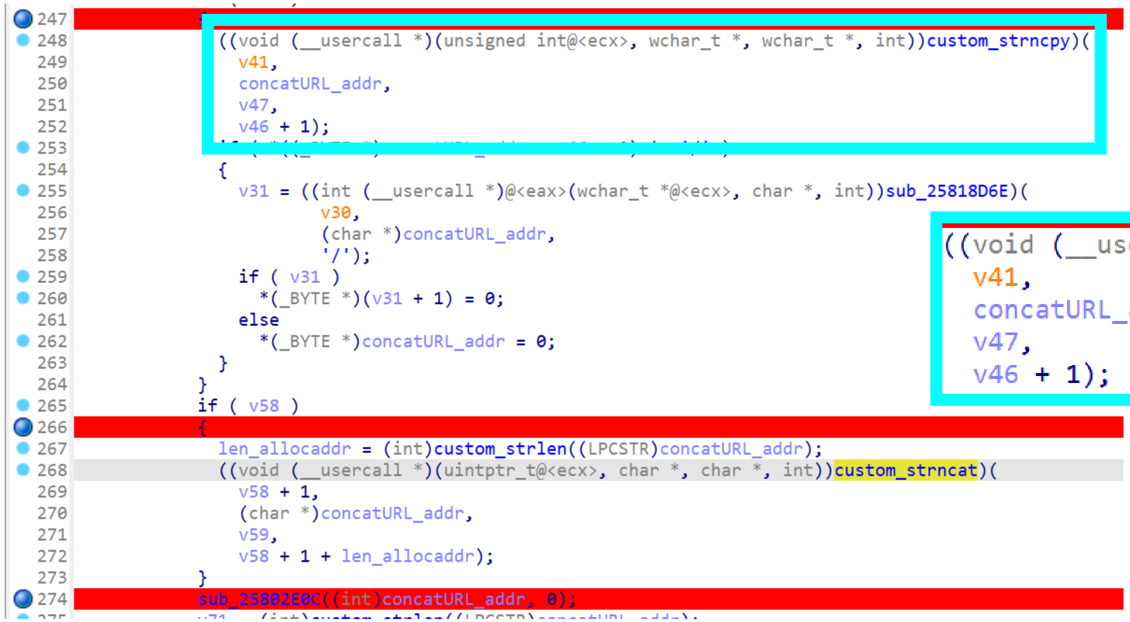
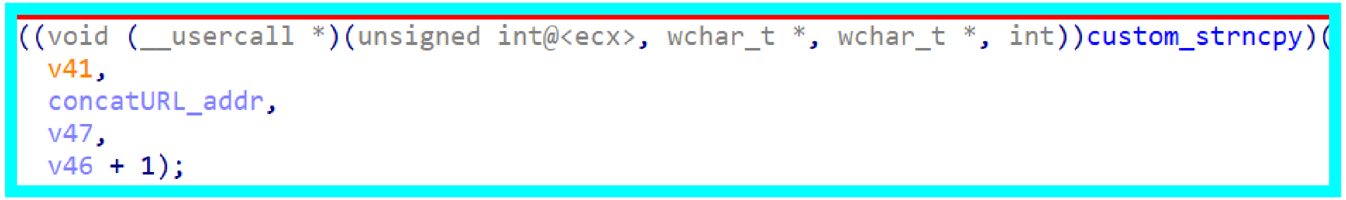
Previous



```
        {
          ((void (__usercall *)(unsigned int@<ecx>, wchar_t *, wchar_t *, int))custom_strncpy)(
            v41,
            concatURL_addr,
            v47,
            v46 + 1);
          {
            v31 = ((int (__usercall *)@<eax>(wchar_t *@<ecx>, char *, int))sub_25818D6E)(
                    v30,
                    (char *)concatURL_addr,
                    '/');
            if ( v31 )
              *(_BYTE *)(v31 + 1) = 0;
            else
              *(_BYTE *)concatURL_addr = 0;
          }
        }
        if ( v58 )
        {
          len_allocaddr = (int)custom_strlen((LPCSTR)concatURL_addr);
          ((void (__usercall *)(uintptr_t@<ecx>, char *, char *, int))custom_strncat)(
            v58 + 1,
            (char *)concatURL_addr,
            v59,
            v58 + 1 + len_allocaddr);
        }
        sub_25802E0C((int)concatURL_addr, 0);
```

취약한 문자열 연결 함수를 호출하기 전에 연결 URL을 저장할 heap에 base URL 복사해서 저장함

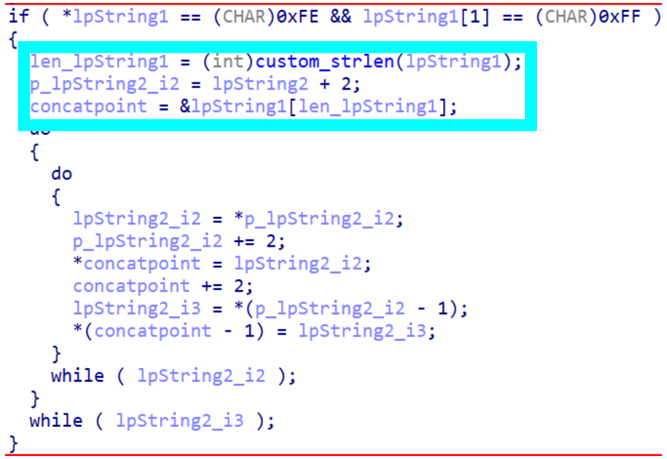


```
((void (__usercall *)(unsigned int@<ecx>, wchar_t *, wchar_t *, int))custom_strncpy)(
  v41,
  concatURL_addr,
  v47,
  v46 + 1);
```

Base URL	0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42

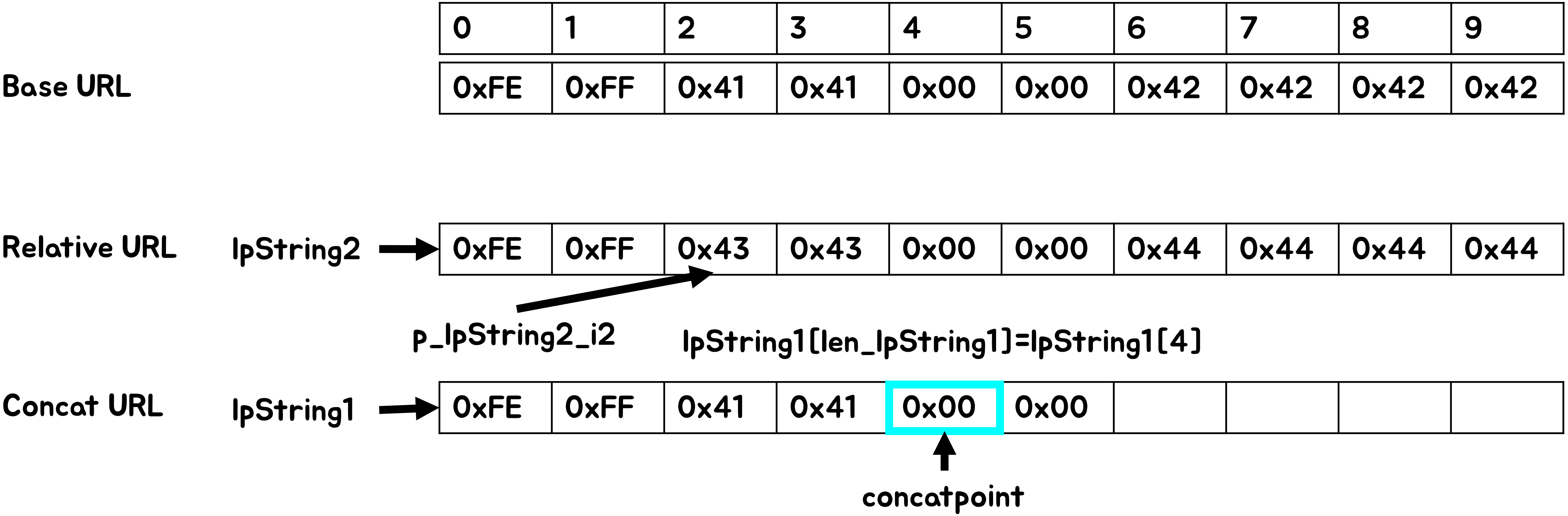
Concat URL	0xFE	0xFF	0x41	0x41	0x00	0x00				

