Security and Safety in a Smarter Planet

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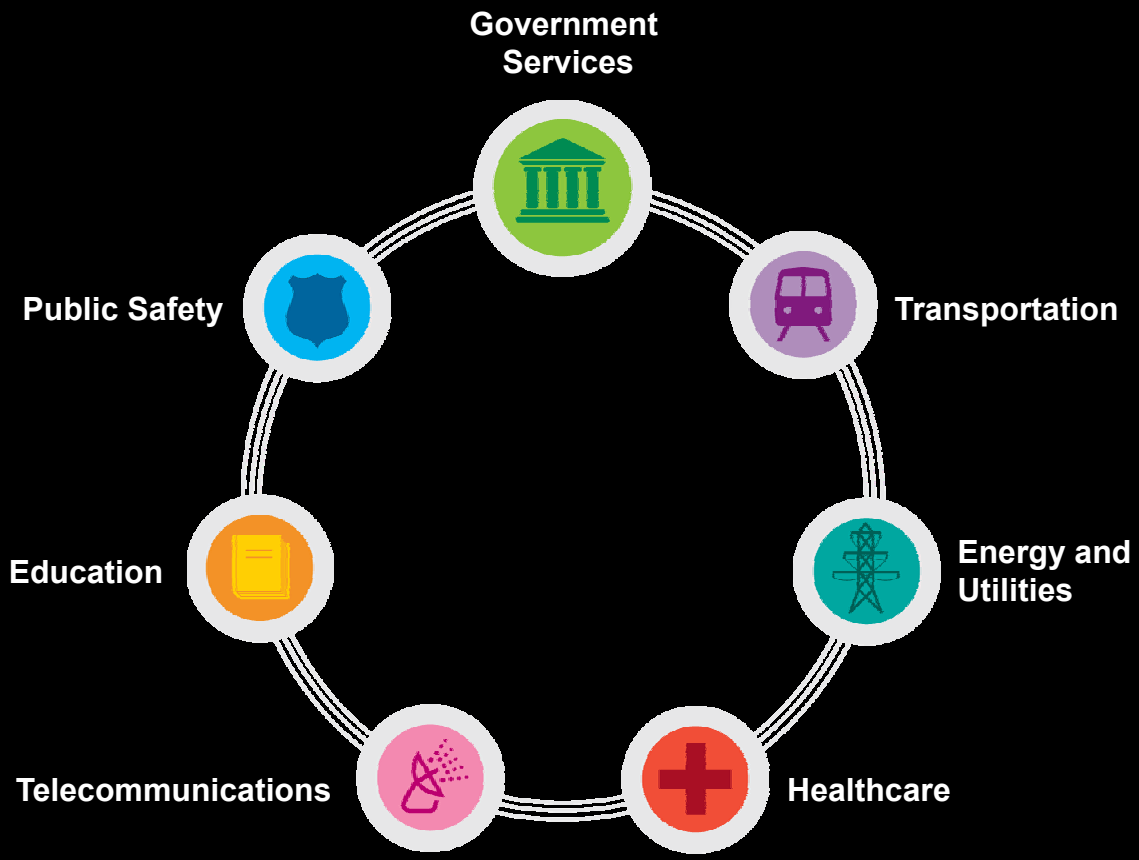
A planet of smarter cities: In 2007, for the first time in history, the majority of the world's population—3.3 billion people—lived in cities. By 2050, city dwellers are expected to make up 70% of Earth's total population, or 6.4 billion people.

The city is a microcosm of the major challenges and opportunities facing the planet today—intensified and accelerated. Here, all man-made systems come together and interact with one another.



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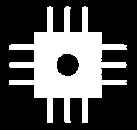
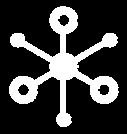
…Time to act because intelligence is being infused into the way the world works.



Our world is becoming

INSTRUMENTED.



Our world is becoming

INTERCONNECTED.

Virtually all things, processes and ways of working are becoming

INTELLIGENT.

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We now have the ability to measure, sense and monitor the condition of almost everything.

30 billion

By 2010, 30 billion RFID tags will be embedded into our world and across entire ecosystems.

