1. Reduce cell size. Cost of BSS
2. In shannon's formula, $C = 2Blog_2M$, Which means the bandwidth is positive correlate with max data rate (e.g. Capacity)
   If the noise increase -> SNR decrease -> Max data rate (e.g. Capacity) will decrease -> negative correlation
3. Analog is continuous signal which digital signal is discrete signal
   We use sampling to do conversion.
4. $16dB = 10log_{10}\frac{S}{N} \Rightarrow \frac{S}{N} = 39.81$
   According to Shannon Capacity Formula
   $C = Blog_2(1 + \frac{S}{N}) = 10^3 * 39.81 = 39.81Kbps$
5. Because the data rate is affected by frequency not spectrum. The maximum data rate is affected by bandwidth which is affected by spectrum.