SLOVENSKI STANDARD
SIST EN IEC 62351-8:2026

01-december-2026

Nadomešča:
SIST EN IEC 62351-8:2020

Upravljanje elektroenergetskega sistema in pripadajoča izmenjava informacij - Varnost podatkov in komunikacij - 8. del: Kontrola dostopa do elektroenergetskega sistema na podlagi vlog (IEC 62351-8:2026)

Power systems management and associated information exchange - Data and communications security - Part 8: Role-based access control for power system management (IEC 62351-8:2026)

Sample Document

Energiemanagementsysteme und zugehöriger Datenaustausch – IT-Sicherheit für Daten und Kommunikation – Teil 8: Rollenbasierte Zugriffskontrolle für Energiemanagementsysteme (IEC 62351-8:2026)

get full document from standards.iteh.ai

Gestion des systèmes de puissance et échanges d'informations associés - Sécurité des communications et des données - Partie 8: Contrôle d'accès basé sur les rôles pour la gestion de systèmes de puissance (IEC 62351-8:2026)

Ta slovenski standard je istoveten z: **EN IEC 62351-8:2026**

ICS:

29.240.30	Krmilna oprema za elektroenergetske sisteme	Control equipment for electric power systems
35.240.50	Uporabniške rešitve IT v industriji	IT applications in industry

SIST EN IEC 62351-8:2026 **en**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

Sample Document

get full document from standards.iteh.ai

SIST EN IEC 62351-8:2026

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62351-8

October 2026

ICS 33.200

Supersedes EN IEC 62351-8:2020

English Version

Power systems management and associated information exchange - Data and communications security - Part 8: Role-based access control for power system management (IEC 62351-8:2026)

Gestion des systèmes de puissance et échanges d'informations associés - Sécurité des communications et des données - Partie 8: Contrôle d'accès basé sur les rôles pour la gestion de systèmes de puissance (IEC 62351-8:2026)

Energiemanagementsysteme und zugehöriger Datenaustausch - IT-Sicherheit für Daten und Kommunikation - Teil 8: Rollenbasierte Zugriffskontrolle für Energiemanagementsysteme (IEC 62351-8:2026)

This European Standard was approved by CENELEC on 2026-08-26. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

Sample Document
Get a document from standards.iteh.ai

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

© 2026 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

Ref. No. EN IEC 62351-8:2026 E

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

European foreword

The text of document 57/2882/FDIS, future edition 2 of IEC 62351-8, prepared by TC 57 "Power systems management and associated information exchange" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62351-8:2026.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2027-10-31
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2029-10-31

This document supersedes EN IEC 62351-8:2020 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

Sample Document

The text of the International Standard IEC 62351-8:2026 was approved by CENELEC as a European Standard without any modification.

get full document from standards.iteh.ai

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60870-5-104	NOTE	Approved as EN 60870-5-104
IEC 61784 (series)	NOTE	Approved as EN IEC 61784 (series)
IEC 61850-7-2	NOTE	Approved as EN 61850-7-2
IEC 61850-8-1	NOTE	Approved as EN 61850-8-1
IEC 61968 (series)	NOTE	Approved as EN IEC 61968 (series)
IEC 61970 (series)	NOTE	Approved as EN IEC 61970 (series)
IEC 62351-4	NOTE	Approved as EN IEC 62351-4
IEC 62351-5	NOTE	Approved as EN IEC 62351-5
IEC 62351-7	NOTE	Approved as EN IEC 62351-7
IEC 62351-9	NOTE	Approved as EN IEC 62351-9

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 62351-3	2023	Power systems management and associated information exchange - Data and communications security - Part 3: Communication network and system security - Profiles including TCP/IP	EN IEC 62351-3	2023
IEC/TS 62351-2	-	Power systems management and associated information exchange - Data and communications security - Part 2: Glossary of terms	-	-
ISO/IEC 9594-8	2020	Information technology_- Open systems interconnection_- Part_8: The Directory: Public-key and attribute certificate frameworks	-	-
		IANA Private Enterprise Numbers Registry: https://www.iana.org/assignments/enterprisenumbers/		
RFC 2865		Remote Authentication Dial In User Service (RADIUS)		
IETF RFC 4513		Lightweight Directory Access Protocol (LDAP): Authentication Methods and Security Mechanisms		
IETF RFC 6614		Transport Layer Security (TLS) Encryption for RADIUS		
IETF RFC 6749		The OAuth 2.0 Authorization Framework		
IETF RFC 7519		JSON Web Token (JWT)		
		XACML-RBAC, XACML v3.0 Core and Hierarchical Role Based Access Control (RBAC) Profile Version 1.0, October 2014. Available at: http://docs.oasis-open.org/xacml/3.0/xacml-3.0-rbac-v1-spec-en.html		