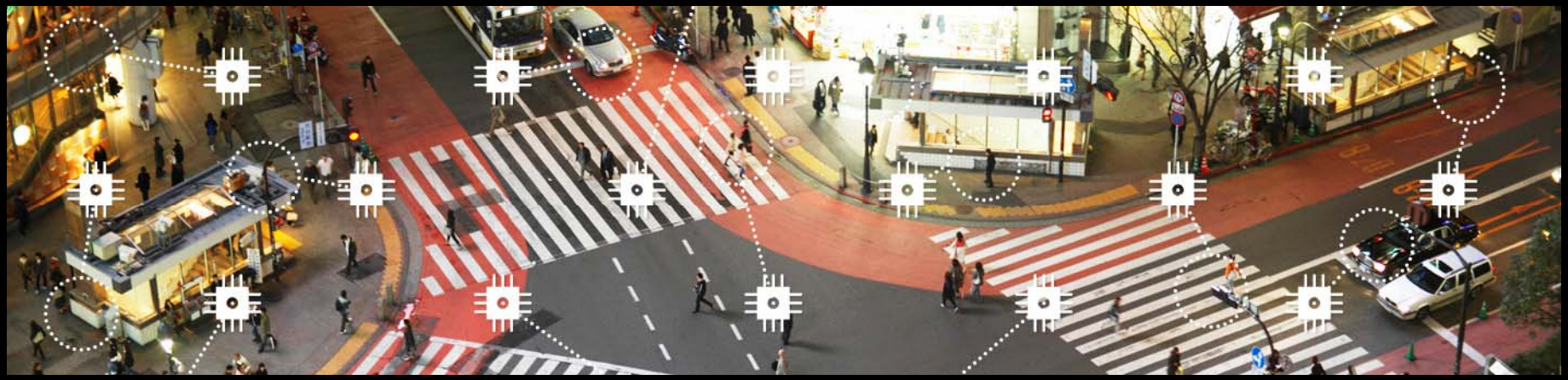
1 billion

By 2010, there will be more than 1 billion camera phones in existence.

85%

Nearly 85% of new automobiles will contain event data recorders by 2010.

Instrumented Interconnected Intelligent



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People, systems and objects can communicate and interact with each other in entirely new ways.

2 billion

There will be an estimated 2 billion people on the internet by 2011.

4 billion

There are an estimated 4 billion mobile phone subscribers worldwide.

1 trillion

Soon, there will be 1 trillion connected devices in the world, constituting an "internet of things."

Instrumented Interconnected Intelligent

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We can now respond to changes quickly and accurately, and get better results by predicting and optimizing for future events.

15 petabytes

Every day, 15 petabytes of new information are being generated. This is 8x more than the information in all U.S. libraries.

1 petaflop

Scientists are working to prevent influenza pandemics by modeling the viruses with a supercomputer that can operate at one petaflop, or one quadrillion operations per second.

1 square kilometer

New analytics enable high-resolution weather forecasts for areas as fine as 1 to 2 square kilometers.

Instrumented Interconnected Intelligent

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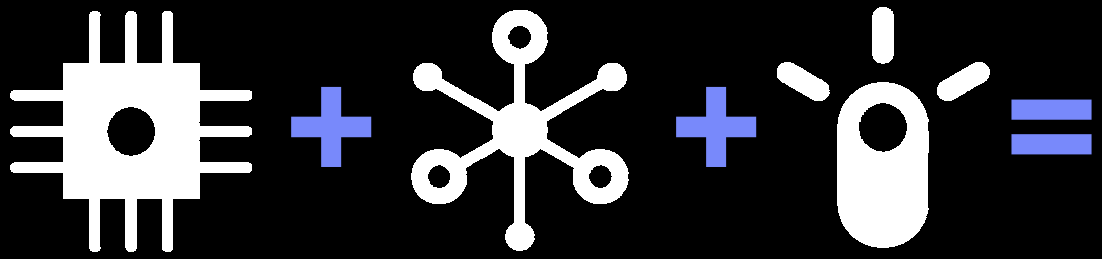

An opportunity for cities to think and act in new ways.

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The Need to Progress is Clear

From terrorism to armed conflict to pandemics to natural disasters, the character of threats is changing.

Today, governments are expected to deliver results and value through secure, private services that are available anywhere at any time.

Collaborating with peer organizations to share resources and knowledge at any level of government (departmental, local, regional or national) is key.

Smarter public safety: A smarter city uses advanced technologies and community-based approaches to anticipate and prevent—not just respond to—crimes and emergencies.