Normal



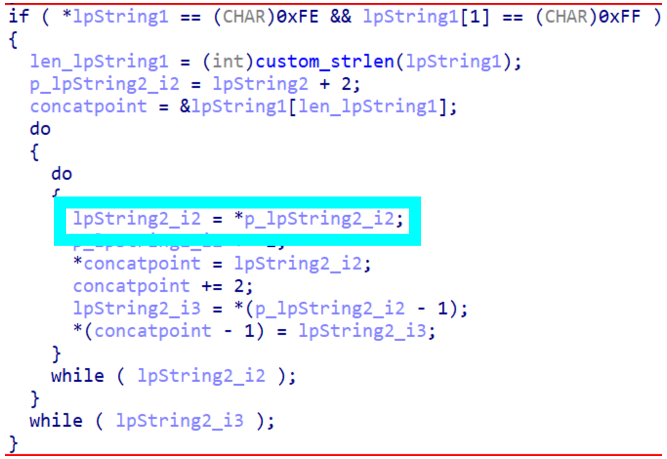
```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x00	0x00				

Normal

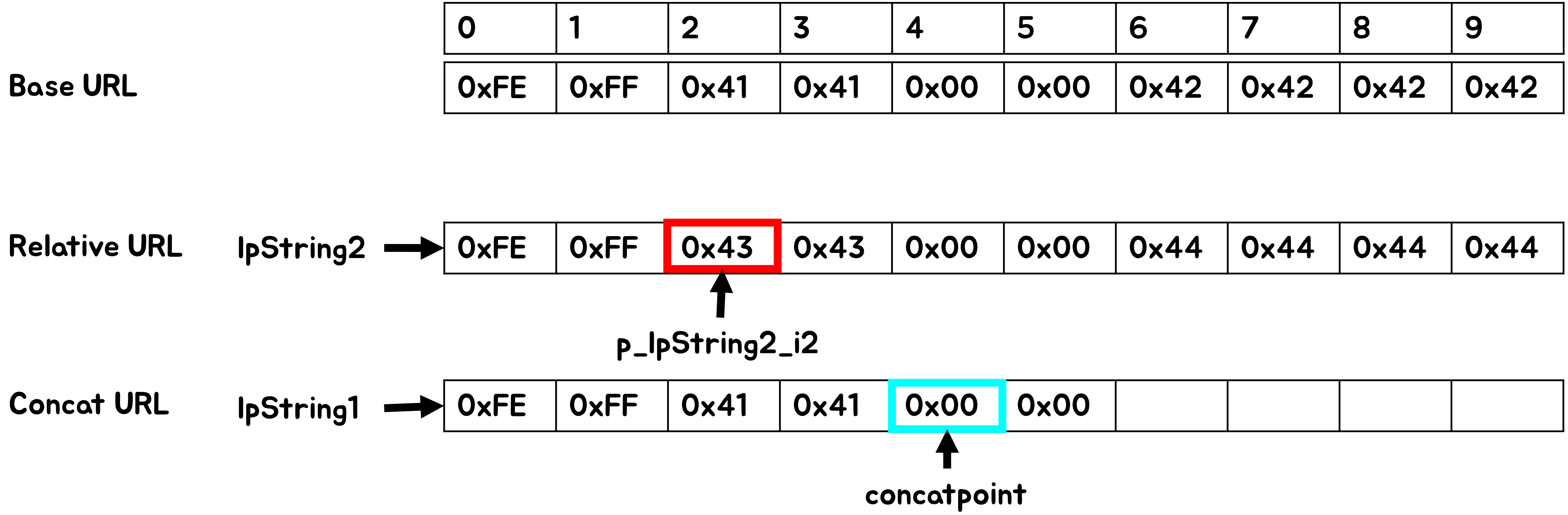


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

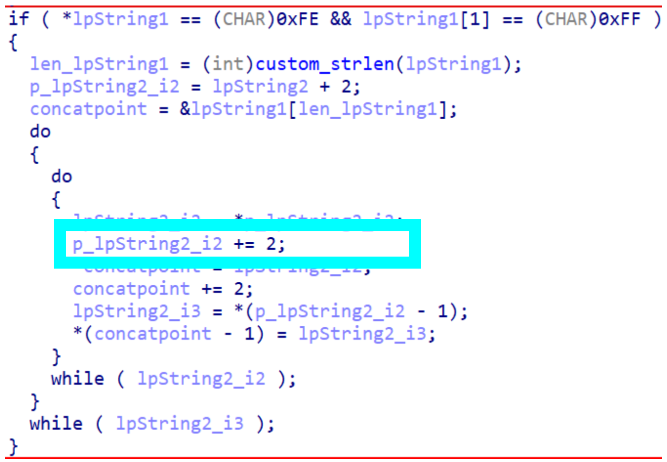
lpString2_i2 : 0x43

lpString2_i3 :



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x00	0x00				

Normal

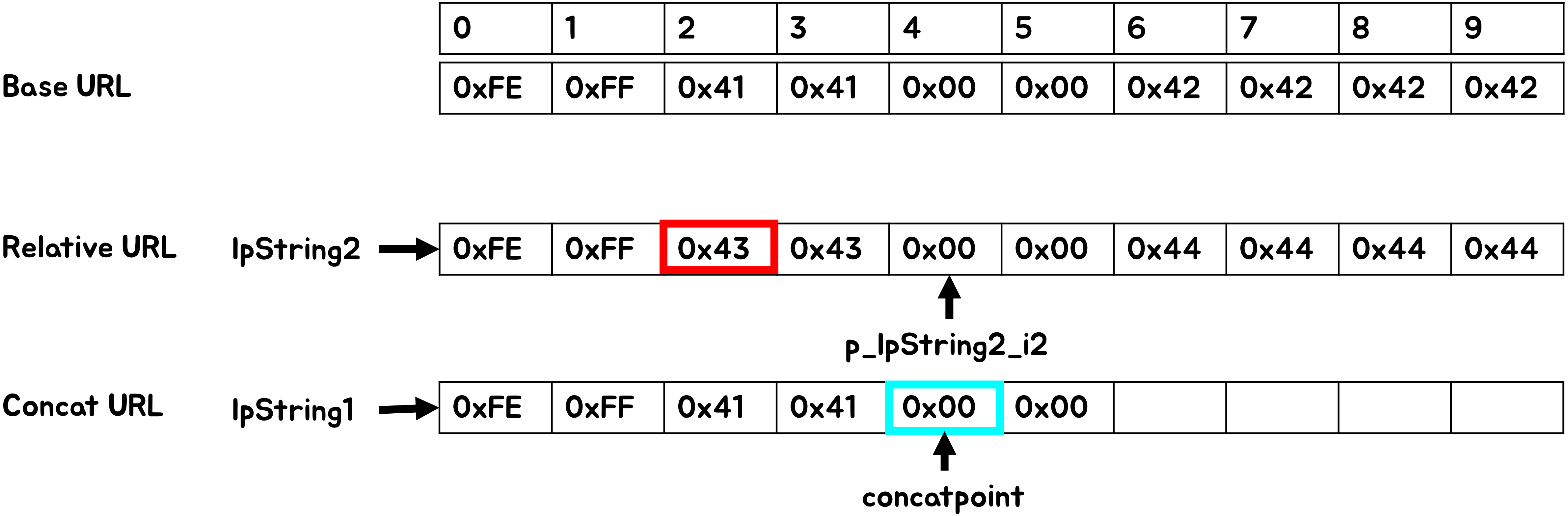


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

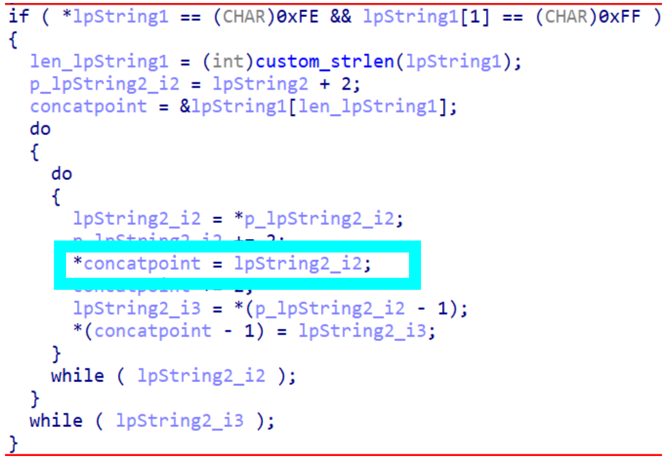
lpString2_i2 : 0x43

lpString2_i3 :

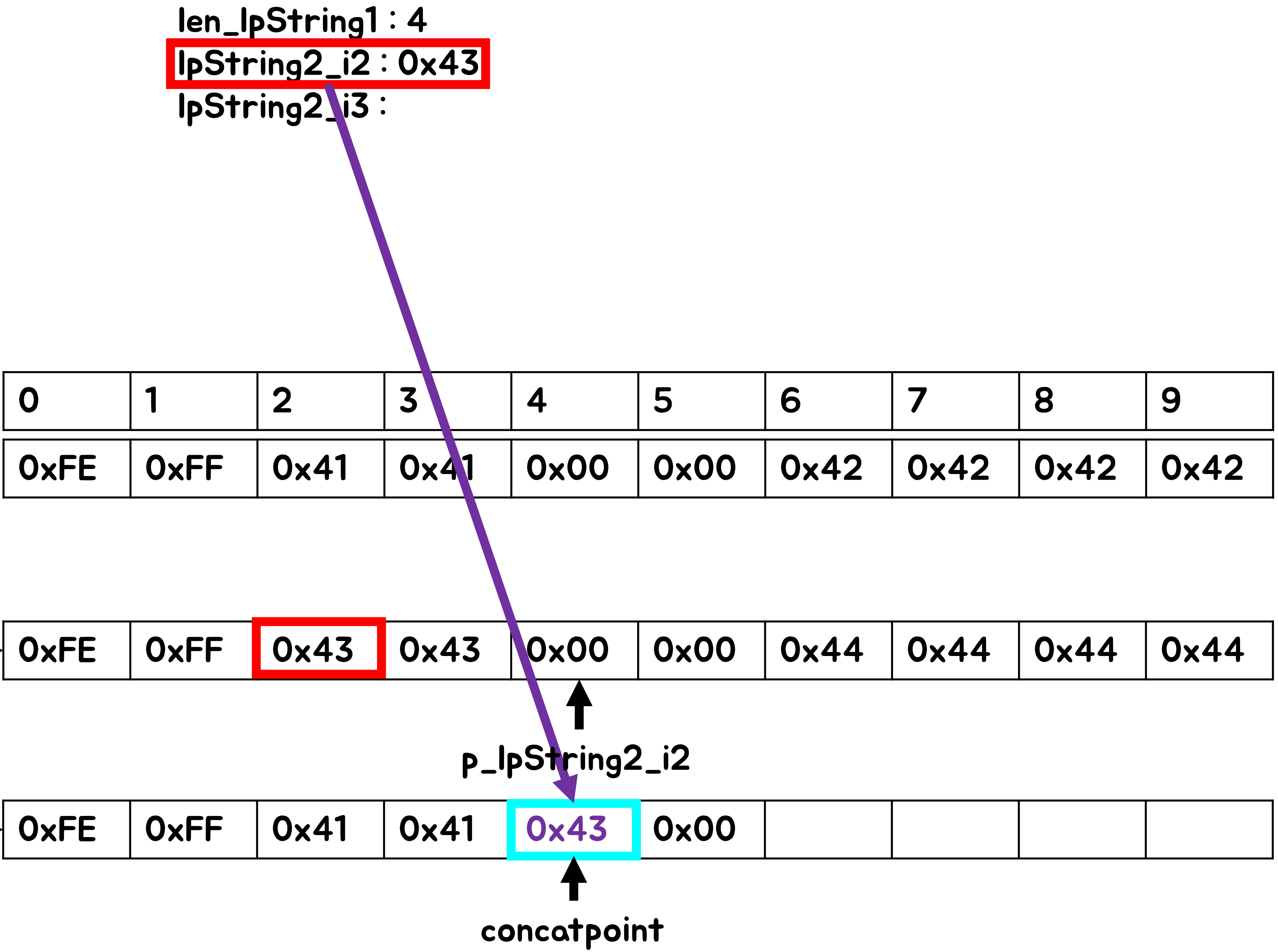


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x00	0x00				

Normal



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



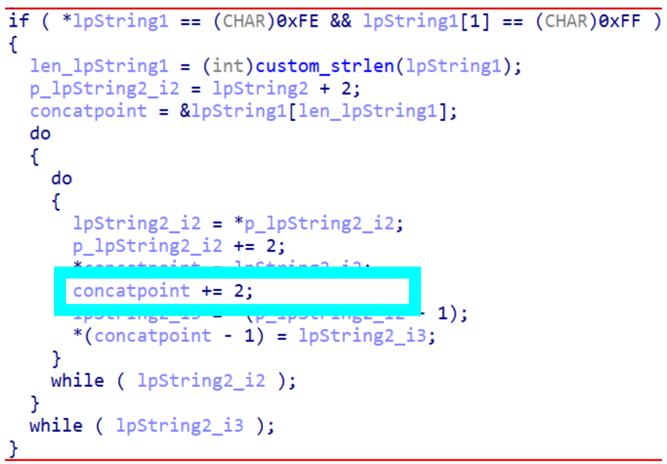
len_lpString1 : 4

lpString2_i2 : 0x43

lpString2_i3 :

		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x00				

Normal

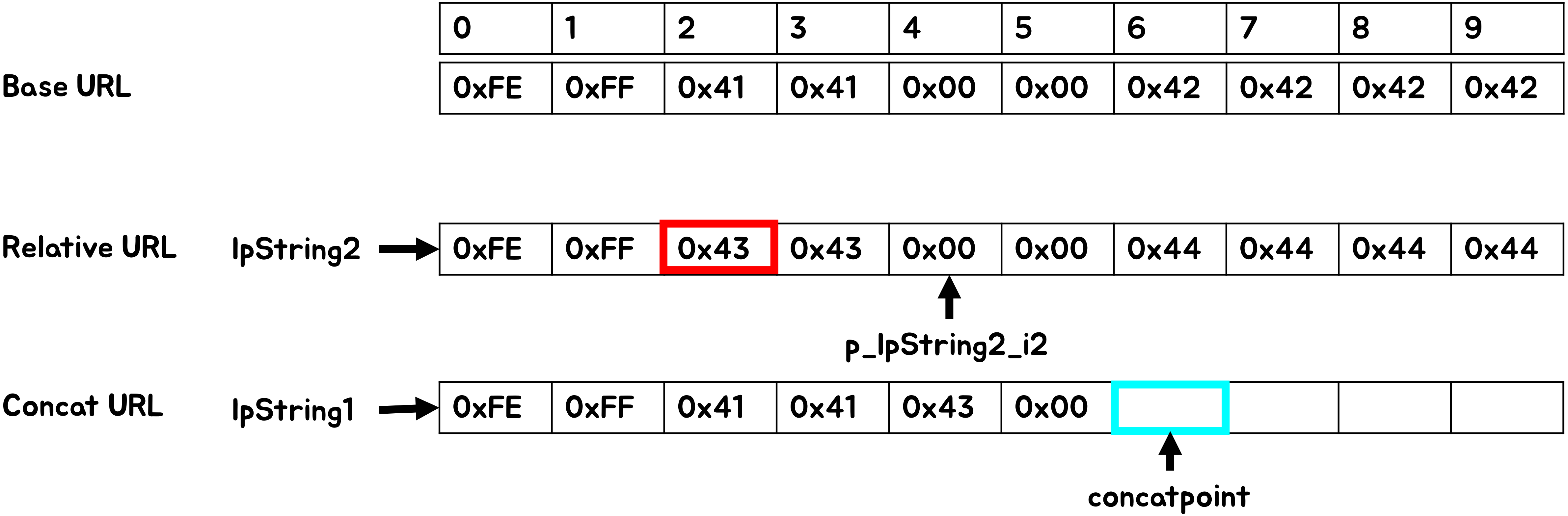


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

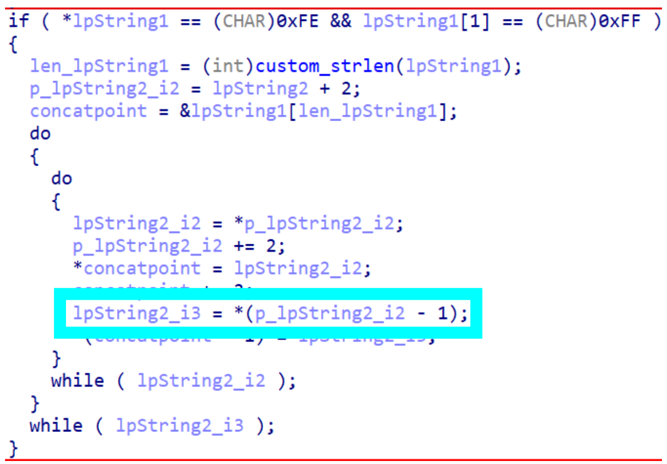
lpString2_i2 : 0x43

lpString2_i3 :



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x00				

Normal

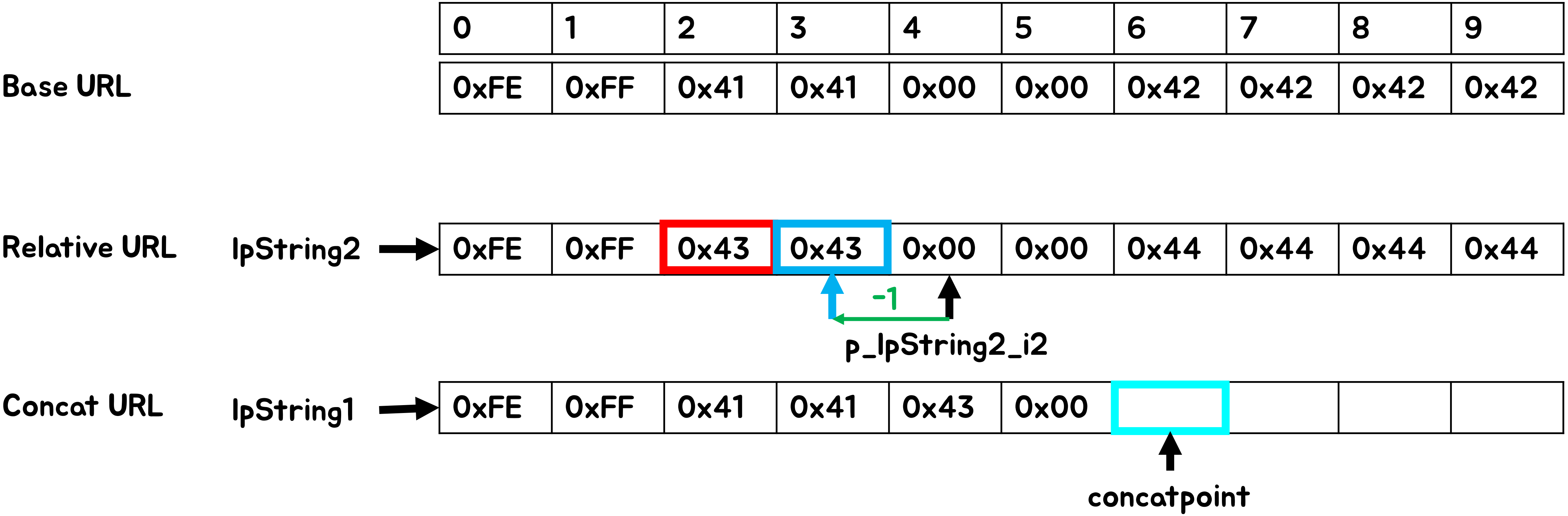


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

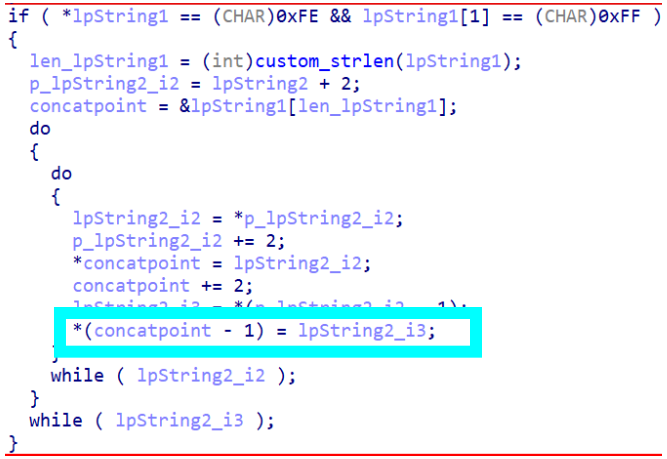
lpString2_i2 : 0x43

lpString2_i3 : 0x43

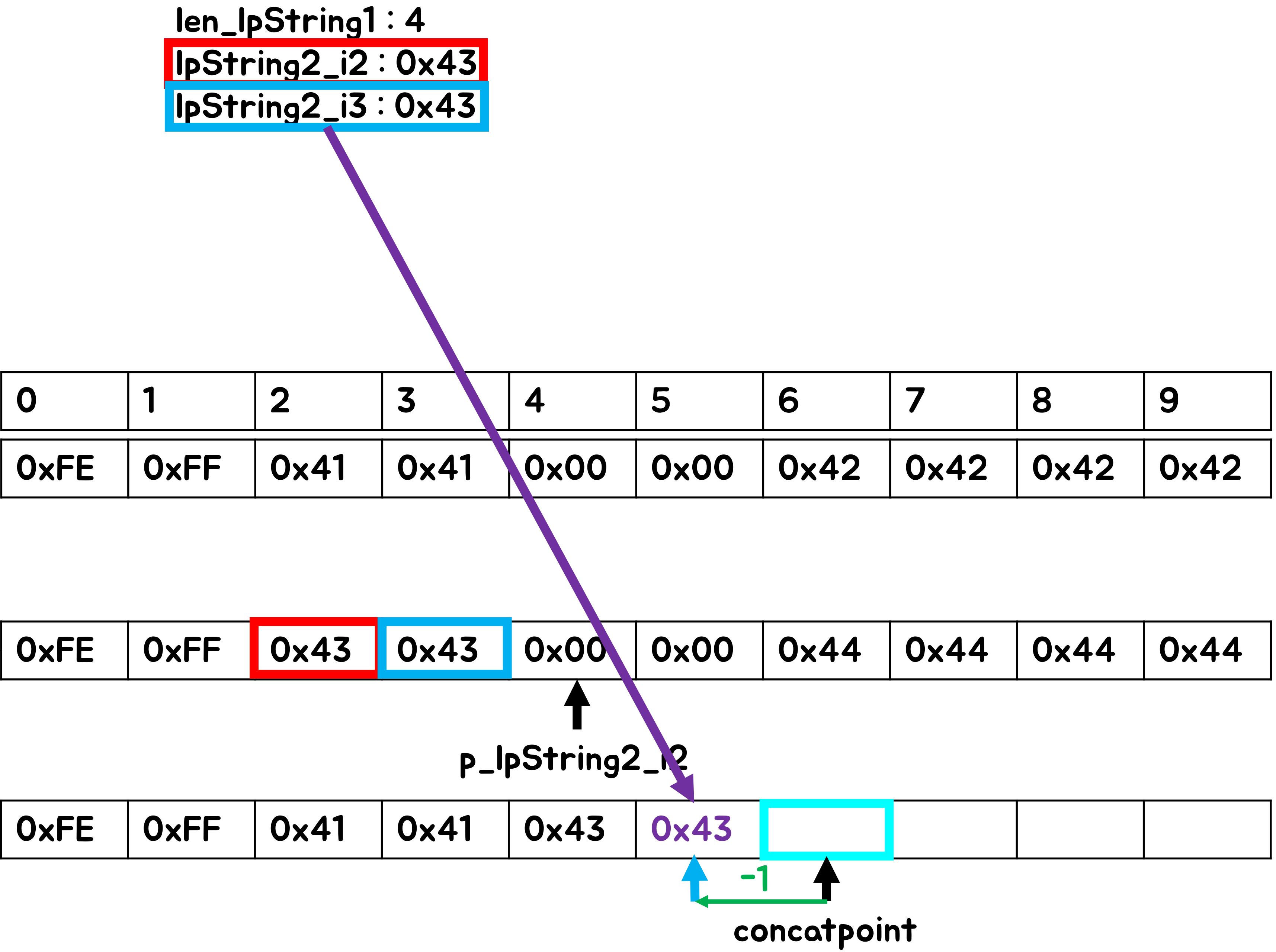


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x00				

Normal

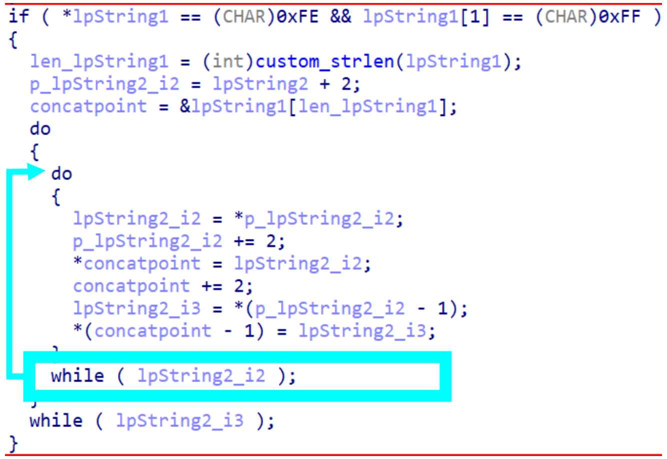


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



	0	1	2	3	4	5	6	7	8	9
Base URL	0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	0xFE	0xFF	0x41	0x41	0x43	0x43				

Normal

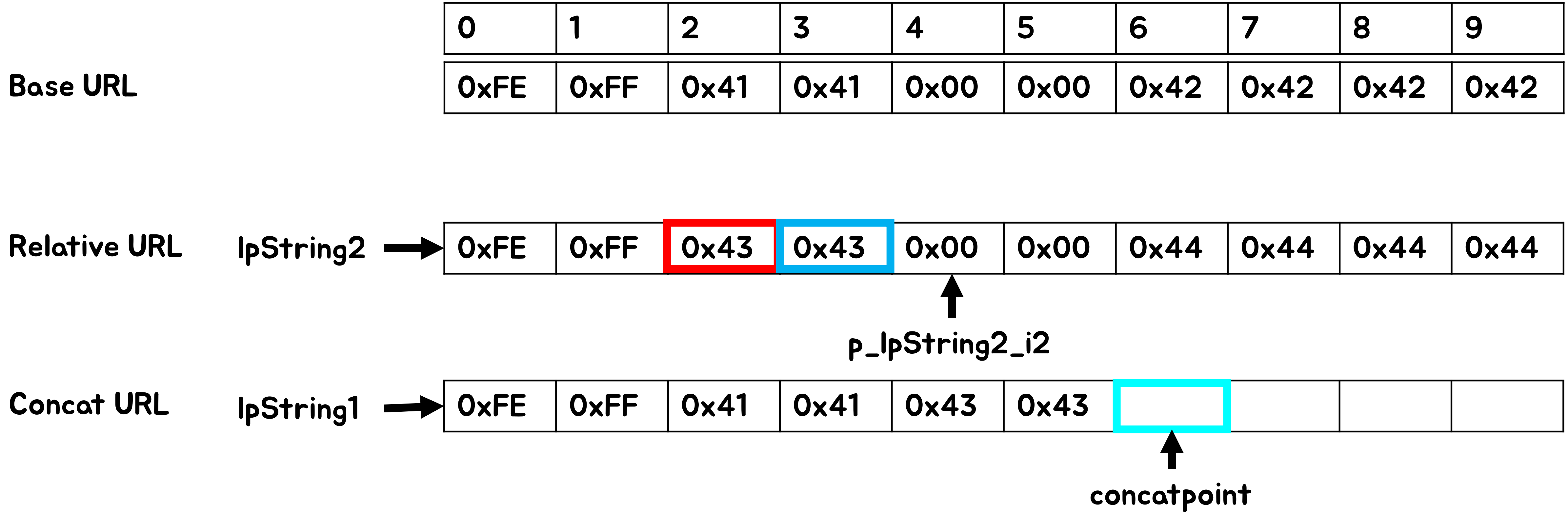


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

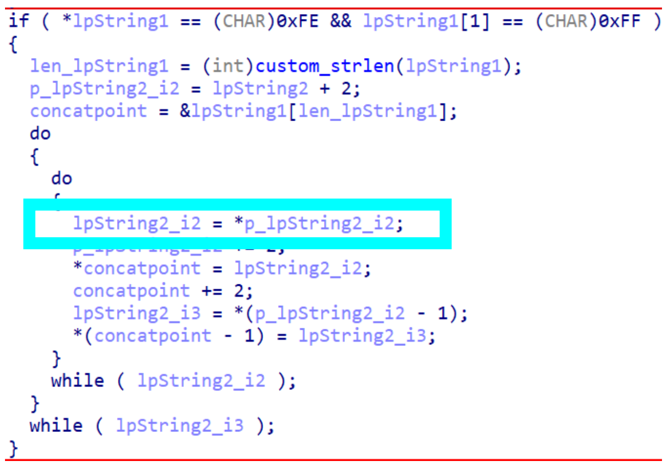
lpString2_i2 : 0x43 != 0x00

lpString2_i3 : 0x43



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x43				

Normal

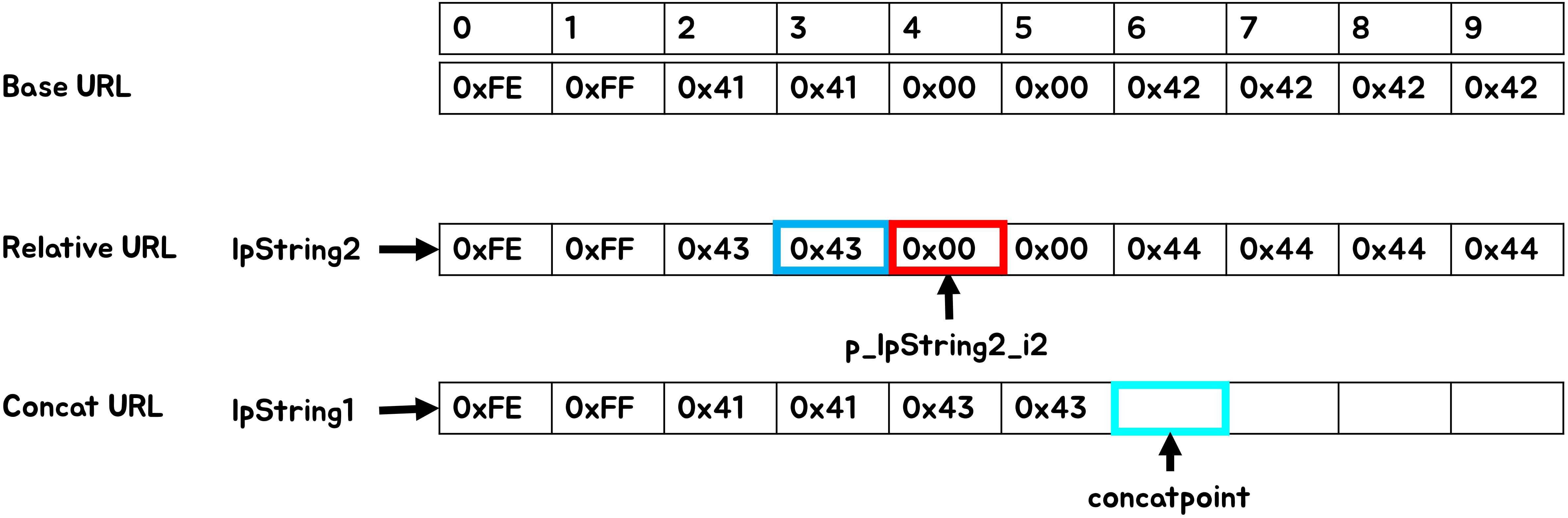


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

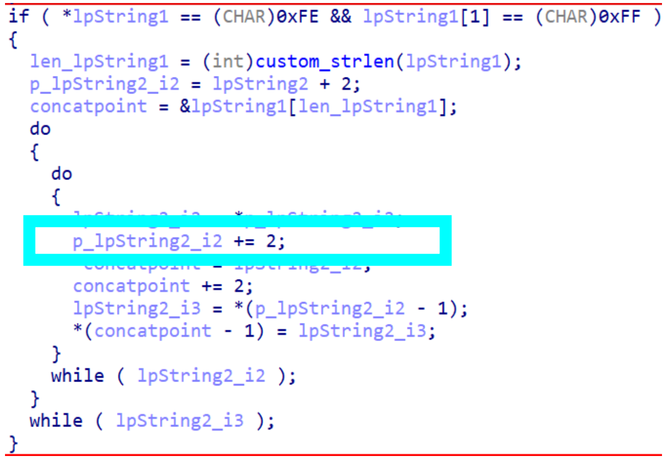
lpString2_i2 : 0x00

lpString2_i3 : 0x43



