



Smarter Solutions for a Smarter Government  
*Cyber Security Solutions*

*Glen Gooding*  
*AP Security Sales Leader*

IBM was named the  
**“Best Security Company”**  
by SC Magazine





## Smarter Solutions for a Smarter Government *Cyber Security Solutions*

### Key Trends

- Holistic Approach to Security
- Customer Examples

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**“Best Security Company”**  
by SC Magazine



# Welcome to the smarter planet



The planet is getting more  
**Instrumented**, **Interconnected** and **Intelligent**.



**90%**

Innovation in automobiles is related to software and electronics systems, with 30-60% of the value in the software



**1 trillion**

Connected objects – cars, appliances, cameras, roadways, pipelines – comprising the "Internet of Things" and about 2 billion people will be on the Web



**162 million**

Smart phones sold in 2008, surpassing laptop sales for the first time

Approximately 70% of the digital universe is created by individuals, but **enterprises are responsible for 85%** of the **security, privacy, reliability, and compliance**.



# As the world gets smarter, demands on IT will **grow**.



Smart traffic systems



Intelligent oil field technologies



Smart food systems



Smart healthcare



Smart energy grids



Smart retail



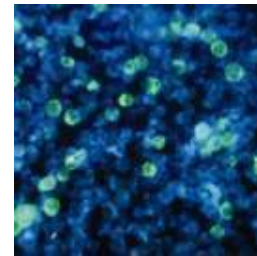
Smart water management



Smart supply chains



Smart countries



Smart weather



Smart regions



Smart cities

Despite the risk, the reason we will all begin to transform our systems, operations, enterprises and personal lives to take advantage of a smart planet isn't just because we can. **It's because we must.**



# Additional security and privacy risks impacting customers

- Numerous system integrations and configurations are required to make a city smarter
- Tremendous analytic power is needed to discover new treatments for cancer
- Massive amounts of data flowing from hundreds of thousands of smart meters must be read multiple times per hour
- Staggering numbers of images must be captured, stored, managed and linked to billing and collection systems in real time

**Most significantly, we must begin to address new IT Security and Privacy risks**



## Protection of sensors and actuators in the wild



### **Challenges:**

- Everything is “attackable”
- Endpoint nodes largely unsecured and physically vulnerable
- Endpoint communication networks with varied degrees of security

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Organizations must manage large, changing number of endpoints, owned by multiple parties and connected via Internet

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### **Point to consider:**

- Do you have controls in place to monitor and secure endpoints?



## Protection of digital identities



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A single individual may have information resident in hundreds of thousands of databases, and simultaneously maintain multiple legitimate identities.

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### *Challenges:*

- Multiple “identities” for multiple purposes
- Identity evolves over time

### *Points to consider:*

- Are you managing privileged access to sensitive data and critical assets?
- Who are ALL the trusted insiders? What about 3<sup>rd</sup> parties?





## Addressing the new cyber threat landscape

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Economic impact to organizations from cyber attacks has grown to over \$226B annually

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Dept of Homeland Security

### **Challenges:**

- Increase in cyber threats targeting key operations and assets
- Intrusion attempts are organized, disciplined, aggressive, and well resourced

### **Point to consider:**

- Is cyber crime a significant source of risk to sensitive data and critical infrastructures?







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21% of employees  
admitted to turning off  
or manipulating  
firewalls and anti-virus  
software

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Ponemon Institute, June 2009  
[Trends in Insider Compliance](#)

### ***Challenges:***

- Cloud computing models and virtualization increase infrastructure complexity
- Web 2.0 and SOA style composite applications introduce new level of challenges
- Smart devices present a new breed of security threats

### ***Point to consider:***

- To what extent has adoption of new technologies changed your approach to security and compliance management?





## Addressing compliance complexity

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Depending upon the industry, some organizations face multiple regulatory mandates

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### ***Challenges:***

- In search of “silver bullet” to pass the audit instead of focusing on risk-based information security program
- Complexity and confusion around a starting point make it difficult to think strategically

### ***Point to consider:***

- How much security and compliance control is good enough?





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More than 4,500 people divulge concerns with safety of personal information on the Internet and a desire for better identity protection

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[2010 Global Online Consumer Security Survey](#), Jan 20, 2010

### **Challenges:**

- File sharing software compromise personal computers via spyware and keystroke capture
- Consumer expectation is that security should be built in certain online transactions (i.e., banking, retail, Government transactions, etc.)

### **Point to consider:**

- To what extent is privacy driving your security spend?



# So how can security help us take advantage of opportunities in the smarter planet?



Security enables us to **take risks** and **innovate confidently**.



- Safely adopt **new forms of technology** like cloud computing and virtualization
- Implement **new business models** like outsourcing and teleworking
- Address **emerging compliance constructs**, while decreasing IT operations costs
- Assure quality, availability and integrity of information required for **real-time decision making**
- Address **consumer expectation of privacy** by assuring “trusted brand” status



