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Subject: Secure random and nonce generator with SecureBuffer support

Posted by [Oblivion](#) on Sun, 26 Apr 2026 10:27:09 GMT

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Hi,

Secure random and nonce generator with SecureBuffer support is added to Core/SSL package. This addition introduces thread-safe nonce generation functions to the Core/SSL package, providing guaranteed uniqueness and fork-safety for cryptographic operations.

Public API:

/ Core functions

```
SecureBuffer<byte> SecureRandom(int n); // Pure CSPRNG output
```

```
SecureBuffer<byte> SecureNonce(int n); // Structured nonce (min 12 bytes)
```

// Protocol-specific helpers

```
SecureBuffer<byte> GetAESGCMNonce(); // 12 bytes,
```

```
AES-GCM/ChaCha20-Poly1305
```

```
SecureBuffer<byte> GetChaChaPoly1305Nonce(); // 12 bytes, alias for AES-GCM
```

```
SecureBuffer<byte> GetTLSNonce(); // 12 bytes, TLS 1.2/1.3
```

```
SecureBuffer<byte> GetAESCCMNonce(); // 13 bytes, AES-CCM
```

```
SecureBuffer<byte> GetJWTNonce(); // 16 bytes, JWT tokens
```

```
SecureBuffer<byte> GetOAuthNonce(); // 16 bytes, OAuth flows
```

```
SecureBuffer<byte> GetOCSPNonce(); // 20 bytes, OCSP requests
```

```
SecureBuffer<byte> GetECDSANonce(); // 32 bytes, ECDSA signatures
```

```
SecureBuffer<byte> GetDTLSCookie(); // 32 bytes, DTLS cookies
```

Best regards,

Oblivion

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