The **NYPD Crime Information Warehouse** gives officers mobile access to more than 120 million criminal complaints, arrests and 911 records, as well as 5 million criminal records, parole files and photographs—resulting in a 27% reduction in crime.

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Safety and Security

Improve border security, public safety, and emergency response through intelligence and collaboration

Public Safety and Homeland Security Agencies need to:

- Enable geographically dispersed teams to collaborate seamlessly
- Enable communication across mobile devices
- Derive intelligence from structured and unstructured information from various sources
- Improve real-time insight to identity criminals and high risk passengers and cargo
- Create plans to respond to terrorist attacks and natural disasters

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Public Safety and Security Focus Areas

Crisis Management

- Support crisis management and planning
- Enable geographically dispersed teams to collaborate

Integrated Intelligence

- Drive intelligence from structure and unstructured data
- Identity of a person-of-interest and his network
- Support an integrated document management system

Real Time Crime Center

- Increase data quality and up-to-date data delivery
- Integrate siloed information to create a single "version of the truth"

Government Trusted Identity

- Defend against threats and attacks
- Comply with new laws for services, identity & privacy

Smart Surveillance

- Improve evidence accuracy and credibility
- Reduce crime via real-time information

Business Partners

virtualagility

thoughtweb

ESRI

ERUCES DATA SECURITY

GoPro

ARCHAIO

EIM

amatra

UnifiedEdge

★ = validated for solutions that leverage the IBM Government Industry framework

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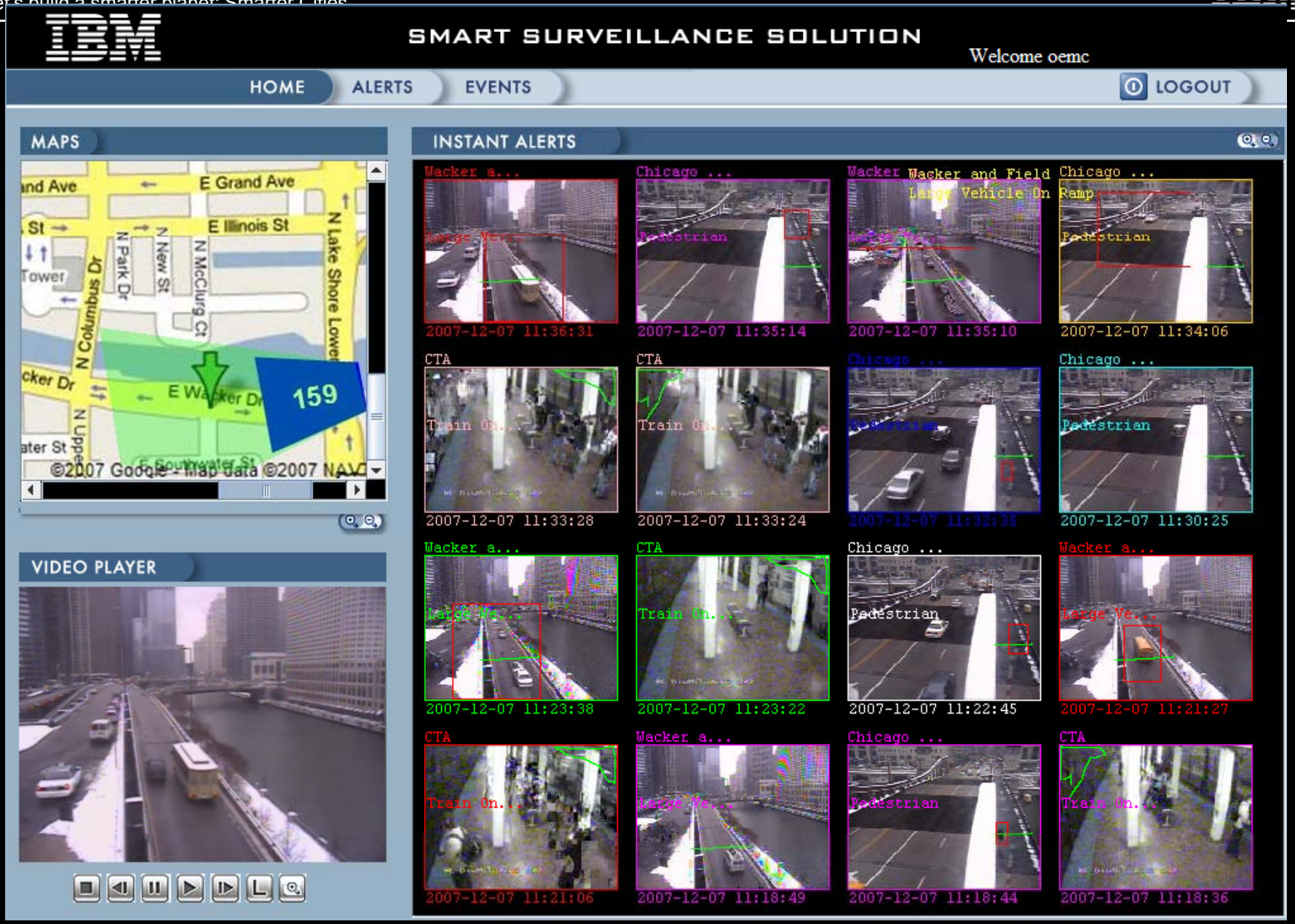