Sample Document
get full standard at standards.iteh.ai

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

Sample Document

get full document from standards.iteh.ai

SIST EN IEC 62351-8:2026

IEC 62351-8

Edition 2.0 2026-07

INTERNATIONAL STANDARD

Power systems management and associated information exchange - Data and communications security -
Part 8: Role-based access control for power system management

Sample Document
get full document from standards.iteh.ai

ICS 33.200

ISBN 978-2-8327-1354-9

IEC 62351-8:2026-07(en)

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

CONTENTS

FOREWORD 6
INTRODUCTION 8
1 Scope 10
1.1 General 10
1.2 Published versions of the standard and related namespace names 12
1.3 Identification of the code component 12
1.4 Code Component distribution 12
2 Normative references 13
3 Terms and definitions 13
4 Abbreviated terms 16
5 RBAC – Process model and concepts 17
5.1 General 17
5.2 Overview of RBAC process model 18
5.3 Generic RBAC concepts 18
5.4 Separation of subjects, roles, and permissions 20
5.4.1 RBAC model 20
5.4.2 Subject assignment (subject-to-role mapping) 23
5.4.3 Role-to-permission mapping 23
5.4.4 Permission definition 23
5.4.5 `operationSet` assignment (mapping of roles-permission-combinations to objects) 23
5.5 Criteria for defining roles 24
5.5.1 Policies 24
5.5.2 Subjects, roles, and permissions 24
5.5.3 Introducing roles reduces complexity 24
6 Definition of roles and permission assignment 25
6.1 General 25
6.2 Pre-defined roles 25
6.3 Role-to-permission assignment 26
6.3.1 General 26
6.3.2 Number of supported permissions by a role 27
6.3.3 Number of supported roles 27
6.3.4 Assigning permissions to roles 27
6.4 Definition of pre-defined and custom based roles 29
6.4.1 General 29
6.4.2 Encoding of roles based on specific permissions 30
6.4.3 Encoding of roles using constraints on existing permissions 36
6.5 Consideration of operational states 39
6.6 Security event consideration for the engineering of roles and permissions 40
7 Simplified role assignment 42
7.1 General 42
7.2 Application of roles associated with multiple role definitions (generic roles) 42
7.3 Illustrative examples 43
7.3.1 General 43
7.3.2 Application of pre-defined role "VIEWER" on Device-X for all role definitions 44

Sample Document
Get full document from standards.iteh.ai

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

7.3.3 Application of custom role "OPERATOR-DFR" on Device-Y for all supported role definitions 45
7.3.4 Application of pre-defined role "SECADM" for selected role definitions 46
8 Definition of access tokens 48
8.1 General 48
8.2 Supported profiles 48
8.3 Role-based access control related Object Identifiers 48
8.4 General structure of the access tokens 49
8.4.1 Profile specific mandatory components in the access tokens 49
8.4.2 Optional access token components 50
8.4.3 Definition of specific fields 50
8.5 Access token profiles 55
8.5.1 General 55
8.5.2 Profile A: X.509 Public-key certificate 55
8.5.3 Profile B: X.509 Attribute certificate 59
8.5.4 Profile C: JSON Web Token – JWT 63
8.5.5 Profile D: RADIUS provided access token information 66
8.5.6 Profile E: LDAP provided RBAC information 69
9 Verification of access tokens 75
9.1 General 75
9.2 Multiple access token existence 75
9.3 Subject authentication 75
9.4 Access token availability 76
9.5 Validity period 76
9.6 Access token integrity 76
9.7 Issuer 76
9.8 Role ID 77
9.9 Revision 77
9.10 Area of responsibility 77
9.11 Role definition 77
9.12 Revocation state 77
9.13 Operation 78
9.14 Sequence number 78
9.15 Revocation methods 78
9.15.1 General 78
9.15.2 Supported methods 79
10 RBAC access token distribution models 79
10.1 General 79
10.2 PUSH model 80
10.3 PULL model 81
11 Interaction with backend services for RBAC access token distribution 83
11.1 General 83
11.2 Using directory services with LDAP 83
11.2.1 General 83
11.2.2 Secure communication 83
11.2.3 LDAP Directory organization 85
11.3 Using OAuth to provide JWT token 85
11.3.1 General 85
11.3.2 Secure communication 87

Sample Document
Get full document from standards.iteh.ai

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

11.4 Using AAA services with RADIUS 87
11.4.1 General 87
11.4.2 Secure communication 87
11.4.3 Peer configuration 88
11.4.4 RADIUS server organization 88
11.5 Comparison of backend interaction depending on RBAC profile 89
12 Access token transport 90
12.1 General 90
12.2 Transport in Ethernet-based protocols 90
12.3 Usage in non-Ethernet based protocols 91
12.4 Usage in the context of the application protocol 91
13 Conformity 91
13.1 General 91
13.2 Notation 91
13.3 Mapping to existing authorization mechanisms 91
13.4 Conformance to access token format 92
13.5 Conformance to access token content 92
13.6 Access token distribution 94
13.7 Role information 94
13.8 Role information exchange 95
13.9 Security events 95
Annex A (informative) Security Events 96
A.1 General 96
A.2 Mapping of general access token security events 96
A.3 Mapping of access token security events specific for profile A, B, and C 97
A.4 Mapping of security events related to backend service interaction 97
A.5 Mapping of security events related to RBAC engineering and maintenance 97
Annex B (informative) Role definition from previous revisions/editions of IEC 62351-8 99
B.1 General 99
B.2 Role definition from IEC TS 62351-8:2011 99
B.3 Role definition from IEC 62351-8:2020 100
Annex C (informative) Informative example for specific role definition 102
C.1 General 102
C.2 Use case description 102
C.3 XACML definition example 102
C.4 Role description 103
C.5 Permission group description 104
C.6 Permission description 105
C.7 Request syntax for PDP 109
Annex D (informative) Examples for LDAP interaction 110
D.1 General 110
D.2 Import of new LDAP schema for "IEC6351-RoleStructure" 110
D.3 Import of new LDAP schema for "roles" 110
Annex E (informative) General application of RBAC access token 111
E.1 General 111
E.2 Session-based approach 111
E.3 Message-based approach 113
Bibliography 114

Sample Document

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

Figure 1 – Generic framework for access control 19
Figure 2 – Diagram of RBAC with static and dynamic separation of duty (enhanced version of ANSI INCITS 359-2004) 20
Figure 3 – Overview on the concepts of subjects, roles, permissions, and `operationSets` 22
Figure 4 – Referencing Documents 26
Figure 5 – Relation of Roles and Permissions 27
Figure 6 – Object binding using distinct role and permission files 31
Figure 7 – XACML structure 32
Figure 8 – Object binding using `operationSets` and O2OS files 36
Figure 9 – `operationSets` definition on the example of IEC 61850 38
Figure 10 – `operationSets` assignment to objects utilizing O2OS files 39
Figure 11 – Generic roles – Interrelation of referencing documents with IEC 62351-8 with examples for role identification triplets 43
Figure 12 – Example LDAP tree 72
Figure 13 – LDAP object class roles 72
Figure 14 – Assignment of LDAP groups to IED known roles 73
Figure 15 – LDAP memberOf assignment 74
Figure 16 – Schematic view of authorization based on RBAC PUSH model 81
Figure 17 – Schematic view of authorization based on RBAC PULL model 82
Figure 18 – RBAC model using OAuth workflow applying JWT 86
Figure E.1 – Session based RBAC approach (simplified IEC 62351-4 end-to-end security) 113

Table 1 – Published versions and related namespace names 12
Table 2 – Attributes of the IEC 62351-8 code component 12
Table 3 – Pre-defined roles 25
Table 4 – Template for role-to-permission mapping 28
Table 5 – Template for permission definition 29
Table 6 – Evaluation Context 36
Table 7 – Possible range of permissions per role 38
Table 8 – Security Event Mapping to IEC 62351-14 41
Table 9 – Access token: meta information 49
Table 10 – Access token: user role information 49
Table 11 – Optional access token components 50
Table 12 – AoR fields and format 54
Table 13 – Informative example: AoR handling on IED 55
Table 14 – Mapping between ID and attribute certificate 63
Table 15 – RBAC profile comparison 89
Table 16 – Conformance to access token format 92
Table 17 – Access token: meta information 93
Table 18 – Access token: user role information 93
Table 19 – Optional access token components 93
Table 20 – Generic Role support 94

Sample Document
get full document from standards.iteh.ai

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

Table 21 – Conformance to access token distribution 94
Table 22 – Support of pre-defined roles 94
Table A.1 – General access token security events mapped to IEC 62351-14 96
Table A.2 – Profile A, B, and C specific access token security events mapped to IEC 62351-14 97
Table A.3 – Security event logs related to backend service interaction 97
Table A.4 – Security event logs related to RBAC engineering and maintenance 98
Table B.1 – List of pre-defined role-to-permission assignment (2011 version) 99
Table B.2 – List of pre-defined role-to-permission assignment (2021 version) 100
Table C.1 – Permission assignment 102

Sample Document

get full document from standards.iteh.ai

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

Power systems management and associated information exchange - Data and communications security - Part 8: Role-based access control for power system management

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch. IEC shall not be held responsible for identifying any or all such patent rights.

Sample Document
get full document from standards.iteh.ai

IEC 62351-8 has been prepared by IEC technical committee 57: Power systems management and associated information exchange. It is an International Standard.

This second edition cancels and replaces the first edition published in 2020. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) Removal of mapping of roles to permission to objects based on the target data model and/or protocol to allow for other mappings than IEC 61850. Mapping is delegated to separate documents;
b) Specification of handling of a combination of roles and permissions as operationSet to allow more fine-grained assignments to objects;

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

c) Specification of a simplified roles assignment to more efficiently handle situations in which roles are used relating to different data models, including examples;

d) Inclusion of new profile to allow for fetching RBAC information from LDAP repositories;

e) Definition of specific security events throughout the document;

f) Alignment of terminology and enhancement with examples.

The text of this International Standard is based on the following documents:

Draft	Report on voting
57/2882/FDIS	57/2921/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Sample Document

This document includes code components, i.e., components that are intended to be directly processed by a computer. Such content is any text found between the markers <CODE BEGINS> and <CODE ENDS>, or otherwise is clearly labelled in this document as a code component.

get full document from standards.iteh.ai

The purchase of this document carries a copyright license for the purchaser to sell software containing code components from this document directly to end users and to end users via distributors, subject to IEC software licensing conditions, which can be found at: http://www.iec.ch/CCv1.

In the case of any discrepancy between the document and the code components, the code components take precedence.

In this document, the following print types are used:

Encoding in ASN.1 or XACML: `couriernew`

A list of all the parts in the IEC 62351 series, published under the general title *Power systems management and associated information exchange,* can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,

– withdrawn, or

– revised.

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026

SIST EN IEC 62351-8:2026

INTRODUCTION

This document provides a standard for access control in power systems. The power system environment supported by this document is enterprise-wide and extends beyond traditional borders to include external providers, suppliers, and other energy partners. Driving factors are the liberalization of the energy sector to include many more stakeholders, the increasingly decentralized generation of energy, and the need to control access to sensitive data of resources and stakeholders.

The power system sector is continually improving the delivery of energy by leveraging technical advances in computer-based applications. Utility operators, energy brokers, and end-users are increasingly accessing multiple applications to deliver, transmit and consume energy in a personalized way. These disparate applications are naturally connected to a common network infrastructure that typically supports protection equipment, substation automation protocols, inter-station protocols, remote access, and business-to-business services. Consequently, secure access to these distributed and often loosely coupled applications is even more important than access to an application running on a stand-alone device.

Secure access to computer-based applications involves authentication of the user to the application. After authentication, the types of interactions that the user can perform with the application is then determined. The use of local mechanisms for authorization creates a patchwork of approaches which are difficult to uniformly administer across the breadth of a power system enterprise. Each application decides with its own logic the authorization process. However, if applications can use a network to help manage access, a database can serve as a trusted source of user's group or role affiliation. Thus, the access to a shared user base can be controlled centrally. Each application can then examine the permissions listed for a subject and corresponding role and determine their level of authorization.

Sample Document

This document defines role-based access control (RBAC) for enterprise-wide use in power systems. It supports a distributed or service-oriented architecture where security is a distributed service and applications are consumers of distributed services.

get full document from standards.iteh.ai

In this document, the role of a user is contained in a data structure called "access token" for that user and is provided to the accessed resource. Access tokens are created and administered by a (possibly federated) identity management. All access tokens have a lifetime and are subject to expiration. Prior to verification of the access token itself, the user who tries to get access is authenticated by the resource. The resource has a trust relation to the access token management. The access token can be provided as self-contained object by the user or a central repository or as data structure by a central repository. Specifically, the self-contained access tokens enable local verification of the access token's validity at remote sites without the need to access a centralized repository. To ensure availability of information in the repository, redundancy may be considered. Note that redundancy concepts are out of scope for this document.

Different access token formats are supported as five defined profiles. These access tokens can be bound to a specific transport or to a specific application in conjunction with different types of repositories, holding the access tokens. Common to all profiles is the information contained, to allow a migration from one profile to another.

As RBAC is being adopted for several protocols and data models this document has been changed accordingly. In its current version it focuses on the general definition of RBAC, mandatory to be supported roles and options for assigning roles to permissions. The actual assignment of roles to permissions, and consequently the binding of RBAC related information to objects, is addressed in the referencing documents, which directly relate to the target data model. The existing definition of the IEC 61850 specific roles and permissions has been moved to IEC 61850-90-19. Likewise for IEC 60807-5-101/-104 the specifics are handled in IEC 60870-5-7:2025. Moreover, IEEE 1815 specifics will be handled in the context of DNP3SAv6. This document provides information about the role to permission assignment of previous versions of this document in Annex B.

SIST EN IEC 62351-8:2026 • https://standards.iteh.ai/catalog/standards/sist/c600bcaf-95d0-45b6-80f3-7395abd26054/sist-en-iec-62351-8-2026