# Japanese Auto Manufacturing Revolutionized Lifecycle Principles



Design, Operations, Customer Service - *linked early in the lifecycle process*

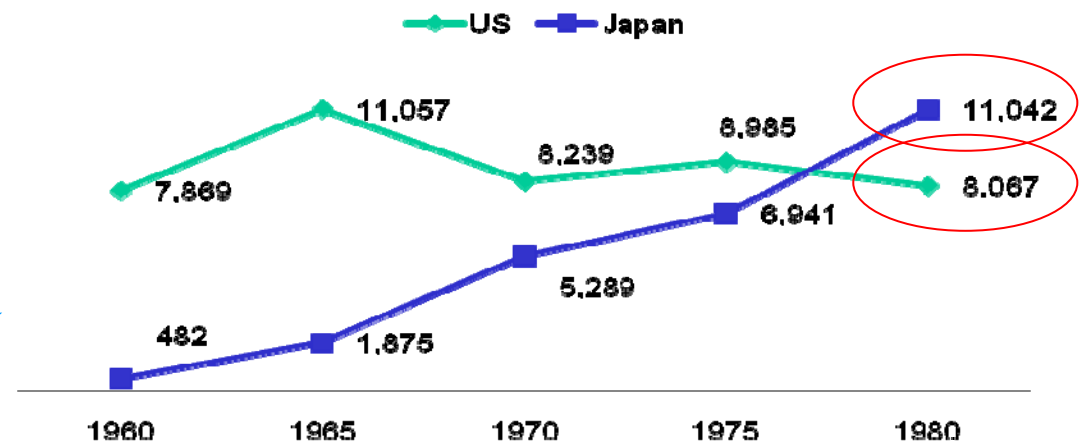


*Simplified* planning and governance

*Increased collaboration* between design engineering and plant operations

Stronger *customer feedback focus*

**Cars Sold Worldwide (000s)**



# IBM approach to security on a Smart Planet...

## *Secure by Design*





## SMART TRACKING

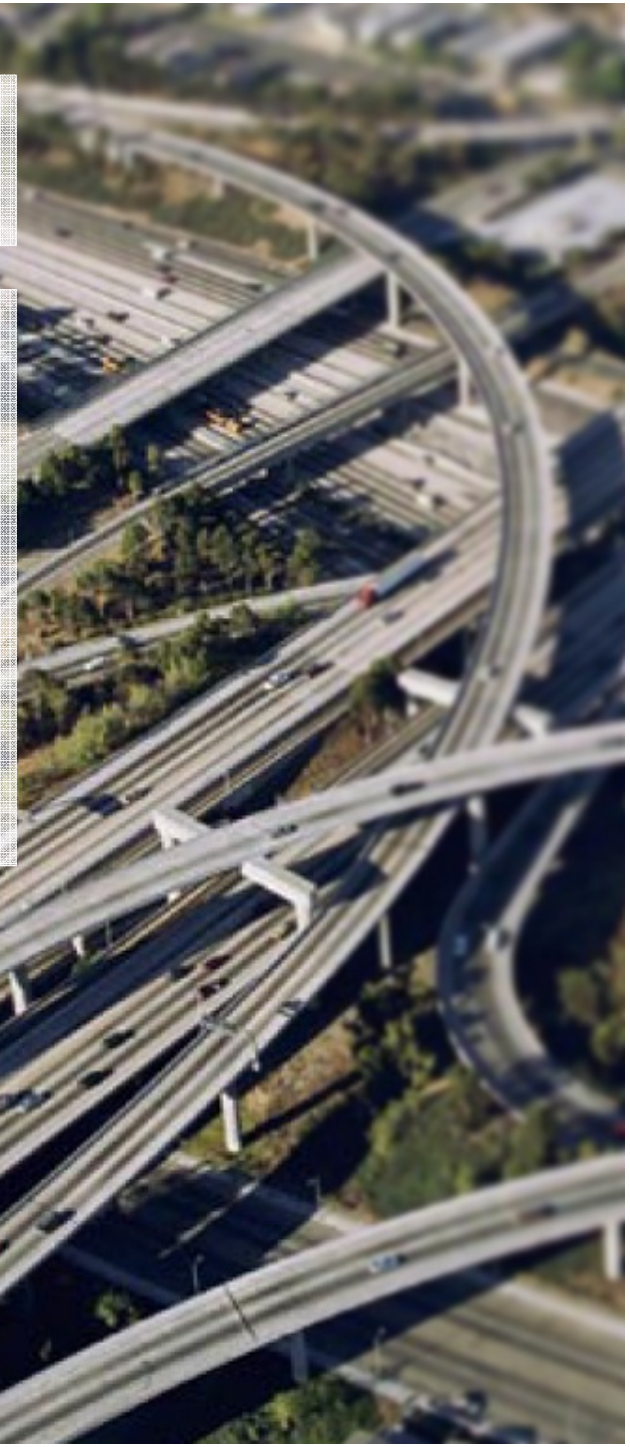
IBM worked with Samarinda Lodge to implement RFID location awareness technology to monitor wandering patients for their aged-care facility.

The location awareness service allows Samarinda Lodge to have a real-time view of patient location, making the safety of both residents and the facility easier to manage while satisfying requirements under the Aged Care Act.

## SMART TRAFFIC

IBM is working with Brisbane, London, Singapore and Stockholm to deploy smarter traffic systems. At least 20 other cities have active bids to do the same.

Stockholm has seen approximately 20 percent less traffic, a 12 percent drop in emissions and a reported 40,000 additional daily users of public transportation.



