



IEDISON INVENTION, PATENT AND UTILIZATION (IPU)

REST API Specifications and Examples

Version 2.5

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NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

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Document Change Log:

Date	Description of Change	Author
09/25/2023	Modified tables, content, and reviewed for formatting and ease of use.	OISM
06/04/2024	Updated Section 12.9 Country List	OISM
06/10/2024	Fixed accessibility issues	OISM
07/01/2024	<ul style="list-style-type: none"> Added note that some APIs will be no longer supported after July 18th, 2025. Renamed attribute 'isInventionUnderFundingAgreement' to 'isExceptionCircumstanceDetermination' in invention request and invention response data object Renamed attribute 'confLicenseReceiptDate' to 'confLicenseAcceptDate' in patent response data object. Renamed attribute 'govtSuppClauseReceiptDate' to 'govtSuppClauseAcceptDate' in patent response data object. Added 'id' attribute to invention response for 'invention', 'inventor', 'fundingAgreement', 'subContractInfo', 'explanatoryNote', and 'governmentNote' JSON objects. General document cleanup and formatting <ul style="list-style-type: none"> Removed highlighting Fixed indentations 	OISM

1 Scope

This document describes the prerequisites, request, and response schemas for the Invention, Patent, and Utilization (IPU) REST API implementation.

2 Prerequisites

A system account and a valid PKI certificate issued by an authorized certificate issuer are required to consume the REST API services. Please contact your agency or organization administrator for a system account setup and a PKI certificate.

New System Account Requirements for Agency or Organization:

- ISA Document: Download a template from iEdison, sign and upload during the system account request process.
- PKI Certificate: Acquire a cert before requesting a system account and upload during the system account request process.

Note: iEdison will only accept certificate validity no longer than two years.

The following are authorized certificate issuers.

Certificate Issuer	Expire Date
DigiCert EV RSA CA G2	07/02/2030
DIGICERT SHA2 ASSURED ID CA	11/08/2028
DIGICERT SHA2 HIGH ASSURANCE SERVER CA	10/22/2028
DIGICERT SHA2 ASSURED ID CA	11/05/2028
DIGICERT SHA2 HIGH ASSURANCE SERVER CA	10/22/2028
DIGICERT TLS RSA SHA256 2020 CA1	04/13/2031
ENTRUST CERTIFICATION AUTHORITY – L1K	12/05/2030
GO DADDY SECURE CERTIFICATION AUTHORITY	11/15/2026
GO DADDY SECURE CERTIFICATE AUTHORITY – G2	05/03/2031
HydrantID Server CA O1	12/12/2029
INCOMMON RSA SERVER CA	09/09/2024
SECTIGO RSA ORGANIZATION VALIDATION SECURE SERVER CA	12/31/2030

Table 2-1: Certificate Issuers List

3 Abbreviations

Acronym	Description
IPU	Invention, Patent, and Utilization
API	Application Programming Interface
HTTP	Hypertext Transfer Protocol
JSON	JavaScript Object Notation
PKI	Public Key Infrastructure
REST	Representational state transfer
URI	Uniform Resource Identifier

Table 3-1: List of Abbreviations

4 PKI Authentication

REST API endpoint requests initiated by API consumers are authenticated by Mutual TLS authentication. An iEdison API consumer's client system must present a client PKI certificate issued by a trusted issuer (See Section 2.0 above).

iEdison will retrieve and verify the serial number, issuer, and validity of the client certificate in the context of the request against the system user records in the database. The serial number and issuer's Common Name (CN) combination is used to uniquely identify a system user.

- The PKI client certificate and the TLS 1.2 protocol are used together for authentication to consume iEdison REST API services.
- All data is encrypted with TLS certificates across the network.
- The digital signature in the PKI certificate associated with the API consumer data provides evidence to the REST API Services for authentication.
- The server authenticates the client user's identity based on the PKI certificate provided by the API consumer.

5 Authorization

Each system account is identified by the combination of the Serial Number and Issuer's Common Name (CN) from the PKI certificate. The system account is associated with an organization/institution record which is used to control what data can be accessed and modified. The iEdison REST API provides endpoints for retrieving information about Invention, Patent, and Utilization records of an organization or agency. Documentation about the REST API services can be found in this document.

6 Environment and URI

- **User Acceptance Testing (UAT)**

URI: <https://api-iedisonuat.nist.gov/iedison/api/{version}/{resourcetype}/{action}>

version	:	[v1]
resourcetype	:	[inventions, patents, utilizations, documents, notifications]
action	:	[create, update, search]

- **Production**

URI: <https://api-iedison.nist.gov/iedison/api/{version}/{resourcetype}/{action}>

version	:	[v1]
resourcetype	:	[inventions, patents, utilizations, documents, notifications]
action	:	[create, update, search]

6.1 Specification File

You can view the full details of this API in the specification file (the file generated by Swagger).

- **User Acceptance Testing (UAT)**

URI: <https://api-iedisonuat.nist.gov/iedison/swagger.json>

- **Production**

URI: <https://api-iedison.nist.gov/iedison/swagger.json>

7 Invention API Reference

7.1 Create Invention v2

Organization users can create an Invention owned by the user's affiliated organization and with any agency as the Primary Agency. Agency users can create an Invention owned by any institution and with the user's affiliated agency as Primary Agency.

Note: Create Invention, Version 1 (v1) will be no longer supported after July 18th, 2025. The following changes were made to Version 2 (v2):

- Renamed attribute 'isInventionUnderFundingAgreement' to 'isExceptionCircumstanceDetermination' in invention request and invention response data object
- Added 'id' attribute to invention response for 'invention', 'inventor', 'fundingAgreement', 'subContractInfo', 'explanatoryNote', and 'governmentNote' JSON objects.

7.1.1 Endpoint URI

This is an example of the endpoint for the Create Invention resource.

POST	/iedison/api/v2/inventions/create
-------------	-----------------------------------

7.1.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides a description of the Create Invention POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Required	Data Type	Version	In
accept	Setting to application/JSON	Yes	String	v1+	header
inventionRequest	The Invention Request JSON content. Refer to Table 7-2 for the list of attributes. Refer to Table 2-1 for the list of issuers.	Yes	String	v1+	form-data
inventionDisclosure	<p>Invention Disclosure document contains the written description of the Invention, a signed copy of the government Confirmatory License, and the Government Support Clause which is in a Patent or Patent application.</p> <p>The following file types are allowed for the Invention Disclosure document: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 25MB.</p>	Yes	Binary Attachment	v1+	form-data

Table 7-1: Create Invention Request Parameters

The table below lists the attributes that will be included in the **inventionRequest** parameter when creating an invention request. The attributes are included in the JSON object as part of the **inventionRequest** form-data text element.

JSON Attribute Name	Description	Required	Data Type	Length	Version
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1+
institutionCode	The unique code assigned to the reporting organizations.	Yes	String	10	v1+
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	No	String	9	v1+
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	Yes	String	255	v1+
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s)	No	String	30	v1+
doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	No	String	15	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	No	String	25	v1+
inventionReportDate	The date the inventor disclosed the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes	String	10	v1+
firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1+
keywords	This field enables the grantee/contractor organization to designate key terms for searching for Invention Reports.	No	Array [String]	80	v1+
doeWaiver	DOE Waiver	No	String		v1+
institutionCodeForOtherInstitutions	Institution code for other organizations to view Inventions and other related parents. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	No	Array [String]		v1+
isExceptionCircumstanceDetermination	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	No	Boolean		v2+
Inventors	List of Inventors		Array [JSON Object]		v1+
firstName	First name of the inventor.	Yes	String	80	v1+
lastName	Last name of the inventor.	Yes	String	80	v1+
middleInitial	Middle name or first initial of the inventor.	No	String	30	v1+
fedEmployee	Is the inventor a federal employee?	No	Boolean		v1+
fedAgency	If the inventor is a federal employee, what agency does the inventor work for. Click here for a list of valid abbreviations.	No	String	80	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Click here for a list of valid abbreviations.	Yes	String	50	v1+
bayhDoleActVersion	The Bayh Dole Act Version for the Invention. This allows 1980 or 2018. <ul style="list-style-type: none"> Default = 2018 	No	Integer		v1+
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.		Array [JSON Object]		v1+
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Click here for a list of valid abbreviations.	Yes	String	80	v1+
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	Yes	String	40	v1+
awardType	Identifies if an award is a primary award or sub-award. Refer to Section 12.4 for a list of valid values.		String	5	v1+
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 12.5 for a list of valid values.		String	80	v1+
subContractInfos	Subcontractor Information		Array [JSON Object]		v1+
subContractNumber	An additional grant or contract number for an Invention or Patent.	Yes	String	150	v1+
contractorName	The name of the subcontractor that provided the grant or contract.		String	120	v1+
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.		String	9	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
contractorCity	The city of the subcontractor that provided the grant or contract.		String	35	v1+
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 12.10 for a list of valid values.		String	2	v1+
contractorCountry	The country name of the subcontractor that provided the grant or contract. Refer to Section 12.9 for a list of valid values.		String	15	v1+
inventionStatus	Title Election Status	No	JSON Object		v1+
titleElectionStatus	The status of the title to rights in the reported Invention. Refer to Section 12.11 for a list of valid values.		String	80	v1+
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention. • Format: MM/DD/YYYY		String	10	v1+
notElectTitleReason	This field is for the grantee/contractor to select the reason for titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to Section 12.19 for a list of valid values.		String	255	v1+
notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Retain Title' and notElectTitleReason is 'Other', this field is used to provide the description of the custom reason for not electing title.		String	255	v1+
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report. • Format: MM/DD/YYYY		String	10	v1+
dispositionRightsDate	The date the government decided on the disposition of rights. • Format: MM/DD/YYYY.		String	10	v1+
explanatoryNotes	Explanatory notes may be used to note information about an Invention Report or Patent Report.	No	JSON Object		v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Yes	String	500	v1+
governmentNotes	Government Notes	No	JSON Object		v1+
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	Yes	String	500	v1+
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention Report.	No	Array [String]		v1+
agencyCustom1	Agency custom note field only available for agency users.	No	String	2000	v1+
agencyCustom2	Agency custom note field only available for agency users.	No	String	2000	v1+
agencyCustom3	Agency custom note field only available for agency users.	No	String	2000	v1+
governmentStaff	Used to identify government staff.	No	String	200	v1+
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	No	String	200	v1+