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VirtualAgility OPS (Operations, Planning, Sharing) Center

GERIS Gauteng Emergency Information Resource Services

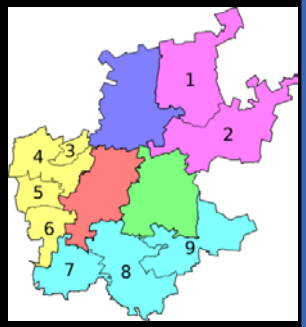
Business Challenge

The Gauteng Province is exposed to an array of hazards that can threaten livelihoods and damage critical infrastructures. The Province will also be hosting the 2010 FIFA World Cup Games.

The local government needed a real time Common Operating Picture and interoperability for its command center and officers in the field to prepare for emergencies and support emergency operations

Project Overview

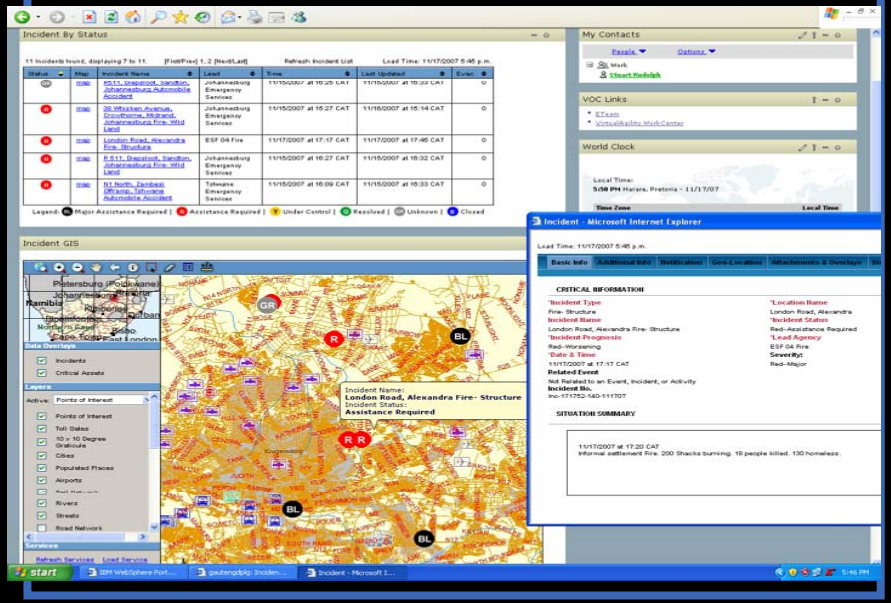
- Industry: Government
- Solution: I3 Framework – Virtual Operations Center (VOC) Solution SBS Name: Public Safety and Security
- Key Business Processes: Planning & Preparedness, Incident Management & Collaboration Enterprise Services for State and County Wide Governments
- Location: South Africa, Province of Gauteng



- Facts: Largest cities Johannesburg and Pretoria, Population 9,688,100
- System Facts: 200 concurrent users responsible for Government man-made and natural disaster management.

