

# IBM Lotus Sametime Unified Telephony Solution Assurance Checklist for a Technical and Delivery Assessment (TDA)

Version 1.1.1

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Updated June 8, 2010

**Abstract:** This document is meant to assist the Subject Matter Expert (SME) and Quality Practitioner in preparation for and during a Technical and Delivery Assessment (TDA).

**IBM Business Partners:**

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## Overview for IBM Lotus Sametime Unified Telephony

Telephony integration and telephony features provided by IBM Lotus Sametime software help make Sametime software the platform for next-generation communication services. The optional IBM Lotus Sametime Unified Telephony software provides a simple, consistent user communications experience on the desktop client, including:

- \* Phone presence of IBM Lotus Notes users
- \* Click to dial, Click to conference
- \* Multiple devices managed by unified number
- \* Integrated softphone
- \* Intelligent call routing

Sametime Unified Telephony software provides a middleware layer to enable telephony integration with multiple PBX back ends to support existing infrastructures. For organizations with complex telephony infrastructures, it can lower telephony costs without having to invest in expensive IP-PBX migrations. Even when consolidated on a single telephony vendor, Sametime Unified Telephony software can help reduce port and softphone fees and use less expensive IP hard phones.

Enterprises also have the option of integrating their existing telephony infrastructure into Sametime software through plug-ins provided by their telephony vendor.

Sametime software's out-of-the-box integration with a range of e-mail and productivity applications provides one-click access to Sametime services, including telephony capabilities.

## IBM Lotus Sametime Unified Telephony Solution Assurance Checklist

This checklist is meant to assist the IBM team or IBM Business Partner in preparing for a IBM Lotus Sametime Unified Telephony Technical and Delivery Assessment (TDA). It lists the tasks involved in the successful planning and installation of IBM Lotus Sametime Unified Telephony throughout an organization. This checklist provides guidance for the following areas (sections):

1. **Opportunity Information**
2. **Pre-Review Checklist**
3. **Attendees and Roles**
4. **Customer Requirements**
5. **Deployment Locations**
6. **Telephony Environment**
7. **Voice Mail Environment**
8. **IT Environment**
9. **Network**
10. **Facilities**
11. **Requirements and Organization**
12. **Configuration**
13. **Solution Design**
14. **Implementation and Operation**
15. **Migration**
16. **Product/Solution Capability**
17. **Hardware Configuration**
18. **TDA Summary**
19. **Action Item List**

**Note:** Not all of these areas need to be completed prior to the Technical and Delivery Assessment. However, plans should be in place to address each of these areas when information is available.

## 1. Opportunity Information

Customer Name:	
TDA Date:	
Revenue:	
Siebel #:	
Solution Description (Summary):	
Customer Overview	
Relevancy of Telephony service for the Customer's business	

## 2. Pre-Review Checklist

Item or Person required at the Review	Reference or Name
Documents describing customer requirements	
Documents describing the proposed solution	
SME for each technology area in the solution	
Opportunity Owner	
Technical Owner or Technical Team Lead responsible for the design of the solution	
Description of performance guarantees, if applicable	
Services provider or description of proposed services	
Staffing commitments	

### 3. Attendees and Roles

Role	Person
Quality Practitioner	
Opportunity Owner	
Technical Owner/Technical Team Lead	
Subject Matter Expert(s)	
Premium Support Manager (if applicable)	

## 4. Customer Requirements

Requirement	Detail
What are the Conditions of satisfaction	
What are the critical factors for success	
What are mission critical parts for the customer?	
What are the business benefits for the customer?	
Describe the customers installation project plan (What are the integration steps and the time frame)	
What is the size of the project (Number of sites in how many countries and how many users are planned for SUT)	
What is the Local Survivability concept.	
What are the high availability requirements?	Considerations regarding High Availability for TAS and TCS (SAN Cluster for TAS, TCS cluster)
Are there special routing requirements for SUT (e.g. Leased cost routing).	
What are the language requirements (Announcements)?	
What are the Voice quality requirements (Bandwidth, Codec, G711, G729, iLBC )?	
What are the Call Admission Control requirements or best effort?	
SUT provides a set of Call Features that is more or less static. Is there are clear view of the customer about the set of features that are delivered with SUT. (E.g. features like Call Center, Multi-Tenant, Voice-mail, Hunt-Groups, Simultaneous ringing are not part of SUT)	
Does the customer uses the "Voice chat" function of Lotus Sametime and needs a migration here (because it is not supported together with SUT)	
What are the Performance requirements for Conferencing (Number of simultaneous conferences and maximum size of conferences).	
What are the Requirements for billing/CDR tickets.	

