Identity & Trust Assurance

The next generation technologies to
Create Trust Online

Introducing S.A.F.E. Solution (Secure & Authentic Financial Engagements)
Solution Offering Description

COMODO
Creating Trust Online®

Identity & Trust Assurance Vision

The eCommerce Landscape

The vitality and scope of the eCommerce space

The Internet continues to dramatically change the way consumers purchase goods by fundamentally altering and expanding distribution channels allowing products and services to be available virtually "anytime and anywhere". In addition, further advances in mobile commerce, broadband, and interactive TV commerce promise to continue to stimulate online growth changing the way businesses and consumers interact.

The strength of online sales continues to outpace growth rates in many other industries. According to Forrester, online sales in 2004 grew an estimated 20% versus 2003. By 2010, online sales will reach $331 billion and will account for 13% of total retail sales, up from 7% in 2004.

Yet continued growth of the Internet is being constrained by increases in consumer awareness of the risks around mutual authentication and identity management in online browsing and commerce.

The cost "lack of trust" has on banks:

Online fraud and ID theft issues started to surface broadly beginning in late 2002 and the corresponding cost impacts continue to ripple through the Internet economy:

- 2004 realized $2.6 Billion losses due to online fraud this represents a 37% jump versus previous year and $700 million more than previous year

- Gartner reports that approximately 21% of consumers will not transact online due to fears of ID theft and/ or fraud

- Current estimates project that losses banks will have to cover (due to ITA gaps at the bank) will be increasing by over 18% per year eroding profitability of online banking offerings

- Phishing and pharming attacks against banks have hit financial institutions particularly hard:
    - dampening consumer confidence and reducing effectiveness of customer acquisition programs
    - inhibiting ability to convert customers to lower costs online banking alternatives
    - increasing customer retention issues if online banking experience is not highly trusted

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The Internet has becomes less trusted for commerce, collaboration and communication because identity assurance concerns have exploded across the entire eCommerce landscape – merchants, consumers and financial institutions.

The new banking paradigm - "Identity & Trust Assurance" (ITA) for creating trust online™

Responses to the growing fraud and ID threats to date have had limited success.

Security attention, focus and resources have been concentrated on hardware and software management against specific vulnerabilities, e.g. virus or SPAM.

However, the true impact of identity theft and fraud on banks and business is only now being recognized as the most significant and potentially damaging of all vulnerabilities to date because fraudster sophistication is increasing as they coordinate integrated attacks.

As a result, attempts at managing responses to the shifting threats that continually appear on the horizon is a losing battle because point specific security solutions are only effective against known vulnerabilities. However, with ITA tools and processes, this inefficient response resulting from the complex challenge of combating the multi-dimensional threats is transformed into a trusted online experience.

Benefits of Managing Identity & Trust Assurance as a Business Strategy

The impact of fraud and ID theft continues to dampen growth as consumers throttle back their online financial/ shopping habits and veer to ever more conservative behavior in their online interactions. This new conservatism coupled with the growing cost to combat fraud provides banks the opportunity to provide highly differentiated next generation solutions that deliver a trusted internet.

The benefits of ITA to financial institutions:

- **Hard cost savings**
  - Reduced operational expenses with more efficient management of overall identity and trust assurance banking requirements
  - Reduced customer support costs related to online banking
- **Risk mitigation** helps banks manage the risk should hackers change critical information
- **Increased customer acquisition and satisfaction** improves efficiency of acquisition and retention efforts
- **Regulatory compliance** based on FFIEC guidelines:
  - Guidelines suggest that a best practices approach synergistically integrates two factor authentication in combination with ITA web authentication tools to provide mutual authentication as in - consumer authenticates bank and vice versa.

The central strategic benefit is to empower banking customers with new tools and technologies to proactively authenticate and protect their digital identities. In this environment, Comodo's core competency in identity assurance becomes the main platform for a differentiated and integrated solution that provides preventative and remedial solutions to engender customer online banking confidence.

