OpenScape Business S in hosted/cloud Deployments

Frank Wulf, UNIFY
Version 1.14
Agenda

• OpenScape Business S in hosted/Cloud Deployments
  • Introduction
  • Scenario Overview
  • Scenarios
  • Multi Instance
  • Data Center Deployment
  • Technical Requirements
  • General Hints
  • Bandwidth
  • Firewall
Agenda

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OpenScape Business S in hosted/cloud deployments - Highlights

- Full featured OpenScape Business S operated out of a Datacenter
- Multi Instance Solution hosted by a Partner or Customer
- Own virtualized OSBiz S Instance per Customer (private Cloud)
- Easy Deployment (~15min) via OVA (Open Virtualization Appliance)

OpenScape Business S with Pay As You Go – a perfect business model for Partners to offer a flexible payment model on top of a secure and trustful landscape
OpenScape Business S in hosted/cloud deployments – Key Advantages

- **Lower costs** due to specialized provider and less own hardware
- High flexible IT resources and all-time up-to-date infrastructures
- **Resilience and high physical safety** for your hosted/cloud solution
- Seamless moving of server infrastructures

- OVA Open virtual Appliance (setup within 15 minutes)
- **one Image only:** “All in one Solution” incl. UC, CC, Fax, Conference
- easy Cloud Setup, deploy OVA, IP Configuration via yast2 or script
- one **secure OSBiz S Instance** per customer
- easy interface connection (MS-Exchange/LDAP…..)

- Cloud Setup without WBM
- System and User Data Provisioning is part of Reseller.
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OpenScape Business cloud scenario overview

**Simple Deployment**
- One VM Instance for each customer for all services
- Flexible license model
- Only Web Collaboration is a Shared Service
- Local Gateway supports trunks (BRI, PRI), DECT (important in Europe) and analog a/b Ports
- Single Management for Server and Gateway Web based
OpenScape Business cloud Scenario overview device@home

Simple Deployment
- One VM Instance for each customer for all services
- Flexible license model
- Only Web Collaboration is a Shared Service
- analog a/b Ports via SIP Adapter
- UC with UC Smart via HTTPS
- UC Suite only via My Portal WEB Edition
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OpenScape Business - Scenario 1
Standard

Simple Deployment
- Customer with SIP trunk and one Location
- Only IP User
- One VM Instance for each customer for all services (max. 1000 User)
OpenScape Business - Scenario 2
Standard with Circuit

Simple Deployment
- Customer with SIP trunk and one Location
- Only IP User
- One VM Instance for each customer for all services (max. 1000 User)
OpenScape Business - Scenario 3
Including Gateway

Simple Deployment
- Customer without SIP Trunk
- One VM Instance for each customer for all services (max. 500 User)
- Only Web Collaboration is a Shared Service
- Local Gateway supports DECT (important in Europe) and analog a/b Ports / T1/E1
- Single Management for Server and Gateway Web based

Data Center

Voice + UC Customer

Public Internet

SIP trunk

T1/E1 S0/S2M

Collaboration (shared)
OpenScape Business - Scenario 4

Simple Deployment
- One Customer with one Central SIP Provider Trunk with one area code for all sites
- One VM Instance for each customer for all services (max. 500 User)
- Only Web Collaboration is a Shared Service
OpenScape Business - Scenario 5
Multi-Gateway

Simple Deployment
- Customer that don’t want to use centralized SIP Trunking will use a Gateway at some or all of the locations
- Only Web Collaboration is a Shared Service
- Single Management for Server and Gateway Web based
- Local Gateway also support DECT and analog Ports

- T1/E1
- S0/S2M
- Location Munich
- Location Berlin
- Location Frankfurt

- Data Center
- Collaboration (shared)
- Public Internet
OpenScape Business - Scenario 6
Multi-Site separate area code on each site

**Simple Deployment**
- One Customer with max 8 different area codes for each Location
- Only Web Collaboration is a Shared Service

+49-89-xxxxx
Site Munich

+49-30-xxxxx
Site Berlin

+49-69-xxxxx
Site Frankfurt

Data Center
Collaboration (shared)

SIP trunk
Public Internet

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Frank Wulf - PH HQ OB
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Multi-Instance vs. Multi Tenant Approach

Traditional Cloud Offering

“Multi-Tenant” Communication Infrastructure
“one shared system for multiple customer”

“only” IP based

OpenScape Business Multi Instance

“Multi-Instance”
“one own system for each customer”

IP based, but also the possibility to use TDM, fully flexibility

TDM; DECT; FAX; Tür..
OpenScape Business hosted/Cloud
Multi instance approach deployment, setup and connectors

Deploy OVA and Setup IP Interface by Data Center
System Configuration & Services by Reseller

Easy to connect Interfaces:
- Exchange
- LDAP
- Other

Trusted private cloud
Operation Center

Multi Instance

Data Center
OpenScape Business hosted/cloud
Multi instance services for each customer

Customer

VPN or MPLS

RSP Remote Access

Teleworker

Public Internet

SIP trunk

Data Center

Trusted private cloud
Operation Center

Multi Instance

UC Smart

Unify Update Service

Remote Access

Teleworker

Public Internet

SIP trunk

Data Center

Trusted private cloud
Operation Center

Multi Instance
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Virtualization VMware OVA/OVF SLES with OpenScape Business

For deployment of individual VMware instances in the data center you can download the VMware OVA/OVF* file from the Partner Portal / SWS. Login credentials and some hints will be found after opening the OVA with VMware in the Info Field.

* OVF Open Virtualization Format
* OVA Open Virtualization Appliance
OVA File download via Unify Partner Portal

- Can be found within UNIFY Partner Portal Software Download Server
Deployment Second LAN Interface separates the Customer Network from public SIP Provider Network.
OpenScape Business
Service Interfaces for Cloud Data Center

- Deploy OSBiz via OVA File
- Parse Running OSBiz Services and Application
- Scripting to Setup IP Parameter and Interfaces
- Scripting to deploy Reseller Remote Access RSP
- Scripting for System Software Update

Data Center
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OpenScape Business Harddisk Size for S

- **Hard disc Size**

  up to 50 User 15 GB root partition, 40 GB home partition, 2-4 GB Swap partition (overall 60GB)

  up to 100 User 15 GB root partition, 80 GB home partition, 2-4 GB Swap partition (overall 100GB)

  more than 100 Users and Contact Center 15GB root, 180 GB home, 2-4 GB Swap partition (overall 200GB)

  more than 500 Users and Contact Center 15GB root, 480* GB home, 2-4 GB Swap partition (overall 500GB)

  (Sizing of home partition must be setup in VMWare, for second disk)
Hardware Requirements OpenScape Business S

The OpenScape Business S can be installed on a Linux server. The SLES 11 SP4 64-bit version can be used as the operating system. The OpenScape Business S / may also be run in a virtual environment with VMware vSphere.

The server PC must satisfy the following minimum requirements:

- Certified by the PC manufacturer for SLES 11 SP4 64 bit
- The communication software for OpenScape Business must be the only application running on the server (excluding virus scanners)
- At least a dual-core processor with 2.0 GHz per core or more up to 500 Users; 8 cores for more than 500 users
- At least 2 GB RAM (recommended: 4 GB RAM)
- Hard disk (recommended: 60GB [up to 50 users]; 100GB [up to 100 users]; 200 GB [up to 500 users] or more)
- Screen resolution: 1024x768 or higher
- Min 4 vCPUs and 8GB RAM for up to 1000 users

The RAM requirements for the server PC are dependent on the OpenScape Business System expansion and functions used. For the following functions a minimum of 4 GB of RAM is a requirement:

- Convert Fax to PDF format
- OpenScape Contact Center Multimedia Business
- more than 100 users
- Gate View
- XMPP
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Good to know:
Firewall

OpenScape Business S requires a firewall on the server where installed!
**Good to know:**

Licensing with **Advanced Locking ID (ALI)**

The following parameters are necessary for the licensing:

- IP Address of the virtual instance from the system
- DNS Server Address
- Default Gateway
- Hostname
- Time zone

Please note: A change of one or several of these parameters requires a license “rehost” on Central License Server
Good to know:
Supported Virtualization Platforms

**VMWare**
OVA File exist and can be used
or manual installation
(for details look into our documentation: administration OpenScape Business S)

**Microsoft Hyper V**
manual installation
(only static mode)
(for details look into our documentation: administration OpenScape Business S)
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  - General Hints
  - Bandwidth calculation examples
  - Firewall
Simple Deployment
- Customer with SIP trunk and one Location
- Only IP User
- One VM Instance for each customer for all services (max. 1000 User)
Bandwidth between Data Center und Customer Location
ISDN Gateway at Customer Location