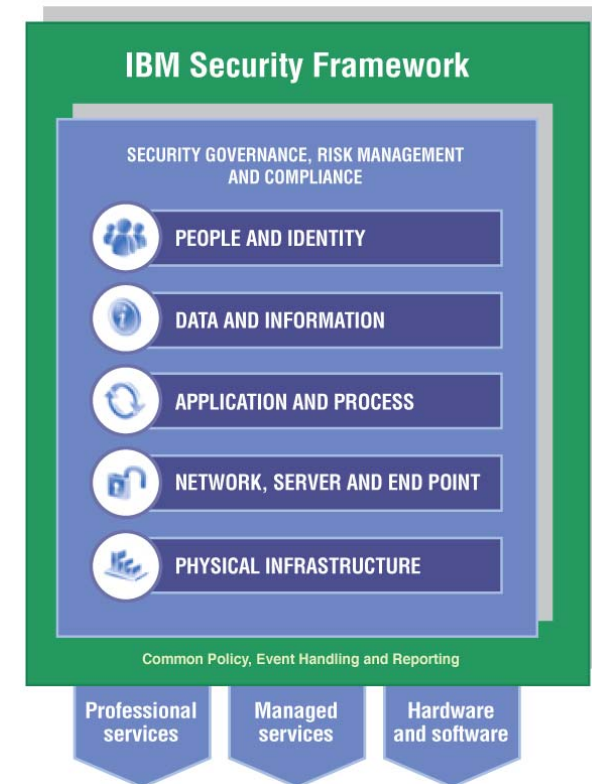


# IBM Security Framework

A comprehensive approach to managing risk end-to-end






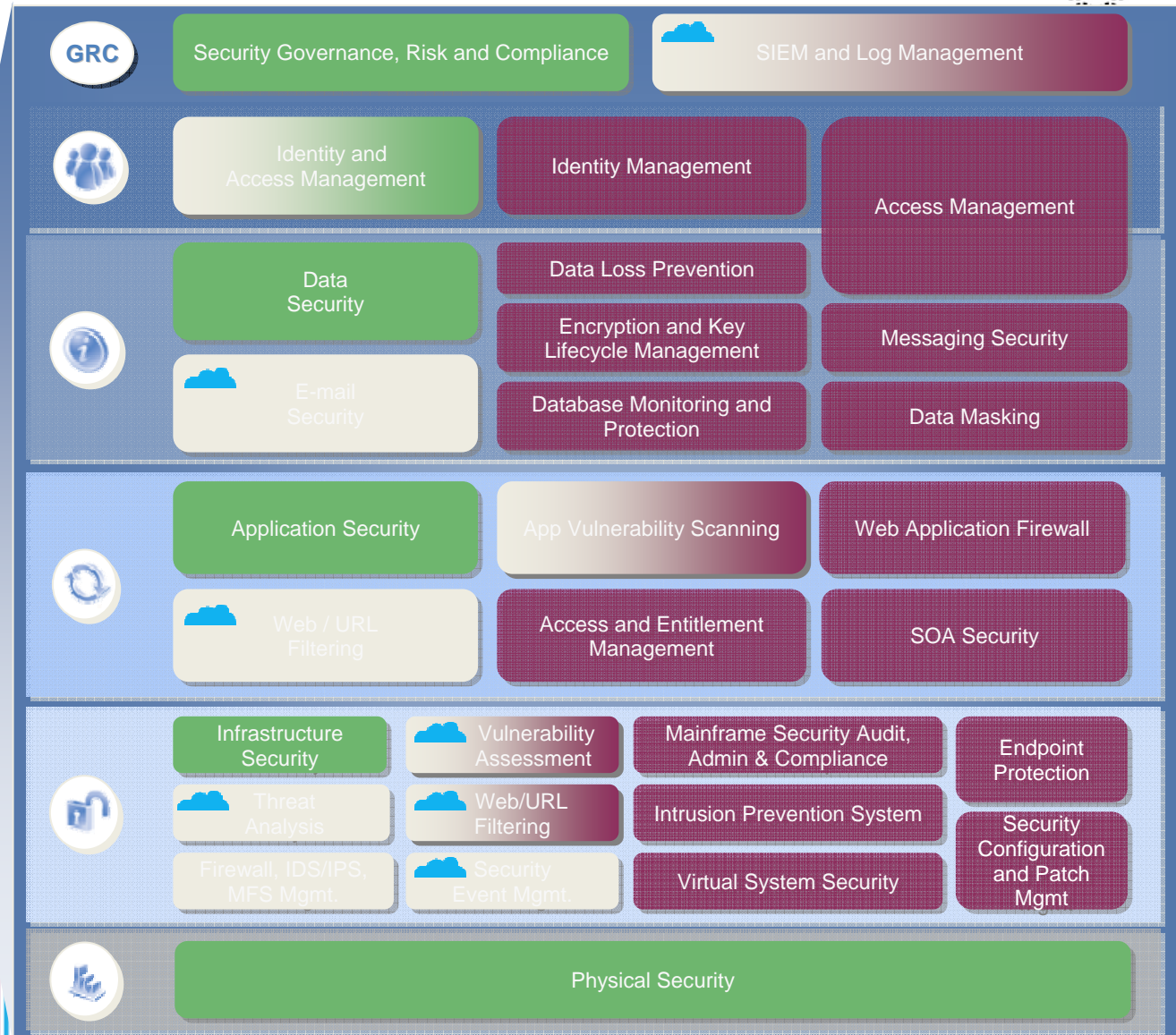
- Security is a growing focus area as organizations try to:
  - Stay ahead of evolving threats
  - Take advantage of new business opportunities
  - Pursue more efficient IT business models (e.g. cloud computing)
- IBM Security Framework, introduced in 2007, is embraced by customers to:
  - Orchestrate their strategy across a broad set of issues in each domain
  - Identify gaps and prioritize investment to meet their security goals
  - Implement security where their specific environment most requires it
- The Framework also guides IBM solutions:
  - Accelerated, customer-driven integrations across IBM brands
  - Improved customer-facing aspects of IBM Security



