Securing the Homeland
Affordable | Layered | Integrated | Secure | Northrop Grumman

- Aircraft & avionics
- Ships & submarines
- Navigation and guidance systems
- Radars and radar systems
- Radios and wireless communications systems
- Satellites & space systems
- High-energy lasers
- Missile defense technologies
- Network and information technology
- Cyber- and physical security
- Systems integration
- Network-centric operations

Northrop Grumman
- Among top three largest Federal contractors
- #1 Federal IT security provider
- #1 Service provider on GSA schedules
- #1 Government-wide Acquisitions Contractor
- #2 Federal IT systems integrator
- 2005 Frost & Sullivan Federal IT Vertical Market Company of the Year
- Most CMMI Level 5 certifications of any company
- Largest Value Added Reseller (VAR) of IT products to the Federal government
- Largest command & control, surveillance & reconnaissance systems provider
- World’s largest military shipbuilder, with western hemisphere’s largest dry dock
- Largest provider of airborne radar systems and electronic combat systems
- More inertial navigation systems in use on aircraft than all other manufacturers combined
How is Northrop Grumman different?

Affordable Solutions

Northrop Grumman has been developing solutions for civil, state and local customers for over fifty years. For us, Homeland Security is not an afterthought – it has been a part of our core business for decades.

We understand that the real problem of Homeland Security is not technology – it’s developing practical, workable solutions.

Solutions that fit without our customers’ financial constraints and regulatory environments.

Solutions that ensure the security and privacy of America’s citizens and guests.
Securing the Homeland
Affordable | Layered | Integrated | Secure

How is Northrop Grumman different?

Layered Defense
Securing the homeland is like securing your home: you rely on technologies such as smoke detectors, fire extinguishers, and alarm systems. You rely on family rules about safe conduct and curfews. You rely on high-tech systems like digital garage remotes, and low-tech systems such as deadbolts.

As homeowner, you bring together multiple systems to secure your home and family. You create a layered defense that includes everything from neighborhood watch programs to cell phones...and even the family dog.

At Northrop Grumman this is what we do. We secure our home by bringing together diverse systems at a national level: everything from tools and technologies to training and simulation, from policy development to operations & maintenance. We call this approach System of Systems thinking.
How is Northrop Grumman different?

System of Systems

The whole is more than the sum of its parts.

By combining processes and people, tools and technologies, policies and regulation, Northrop Grumman is able to help customers transition from isolated legacy systems to modern, fully integrated systems.

This network-centric approach improves information flow, shortens critical timelines, and helps our customers be more effective in their missions.

The whole is less than the sum of its parts.

Integrated systems do more...and cost less. Northrop Grumman’s network-centric approach eliminates the redundancy of legacy systems, reduces total lifecycle costs, and ensures an affordable migration path to meet future requirements.
How is Northrop Grumman different?

Defining the Future

There may always be conflict, and there may always be those who would do America harm, but the United States will triumph in the war against terror – sooner rather than later.

Though the threats to our nation are many, they are finite. America has the resources and the resolve to counter each of these threats.

Using System of Systems thinking we will build a layered defense. Through innovation, we will develop and deploy affordable, practical solutions. Solutions that secure the homeland, promote commerce, and ensure the privacy and rights of our citizens and guests.

In partnership with our Homeland Security customers, we will see a future where America is made safe against threats of terror.
How does Northrop Grumman help secure our homeland?

Biological & Chemical Detection
Northrop Grumman builds devices that detect chemical and biological threats. These devices include small handheld units, vehicle-mounted remote sensors, and in-line hardware for package & parcel inspection. Detection techniques include computerized chemical assays, automated mass-spectrometry, and remote infrared spectrometry.

First Responder Systems
Northrop Grumman has built 911 centers for some of the largest cities and counties in the United States.
One-in-four 911 calls in the U.S. are handled using Northrop Grumman software.
Northrop Grumman has implemented some of the most advanced cross-jurisdiction wireless and data interoperability systems in the country.
How does Northrop Grumman help secure our homeland?

**Border Crossings**
Northrop Grumman makes rapid license plate readers and border crossing systems that help the U.S. facilitate commerce and trade for trusted travelers.

Northrop Grumman geospatial software systems and wireless data devices help track patterns in illegal border crossing, drug trafficking, and smuggling.

**Airborne Border Patrol**
Northrop Grumman is the world leader in delivering advanced Unmanned Aerial Vehicles.

Global Hawk, Hunter, and Fire Scout run the gamut from high-altitude, high-endurance aircraft capable of carrying advanced sensor and communication payloads...to smaller, low-altitude, low-observable aircraft suitable for reconnaissance missions over rugged terrain and America’s coastlines.
Securing our Cities | Borders | Waters | Skies | America

How does Northrop Grumman help secure our homeland?

Ports and Harbors
Northrop Grumman’s Centurion system integrates fiber-optic sonar, marine radars, and shipboard identification systems to detect and identify not only surface vessels, but also underwater vehicles and even lone divers.

The Hawkeye command & control system integrates radars, cameras, and computing systems to provide situation awareness in and around U.S. ports and harbors.

Deepwater
The Integrated Deepwater System program is a Coast Guard initiative to recapitalize the Coast Guard fleet. Over a 20-year period, the Deepwater program will replace or upgrade the Coast Guard’s entire fleet of deepwater surface ships and aircraft. The Deepwater program is being executed by Integrated Coast Guard Systems (ICGS) a joint venture formed between Northrop Grumman and Lockheed Martin.
Securing our
Cities | Borders | Waters | Skies | America

How does Northrop Grumman help secure our homeland?

Airport and Air Traffic Safety
Northrop Grumman helps the FAA secure its air traffic and information technology systems. We support the FAA throughout the lifecycle of its automation systems, from requirements definition through ongoing operations.

In airports, Northrop Grumman helps ensure that baggage screening stations are being deployed and operated reliably to improve security and reduce passenger delays.

Guardian
Shoulder-fired missile launchers have long posed a threat to military aircraft. As industry leader in countering this threat, Northrop Grumman is developing technologies that can protect civilian and commercial aircraft as well. Infrared light is used to confuse the guidance system of an incoming missile, so the missile can no longer track a would-be target.
How does Northrop Grumman help secure our homeland?

Securing America

Northrop Grumman offerings cover the spectrum from threat detection to emergency response. Additional Northrop Grumman solutions include:

- Statewide and Federal IT systems for monitoring public health data
- Software that helps detect suspicious financial transactions
- Facility, campus and perimeter security systems
- Identity management and access control systems, such as biometrics, public key infrastructures, and smart-card systems
- Large, high-security wide-area networks for Homeland Security and other civil Federal customers
- Cyber-Security services, ranging from vulnerability assessment to intrusion detection and training & simulation
Program Profile – IDENT1

- Project Title: NAFIS Nov 1994 to Mar 2005; IDENT1 – Awarded 30 Nov 2004
- Project Objective:
  - Provide advanced biometric identification technology as part of an integrated computer system that links more than 57 police forces and agencies in the U.K.
  - Implement national palm capability, add Scotland, and design, develop, and deploy a Strategic Infrastructure Services Platform (SISP)
- Customer: Police Information Technology Organization (PITO)
- Period of Performance: December 2004 – March 2013
  - 8 year contract for service delivery
  - Options for extension => maximum duration of contract = 11 years
- Major Subcontractors:
  - SAGEM S. A.; Phoenix IT Services Ltd.; Energis Communications Limited; Smiths Heimann Biometrics
- Unique Contract Provisions: Service Level Requirements (SLR)
  - Monthly service payments based on service level scores
Northrop Grumman’s Role on IDENT1

- Prime Contractor / System Integrator / Design Authority
- Responsible for the delivery of the IDENT1 system
  - Design
  - Development
  - Implementation
  - System Security
  - Installation
  - Software Deployment
  - Maintenance
  - Service Support
  - Provision of Comms
  - Training
  - Business Continuity
  - Project Management
  - Strategic Vision

Program: IDENT1
Overview February 18, 2005
NAFIS Overview

Booking Stations (200+)

- Livescan Units Electronically connected to Bureaux

Central Site #1

- National finger and palm print database
- One of the world’s most powerful fingerprint matching capabilities
- PNC/Phoenix (criminal records) interface

Central Site #2

Bureaux Sites (46)

- Server, scanners, and from 2 to 50 workstations
- High system availability
- 24 x 7 Help desk support
- Fast response times
IDENT1 Evolution of NAFIS

**Legacy**

- England & Wales (NAFIS) Service
  - 200+ England & Wales Livescan
- Scotland Service
  - 42 Scotland Livescan
  - National Palms
  - New, Updated HCI
  - SISP Architecture
  - >8X Higher Search Capacity
  - Higher Accuracy and Availability
  - 2X Workstations & Peripherals
  - Built-in Continuous Improvements for: Response Times, Accuracy, Availability, Workload
  - Integrated Feature Management

**Current NAFIS Service**

- IDENT1 Service (Dec 2004 – Mar 2013)
  - IDN1 Evolution of NAFIS
  - Scotland Livescan
  - National Palms
  - New, Updated HCI
  - SISP Architecture
  - >8X Higher Search Capacity
  - Higher Accuracy and Availability
  - 2X Workstations & Peripherals
  - Built-in Continuous Improvements for: Response Times, Accuracy, Availability, Workload
  - Integrated Feature Management

Northrop Grumman Commercial-in-Confidence
IDENT1 Strategic Identification Services Platform

Apply Fusion to Improve Identification Rates

Create Inclusive Framework to Eliminate Dependencies and Improve Accuracy

Support Modular Evolution of System

Fusion

Multi-Model

Uni-Model

Fingerprints

Mugshots

DNA

Other Biometrics

NEC

Cogent

PrintTrak

SAGEM

AFR

Simplify Interfacing to External Systems

Provide Timely Information at Point of Decision

Provide Integrated Feature Management

External Systems

Local Bureau

IND

Scotland CHS

PNC Phoenix CCH

EIU

Mobile Users

Web Access

System Components

DBMS

Image Tools

HCI

COTS

Northrop Grumman Commercial-in-Confidence