Boundary conditions

1. ISDN Gateway at Customer Location(!)
2. Prioritization Real time Information / QoS must be available; Latency and Packet loss accordingly Unify Guideline for VoIP
3. All values are for G.711 Codec and default Packet Size
4. All values for Standard Voice Mail usage (Message and length)
5. Bandwidth must be symmetrical available (in both directions)
6. Bandwidth deficits can have effects on existing connections, not only for new connections
7. Other hosted applications, additional to OpenScape business may have effects on Bandwidth (e.g. E-Mail, Web Collaboration, File Space, Terminal Server, Virtual Desktops, …) it is necessary to calculate additional bandwidth for this services
## Bandwidth between Data Center und Customer Location

### ISDN Gateway at Customer Location

<table>
<thead>
<tr>
<th>User on Location Site</th>
<th>Standard</th>
<th>Power User</th>
<th>Standard + CC</th>
<th>Power + CC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal Traffic (0,15 Erl.)</td>
<td>High Traffic(0,18 Erl.)</td>
<td>Normal Traffic (0,15 Erl.)</td>
<td>High Traffic (0,18 Erl.)</td>
</tr>
<tr>
<td></td>
<td>50% Voice Only</td>
<td>25% Voice Only</td>
<td>50% Voice Only</td>
<td>25% Voice Only</td>
</tr>
<tr>
<td></td>
<td>50% UC (myPortal)</td>
<td>75% UC (myPortal)</td>
<td>50% UC (myPortal)</td>
<td>75% UC (myPortal)</td>
</tr>
<tr>
<td></td>
<td>50% use Voice Mail</td>
<td>25% use Voice Mail</td>
<td>50% use Voice Mail</td>
<td>25% use Voice Mail</td>
</tr>
<tr>
<td></td>
<td>No Personal Fax</td>
<td>25% use Personal Fax</td>
<td>No Personal Fax</td>
<td>25% use Personal Fax</td>
</tr>
<tr>
<td></td>
<td>No Contact Center</td>
<td>No Contact Center</td>
<td>10% CC Agents</td>
<td>No Contact Center</td>
</tr>
<tr>
<td></td>
<td>Less conferences</td>
<td>Many conferences</td>
<td>Less conferences</td>
<td>Many conferences</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Traffic Demand (Number of Users)</th>
<th>Standard Bandwidth</th>
<th>Power User Bandwidth</th>
<th>Standard + CC Bandwidth</th>
<th>Power + CC Bandwidth</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0,34 Mbit/s</td>
<td>0,40 Mbit/s</td>
<td>0,46 Mbit/s</td>
<td>0,50 Mbit/s</td>
</tr>
<tr>
<td>20</td>
<td>0,44 Mbit/s</td>
<td>0,50 Mbit/s</td>
<td>0,63 Mbit/s</td>
<td>0,69 Mbit/s</td>
</tr>
<tr>
<td>50</td>
<td>0,76 Mbit/s</td>
<td>0,87 Mbit/s</td>
<td>1,15 Mbit/s</td>
<td>1,25 Mbit/s</td>
</tr>
<tr>
<td>100</td>
<td>1,18 Mbit/s</td>
<td>1,40 Mbit/s</td>
<td>1,88 Mbit/s</td>
<td>2,08 Mbit/s</td>
</tr>
<tr>
<td>150</td>
<td>1,57 Mbit/s</td>
<td>1,88 Mbit/s</td>
<td>2,55 Mbit/s</td>
<td>2,84 Mbit/s</td>
</tr>
<tr>
<td>200</td>
<td>1,94 Mbit/s</td>
<td>2,33 Mbit/s</td>
<td>3,21 Mbit/s</td>
<td>3,58 Mbit/s</td>
</tr>
<tr>
<td>400</td>
<td>3,33 Mbit/s</td>
<td>4,07 Mbit/s</td>
<td>5,70 Mbit/s</td>
<td>6,41 Mbit/s</td>
</tr>
</tbody>
</table>
Bandwidth requirements btw. datacenter and customer site
ISDN gateway or SIP connection in the Cloud (Scenario 2)

