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Symposium TAPI Service Provider for Meridian 1

Release 2.3.1

Nortel Networks is pleased to announce the availability of Release 2.3.1 of the Symposium TAPI Server for Meridian 1. This release is the first Service Update for Release 2.3.0 which was introduced during 2001. Release 2.3.1 is now shipping as the standard 2.3 version and is available for free-of-charge download as a PEP (Product Enhancement Patch) for existing 2.3.0 installations. All existing 2.3 Security Devices and Keycodes support Release 2.3.1 without modification.

Software up-issues from TAPI 2.1 and 2.2 to Release 2.3.1 are available.

Symposium TAPI Server for Meridian 1 is a full function service provider for Microsoft's Telephony Applications Programming Interface (TAPI) Release 2.x for Windows NT4 as well as TAPI Releases 2.x and 3.0 for Windows 2000. The combination is a client-server telephony monitoring and control API for the Windows NT4 and 2000 operating systems that is powerful and very cost-effective.

Release 2.3.0 was introduced during 2001 adding support for several new features including:

- Dynamic TAPI SP database,
- Compatibility with Windows 2000 Server and Clients,
- Microsoft TAPI 3.0 compatibility,
- TAPI SP operation and administration GUI enhancements,
- Call Data Networking Functional Enhancements,
- Logger Application enhancements,
- Version/PEP Viewer
- Support for a new Meridian Link Message (DN Release Indication)
- Co-residency with Symposium Agent 2.3 up to 500 agents
- Compatibility with the latest Windows NT/2000 Service Packs
- M3900 Set range Compatibility

Release 2.3.1 supports all functionality in 2.3.0 and adds the following:

- Support for the i2004 Internet Telephone
- Support for the i2050 soft phone
- Support for Succession Server for Enterprise CSE1000
- Ability to select / deselect attached data for consultative calls
- Compliance with SAPphone R/3 from mySAP™ solutions

Release 2.3.1 is an ideal base for wide scale deployment of Symposium Agent 2.3, several Symposium Partner Products, and a variety of TAPI-compliant products from Nortel Networks Developer Partners. Microsoft TAPI products are revolutionizing the deployment of computer telephony integrated applications for businesses that have widely deployed Windows-based computers.

Symposium TAPI Server for Meridian 1 Release 2.3 New Product Features

Listed below are the features that were introduced with version 2.3.0 of the Symposium TAPI Service Provider for Meridian 1.

Dynamic TAPI SP Database

The Dynamic Database feature allows the Symposium TAPI Service Provider database to be updated dynamically. Line devices can be added, changed or removed while the TAPI service provider is running. It is no longer necessary to plan a service outage in order to recognize the addition or removal of line devices. TAPI Application users are no longer affected by the addition or removal of line devices by the administrator. TAPI SP Network Managers or administrators no longer have to schedule additions, moves and changes at obscure times.

Create new line device

The database configuration utility now sends a message to the Symposium TAPI Service provider about the addition of a new line as soon as the database is written. The Symposium TAPI Service provider sends a LINE_CREATE message to LINEEVENT callback function when it receives a message from the database configuration application.

Remove line device

The database configuration utility now sends a message to the Symposium TAPI Service provider when a line is removed from the database. The Symposium TAPI Service provider sends a LINE_REMOVE message to LINEEVENT callback function when it receives a message from the database configuration application.

Update line device features

The database configuration utility now sends a message to the Symposium TAPI Service provider when a line or address feature is changed. This provides the user of the TAPI service provider to dynamically setup and take away the features from particular line device.

TAPI SP Operation and Administration GUI enhancements

The database configuration utility in version 2.3 of the Symposium TAPI SP for M1 is now equipped with a new search engine that makes it easier to find information in the database and allows information to be added and removed more quickly. The user interface has also been modified to make information easier to access.

Microsoft TAPI 3.0 compatibility

The Symposium TAPI Service Provider in a Windows 2000 environment negotiates with Microsoft's TAPI 3.0 version during the TAPI interaction to the service provider. It is also backward compatible with Microsoft TAPI versions 2.0 and 2.1 supported in Windows NT4.

Compatibility with Windows NT4 and 2000 Server and Windows Clients

Version 2.3 of the Symposium TAPI SP for M1 has been enhanced to support interoperability with Windows 2000. It can now be run in the following Windows NT4 and 2000 environments.