# IBM security portfolio... *solutions to meet your needs*



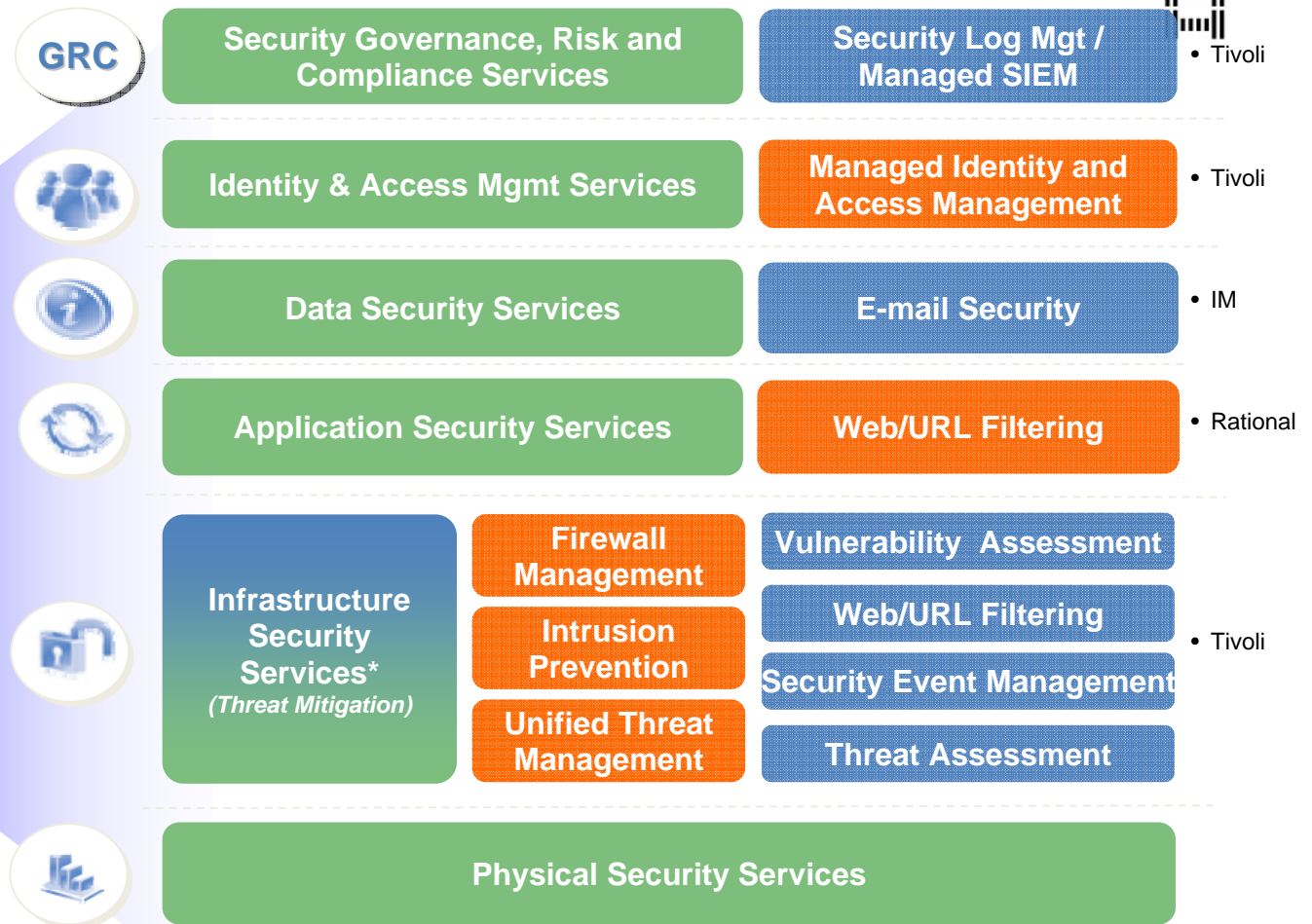
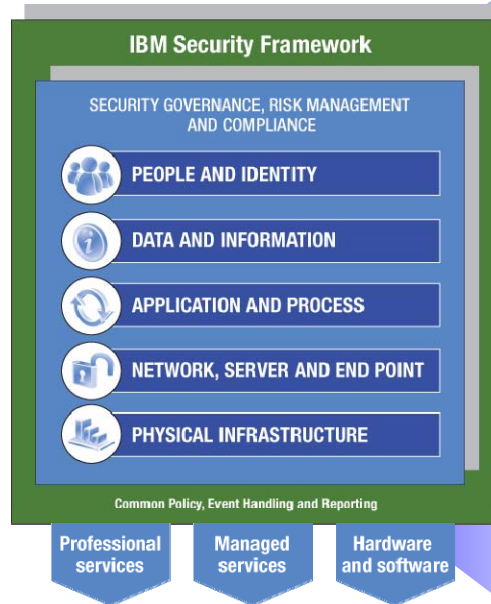
-  = Professional Services
-  = Cloud-based & Managed Services
-  = Products



# IBM Security Services – current portfolio of services



- = Professional services
- = Managed services
- = Cloud-based services



# Cloud compliance: Security Information and Event Management



How to provide a single, integrated product that delivers insider threat, audit and compliance.

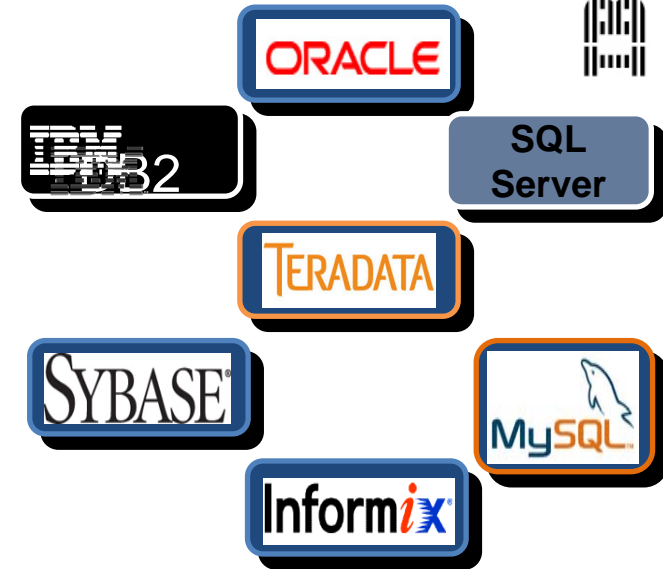
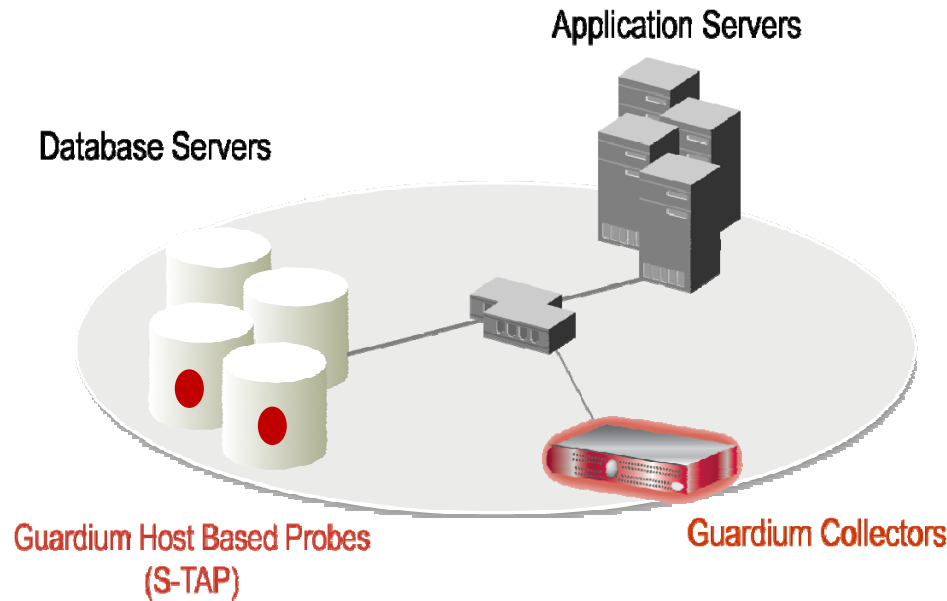
## Key Features

- Single, integrated product
- Log Management Reporting
- Unique ability to monitor user behavior
- Enterprise compliance dashboard
- Compliance management modules and regulation-specific reports
- Broadest, most complete log and audit trail capture capability
- W7 log normalization translates your logs into business terms
- Easy ability to compare behavior to regulatory and company policies
- Multi-tenancy support through scoping

## The IBM Tivoli SIEM Solution



# Real-Time Database Security & Monitoring



- Non-invasive
- No DBMS changes
- Minimal impact
- Does not rely on traditional DBMS-resident logs that can easily be disabled by DBAs
- Granular policies & monitoring
  - *Who, what, when, how*
- Real-time alerting
- Monitors all activities including local access by privileged users



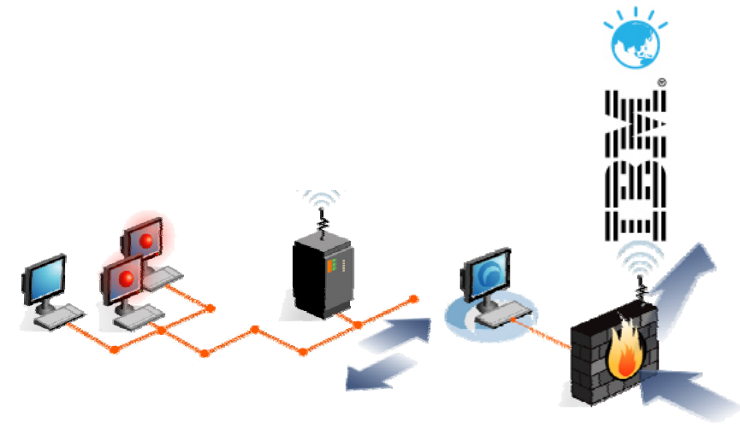
# Firewall, Intrusion prevention systems (IPS), Unified Threat Management

## Solution Overview

Firewall, IPS, IDS and UTM management are designed to reduce the operational overhead associated with the day to day management of core security technologies that provide the foundational elements for an organization's overall security posture. These offerings combine management, monitoring, and maintenance across a variety of leading technologies and service levels.

## Benefits

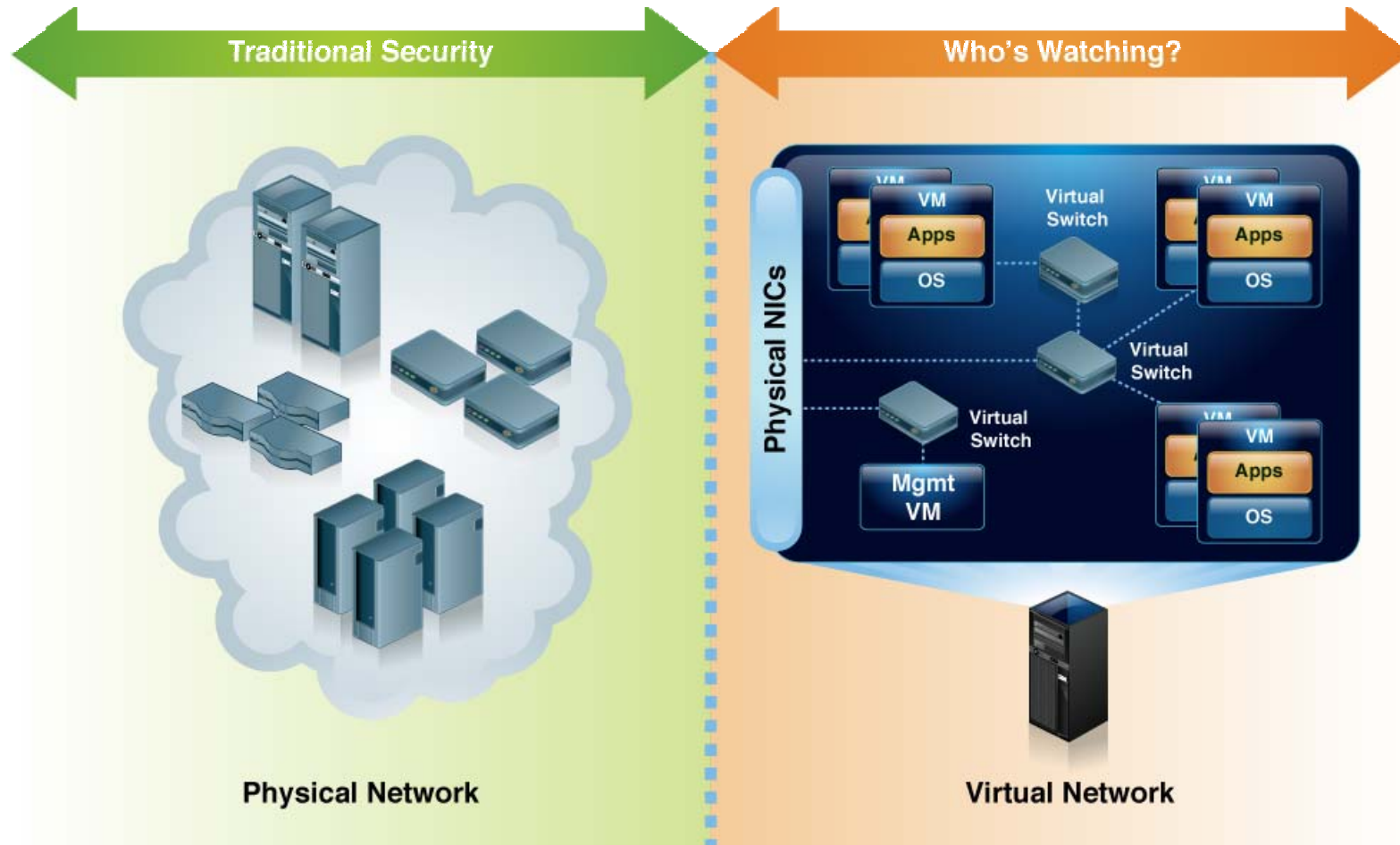
- **Multi-vendor support** that helps maximize your existing security investment
- **Faster time to deploy** and **reduced operational overhead** within multi-vendor environments.
- **Provides 24x7 support** for round the clock monitoring, response, and management
- **Guaranteed service levels** designed to ensure business continuity
- Potential for **lower total cost of ownership (TCO)**, due to reduced staffing requirement and reduced maintenance, infrastructure and training costs



## Key Components

- Support for IBM's market leading technologies – as well as Checkpoint, Cisco, Fortinet, Juniper, McAfee
- Industry leading service level agreements
- Multiple offering packages to ensure flexibility to meet customer needs
- Integrated service views via the IBM Virtual SOC
- Real-time on-demand access to the latest service information
- Comprehensive workflow and reporting capability

# Server and Network Convergence



# Australian Federal Government Cloud based Authentication Hub

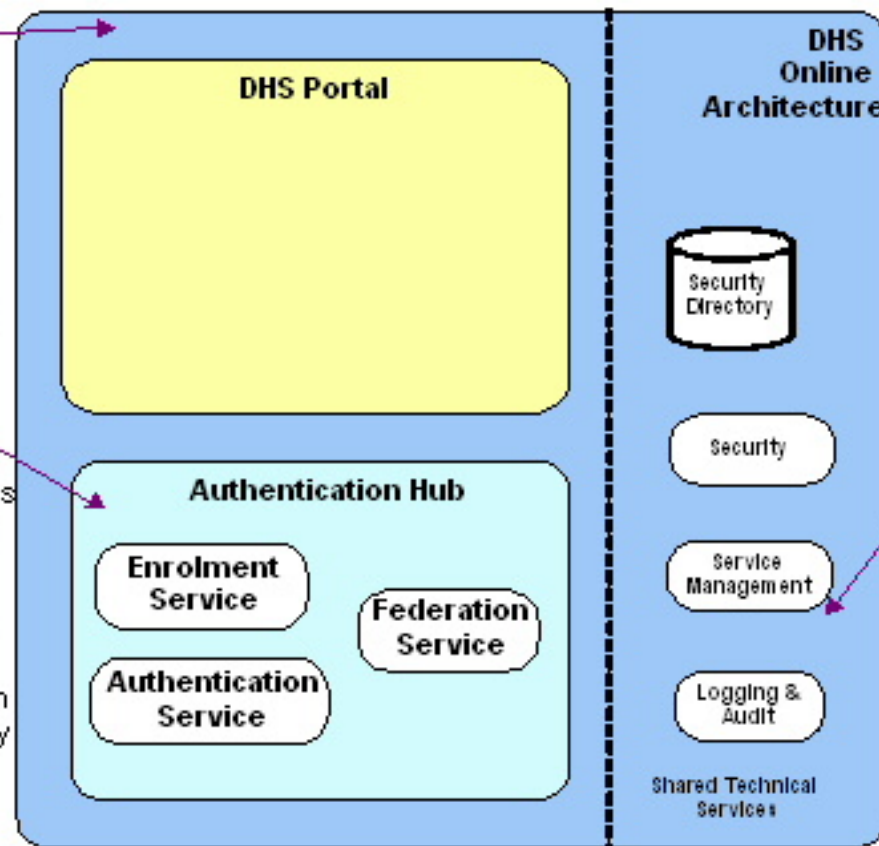


## DHS Online Architecture

DHS Portal and Authentication Hub shares a common online architecture. Authentication Hub is the authentication service for the DHS Portal, it authenticates and enrolls DHS Portal users. Authentication Hub is loosely coupled to DHS Portal, Hub can operate without DHS Portal site operating.

## Authentication Hub Components

*Authentication Service*- verifies the identity of users using online credentials  
*Enrolment Service*- creates users and issues online credentials  
*Federation Service*- manages the generation and verification of security tokens and binding them to various protocols. Is used by the Authentication Service and the Enrolment Service. May also be used in the future to support inter-agency transactions.



Authentication Hub uses common shared technical services used by the DHS Portal including:

- Security Directory (users)
- Security
- Logging & Audit
- Service Management







In a browser, hit  
<http://www.australia.gov.au>

myaccount - Department of Human Services - Windows Internet Explorer

http://myaccount.humanservices.gov.au/wps/portal/dhs\_cap/

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Australian Government  
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myaccount

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myaccount is the secure entry point to Australian Government social and health related services. The Australian Government Department of Human Services manages myaccount to improve the way these services are delivered.

Use this single website to access information and services with a range of Human Services agencies.

 <p><b>Centrelink</b> giving you options</p> <ul style="list-style-type: none"> <li>Make online claims</li> <li>View your letters online</li> <li>Report employment income</li> <li>Manage your Centrelink account</li> </ul>	 <p><b>Australian Government</b> Child Support Agency</p> <ul style="list-style-type: none"> <li>Letters online</li> <li>Income estimate</li> <li>Update care arrangements</li> </ul>	 <p><b>medicare</b></p> <ul style="list-style-type: none"> <li>Update your details</li> <li>Child Immunisation statement</li> <li>Replacement Medicare card</li> <li>Medicare Safety Net balance</li> <li>Medicare tax statement</li> </ul>
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**Your single logon**

If you already use the services provided by Centrelink, the Child Support Agency or Medicare Australia, you can create a new single logon with myaccount and link it to your existing accounts. Then you can logon just once from myaccount to access any of these services.

