Bbrp21 Technique Used To Store And Secure The Data In Cloud Storage Database

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Abstract: The current globe is data globe. This data produced using online media; this data is unhindered data; this data could be store in cloud storage database; this data have not incredible security; hereafter to beat this issue we apply the Salsa technique. This technique successfully hack the data from the software engineers. BBRP21 strategy has 5 phases. 1. To apply the mystery key S. 2. To discover the n esteem with the assistance of k. 3. Apply the n esteem proper condition. 4. To trade a and b esteems from left in matrix. 5. To find the mystery prime key S. 6. To find the X1 and X2 values from prime numbers. 7. To find the $\bar{X}_1$ and $\bar{X}_2$ values. 8. To find the standard deviation values with the help of equation 3 and 4. 9. To trade a and b esteems from left in matrix. 10. To locate the T-test values and pair it that numbers from left to right. After applied these steps will be stored in cloud storage. The BBRP21 strategy gives extraordinary security while appearing differently in relation to Salsa technique.

Keywords: BBRP21, Cloud, Encryption, Decryption, Prime, T-test, Salsa

1. INTRODUCTION

The current globe is data globe. This data produced using online media; this data is unhindered data; this data could be stored in cloud storage database; this data have not incredible security; from now on to beat this issue we apply the Salsa technique. This procedure adequately hack the data from the software engineers. The extra revolutions XOR for ChaCha is deficiency assault [1]. This creator is utilized new hash idea for key speculating and ending condition [2]. Creator was presented thw bricklayer assault for investigation of ChaCha [3]. They basically focuse the security for Double A [4]. They made new plan for secure quick and adaptable calculation [5]. SRB18 strategy used to give security to information [6]. SRB21 Phase 1 and SRB21 Phase 2 strategy used to give security to information [7][8]. CBB21, CBB22, CBB20, and RBJ25 techniques are used to give security to information [9][10][12][13]. Presented the novel strategy BBRP(Bagath Basha and RajaPrakash) 2.

| Steps | Encryption Algorithm |
|------|----------------------|
| i    | To multiply the secret key ‘S’ in given matrix. |
| li   | To find the n value with the help of ‘K’ |
| iii  | If n is even number where n=2k  
      | $a^n+b^n = (a+b) (a^{n-1} - a^{n-2}b + a^{n-3}b^2 - \ldots + b^{n-2}a+b^{n-1})$ (1) |
| iv   | To apply the n value in equation (1) |
| v    | To merge the step 4 values from left to right. |
| vi   | Step 5 values will be apply in given matrix. |
To find a prime numbers in given matrix IP.

Equally separate the two parts of prime numbers and apply those values in equation (2), (3), and (4).

\[ T-\text{Test Formula} = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{\left(\frac{S_1^2}{N_1}\right) + \left(\frac{S_2^2}{N_2}\right)}} \]  

To find the values for equation (2) with the help of equation (3) and (4).

\[ \bar{X}_1 = \sum \frac{X_i}{N_1} \quad \bar{X}_2 = \sum \frac{X_i}{N_2} \]  

\[ S_1 = \sqrt{\sum (X_i - \bar{X}_1)^2 / (N_1 - 1)} \quad S_2 = \sqrt{\sum (X_i - \bar{X}_2)^2 / (N_2 - 1)} \]  

To pair the T-test value from left to right and swap it those numbers.

**Table 2. Decryption Algorithm**

| Steps | Decryption Algorithm |
|-------|----------------------|
| i     | To find a prime numbers in matrix TTED. |
| ii    | Equally separate the two parts of prime numbers. |
| iii   | \[ S_1 = \sqrt{\sum (X_i - \bar{X}_1)^2 / (N_1 - 1)} \quad S_2 = \sqrt{\sum (X_i - \bar{X}_2)^2 / (N_2 - 1)} \] |
| iv    | \[ \bar{X}_1 = \sum \frac{X_i}{N_1} \quad \bar{X}_2 = \sum \frac{X_i}{N_2} \] |
| v     | \[ T-\text{Test Formula} = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{\left(\frac{S_1^2}{N_1}\right) + \left(\frac{S_2^2}{N_2}\right)}} \] |
| vi    | To merge the values step 5 from right to left and swap it those numbers. |
| vii   | To find the n value with the help of 'K' |
| viii  | If n is even number where n=2k  
\[ a^n+b^n = (a^n-1) (a^n-2) b \quad a^n-3 b^2 \quad \ldots \quad b^n-2 a+b^{n-1} \] |
| ix    | To apply the n value in equation (5) |
| x     | To merge the step 4 from right to left. |
| xi    | Step 5 values will be apply in given matrix. |
| xii   | To divide the secret key 'S' in given matrix. |

**Encryption**

\[
A = \begin{bmatrix}
112/7 & 113/7 & 114/7 \\
115/7 & 116/7 & 117/7 \\
118/7 & 119/7 & 120/7
\end{bmatrix}
\]
Where A is Matrix A

- To multiply the key $S=2$ in matrix A

$$EA = \begin{bmatrix}
224/7 & 226/7 & 228/7 \\
230/7 & 232/7 & 234/7 \\
236/7 & 238/7 & 240/7 \\
\end{bmatrix}$$

Where EA is Encryption Matrix A

- To find the $n$ value: $a=2, b=3, k=2, n=4$
- $n$ is even number

Using Equation (1)

- $a^2+b^3 = (2+3)(2^4+2^4+2^4+2^4+2^4+2^4+3^4+3^4+3^4+2^4+2^3+3^3)$
- $a^2+b^3 = (5)(16-12+18-54+6-18+27)$
- $a^2+b^3 = (5)(-17)$
- $a^2+b^3 = (5,1), (7,0)$