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1	0xFE	0xFF	0x41	0x41	0x43	0x43				

Normal

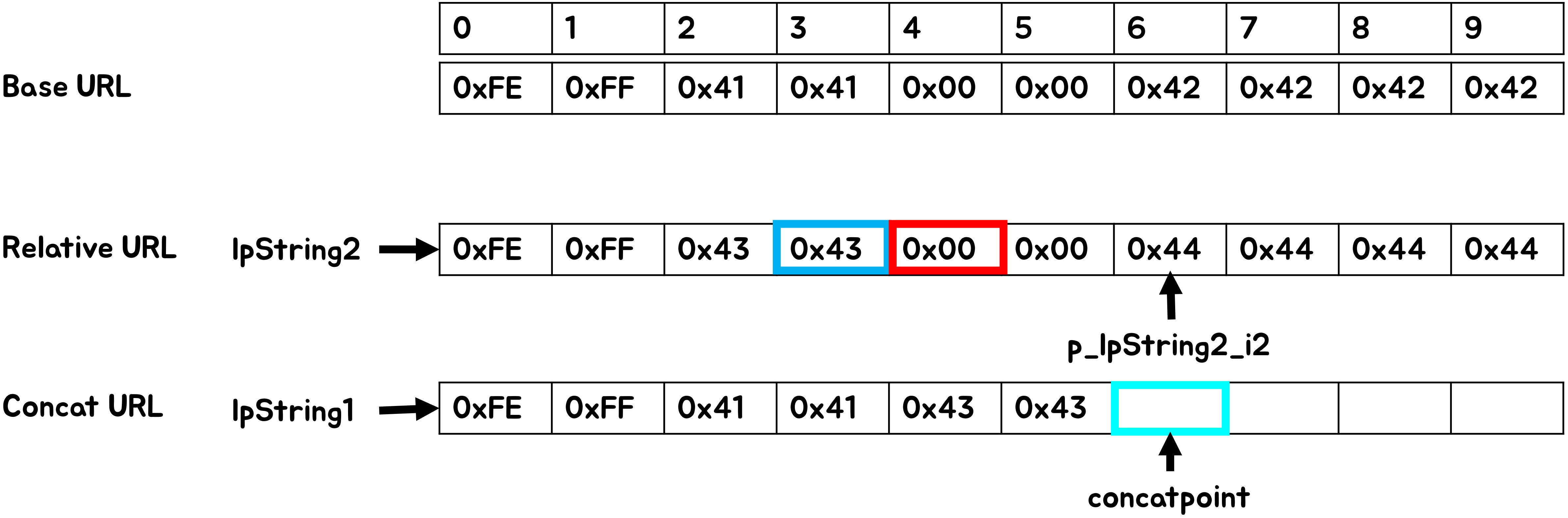


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

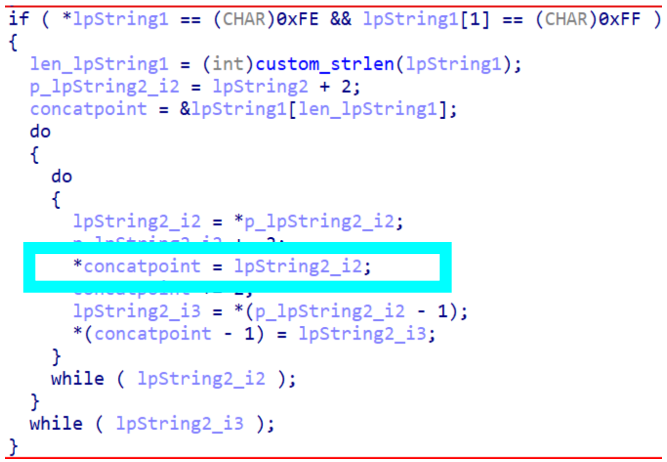
lpString2_i2 : 0x00

lpString2_i3 : 0x43

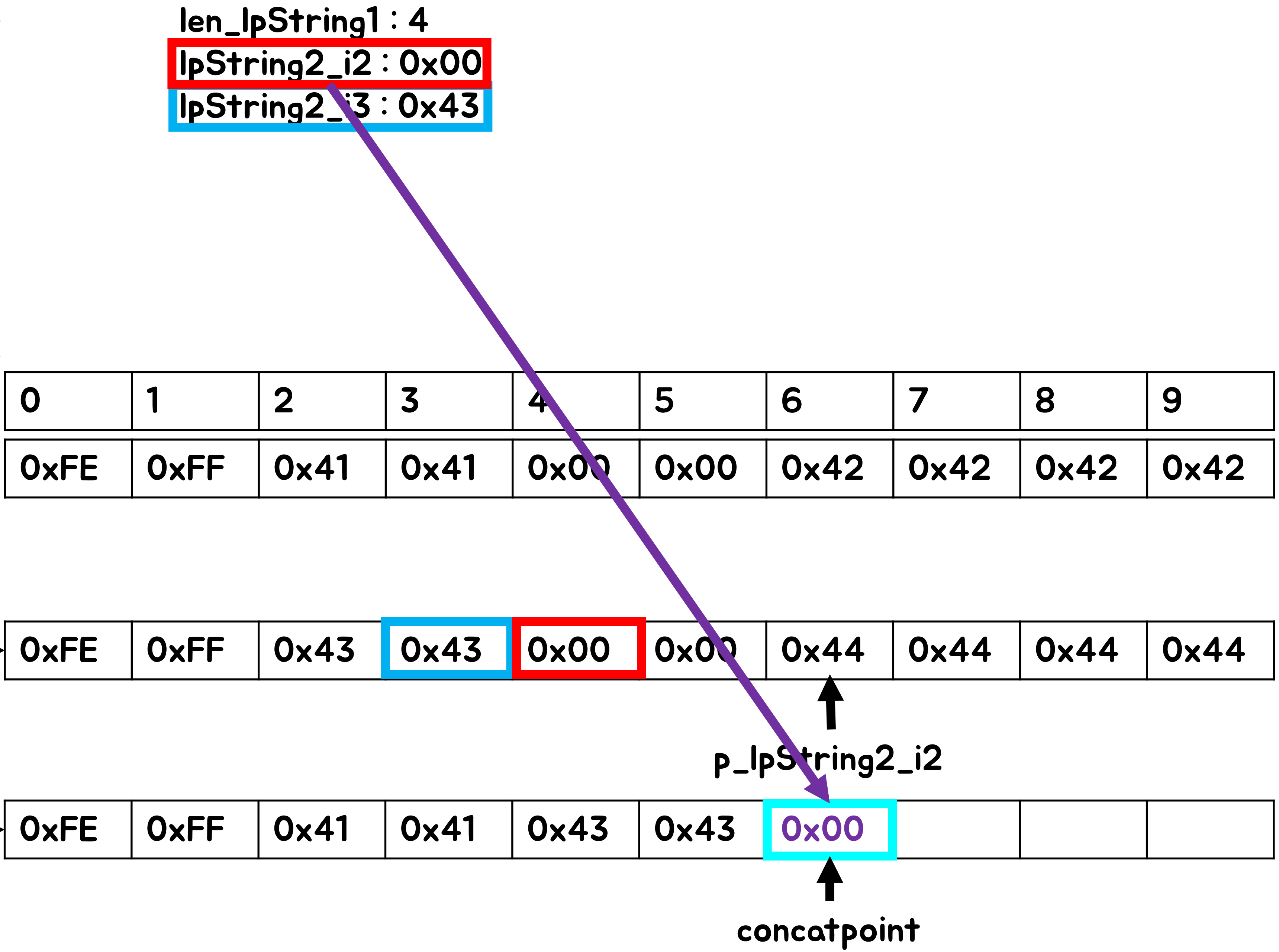


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x43				

Normal

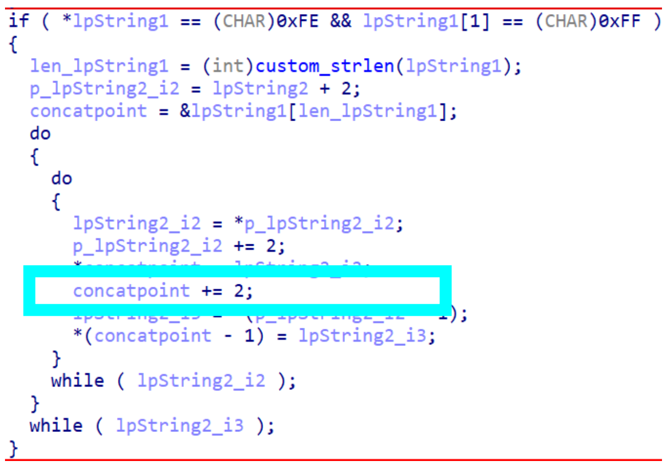


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x43	0x00			

Normal

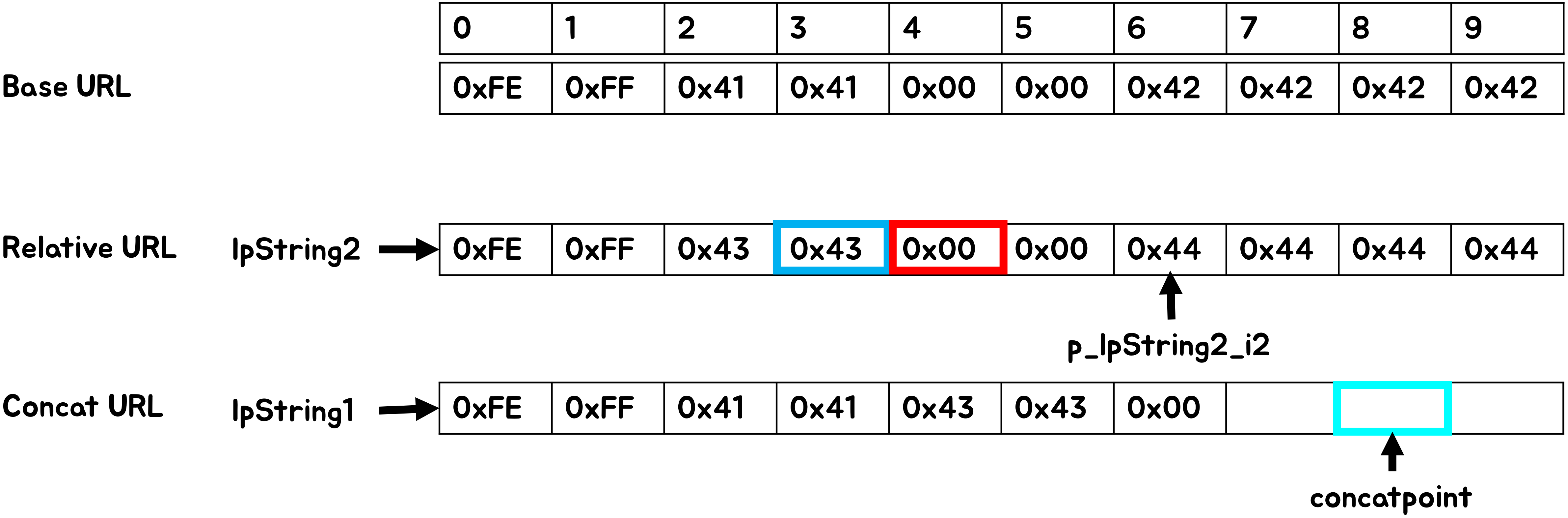


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

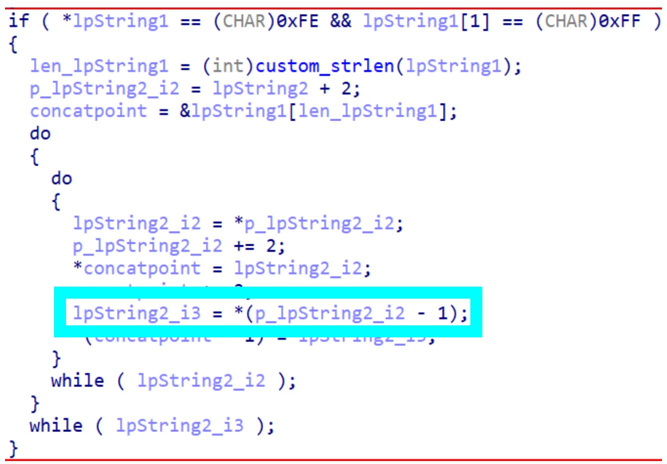
lpString2_i2 : 0x00

lpString2_i3 : 0x43



	0	1	2	3	4	5	6	7	8	9
Base URL	0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	0xFE	0xFF	0x41	0x41	0x43	0x43	0x00			

Normal

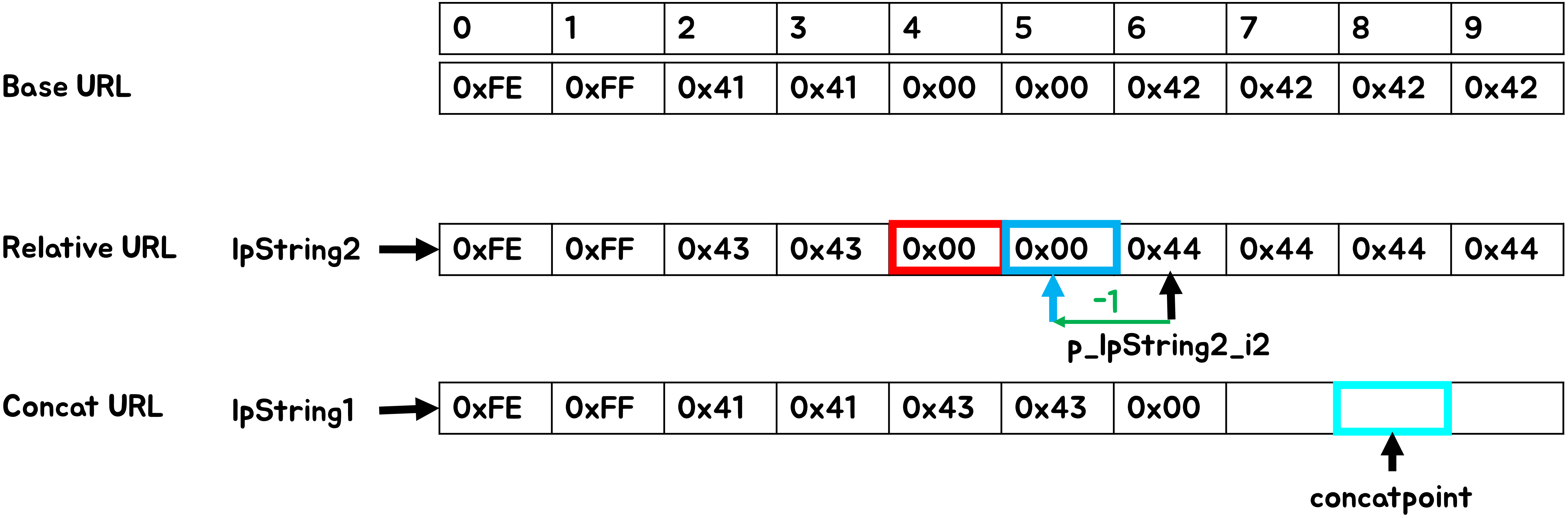


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

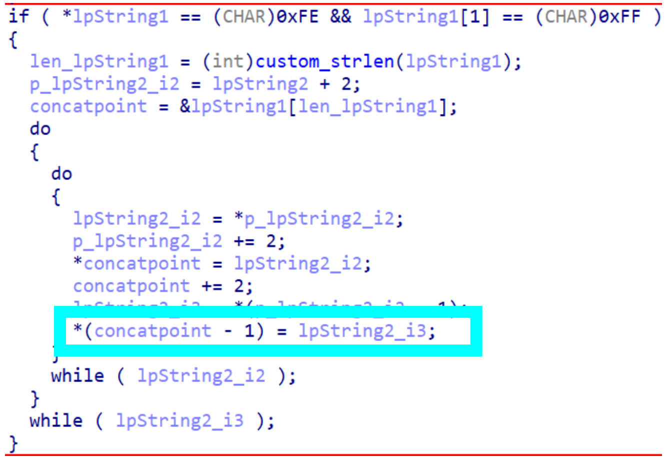
lpString2_i2 : 0x00

lpString2_i3 : 0x00

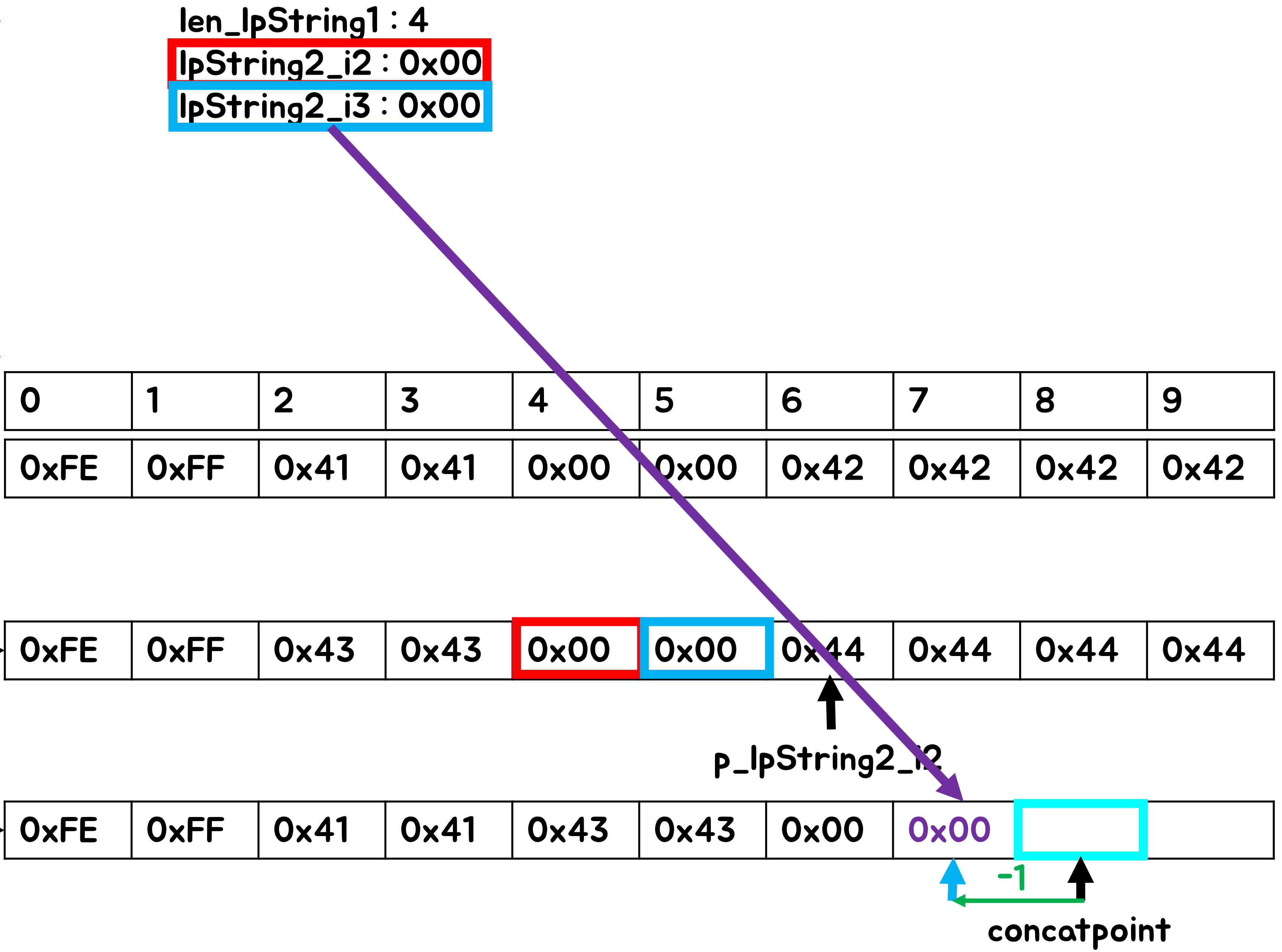


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x43	0x00			

Normal



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



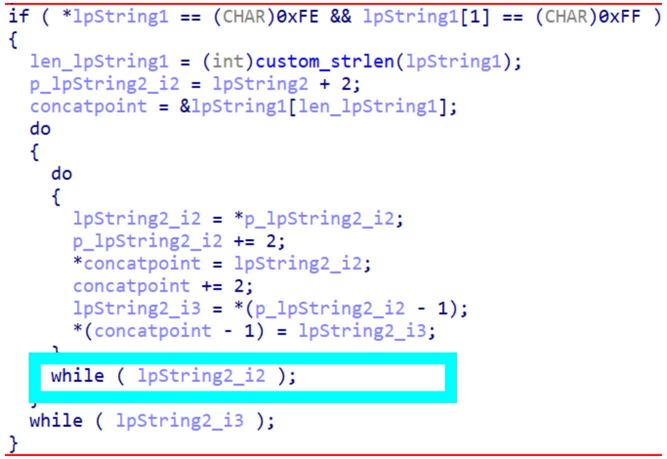
len_lpString1 : 4

lpString2_i2 : 0x00

lpString2_i3 : 0x00

		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x43	0x00	0x00		

Normal

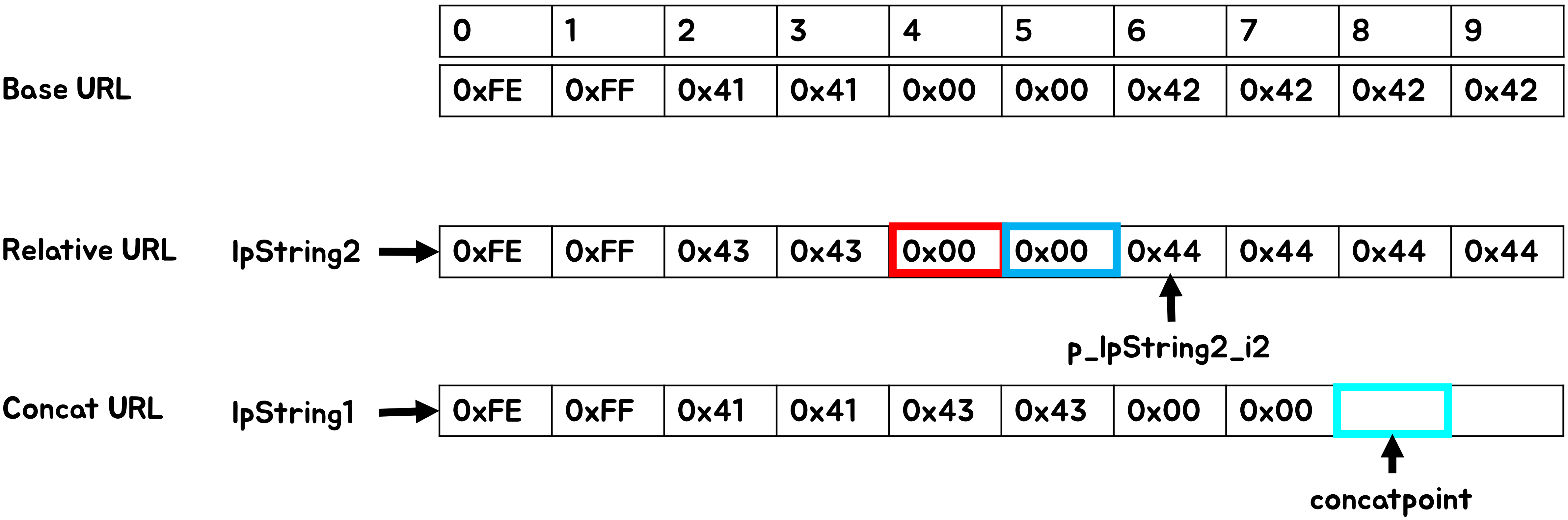


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

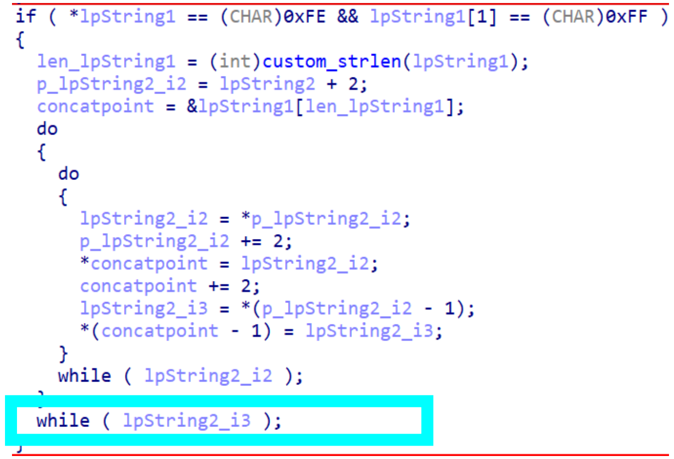
lpString2_i2 : 0x00 == 0x00

lpString2_i3 : 0x00



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x43	0x00	0x00		

Normal

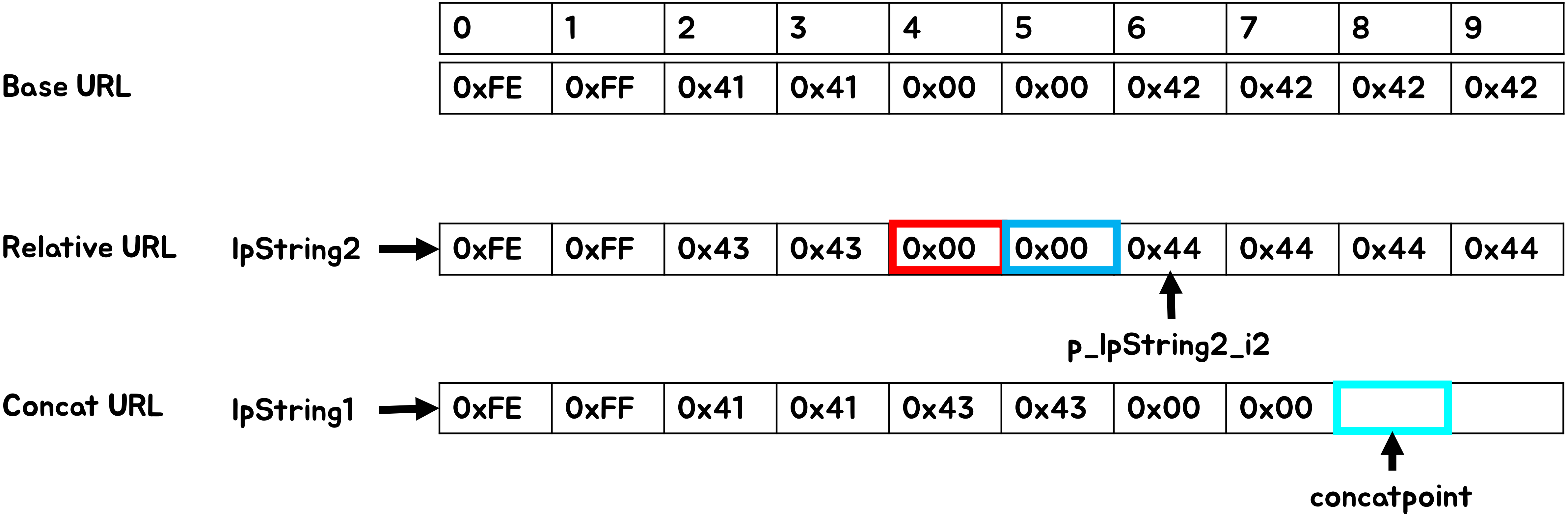


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

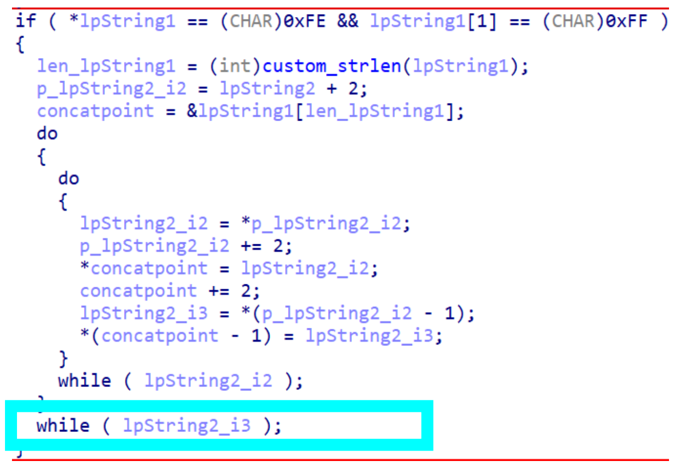
lpString2_i2 : 0x00 == 0x00

lpString2_i3 : 0x00 == 0x00



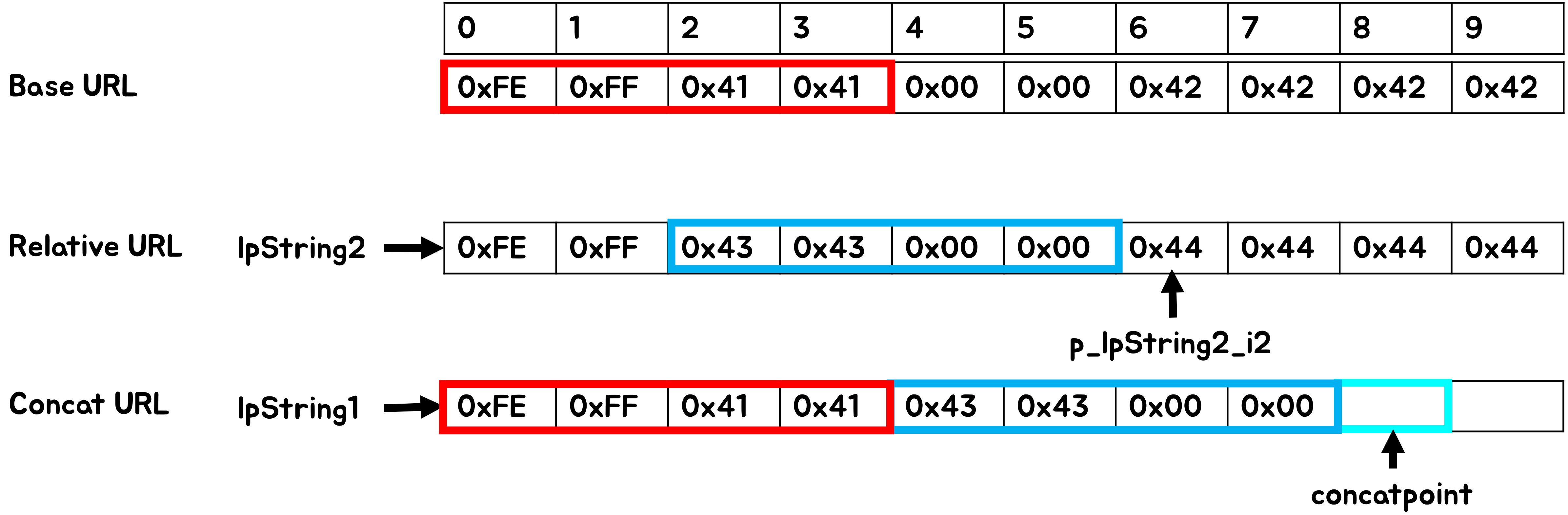
		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x43	0x00	0x00		

Normal



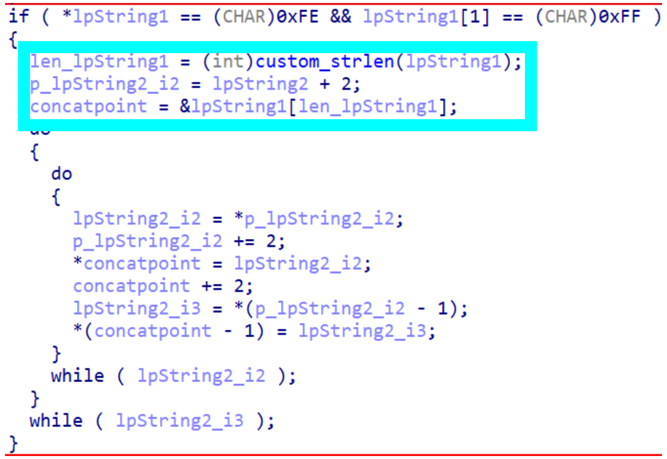
```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4
lpString2_i2 : 0x00 == 0x00
lpString2_i3 : 0x00 == 0x00



