Checklist Installation Customer System

Before Installation

This information is required **before** the basic installation of the system.

Information	Comments	Example	Status
Hypervisor host Access to hypervisor: • IP address • login data of administrator / root or specific account	Only reqired, if VMs are to be configured.	1.1.1.1 root / secret	
Hypervisor type The type of the hypervisor used is needed if the tools are not pre-installed.	Part of the standard installation is to install tools for Hyper-V or VMWare If the hypervisor is neither of these, the tools **must** be installed by the customer.	HyperV / VMWare	
Network For the subnet(s) of the virtual machines: • IP range • Netmask • Default gateway • Domain suffix		Network: 192.168.1.0 Netmask: 255.255.255.0 Gateway: 192.168.1.254 Domain Suffix: example.com	
Naming convention The required naming convention for the virtual machines.	Only reqired, if VMs are to be configured.	acd-dbm. example.com acd-jb1. example.com acd-tel1. example.com	
DNS Servers The addresses of the DNS servers used in the network are required.		192.168.1.254	
Time server The IP address of at least one reliable time server. If not available, is a reliable time server accessible via customer firewall by NTP?	A reliable NTP time server must be available for the installation. Windows domain controllers are not always reliable NTP sources.	ptbtime1.ptb. de ptbtime2.ptb. de ptbtime3.ptb. de	
CentOS Root Login The root user and password is required for the CentOS servers.	If the root user is not supplied, the supplied user account **must** be able to execute commands with sudo and change to root with sudo -s.	User: root Password: secret	

Windows Login An AD domain user or a local user is required for the Windows Server(s).	This user **must** have local administrator rights to the machine.	User: administrator Password: secret	
Internet connection Available from the VMs directly or proxy server settings.	The installation **cannot** be performed without internet access. If a proxy is required to access the internet, the proxy server address, port, user and password is required.	Proxy Server: proxy.example.com: 8080	
Windows updates All windows updates should be performed on the windows server before handover.	The customer is responsible for updating the windows operating system.		
Virus scanners Not all virus scanners are good news. The jtel system is a real-time communication system - and some virus scanners are very intrusive indeed (or just plain and simply badly configured) and can have a serious impact on system performance.	It is solely the customer's responsibility for deploying an adequate virus scanner.		
External file share The file share used by the system can be external and provided, for example, by a high availability storage system. If this is to be external, an SMB file share is required and the following information: • User name • Password	Note, because Windows machines will inevitably use the logged in user and password when accessing the share, this is recommended to be the same as the username and password used on the windows machine(s). This is **required** to be so if the applications on the windows machine are to be configured as windows services.	User: jtelacd Password: secret	
Firewall and Routing All of the machines for the ACD installation will be installed with a firewall, and the necessary ports opened for communication between the machines. An additional firewall between the servers of the ACD is not recommended. A firewall between the PBX and the ACD must be correctly configured to allow SIP / RTP and the PBX connector from the jtel system to access the PBX.	A firewall between the servers is not recommended, better as a standalone solution in it's own subnet with a firewall covering access to the load balancer by http(s) for accessing the webservers. A firewall between the PBX and the ACD is not recommended. A proxy between the PBX and the ACD (for accessing the PBX connector) is definately not recommended and may cause serious problems with operation (timeouts and other errors).		
Web Access If a certificate is required (i.e. the portal should be accessed via https) then a certificate is to be provided before installation. The certificate must be provided in **.pem** Format including the following: • Certificate for server • Intermediate CA certificate (chain) • Private Key			

After Installation

Information	Comments	Example	Status

LDAP(S)	Only required for LDAP / LDAPS authorization of logins.	ldaps://domaincontroller.example.com:636	
• Protocol • Server URL • Port	For further information, visit this page		
Email Server For sending email via SMTP: • Protocol and port • Username and password • E-mail sender		Server: smtp.example.com Protocol: SMTPS / starttls Port: 587 User: jtelacd@example.com Password: secret Sender: jtelacd@example.com	

Tests after Basic Installation

It is recommended to perform the following tests after basic installation is complete:

Test	Required Result	Status
SIP licenses installed and correct count	Correct count	
Configuration of telephony server • giAculab.cfg • StdCall_MCP.cfg • 8-Server License Count	channel_count = SIP licenses	
Configuration of telephony server • StdCall_MCP.cfg	Total channels, inbound and outbound channel counts correct.	
Configuration of telephony server • 8-Server License Count	Lines and P2 correspond to number of purchased agent / supervisor / queue / IVR and transfer channels	
Symmetric RTP setup • mhp.cfg	File present and correct count	
PBX Connector • Connected and functional	Receives messages regarding monitored extensions in log.	

Time Synchronisation	All servers syncing with a reliable time server. • Windows: NTP Status • Linux: ntpq -p	
Platform UDP Listener	Configured and running on telephony and webservers, cluster connecting OK	
MySQL replication	SHOW SLAVE STATUS\G output good on all DBs • For master-master on all DB servers • For master-slave on all slave servers	
Telephony Server	No errors when starting up	
Webservers	No errors when starting up	
Load Balancer	haproxy • available and reachable via port 7777 • all webservers active • If master-master replication, masters are active-standby, slaves are active-active • Certificate installed if provided? http to https redirection implemented?	
PBX Connection • Incoming Calls	• Trunk setup in jtel portal • Incoming number converter correct and converts to E.164 correctly • Test internal, national and international numbers	
PBX Connection • Outgoing Calls	• Trunk setup in jtel portal • Outgoing number converter correct and converts to required format for PBX correctly • Calls to internal PBX extensions and external (national and international) numbers possible • dialler.8Server.IPs parameter setup to actual names of windows servers	
System parameters	Check other system parameters and make any necessary modifications	

Tests after System Configuration

It is recommended to perform the following tests after some configuration (setting up test numbers and an ACD group):

Test	Required Result	Status
Configure an ACD group with a logged on agent and music on hold. Setup group to allow calls without logged in agents.	• Login / logout OK	

Incoming call to a test number, agent not available.	• Music on hold is played
Incoming call on test number, agent available.	• Agent home / mini client displays call status as soon as phone rings • Caller and agent can hear each other • Display of information in mini client and full client is OK and contains the required data and numbers in correct (international) format • Hold / Retrieve work in jtel portal • Call is cleared properly to both ends without delay when one party ends the call
Accept Call button	• Works if configured and supported by the PBX connector • Automatic call answer can be set and works if configured and supported by the PBX connector
Number display on called device	• Displayed number on agent device is OK • Number on agent device can be called back directly (without using the ACD)
Supervisor	• Data from test calls is displayed and correct
Statistics	• Data from test calls is retrievable via ACD and Service Number reports
PBX Connector	• PBX extensions imported to PBX users correctly • Status of PBX users and agents change when the user is on the phone
Voice Mail - setup a rule to record a voice mail and activate this rule	• Voice mail delivered • Voice mail can be retrieved via web application • Call-Back can be done to number which left voice mail