

# SmartWORKS Storage Sizes by CODEC

## Purpose

The purpose of this document is to help customers determine how much storage space and disk drive size is required for their SmartWORKS system. Sizes shown are derived at by gauging the number of hours of storage needed against the various voice encoding algorithms (CODECs).

Listed below are the CODECs supported by SmartWORKS products. For the purposes of calculating disk size, one K =1,000 and one M =1,000,000. This differs from calculating file size where one K =1024.

CODEC	Bits/second	K Bytes/minute	M Bytes/hour
μ-law 8-bit PCM	64000	480.00	28.80
A-law 8-bit PCM	64000	480.00	28.80
Linear 8-bit PCM (Signed) *	64000	480.00	28.80
Linear 8-bit PCM (Unsigned)	64000	480.00	28.80
Linear signed 16-bit PCM *	128000	960.00	57.60
Linear unsigned 16-bit PCM	128000	960.00	57.60
Linear signed, 6 Khz, 16-bit PCM *	96000	720.00	43.20
GSM 6.10	13000	97.50	5.85
Microsoft GSM *	13000	97.50	5.85
Dialogic (Oki) ADPCM 6K	24000	180.00	10.80
Dialogic (Oki) ADPCM 8K	32000	240.00	14.40
G.726 ADPCM	16000	120.00	7.20
G.726 ADPCM	24000	180.00	10.80
G.726 ADPCM	32000	240.00	14.40
G.726 ADPCM	40000	300.00	18.00
G.729a	8000	60.00	3.60
G.723.1 5.3K	5333	40.00	2.40
G.723.1 6.3K **	6400	48.00	2.88

\*Supports WAV headers

\*\* Not supported on the NGX

## Application

Provided below are three examples of how the previous table can be used to determine storage space needs in a real-life scenario.

### Example 1:

A customer is using the G.729a CODEC and wishes to dedicate a voice data drive to store 100 hours of voice data.

$3.6 \text{ MB/hour} * 100 \text{ hours} = 360\text{MB of hard drive space}$

### Example 2:

A customer is using a GSM CODEC and wishes to dedicate a voice data drive to store 100 hours of voice data.

$5.85 \text{ MB/hour} * 100 \text{ hours} = 585\text{MB of hard drive space}$

### Example 3:

A customer is using an 8-bit PCM CODEC and wishes to dedicate a voice data drive to store 100 hours of voice data.

$28.8 \text{ MB/hour} * 100 \text{ hours} = 2.88\text{GB of hard drive space}$