Are there local national requirements to be considered (Handling of Emergency calls, Lawful interception, Geography redundancy)	
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## 5. Deployment Locations

Provide physical location information as it relates to the planned IBM Lotus Sametime Unified Telephony solution:

Current Lotus Sametime server(s) installation location(s)

Desired Lotus Sametime Unified Telephony (SUT) installation location(s)

Private Branch Exchange (PBX) locations to be interconnected with SUT solution

SUT end user locations

Please note: Enter only locations and contacts information here, technical details, version numbers, etc. will follow.

Current Technical Environment	Detail
<p>Describe the current technical environment (include overview and diagrams as appropriate). Geographic spread information will also be useful.</p>	<p>Please consider the following:</p> <ul style="list-style-type: none"> <li>• Sametime Server Topology / Locations:</li> <li>• Number of Users, Concurrent Users and Geographical Location of Users</li> <li>• Number of SUT Users, Concurrent SUT Users and Geographical Location of SUT Users</li> <li>• Network Topology:</li> <li>• Firewalls:</li> <li>• DNS:</li> <li>• Desired Lotus Sametime Unified Telephony (SUT) installation location(s)</li> <li>• Telephony infrastructure locations and devices to be interconnected with SUT solution (Private Branch Exchange (PBX), Gateways, Gateways to PSTN).</li> <li>• Local survivability</li> </ul>
<p>Describe the Status of IP Networks voice readiness</p>	
<p>Sametime User authentication via e-mail</p>	



<b>Locations</b>	
<b>Your current Lotus Sametime server(s)</b>	Enter information about your current Lotus Sametime server(s) location here, e.g. site name, address, country, technical contact person.
<b>Future SUT installation location 1</b>	Enter information about the first future SUT installation location here, e.g. site name, address, country, and technical contact person.
<b>Future SUT installation location n</b>	If more than one SUT sites are anticipated enter information about the other SUT installation location here, e.g. site name, address, country, technical contact person.
<b>PBX location 1</b>	Enter information about the interconnected PBX location here, e.g. site name, address, country, technical contact person, telephony solution type (IP/Non-IP) and number of phones and softphones.
<b>PBX location 2</b>	Enter information about the second interconnected PBX location here, e.g. site name, address, country, technical contact person, telephony solution type (IP/Non-IP) and number of phones and softphones.
<b>PBX location n</b>	Add location each interconnected PBX locations here, e.g. site name, address, country, technical contact person, telephony solution type (IP/Non-IP) and number of phones and softphones.
<b>Future SUT end users location 1</b>	Enter information about the planned SUT solution end users location here, e.g. site name, address, country, current PBX solution type (IP/Non-IP) and number of users (SUT/Non SUT users), potential SUT softphone users.
<b>Future SUT end users location 2</b>	Enter information about the planned second SUT solution end users location here, e.g. site name, address, country, current PBX solution type (IP/Non-IP) and number of users (SUT/Non SUT users), potential SUT softphone users.
<b>Future SUT end users location n</b>	Add information for each SUT end users location here, e.g. site name, address, country, current PBX solution type (IP/Non-IP) and number of users (SUT/Non SUT users), potential SUT softphone users.

## 6. Telephony Environment

Provide information about the current telephony environment, as it relates to the planned IBM Lotus Sametime Unified Telephony solution. Use separate table for each PBX:

- The customer's current telephony solution topology's, connectivity, logical structure, physical structure, and cabling plant as they relate to the new IBM Lotus Sametime Unified Telephony solution
- Deployed schemes for telephone numbering plans, dial and call routing plans<sup>1</sup> etc.
- Listing of current deployed hardware/devices, configurations, and support contracts

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<sup>1</sup> Despite who will do the design and configuration changes to the IP PBX, it is important to have the existing call routing design.

<b>PBX Information</b>	
<b>PBX type and vendor</b>	Enter PBX types and vendor, e.g. Cisco Unified Communications Manager Version 6.0.
<b>Number of extensions</b>	Enter number of extensions; desk phones, softphones in use
<b>SIP connections</b>	Describe the kinds/number of SIP trunks needed for full integration (PBX types, encoding used, etc.)
<b>Number and type of PSTN connections</b>	Enter number of PSTN connections (BRI/PRI E1/T1), e.g. 2 x PRI/E1
<b>Number and type of PSTN gateways (if applicable)</b>	Enter number of PSTN gateways for IP PBXs, e.g. 2 x Cisco 2811 with 1xE1/PRI
<b>PBX redundancy features (if applicable)</b>	Describe the current redundancy design.
<b>How is the PBX managed?</b>	In-house / Outsourced/ out tasked to: Who will make changes in the existing PBX(s) to handle routing between SUT and the existing system?
<b>Telephony Design</b>	
<b>Solution diagram provided</b>	Enter the name of document provided, if included.
<b>Telephony Numbering</b>	
<b>Numbering System</b>	Note the range of DNDs to be used as Unified Numbers, and whether they are currently in use
<b>Number Translations</b>	Detail the number translations that will need to take place (in TCS and/or existing PBX(s)) to seamlessly integrate with what is already in place.
<b>Office number(s)</b>	32(2)123 XXXX
<b>Extension Numbers (EXT)</b>	1000-1999
<b>Calling Pattern Description</b>	
<b>What to dial to reach public network</b>	0
<b>Pattern for local numbers</b>	0
<b>Pattern for national numbers</b>	0-0X-XXXXXXX
<b>Pattern for international numbers</b>	0-00-z
<b>Pattern for extension dialling</b>	3-XXX
<b>Disallowed numbers</b>	0600-z, International, National, Local, Other?
<b>Toll restrictions</b>	<none>
<b>Emergency numbers</b>	911/112 etc.
<b>Emergency calling (911 / 112) design</b>	Describe the current emergency calling design.

<b>Number translations</b>	Any additional speed dials required e.g. speed dial to regional offices.
<b>Disallowed numbers</b>	Any Private Numbering Plan required for restricted use by a select Business Group, such as restricted use of international long distance for some users but not others.

## 7. Voice Mail Environment

Provide the current voice mail environment information as it relates to the planned IBM Lotus Sametime Unified Telephony solution:

- Current voice mail solution, topology's, connectivity, logical structure, physical structure as it relates to the planned IBM Lotus Sametime Unified Telephony solution
- Deployed schemes for telephone numbering plans, dial and call routing plans<sup>2</sup> etc.
- Listing of current deployed hardware/devices, configurations, and support contracts

### ***Voice Mail 1 (Location)***

<b>Voice Mail Information</b>	
<b>Voice Mail type and vendor</b>	Enter Voice Mail types and vendor, e.g. Cisco Unity 5.0.
<b>Number of ports</b>	Enter number of ports, e.g. 16.
<b>Voice Mail Design</b>	
<b>Solution diagram provided</b>	Enter the name of document provided, if included.
<b>Telephony Numbering</b>	
<b>Voice Mail Number(s)</b>	32(2)123 1234

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<sup>2</sup> Despite who will do the design and configuration changes to the IP PBX, it is recommended to have the existing call routing design.

## 8. IT Environment

Provide information about your current IT environment as it relates to the planned IBM Lotus Sametime Unified Telephony solution:

- Information about the systems that the new IBM Lotus Sametime Unified Telephony system will be integrated with, such as
  - existing Lotus Sametime environment
  - corporate directory
- Information about typical end user workstation set-up, such as
  - desktop/laptop
  - operating system and version
  - installed personal firewalls and VPN clients
  - installed IP softphones or similar SW