Pair-1 (5,1)

$$EA = \begin{bmatrix}
232/7 & 226/7 & 228/7 \\
230/7 & 224/7 & 234/7 \\
236/7 & 238/7 & 240/7 \\
\end{bmatrix}$$

Pair-2 (7,0)

$$EA = \begin{bmatrix}
236/7 & 226/7 & 228/7 \\
230/7 & 224/7 & 234/7 \\
232/7 & 238/7 & 240/7 \\
\end{bmatrix}$$

- Prime Numbers – 1, 3, 5, 7
- $X_1= 1, 3$
- $X_2 = 5, 7$

Using Equation (3) and (6)

- $\bar{X}_1 = \sum X_1 / N_1$
  - $\bar{X}_1 = (1+3)/2$
  - $\bar{X}_1 = 4/2$
  - $\bar{X}_1 = 2$
- $\bar{X}_2 = \sum X_2 / N_2$
\( \bar{X}_2 = (5+7)/2 \)

\( \bar{X}_2 = 6 \)

Table 3. \( X_1 \) and \( X_2 \) Values

| \( X_1 \) | \( (X_1 - \bar{X}_1)^2 \) | \( X_2 \) | \( (X_2 - \bar{X}_2)^2 \) |
|---|---|---|---|
| 1 | -1 | 5 | -1 |
| 3 | 1 | 7 | 1 |

\( \sum (X_1 - \bar{X}_1)^2 = 2 \)

\( \sum (X_2 - \bar{X}_2)^2 = 2 \)

Using Equation (4) and (5)

- \( S_1 = \sqrt{\sum (X_1 - \bar{X}_1)^2 / (N_1 - 1)} \)
- \( S_2 = \sqrt{\sum (X_2 - \bar{X}_2)^2 / (N_2 - 1)} \)
- \( S_1 = \sqrt{2/(2-1)} \)
- \( S_2 = \sqrt{2/(2-1)} \)
- \( S_1 = 1.41 \)
- \( S_2 = 1.41 \)

Using Equation (2) and (7)

- T-Test Formula = \( \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{((S_1^2 / N_1) + (S_2^2 / N_2))}} \)
- T-Test Formula = \( \frac{(2-6)}{\sqrt{((1.41^2 / 2) + (1.41^2 / 2))}} \)
- T-Test Formula = \( -4/\sqrt{(1.60^2 / 2 + 1.60^2 / 2)} \)
- T-Test Formula = \( -4/\sqrt{(1.60 + 1.60) / 2)} \)
- T-Test Formula = \( -4/\sqrt{(3.2 / 2)} \)

Pair the T-test value from left to right (4,3) (2,2) and swap it those numbers.

Step 1:

Pair 3 (4,3)

\[
\begin{bmatrix}
236/7 & 226/7 & 230/7 \\
228/7 & 224/7 & 234/7 \\
232/7 & 238/7 & 240/7
\end{bmatrix}
\]

Where TTEA is T-Test Encryption A

Step 2:

Pair 3 (2,2)

\[
\begin{bmatrix}
236/7 & 226/7 & 230/7 \\
228/7 & 224/7 & 234/7 \\
232/7 & 238/7 & 240/7
\end{bmatrix}
\]
Decryption

- Pair the T-test value from right to left (2,2), and (3,4) and swap it those numbers.

\[
\begin{bmatrix}
236/7 & 226/7 & 230/7 \\ 228/7 & 224/7 & 234/7 \\ 232/7 & 238/7 & 240/7 
\end{bmatrix}
\]

Where TTDA is T-Test Decryption A

Pair 1: (2,2)

\[
\begin{bmatrix}
236/7 & 226/7 & 230/7 \\ 228/7 & 224/7 & 234/7 \\ 232/7 & 238/7 & 240/7 
\end{bmatrix}
\]

Pair 2: (3, 4)

\[
\begin{bmatrix}
236/7 & 226/7 & 230/7 \\ 230/7 & 224/7 & 234/7 \\ 232/7 & 238/7 & 240/7 
\end{bmatrix}
\]

Using Equation (8)

Pair-3 (0,7)

\[
\begin{bmatrix}
232/7 & 226/7 & 228/7 \\ 230/7 & 224/7 & 234/7 \\ 236/7 & 238/7 & 240/7 
\end{bmatrix}
\]

Pair-4 (1,5)

\[
\begin{bmatrix}
224/7 & 226/7 & 228/7 \\ 230/7 & 232/7 & 234/7 \\ 236/7 & 238/7 & 240/7 
\end{bmatrix}
\]

- To divide the key S=2 in matrix DA

\[
\begin{bmatrix}
112/7 & 113/7 & 114/7 \\ 115/7 & 116/7 & 117/7 \\ 118/7 & 119/7 & 120/7 
\end{bmatrix}
\]

2. CONCLUSIONS

The current globe is data globe. This data produced using online media; this data is unhindered data; this data could be stored in cloud storage database; this data have not incredible security; hereafter to beat this issue we apply the Salsa technique. This technique successfully hack the data from the software engineers.
BBRP21 strategy has 5 phases. 1. To apply the mystery key S. 2. To discover the n esteem with the assistance of k. 3. Apply the n esteem proper condition. 4. To trade a and b esteems from left in matrix. 5. To find the mystery prime key S. 6. To find the $X_1$ and $X_2$ values from prime numbers. 7. To find the $\bar{X}_1$ and $\bar{X}_2$ values. 8. To find the standard deviation values with the help of equation 3 and 4. 9. To trade a and b esteems from left in matrix. 10. To locate the T-test values and pair it that numbers from left to right. After applying these steps could be stored in cloud storage database. The BBRP21 technique gives great security while contrasted and Salsa strategy. Later on, to add the prime variables tasks of the information security.

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