- Symposium TAPI Service Provider installed on a Windows NT 4.0 Server configured as a standalone server in a Microsoft Windows network with Windows 2000/NT/98/95 clients.
- Symposium TAPI Service Provider installed on a Windows NT 4.0 Server configured as a domain controller in a Microsoft Windows network with Windows 2000/NT/98/95 clients.
- Symposium TAPI Service Provider installed on a Windows 2000 Server configured as a standalone server in a Microsoft Windows network with Windows 2000/NT/98/95 clients.
- Symposium TAPI Service Provider installed on Windows 2000 Server configured as a domain controller in a Microsoft Windows network with Windows 2000/NT/98/95 clients.

Call Data Networking Functional Enhancements

The Symposium TAPI Service provider function of Call data networking between TAPI servers was changed from a Broadcast" method in release 2.1 to an "On Demand" method in release 2.2. The "On-Demand" method is still used in Release 2.3. The "On-Demand" method of Releases 2.2 and 2.3 reduce LAN/WAN overhead and increase the performance of the TAPI server. This change however means that TAPI 2.1 Networking is not compatible with TAPI 2.2 and 2.3.

It is recommended that all Networked TAPI servers are running the same version of TAPI SP, preferably Release 2.3.1.

Call Data Networking in Release 2.2 supported only a single Home Location Code (HLOC) or ESN per Meridian 1 switch. This restricts the TAPI SP from requesting call data from the same TAPI SP for two different Home Location Codes.

TAPI SP Release 2.3 has been enhanced to allow more than one HLOC to be configured in the database and the TAPI SP 2.3 sends request call data messages to multiple TAPI servers that have the same HLOC configured.

Logger Application Enhancements

The Logger application has been improved to provide

- A configurable timer option to recycle the overflow log file.
- An option for the user to browse and select a location where the overflow log file should be created.
- Bolding the way error logs appear.
- Providing troubleshooting tips when error log occurs.

Version/PEP Viewer

This new tool helps network manager's diagnose release and versions of the Symposium TAPI SP for M1. This tool allows Network Managers to view the latest release number of the software and any Product Enhancement Packages (PEPs) that have been applied to fix bugs or provide enhancements.

Support for new Meridian Link Messages

DN Release Indication

A new message called DNReleaseIndication has been added to the MLSM message set only and is delivered with SCCS 1.5, 3.0, 4.0 and 4.2, and SECS3.0. This message informs host applications when a registered (monitored), device has been released by the switch. This may happen when such device is deleted or reconfigured by the switch administrator. This message was not needed for Legacy Meridian Link because the registrations were local to the MLink machine and the switch did not know about them. The new message is supported in Release 2.3 of the Symposium TAPI Service Provider for Meridian 1.

Co-Residency with other Symposium applications

Symposium TAPI SP Release 2.3.1 can be installed on the same server as Symposium Agent 2.3. Refer to the detailed Engineering Guidelines for both products as certain restrictions apply, such as:

- The number of agents that are supported in co-resident configuration
- Limitation that Symposium Agent is only supported on single-CPU server

Current Windows 2000/NT 4.0 Service Pack Compatibility

Symposium TAPI SP Release 2.3.1 is compatible with Windows NT Service Pack 6a.

Symposium TAPI SP Release 2.3.1 is compatible with Windows 2000 Service Pack 2.

M3900 Set Compatibility

Symposium TAPI SP Release 2.3 supports the M39xx series sets (M3901, M3902, M3903, M3904 and 3905).

Symposium TAPI Server for Meridian 1 Release 2.3.1 New Product Features

All functionality supported in TAPI SP Release 2.3.0 is supported in TAPI SP Release 2.3.1

Listed below are the new features that are introduced with Release 2.3.1 of the Symposium TAPI Service Provider for Meridian 1.

i2004 Set Compatibility

Symposium TAPI SP Release 2.3.1 supports the i2004 Internet telephone.

i2050 Soft phone Compatibility

Symposium TAPI SP Release 2.3.1 supports the i2050 soft phone

Succession CSE 1k Compatibility

Symposium TAPI SP Release 2.3.1 is compatible with Succession CSE 1k

Ability to select / deselect attached data for consultative calls

Symposium TAPI SP Release 2.3.1 contains a new feature that allows the Administrator to select whether to enable or disable the copying of call data during consultative calls. Examples of consultative calls are transfer and conference. This selection is made by the addition of a new check box in the Provider tab.

