



OfficeMaster GATE SESSION BORDER CONTROLLER AND FAX OVER IP GATEWAY

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OfficeMaster Gate

Session Border Controller and Fax over IP Gateway

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Media Gateways take on a pivotal role as SBC's in UC scenarios. They are used as translators and mediate between different protocols and services. OfficeMaster Gate (Virtual Edition) by Ferrari electronic fulfills this key role in entirely virtual environments.

Use as Fax over IP Gateway

The use as ISDN controller for Basic Rate Interface (BRI) or Primary Rate Interface (PRI) has always been a strong point of OfficeMaster Gate. Through the possibility of connecting it to IP connections, the field of application of OfficeMaster Gate is extended to T.38 and G.711 fax transmissions. This, in combination with OfficeMaster Suite, allows the user to set up a powerful fax solution that is usable for ISDN and IP connections.

Qualified for Microsoft Lync 2013 and Skype for Business

Ferrari electronic's OfficeMaster Gate (Virtual Edition) has been certified as SBC for Microsoft Lync 2013 and Skype for Business. Companies that are planning on using Microsoft Lync 2013 or Skype for Business for their communication with the virtual SBC by Ferrari electronic receive a Media Gateway that meets the quality standards.

Using our SBCs Together With Microsoft Lync 2013/ Skype for Business

There are different kinds of SIP trunks that can be connected to Microsoft Lync 2013 as well as Skype for Business:

- Trunks of telephony providers that are not certified for the connection to Microsoft Lync 2013/ Skype for Business
- Trunks that are certified and use the "Open Interoperability Program" (OIP)
- SIP connections to PBXs

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When Used as Enterprise Session Border Controller the Gateway Supports a Multitude of Functions

- The solution for a secure transition from public (WAN) to private (LAN) IP networks using a firewall for protection
- two network interfaces for separating WAN and LAN
- Registration and authentication at SIP trunks
- Adjusting between different versions of SIP protocols as SIP B2BUA (back to back user agent)
- Conversion between UDP, TCP or TLS as well as between encrypted and unencrypted voice transmission (SRTP/RTP)
- Fax communication via integrated softmodem with G.711 or T.38 in combination with OfficeMaster Suite
- Failover to alternative communication channels

At a Glance: OfficeMaster Gate as a SBC

- Can be installed as physical or virtual instance
- Interconnects private and public IP networks
- Registration and authentication at SIP-Trunks
- Qualified as SBC for Microsoft Lync Server 2013 / Skype for Business
- Protocol conversion (e.g. to connect Microsoft Lync 2013 with PBXs)
- Fax via softmodem (G.711) or T.38 together with OfficeMaster Suite
- High availability, failover, load balancing
- Integrated inbound fax for Exchange UM at no extra cost
- Ready for takeoff: two SIP channels already included

Installation

OfficeMaster Gate (Virtual Edition) can be implemented into an existing virtual environment (Hyper-V, VMware). Is no such virtual environment in place, the Hyper-V Role licensed for Windows Server 2008 or higher (except for the Webserver version) can be used. This allows for OfficeMaster Suite and OfficeMaster Gate to run on the same System.

The Software of OfficeMaster Gate (Virtual Edition) can alternatively be run on a physical server by Fujitsu Technology Solutions or other providers. A list of the currently supported hardware platforms can be requested from Ferrari electronic AG.

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Some Facts About Session Border Controllers (SBC)

SBCs are usually installed in between varying SIP entities like PBXs and UC solutions. They provide a multitude of functions that are, of course, not necessarily required in every scenario. Hereinafter a description of the typical functionalities is given.

Interoperability

Standard SIP has many extensions leading to a lot of variations in the detail. Some SIP providers require optional SIP header. UC systems and IP PBXs put the focus on their architecture which leads to topics like Media-Bypass and encryption gaining additional importance.

SIP trunks often only support SIP via UDP, whereas the internal communication requires SIP via TCP and TLS.

Another requirement is the translation of media data between RTP and SRTP or other codecs.

A SBC meets all those requirements. Session Border Controller work as "Back to Back User Agent" (B2BUA) where VoIP calls create a separate session on either side.

Security

When SBCs are used for the transition between public and private networks, they have to ensure that no attacks from the Internet are possible. It is essential that no IP communication is routed between both sides. Instead, only VoIP is transmitted.

Enhanced use

Additional to connecting two VoIP sessions, SBCs also provide different communication functionalities. Fax calls can be recognized and routed separately. They are either passed through directly or converted into T.38 and then routed accordingly. OfficeMaster Gate is able to do even more. It can receive fax directly via T.30 or T.38, all without a dedicated fax server.

Additionally, physical SBCs can also contact analogue devices through connection to FXS ports. External SIP ATAs (**A**nalogue **T**elephone **A**dapter) are another option. These SBCs can also provide ISDN ports for classical PBX and support migration scenarios to UC and SIP.

High Availability

Telephony is crucial for companies, putting SBCs into a central role and making high availability mandatory. SBCs should allow for Failover and Load Balancing to SIP trunks as well as UC systems. Physical SBCs should also allow for a Failover into ISDN.

Providers use large SBCs that are able to run thousands of parallel connections. SBCs used in companies are usually significantly smaller and administer somewhere between 10 and 500 channels. Those SBCs used in Enterprise companies are called E-SBC.