Table 7-2: inventionRequest JSON Attributes

7.1.3 Response Parameters

This section contains examples of the different responses based on the HTTP Status Code.

Example of HTTP Status 200 (OK) Response

When the request parameters process and create an invention successfully, the Create Invention API endpoint returns the **inventionResponse** data object which has the attribute definitions available in **Section 7.4**.

Attributes in the HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error) Response

JSON Attribute Name	Description	Data Type	Version
responseCode	Response code	String	v1+

JSON Attribute Name	Description	Data Type	Version
message	Response message	String	v1+
errors	Errors	Array [JSON Object]	v1+
code	Error code	String	v1+
field	The field that failed validation or caused the error.	String	v1+
message	Error message	String	v1+

Table 7-3: Create Invention JSON Server Error 400 and 500

Attributes in the HTTP Status 401 (Unauthorized) Response

JSON Attribute Name	Description	Data Type	Version
message	The message to indicate access was denied.	String	v1+
timestamp	The date and time when access was denied.	String	v1+

Table 7-4: Create Invention JSON Server Error 401

7.1.4 Request and Response Examples

This section contains examples of the request and response for creating an invention.

Example of inventionRequest JSON Object

```
{
  "institutionCode": "7654321",
  "dunsNumber": "790934285",
  "inventionTitle": "REST – Create Invention108",
  "inventionDocketNumber": "REST-DOCK-0108",
  "doesNumber": "",
  "parentInventionNumber": "",
  "inventionReportDate": "01/31/2022",
  "firstPublicationDate": "01/31/2022",
  "isExceptionCircumstanceDetermination": false,
  "keywords": ["Test Key 1", "Test Key 2"],
  "inventionStatus": {
    "titleElectionStatus": "Elect to Retain Title"
  },
  "inventors": [
    {
      "firstName": "John",
      "lastName": "Stewart",
      "fedEmployee": true,
      "middleInitial": "Q",
      "fedAgency": "NIST"
    }
  ]
}
```

```
    }  
  ],  
  "primaryAgency": "ARMY/ARO",  
  "fundingAgreements": [  
    {  
      "agreementType": "Grant",  
      "agency": "ARMY/ARO",  
      "grantNumber": "DAAH04-12-1-1234",  
      "awardType": "Prime Award"  
    }  
  ],  
  "subContractInfos": [  
    {  
      "contractorState": "CO",  
      "contractorCity": "Denver",  
      "contractorName": "James",  
      "subContractNumber": "AS-787342",  
      "contractorCountry": "United States",  
      "contractorDUNS": "738739399"  
    }  
  ],  
  "explanatoryNotes": [{  
    "note": "This is a testing note"  
  }]  
}
```