Benefits

- Deploy response capabilities
- Locate resources
- Improve planning capabilities
- Develop training scenarios
- Improve accuracy
- Provide timely decision support
- Develop contingency plans
- Manage field data in real time



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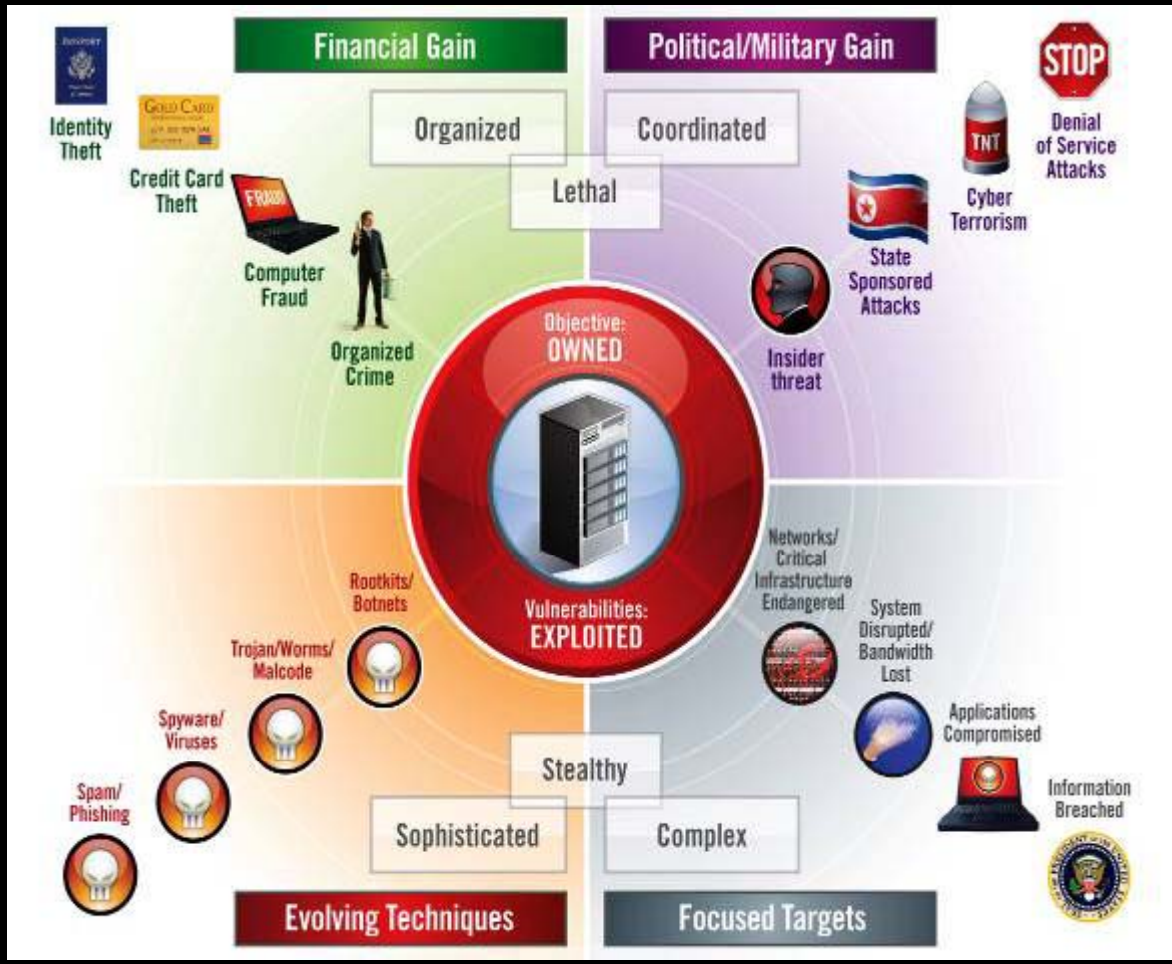
The Evolving Threats of Cyber Crimes

- FBI: e-crime now bigger than narcotics*
- Big business driven by profit
- Innovation to capture new markets (victims)
- Victim segmentation and focus
- Rate of attacks is accelerating
- Form of attack is more malicious



*Børsen, 19-2-2008

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IBM takes a holistic approach to cyber security

Built to meet four key requirements:

- Provide Assurance
- Enable Intelligence
- Automate Process
- Improve Resilience

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SYSTEMS
SOFTWARE
SERVICES
FOR A SMARTER WORLD