



XXVI Congreso de  
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# Security of Cloud Computing Services

**Daniel A. Palacios**

Information Technology Manager  
Caja Mediterráneo Miami Agency

**Andres Campo**

President  
Axxis Solutions

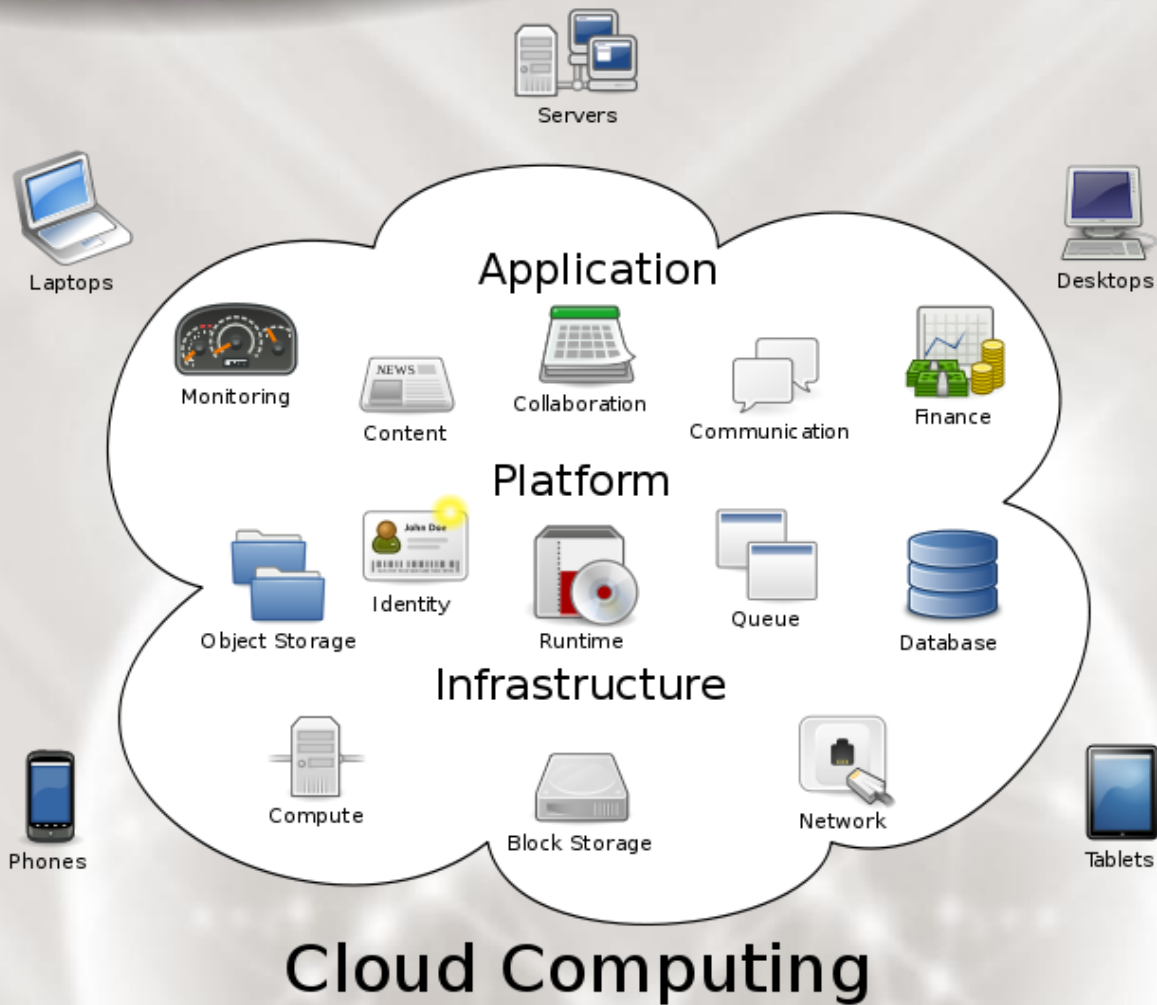


# Presentation Overview

- What is cloud computing?
- History of the cloud
- Benefits of cloud computing
- Types of Clouds
- Cloud Service Models
- Main banking services
- Security Challenges
- Best Security Practices and Tools
- Role of Risk Executive



# What is Cloud Computing?



# Ten Year Computing Cycles

10x more users with each cycle



1960s **Mainframe**  
Computing



1970s **Mini**  
Computing



1980s **Client/server**  
Computing

1990s **Desktop** Cloud  
Computing



2000s **Mobile** Cloud  
Computing



## Enterprise Perspective

- Cost Saving
- Scalability
- Storage Capacity
- Virtual Desktop
- Collaboration
- IT Productivity
- Rapid Implementation
- Automation
- Energy Efficiency

## Client/User Perspective

- Real Time Information
- Accessibility
- Availability
- Productivity
- Improved Experience



