

UX1000



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net!
Network Equipment Technologies

NET UX Series Unified Exchange

UX1000 Small to Mid-Size Branch Office Networking Appliance for Microsoft® Lync™

- Offers cost effective and comprehensive Microsoft® Lync™ enhanced gateway/SBA (Survivable Branch Appliance) deployment services for small to mid-size branch offices
- Maximizes Lync integration given extensive I/O, “any to any” switching with full security, and enterprise SBC for SIP trunking
- Simplifies Lync deployments via easy to use, single comprehensive web UI for gateway and SBA management
- Secures the SBA application from network attacks through the highly integrated and secure appliance platform

HIGHLY FLEXIBLE LOW TO MID-RANGE GATEWAY FOR LYNC BRANCH OFFICE DEPLOYMENT

The UX1000 offers true “any-to-any” signaling translation and media interworking between Lync and legacy analog, TDM clients and PSTN endpoints. The UX1000 can simultaneously connect to legacy TDM PBXs and the PSTN through 2 T1/E1 PRI ports. Alongside the PRI ports, up to 24 FXS/FXO ports are available for analog phones, faxes, and the PSTN. BRI ports are also supported, and may exist alongside the FXS, FXO, and PRI ports to provide complete analog/TDM device integration into a branch office’s Lync topology.

In parallel, the UX1000 also interconnects IP-based endpoints (i.e. IP PBXs, non-Lync SIP clients) and public VoIP networks (e.g. ITSPs) to the Lync clients. And, with NET’s optional SmartSIP application, there’s no need to replace your legacy non-Lync SIP clients; the UX1000 can report non-Lync SIP client user states (e.g. presence, user busy, etc.) to Lync clients.

The UX1000 offers a wide range of I/O and call capacities (4 to 84 concurrent PSTN/analog <-> VoIP connections) to optimize branch office enhanced gateway/SBA costs. Simultaneously, the UX1000 can support up to 45 IP to IP calls. SRTP (secured VoIP media) and TLS (secured VoIP signaling) are fully supported with no impact on call capacity. Voice media quality is enhanced, given the latest generation embedded IP switching fabric at the core of the UX1000 system.

And, to help with Lync migration in the branch, the UX1000 provides advanced call routing features such as Active Directory/LDAP server routing integration, on-board call forking (“forks” a single call from any source to 8 unique destinations), and other flexible routing options.

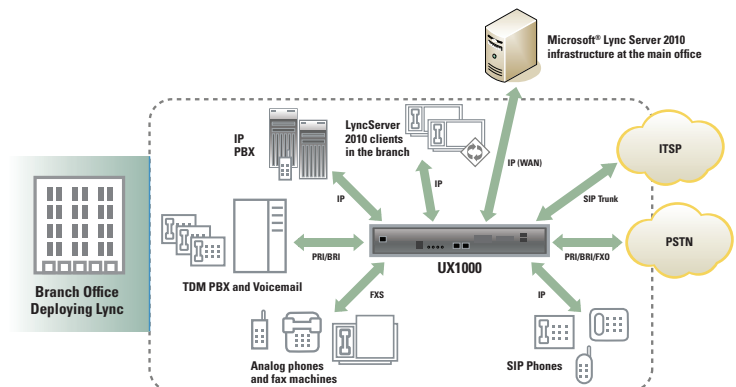


Figure 1: UX1000 offers complete Lync integration to small/mid-sized branches

INTEGRATED ENTERPRISE SBC OFFERS OPTIMIZED SIP TRUNKING FOR LYNC

With an integrated enterprise SBC (Session Border Controller), the UX1000 offers to branch Lync users optimized SIP Trunking services for ITSP (Internet Telephony Service Provider) connectivity.

- Complete enterprise/ ITSP demarcation point services, such as network topology hiding, transcoding, IP transport conversion (TCP <-> UDP), and signaling/media encryption (TCP<->TLS/RTP <->SRTP)
- Multi-ITSP registration, with re-routing on excess cost or loss of service
- Built-in NAT¹ (Network Address Translation), prevention of DDOS and DOS (Denial of Service) attacks, and CAC (Call Admission Control) to prevent unauthorized access and to maintain secure communications.

Furthermore, future enhanced enterprise SBC security and interoperability functions may be applied as a simple software upgrade.

SECURE, SINGLE WEB INTERFACE APPLIANCE FOR SBA AND VOIP MANAGEMENT

The UX1000 with the Microsoft® SBA (SBA hosted on the optional Applications Solutions Module or ASM) presents a single integrated web interface for simplified management and better security. From the single web interface, an operator can configure both the UX1000 and the SBA and manage operations (e.g. SBA SW load identification, inspect ongoing calls and replication status, etc.) The UX1000 (with its private Ethernet connection) segregates and firewalls the SBA application from the network, foregoing the need for elevated permissions and leaving no services (e.g. IIS, or Internet Information Services, etc.) to exploit. The result is an operational SBA protected from protocol mutations and communication vulnerabilities. The UX1000 acquires this secure capability from the same SW code base found in the UX2000, "Certified Secure" by Miercom®

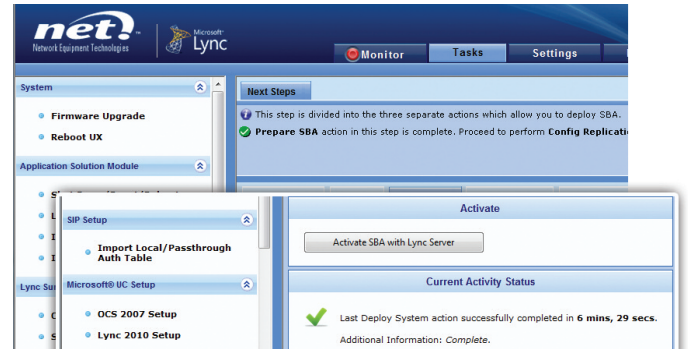


Figure 2: UX1000 secure, integrated web GUI for gateway and SBA management

WEBSITE: Please visit our website at www.net.com for information on how to contact us, place an order or get more information on NET solutions.

