



## FLY-AWAY KITS

# COMPLETE SOLUTIONS FOR CYBER OPERATIONS, TRANSPORTABLE PRIVATE CLOUD, EDGE COMPUTING

A Fly-Away Kit (FAK) or Expeditionary Kit is a self-contained suite of equipment (hardware and software) for DoD and federal civilian Cyber Protection Teams (CPTs) and forward operations to operate both in tactical (field-deployed) and back-office environments. The FAK suite of cyber tools or cloud/server applications include tools to conduct vulnerability analysis, incident response, and other cyber-analytic functions, and are suitable for operation on both classified and unclassified networks.

In order to determine the state of the critical networks or to run a deployable network, cyber teams, IT infrastructure teams, and data analytics teams require:

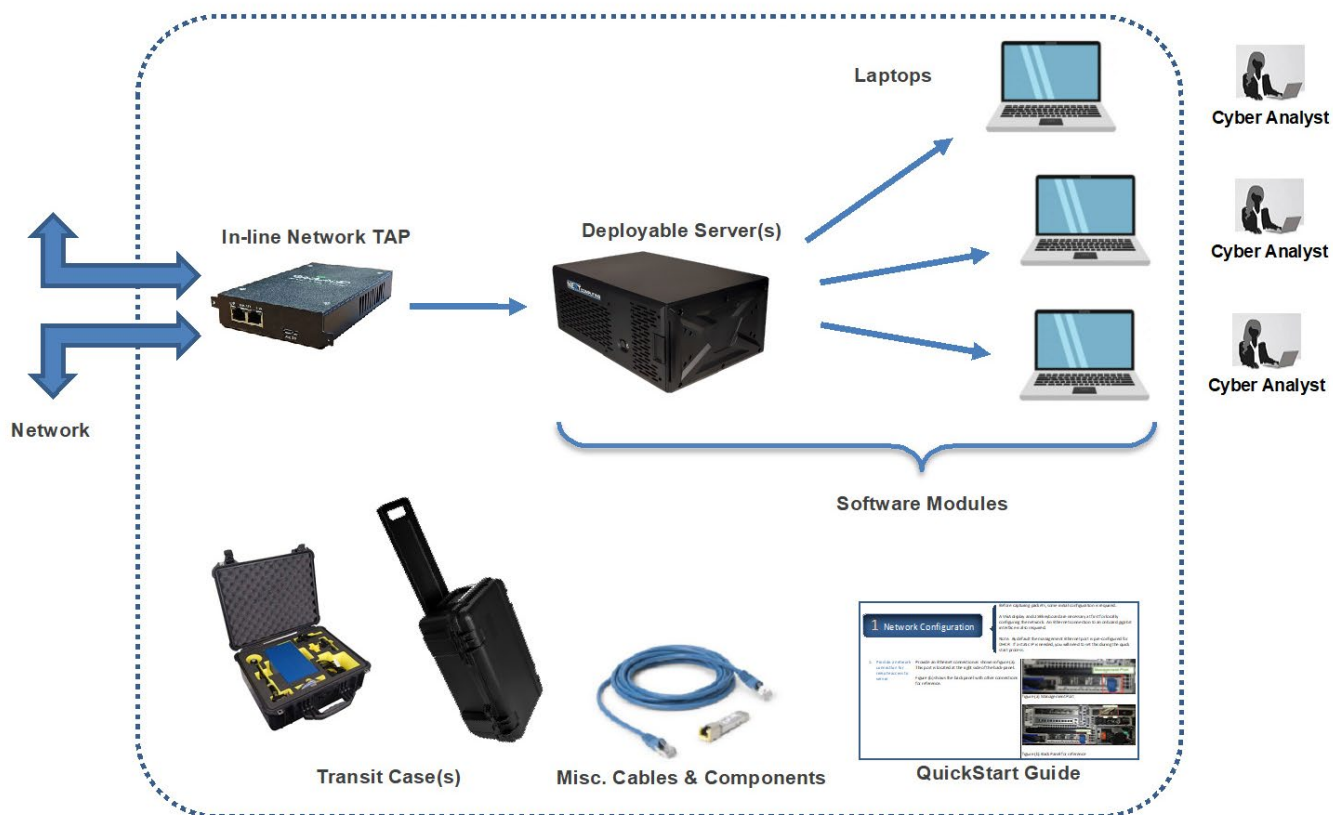
- Network data from sensors which are deployable servers
- Analytic capability from the hardware and software



A user interface typically via their laptops

NextComputing Fly-Away Kits can support a wide variety of user-supplied software modules, including Government Off-the-Shelf (GOTS), Commercial Off-the-Shelf (COTS), and free and open-source software (FOSS).

## FLY-AWAY KIT (FAK) FOR CYBER OPERATIONS



## OBJECTIVES OF A GOOD FLY-AWAY KIT

- Enable a Rapid Response by more agile CPT teams. More easily scale up and scale down

travelling teams to meet the mission. Be able to respond at a moment's notice, and not have to carefully schedule C130 or other travel assets

- Single person lift
- Carry-on commercial aircraft, staying close to the analyst
- Easily transport on rental car or sedan, SUV cross over vehicles (rental)
- Make travel less conspicuous by carrying smaller items
- Reduce operation costs. Simplify procurement with pre-configured Fly-Away Kits as a single part#s.
- Reduce travel costs by leveraging commercial travel options
- Reduce setup time & tear down time
- Reduce size, so less space used on the site/location. Expand the potential sites where space is a constraint

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## PAIN POINTS

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Legacy FAK tools have been too large, consist of too many components and peripherals, and are vulnerable to shock damage. In addition, the lack of modularity of legacy tools do not allow the flexibility to support various missions and subordinate commands simultaneously. Legacy tools have been costly and complex to use.