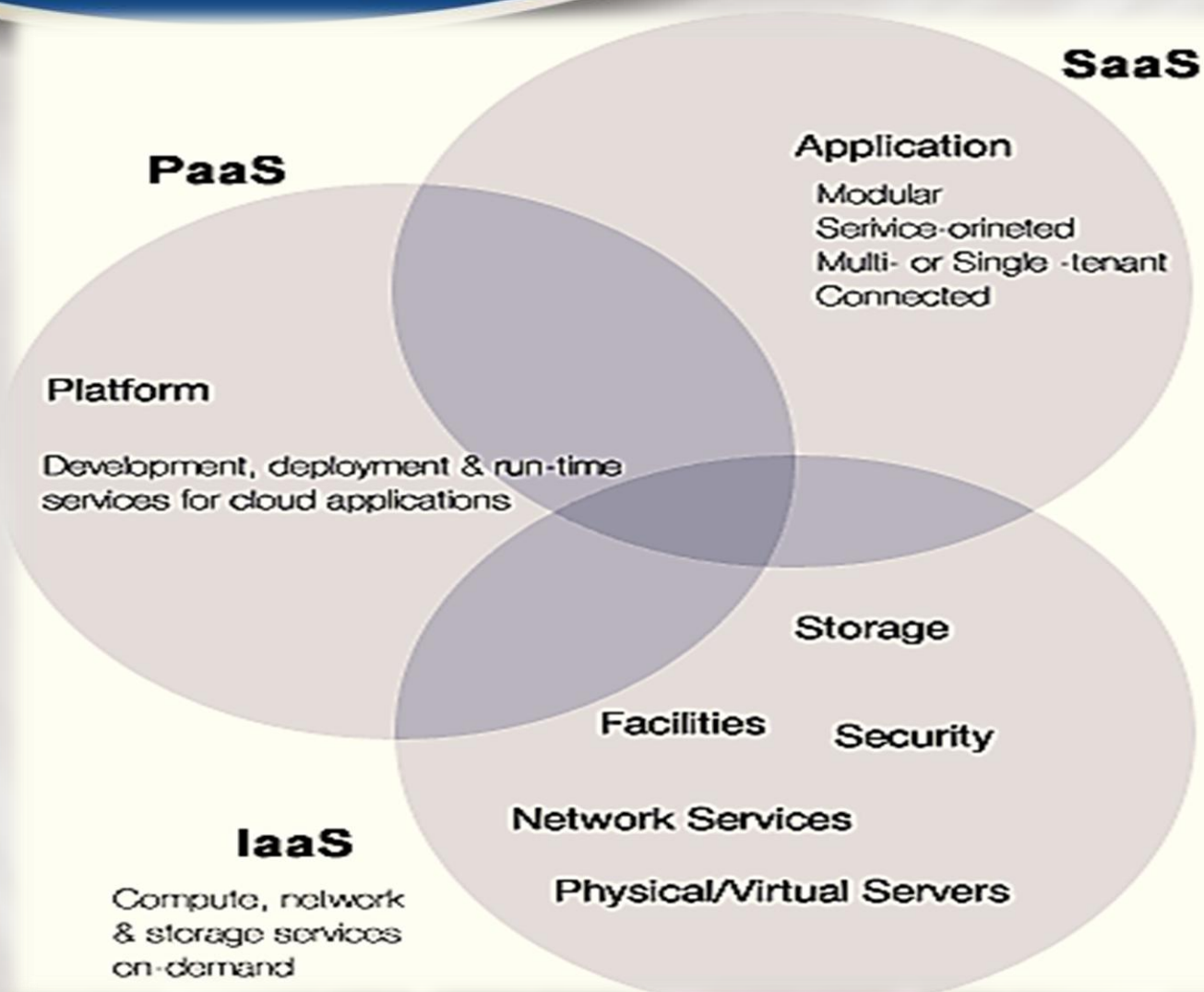
# Types of Clouds

## Cloud Types - Public, Private, Hybrid

	Assets	Disadvantages
Public	<ul style="list-style-type: none"><li>• Share of resources</li><li>• Scalability</li></ul>	<ul style="list-style-type: none"><li>• Location?</li><li>• Hardware?</li><li>• Compliance with security standards?</li></ul>
Private	<ul style="list-style-type: none"><li>• Share of resources</li><li>• Control on location, security and hardware</li><li>• Scalability</li></ul>	<ul style="list-style-type: none"><li>• Users still have to buy, build, and manage</li></ul>
Hybrid	<ul style="list-style-type: none"><li>• Take advantage of the scalability and cost-effectiveness that a public cloud computing environment offers without exposing mission-critical applications and data to third-party vulnerabilities</li></ul>	



# Cloud Computing Service Models



# Main banking services provided through the cloud

- Customer Relationship Management
- Teller - High/Low Counter
- Private Banking
- Customer Self Service
- Business Intelligence
- Workflow
- Social Banking
- Gradual move toward core banking systems





# Security challenges in banking cloud services

- Abuse and nefarious use of cloud computing
- Shared Technology Vulnerabilities
- Data Loss/Data Leakage
- Malicious Insiders
- Account Service or Hijacking of Traffic
- Insecure APIs



# Best practices and tools for the security of information of services in the cloud



## Practices

- Know your vendor - Use industry leaders
- SLAs - well defined, measureable, and enforceable
- Licensing Model
- Access controls, Integration and Monitoring

## Tools

- Role of Encryption (Data-Centric)
- Key Management
- Regulations and Privacy Laws
- Implement industry established best practices
- Stay knowledgeable and current in security trends



## Role of the risk executive in the prevention and control of risks related to services in the cloud

- Knowledge & Understanding of security trends
- Understanding dataflow to and from cloud
- Communication with Vendor and Internal IT
- Risk Management Strategy/Risk Mitigation Plan
- Monitor Security controls
- Regulatory Governance
- Compliance/Audit
- SLAs



# Takeaways

- Cloud provides business agility and operational efficiency.
- Today's cloud is mature and secure.
- Cloud is not the future it is today.





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Questions???

Andrés Campo  
acampo@axxissolutions.com

Daniel A. Palacios  
dpalacios@cam-miami.com





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# Thank you

