CLAIMS

1. A method by an access and mobility management function (AMF):

generating allowed network slice selection assistance information identifying one or more network slices that were authorized by at least one of a service provider, which is associated with the AMF, or an external provider;

generating pending network slice selection assistance information identifying one or more network slices for which a slice-specific secondary authentication procedure is pending;

generating rejected network slice selection assistance information identifying one or more network slices that have not been authorized; and

sending to a user equipment device the allowed network slice selection assistance information, the pending network slice selection assistance information, and the rejected network slice selection assistance information.

2. The method of claim 1, wherein generating the rejected network slice selection assistance information identifying the one or more network slices that have not been authorized comprises generating network slice selection assistance information that:

identifies one or more network slices that have not been authorized by at least one or more of the service provider or the external provider; and

includes a rejection cause value for each network slice that identifies a reason each network slice has not been authorized.

3. The method of claim 1, wherein generating the allowed network slice selection assistance information identifying the one or more network slices that were authorized by at least one of the service provider or the external provider comprises generating an allowed one or more network slice selection assistance information information-element (Allowed NSSAI IE) that identifies the network slices that were authorized by at least one of the service provider or the external provider.

4. The method of claim 3, wherein generating the rejected network slice selection assistance information identifying the one or more network slices that have not been authorized comprises generating rejected network slice selection assistance information that identifies one or more network slices that have not been authorized by at least one or more of the service provider or the external provider.

5. A network server, comprising:

a processor configured with processor-executable instructions to:

by an access and mobility management function (AMF), generate allowed network slice selection assistance information identifying one or more network slices that were authorized by at least one of a service provider, which is associated with the AMF, or an external provider;

by the AMF, generate pending network slice selection assistance information identifying one or more network slices for which a slice-specific secondary authentication procedure is pending;

by the AFM, generate rejected network slice selection assistance information identifying one or more network slices that have not been authorized; and

send to a user equipment device the allowed network slice selection assistance information, the pending network slice selection assistance information, and the rejected network slice selection assistance information.

6. The network server of claim 5, wherein the processor is configured with processor-executable instructions to generate rejected network slice selection assistance information identifying the one or more network slices that have not been authorized by generating network slice selection assistance information that:

identifies one or more network slices that have not been authorized by at least one or more of the service provider or the external provider; and

includes a rejection cause value for each network slice that identifies a reason each network slice has not been authorized.

7. The network server of claim 5, wherein the processor is further configured with processor-executable instructions to generate the allowed network slice selection assistance information identifying one or more network slices that were authorized by at least one of the service provider or the external provider by generating an allowed network slice selection assistance information information-element (Allowed NSSAI IE) that identifies the one or more network slices that were authorized by at least one of the service provider or the external provider.

8. The network server of claim 7, wherein the processor is further configured with processor-executable instructions to generate rejected network slice selection assistance information identifying the one or more network slices that have not been authorized by generating rejected network slice selection assistance information that identifies one or more network slices that have not been authorized by at least one or more of the service provider or the external provider.

9. A non-transitory processor-readable storage medium having stored thereon processor-executable instructions configured to cause a processor of a network server to perform operations comprising:

by an access and mobility management function (AMF):

generating allowed network slice selection assistance information identifying one or more network slices that were authorized by at least one of a service provider, which is associated with the AMF, or an external provider;

generating pending network slice selection assistance information identifying one or more network slices for which a slice-specific secondary authentication procedure is pending;

generating rejected network slice selection assistance information identifying one or more network slices that have not been authorized; and

sending to a user equipment device the allowed network slice selection assistance information, the pending network slice selection assistance information, and the rejected network slice selection assistance information.

10. The non-transitory processor-readable storage medium of claim 9, wherein the stored processor-executable instructions are configured to cause the processor to perform operations such that generating the rejected network slice selection assistance information identifying the one or more network slices that have not been authorized comprises generating network slice selection assistance information that:

identifies one or more network slices that have not been authorized by at least one or more of the service provider or the external provider; and

includes a rejection cause value for each network slice that identifies a reason each network slice has not been authorized.

11. The non-transitory processor-readable storage medium of claim 9, wherein the stored processor-executable instructions are configured to cause the processor to perform operations such that generating the allowed network slice selection assistance information identifying the one or more network slices that were authorized by at least one of the service provider or the external provider comprises generating an allowed network slice selection assistance information information-element (Allowed NSSAI IE) that identifies the one or more network slices that were authorized by at least one of the service provider or the external provider.

12. The non-transitory processor-readable storage medium of claim 11, wherein the stored processor-executable instructions are configured to cause the processor to perform operations such that generating the rejected network slice selection assistance information identifying the one or more network slices that have not been authorized comprises generating rejected network slice selection assistance information that identifies one or more network slices that have not been authorized by at least one or more of the service provider or the external provider.

13. A network server, comprising:

by an access and mobility management function (AMF):

means for generating allowed network slice selection assistance information identifying one or more network slices that were authorized by at least one of a service provider, which is associated with the AMF or an external provider;

means for generating pending network slice selection assistance information identifying one or more network slices for which a slice-specific secondary authentication procedure is pending;

means for generating rejected network slice selection assistance information identifying one or more network slices that have not been authorized; and

means for sending to a user equipment device the allowed network slice selection assistance information, the pending network slice selection assistance information, and the rejected network slice selection assistance information.

14. The network server of claim 13, wherein means for generating rejected network slice selection assistance information identifying one or more network slices that have not been authorized comprises means for generating network slice selection assistance information that:

identifies one or more network slices that have not been authorized by at least one or more of the service provider or the external provider; and

includes a rejection cause value for each network slice that identifies a reason each network slice has not been authorized.

15. The network server of claim 13, wherein means for generating the allowed network slice selection assistance information identifying one or more network slices that were authorized by at least one of the service provider or the external provider comprises means for generating an allowed network slice selection assistance information information-element (Allowed NSSAI IE) that identifies one or more network slices that were authorized by at least one of the service provider or the external provider.

16. The network server of claim 15, wherein means for generating rejected network slice selection assistance information identifying the one or more network slices that

have not been authorized comprises means for generating rejected network slice selection assistance information that identifies one or more network slices that have not been authorized by at least one or more of the service provider or the external provider.