Prior to TAPI SP Release 2.3.1, call data was always copied during consultative calls.

Compliance with SAPphone R/3 from mySAP™ CRM solutions

TAPI SP Release 2.3.1 has been validated as compliant with SAPphone*, the softphone interface to mySAP* customer relationship management (mySAP™ CRM) solutions.

This compatibility is achieved between Nortel Networks Symposium TAPI SP CTI middleware and SAPphone*, the softphone interface to mySAP* customer relationship management (mySAP™ CRM) solutions with the Service Update 1 for TAPI SP 2.3 from Nortel Networks contact center solutions. This integration will allow call center agents to perform incoming and outgoing telephony activities from their client PCs running mySAP CRM Customer Interaction Center for increased productivity.

The SAPphone-based integration enables the ability to screen pop customer data based on information collected by an IVR system connected to the Meridian* 1* and Symposium* Call Center Server. Nortel Networks Service Update 1 for TAPI SP 2.3 for the Meridian 1 provides fast deployment with out-of-the-box integration with the mySAP CRM Customer Interaction Center desktop without the need for complex configuration or custom development assuring timely deployment without business disruption.

TAPI SP 2.3.1 Server Guidelines in relation to SAPphone R/3

Refer to bulletin TAPI SP Server Guidelines in relation to SAPphone server Bulletin 2002-046

The TAPI SP product must be deployed on a server meeting the requirements of these guidelines in order to operate to design specification and meet the support requirements of Nortel Networks.

Nortel Networks do not recommend and are unable to support co-residency of the SAPphone* server application with Service Update 1 of the TAPI SP 2.3 for the Meridian 1.

Provisioning of the SAPPhone* server application should follow the recommendations of mySAP™ CRM solutions. Refer to the following SAP* Bulletins OSS 501643 and OSS 458628 for further information.

Compatibility

Symposium M1 TAPI SP Release 2.3.1 supports the following interfaces:

- Direct Connect,
- Meridian Link Release 5(6.03), 5C (6.42),
- Symposium Link 6.01
- Meridian Link Services (MLS) 3.0,4.0,4.2.

Symposium M1 TAPI SP Release 2.3.1 is compatible with the following products:

- Symposium Agent 2.3
- SWCP 3
- SCCS 3.0, 4.0,4.2
- SECS 2.0,3.0
- IPML 2.0

Notice of forthcoming end of life of TAPI SP 2.1 and 2.2

Notice has been given in Bulletin 2002-043, issued March 2002, of the forthcoming end-of-life of TAPI Releases 2.1 and 2.2.

As of 30th September 2002, Nortel will withdraw GNTS support for TAPI SP Releases 2.1 and 2.2.

Note – The same bulletin states that Symposium Agent 1.1, 2.0 and 2.01 will reach end of life on 30th September 2002 also.

Training

NA and EMEA regions

Globalknowledge, a Nortel Networks Premier Education Partner, offers both self-paced and leader-led courses on Symposium Meridian 1 TAPI Service Provider and Symposium Agent. Courses are available on a regularly scheduled basis and on demand. For more information, click on <http://get.globalknowledge.com/norteltraining/> and select Course #331, Symposium TAPI Service Provider for Meridian 1 and Symposium Agent Installation, Administration and Maintenance.

Asia Pacific region

Nortel Networks Enterprise Voice, Singapore Technical Training Centre
Meridian 1, Symposium, CallPilot, VoIP, BCM, Succession CSE 1000 and Periphonics IVR.
Course schedule and training related information can be found at <http://www.nortelnetworks.com/td>
Contacts:

Tracy Ng, Tel: 65 6380 8715, Fax: 65 6380 8725, Email: tracyng@nortelnetworks.com

Jeffrey Woo, Tel: 65 6380 8602, Fax: 65 6380 8725, Email: jeffwoo@nortelnetworks.com

Compatible Products Program

Several leading software developers, many of whom are Nortel Networks Developer Partners, have already introduced compatible software or will do so soon on this powerful new CTI environment. Descriptions of applications being introduced by Nortel Networks Developer Partners vendors will be provided in separate sales and marketing bulletins. To get up-to-date information on currently available applications, click on the Developer Partner web site at <http://www.nortelnetworks.com/dpp>.



