



# **Alcatel Applications Partner Program Inter-Working Report**

**Partner: Interstar Technologies Inc.  
Application type: T38 Fax Server  
Application name: XMediusFax**



The product and version listed have been tested with the Alcatel Communication Server and the version specified hereinafter. The tests concern only the inter-working between the Application Partner product and the Alcatel Communication platforms. The inter-working report is valid until the Application Partner issues a new version of such product (incorporating new features or functionality), or until Alcatel issues a new version of such Alcatel product (incorporating new features or functionality), whichever first occurs.

ALCATEL MAKES NO REPRESENTATIONS, WARRANTIES OR CONDITIONS WITH RESPECT TO THE APPLICATION PARTNER PRODUCT. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, ALCATEL HEREBY EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS, WARRANTIES OR CONDITIONS OF ANY NATURE WHATSOEVER AS TO THE APPLICATION PARTNER PRODUCT INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY, NON INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE AND ALCATEL FURTHER SHALL HAVE NO LIABILITY TO APPLICATION PARTNER OR ANY OTHER PARTY ARISING FROM OR RELATED IN ANY MANNER TO THIS CERTIFICATE.

## Tests identification

Alcatel Communication Platform (OmniPCX 4400/Enterprise, OmniTouch, OmniPCX Office, ...)	OmniPCX Enterprise (4400 & Common Hardware)
Alcatel compatibility release	R5.1LX-e2.404.0.L
Partner's application version	4.0.0.43

---

### Historic

Edition 1: creation of the document - 07-15-2003

Edition 2: Tests with new OXE and Xmedius versions - 04-22-2003

---

### Test results

- Passed                       Refused                       Postponed  
 Passed with restrictions

# 1 Introduction

---

The goal of these tests is to qualify an external application as an Alcatel Applications Partner Program solution for the Alcatel Communication Platform.

The scope of the tests is the interoperability of the application with the Alcatel Communication Platform. It covers a basic or complex inter-working to ensure that services requested by the application and provided by the Communication Platform (and/or conversely) are properly completed.

These tests do not verify the functional achievement of the application as well as they do not cover load capacity checks, race conditions and generally speaking any real customer's site conditions.

The partner's application called XmediusFax Server communicates with the Alcatel OmniPCX Enterprise through T38 protocol to send or to receive faxes. So the inter-working tests verify that faxes are correctly exchanged between the Alcatel OmniPCX Enterprise and the Interstar XmediusFax Server.

# 2 Application information

---

**Application type:** T38 FAX Server

**Application commercial name:** XMediusFax

**Application version:** 4.0.0.43

**Interface type:** H323 / T38

**Interface version (if relevant):** H323 V2

**Application description:**

XMediusFax is a Fax server that allows sending and receiving fax messages from a PC interface.

XmediusFax uses the T38 Protocol to communicate with the OmniPCX Enterprise.

More details (if needed) about the XMedius product can be found in the documents "Interstar XmediusFax Administrator Manual" and "Interstar XmediusFax User's Manual" provided by Interstar Technologies Inc. .

The main features supported by the *XmediusFax Server* application are:

**Main Features**

- Up to 120 fax ports per server
- Scalable multi-server infrastructure
- Unlimited Users

**Windows Technologies**

- Uses Windows Installer technology
- Supports Terminal Services and Citrix Metaframe
- Supports network installation
- Supports Windows Roaming Profiles

**Operating Systems**

- Server::Windows NT/2000
- Clients::Win95/98/Me/NT/2000/XP

**Supported Fax-over-IP Hardware**

- Cisco Systems
- 1700,,2600 &3600 Series
- AS5300,AS5350 and AS5400
- ICS--7750

**Email Gateways**

- Domino//Notes 4.6 &R5
- Exchange//Outlook 5.5 &2000
- SMTP//POP3 (ITU T.37 FoIP)
- SAP R//3 (BC-CON 4.0,4.5 &4.6)

**Automatic Routing Methods**

- DID,,DNIS,ANI,&CSID
- Manual Attendant

**Document Conversion**

XMediusFAX uses applications to convert their native file formats.Fax from standard applications such as:

- Microsoft Office
- WordPerfect Suite
- Lotus SmartSuite
- HTML and RTF documents
- Notes forms

**Automation &Scripting**

- ActiveX Control
- Batch file API
- E--mail command
- Feedback API

**Administrative Features**

- Active Directory/Exchange integration through MMC Snap-In
- Notes--based fax administration
- Automatic user synchronization with Notes,Exchange and LDAP directories
- Remote monitoring and user management
- Graphical Fax Port Monitor
- Administration automation through scripting
- Exportable transaction logs

**Mission-Critical Features**

- Fax auto archiving
- Billing Codes
- Extensive notification, deletion and printing options
- NT//2000 Clustering support
- Call restriction

**Productivity Features**

- Scheduled or immediate transmission
- Access Outlook (MAPI),Notes or any ODBC contact database
- Fax Broadcast
- Advanced phonebook research from the fax composition interface
- Drag &&drop transmit
- Add text insertions, highlights, and stamps to faxes
- Custom Forms allow users to select coversheets and modify fax transmission settings in Outlook and Lotus Notes
- Rearrange pages in the fax composition interface

**Advanced Features**

- Least Cost Routing
- Load Balancing
- Number Morphing
- Priority Scheduling

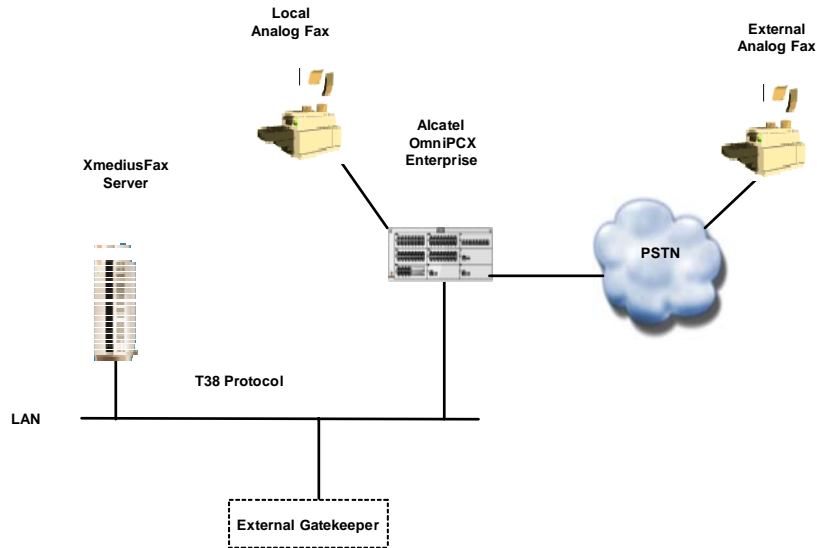
**Fax Clients**

- Notes &&Outlook (with or without custom forms and/or integrated SendFAX client)
- SendFAX standalone fax composition application
- Fax Manager application
- Coversheet Editor
- PhoneBook application
- Print--To-Email Driver
- Web faxing interface
- HP Digital Sending--enabled devices
- Multifunction printers with Scan-To-Email or T.37 functionality
- Any mail client (through SMTP)

**Minimum Requirements\*\***

- Up to 48 Channels::PIII 800MHz, 256MB,30GB HD
- Up to 96 Channels::PIII 1.3 GHz, 512MB,40GB HD
- Up to 120 Channels::P4 2.0GHz, 512MB,50GB HD

**Figure 1** Global architecture



The XmediusFax server application is installed on a PC Server connected to the Alcatel OmniPCX Enterprise through the ethernet link.

The XmediusFax server allows exchanging Faxes with local or external fax machines through the OmniPCX Enterprise. The local fax machine is connected to an analog board of the OmniPCX Enterprise; the external fax machine is located behind the PSTN (Public Switched Telephone Network).

The XmediusFax server uses the T38 protocol to communicate with the T38 gateway (INTIP board for 4400 hardware or GD board for Common hardware) of the OmniPCX Enterprise.

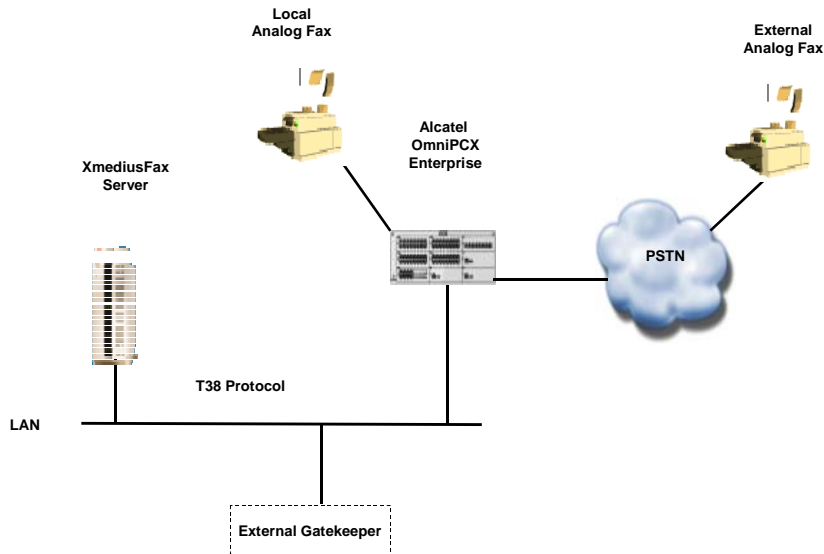
Tests are made without, with internal and with external Gatekeeper to cover available solutions.

## 3 Tests environment

### 3.1 General architecture

The tests are performed on the Alcatel TSS Lab platform in the following environment:

Figure 2 Tests environment



#### Alcatel Communication Platform: (OmniPCX Enterprise with INTIP board)

- **Name:** xa000046
- **CPU IP address:** 172.25.33.48
- **INTIP IP address:** 172.25.33.50
- **Default Gateway IP address:** 172.25.32.1 (netMask: 255.255.254.0)
- **Local Analog Fax Number:** 34520
- **Remote Analog Fax Number:** 0 03 90 67 71 51
- **Local XmediusFax number:** 10170
- **External XmediusFax Number:** 03 88 40 88 35 (10170)

#### Alcatel Communication Platform: (OmniPCX Enterprise with GD board)

- **Name:** krk
- **CS IP address:** 172.25.33.46
- **GD IP address:** 172.25.33.41
- **Default Gateway IP address:** 172.25.32.1 (netMask: 255.255.254.0)
- **Local Analog Fax Number:** 100
- **Remote Analog Fax Number:** 0 03 90 67 71 51
- **Local XmediusFax number:** 10170
- **External XmediusFax Number:** 03 88 40 88 35 (10170)

---

**XmediusFax server:**

- **Name:** XmFaxServer
  - **IP address:** 172.25.33.71
  - **Fax Number:** 10170 (this number is used for tests with INTIP gateway and GD gateway)
- 

## 3.2 Hardware configuration

- **Alcatel Communication Platform:** (OmniPCX Enterprise 4400 Hardware)  
CPU 5 step 2: to run Call Handling  
INTIP board: to manage H323/T38 protocol  
Z 24 Board: to connect Analog Fax  
BPRA 2 board: to allow external access
- **Alcatel Communication Platform:** (OmniPCX Enterprise Alize Hardware)  
CS: to run Call Handling  
GD board: to manage H323/T38 protocol  
Analog Interfaces Board: to connect Analog Fax  
BRA8 board: to allow external access
- **XmediusFax Server Platform:**  
Compaq Deskpro / Pentium III 450Mhz - 128MB RAM

## 3.3 Software configuration

- **Alcatel Communication Platform:** OmniPCX Enterprise R5.1Lx (E2.404.0.L)  
  
INTIP Binaries version:  
binintip\_appli **6.28.8**,  
bindspintip **4.32.2**,  
binintip **5.08.0**  
  
GD Binaries version:  
binmcy **3.4.1**  
binmg **16.17.1**
- **Server application:** Windows 2000 5.00.2195 SP4  
XmediusFax Server version: **4.0.0.43**

## 4 Summary of test results

---

### 4.1 Summary of main functions supported

Stress tests are not to the purpose of inter-working tests. The goal of the tests is to cover the most cases of interworking.

For almost any tests, we used a real fax machine: Alcatel 3785. The reference fax used for basics tests is: 6 complex pages (3 pages with a black vertical and central line, 2 pages with black border, 1 page with text). (see section 0).

The tests showed that XMediusFax Server and the OmniPCX Enterprise (4400 hardware with INTIP board and Common Hardware with GD board) inter-operate and no blocking problems were detected with the T38 Interface in basics tests described in sections (0), (0 ), (0 ), (0 ), (0 ).

Inter-working between XmediusFax server and the OmniPCX Enterprise (4400 hardware with INTIP board) with an external gatekeeper works if E164 numbers are registered statically on the gatekeeper, because Xmedius doesn't support to dynamic registration of E164 numbers.

### 4.2 Summary of problems

Inter-working with an internal gatekeeper doesn't work. XmediusFax Server and OmniPCX Enterprise don't implement the same features when using a gatekeeper. XmediusFax server is not able to register its E164 numbers dynamically to a Gatekeeper, its E164 numbers have to be registered statically. The OmniPCX Enterprise internal gatekeeper is only able to register dynamically the E164 numbers. (see section 0 and section 0 ). Note: the CISCO gatekeeper offers both possibilities (Dynamic and Static) for E164 numbers registration.

Tests described in sections (0 ), (0 ) show that some steps are not OK, but they will be corrected in the Xmedius version 4.0.0.46.

### 4.3 Summary of limitations

The coding algorithm must be set to G711 on the OmniPCX, because the XmediusFax Server supports only G711 Algorithm.

The CNG flag must be set to "0" on the XmediusFax Server because the OmniPCX doesn't answer to CNG signal.

ECM (Error Correction Mode) : As the OmniPCX doesn't support ECM, it change systematically the ECM to disable.

V21 Redundancy depth and T4 Redundancy depth must be set to "0" in the OmniPCX because the XmediusFax server doesn't support the redundancy.

Group 3 Fax relay up to 14,4 Kbps with auto fallback; the INTIP and GD falls back the throughput to 9600 b/s.

## 4.4 Notes, remarks

The problems detected during the first inter-working tests have been resolved. Now, main functions inter-working between XmediusFax Server and the OmniPCX Enterprise are successful and the inter-working report can be published on the AAPP Web Site.