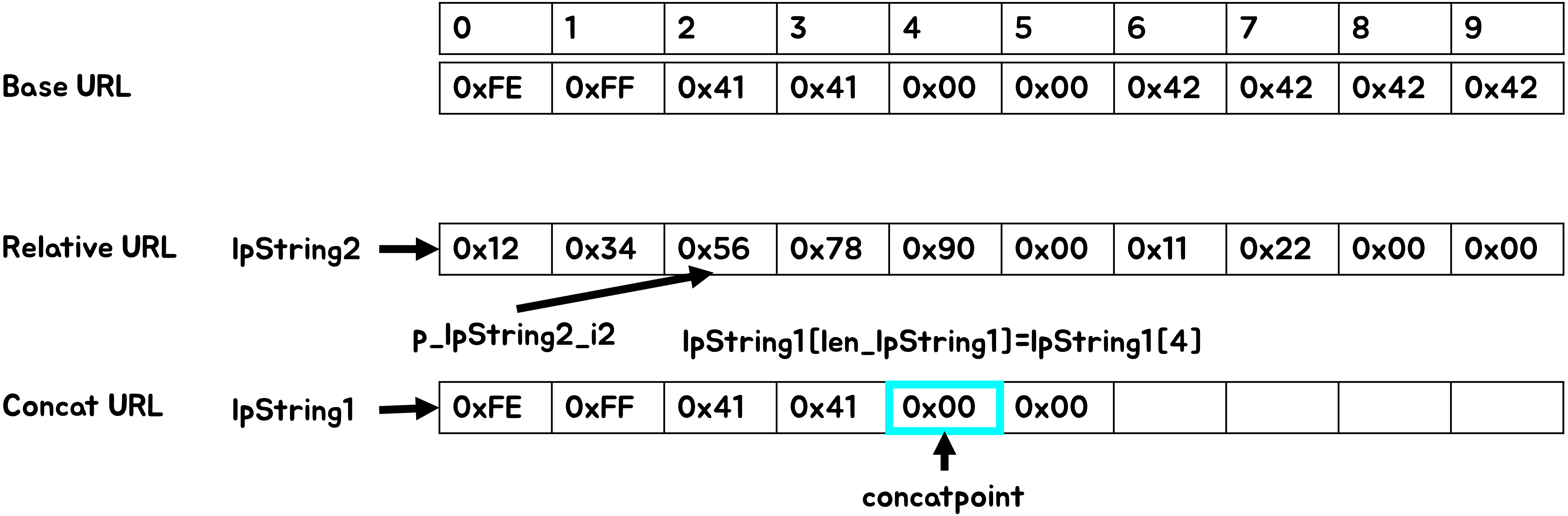
		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0xFE	0xFF	0x43	0x43	0x00	0x00	0x44	0x44	0x44	0x44
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x43	0x43	0x00	0x00		

