

Mutare giSTT Enterprise Appliance (DVOP) Specifications

Document #: 259

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Overview

This document outlines the requirements for a behind the firewall giSTT Enterprise Appliance (DVOP) for speech to text conversions.

Server Specifications

A medium to high end equipped, dedicated, server is required. VMWare servers are acceptable, but performance in this document is based on physical servers. Customer is responsible for configuring the server configurations detailed here:

- Core System: 2 CPU Cores, 1 GB RAM
- Conversion Pipeline: 1.5 HT Core, 2.5 GB RAM
- OS:
 - Red Hat Linux 6.3 (kernel 2.6.39-200.24.1.el6uek.x86_64) – Mutare can provide this exact release.
 - 1 GB RAM
 - 1 SAS HDD, 50GB

See the Capacity planning guidelines below for more details.

Capacity planning guidelines

The capacity of the giSTT Appliance Engine scales with the number of grid pipeline processes you deploy. The number of grid pipeline processes to deploy is based on:

Peak hour volume — the number of conversion requests received during peak hours, which is approximately 10% of the total daily volume.

The giSTT Appliance Engine system capacity can be configured for different levels of message volume. The results are listed in the table. This information is provided as a guideline only.

System size	Volume (peak hour)	Deploy	Cores		RAM (GB)
			Physical	HT	
Small	50 vm/hour	1 Core service	2	4	4
		1 Speech recognition service	1	2	2.5
Medium	500 vm/hour	1 Core service	2	4	4
		9 Speech recognition services	7	14	22.5
Large	4,000 vm/hour	1 Core service	3	6	10
		60 Speech recognition services	45	90	150
Extra large	40,000 vm/hour	1 Core service	4	8	10
		600 Speech recognition services	450	900	1500

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Examples:

- Small** - Equivalent to 1 x HP ProLiant BL460c G7 blade (single 4-cores)
- Medium** - Equivalent to 1 x HP ProLiant BL460c G7 blade (dual 6-cores)
- Large** - Equivalent to 5 x HP ProLiant BL460c G7 blades (dual 6-cores)
- Extra Large** - Equivalent to 42 x HP ProLiant BL460c G7 blades (dual 6-cores)

Notes:

- Benchmarked on the following system: HP ProLiant BL460c G7, Dual 6-core, 2.66GHz SAS HDD 15,000 RPM.
- These capacity figures are based on an average voicemail audio length of 30 seconds.
- Speech recognition services (grid pipelines) were run on hyperthreaded (HT) cores, with approximately 1.5 grid pipeline processes to each HT core. If your system does not run HT core processors, then you require one core processor for each grid pipeline process.

You can increase system capacity to meet increases in conversion-request volume by deploying additional grid-pipeline processes. Deploy and run grid pipeline processes on a dedicated host.

Nuance recommends that you configure the core processors of your grid pipeline hosts to support hyperthreading (HT), which allows you to install more grid pipeline processes on each host.

For example, a host with 12 dual-core processors configured to support hyperthreading, is the equivalent of having 24 virtual core processors. This configuration lets you install 16 grid pipeline processes:

$$16 \text{ Grid pipeline processes} = 24 \text{ Virtual cores} / 1.5 \text{ Virtual cores/Grid pipeline process}$$

DVOP Server Configuration Options	
DVOP Server IP Address.	
DVOP Server Root Password:	
IP Address registered with internal DNS?	Complete? <input type="checkbox"/>



Customer Initials: