RBS-2019-002

FileIWebControl ActiveX Control
MakeSnapshot.dll Path Handling Heap Buffer Overflow
Vulnerable Program Details

Details for tested products and versions:

Vendor: Naracontent Co., Ltd.
Product: FileIWebControl ActiveX Control (FileIWebControl.dll)
Version: 1.0.0.1
Component: MakeSnapshot.dll
Component Version: 1.0.0.1

NOTE: Other versions than the one listed above are likely affected.

Credits

Carsten Eiram, Risk Based Security
Twitter: @RiskBased

Impact

The FileIWebControl ActiveX control (FileIWebControl.dll) contains a heap-based buffer overflow in a bundled library that may allow an attacker to compromise a user’s system.

Vulnerability Details

The FileIWebControl ActiveX control bundles the MakeSnapshot.dll library, which exports functionality for e.g. previewing and uploading snapshots. The ActiveX control provides the bnPreviewSnapshot() and bnUploadSnapshot() methods for invoking the exported functionality.

The bnPreviewSnapshot() method accepts a single argument as defined below:

```c
[id(0x00000015), helpstring("¸Þ¼ µå bnPreviewSnapshot")]
void bnPreviewSnapshot([in] BSTR strPath);
```

The bnUploadSnapshot() method accepts three arguments and is defined as follows:

```c
[id(0x00000017), helpstring("¸Þ¼ µå bnUploadSnapshot")]
BSTR bnUploadSnapshot(
    [in] BSTR strPath,
    [in] BSTR strMainURL,
    [in] BSTR strSubURL);
```
The argument of relevance to this vulnerability is the first argument in both methods i.e. 'strPath', which contains the snapshot file path.

When a web page instantiates the ActiveX control and calls one of the two methods, the relevant functions in the ActiveX control eventually call the exported bnPreviewSnapshot() or bnUploadSnapshot() function in MakeSnapshot.dll. Both functions end up calling a function that checks if the 'strPath' argument was supplied.

If so, a 8192 byte buffer is created on the heap and zeroed.

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A path to the bbshot.dll library with various command line arguments is then created. The '-P' command line argument contains the input passed to the 'strPath' argument when calling one of the two ActiveX control methods.

As the string is created using a call to sprintf() without performing any boundary checks, this may lead to a heap-based buffer overflow and arbitrary code execution.

**Solution**

Korea Internet & Security Agency (KISA) has asked the vendor to fix the vulnerability. Currently, we are not aware of an updated version, but the vulnerable version is no longer available for download. Users are encouraged to delete the ActiveX control from their systems in the meantime.

**References**

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<th>RBS:</th>
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<td>VulnDB:</td>
<td>202056</td>
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## Timeline

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<td>2019-01-18</td>
<td>Vulnerability discovered.</td>
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<td>2019-02-01</td>
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<td>2019-04-04</td>
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About Risk Based Security

Risk Based Security offers clients fully integrated security solutions, combining real-time vulnerability and threat data, as well as the analytical resources to understand the implications of the data, resulting in not just security, but the right security.

Company History

Risk Based Security, Inc. (RBS) was established to support organizations with the technology to turn security data into actionable information and a competitive advantage. We do so by enhancing the research available and providing a first of its kind risk identification and evidence-based security management service.

As a data driven and vendor neutral organization, RBS is able to deliver focused security solutions that are timely, cost effective, and built to address the specific threats and vulnerabilities most relevant to the organizations we serve. We not only maintain vulnerability and data breach databases, we also use this information to inform our entire practice.

Solutions

VulnDB - Vulnerability intelligence, alerting, and third party library tracking based on the largest and most comprehensive vulnerability database in the world. Available as feature-rich SaaS portal or powerful API. Vendor evaluations including our Vulnerability Timeline and Exposure Metrics (VTEM), Cost of Ownership ratings, Code Maturity, and Social Risk Scores.

Cyber Risk Analytics - Extensive data breach database including interactive dashboards and breach analytics. Clients are able to gather and analyze security threat and data breach information on businesses, industries, geographies, and causes of loss. It also allows monitoring of domains for data breaches and leaked credentials as well as implementing a continuous vendor management program with our PreBreach data.

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