V15 VIRTUAL ADSI®
CERTIFIED TDL FORWARDING IN A SECURE ENVIRONMENT

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THE VIRTUAL ADSI PROVIDES SERIAL AND ETHERNET LINK 16 AND LINK 11 COMMUNICATIONS IN A SECURE NETWORKED ENVIRONMENT.

FEATURES:

- Core offering supports Link 16 and Link 11 Ethernet links as well as Ethernet intel and secondary links.
- SyncNet8® appliance provides serial Link 16 and Link 11 connectivity via a single Ethernet connection.
- PowerNet™ appliance supports Link 11 with redundancy and solves distance limitations.
- Robust Information Assurance functionality
- Cost-effective

OVERVIEW

The certified, combat-proven advanced tactical data link capabilities of the Air Defense Systems Integrator (ADSI)® software is now available on a Virtual Machine (VM), providing serial and Ethernet Link 16 and Link 11 communications in a secure networked environment.

The ADSI V15 virtual software is hosted on a VMware® ESXi server with the vSphere hypervisor client software installed locally. Two VMs host the ADSI V15 virtual software; a Microsoft® Windows® 7/10 Enterprise VM and a Red Hat® Enterprise® Linux VM. Ultra's robust TacViewC2™ software is the C2 and situational awareness display on the Windows VM.

Ultra offers three virtual product purchase options: Core, SyncNet8® or PowerNet™. The core virtual offering provides Link 16 and Link 11 Ethernet links as well as Ethernet Intel and secondary links.

The SyncNet8 appliance option provides Link 16 and Link 11 serial links through Ultra's SyncNet8 serial-to-IP conversion appliance. The virtual ADSI software supports up to eight serial data link connections to the SyncNet8 appliance via a single Ethernet connection.

The third option, using the PowerNet appliance, provides Link 11 connectivity via the IXI Technologies PowerNet ATDS or NTDS Bridge system. The ADSI V15 virtual software supports up to two data link connections to the PowerNet appliance via an Ethernet connection.

All of the ADSI functionality is available on the ADSI V15 virtual software including Dynamic Link Reconfiguration, the drag-and-drop Configuration Wizard and Windows-based System Manager.

With strict adherence to all relevant military standards, including the latest MIL-STD-6016, the ADSI V15 virtual software ensures reliable interoperability.

Advanced Tactical Systems

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THE ADSI VIRTUAL MACHINE (VM) IS HOSTED ON A VMWARE ESXI SERVER WITH THE VSPHERE HYPERVISOR CLIENT SOFTWARE INSTALLED LOCALLY. OTHER VM CONFIGURATIONS MAY BE SUPPORTED UPON REQUEST.

ESXI HARDWARE REQUIREMENTS

- Host machine with at least two core processors
- Server with 64-bit x86 CPUs
- Supports only LAHF and SAHF CPU instructions
- Requires the NX/XD bit to be enabled for the CPU in BIOS
- 8 GB RAM per VM
- One or more 1 GigE or 10 GigE Ethernet controllers
- Any combination of one or more of the following controllers:
  - Basic SCSI controllers: Adaptec Ultra-160 or Ultra-320, LSI Logic Fusion-MPT, or most NCR/Symbios SCSI
  - RAID controllers: Dell PERC (Adaptec RAID or LSI MegaRAID), HP Smart Array RAID, or IBM (Adaptec) ServeRAID controllers
- SCSI disk or a local, non-network, RAID LUN with unpartitioned space for the VM
- For SATA, a disk connected through supported SAS controllers or supported on-board SATA controllers. SATA disks will be considered remote, not local. These disks will not be used as a scratch partition by default because they are seen as remote.

ETHERNET DATA LINK CORE OFFERING

- Link 16 JREAP 3011C
- Link 16 MTC
- Link 16 MTDS
- Link 16 SIMPLE
- Link 11 SIMPLE
- MIDS on IP (LVT-1D, LVT-2J, LVT-11 or STT)
- Intel data links including: FDL, OTH-T, CMF and USMTF
- Secondary data links including VMF
- MTCD

SERIAL DATA LINK OFFERING WITH ULTRA'S SYNCNET8 APPLIANCE

SyncNet8 appliance is Ultra's interface conversion device that transports serial communications over an Ethernet Local Area Network (LAN).The network device converts a full duplex synchronous, asynchronous or HDLC serial data stream to a UDP/IP packet stream.

- JREAP A
- JREAP B (synchronous and asynchronous)

- S-TADIL J
- MTC
- MTDS Serial J
- Link 16 SIMPLE
- Link 11 SIMPLE
- Link 11 Indianhead
- Link 11B
- NATO Link-1
- ATDL-1

DATA LINK OFFERING WITH THE SABTECH POWERNET ATDS OR NTDS BRIDGE SYSTEM

Designed with redundant capability, the Powernet ATDS or NTDS Bridge system has dual ports so that if one network path is not available then the other port is used and operation is not interrupted. Another caveat of using the PowerNet device and its network architecture is that it solves the problem of cable length limitations.

- Link 11

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