



Product Name: Net UX2000-200 + UX2000-T1E1-4 VoIP Gateway Manufacturer: NET Model Number: UX2000200+UX2000T1E1-4

Net UX2000-200 + UX2000-T1E1-4 VoIP Gateway Included Content

i $_i$ ¹/₂ 1 x Net UX2000-200 UX2000 Base System, 2 x high capacity DSP i $_i$ ¹/₂ 1 x Net UX Telco Module, 4 T1/E1 ports i $_i$ ¹/₂ 1 x UX2000 E1/T1 Card

The Net UX2000 is a Microsoft Lync compatible gateway.

Upgrade Options

ï¿¹/₂ UX Application Solutions Module – SBA - Preloaded with Microsoft Survivable Branch Appliance (UX2000-ASM-SBA)

ï¿1/2 Call forking license (UX-FORKING)

 $i_{\dot{c}}i_{2}'$ License for 25 SIP calls and 125 registrar / registrand License for 25 SIP calls including codec transcoding and 125 registrar / registrand (UX-SIP-25)

ï¿¹/₂ Additional AC Power Supply (UX2000-PSU-AC)

iزئ UX Telco Module, 16 FXS ports Includes 16 SIP calls (UX2000-FXS-16)

i¿1/2 UX Telco Module, 24 FXS ports Includes 24 SIP calls (UX2000-FXS-24)

The NET Unified Exchange 2000 (UX2000) is a modular multi-function, high performance mediation platform that delivers cost savings, reduces management complexity, and increases reliability for branch office networking and communications needs. The core features include Layer 2 and Layer 3 based routing protocols, GigE switching, T1/E1, WAN and LAN ports, Firewall with traffic inspection, Session Border Controller (SBC), media processing through advanced high-density Digital Signal Processors (DSPs), PSTN gateway, and an Application Solutions Module (ASM) for hosting third party applications.

The UX2000 is fully managed using a highly secure Web-based management interface . It is an ideal solution for remote sites/branch offices that have minimal IT support. The modular architecture allows deployment flexibility for different size locations and can easily scale up for future expansion. It can be deployed for a variety of applications such as next-generation VoIP and Unified Communications; SIP Trunking; Wideband (HD Voice) transcoding; Muti-service Business Gateway (MSBG); and for multi-service applications like Pseudo-wire.

Unified Communications (OCS R2, Lync Server 2010) and Voice-Gateway Services The NET UX2000 appliance offers extraordinary service integration of Unified communications to any size branch office. Businesses enjoy the benefit of deploying a single device for all networking and communication needs and save both capital and operational expenses. By supporting a variety of protocols, advanced security, codec transcoding, and data services, the UX2000 enables a distributed enterprise to cost-effectively implement Unified communications across the enterprise.

VAR Benefits

ï¿1/2 Offers scalable architecture for all customer types – from small branch to large corporate datacenters

� A modular customer premise equipment (CPE) packaged into a single box solution provides unique capabilities for invest-as-you-grow model enabling service up-sale



i¿1/2 Solves integration problems with existing telecom equipment

� Provides a true high capacity Any-to-Any switching through supportfor a wide choice of codec transcoding and protocol mediation

 \ddot{i}_{ℓ} Reduces branch office deployment complexity with a single box form factor for both voice and data

i¿1/2 Shortens applications deployment time and reduces cost

� Powerful Applications Solutions Module allows VARs to host value added applications without needing a separate server hardware

Customer Benefits

 $i_{i_{2}}$ ¹/₂ Multi-function appliance reduces both capital and operational expenses by eliminating the need to purchase a Router, a PSTN gateway, an SBC and an application server

 i_{ℓ} ^{1/2} Modular architecture allows customers to select only the options they need. Customers can choose to keep their existing routers or replace multiple devices with a single appliance i_{ℓ} ^{1/2} Highly secure User Interface simplifies management and configuration for Lync Server 2010 deployments

� Integrated Application Solutions Module can be used for hosting 3rd party applications and reduces number of servers and IT management complexity

i¿1/2 Built-in Session Border Controller ensures both voice and data applications are secure

ï¿1/2 Includes TLS, SRTP, IPSec for enhanced security

ï¿1/2 Mitigates against denial of service attacks

ï¿1/2 Provides Topology hiding

i¿1/2 Web-based management, Syslog and SNMP monitoring simplifies day-to-day management and operations

i¿½ Active Directory/LDAP integration provides simplified deployment and management i¿½ Appliance form factor with hardened OS simplifies maintenance

Service Provider Benefits

� Modular and scalable architecture provides flexibility in designing the right Customer Premise Equipment for

ï¿⅓ SIP Trunking

i¿½ Microsoft OIP Qualification ensures Microsoft Lync Server 2010 deployment is supported by MicrosoftSupport for a wide variety of TDM and IP based PBXs ensures smooth integration of Microsoft UC