In particular, large rack servers, in large transport cases are:

- Not agile. Transport has to be carefully planned and scheduled, subject to delays.
- Expensive to transport
- Subject to damage
- Subject to separation of critical data & equipment from the CPT teams
- 3-4+ person lift
- Large, bulky, takes up a lot of space. Cannot go to certain locations based on size/weight.
- Cannot easily transport on commercial airline, or via car or standard vehicles
- Complex to setup & complex to tear down
- Not easily configurable

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## PAYOFF POINTS

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There is a critical need for less expensive tools where personnel can engage quickly with minimal training. The ideal cyber Fly-Away Kit provides a lighter, smaller, shock-tolerant, faster and more capable suite than the current legacy tools in use today.

## BASE SYSTEM

### NEXTSERVER-X

- **Smallest form factor, highest performance:** as a desktop system or short-depth rack mount
- **Easily transportable:** System and hard case combined are less than 35lbs for single-person lift and TSA compliant carry-on
- **Modular and purpose-built:** For your high performance computing use case
- **As a high-performance server:** Ideal for cyber analytics, data analytics, network forensics and data recording
- **As a high-performance workstation:** Ideal for rendering and scientific simulation





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## RADIUS EDS

- **Portable form factor:** Briefcase-like form factor and integrated 17.3" Full HD display, with optional resistive touchscreen
- **High-Performance:** Workstation-class Intel and AMD processors, high-speed memory, and full-size PCIe expansion
- **Massive storage:** Up to 16 easy-access removable SSDs with RAID options; utilizing the latest high-performance NVMe and traditional SSD storage
- **PCI Express expansion:** Up to (7) PCI Express expansion slots for full-size cards



## NEXTCOMPUTING KIT FEATURES

### ***Optional Network TAP:***

- Passive regenerative network TAPs
- Supports copper media type, fiber media type, with a minimum of (4) SFP interfaces
- Supports network speeds from 1Gbps for copper and 1/10/40/100Gbps for fiber
- Dual internal AC power
- Duplicate all network traffic (not replication), eg. passes physical errors
- Supports up to (4) physical TAP modules that are fully configurable and interchangeable
- 100% secure and invisible (no IP or MAC addresses)

### ***Deployable Server – Physical:***

- Fits into overhead storage bin of commercial airlines (TSA-compliant):
  - Physical dimensions: 22” long, 9” tall, 14” wide
  - Under 40 pounds (single-man lift, hand-carried and in a roll-away cases)
- Deployable server hardware is physically modular, with other components capable of being added to increase storage and/or performance capabilities
- Deployable server hardware is also rack-mountable front or back (or both), with removable “ears”
- Systems are capable of meeting all operational requirements in temperatures ranging from 40 °F to 95°F
- Deployable server hardware, in its transport configuration, withstands typical-use vibration tests and drop-tests

### ***Deployable Server – Performance and Modularity:***

- Intel or AMD processors (single or dual), up to 64 cores / 128 hyperthreads
- No-tools removable storage includes up to (2) NVME, (8) SAS/SATA SSDs, and (2) SATA 6G SSDs
- Up to 512GB of RAM
- Multiple USB 3.1 or better Type-A ports
- PCI Express 3.0 expansion slots
- Both 110-220v AC 50/60Hz power
- Secure Boot UEFI compliant BIOS, Boot Guard, TPM2.0
- Certified for CentOS, Red Hat Enterprise Linux, VMware vSphere, Windows 2019 server,

## Windows 10

- Supports virtualization

### ***Transit cases.***

- Deployable server hardware and transit cases may be customized with markings:
  - private-label logos
  - labels that identify the weight and number of persons required to lift the object.
  - marked in accordance with MIL-STD-130N (Identification Markings of US Military Property).
- Transit cases include custom cutouts for optional components, as needed.
  - Laptops - multiple laptops will be required per Deployable server
  - Cables, power strips, tools, etc
  - Battery backup module
  - Quick-start documentation





### **Software Components:**

- Deployable servers and laptops all support virtualized software modules
- These software capabilities are often utilized for cyber protection operations:
  - Network Mapping Software
  - Incident Response Software to include
    - full disk image capture
    - memory capture
    - forensic analysis.
  - Network traffic ingestion and analysis capabilities that takes advantage of
    - full packet capture
    - offloading and analysis
    - metadata creation for use by other tools.
  - Host agent and log collection for collection of data from remotely installed agents.

- Vulnerability scanners
- Malware analysis sandbox capability

### ***Other FAK Services.***

NOTE: These option services can potentially reduce engineering and support costs for customer operations teams:

- Package custom FAK configurations as single-SKU unique part#s, for convenient procurement and future support under revision control by part#
- Engineering services to design/review a complete suite of hardware and software components to meet specific mission requirements
- Deliver fully assembled FAKs, including a “QuickStart Guide” document for users
- Transit cases: Customized cutout inserts. Private labeling and/or special marks & stenciling
- Software: Install & configure software, eg ESXi virtualization
- Hardware: Setup required for devices (servers, switches and laptop clients)
- Configuration control management, so ordering the same part# again means the exact same thing is delivered each time, eg with rev# changes as components require upgrade
- Support services, like policies to assure all software components are updated to the latest release
- Engineering future versions, upgrades or variations, eg as additional SKUs and part#s
- We also provide unique “Mission Management” logistics and refresh services, where we manage/maintain an inventory pool of FAKs or mobile appliances, with quick-turn refresh, repair & drop-ship to the next client engagement.
- [Click here to learn more about NextComputing OEM solutions](#)