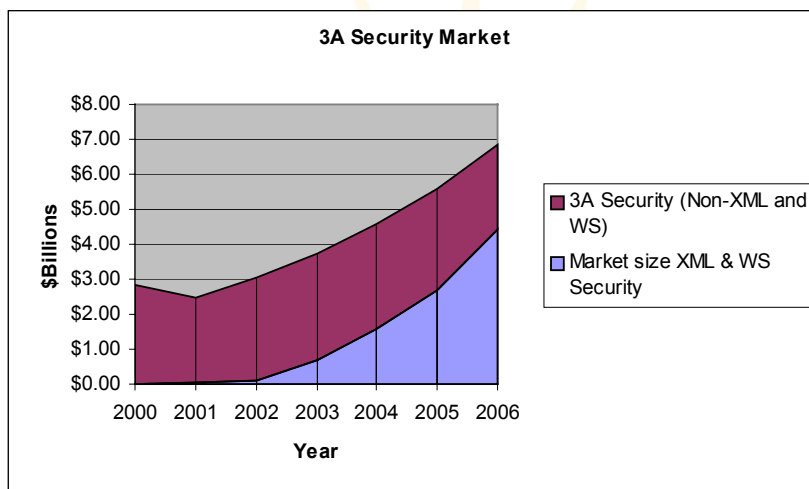
- Focused technology startups
 - Survivors have funding, solid management & engineering teams
- “Established” Web Services vendors
 - Have small but significant customer base
- Established security software companies
 - Customers, technology depth, financial resources

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Business & technology trends



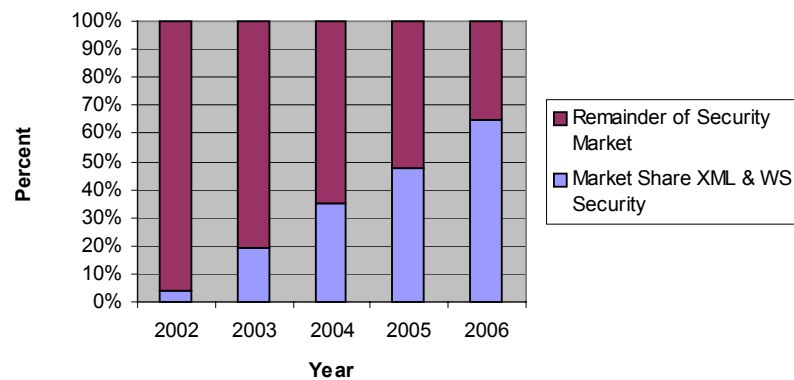
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Business & technology trends (cont.)

Market Share: XML & WS Security vs. 3A Security Market



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Fundamental security rules

- There is no such thing as perfect security
 - Perfectly secure networks and systems are an impossibility
- It is impossible to list of all the risks facing a company
 - There is always the possibility of an entirely unexpected risk
- Security is never complete
 - Security is an ongoing, ever-changing process
- There is no way to accurately calculate the risks that security addresses
 - Any security failure may lead to unexpected consequences

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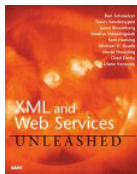
What Should You Do Now?

- Get your security house in order
- Plan for Web Services
- Think top-down as well as bottom-up
- Research products coming to market now, if appropriate



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Thank You!



Jason Bloomberg & Ron Schmelzer of ZapThink are coauthors of *XML and Web Services Unleashed*.



ZapThink is an industry analysis firm focused exclusively on XML and Web Services.



The report for this presentation is available for US\$795 at www.zapthink.com.



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