Architecture and Modularity

The UX2000 is architected to meet the demands of any size branch office and can scale to up to 1000 users. Its design flexibility provides unique capabilities for invest-as-you-grow model and allows for future growth both in terms of the number of users supported as well as in the number of applications deployed in the future. The modular architecture is designed to support scaling up of digital signal processing capacity and Time Division Multiplexing (TDM) interconnections. The ASM that is based on the most current generation of Intel processors (Core i7 based CPU) has enough processing power to concurrently host several third party applications. UX2000 Architectural Features and Benefits



Features Benefits

Modularity

i¿1/2 The UX2000 is a highly modular platform and supports a variety of telco and data modules for connectivity requirements of all kinds of deployment scenarios – small branch office to a large enterprise datacenter.

� The UX2000 appliance offers high speed GigE LAN and WAN connectivity and the SFP modules allow for future growth without replacing the module.

Digital Signal Processors

 $i_{\dot{c}}$ The UX2000 is powered by powerful Digital Signal Processors. Each chassis can have up to six high density DSP modules.

i¿1/2 The modular interfaces offer diversity of DSP options to meet different capacity needs depending upon the application requirements.

Gigabit Ethernet Fabric

 $i_{i_{2}}$ The UX2000 switching fabric efficiently allows high speed inter module communication. This reduces the latency for improved media and data performance.

TDM Interfaces

 $i_{i_{2}}$ The UX2000 Series allows for TDM connectivity with up to 8 T1/E1 spans. $i_{i_{2}}$ External and hot swappable TDM interface modules can be field replaced.

Gigabit Ethernet Ports

i¿½ The UX 2000 can support up to four 10/100/1000BASE-T Ethernet ports for WAN interfaces.

USB based management access



ï¿1/2 USB ports allow for management access and logging. There are four USB ports available

Applications Solutions Module (ASM)

 $\ddot{\imath}\dot{\imath}\prime^{\prime}_{2}$ The Applications Solution Module is powered by an Intel Core i7 Processor with DDR3 ECC memory.

i¿1/2 The multi-core processors can support growing demand of the branch offices and for running multiple applications simultaneously.

i¿1/2 Enterprises can run a variety of applications including Microsoft Survivable Branch Appliance software for Microsoft UC in a single appliance.

Specifications Physical PSTN Interfaces

� Digital Modules: 8 T1/E1 spans per module � Analog Modules: 8 T1/E1 spans per module

WAN and LAN Interfaces

ï¿1⁄2 4 10/100/1000 BASE-T ï¿1⁄2 Auto-MDIX ï¿1⁄2 1 10/100/1000 Base-T management port

Applications Solutions Module

i¿½ CPU: Intel Core i7 @ 2.53GHz i¿½ Memory: 4 GB DDR3 with ECC i¿½ Storage: 160 GB SATA HDD Blade Server

Software Features

ï¿1/2 Any-to-Any Switching

i;½ SIP (UDP, TCP, TLS) i;½ PRI, Q.SIG i;½ Media Encryption (TLS, SRTP)

Call Routing

ï¿1/2 Active Directory/LDAP based call routing

ï¿1/2 Routing based on quality metrics

ï¿1/2 Least cost routing

ï¿1/2 Event based Action Set



Supplementary Services

� Call Hold � Call Transfer: Blind and Assisted � Call Forward

Signaling

� TDM Signaling: ISDN - AT&T 4ESS, AT&T 5ESS, Nortel DMS-100, Euro ISDN (ETSI 300-102), QSIG, NTT InsNet (Japan), and ANSI National ISDN-2 (NI-2)

Voice Features

� Codecs

i¿¼ G.711 (64 kbps – A-law, Mu-law) i¿¼ G.723.1 (5.3 kbps, 6.3 kbps) i¿¼ G.729 A&B (8 kbps)

i¿½ Call Type Detection: Automatic call type detection – voice, fax, or modem
 i¿½ Call Progress Tones: Generate call progress tones – ring-back
 i¿½ Advanced voice quality features

� G.168 Echo Cancellation up to 128 ms tail length
 � Voice Activity Detection (VAD)
 � Comfort Noise Generation

ïزئ Fax over IP: T.38 with CNG tone detection ïزئ Voice Quality Monitoring: Jitter, Delay, and Packet Loss

Session Border Controller Security

� Encryption (TLS, SRTP)
� Built-in VoIP firewall
� Denial of Service mitigation
� DNIS, CLID, call type pre-authentication
� Topology Hiding
� Call Admission Control
� Branch Survivability

Management OA&M

� HTTP, HTTPS � Syslog ï¿⅓ SNMP v2

Authentication

ï¿⅓ MD5 digest authentication ï¿⅓ Multilevel Access Control



For more information and technical specifications, please refer to the Quintum UX2000 Product Brochure. **Price: £9,390.00**