Example of HTTP Status 200 (OK) Response

```
{  
  "id": 400047,  
  "inventionReportNumber": "07654321-22-0103",  
  "granteeOrganizationName": "DAN'S INSTITUTION",  
  "institutionCode": "7654321",  
  "dunsNumber": "123456789",  
  "inventionTitle": "REST – Create Invention108",  
  "inventionDocketNumber": "REST-DOCK-0108",  
  "doesNumber": "",  
  "parentInventionNumber": "",  
  "inventionReportDate": "01/31/2022",  
  "inventionSubmitDate": "06/10/2022",  
  "reportingOverdue": false,  
  "firstPublicationDate": "01/31/2022",  
  "domesticManufactureWaiver": false,  
  "doeWaiver": "",  
  "isExceptionCircumstanceDetermination": false,  
}
```

```
"keywords": [
  "Test Key 1",
  "Test Key 2"
],
"inventors": [
  {
    "id": 490047,
    "firstName": "John",
    "lastName": "Stewart",
    "fedEmployee": true,
    "middleInitial": "Q",
    "fedAgency": "1149"
  }
],
"primaryAgency": "ARMY/ARO",
"fundingAgreements": [
  {
    "id": 490047,
    "agreementType": "Grant",
    "agency": "ARMY/ARO",
    "grantNumber": "DAAH04-12-1-1234",
    "awardType": "Prime Award"
  }
],
"subContractInfos": [
  {
    "id": 490047,
    "contractorState": "CO",
    "contractorCity": "Denver",
    "contractorName": "James",
    "subContractNumber": "AS-787342",
    "contractorCountry": "United States",
    "contractorDUNS": "738739399"
  }
],
"inventionStatus": {
  "titleElectionStatus": "Elect to Retain Title",
  "titleElectionDate": "06/10/2022"
},
"explanatoryNotes": [
  {
    "id": 490047,
    "note": "This is a testing note",
    "creatorName": "",
    "createdDate": "06/10/2022"
  }
]
```

```
    ],  
    "governmentNotes": []  
  }  
Example of HTTP Status 400 (Bad Request) or 500 (Internal Server Error)  
{  
  "responseCode": 400,  
  "message": "JSON Validation Failed",  
  "errors": [  
    {  
      "code": "400",  
      "field": "inventionTitle",  
      "message": "Invention Title value is required."  
    }  
  ]  
}
```

Example of HTTP Status 401 (Unauthorized) Response

```
{  
  "message": "Access Denied",  
  "timestamp": "2022-06-10T09:58:10.534055700"  
}
```

7.2 Update Invention v2

Organization users can access Invention records owned by the user's affiliated organization. Agency users can access Invention records with one or more funding agreements provided by the user's affiliated agency.

Note: Update Invention, Version 1 (v1) will be no longer supported after July 18th, 2025. The following changes were made in Version 2 (v2):

- Renamed attribute 'isInventionUnderFundingAgreement' to 'isExceptionCircumstanceDetermination' in invention request and invention response data object
- Added 'id' attribute to invention response for 'invention', 'inventor', 'fundingAgreement', 'subContractInfo', 'explanatoryNote', and 'governmentNote' JSON objects.

7.2.1 Endpoint URI

This is an example of the endpoint for the Update Invention resource.

POST	/iedison/api/v2/inventions/update
-------------	-----------------------------------

7.2.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data which will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides a description of the Update Invention POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Required	Data Type	Version	In
accept	Setting to application/JSON	Yes	String	v1+	header
inventionRequest	The Invention Request JSON content. Refer to Table 7-6: inventionRequest JSON AttributesTable 7-6 for the list of attributes.	Yes	String	v1+	form-data
inventionDisclosure	The Invention Disclosure document for updating the document in iEdison. The following file types are allowed for the Invention Disclosure document: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 25MB.	No	Binary Attachment	v1+	form-data

Table 7-5: Update Invention Request Parameters

The table below lists the attributes that will be included in the **inventionRequest** parameter when updating an invention request. The attributes are included in the JSON object as part of the **inventionRequest** form-data text element.

JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	Yes	String	25	v1+
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1+
institutionCode	The unique code is assigned to the reporting organizations.	Yes	String	10	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	No	String	9	v1+
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	Yes	String	255	v1+
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	No	String	30	v1+
doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	No	String	15	v1+
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	No	String	25	v1+
inventionReportDate	The date that the inventor discloses the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes	String	10	v1+
firstPublicationDate	The date of first publication, on sale, or public use initiating the one-year statutory period wherein valid Patent protection can still be obtained in the United States. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1+
inventionSubmitDate	The date when Invention is submitted to agency. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
keywords	This field enables the grantee/contractor organization to designate key terms for searching for Invention Reports.	No	Array [String]	80	v1+
doeWaiver	DOE Waiver	No	String		v1+
institutionCodeForOtherInstitutions	Institution code for other organizations to view Inventions and other related parents. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	No	Array [String]		v1+
isExceptionCircumstanceDetermination	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	No	Boolean		v2+
inventors	List of Inventors	Yes	Array [JSON Object]		v1+
firstName	First name of the inventor.	Yes	String	80	v1+
lastName	Last name of the inventor.	Yes	String	80	v1+
middleInitial	Middle name or first initial of the inventor.	No	String	30	v1+
fedEmployee	Is the inventor a federal employee?	No	Boolean	1	v1+
fedAgency	If the inventor is a federal employee, what agency does the inventor work for. Click here for a list of valid abbreviations.	No	String	80	v1+
primaryAgency	A Primary Agency must be designated for each Invention Report in the iEdison. Click here for a list of valid abbreviations.	Yes	String	50	v1+
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency	Yes	Array [JSON Object]		v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
	name) and the grant or contract award number corresponding to the agency that contributed to the Invention. (See the nested JSON Object attributes below with indentation)				
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Click here for a list of valid abbreviations.	Yes	String	80	v1+
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	Yes	String	40	v1+
awardType	Identify if an award is a primary award or sub-award. Refer to Section 12.4 for a list of valid values.	No	String	5	v1+
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 12.5 for a list of valid values.	No	String	80	v1+
subContractInfos	Subcontractor Information		Array [JSON Object]		v1+
subContractNumber	An additional grant or contract number for an Invention or Patent	Yes	String	150	v1+
contractorName	The name of the subcontractor that provided the grant or contract.	No	String	120	v1+
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	No	String	9	v1+
contractorCity	The city of the subcontractor that	No	String	35	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
	provided the grant or contract.				
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 12.10 for a list of valid Code values.	No	String	2	v1+
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to Section 12.9 for a list of valid country Name values.	No	String	15	v1+
inventionStatus	Title Election Status	No	JSON Object		v1+
titleElectionStatus	The status of the title to rights in the reported Invention. Refer to Section 12.11 for a list of valid values.	Yes	String	80	v1+
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1+
notElectTitleReason	This field is for the grantee/contractor to select the reason for choosing to Not Elect Title where titleElectionStatus is 'Does Not Retain Title' in an Invention Report. Refer to Section 12.19 for a list of valid values.	No	String	255	v1+
notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Elect Title' and the notElectTitleReason is 'Other', this field is used to provide description of the custom reason for not electing title.	No	String	255	v1+
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain	No	String	10	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
	Title in an Invention Report. • Format: MM/DD/YYYY				
dispositionRightsDate	The date the government decided on the disposition of rights. This is a Read Only field. • Format: MM/DD/YYYY	No	String	10	v1+
explanatoryNotes	Explanatory notes may be used to note information about the report.	No	Array [JSON Object]		v1+
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Yes	String	500	v1+
governmentNotes	Notes written by the agency regarding the report. (See JSON	No	Array [JSON Object]		v1+
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	Yes	String	500	v1+
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention Report.	No	Array [String]		v1+
agencyCustom1	Agency custom note field only available for agency users.	No	String	2000	v1+
agencyCustom2	Agency custom note field only available for agency users.	No	String	2000	v1+
agencyCustom3	Agency custom note field only available for agency users.	No	String	2000	v1+
governmentStaff	Used to identify government staff.	No	String	200	v1+
governmentCounsel	Used to identify the Government Counsel (law	No	String	200	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
	firm) for an Invention Report.				

Table 7-6: inventionRequest JSON Attributes

7.2.3 Response Parameters

This section contains examples of the different responses based on the HTTP Status Code.

Example of HTTP Status 200 (OK) Response

When the request parameters process and updated the invention successfully, the Update Invention API endpoint returns the **InventionResponse** data object which has the attribute definitions available in **Section 7.4**.

