IMAGINE THE POSSIBILITIES...
Building a Business Service in the Cloud

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What are We Talking About?

Provider network and **subscriber** services

Provider *enterprise* IT and applications
Why Cloud?

Scale, availability and security

OPEX model

Deployment cycle

Time To Market

Simpler operation

• Continuous service updates without staff intervention
• Less ongoing management overhead
Business Services in the Cloud: High Level View

Provider managed infrastructure

- Provisioning systems
- IP tracking, AAA/DHCP
- Operator interfaces

Cloud infrastructure

- High performance threat detection
- Dynamic threat intelligence, policy
- Data gathering, policy mgmt & distribution
- Subscriber and admin UIs

Subscribers Devices
On the Path to Cloud

Many early experiments and deployments led to product development process:

Service Considerations
- Data Plane versus Control Plane
- Subscriber Experience

Security and Privacy

Integration into Provider Systems

Cloud Considerations

APIs

Customer Support and Operations
Detailed View
How it Works

Internet

Intelligent DNS Resolver

Streaming threat intelligence, policies

Subscriber & Admin Portals

Data collection

DNS queries

Legitimate

Malicious

Suspicious

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Security and Privacy

IAM
WAF
Perimeter defenses

Data processing
Data minimization
Data retention
Data anonymization
Subscriber control
Integration

Device traffic
Cloud Considerations

4 major service components
  - DNS resolution, Data transport, Policy management, Subscriber & operator interfaces
Scale and dimensioning infrastructure
  - daily usage
  - peak events
  - growth in demand
Availability and reliability
Single stack
SLA
APIs & Support

Provisioning

Requirements
Proper documentation
Versioning
Simple calls, heavy use of abstraction
Read (GET) calls

Support APIs
Portals
Summary

Product and development teams at Akamai created a cloud-based security service:
Make it easy for ISPs to target customers with a new offer.
Focus and 20 years experience drove design considerations to:
Enable the best possible subscriber experience with “just works” simplicity
Scale, availability & resilience into cloud-based components that support the service
Security and respect for privacy for the service itself, staff who operate it, and
subscribers who use it
Integration to automate provisioning, support monitoring, and collect data for
business systems and to meet regulatory requirements
Thank You!

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