Root Cause



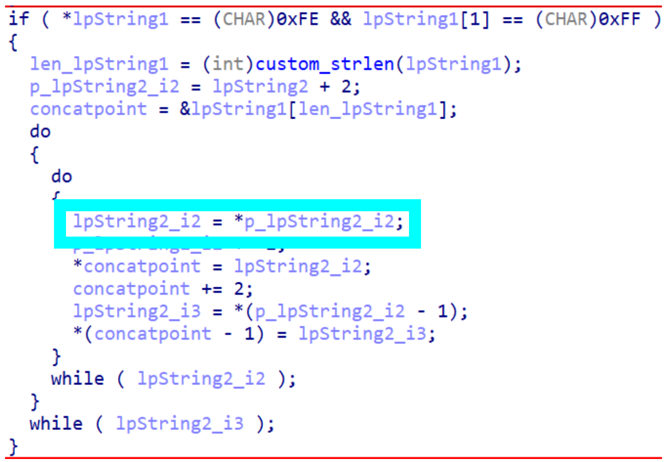
```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4



	0	1	2	3	4	5	6	7	8	9
Base URL	0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL lpString2	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL lpString1	0xFE	0xFF	0x41	0x41	0x00	0x00				

Root Cause

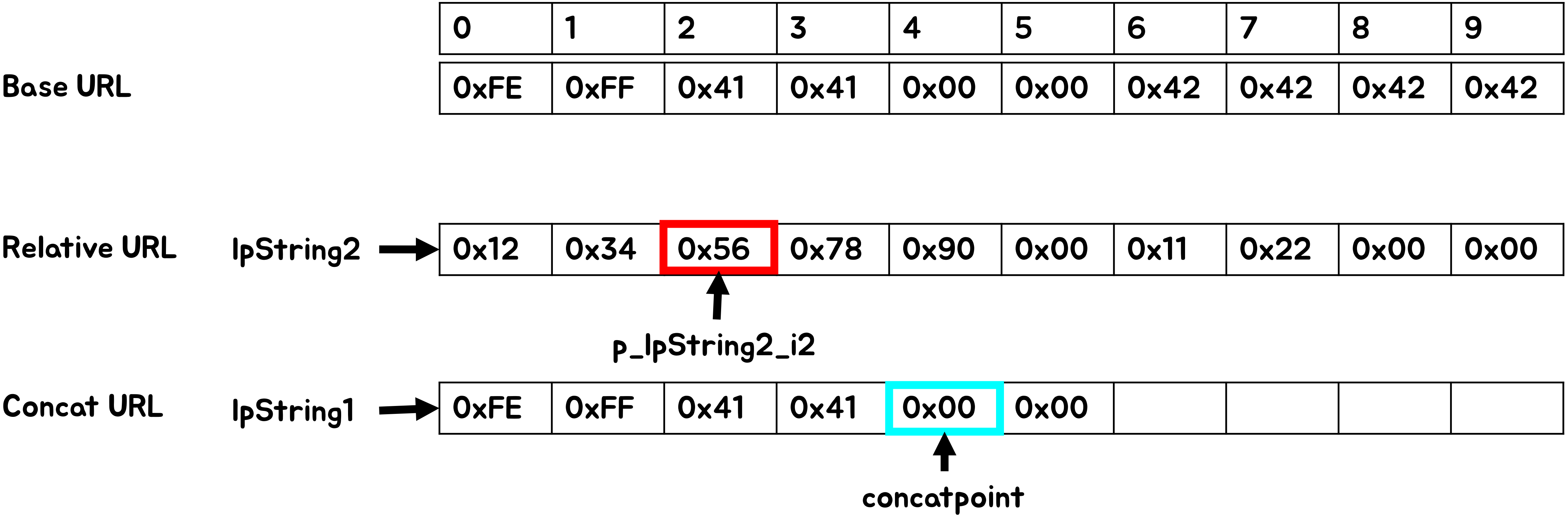


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

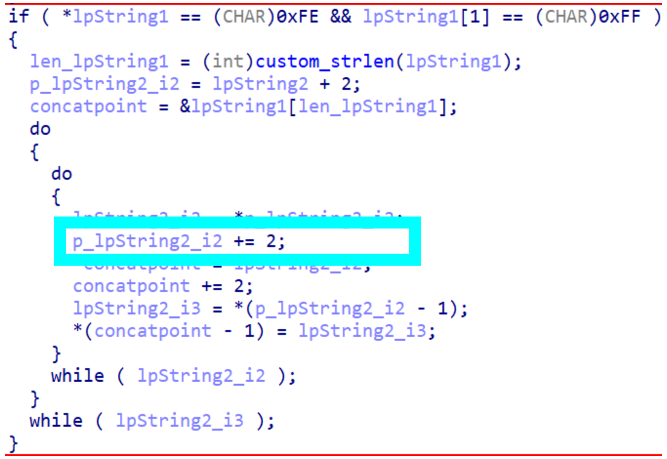
lpString2_i2 : 0x56

lpString2_i3 :



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1	0xFE	0xFF	0x41	0x41	0x00	0x00				

Root Cause

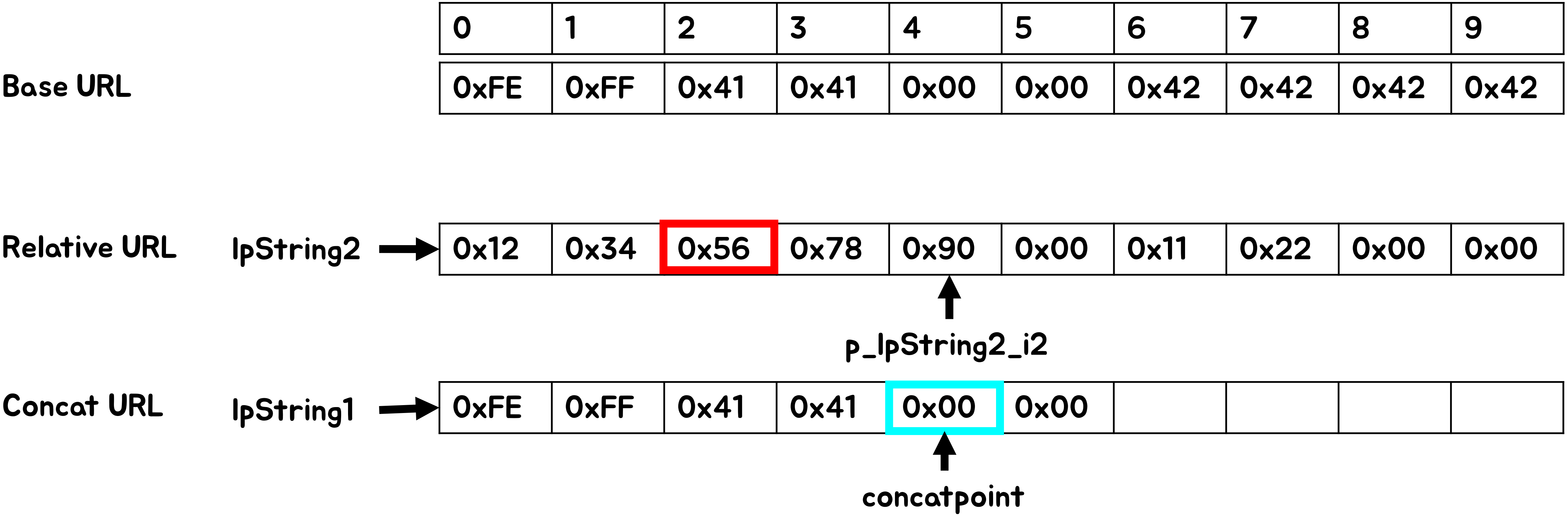


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

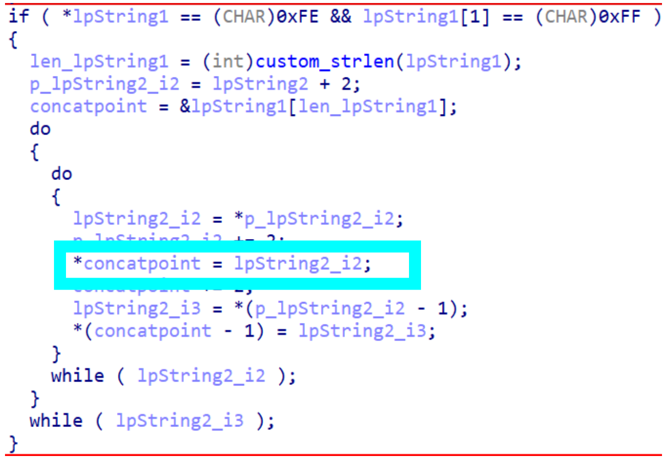
lpString2_i2 : 0x56

lpString2_i3 :

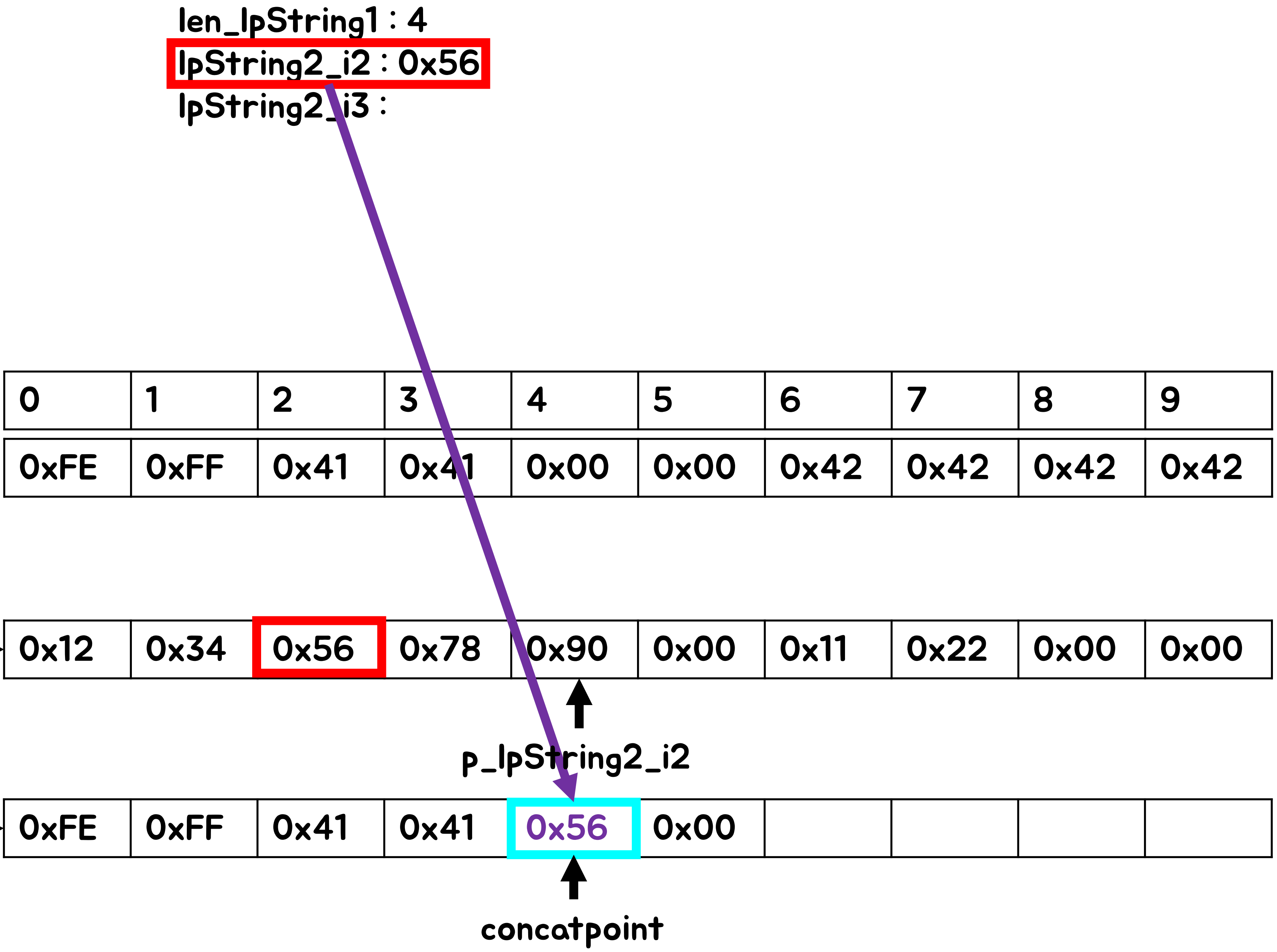


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x00	0x00				

Root Cause



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



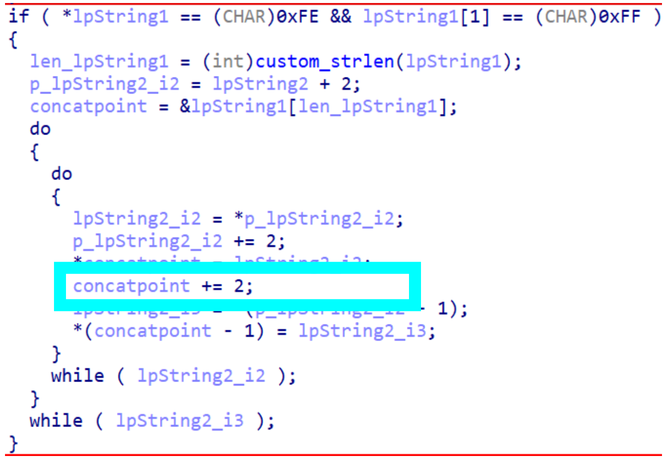
len_lpString1 : 4

lpString2_i2 : 0x56

lpString2_i3 :

	0	1	2	3	4	5	6	7	8	9
Base URL	0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x00				

Root Cause

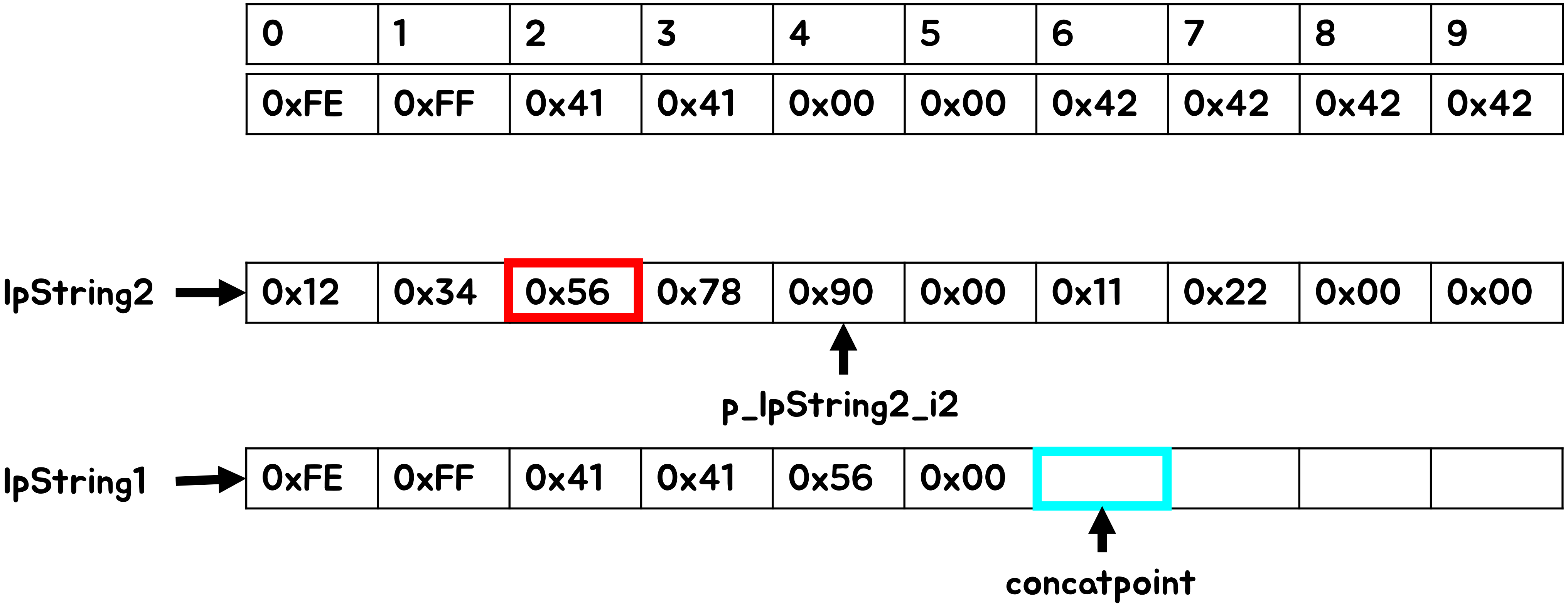


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

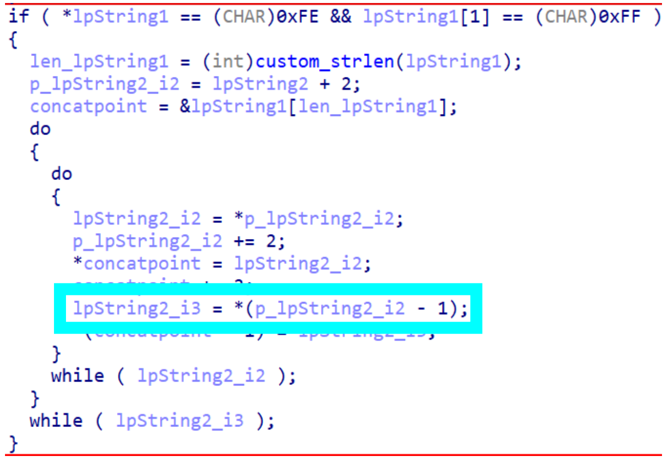
lpString2_i2 : 0x56

lpString2_i3 :



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x00				

Root Cause

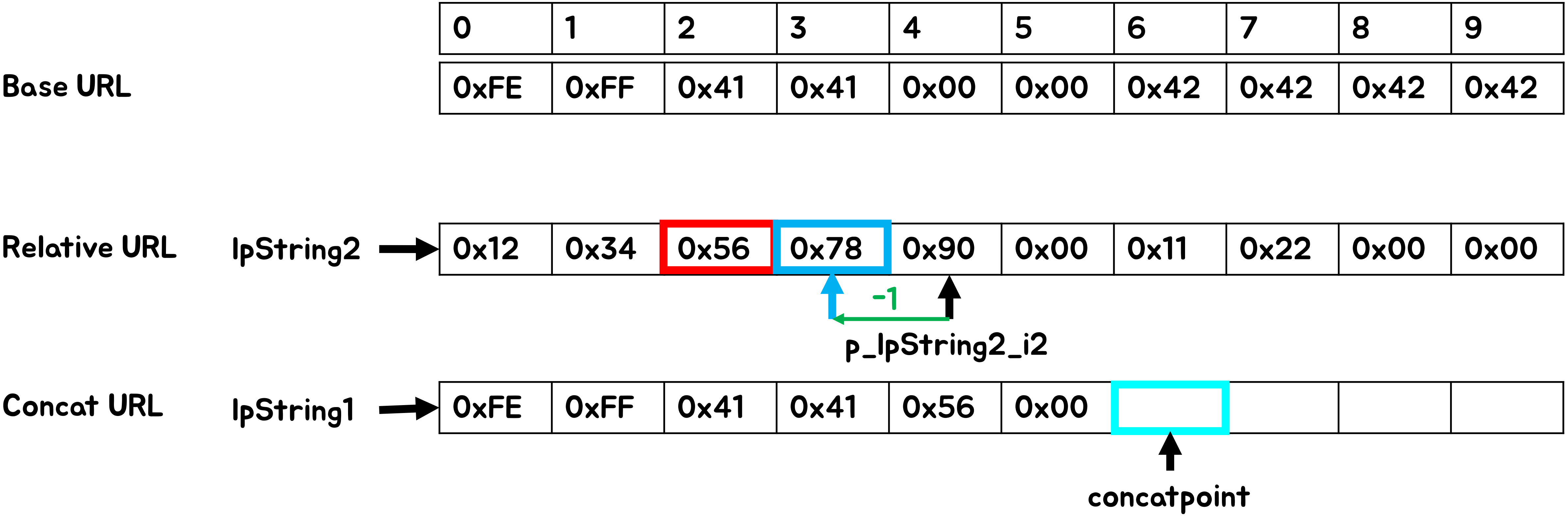


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

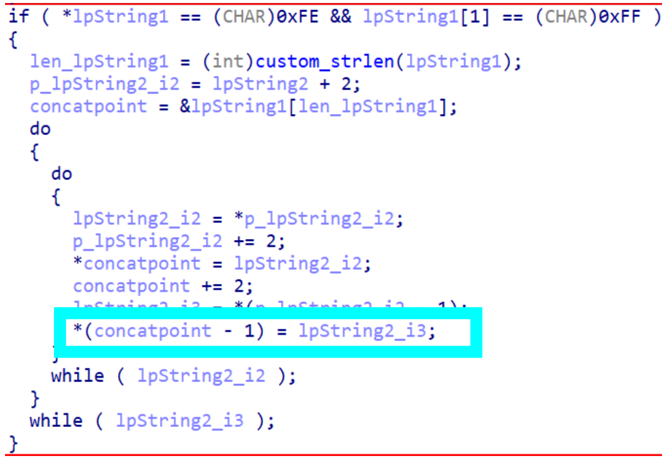
lpString2_i2 : 0x56

lpString2_i3 : 0x78

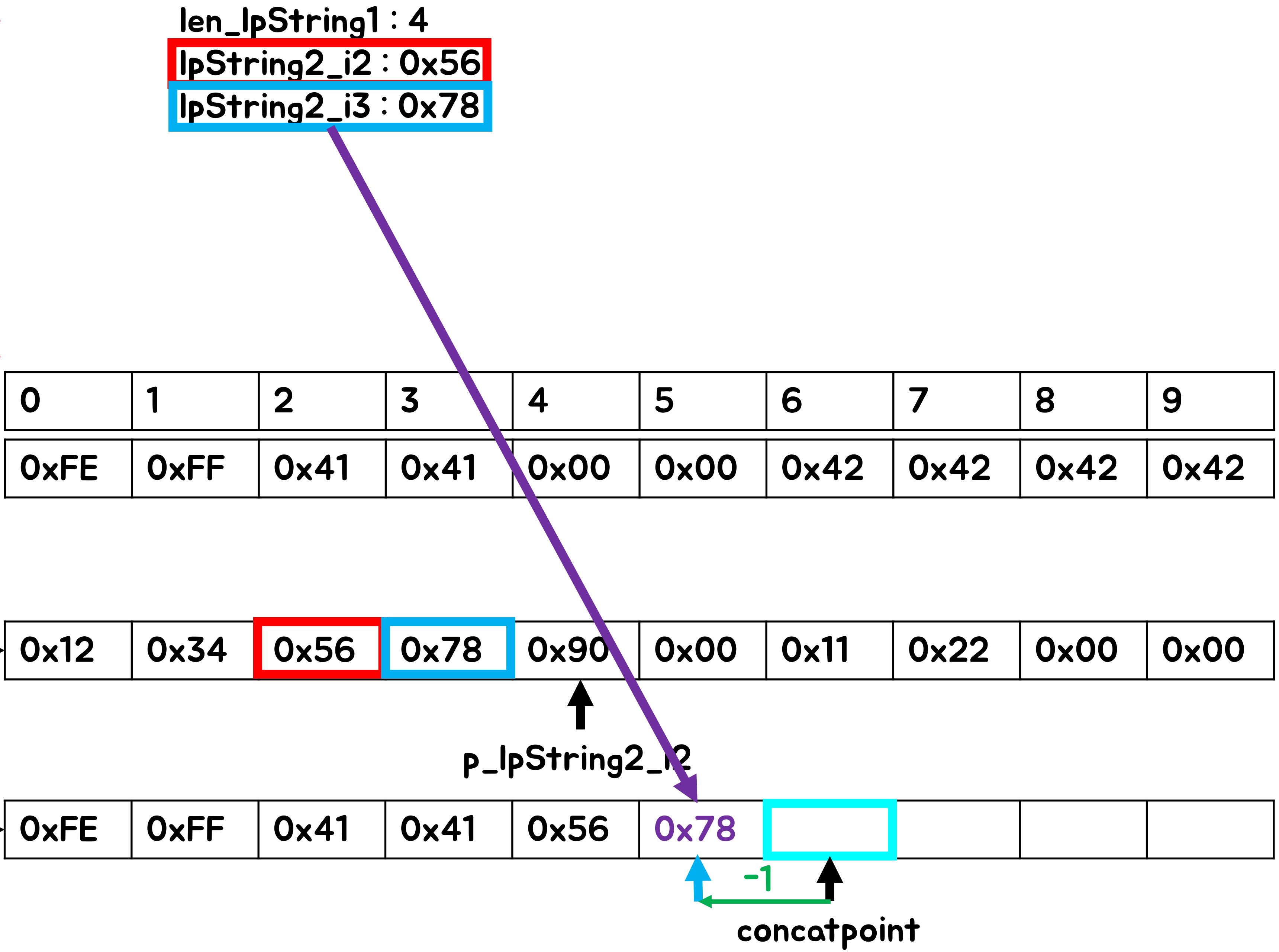


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1	0xFE	0xFF	0x41	0x41	0x56	0x00				

Root Cause



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



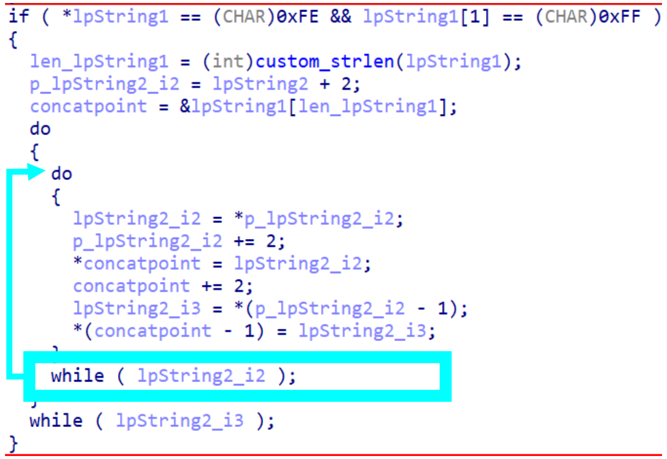
len_lpString1 : 4

lpString2_i2 : 0x56

lpString2_i3 : 0x78

		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78				

Root Cause

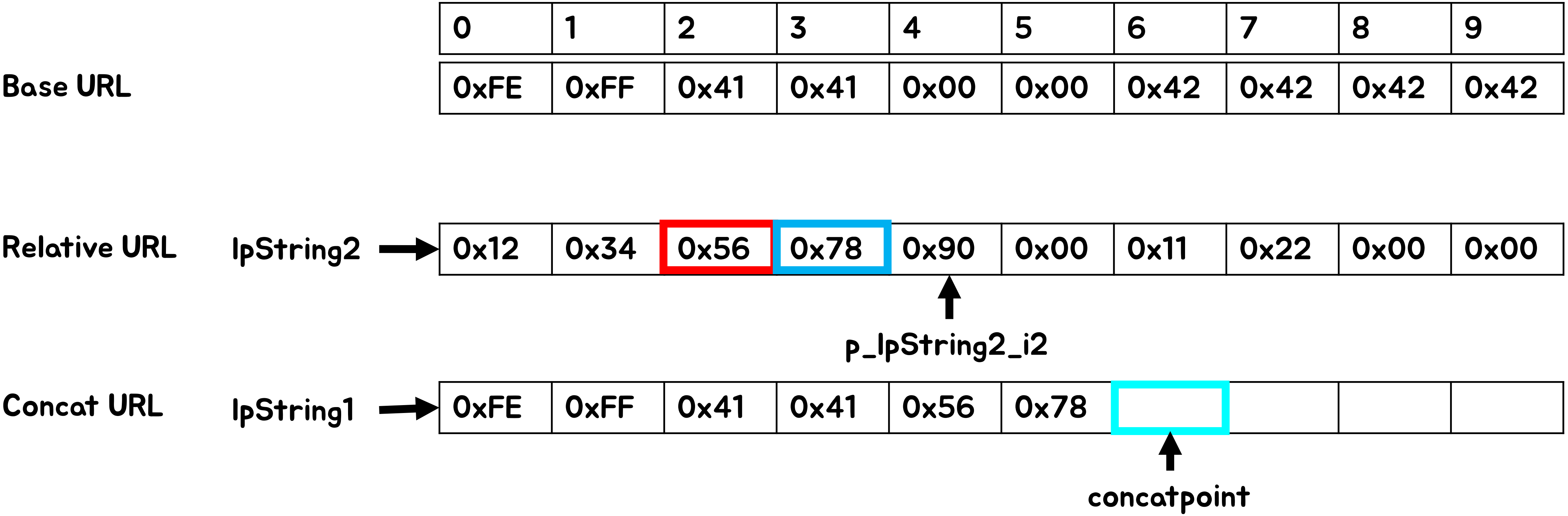


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

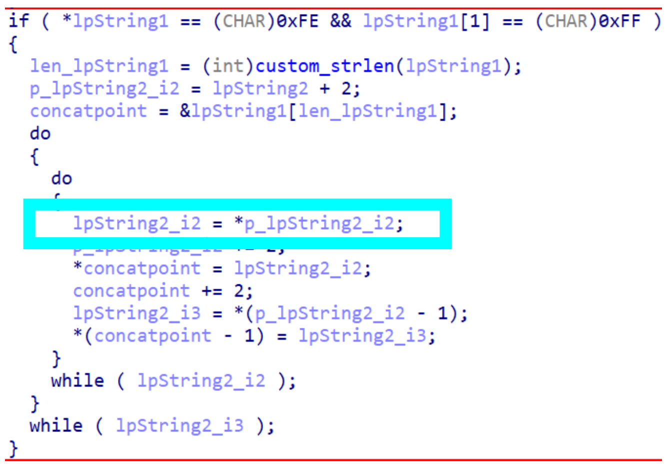
lpString2_i2 : 0x56 != 0x00

lpString2_i3 : 0x78



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78				

Root Cause

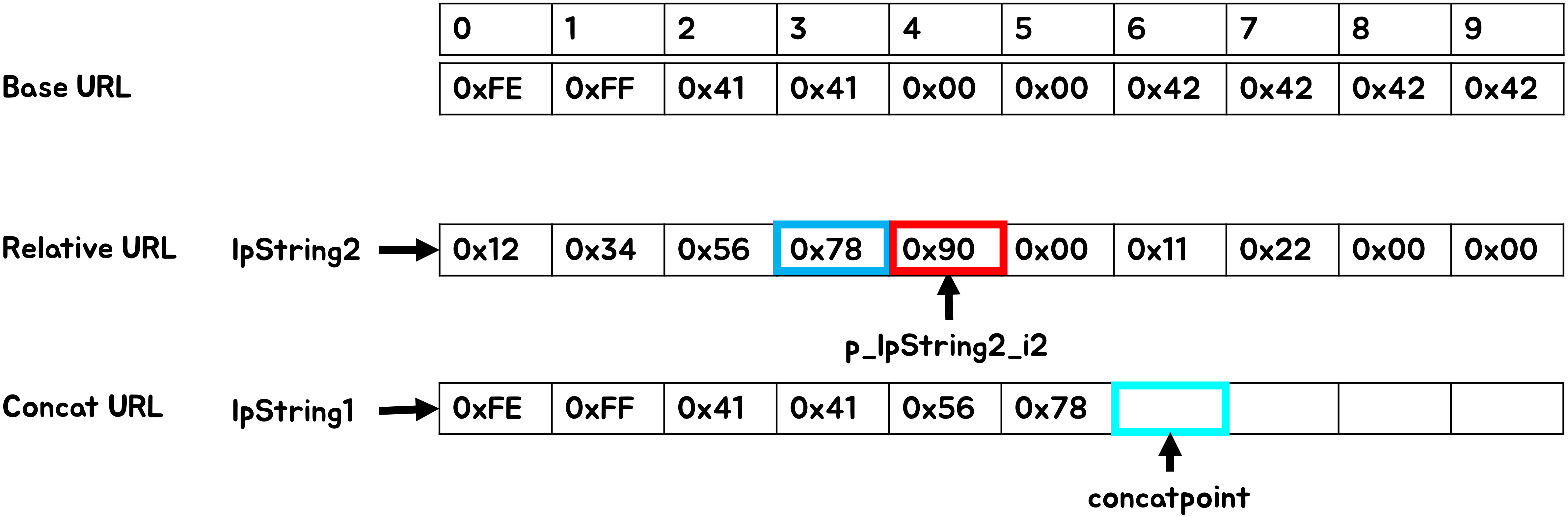


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

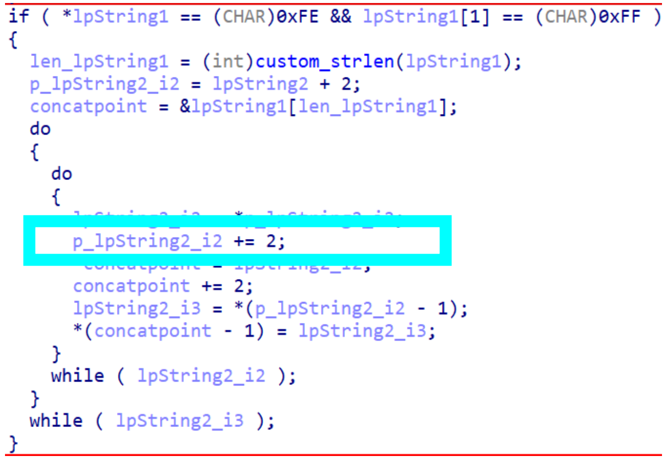