Simple Deployment
- Customer without SIP Trunk
- One VM Instance for each customer for all services (max. 500 User)
- Only Web Collaboration is a Shared Service
- Local Gateway supports DECT (important in Europe) and analog a/b Ports / T1/E1
- Single Management for Server and Gateway Web based

T1/E1 S0/S2M

Data Center

Voice + UC Customer

Public Internet

SIP trunk
Bandwidth requirements btw. datacenter and customer site
ISDN gateway or SIP connection in the Cloud

Boundary conditions

1. ISDN Gateway or SIP connection in the Cloud (!)
2. Prioritization of real-time information / QoS must be available; Latency and packet loss corresponding to the Unify requirements for VoIP
3. All mentioned values are for G.711 Codec and Standard package size
4. All values are for a standard usage of voice mail
   (Message traffic and retrieval, number and length of messages)
5. The mentioned symmetrical bandwidth must be available (in both directions)
6. Bandwidth deficits may also affect existing connections, located not only on newly started or under start conditions
7. Are in the data center additional OpenScape Business Application Server hosted further more (eg E-Mail, Web Collaboration, File Server, Terminal Server, Virtual Desktops, etc.) increases the bandwidth required to meet the requirements of these services
## Bandwidth requirements btw. datacenter and customer site

ISDN gateway or SIP connection in the Cloud

<table>
<thead>
<tr>
<th>User on Location Site</th>
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<th>Power + CC</th>
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<td></td>
<td>50% Voice Only</td>
<td>25% Voice Only</td>
<td>50% Voice Only</td>
<td>25% Voice Only</td>
</tr>
<tr>
<td></td>
<td>50% UC (myPortal)</td>
<td>75% UC (myPortal)</td>
<td>50% UC (myPortal)</td>
<td>75% UC (myPortal)</td>
</tr>
<tr>
<td></td>
<td>50% use Voice Mail</td>
<td>75% use Voice Mail</td>
<td>50% use Voice Mail</td>
<td>75% use Voice Mail</td>
</tr>
<tr>
<td></td>
<td>No Personal Fax</td>
<td>25% use Personal Fax</td>
<td>No Personal Fax</td>
<td>25% use Personal Fax</td>
</tr>
<tr>
<td></td>
<td>No Contact Center</td>
<td>No Contact Center</td>
<td>10% CC Agents</td>
<td>10% CC Agents</td>
</tr>
<tr>
<td></td>
<td>Less conferences</td>
<td>Many conference</td>
<td>Less conferences</td>
<td>Many conference</td>
</tr>
<tr>
<td>10</td>
<td>0.43 Mbit/s</td>
<td>0.58 Mbit/s</td>
<td>0.64 Mbit/s</td>
<td>0.78 Mbit/s</td>
</tr>
<tr>
<td>20</td>
<td>0.62 Mbit/s</td>
<td>0.86 Mbit/s</td>
<td>0.99 Mbit/s</td>
<td>1.21 Mbit/s</td>
</tr>
<tr>
<td>50</td>
<td>1.09 Mbit/s</td>
<td>1.58 Mbit/s</td>
<td>1.86 Mbit/s</td>
<td>2.31 Mbit/s</td>
</tr>
<tr>
<td>100</td>
<td>1.76 Mbit/s</td>
<td>2.64 Mbit/s</td>
<td>3.16 Mbit/s</td>
<td>3.99 Mbit/s</td>
</tr>
<tr>
<td>150</td>
<td>2.39 Mbit/s</td>
<td>3.65 Mbit/s</td>
<td>4.41 Mbit/s</td>
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<tr>
<td>400</td>
<td>5.29 Mbit/s</td>
<td>8.38 Mbit/s</td>
<td>10.31 Mbit/s</td>
<td>13.31 Mbit/s</td>
</tr>
</tbody>
</table>

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Bandwidth requirements btw. Datacenter and two customer location (Scenario 3)

**Simple Deployment**
- One Customer with one Central SIP Provider Trunk with one area code for all locations
- One VM Instance for each customer for all services (max. 500 User)
- Only Web Collaboration is a Shared Service

```
Data Center

Location Munich
Location Berlin
Location Frankfurt

Collaboration (shared)

SIP trunk
Public Internet
```
Bandwidth requirements btw. Datacenter and two customer location

Boundary conditions

1. ISDN Gateway or SIP connection in the Cloud (!)
2. Prioritization of real-time information / QoS must be available; Latency and packet loss corresponding to the Unify requirements for VoIP
3. All mentioned values are for G.711 Codec and Standard package size
4. All values are for a standard usage of voice mail
   (Message traffic and retrieval, number and length of messages)
5. The mentioned symmetrical bandwidth must be available (in both directions)
6. Bandwidth deficits may also affect existing connections, located not only on newly started or under start conditions
7. Are in the data center additional OpenScape Business Application Server hosted further more (eg E-Mail, Web Collaboration, File Server, Terminal Server, Virtual Desktops, etc.) increases the bandwidth required to meet the requirements of these services
## Bandwidth requirements btw. Datacenter and two customer location

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<tr>
<td></td>
<td>50% Voice Only</td>
<td>25% Voice Only</td>
<td>50% Voice Only</td>
<td>25% Voice Only</td>
</tr>
<tr>
<td></td>
<td>50% UC (myPortal)</td>
<td>75% UC (myPortal)</td>
<td>50% UC (myPortal)</td>
<td>75% UC (myPortal)</td>
</tr>
<tr>
<td></td>
<td>50% use Voice Mail</td>
<td>75% use Voice Mail</td>
<td>50% use Voice Mail</td>
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<td></td>
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<td>10% CC Agents</td>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>0,42 Mbit/s</td>
<td>0,45 Mbit/s</td>
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<td>0,60 Mbit/s</td>
<td>0,64 Mbit/s</td>
<td>1,06 Mbit/s</td>
<td>1,10 Mbit/s</td>
</tr>
<tr>
<td>50</td>
<td>1,01 Mbit/s</td>
<td>1,09 Mbit/s</td>
<td>1,99 Mbit/s</td>
<td>2,06 Mbit/s</td>
</tr>
<tr>
<td>100</td>
<td>1,62 Mbit/s</td>
<td>1,74 Mbit/s</td>
<td>3,40 Mbit/s</td>
<td>3,51 Mbit/s</td>
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<tr>
<td>150</td>
<td>2,18 Mbit/s</td>
<td>2,34 Mbit/s</td>
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<td>2,72 Mbit/s</td>
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<td>11,51 Mbit/s</td>
</tr>
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Bandwidth requirements btw. Datacenter and two customer location ISDN Gateways or SIP in the Cloud (Scenario 4)

Simple Deployment
- Customer that don’t want to use centralized SIP Trunking will use a Gateway at some or all of the locations
- Only Web Collaboration is a Shared Service
- Single Management for Server and Gateway Web based
- Local Gateway also support DECT and analog Ports

Data Center

Collaboration (shared)

Public Internet

T1/E1 S0/S2M

Location Munich

Location Berlin

Location Frankfurt
Bandwidth requirements btw. Datacenter and two customer location ISDN Gateways or SIP in the Cloud

Boundary conditions

1. ISDN Gateway or SIP connection per customer location in the Cloud (!)
2. Prioritization of real-time information / QoS must be available; Latency and packet loss corresponding to the Unify requirements for VoIP
3. All mentioned values are for G.711 Codec and Standard package size
4. All values are for a standard usage of voice mail (Message traffic and retrieval, number and length of messages)
5. The mentioned symmetrical bandwidth must be available (in both directions)
6. Bandwidth deficits may also affect existing connections, located not only on newly started or under start conditions
7. Are in the data center additional OpenScape Business Application Server hosted further more (eg E-Mail, Web Collaboration, File Server, Terminal Server, Virtual Desktops, etc.) increases the bandwidth required to meet the requirements of these services
### Bandwidth requirements btw. Datacenter and two customer location ISDN Gateways or SIP in the Cloud