<b>IT Solution</b>	
<b>Your current Sametime Implementation</b>	<p>Enter the details for existing Sametime installation, e.g. Lotus Sametime 8.0. Provide detailed information on the existing environment, including number of servers, operating systems, number of clients, software versions, architecture diagrams, existing method or update sites for plug-in distribution, etc...</p> <p>Will it be required to disable case awareness or enabling ID mapping?</p> <p>Note that the customer must make the policy changes and add the TAS IP(s) to the trusted list on their Sametime Server to allow TAS to operate correctly with the Sametime Server.</p>
<b>Your current Corporate Directory</b>	<p>Enter the details for corporate directory, e.g. LDAP, Tivoli Directory Server.</p> <ul style="list-style-type: none"> <li>• What LDAP server type and version is provided for in the environment?</li> <li>• If working with a non-Domino LDAP, can the schema of the LDAP be extended or are there attributes that can be re-purposed?</li> <li>• Can we connect to the LDAP server for provisioning?</li> <li>• Are all the required details in place on that LDAP server (Unified Number, voice mail number, dependable number, user id (which Sametime uses to authenticate a user)?</li> <li>• What LDAP group name will be used for SUT users?</li> </ul>
<b>Typical end user workstation setup</b>	<p>Enter the details for the typical end user workstation set-up, e.g. Lenovo T61 Laptop running Microsoft Windows XP with 2Gb memory. Symantec antivirus and personal firewall. No installed softphones. Sametime client 8.0. What desktop based software do you expect to be integrated with Lotus Sametime? What server based software do you expect to be integrated with Lotus Sametime?</p>
<b>Sametime/SUT clients</b>	<p>Current number of ST clients? Initial number of SUT clients that will be deployed? Anticipated total number of SUT clients that will be deployed?</p>
<b>How is your current IT environment managed?</b>	<p>In-house / Outsourced/ out tasked to:</p>
<b>Solution diagrams provided</b>	<p>Enter the name of document provided, if included.</p>

## **9. Network**

Provide information about your current network environment as it relates to the new, planned IBM Lotus Sametime Unified Telephony solution:

- Your network topology, connectivity, logical structure, physical structure, and cabling plant
- Deployed schemes for IP addressing, Quality of Service (QoS), Virtual Local Area Networks (VLANs), network management using Simple Network Management Protocol (SNMP), Network Time Protocol (NTP), etc.
- Network security (physical and logical) policies, procedures, standards, etc.
- Cabling standards (in Data Center)



<b>Network Information</b>	
<b>Data Center LAN</b>	Enter the details for the current Data Center LAN, e.g. the Data Center provides redundant connections to the WAN and to the servers; servers are connected to two separate access switches.
<b>Data Center Cabling Standards for LAN</b>	Enter the details for the Data Center cabling standards, e.g. Data Center server cabling is done with Gbit Ethernet with Cat6 cables. Some servers are connected directly with Multi-Mode fibers.
<b>vLAN</b>	Are vLans used, and should they be used for Management, billing and Signalling?
<b>Data Center Network Security Solutions</b>	Enter the details for the network security solutions, e.g. the Data Center has a two level of firewalls, perimeter (Checkpoint) and internal firewalls (Cisco PIX blade). Intrusion Detection and protection is deployed (Cisco).
<b>Remote Access Solutions</b>	Enter the details for the remote access solution: how is remote access provided? Is there a global VPN? What is the VPN solution used? For example, "remote access is provided via Internet connection in xxxxx, Cisco VPN (Virtual Private Network) solution is used.:

<b>Network diagram provided</b>	Enter the name of document provided, if included.
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Storage and Storage Area Network (SAN) Information	
<b>Data Center Storage System</b>	Enter the details for the current Data Center storage solution, e.g. No existing storage system is deployed.
<b>Data Center SAN / Storage</b>	Enter the details for the current Data Center SAN, e.g. no SAN network is deployed.
<b>Data Center Cabling Standards for SAN</b>	Enter the details for the current Data Center cabling standards, e.g. n/a.
<b>Solution diagram provided</b>	Enter the name of document provided, if included.

### **Wide Area Network**

Wide Area Network Information	
<b>Wide Area Network</b>	Enter the details for the current WAN, e.g. the current WAN is provided by AT&T. MPLS based solution with a single VPN. No QoS/ with QoS.
<b>WAN and local LAN – Data Center</b>	Enter the details (capacity, type) for the current WAN connection if the site and the local LAN, e.g. the site has a redundant 100 Mbps WAN connection. Access to Internet provided via the WAN connections using a separate MPLS VPN.
<b>WAN and local LAN – Site 1</b>	Enter the details (capacity, type) for the WAN connection if the site and the local LAN, e.g. the site has 2 Mbps WAN connection. Local LAN provides min. 100 Mbps Ethernet to the workstations. No Wireless LAN.
<b>WAN and local LAN – Site 2</b>	Enter the details (capacity, type) for the WAN connection if the site and the local LAN, e.g. the site has 2 Mbps WAN connection. Local LAN provides min. 100 Mbps Ethernet to the workstations. No WLAN.

<b>WAN and local LAN – Site n</b>	Enter the details (capacity, type) for the WAN connection if the site and the local LAN, e.g. the site has 2 Mbps WAN connection. Local LAN provides min. 100 Mbps Ethernet to the workstations. No Wireless LAN.
<b>How the current WAN is managed?</b>	In-house / Outsourced/ out tasked to:
<b>Network diagram provided</b>	Enter the name of document provided, if included.

## 10. Facilities

Provide information about your facilities as it relates to the planned IBM Lotus Sametime Unified Telephony solution:

- Information regarding your current physical environment, including but not limited to:
  - physical space layout and usage considerations;
  - device locations and concentrations;
  - power considerations; and
  - security policies and procedures.
- Physical planning information: locations and specifications (rack space, power, cooling, etc) of where equipment will be installed.

### **Data Center**

<b>Facilities - Data Center</b>	
<b>Physical Space</b>	Enter the details for the physical space and usage considerations for the planned SUT solution components, e.g. the Data Center has a single rack for SUT solution components.
<b>Power</b>	Enter the details for the power, e.g. Data Center provides redundant power. Servers are protected with UPS.
<b>Security policies and procedures</b>	Enter the details for the security policies and procedures, e.g. access to Data Center requires management approval. IBM has to provide names two weeks prior the planned installation date.

### **IP PBX Sites**

<b>Facilities – IP PBX Sites</b>	
<b>Site 1 (IP PBX site)</b>	Enter the details for the physical space and usage considerations, e.g. available rack space, redundant power, phones are protected with UPS, security policies.
<b>Site 2 (IP PBX site)</b>	Enter the details for the physical space and usage considerations, e.g. available rack space, redundant power, phones are protected with UPS, security policies.
<b>Site n (IP PBX site)</b>	Enter the details for the physical space and usage considerations, e.g. available rack space, redundant power, phones are protected with UPS, security policies.

### ***Non-IP PBX Sites***

<b>Facilities – Non-IP Sites</b>	
<b>Site 1 (Non-IP PBX site)</b>	Enter the details for the physical space and usage considerations, e.g. available rack space, redundant power, phones are protected with UPS, security policies.
<b>Site 2 (Non-IP PBX site)</b>	Enter the details for the physical space and usage considerations, e.g. available rack space, redundant power, phones are protected with UPS, security policies.
<b>Site n (Non-IP PBX site)</b>	Enter the details for the physical space and usage considerations, e.g. available rack space, redundant power, phones are protected with UPS, security policies.

## 11. Requirements

		Yes / No / NA	Comments
4 .1	Has a client organization and/or executive sponsor or been identified?		
4 .2	Are the assumptions and customer risks understood and documented?		
4 .3	Is the customer's present environment and background understood and documented?		
4 .4	Have the customer's baseline requirements been documented in the following areas?  Functional  Operational  Performance  Scalability & Load Balancing		
4 .5	Have the baseline requirements been approved by the customer?		
4 .6	Have the business benefits been documented?		



## 12. Solution Design

		Yes / No / NA	Comments
11.1	Does the design meet the functional requirements?		
11.2	Does the design meet the performance requirements?		
11.3	Does the design meet availability requirements?		
11.4	Have detailed systems management procedures (backup / recovery, server monitoring, problem management and change management) been defined?		
11.5	Does the design meet upgradeability requirements?		
11.6	Does the design meet scalability requirements?		
11.7	Does the design meet security requirements?		
11.8	Has this proposed solution been successfully implemented before? Where? By whom?		
11.9	Is a benchmark or proof of concept required? If so has it been resourced and funded?		
11.10	Does the design or solution depend on unannounced products? If yes, identify the design or solution.  How will the customer get support for unannounced products?		
11.11	What source of best practice guidance was used to design this solution – i.e., Development Guides, Redbooks, Lab.		

### 13. Configuration

		Yes / No / NA	Comments
12.1	Has the proposed IBM Software and Hardware been configured and documented?		
12.2	Has the proposed non-IBM Software and Hardware configuration been documented and verified?		
12.3	Have the configurations been produced and checked by a specialist experienced in using the appropriate configurator?		
12.4	Have the appropriate versions of all required Software been included? List Software versions here.		
12.5	Has software and hardware compatibility been checked? Identify any issues or concerns here.		

## 14. Implementation and Operation

	Activity	Yes / No / NA	Comments
13.1	Has an agreement been reached as to who will provide implementation services?		
13.2	Has the service provider provided a quote and has this been included in the proposal?  Does the service provider have adequate skills?		
13.3	If more than one provider (Customer, BP or IBM) is involved, is it clear who is responsible for what?  Is the exit criteria clear?		
13.4	Does a project plan exist for the implementation and has someone with relevant experience reviewed and approved the project plan?		
13.5	Does the customer understand IBM Support Services and Support Line?		
13.6	Has a post-sales support contract been included in the proposal to cover operational hours?		
13.7	Is it explicitly stated who will be responsible for systems management? This includes defining the processes, tools and services for Change/Problem/Performance/Availability/Capacity/Operations/Security Administration.		
13.8	Are there any formal acceptance tests. If so, who owns them and have sufficient resources been allocated to execute them?		
13.8	Has a training and education plan been defined and documented?		

## 15. Migration

	Activity	Yes / No / NA	Comments
14.1	Are plans for migration of current applications needed?		
14.2	If migrating to a new product level, has the customer reviewed all available migration information for migrating planning assistance?		
14.3	Does the customer have a fall back plan if migration is not successful?		

## 16. Product/Solution Capability

	Activity	Yes / No / NA	Comments
15.1	Has the overall architecture of the solution been documented?		
15.2	Have the customer's scalability and load balancing requirements been documented?		
15.3	Has the customer approved the scalability and load balancing requirements?		
15.4	Can customer expectations be met by IBM Sametime Unified Telephony published capabilities?		
15.5	Has the expected workload been evaluated (max. / avg # of <b>concurrent</b> access by applications, <b>expected transactions per second</b> , peak usage periods, off periods of maintenance, etc.)?		

## 17. Hardware Configuration

	Activity	Yes / No / NA	Comments
16.1	Has the hardware configuration been sized and verified to match the customer's requirements?		
16.2	Have the following been taken into consideration? <ul style="list-style-type: none"> <li>• Cost</li> <li>• Number of users, applications, nodes, partitions, etc.</li> <li>• Footprint (physical size of the servers)</li> <li>• Scalability and high availability</li> <li>• The number of servers required to support the solution</li> <li>• Is redundancy required for each server</li> <li>• Does the fully configured server allow for expected growth</li> <li>• Will the planned configuration provide the required throughput and response time?</li> </ul>		
16.3	Will the hardware configuration allow for easy expansion to meet future growth requirements?		
16.4	Has the customer planned for connectivity options?		
16.5	Is the appropriate network infrastructure in place (routers, bridges, cabling, etc.)?		
16.6	Are availability requirements known and documented?  Does the proposed configuration meet those availability requirements?		
16.7	Are hardware maintenance requirements known?		
16.8	Is there a backup and recovery plan in place?		
16.9	Have systems management tools and services been identified?		

### 18. TDA Summary

	Activity	Yes / No / NA	Comments
17.1	Is anyone aware of any risks or issues that have not been adequately explored?		
17.2	Is there any other useful information the Quality Practitioner or SME's need to be aware of?		

### 19. Action Item List

From Question #	Action Item	Owner	Due Date	Complete Date



## Document Change Control

Version	Changes
V1.0	Original Version
V1.1	Incorporated review comments

End of document.