lpString2_i2 : 0x90

lpString2_i3 : 0x78



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78				

Root Cause

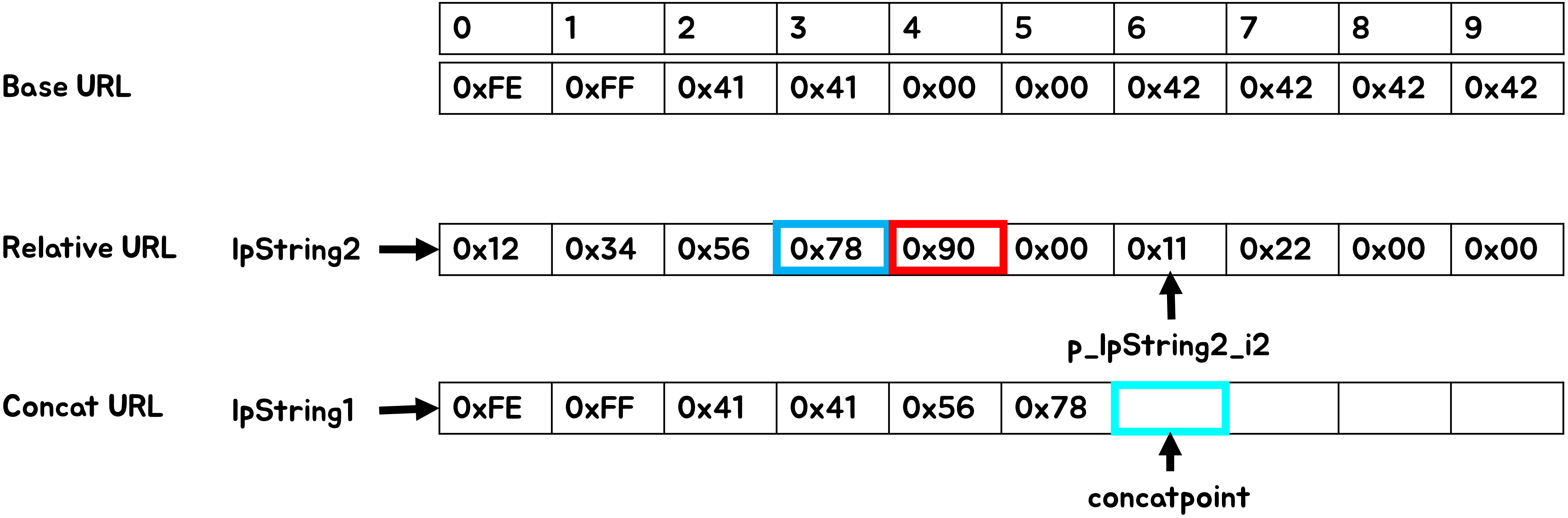


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

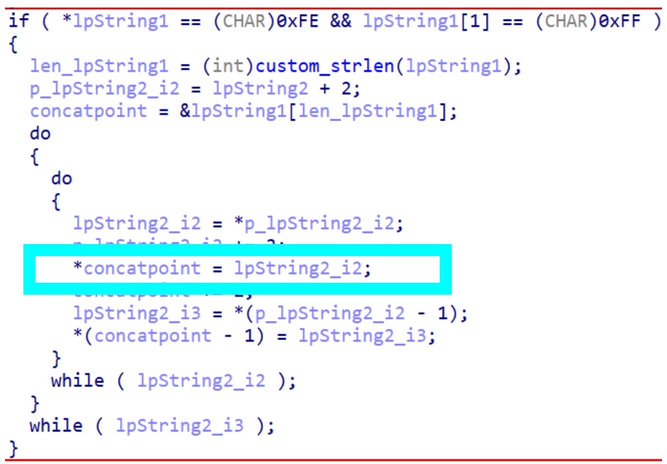
lpString2_i2 : 0x90

lpString2_i3 : 0x78

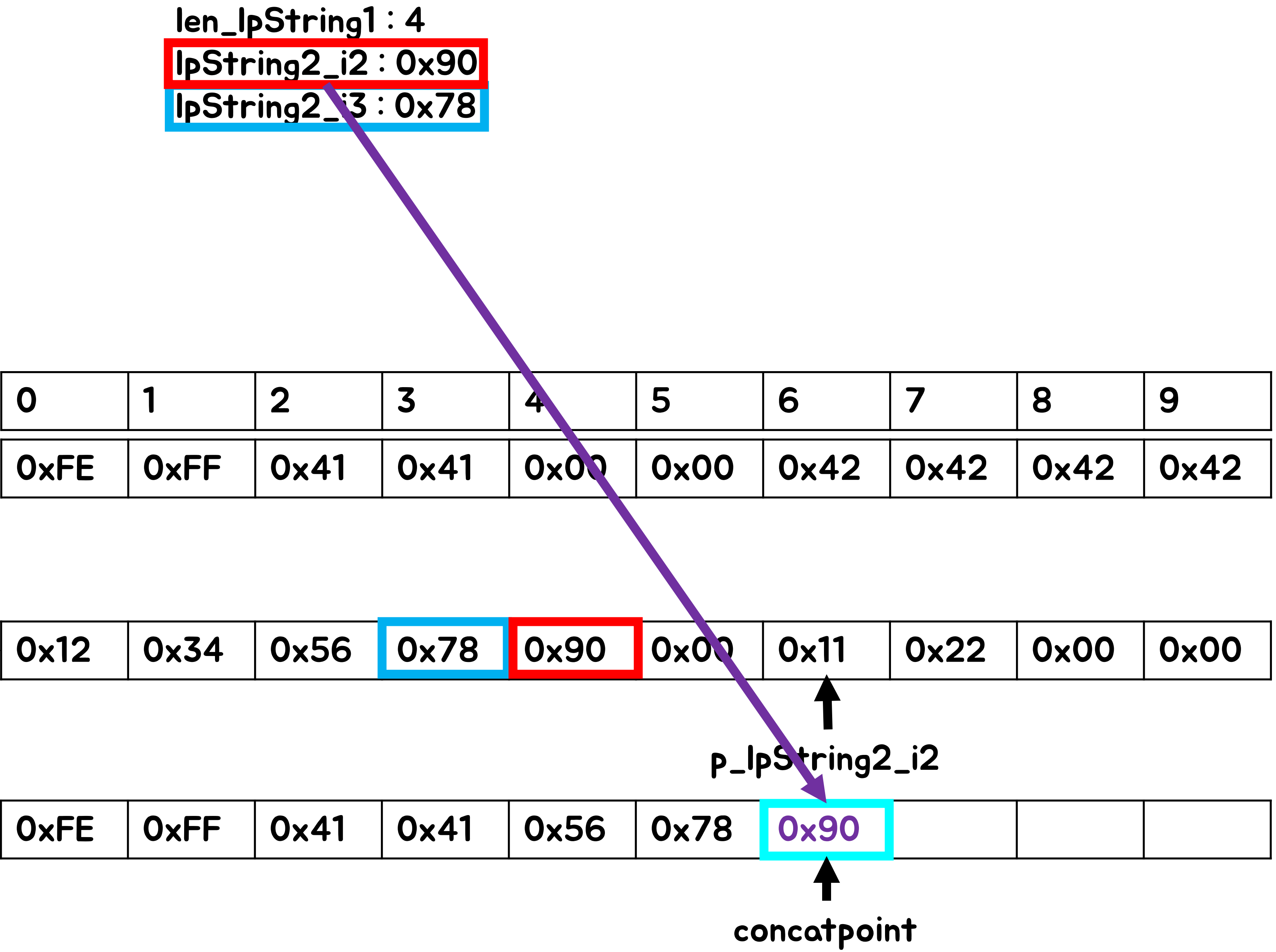


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78				

Root Cause



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



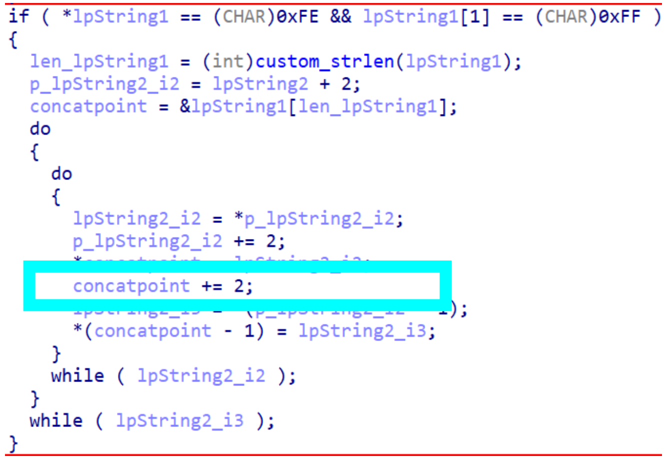
len_lpString1 : 4

lpString2_i2 : 0x90

lpString2_i3 : 0x78

		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90			

Root Cause

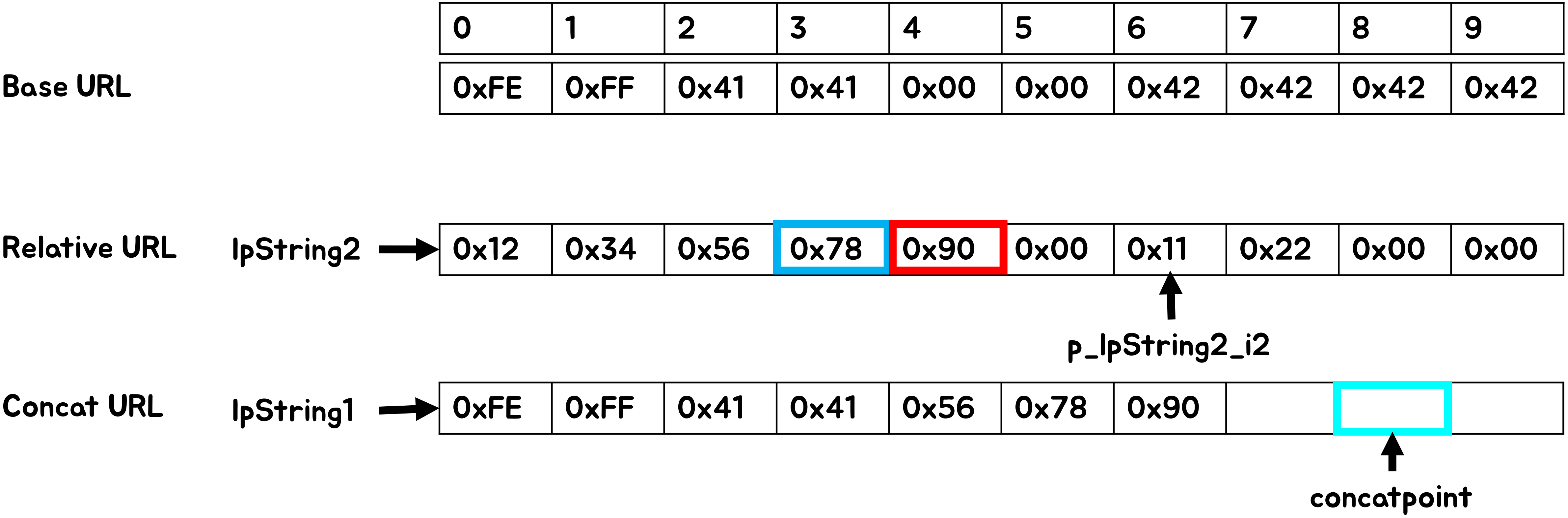


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

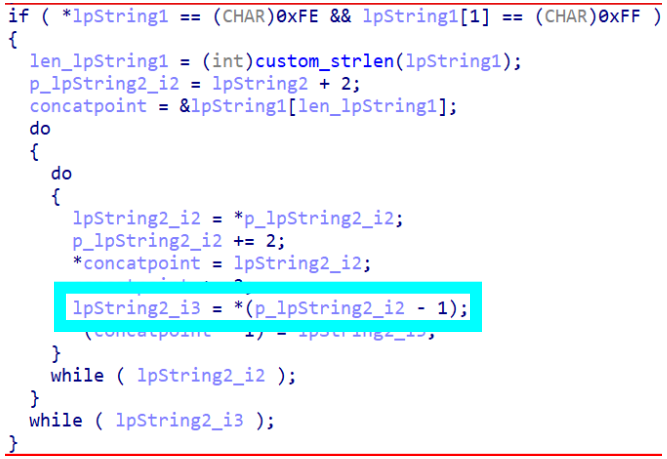
lpString2_i2 : 0x90

lpString2_i3 : 0x78



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90			

Root Cause

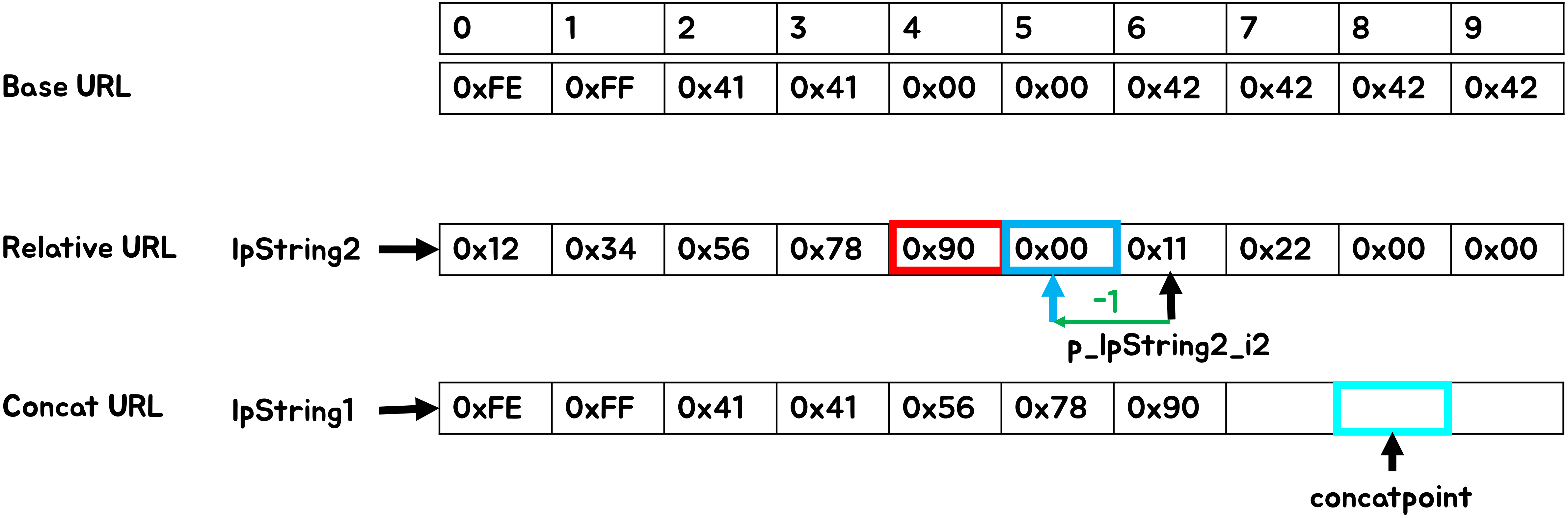


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

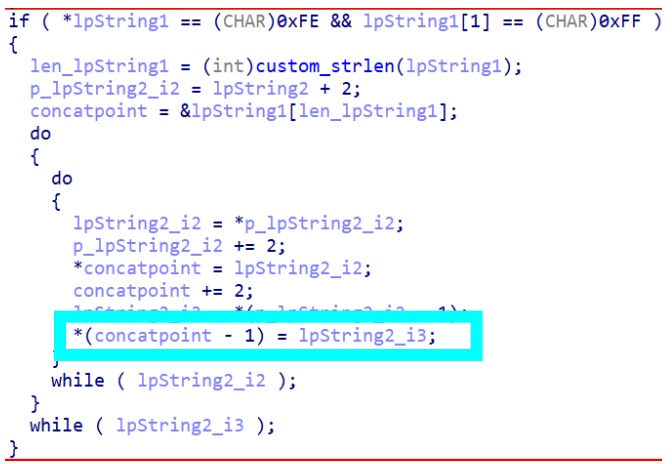
lpString2_i2 : 0x90

lpString2_i3 : 0x00

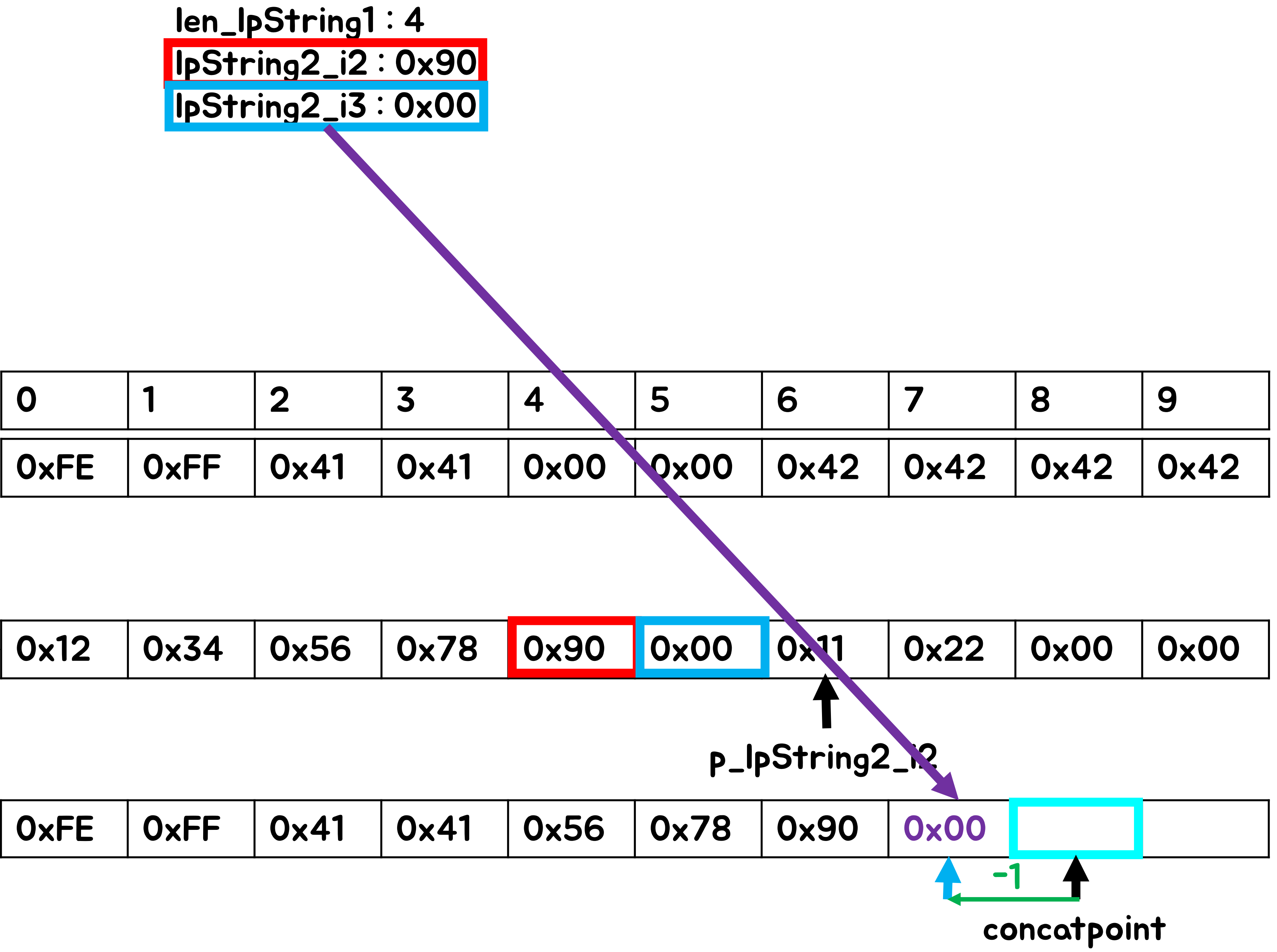


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90			

Root Cause



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



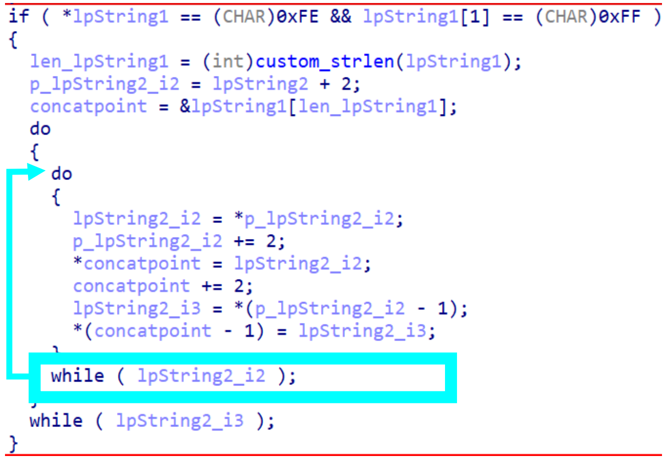
len_lpString1 : 4

lpString2_i2 : 0x90

lpString2_i3 : 0x00

		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00		

Root Cause

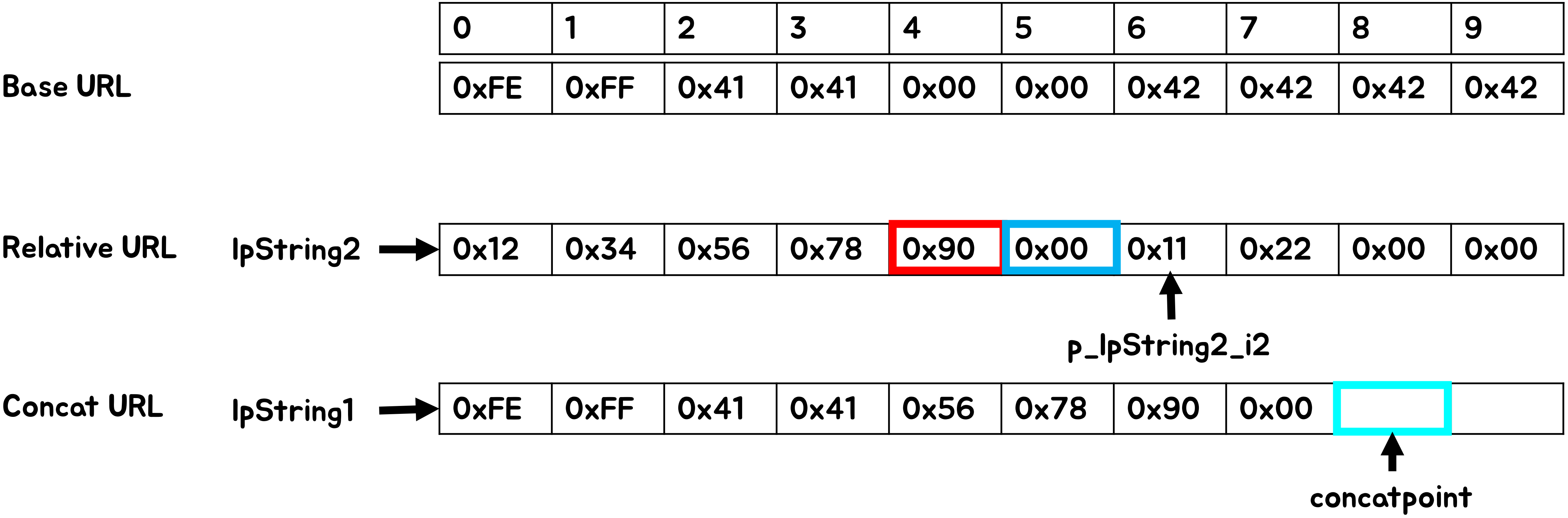


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

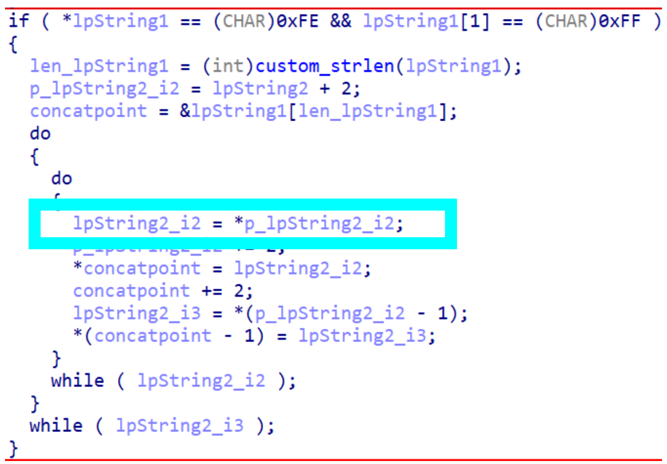
lpString2_i2 : 0x90 != 0x00

lpString2_i3 : 0x00



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00		

Root Cause

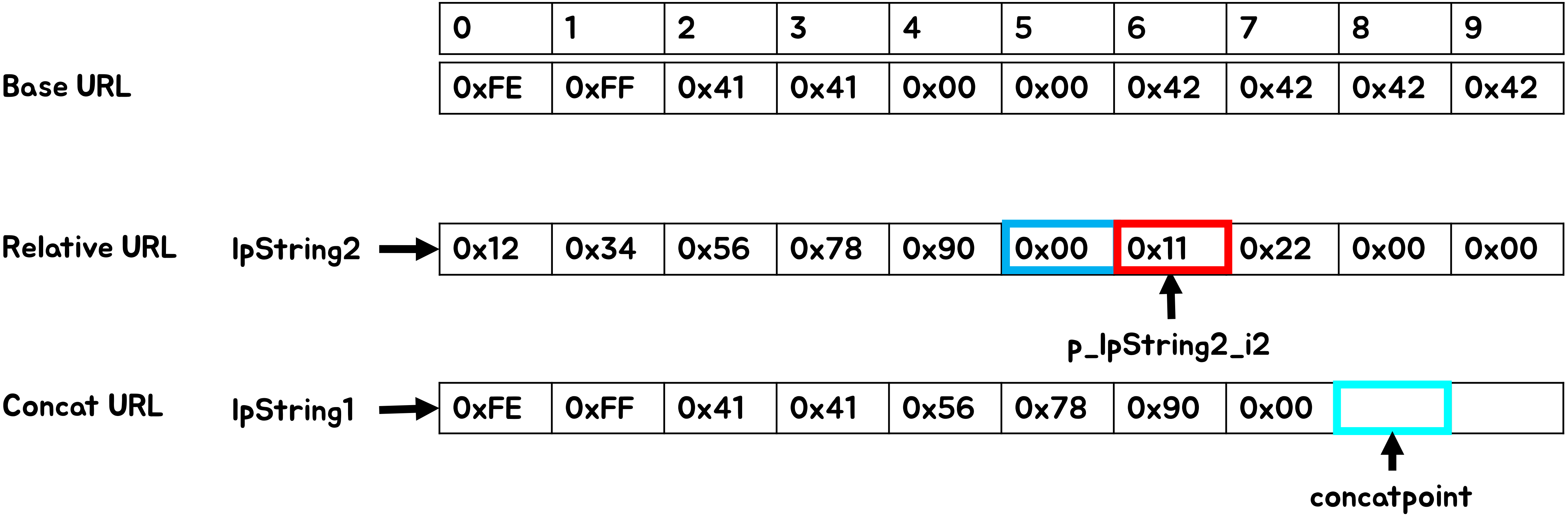


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

lpString2_i2 : 0x11

lpString2_i3 : 0x00

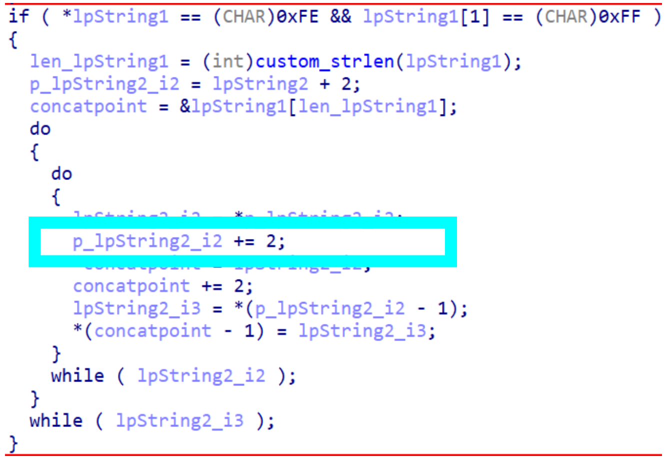


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00		

p_lpString2_i2

concatpoint

Root Cause

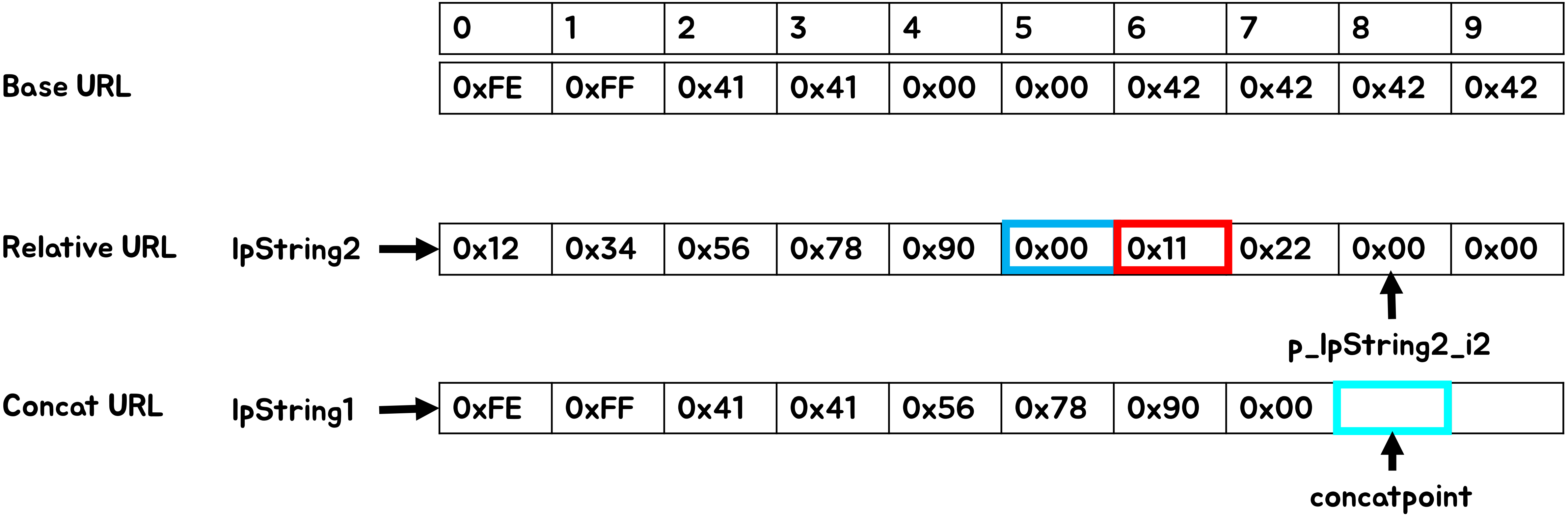


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

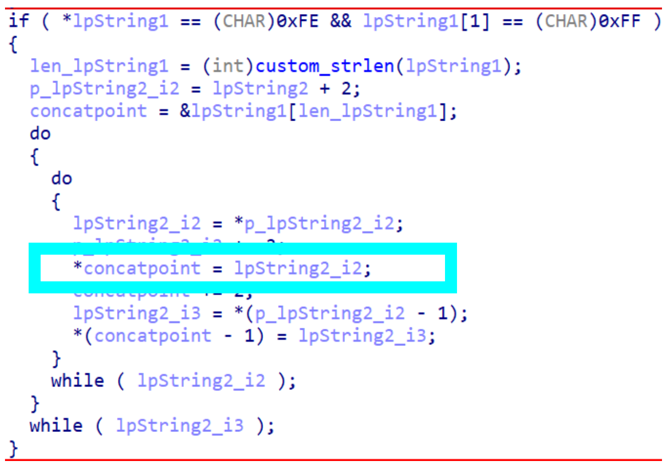
lpString2_i2 : 0x11

lpString2_i3 : 0x00

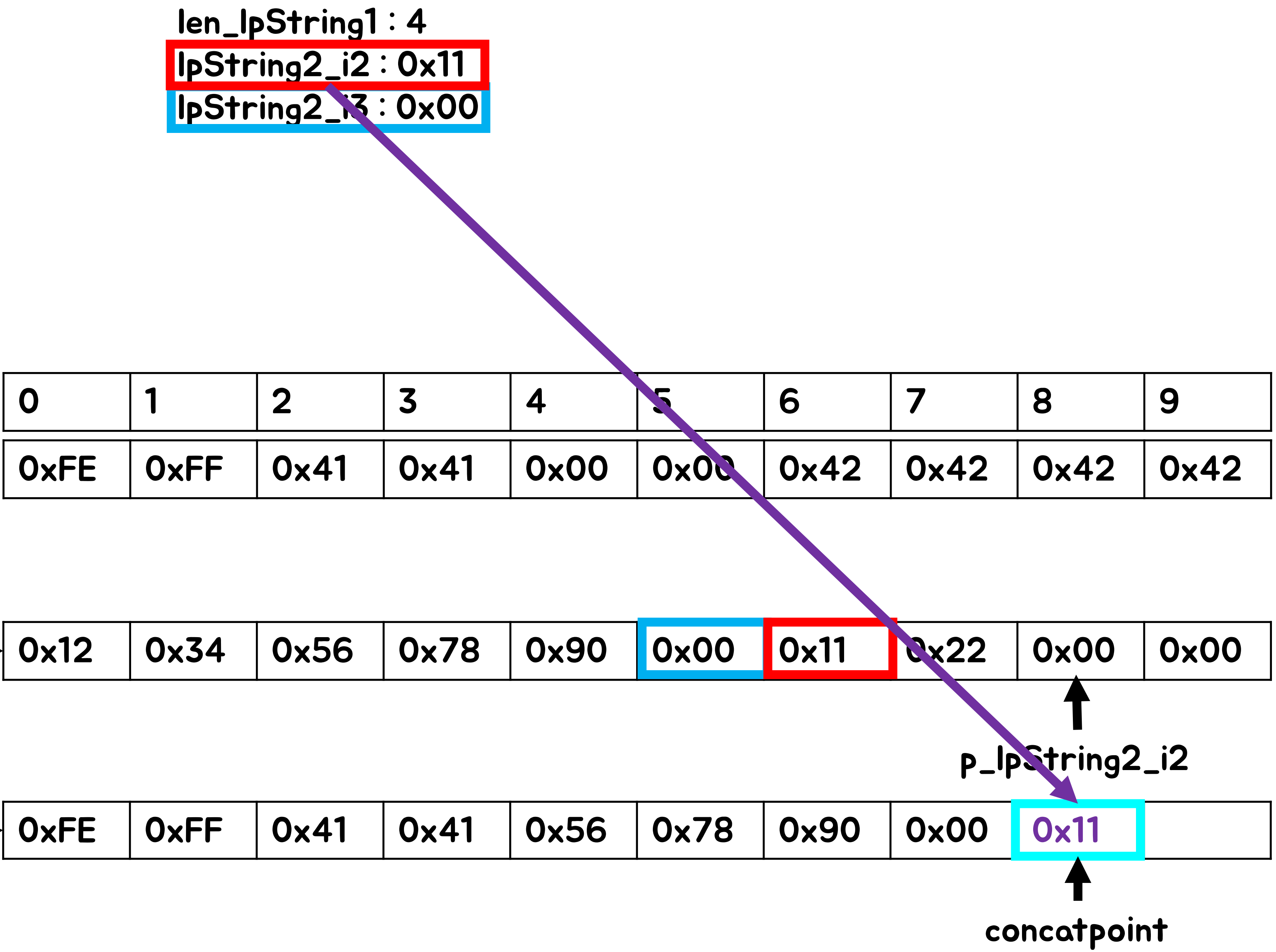


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00		

Root Cause

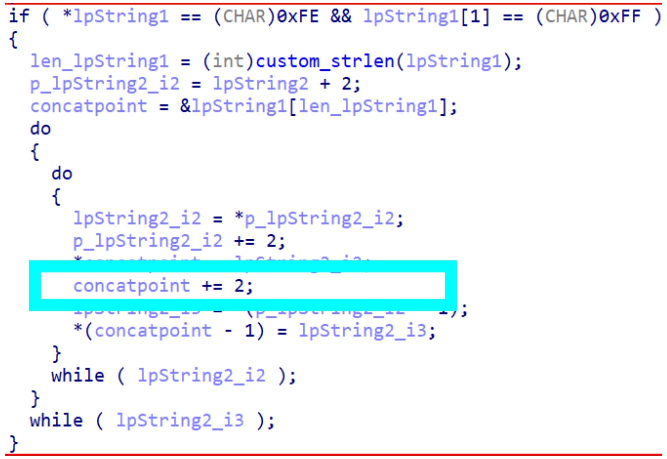


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	