Nortel Networks TAPI Server Developers Support

For developers or customers wanting to develop their own TAPI applications, Nortel Networks offers a Symposium TAPI Server for Meridian 1 Toolkit. This toolkit is available through the Nortel Networks Developer Partners Program. The toolkit includes software and documentation. Nortel Networks offers a wide range of developer support services and developmental laboratories to both commercial and “in-house” developers. Those interested should visit the web site <http://www.nortelnetworks.com/dpp>.

Engineering Information

Care must be taken to properly engineer the Symposium TAPI Server and Meridian 1 installation to ensure the product operates to design intent.

Refer to the Engineering Guidelines and Network Managers Guide supplied with TAPI SP Release 2.3.1 for full details on the following:

- Server Hardware
- Software
- 3rd party software guidelines, including anti-virus and remote access products
- TAPI SP and Symposium Agent
- SAPphone R/3
- LAN traffic

Note:

TAPI SP Release 2.3.1 can only be deployed on a server that contains an Integrated IBM compatible, 25 pin, D type parallel port. This port is required to connect the TAPI SP Security device.

TAPI SP Release 2.3.1 is only supported in a true Microsoft Windows environment. TAPI SP 2.3.1 is not supported if it is installed in a Microsoft Terminal Services environment, or terminal services environments from other vendors, such as Citrix.

Meridian 1 Engineering

Refer to the Ordering Guide and Network Managers Guide supplied with TAPI SP Release 2.3.1 for full details on the following:

- X11 requirements
- M1 configuration to support TAPI SP

The minimum release required for Symposium TAPI Service Provider with Link or Link & IVR connectivity is X11 Release 22.

The minimum release for Direct and Direct & IVR connectivity is X11 Release 23.37.

Ordering Information and Procedures – TAPI SP 2.3

The order codes and rules for TAPI SP Release 2.3.1 and identical to that of TAPI 2.3.0, indeed all order codes refer to TAPI SP 2.3 without the 3rd digit suffix.

No changes to the ordering procedure or tools have been made with introduction of TAPISP Release 2.3.1.

The Symposium TAPI Server for Meridian 1 Release 2.3.1 software is shipped on CD-ROM together with a Security device and floppy disc containing the Keycode. The Keycode enables the required functionality.

Note:

TAPI SP Release 2.3.1 can only be deployed on a server that contains an Integrated IBM compatible, 25 pin, D type parallel port for the Security device.

A maximum of one TAPI SP Server is supported in an SCCS/SECS environment.

A maximum of 16 TAPI SP Servers are supported in a Direct Connect environment, however particular attention must be given to the Meridian 1, LAN and TAPI engineering.

Ordering Upgrades

To upgrade existing Symposium TAPI Server Release 2.1 or 2.2 users to Symposium TAPI Server for Meridian 1 Release 2.3.1 or to add options, follow the procedures in the following table.

When adding features, such as IVR/Networking to an existing installation, it will be necessary to first upgrade to Release 2.3 before adding the feature. The existing number of user licenses are carried forward when upgrading to Release 2.3. For example, all North American manufactured product Symposium TAPI Server Releases 2.1 and 2.2 included licenses for up to 1000 users. Ordering an upgrade to Symposium TAPI Server Release 2.3 will result in a 1010 user configuration.

Licensing Terms

Each copy of the Symposium TAPI Server for Meridian 1 Software can only be used on a single server.

For More Information

Contact your Nortel Networks Representative for additional information.

APPENDIX A

Symposium TAPI Server for Meridian 1 Release 2.3 Functionality

Symposium TAPI Server for Meridian 1 consists of software that runs on a Windows NT4 or Windows 2000 Server. The Symposium Agent 2.3 application, or 3rd party MS TAPI compliant applications can use the TAPI 2.1 to monitor and control calls at a device associated with the user. TAPI is a set of C-language routines that support telephony control capabilities for a generic PBX environment.

Symposium TAPI Server for Meridian 1 Release 2.3.1 supports the following functions. Refer to the Network Managers Guide supplied with Release 2.3.1 for full information.

- **TAPI applications can monitor and/or control the following types of Meridian 1 devices:**
 - 500/2500 analog sets
 - Line Side T1 channels
 - Meridian 1 Digital Sets
 - i2004 Internet Telephone
 - i2050 soft phone
 - Meridian Mail ports (Monitor only)
- **TAPI applications can activate the following call control functions on behalf of monitored devices:**
 - Make call
 - Answer call
 - Release call
 - Hold call
 - Unhold call
 - Conference call
 - Supervised Transfer call
 - Blink Transfer call
- **TAPI applications can activate the following ACD features on behalf of monitored ACD sets:**
 - Login
 - Logout
 - Ready
 - Not Ready
 - Make set busy
 - Make set in service
 - Message Waiting Lamp activation
- **TAPI applications are informed of the following events for any monitored device:**
 - Call abandoned in Queue
 - Call offered including DNIS, ACD Position ID, and CLID information
 - Station has gone on hook
 - Station has gone off hook
 - Station is ringing
 - Station has established an active call
 - Call has been disconnected from a Station
 - A station is no longer ringing
 - Station has been put on hold

- Station has retrieved a held call
- Station has initiated a transfer
- Station has completed a Transfer
- Station has initiated a conference
- Station has completed a conference
- A 3-party conference has reverted to a 2-party call

- **TAPI applications are informed of the following events for any monitored ACD device:**
 - Agent has made set busy
 - Agent has made set in service
 - Agent has Logged in
 - Agent has Logged out
 - Agent has gone Ready
 - Agent has gone Not Ready
 - Agent has unplugged the head-set - agent walk away
 - Agent has plugged in the head-set - agent return

- **TAPI applications can activate the following Device Control features on behalf of monitored sets:**
 - Activate/Deactivate Call Forwarding
 - Activate/Deactivate Message waiting lamp (must not be controlled by another application such as Meridian Mail)

- **TAPI applications can route calls or activate other call treatments via Meridian Link protocol Host Enhanced Routing Features on behalf of monitored Meridian 1 Control DN's (CDNs):**
 - Give ringback tone
 - Give silence
 - Give music
 - Route call to any DN

- **TAPI applications can NOT access Meridian Link Voice Processing functions.**

- **Host Enhanced Routing Feature is not available with the Direct Connect option.**

- **Meridian 1 TAPI Servers using the IVR/Networking Option can obtain private data such as Caller Entered Digits from an IVR system and make this data available to TAPI applications.**

- **Meridian 1 TAPI Servers using the IVR/Networking Option can be arranged pass private data associated with calls transferred or routed within a network of Meridian 1 systems.**

- **The Symposium TAPI Server for Meridian 1 provides the following OA&M functions:**
 - Configuration/Database utilities
 - Logging/Debug interface

APPENDIX B

Copy of Nortel Web Release stating SAP Interface Certification

www.nortelnetworks.com

February 14, 2002

Nortel Networks CTI Solutions Achieve SAP Interface Certification

Nortel Networks*, a leader in customer contact and Interactive Voice Response (IVR) solutions, has achieved Symposium* TAPI Service Provider (SP) interface certification to enable the interaction of its computer telephony integration (CTI) solutions with SAPphone based on mySAP.com* desktop applications.

This compatibility is achieved between Nortel Networks Symposium TAPI SP CTI middleware and SAPphone*, the softphone interface to mySAP* customer relationship management (mySAP™ CRM) solutions with the Service Update 1 for TAPI SP 2.3 from Nortel Networks contact center solutions. This integration will allow call center agents to perform incoming and outgoing telephony activities from their client PCs running mySAP CRM Customer Interaction Center for increased productivity.

The SAPphone-based integration enables the ability to screen pop customer data based on information collected by an IVR system connected to the Meridian* 1* and Symposium* Call Center Server. Nortel Networks Service Update 1 for TAPI SP 2.3 for the Meridian 1 provides fast deployment with out-of-the-box integration with the mySAP CRM Customer Interaction Center desktop without the need for complex configuration or custom development assuring timely deployment without business disruption.

The integration to mySAP CRM brings significant enhancements to the contact center desktop by increasing agent productivity and shortening both inquiry-response times and incoming calls, as customer data is now at the agent's fingertips via the softphone.

For more information, contact Dana Hughens, 615-432-4636, dhughens@nortelnetworks.com.

Web Releases are intended to provide customers, shareholders and employees with additional information, background and context on events and trends at Nortel Networks and the market as a whole. Breaking news and announcements will be communicated through news releases distributed via Business Wire.

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