
WHITE PAPER:

acuity™
EDGE SOLUTION

TACTICAL EDGE MICRO DATA CENTER

Patent Pending

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BEST-OF-BREED TECHNOLOGY PARTNERS AND CAPABILITIES

We have carefully selected leading-edge technology from elite manufacturers around the world to ensure the best solutions for virtualization, security, bandwidth, communications, and flexibility.

acuity™ INTEGRATED TECHNOLOGY PARTNERS



We have partnered with leading technology vendors to provide superior micro data center functionality. Some examples include:

Unified Communications (Voice and Video)

With an industry-leading collaboration tool that provides email, SMS, voicemail, phone service, and peer-to-peer video conferencing, tactical teams can turn on Acuity and immediately have communications working and connected back to the base or anywhere in the world. Agencies can pre-determine priority of communications using QoS to ensure bandwidth is available for the right mission-critical tasks. For example, phone calls can be prioritized over video streaming to ensure there is no latency or dropped calls in critical moments.

Identity Management

With time and field-tested identity management solutions, Acuity provides a centralized location for security policy enforcement, user authentication, and authorization to prevent unauthorized access to critical assets. Where applicable, an agency can seamlessly extend its footprint into cloud-based identity and access management solutions such as Microsoft Azure.

Session Migration

When it comes to serve and protect, the difference of a few seconds can mean life and death. Acuity monitors the state of network communication and gracefully migrates traffic to a more secure and reliable link should the primary one be disrupted or become unavailable. For instance video streaming continues to play automatically during circuit failover.

Load Balancing and Failover

Multiple circuits are often procured for redundancy but only one is active while the other remains dormant, costing organizations money. Acuity makes use of all available circuits and load balances traffic between them so that the network works more efficiently. In the event one circuit fails, all communications automatically migrate over to ensure business continuity.

Secure Vector Routing (SVR)

Acuity saves at least 30% of organizational bandwidth by inspecting all traffic. When the system notices that traffic is already encrypted, it will not waste cycles by double encrypting the same packet again. It simply forwards it through the secure tunnel. SVR technology also leverages existing infrastructure, such as MPLS and the Internet, and works with VSAT, LTE, and broadband connections. Therefore, expensive circuits or VPN solutions are not needed.

Hyper-Segmentation and Virtual Network Function (VNF)

With hyper-segmentation, teams no longer have to go through cumbersome processes of procurement, configuration, and installation when setting up new equipment. Similar to Virtual LAN (VLAN) setup, the entire network infrastructure can be scripted in template language and deployed within seconds using Acuity and VNF.

Open Standard/Architecture

In recent years, the federal government has embraced open architecture and standards to foster more commonality across IT systems. As a result, Acuity uses open-source and non-proprietary hardware and software whenever possible. Open architecture is utilized to make installation, operations, upgrades, and information exchange easier. This also allows developers to create new features that are secure, reliable, and effective in furthering operational objectives. Security is still of paramount importance to ensure the Acuity edge platform protects data exchange within the solution regardless of the architecture used.

Private Cloud

While the public cloud provides convenience, it does not offer the security and performance of the private cloud—which is critical for government agencies. Fortunately, Acuity can be integrated with private cloud vendors such as Red Hat OpenStack to ensure enhanced performance and security. It also offers a cost reduction for certain workloads.

Professional Services

Acuity is an a la carte edge solution that can be outfitted for various applications and operating systems. The key is that application delivery is predefined by the mission leaders for each environment.

Acuity professional services are ready to assist in all areas—from defining requirements, to system configuration, and providing on the ground support.

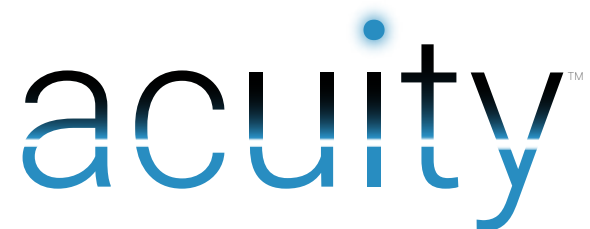
The first step is to determine the number of users that require compute power, unified communications services, storage, and bandwidth. Next, security parameters need to be defined as Acuity supports multi-tenancy. For example, we will assist to define the type of users, their required access rights, then determine the connectivity type (satellite, 4/5G LTE, VSAT, etc.). The final step is to provision a secure tunnel via the SD-WAN application. This is to ensure all data traversing through the public cloud is encrypted.

Our philosophy is to have multiple redundant chassis as opposed to having fully redundant systems that are military grade. If the situation requires military standard, we can also provide the necessary hardware to meet that requirement.

ACUITY MICRO DATA CENTER SOLUTION SPECIFICATIONS

Hardware and software specifications and performance subject to change

Users 50	Storage Unlimited external (expansion)	Connections 2x10 GE SFP+ 1x1 GE SWMGT 1x1 GE AUX 1x1 GE PWR MGT 12x1 GB POE	Mobile Connectivity Options WiFi 4/5G LTE Satellite/VSAT (external/optional)
Cards 10 x PC10-16-128 2 Core Intel Sky Lake i7 128 GB SSD (1.2 TB total) 16 GB RAM DDR	Monitor 9"x7" VGA		
Configurations Mini-DisplayPort (HDMI) Scalable SD-WAN Routing	Power DC 9-14 VDC AC 120-240 VAC External battery pack (optional)		
	Operating Temperature -25 to 135 degrees Fahrenheit	Services Consulting Configuration Management Integration Installation Training Maintenance NOC Support Professional Services	Ongoing Support Options 7x24 Technical Support Software Assurance and Licensing Capability As A Service (36 month technical refresh) Repair and Return Re-Configuration and Configuration Management
	Size 16.54" length x 13.03" width x 6.84" depth		
	Weight 30 Lbs fully loaded		



About Tyto Athene, LLC

Tyto Athene is a full service systems integrator focused on helping clients accelerate their ability to make decisions by providing ubiquitous and secure access to enterprise information throughout their operating environment. Tyto uses a myriad of technologies, innovative thinking, and proven processes to deliver successful outcomes for it's clients worldwide. To learn more about Tyto please visit www.GoTyto.com.