[Logon to myaccount](#) [Create myaccount \(new users\)](#)

[Logon to myaccount](#)

- Forgotten Password

[More information on the Logon and Create myaccount new look](#)

**News and Announcements**

- 04/03/2009 - SSAT review process becomes clearer
- 20/02/2009 - Re-establishing Identity
- 16/12/2008 - The Carbon Pollution Reduction Scheme

**Search Sites**

Keyword(s)

Search

**Find your closest office**

Locate

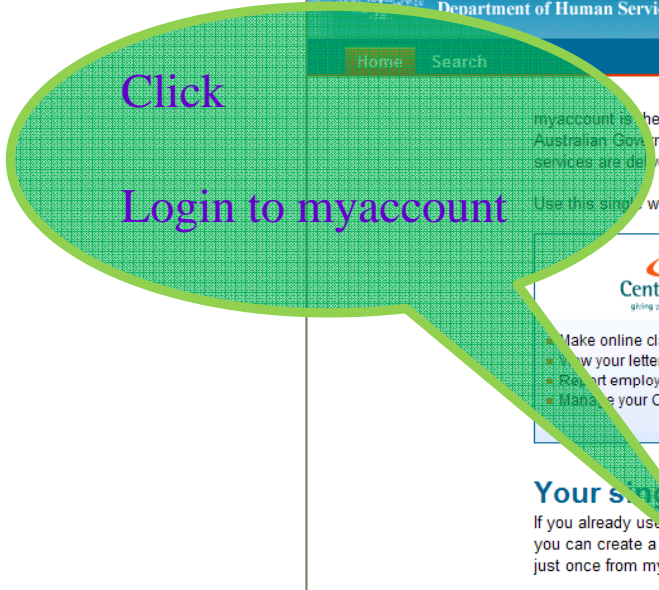
**Calculators**

- Centrelink / Family Assistance Rate Estimator
- Child support calculator (CSA)

**60 second survey**

**Links**

- Australian Hearing
- Australian Taxation Office
- Centrelink
- Child Support Agency
- CRS Australia
- Family Assistance Office
- Health Services Australia
- Medicare Australia



australia.gov.au Hub - Login - Log in Page - Windows Internet Explorer

https://login.australia.gov.au/LoginServices/source/Login.jsp?finalURL=http%3A%2F%2Flogin.australia.gov.au%2FLoginServices%2FAuthenticate.do

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australia.gov.au Hub - Login - Log in Page

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Australian Government **australia.gov.au**  
your connection with government

### Step 1 - Login

1. User ID and password 2. Secret question & answer

**Please enter your user ID and password**

User ID

Password

**Continue** [Cancel Login](#)

(Next: Answer one of your Secret Questions)

[Forgotten your Password?](#)

**Not registered?**

**REGISTER NOW...**

The registration process takes only a few minutes.

**Why Register?**

- > An australia.gov.au account provides easier and convenient access to Australian Government services
- > No need to remember more than one website address to deal with government online
- > Link your online accounts held at other government agencies
- > Use one User ID and password for many government agencies
- > Personalise government services and information to your needs

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Done Internet 100%



Provide your logon details





australia.gov.au Hub - Login - Log in Page - Windows Internet Explorer

https://login.australia.gov.au/LoginServices/source/Login.jsp?finalURL=http%3A%2F%2Flogin.australia.gwy%2FLoginServices%2FAuthenticate.do

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your connection with government

### Step 2 - Login

1. User ID and password 2. Secret question & answer

**Please answer your Secret Question**

Secret Question

My mothers maiden name

Answer to Secret Question

Carbunkle

**Continue** [Cancel Login](#)

#### Why Two Steps?

- > Your information is important and we want to help you protect it as much as possible. We have included the additional step of asking one of your secret questions each time you login.
- > Asking a randomly selected secret question when you login makes it harder for someone to access your account even if they have managed to guess or gain access to your password.
- > [Read more about keeping your account safe](#)

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Provide the correct answer to your previously registered secret question





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https://myaccount.humanservices.gov.au/wps/myportal/dhs\_cap

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myaccount

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### Access

- Centrelink services
- Medicare services

### Welcome Glen

EDIT GREETING

Your last login was on 10/06/2009 22:31:45

### Search Sites

Keyword(s)

Search

### Manage MyAccount

- My Login Settings
- Login / Management History  
(View past logins and changes to your login settings)
- Change Password  
(Update your password)
- Manage Secret Questions  
(Add or replace a secret question and answer)
- Delete Account  
(Remove your User ID, login settings and preferences)
- Logoff

### Calculators

- Centrelink / Family Assistance Rate Estimator
- Child support calculator (CSA)
- 60 second survey

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- 10/12/2008 - Medibank Private and Health Services Australia (HSA) join as part of Government plan to create better health solutions

I am now access to Centrelink and Medicare

Freedom of information | Privacy statement

Done Internet 100%





Medicare Authentication - Transfer to DHS - Windows Internet Explorer

https://www2.medicareaustralia.gov.au/pevt/coin/dhshub/singleSignOnAgreement.do

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Medicare Authentication - Transfer to DHS

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Australian Government  
Medicare Australia

# Your Health

Authentication Page

- [Access Online Services](#)
- [Register for Online Services](#)
- [Reset Password](#)

## Access Online Services

Your Medicare Australia Online Services log on information

Your previous log on time: 10-Jun-2009  
Your previous Password change: 10-Jun-2009  
Your previous bank account details change: 10:45 AM EST 08 July 2008 via Online Services  
Your previous Medicare card address change (year only): 2007 advised to Medicare Australia

[Proceed to Online Services](#)

Last updated 04 March, 2009  
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[Medicare Australia](#) | [Legal Notices](#)

Clicking on the Medicare link, takes me to Medicare's site





Medicare Australia Consumer Authentication - Windows Internet Explorer

https://www2.medicareaustralia.gov.au/pext/coin/pages/onlineServices.jsp

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Australian Government  
Medicare Australia

## Your Health

**Online services**

- Return to Online Services Menu
- View your Medicare Safety Net balance
- View your Organ donor registration details
- View your child's immunisation history statement
- View your Medicare Claims History
- View your Medicare tax statement
- Request a replacement or duplicate Medicare card
- Update your personal details
- Update your banking details
- Update your email address
- Cancel Online Services Registration
- Terms and Conditions
- Online Services FAQs
- Your Privacy
- Return to **myaccount**.humanservices.gov.au

### Welcome to Online Services

Select an Online service from the list below:

- View your Medicare Safety Net balance
- View your Medicare Claims History
- View your Medicare tax statement
- Request a replacement or duplicate Medicare card
- Update your personal details
- Update your banking details
- Update your email address
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- View your child's immunisation history statement

**Return to myaccount page**

Privacy  
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https://myaccount.humanservices.gov.au/wps/myportal/dhs\_cap

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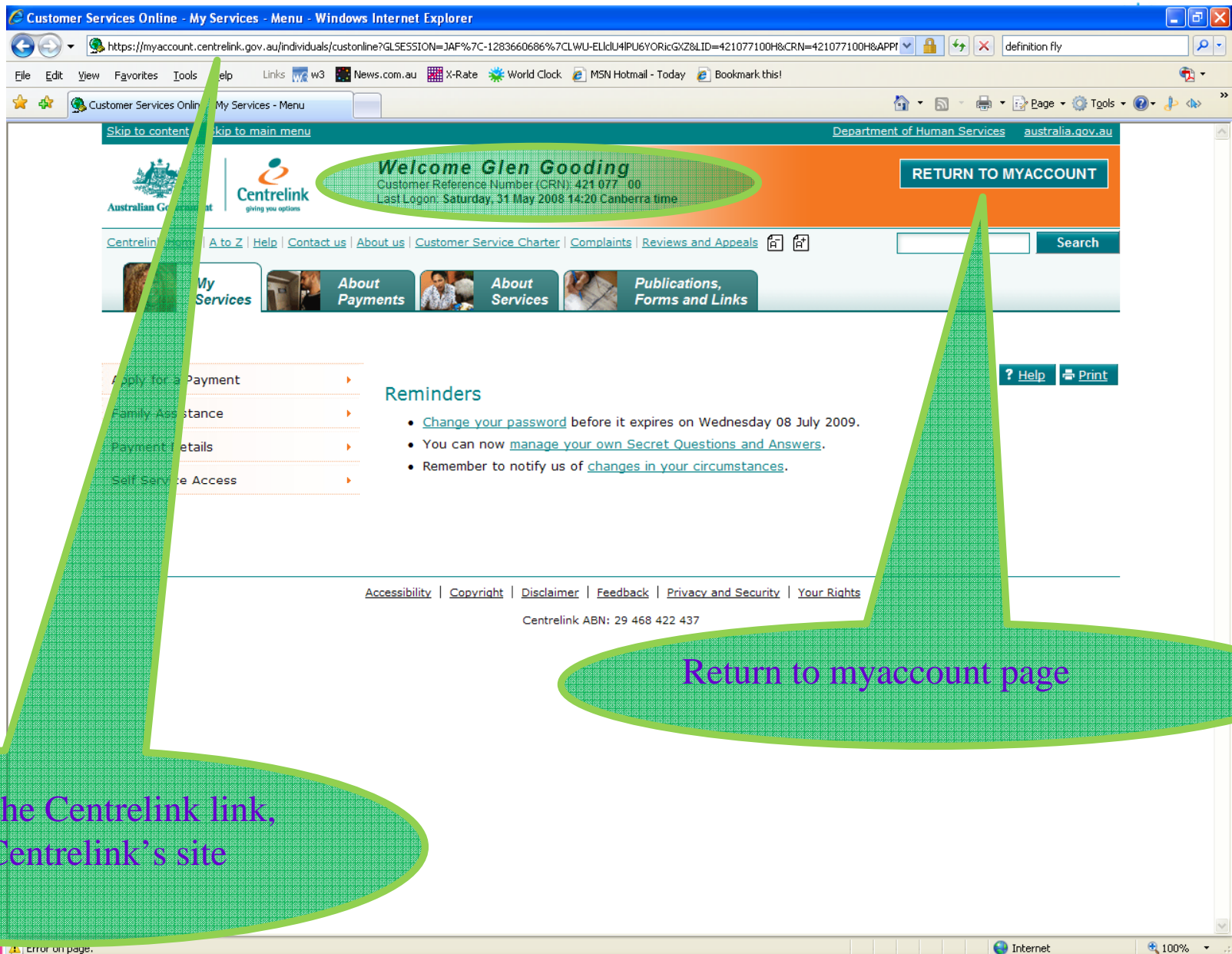
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I have access to Centrelink and Medicare

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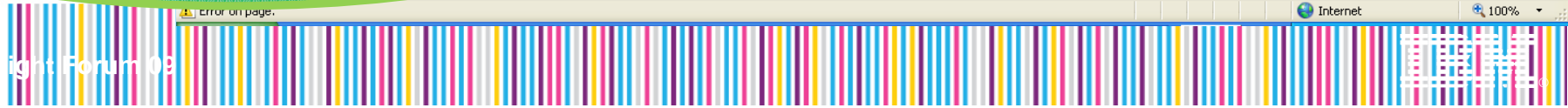
Done Internet 100%





Clicking on the Centrelink link, takes me to Centrelink's site

Return to myaccount page



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https://myaccount.humanservices.gov.au/wps/myportal/dhs\_cap

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Thank You.



**ONE** voice for  
security.

**IBM SECURITY  
SOLUTIONS**

**INNOVATIVE**  
products and services.

**IBM SECURITY  
FRAMEWORK**

**COMMITTED** to the vision  
of a Secure Smarter Planet.

**SECURE BY  
DESIGN**