SPECIFICATIONS:

External Interfaces	
Digital and Analog Modules ¹	<ul style="list-style-type: none"> Up to 2 T1/E1 CAS (Channel Associated Signaling)/PRI (Primary Rate Interface) digital voice/TDM ports Up to 8 BRI (Basic Rate Interface) digital voice/TDM ports Up to 24 FXS (Foreign eXchange Station) analog ports Up to 24 globally compliant FXO (Foreign eXchange Office) analog ports
Ethernet Interfaces	
WAN and LAN Interfaces	<ul style="list-style-type: none"> 2 10/100/1000 BASE-T (software configurable for WAN and LAN interfaces) Auto-MDIX Both are routable up to 100 Mbps full duplex
Applications Solutions Module (ASM) Option for SBA Deployments into Small/Medium (25+ Users) Branch Offices	
CPU	Intel® Celeron™ P4505 @1.8GHz
Memory	4 GB DDR3 with ECC
Applications Solutions Module (ASM) Option for SBA Deployments into Small (Less Than 25 Users) Branch Offices	
CPU	Intel® Atom™ D525 processor
Memory	2 GB DDR3 (non ECC)
Call Processing	
Any-to-Any Signaling	<ul style="list-style-type: none"> SIP (UDP/TCP/TLS) <-> SIP (UDP/TCP/TLS) SIP (UDP/TCP/TLS) <-> CAS/PRI/BRI/FXS/FXO CAS/PRI/BRI/FXS/FXO <-> CAS/PRI/BRI/FXS/FXO
Any-to-Any Switching	<ul style="list-style-type: none"> RTP/SRTP <-> RTP/SRTP RTP/SRTP <-> TDM/analog TDM/analog <-> TDM/analog
Call Routing	<ul style="list-style-type: none"> Active Directory/LDAP based call routing Routing based on quality metrics and least costs On-board Call Forking (up to 8 endpoints)
Supplementary Services	Call hold, Call Transfer – Blind and Assisted, Call Forward
Signaling and TDM-VoIP Call Capacity	
TDM Signaling	<ul style="list-style-type: none"> ISDN: AT&T 4ESS, AT&T 5ESS, Nortel DMS100, Euro ISDN (ETSI 300102), OSIG, NTT InsNet (Japan), and ANSI National ISDN-2 (NI-2) CAS: T1 CAS (E&M, Loop start), E1 CAS (R2)
TDM-VoIP Call Capacity	Up to 84 calls; adequate capacity for a 400 seat office

¹Future UX1000 product capability.

Enterprise SBC Functions for Enhanced SIP Trunking	
IP to IP Call Capacity	Up to 45 sessions, with 600 registered users
DHCP ¹	Server and client
Security	<ul style="list-style-type: none"> Denial of service protection Encryption (TLS, SRTP, HTTPS, SSH) Authentication (User name/password; Active Directory; RADIUS) Topology hiding, User Privacy Traffic separation¹ (VLAN interface separation) DNIS, CLID, Call type pre-authentication
Interoperability	<ul style="list-style-type: none"> Large number of TDM PBXs, IP-PBXs Qualified for Microsoft Lync Certified with large number of SIP Trunking service providers
Transcoding	<ul style="list-style-type: none"> SIP Over UDP; SIP over TCP; SIP over TLS; RTP; SRTP Codecs (G.711 A-law/Mu-law; G.723; G.729) Signal conversion (DTMF/RFC2833; Inband DTMF)
NAT	Symmetric NAT, UX1000 node behind NAT
SIP Header Manipulation	Digit manipulation (name/number manipulation using regular expression and Active Directory lookup)
Quality of Service and Service Assurance	<ul style="list-style-type: none"> Call Admission Control (deny excessive calls based on session establishment rate per trunk group) P-time mediation for rate limiting
Survivability	<ul style="list-style-type: none"> Bypass relays (PRI <-> PRI, FXS <-> FXO) for emergency calls like 911 PSTN fallback (when WAN is down) Survivable Branch Appliance for Microsoft Lync Multiple SIP Trunking service provider support for redundancy
SIP Routing	<ul style="list-style-type: none"> Based on Source and destination IP Address Fully Qualified Domain Name (FQDN)
High Availability and Load balancing	<ul style="list-style-type: none"> Detects Proxy failure and route to alternate paths Re-route on failure based on full Cause Code rerouting on T1/E1 trunks
Management	
OA&M	<ul style="list-style-type: none"> Single, secure Web GUI to manage UX1000 and SBA REST based programmatic interface to manage multiple UX1000 devices from a remote site SNMP v1/v2/v3c for comprehensive network management using third party network management systems RADIUS Authentication and Accounting Image backup and restore/Configuration upload from one site to another

¹Specific UX1000 configurations available through certified NET® partners.