CLASS PROJECT

Consider a FinTech SaaS based start-up company with an estimated subscription market opportunity of 10 million subscribers that are willing to sign up and pay $20 per month the first year. For the first year, the cost of revenue is estimated at $3 per subscriber and operating expenses including marketing is estimated at $2 per subscriber.

The following assumptions are for year 2-10:

Assumptions	Years 2-10
Monthly Subscription Price increase per year	5.0%
Number of Subscribers increase per year	2.0%
Monthly Cost of revenue per subscriber increase per year	3.0%
Monthly Operating Cost per subscriber increase per year	5.0%
No Tax Assumed	

Brand Terminal Value (year 10) – Multiple of EBIT (x)	0x
IP Expected Return	25%

IP ASSUMPTIONS:

The present value of the development cost is initial estimated $400 per subscription (cost per customer acquisition). The firm has the IP patent to exploit for the next 10 years.

The 10-year riskless rate is 3.0%, and the variance is 0.05 based on stock variance of similar companies' stock price.

Given this information above, calculate the value of the IP patent using the Black-Scholes pricing method: