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L. Camara
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Depreciating RC4 in Secure Shell (SSH)
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Abstract

This document depreciates RC4 in Secure Shell (SSH). Therefore, this document updates [RFC 4253](#), and formally obsoletes and moves to Historic [RFC 4345](#).

Status of This Memo

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[1.](#) Introduction

RC4 is extremely weak [[RFC6649](#)] [[RFC7457](#)] [[RFC7465](#)] and this document depreciates its use in all IETF protocols, including Kerberos and Secure Shell (SSH). The reasons for obsoleting [RFC 4345](#) are discussed in [Section 2](#). The updates to [RFC 4253](#) and the reasons for doing them are specified in [Section 3](#).

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [BCP 14](#) [[RFC2119](#), [RFC8174](#)] when, and only when, they appear in all capitals, as shown here.

[2.](#) Why obsolete and move to Historic [RFC 4345](#)

[RFC 4345](#) defines the "arcfour-128" and "arcfour-256" modes for Secure Shell (SSH), and is obsoleted and moved to Historic as RC4 is extremely weak [[RFC6649](#), [RFC7457](#)] and there is research that is at least 5 years old that totally breaks all practical usage of RC4 [[RFC6649](#)].

[3.](#) Updates to [RFC 4253](#)

[RFC 4253](#) is updated to note the depreciation of arcfour.

The last sentence of the paragraph on RC4 (called "arcfour" in [\[RFC4253\]](#)) in [Section 6.3 of \[RFC4253\]](#) should read: "Arcfour (and RC4) are extremely weak [\[RFC7457\]](#) and therefore it MUST NOT be used."

An informative reference to [RFC 7457](#) is to be added to [\[RFC4253\]](#).

[4.](#) IANA Considerations

IANA may need to take action as the status for RC4 and 3DES algorithms for Secure Shell (SSH) is changed by this document (see [Section 3](#), that updates [\[RFC4253\]](#)).

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[5.](#) Security Considerations

This document depreciates RC4, that is obsolete cryptography, and several attacks that render it useless have been published [\[RFC6649\]](#) [\[RFC7457\]](#) [\[RFC7465\]](#).

[6.](#) Acknowledgements

Thanks to the numerous authors which have shown the weaknesses of RC4 throughout the years.

[7.](#) References

[7.1.](#) Normative References

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11. Author's Address

Luis Camara

E-Mail: <luis.camara@live.com.pt>

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