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<td>50% Voice Only</td>
<td>25% Voice Only</td>
</tr>
<tr>
<td></td>
<td>50% UC (myPortal)</td>
<td>75% UC (myPortal)</td>
<td>50% UC (myPortal)</td>
<td>75% UC (myPortal)</td>
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<td></td>
<td>50% use Voice Mail</td>
<td>75% use Voice Mail</td>
<td>50% use Voice Mail</td>
<td>75% use Voice Mail</td>
</tr>
<tr>
<td></td>
<td>No Personal Fax</td>
<td>25% use Personal Fax</td>
<td>No Personal Fax</td>
<td>25% use Personal Fax</td>
</tr>
<tr>
<td></td>
<td>No Contact Center</td>
<td>No Contact Center</td>
<td>10% CC Agents</td>
<td>10% CC Agents</td>
</tr>
<tr>
<td></td>
<td>Less conferences</td>
<td>Many conference</td>
<td>Less conferences</td>
<td>Many conferences</td>
</tr>
<tr>
<td>10</td>
<td>0,52 Mbit/s</td>
<td>0,59 Mbit/s</td>
<td>0,70 Mbit/s</td>
<td>0,79 Mbit/s</td>
</tr>
<tr>
<td>20</td>
<td>0,76 Mbit/s</td>
<td>0,91 Mbit/s</td>
<td>1,09 Mbit/s</td>
<td>1,25 Mbit/s</td>
</tr>
<tr>
<td>50</td>
<td>1,39 Mbit/s</td>
<td>1,71 Mbit/s</td>
<td>2,11 Mbit/s</td>
<td>2,44 Mbit/s</td>
</tr>
<tr>
<td>100</td>
<td>2,29 Mbit/s</td>
<td>2,93 Mbit/s</td>
<td>3,66 Mbit/s</td>
<td>4,27 Mbit/s</td>
</tr>
<tr>
<td>150</td>
<td>3,15 Mbit/s</td>
<td>4,07 Mbit/s</td>
<td>5,14 Mbit/s</td>
<td>6,01 Mbit/s</td>
</tr>
<tr>
<td>200</td>
<td>4,00 Mbit/s</td>
<td>5,19 Mbit/s</td>
<td>6,58 Mbit/s</td>
<td>7,73 Mbit/s</td>
</tr>
<tr>
<td>400</td>
<td>7,24 Mbit/s</td>
<td>9,52 Mbit/s</td>
<td>12,19 Mbit/s</td>
<td>14,43 Mbit/s</td>
</tr>
</tbody>
</table>

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Agenda

• Openscape Business S hosted/Cloud
  • Introduction
  • Scenario Overview
  • Scenarios
  • Multi Instance
  • Data Center Deployment
  • Technical Requirements
  • General Hints
  • Bandwidth calculation examples
  • Firewall examples/hints
OpenScape Business hints for external firewall settings

In general all ports should closed from and to OpenScape Business S (and X Models) The document should give some hints and examples to help and understand OpenScape Business S (or X Models) behind a Router / Firewall

Changes and configuration of the Firewall happens on your own risk

In most scenarios, the OpenScape Business is behind a SOHO NAT Router and nothing has to be configured, exception Device@home (for HFA and SIP) and UC Smart or myPortal to go.

On the next page you find the term Client and Server:
Client is the sender to start the session (for e.g. OpenScape Business in some scenarios)
Server is the receiver of the session (for e.g. SIP Provider in some scenarios)
For a Secure Remote Access to OpenScape Business Web Based Management (Administration) it is strictly recommended to use Unify RSP – Remote Service Platform instead of using a public IP via https://ip-address
OpenScape Business
SIP Provider Trunk example for Sipgate

OpenScape Business works as a client and initiate the session to the SIP provider via domain name sipgate.de Port 5060 and can reach different sipgate servers.

Behind standard SOHO NAT routers Firewall should not opened because in this scenario OpenScape Business works as a client and initiate the session.

e.g.:
sipgate.de:
Signaling
217.10.79.9:5060
217.10.68.147:5060
192.168.1.2:5060
OpenScape Business
SIP Provider Trunk example for Sipgate Firewall rules

SIP provider via domain name sipgate.de Port 5060 and can reach different sipgate servers
OpenScape Business RTP/UDP Range 30274:30529* OSBiz X 30528:30887* OSBiz S used for payload
OpenScape Business STUN 3478

If it is necessary to open the firewall from direction SIP provider Port 5060 please use the IP provider addresses and never “any IP addresses”

Firewall rule from Internet:
- Source IP 217.10.79.9 Port TCP 5060 Destination IP 192.168.1.2 Port TCP 5060
- Source IP 217.10.68.147 Port TCP 5060 Destination IP 192.168.1.2 Port TCP 5060

……… Get the IP Addresses of all Servers from the Provider, can be much more.