Root Cause

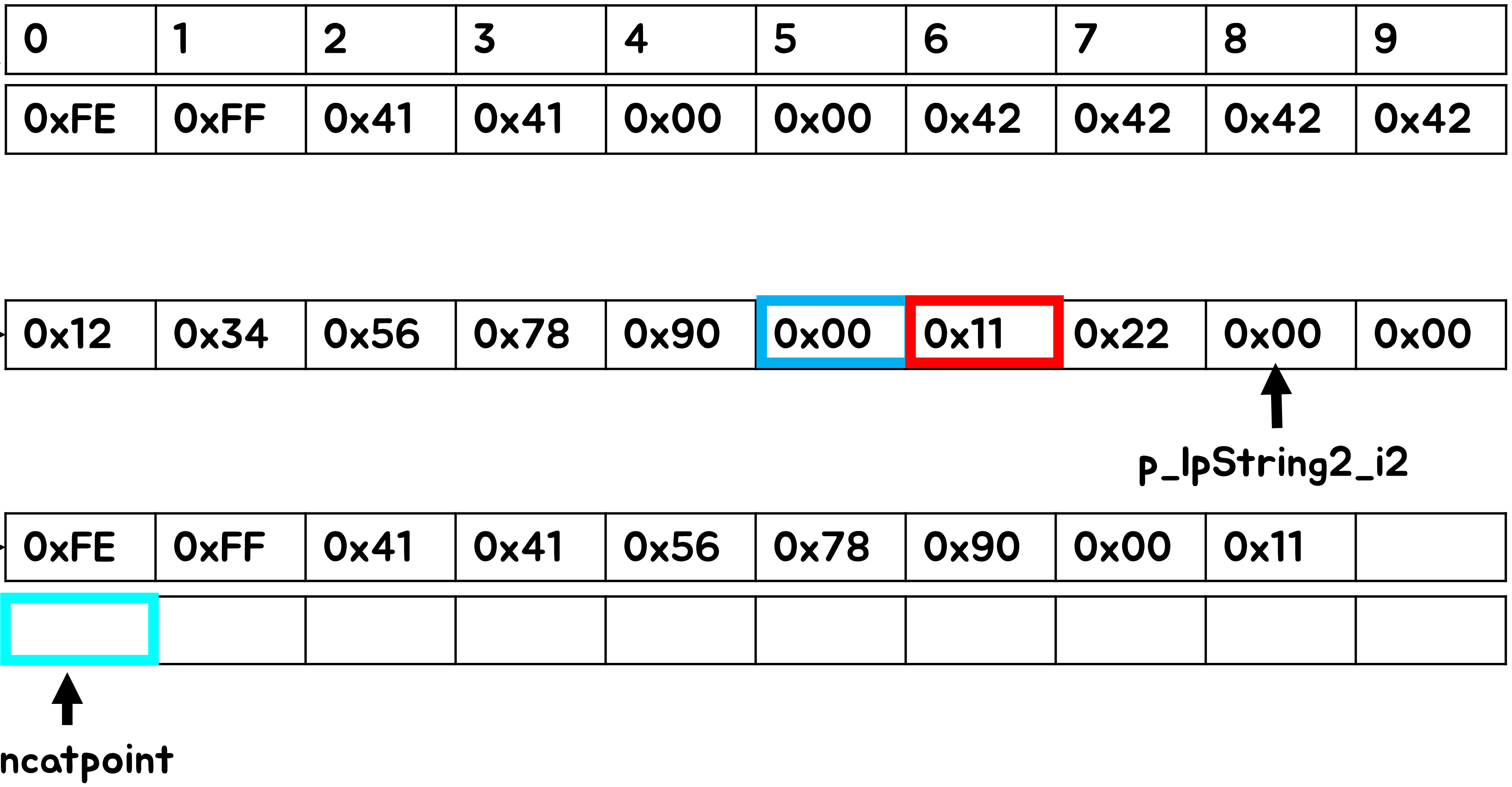


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

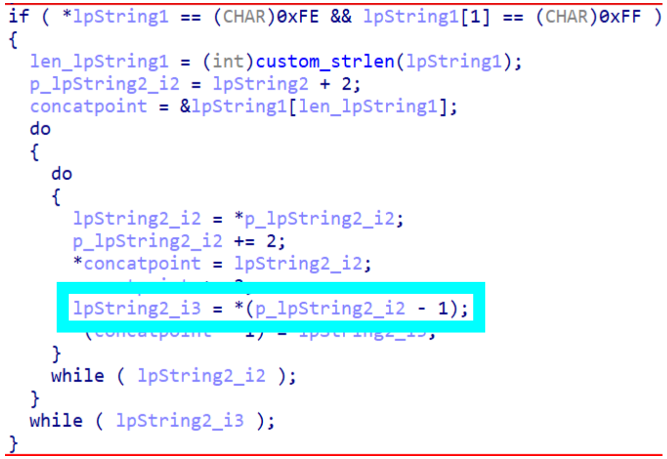
lpString2_i2 : 0x11

lpString2_i3 : 0x00



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	

Root Cause

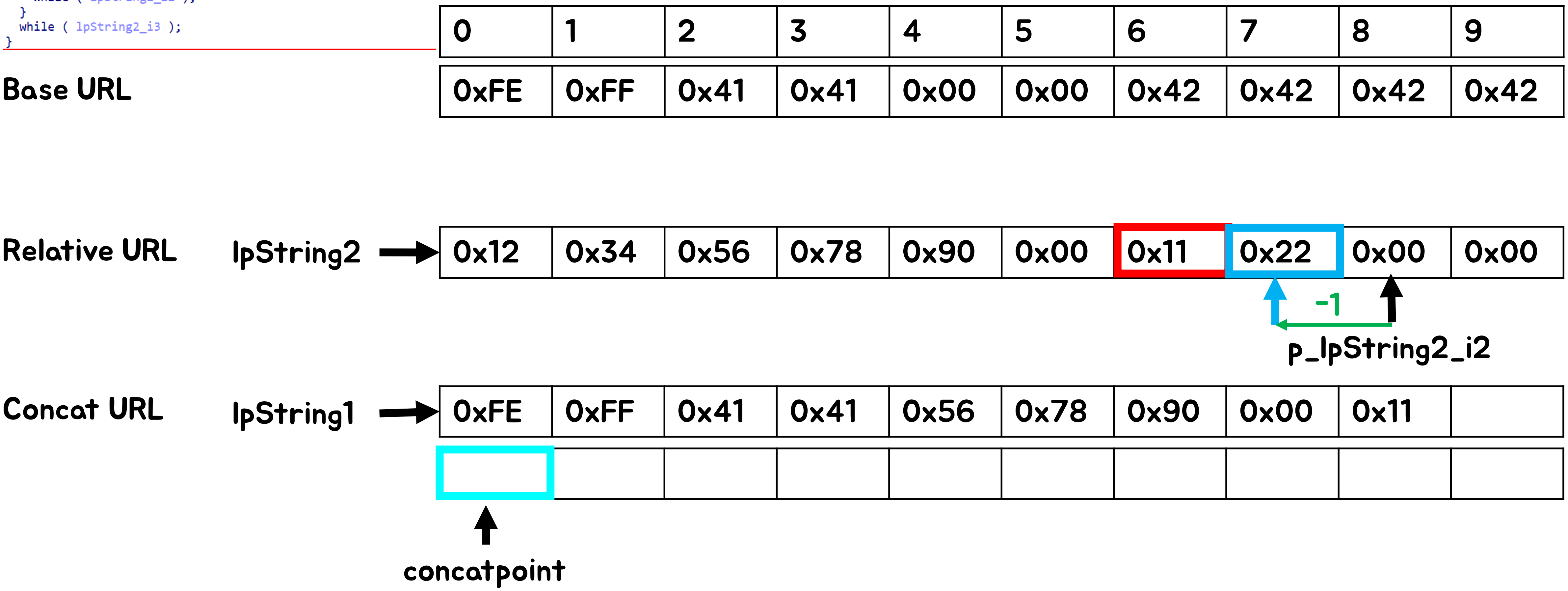


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

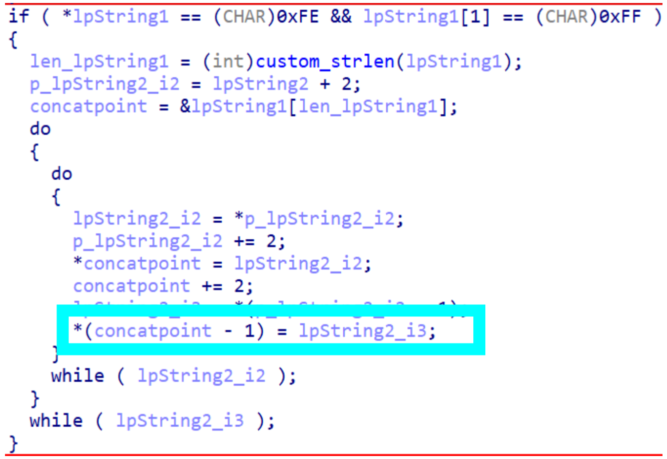
lpString2_i2 : 0x11

lpString2_i3 : 0x22

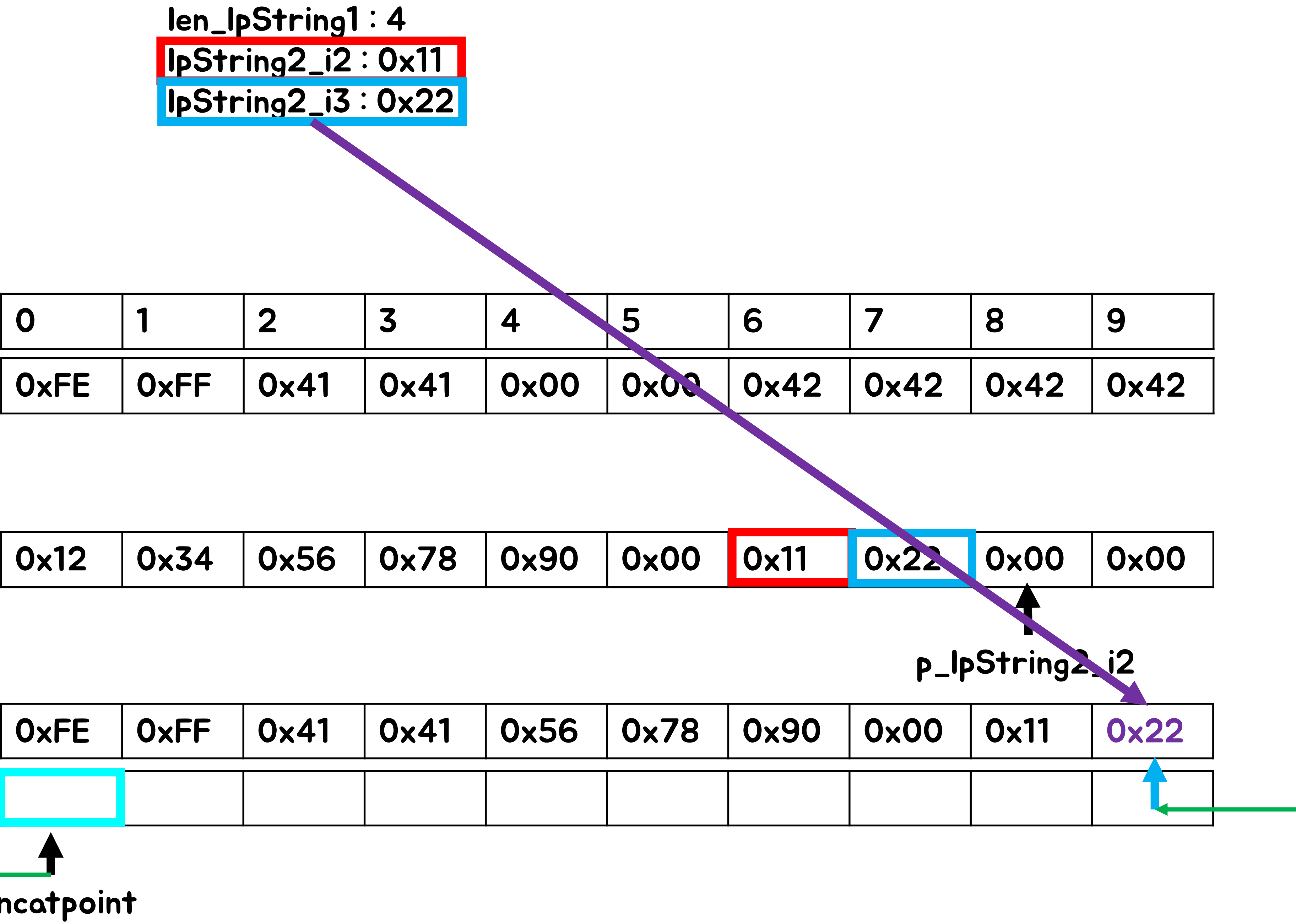


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	

Root Cause



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



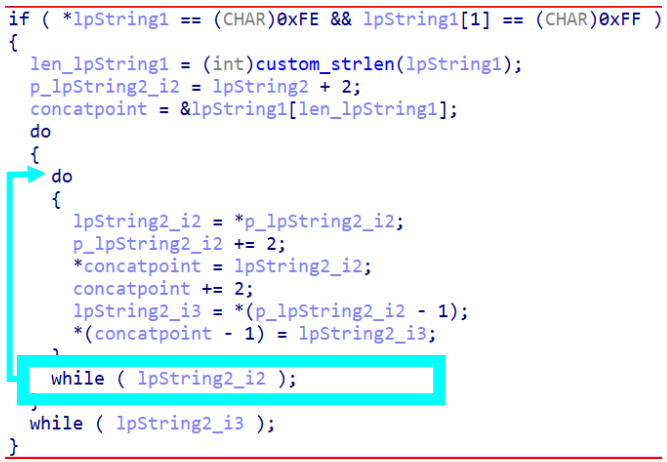
len_lpString1 : 4

lpString2_i2 : 0x11

lpString2_i3 : 0x22

		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22

Root Cause

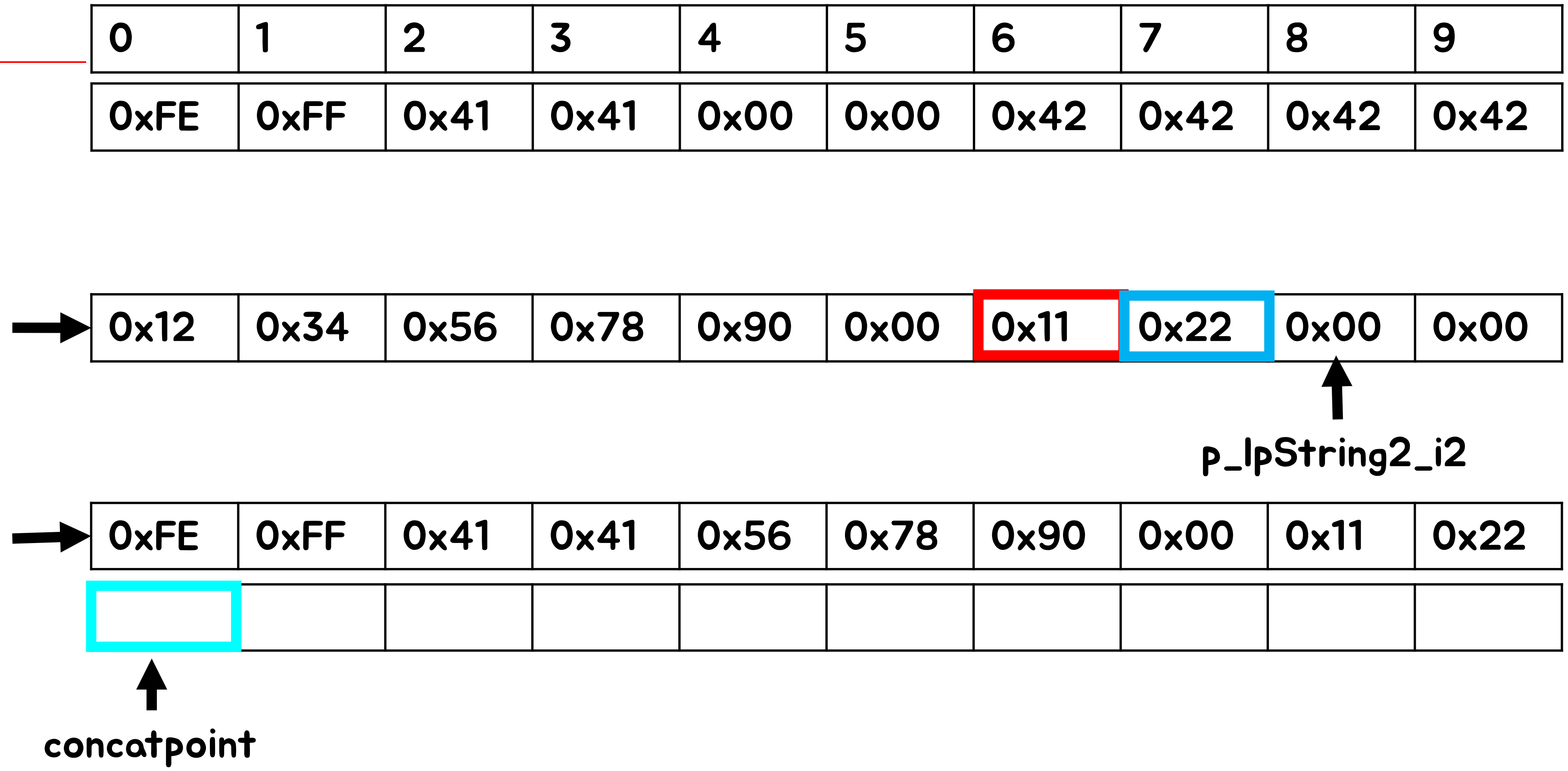


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

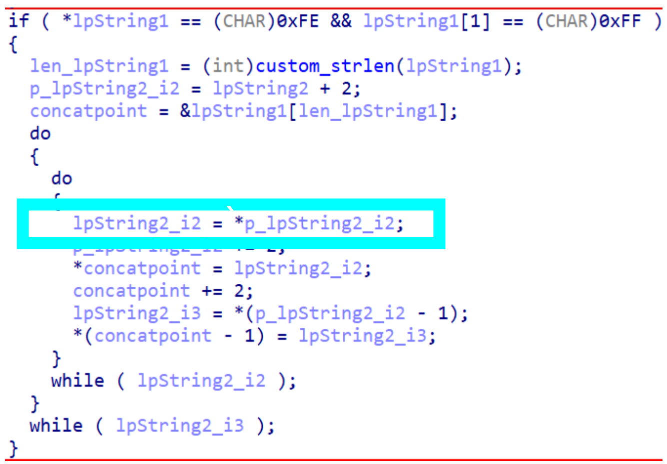
lpString2_i2 : 0x11 != 0x00

lpString2_i3 : 0x22



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22

Root Cause

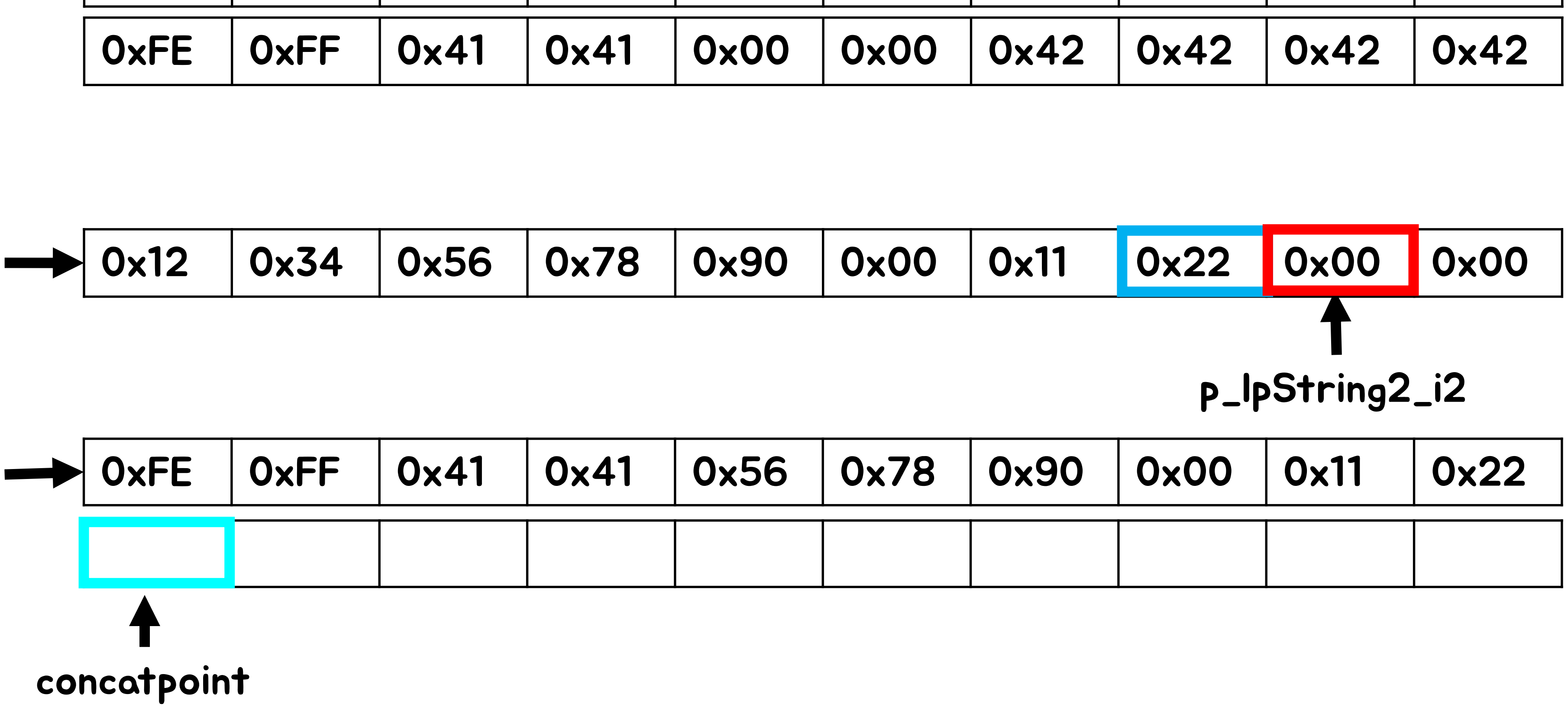


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

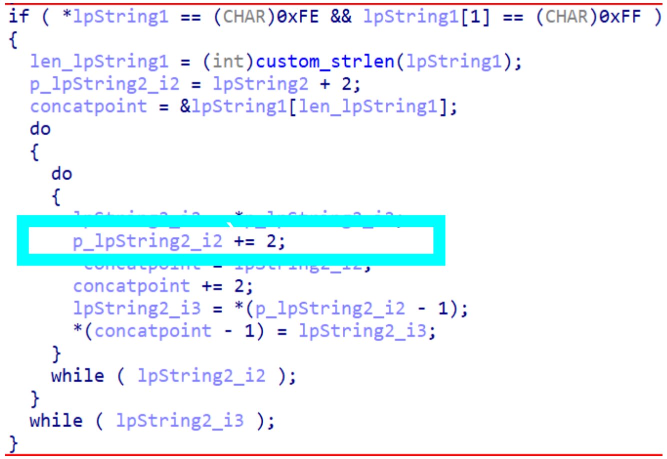
lpString2_i2 : 0x00

lpString2_i3 : 0x22



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22

Root Cause



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

lpString2_i2 : 0x00

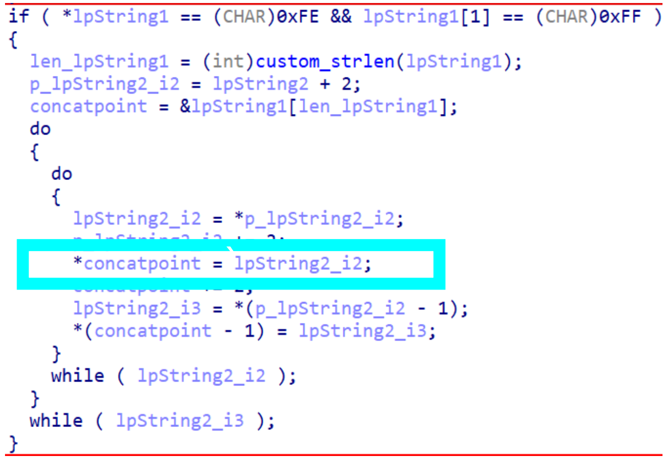
lpString2_i3 : 0x22

		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22

↑ p_lpString

↑ concatpoint

Root Cause



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

lpString2_i2 : 0x00

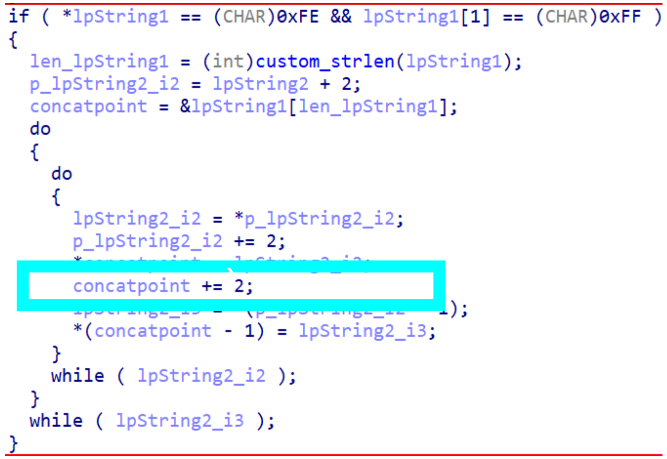
lpString2_i3 : 0x22

		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22
		0x00									

↑ p_lpString

↑ concatpoint

Root Cause

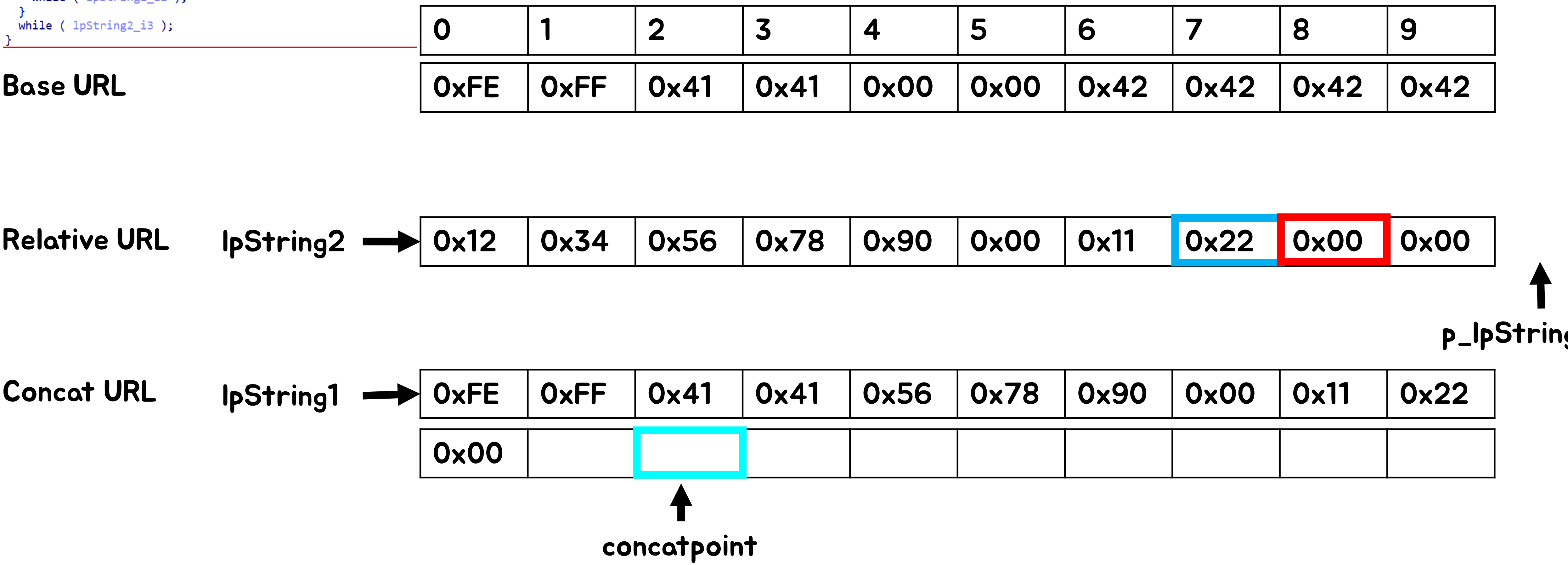


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

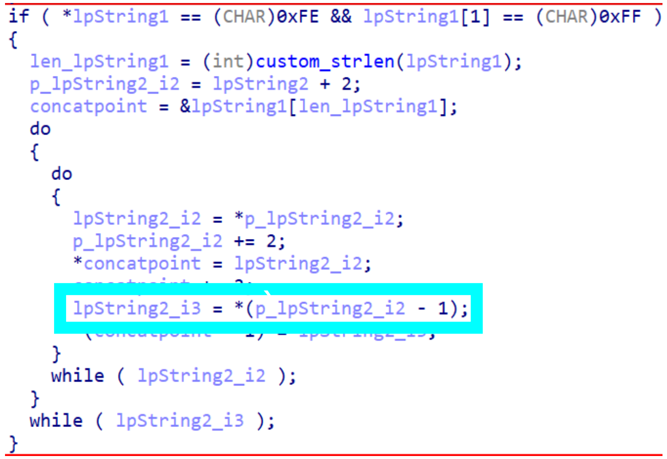
lpString2_i2 : 0x00

lpString2_i3 : 0x22



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22
		0x00									

Root Cause

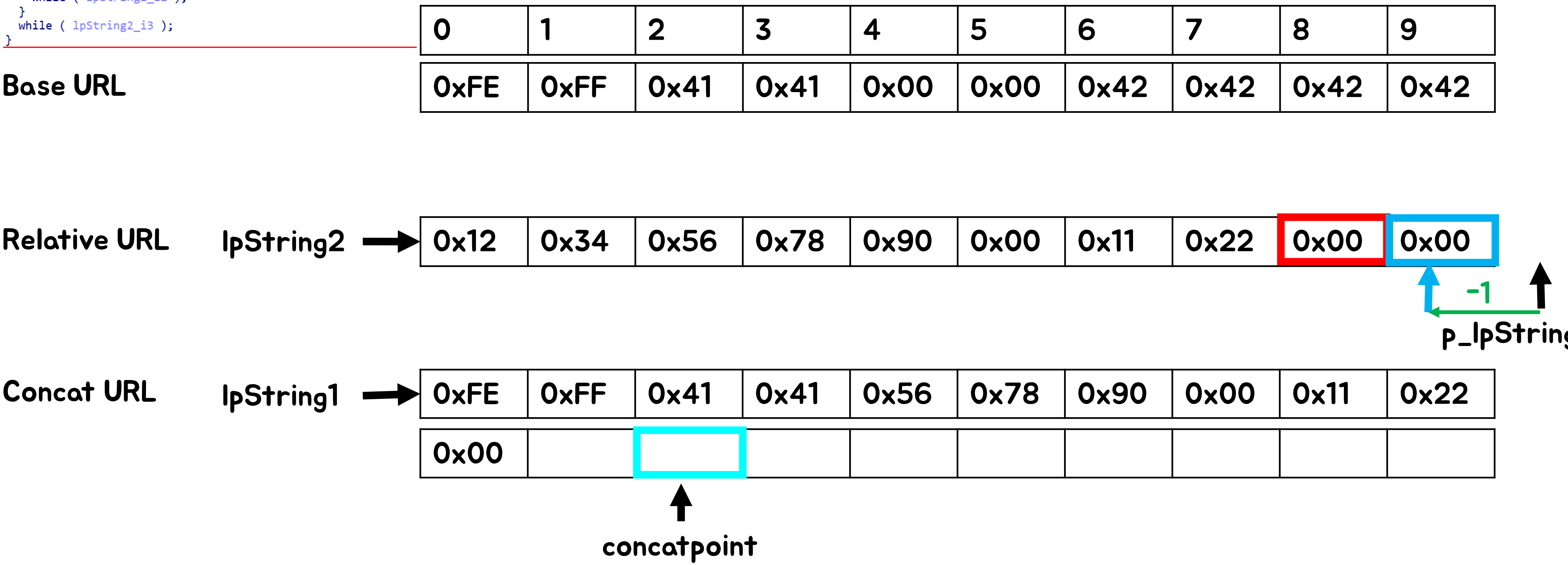


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

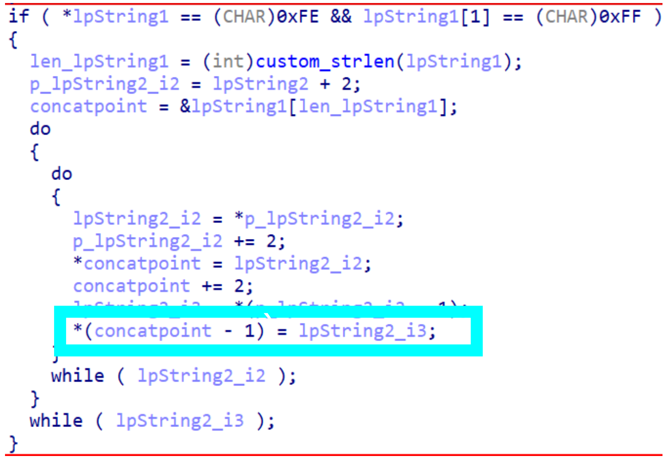
lpString2_i2 : 0x00

lpString2_i3 : 0x00

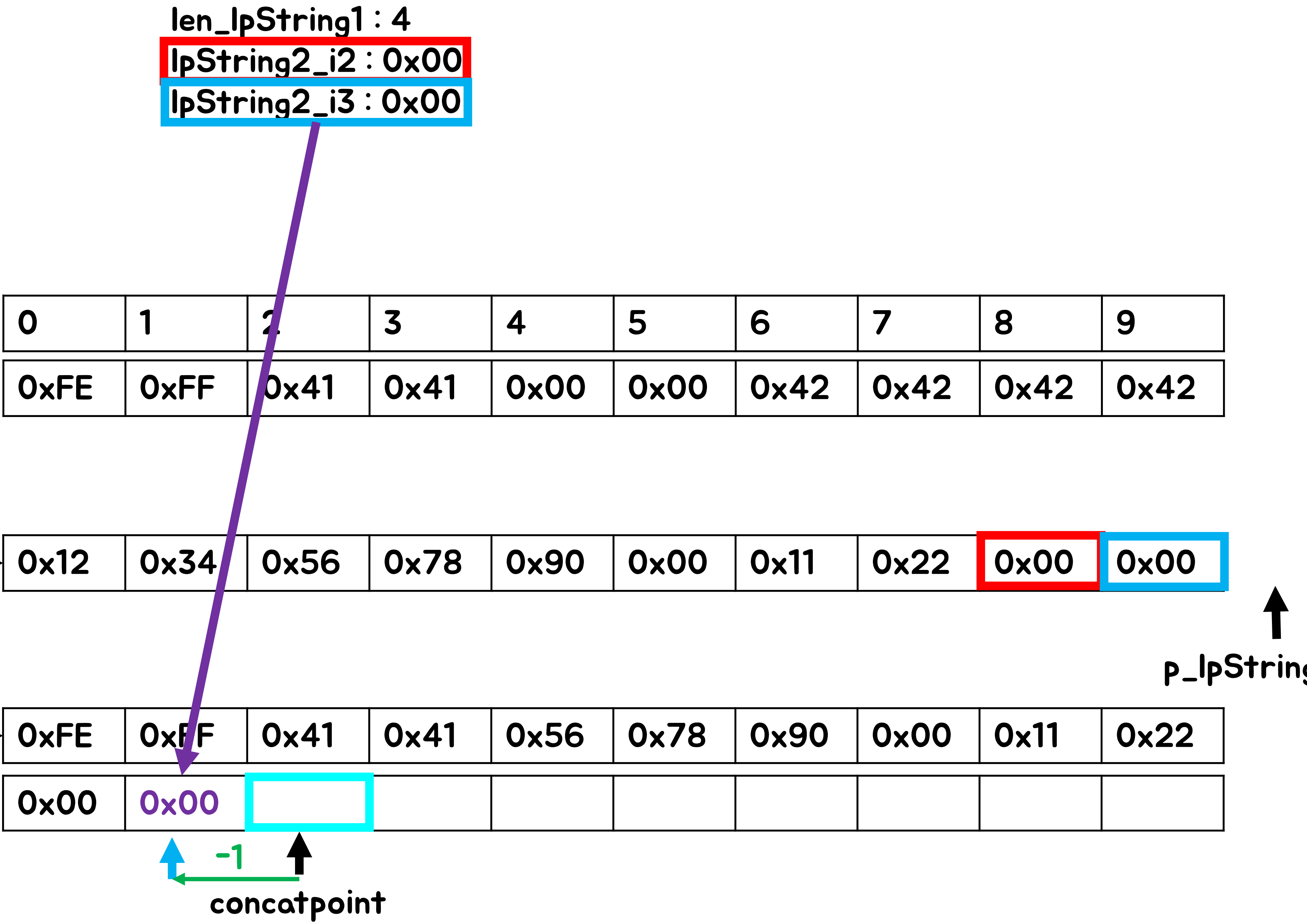


		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22
		0x00									

Root Cause



```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```



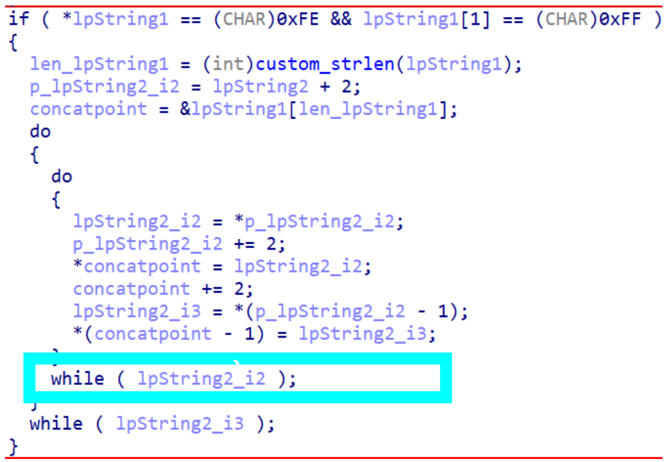
len_lpString1 : 4

lpString2_i2 : 0x00

lpString2_i3 : 0x00

		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22
		0x00	0x00								

Root Cause

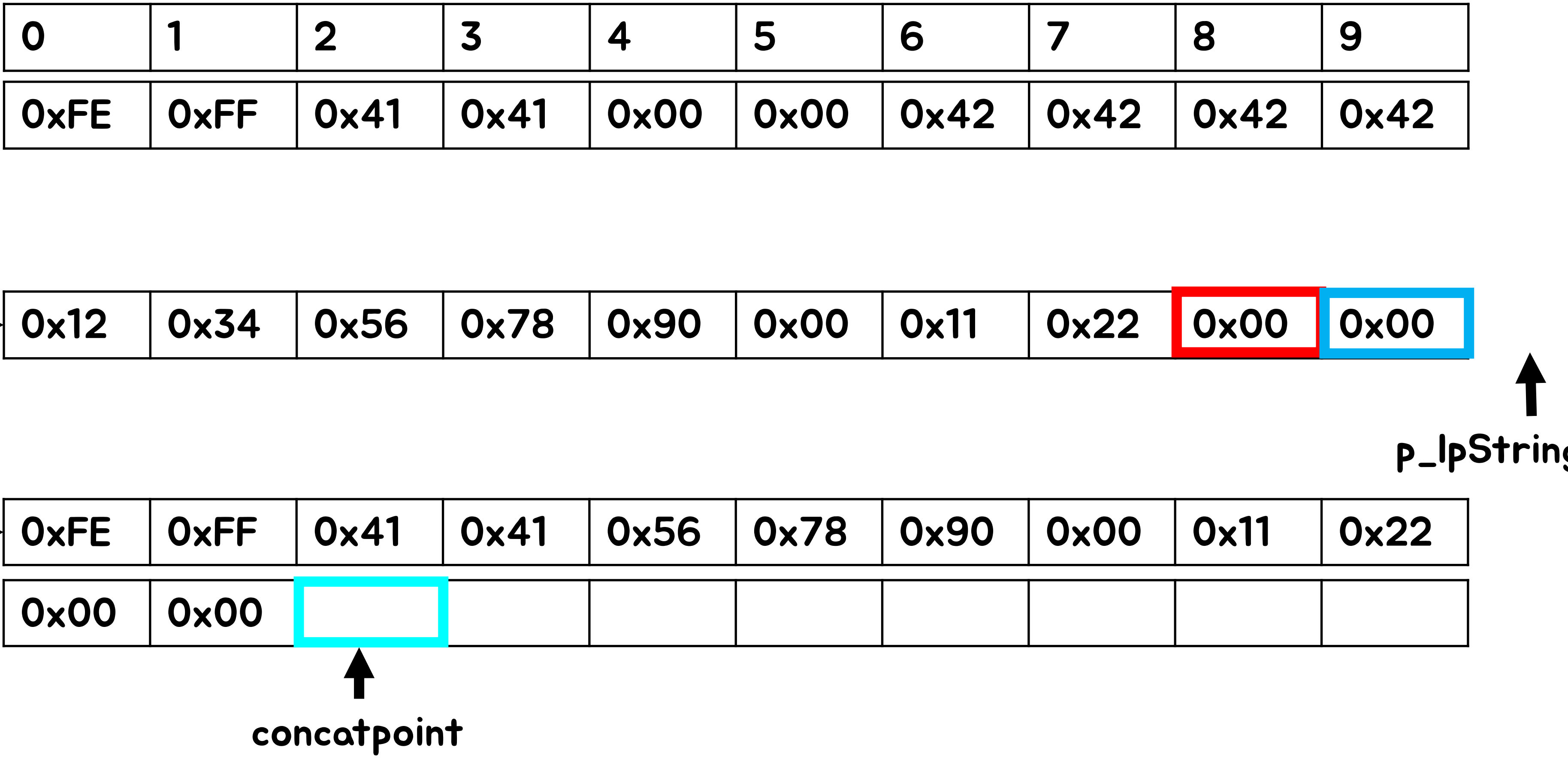


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

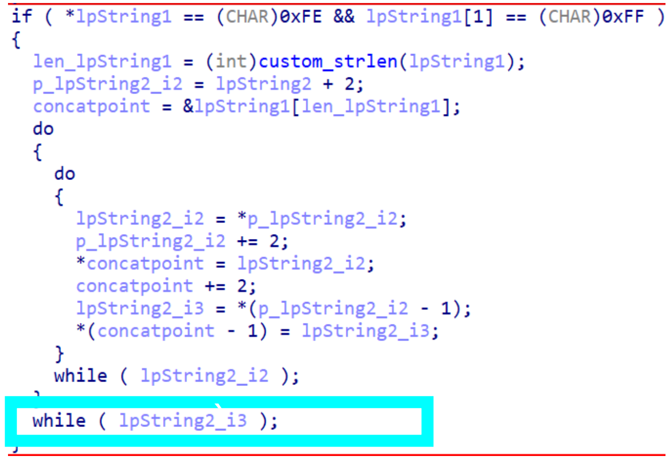
lpString2_i2 : 0x00 == 0x00

lpString2_i3 : 0x00



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22
		0x00	0x00								

Root Cause

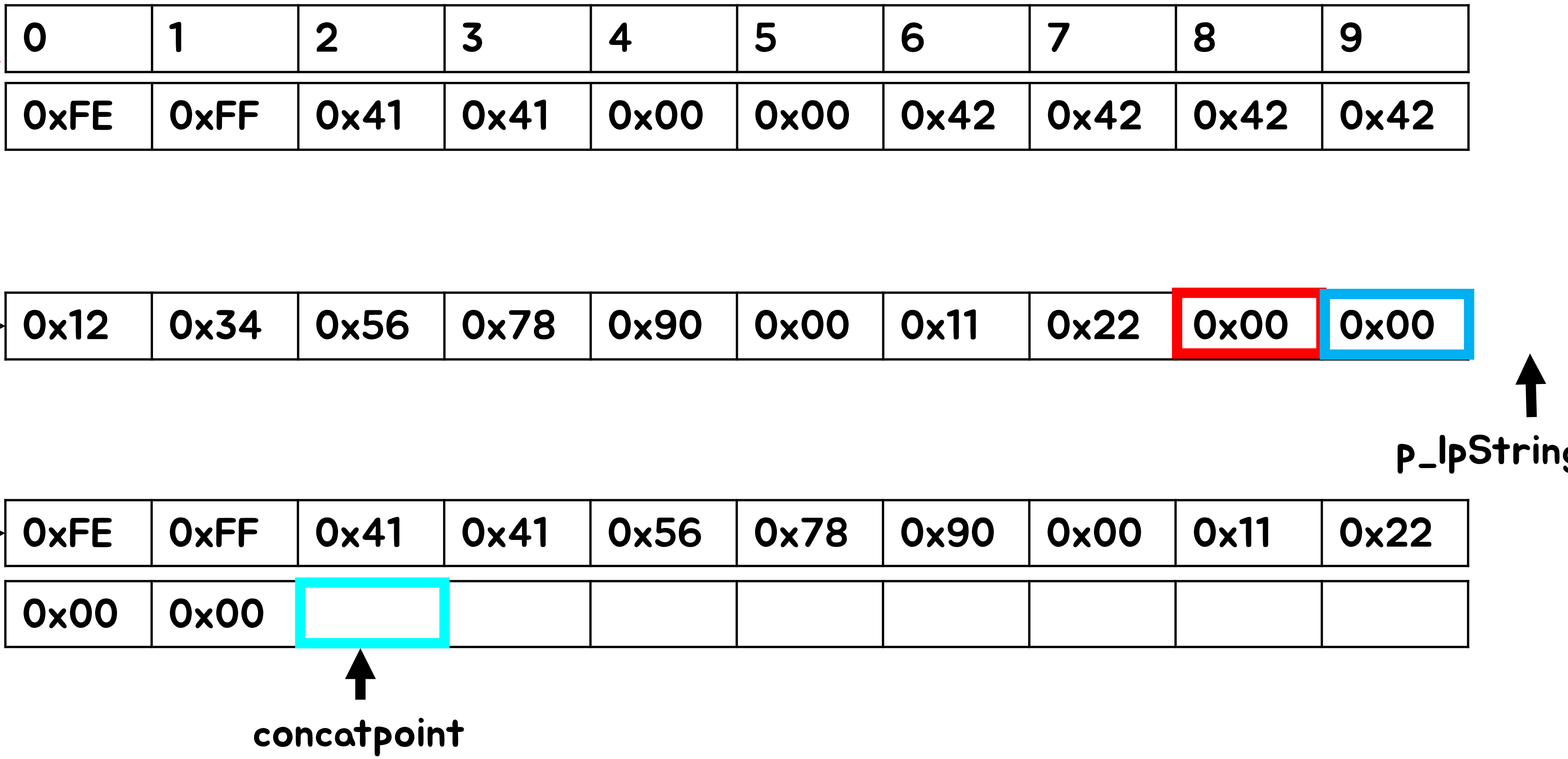


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

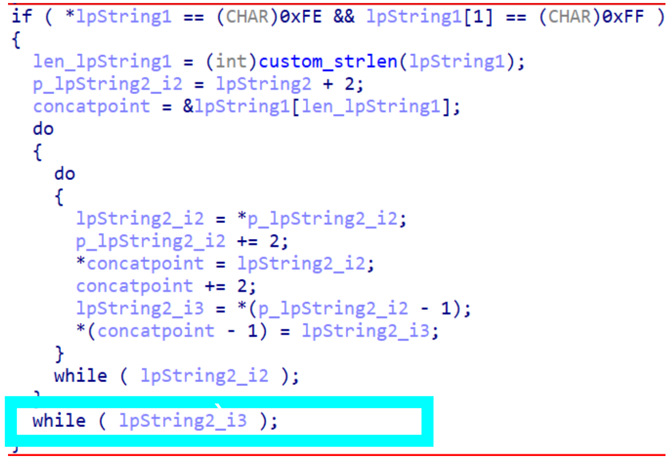
lpString2_i2 : 0x00 == 0x00

lpString2_i3 : 0x00 == 0x00



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22
		0x00	0x00								

Root Cause

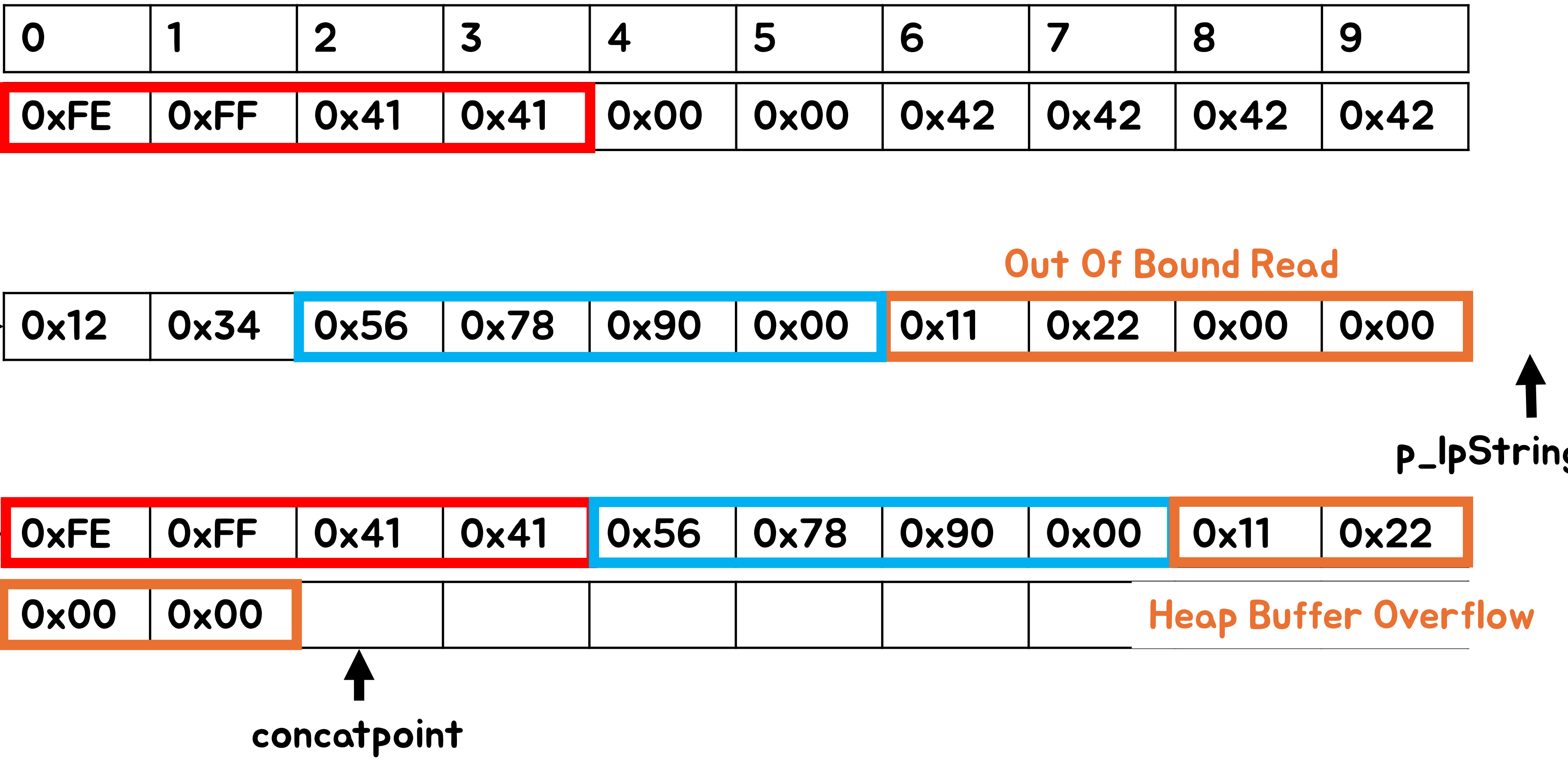


```
if ( *lpString1 == (CHAR)0xFE && lpString1[1] == (CHAR)0xFF )
{
  len_lpString1 = (int)custom_strlen(lpString1);
  p_lpString2_i2 = lpString2 + 2;
  concatpoint = &lpString1[len_lpString1];
  do
  {
    do
    {
      lpString2_i2 = *p_lpString2_i2;
      p_lpString2_i2 += 2;
      *concatpoint = lpString2_i2;
      concatpoint += 2;
      lpString2_i3 = *(p_lpString2_i2 - 1);
      *(concatpoint - 1) = lpString2_i3;
    }
    while ( lpString2_i2 );
  }
  while ( lpString2_i3 );
}
```

len_lpString1 : 4

lpString2_i2 : 0x00 == 0x00

lpString2_i3 : 0x00 == 0x00



		0	1	2	3	4	5	6	7	8	9
Base URL		0xFE	0xFF	0x41	0x41	0x00	0x00	0x42	0x42	0x42	0x42
Relative URL	lpString2 →	0x12	0x34	0x56	0x78	0x90	0x00	0x11	0x22	0x00	0x00
Concat URL	lpString1 →	0xFE	0xFF	0x41	0x41	0x56	0x78	0x90	0x00	0x11	0x22
Out Of Bound Wrtie		0x00	0x00								