Identity and Trust Assurance S.A.F.E. Program

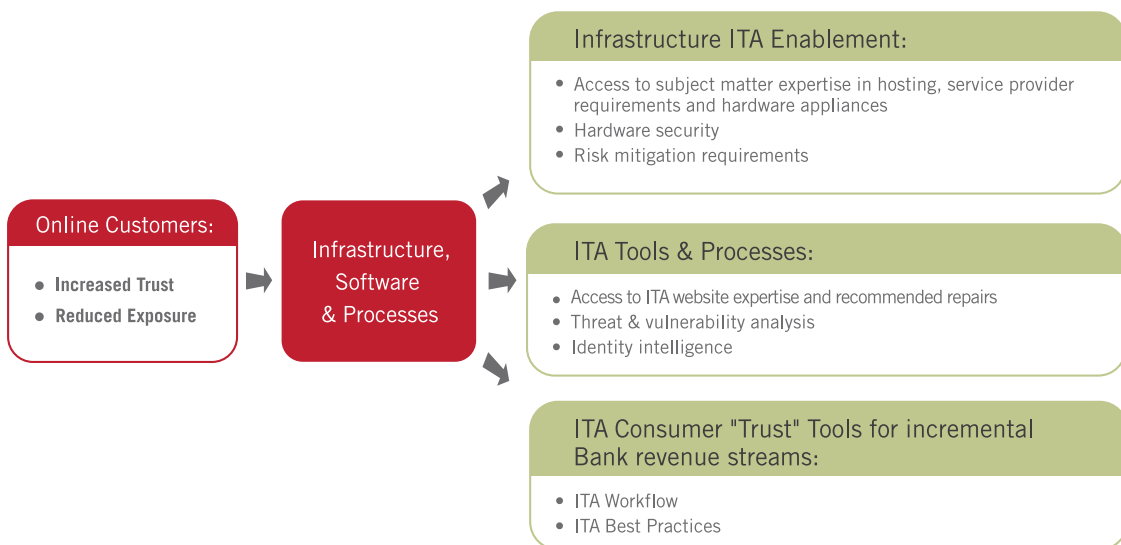## A new standard for Creating Trust Online

ITA S.A.F.E Solution Overview

Comodo provides holistic and integrated tools and business processes for Identity Assurance through a "tool kit" architecture that enables a best practices approach as outlined by FFIEC FFIEC Best Practices promotes mutual authentication that enables banks to authenticate users and users to authenticate the bank. To achieve this level of mutual authentication requires; a) consumers to verify the legitimacy of the websites **before and during** the transactional activities with web authentication tools and b) two factor authentication tools for banks to authenticate users.

Taken together, banks can achieve this level of Best Practices thorough Comodo's ITA S.A.F.E Program because ITA S.A.F.E. Program provides a fully integrated and synchronized approach to Identity & Trust Assurance.

A new standard for Creating Trust Online

Comodo's solution architecture will focus on preventative, integrated and proactive identity assurance tools, organized into three functional segments.

Infrastructure ITA Enablement:
- Access to subject matter expertise in hosting, service provider requirements and hardware appliances
- Hardware security
- Risk mitigation requirements

Online Customers:
- **Increased Trust**
- **Reduced Exposure**

Infrastructure, Software & Processes

ITA Tools & Processes:
- Access to ITA website expertise and recommended repairs
- Threat & vulnerability analysis
- Identity intelligence

ITA Consumer "Trust" Tools for incremental Bank revenue streams:
- ITA Workflow
- ITA Best Practices

Solution architecture

Trust Assurance competencies will be the fundamental organizing principle for Comodo's ITA S.A.F.E. solution and includes both Product and Service components. All elements of our solution are configurable to customer strategy, needs and requirements.

I. ITA Product Offerings:

- **Identity Assurance Infrastructure Enablers:**
  - Vulnerability scanning: **Hacker Guardian**
  - LINUX based solutions in the **Trustix Suite** (OS, firewall etc)

- **ITA Tools:**
    - High Assurance **SSL** certificates to encrypt and authenticate business legitimacy
    - **Content Verification Certificates** (CVC) binds web content to a digital certificate that can be verified by customers:

> **Green border indicator URL + CONTENT**
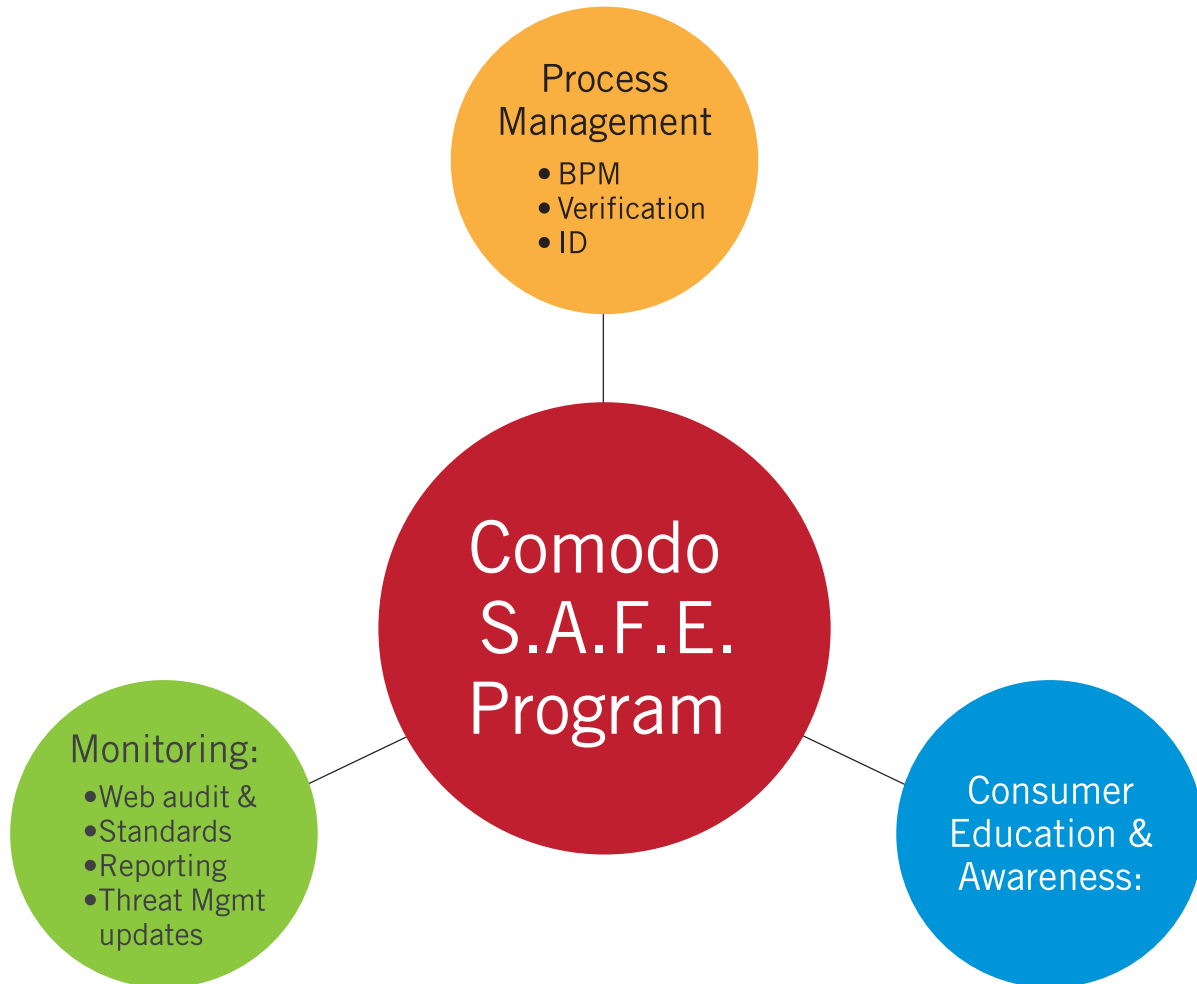> **X509 certificate - Logo + Login box verified**

- **ITA Desktop solutions for new revenue streams:**
    - **Consumer Revenue Streams:**
        * **ID Protection Services** provides ID theft restoration services
    - **Commercial eMerchant revenue streams:**
        * **Payment Gateway**
    - **All segments: Secure Collaboration:**
        * **TrustFax** (online, web based faxing)
        * **ComodoMeet** an online web conferencing service

II. ITA Services:

To fully leverage the product offering within the ITA S.A.F.E. Program, Comodo offers our customers a fully integrated services program to support banking customers.

ITA S.A.F.E. Services Architecture

Process Management
- BPM
- Verification
- ID

Comodo S.A.F.E. Program

Monitoring:
- Web audit &
- Standards
- Reporting
- Threat Mgmt updates

Consumer Education & Awareness:

In addition, as a member of the ITA S.A.F.E. Program, Comodo will freely make available to the bank's consumer customers - an award winning security suite for consumers that includes:

- FREE personal email certificates

- FREE highly rated personal firewall

- FREE anti SPAM solution

- FREE access to IdAuthority the world's largest online white list of validated websites

- FREE web authentication and verification with VerificationEngine

- FREE password manager called iVault

All products are fully functional and will always be free for the lifetime of the PC.

About Comodo

The Comodo companies create the infrastructure that is essential in enabling e-merchants, other Internet-connected companies, software companies, and individual consumers to interact and conduct business via the Internet safely and securely. The Comodo companies offer PKI SSL, Code Signing, Content Verification and Email Certificates; award winning PC security software; vulnerability scanning services for PCI Compliance; secure email and fax services. Continual innovation, a core competence in PKI, and a commitment to reversing the growth of Internet-crime distinguish the Comodo companies as vital players in the Internet's ongoing development. Comodo secures and authenticates online transactions and communications for over 200,000 business customers and 10,000,000 users of our desktop security products.

For additional information on Comodo – Creating Trust Online™ visit www.comodo.com

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