Firewall rule to Internet:
- Source: IP 192.168.1.2 Port TCP 3478 Destination: Internet
- Source: IP 192.168.1.2 Port UDP 29274:30529* Destination: Internet
OpenScape Business
SIP Provider Trunk hints external Firewall

• RTP:
  If necessary to add a rule for incoming RTP packages, (Server/SIP Provider) you have to request the UDP Port Range from the SIP-Provider. The incoming RTP/UDP Ports

• STUN:
  e.g.: If you used Port 3478 from OSBiz (works as Client) it can be the Server answered on a different Port e.g.: Port 3479
Teleworker Device@Home works as a client and initiate the session to OpenScape Business via IP-Address or dyndns Port 4062 RTP/UDP Range 29274:30529 OSBiz X 30528:30887 OSBiz S used for payload OpenScape Business for STUN works as a Client e.g.: 3478

Firewall rules necessary:

Firewall rule and Router forwarding from Internet: Source: IP 87.24.23.44 Port TCP 4062 Destination: IP 192.168.1.2 Port 4062
Source: IP 87.24.23.44 Port UDP 29274:30529 Destination: IP 192.168.1.2 Port 29274:30529

Firewall rule to Internet: Source: IP 192.168.1.2 Port TCP 3478 Destination: Internet

A technical configuration guide for Device@Home can be found here: http://wiki.unify.com/wiki/OpenScape_Business#System.28HFA.29Device.40Home
Teleworker UCSmart works as a client and initiate the session to OpenScape Business via https://IP-Addres or dyndns Port 8802

Firewall rule or Router forwarding from Internet: Source Internet Port TCP 8802 Destination IP 192.168.1.2 Port TCP 8802

A technical configuration guide for Device@Home and myPortal to go can be found here: http://wiki.unify.com/wiki/OpenScape_Business#System.28HFA.29Device.40Home
OpenScape Business
Circuit example for Firewall rules if needed

OpenScape Business works as a Client to get the Circuit Parameters for Trunk and Users

RTP/UDP Range
29274:30529 OSBiz X
30528:30887 OSBiz S
10000:49999 Circuit

Firewall rule from OSBiz:
- Source 192.168.1.2
- Port TCP 443
- Destination IP Circuit WEB (domain Name)
- Port TCP 443

Firewall rule from OSBiz:
- Source 192.168.1.2
- Port TCP ephemeral *2)
- Destination Circuit hUTC IP
- Port 50000

*1) IMPORTANT: use always the Circuit hUTC IP here! Never configure a portforwarding from “ANY” IP
*2) hUTC IP/Port can be verified through Expert Mode/Telephony Server/Voice Gateway/Native SIP Server Trunk/Circuit UTC (Cloud)
OpenScape Business
pay as you go example for Firewall rules if needed

Behind standard SOHO NAT routers Firewall should not opened because in this scenario OpenScape Business works as a client and initiate the session

<table>
<thead>
<tr>
<th>Firewall rule from OSBiz:</th>
<th>Source</th>
<th>Port</th>
<th>Destination</th>
<th>Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firewalls rule from OSBiz:</td>
<td>Source 192.168.1.2</td>
<td>Port TCP 7780</td>
<td>Destination IP 188.64.16.4</td>
<td>Port TCP 7780</td>
</tr>
<tr>
<td>Firewalls rule from OSBiz:</td>
<td>Source 192.168.1.2</td>
<td>Port TCP 7790</td>
<td>Destination IP 188.64.16.4</td>
<td>Port TCP 7790</td>
</tr>
</tbody>
</table>
OpenScape Business
Software Update Server example for Firewall rules if needed

Behind standard SOHO NAT routers Firewall should not opened because in this scenario OpenScape Business works as a client and initiate the session

Firewall rule from OSBiz:
- Source 192.168.1.2
- Port TCP 443
- Destination IP 188.64.17.244
- Port TCP 443
OpenScape Business
Remote Service Platform example for Firewall rules if needed

Behind standard SOHO NAT routers Firewall should not opened because in this scenario OpenScape Business works as a client and initiate the session
Firewall rule if needed:
Port 443
RSP Registrar: 188.64.18.51 und 188.64.17.51
VPN Server: 188.64.18.50 und 188.64.17.50
Any Questions?
We’re here to help and support

OpenScape Business S in hosted/cloud Deployments
Let’s Go Cloud!

...with OpenScape Business and you can even make calls with it!

Thank You!