

# Capabilities Statement



3e Technologies International, Inc. (3eTI), a U.S. owned company, develops wireless wide area, networked solutions for customers requiring secure, reliable connectivity for their video, data, and voice communications. 3eTI provides bi-directional access to wired, wireless, and other networks where the sensors, controls and decision makers need to be ...even places where wired, cable or satellite are not possible or affordable.

3eTI specializes in the development of easily installed, rapidly deployable, integrated fixed, portable and mobile networking solutions for permanent, temporary, or emergency command and control communications.

Customers around the world count on 3eTI for rapid technology integration and the ability to deliver network-ready solutions:

- Mesh networks providing a scalable, wireless mesh solution for Advanced Metering Infrastructure (AMI) – from smart grid to military base applications – for better energy management and higher power quality at a lower cost.
- Integrate physical and cyber security systems solutions enabling critical infrastructure protection. We take data from modern and legacy sensors then apply advanced intelligence and video analytics so our customers can identify and isolate threats in real-time with confidence.
- Mix video, data, and voice information via open standards to facilitate connecting computers, cameras, controls, and sensors through hardware and software management for open architecture network applications.
- Transform raw sensor data into actionable intelligence. With 3eTI solutions customers can integrate, analyze, and disseminate a wide range of sensor data (such as map based (GIS) and GPS displays) into a full geospatial operational picture.
- Secure federal and industrial wireless communications for sensitive information.

Governments, defense, public safety organizations, cities, rural communities, institution campuses and industry all rely on 3eTI to provide secure, rugged and robust wireless networking solutions for the most challenging environments — outdoor, shipboard, mobile and vehicular.

#### Office Locations

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Solutions:



## Federal – Capabilities and Services 3e



#### **Defense Solutions**

3eTI has more than 15 years experience in developing secure, reliable wireless solutions for the Department of Defense, U.S. Navy and a variety of government organizations worldwide. 3eTI can develop a custom solution as well as tailor an off-the-shelf solution to meet the rigorous needs of governments, militaries or any entity that desires reliable, validated wireless security.

#### **Installation Security**

3eTI offers stationary, fixed solutions and mobile/ portable video surveillance applications for monitoring military installations, access points, critical infrastructure and other outdoor venues. 3eTI's integrated video surveillance, access control and intrusion detection solutions including the Virtual Perimeter Monitoring System™ — can provide continuous security via a wireless video feed from a vehicle, a building or a portable tower. Networked, centralized monitoring center provide early warning, situation awareness and rapid response for impending threats.

#### Shipboard WLAN

3eTI's products enable the communication of information throughout large military vessels and provide communications between vessels and ports. 3eTI's products are ideal for creating a secure wireless mesh network that provides for continuous communication during marine interdiction exercises.

#### Base Utility Monitoring and Control

3eTI's multi-mode secure wireless access points provide interconnection of building-level, advanced metering solutions in support of the Energy Policy Act (2005) and the Energy Independence Act of 2007. 3eTI networked systems measure energy usage and allocation with real-time energy resource management to reduce energy consumption. 3eTI wireless connectivity of smart meters with meter level programming help facility and installation managers manage energy usage, quality and cost.

#### **Incident / Public Event Management**

3eTI offers products that are portable and can be set up on a temporary basis to enable event and security personnel to communicate when temporary, secure wireless communications are needed. 3eTI's products are ideal for creating a secure wireless mesh network that provides for continuous above and below ground communications during urban building collapse, rural mine rescue operations or shared voice data and video during large public events.

#### **Public Safety**

For first responders, connecting military personnel with state and local authorities or improving emergency response and enhancing communications between emergency response teams and public safety personnel is mission critical. 3eTI's wireless products and sensor management solutions collect real-time data from multiple sensor inputs, aggregate the data, and convert it to actionable information for incident response teams. This SensorNet approach allows data to be collected from a large number of sensors and improves response times during critical incidents.

#### Transportation Security and Movement Control

Because transportation infrastructure is often a target of terror attacks, enhancing security is essential in protecting the traveling public. 3eTI's wireless mobile products are engineered specifically for vehicular rail and terminal installation and operation and can communicate voice, video and data with dispatch or other monitoring stations with Wi-Fi wireless broadband access.

#### **Logistics Operations and Controls**

3eTI solutions' demanding operating conditions provide real-time, reliable data to monitor fast, cyclic processes, track the location of component parts and valuable assets for storage facilities, transportation and logistics operations and connections to distributed control systems (DCS).



# Industrial and Commercial -Capabilities and Services



#### Wireless Sensor Network Solutions

3eTI's Wireless Sensor Networks\_are high-assurance, RF units that meet the International Society of Automation (ISA) standards for industrial wireless control, specifically ISA 100.11a and associated standards. 3eTI's secure mesh networks offer OEMs a solution to getting "Anydata, Anywhere, at Anytime". 3eTI's industrial meshed networks interconnect any industrial computer, laptop, PDA, telephone, camera, SCADA system controls, as well as, any sensor including acoustic, seismic, nuclear, biologic, chemical, temperature and motion sensors.

#### CyberFence Solutions

3eTI's CyberFence solutions create a security perimeter around cyber assets that cannot be pinged, hacked or compromised, and yet can be routed through the internet. Creating a "dark node" by 'cloaking' the presence of sensitive systems, critical industry infrastructures now have a security solution that offers a simple straight-forward installation. A key attribute of the CyberFence solution is that they require no additional expenses or "IT" training for personnel. 3eTI's CyberFence solutions provide an out-of-the-box, turn-key security experience – simple, straight-forward, secure. 3eTI's CyberFence meets NERC CIP-005 requirements ensuring perimeter security for remote utility sites.

#### VirtualFence Solutions

Today's world requires diligence and quick response ensuring safety of facilities and reducing potential threats. 3eTI's VirtualFence is an automated wireless video server that enables valuable personnel to focus on areas of critical concern for immediate response only when needed. VirtualFence creates an automated visual surveillance system that monitors physical property autonomously and alerts the control station operator through any available communication method (e.g., modem, DSL, leased line, 3G/4G wireless, direct microwave, etc.) only when an intrusion is in progress. 3eTl brings proven defense industry experience to the industrial space with a FIPS 140-2 certified system. In addition to our proven DOD and FIPS level security, 3eTI's VirtualFence meets NERC CIP-006 requirements ensuring perimeter security for remote sites.

#### **Industrial Control**

3eTI solutions for industrial applications and demanding operating conditions provide real-time, reliable data to monitor fast, cyclic processes, track the location of component parts and valuable company assets for manufacturing, utilities and refineries, warehouses and storage facilities.

#### **Industries that Benefit from 3eTI Solutions**

**Smart Grid Remote Sites & Field Locations Industrial Processing Plant** Water Treatment Facilities Water Towers

**Pumping Stations** Tank Farms **Electric Transmission & Distribution Substations** Municipalities



## Real World Experience



#### U.S. Naval District, Washington, D.C.

Critical Area Protection / Military Installation Management Solutions

3eTI's Virtual Community Evaluation Complex solution combined security software, middleware, sensors into a wireless network to help the Navy with force protection, improved public safety, critical infrastructure security and efficient base operations.

#### U.S. Army, Fort Bragg and Fort McNair

Oak Ridge National Labs, SensorNet

3eTI designed a post-wide, integrated wireless video and sensor surveillance system that monitored equipment throughout the base and sent data to an Emergency Operations Center, enabling a coordinated early warning and response in the case of a WMD threat or attack.

#### U.S. Marine Corps, Iraq

Critical Area Protection System

3eTI developed a solution using relocatable wireless video cameras with sensors to monitor threats remotely and enable military personnel to thwart impending attacks.

#### U.S. Secret Service, Presidential Inauguration

Wireless Video Surveillance

3eTI developed a solution to remotely monitor activity on the National Mall in Washington, D.C., to help protect the President and other VIPs during the inauguration. The solution entailed installing a series of video cameras and wireless video servers on and within vehicles used in the procession.

#### U.S. Army, Black Hawk Helicopter Maintenance Program

Flight Line Maintenance

3eTI helped to streamline maintenance operations by installing FIPS 140-2 secure wireless communication and remote diagnostics between the flight line and the hangar.

#### U.S. Navy, NAVFAC AMI Program

Automated Metering Initiative

Over 5,000 3eTI Air Guard 523-3 are being installed at Navy installations in NW, SE, SW, and Naval District of Washington regions as networked systems measuring energy usage and allocation. These secure network systems provide real-time energy resource management to reduce energy consumption and security to prevent unauthorized access and tampering. A successful pilot wireless network installation in Ventura County, CA connects over 300 end points. The metering network delivers industry leading technology, low unit cost, and faster, cheaper network installation for a quick, quantifiable return on investment.

#### Honeywell

Industrial MultiNode Product

3eTI OEMs a wireless mesh networking product to Honeywell Process Solutions that has been sold into large commercial sites for secure wireless monitoring of industrial process and control systems.

#### **Omnex**

Industrial Wireless Access Points

3eTI is an OEM supplying our secure wireless client and access point technology for use in factory automation environments.



### **Partners**



#### **Honeywell International**

Honeywell is a Fortune 100 diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control technologies for buildings, homes, and industry; automotive products; and specialty materials. Honeywell Automation and Control Solutions improve business performance and increase safety, reliability and efficiency. Honeywell industrial solutions protect people and assets while optimizing productivity and reducing costs

Honeywell

#### **Intel Corporation**

Intel Corporation is a semiconductor chip maker engaged in developing advanced integrated digital technology products, for industries, such as computing and communications. Its primary component-level products include microprocessors, chipsets, motherboards, wired and wireless connectivity. The Company offers products at various levels of integration, allowing its customers the capability to create computing and communications systems.



#### Cisco Systems, Inc.

Cisco, a worldwide leader in Internet networking, develops industry-leading products and solutions in areas such as routing, switching, IP communications, wireless LAN, network security and video systems.



#### Smiths Detection LiveWave™

Smiths Detection is a global leader in threat detection and screen technologies for military, transportation and homeland security applications.



#### ObjectVideo™

ObjectVideo provides intelligent video analytics management systems for viewing live video, real time alerts, performing searches and alarm verification prior to dispatch.



#### Mango DSP

Mango DSP is a developer and manufacturer of intelligent video surveillance devices. Mango's encoder, DVR and IP Camera technology powers many of the OEM solutions sold by Fortune 500 companies in the Homeland Security, Defense, Retail, Mobile and Transportation markets. Mango's systems are powered by Mango IVS™ (Intelligent Video Server) Operating System. This patent pending technology combines state of the art H.264 encoding with 3rd party analytics.



#### **BelAir Networks**

BelAir Networks is a wireless networking equipment manufacturer of indoor access points and outdoor base stations. BelAir integrates 3eTI's inline encryption module into their product to meet FIPs certification requirements.



#### Global Secure Systems Ltd. (GSS)

GSS is a supplier of IT security solutions to enterprises of varying size and sector. The company offers a wide range of leading-edge solutions that are continually developing with new emerging threats to business.



#### Mesh Networks

Cities, municipalities, facilities and campuses can be configured with a 3eTI wireless, indoor and outdoor mesh network to create access points (hot spots) to private networks, the public Internet or the Global Information Grid. Mesh networks of 3eTl Air Guard™ wireless access points (AP) operate so each AP may act as an independent relay to other network access points, regardless of whether it is connected to another network or not. 3eTI Wireless Mesh Networks are:

- self-healing with continuous connections reconfiguration and around broken or blocked paths "hopping" up to 30 miles until the destination is reached.
- self-forming, authorized allowing mobile sensors and computer equipped vehicles to enter and leave network without manual the reconfiguration. Just power them up and turn them on.

#### **Commercial WLAN**

These products keep confidential information secure and protect vital information for all types of business operations, industrial facilities and base operations.

#### Sensor Monitoring and Asset Tracking

3eTI's wireless networking products collect information from a variety of cameras, sensors and RFID devices to help monitor equipment, increase efficiency and reduce maintenance costs.

#### **WLAN Client**

For entities who supply end-to-end secure wireless solutions through a value-added distribution network, 3eTI's client software and devices are interoperable with various WLAN infrastructures and support the most stringent WLAN government security standards.

#### Wireless Video

3eTI's wireless video products help monitor and protect physical assets / personnel by providing real-time outdoor video surveillance.

### **Products and Certifications**



3eTI engineers, manufactures and installs custom and off-the-shelf secure reliable wireless solutions for government, military and industrial customers worldwide. 3eTI's secure wireless 802.11 standards based product line features the Air Guard™ mesh network, access point, bridge / repeater products, cryptographic software and in-line encryption devices.

3eTI has received National Institute of Standards and Technology (NIST) FIPS 140-2 Validation<sup>™</sup> and Common Criteria and Wi-Fi alliance certification for several products (see chart below). All 3eTI systems are NSA Suite B upgradeable.







ireless Surveillance overnment WLAN apid Deployment ecurity Software esh Networking obile / Vehicular /LAN Client

i-FI Interoperability ommon Criteria

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Number	Product Description		Product Categories Certified								
3e-523-3	FIPS 140-2 Outdoor Wireless Interface	•	•								
3e-523-F2	FIPS 140-2 Wireless Tri-Mode Module	•	•						•		
3e-5253i-F	Wireless Data Link	•			•						
3e-523S-1	Portable Adaptive Comms (PAC-Link)										
3e-525A-3	FIPS 140-2 Outdoor Dual Radio Wireless Mesh Node	•	•	•	•	•			•	•	•
3e-525A-3MP	FIPS 140-2 Outdoor dual Wireless Mesh Node		•	•		•			•		•
3e-525Ve-4	FIPS 140-2 / 802.11i Video Server and Wireless Mesh Access Point / Bridge	•		•	•				•		
3e-525i-11D	Industrial Multinode		•								•
3e-525S-3	Industrial OEM Model		•								•
3e-636S-1	FIPS 140-2 OEM Encryption Module										
3e-636S-2	FIPS 140-2 In-line Encryption Module										
3e-010F-A3	FIPS 140-2 / 802.11i Cryptographic Client Software (for Atheros)	•	•	•	•	•	•	•	•	•	
3e-010F-B-3	FIPS 140-2 / 802.11i Cryptographic Client Software (for Broadcom)	•	•	•	•	•	•	•	•		
3e-010F-C-3	FIPS 140-2 / 802.11i Cryptographic Client Software (for Centrino)	•	•	•	•	•	•	•	•	•	
3e-010F-D-3	FIPS 140-2 / 802.11i Cryptographic Client Software (for Intel Napa / Duo)	•	•	•	•	•	•	•	•		
3e-010F-N-3	FIPS 140-2 Cryptographic Client Software (CISO all in one)								•		
3e-030-2	FIPS 140-2 Security Server	•	•	•	•	•		•	•		
3e-040-2	Wireless Management System	•	•	•	•	•		•			

#### Security Software and In-Line Encryption Devices

3eTI's security hardware and software are the ultimate in PC and laptop security across a military installation or campus-wide wireless network.

#### Mobile and Vehicular

3eTI's mobile and vehicular products provide secure wireless transmission of voice, video and data from military vehicles, police cars, fire trucks, ambulances, buses, trains, and portable devices that can be carried by fire / rescue, surveillance and military personnel.