Attributes in the HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error) Response

JSON Attribute Name	Description	Data Type	Version
responseCode	Response code	String	v1+
message	Response message	String	v1+
errors	Errors	Array [JSON Object]	v1+
code	Error code	String	v1+
field	The field that failed validation or caused the error.	String	v1+
message	Error message	String	v1+

Table 7-7: Update Invention JSON Server Error 400 and 500

Attributes in the HTTP Status 401 (Unauthorized) Response

JSON Attribute Name	Description	Data Type	Version
message	The message to indicate access was denied.	String	v1+
timestamp	The date and time when access was denied.	String	v1+

Table 7-8: Update Invention JSON Server Error 401

7.2.4 Request and Response Examples

This section contains examples of the request and response for updating an invention.

Example of inventionRequest JSON Object

```
{
  "inventionReportNumber": "07654321-22-0103",
  "institutionCode": "7654321",
  "dunsNumber": "790934285",
  "inventionTitle": "REST – Create Invention108",
  "inventionDocketNumber": "REST-DOCK-0108",
  "doesNumber": "",
  "parentInventionNumber": "",
  "inventionReportDate": "01/31/2022",
  "firstPublicationDate": "01/31/2022",
  "isExceptionCircumstanceDetermination": false,
  "keywords": ["Test Key 1", "Test Key 2", "Test Update Key3"],
  "inventionStatus": {
    "titleElectionStatus": "Elect to Retain Title"
  },
  "inventors": [
    {
      "firstName": "John",
      "lastName": "Stewart",
      "fedEmployee": true,
      "middleInitial": "Q",
      "fedAgency": "NIST"
    }
  ],
  "primaryAgency": "ARMY/ARO",
  "fundingAgreements": [
    {
      "agreementType": "Grant",
      "agency": "ARMY/ARO",
      "grantNumber": "DAAH04-12-1-1234",
      "awardType": "Prime Award"
    }
  ],
  "subContractInfos": [
    {
      "contractorState": "CO",
      "contractorCity": "Denver",
      "contractorName": "James",
      "subContractNumber": "AS-787342",
      "contractorCountry": "United States",
      "contractorDUNS": "738739399"
    }
  ],
  "explanatoryNotes": [{
```

```
"note": "This is a testing note"
},
{
  "note": "This is an update note to update keyword"
}
]
```

Example of HTTP Status 200 (OK) Response

```
{
  "id": 490047,
  "inventionReportNumber": "07654321-22-0103",
  "granteeOrganizationName": "DAN'S INSTITUTION",
  "institutionCode": "7654321",
  "dunsNumber": "123456789",
  "inventionTitle": "REST – Create Invention108",
  "inventionDocketNumber": "REST-DOCK-0108",
  "doesNumber": "",
  "parentInventionNumber": "",
  "inventionReportDate": "01/31/2022",
  "inventionSubmitDate": "06/10/2022",
  "reportingOverdue": false,
  "firstPublicationDate": "01/31/2022",
  "domesticManufactureWaiver": false,
  "doeWaiver": "",
  "institutionCodeForOtherInstitutions": [],
  "isExceptionCircumstanceDetermination": false,
  "keywords": [
    "Test Key 1",
    "Test Key 2",
    "Test Update Key3"
  ],
  "inventors": [
    {
      "id": 490047,
      "firstName": "John",
      "lastName": "Stewart",
      "fedEmployee": true,
      "middleInitial": "Q",
      "fedAgency": "NIST"
    }
  ],
  "primaryAgency": "ARMY/ARO",
  "fundingAgreements": [
```

```
{
  {
    "id": 490047,
    "agreementType": "Grant",
    "agency": "ARMY/ARO",
    "grantNumber": "DAAH04-12-1-1234",
    "awardType": "Prime Award"
  }
],
"subContractInfos": [
  {
    "id": 490047,
    "contractorState": "CO",
    "contractorCity": "Denver",
    "contractorName": "James",
    "subContractNumber": "AS-787342",
    "contractorCountry": "United States",
    "contractorDUNS": "738739399"
  }
],
"inventionStatus": {
  "titleElectionStatus": "Elect to Retain Title",
  "titleElectionDate": "06/10/2022"
},
"explanatoryNotes": [
  {
    "id": 490047,
    "note": "This is a testing note",
    "creatorName": "",
    "createdDate": "06/10/2022"
  },
  {
    "id": 490048,
    "note": "This is an update note to update keyword",
    "creatorName": "",
    "createdDate": "06/10/2022"
  }
],
"governmentNotes": []
}
```

Example of HTTP Status 400 (Bad Request) or 500 (Internal Server Error) Response

```
{
  "responseCode": 400,
  "message": "JSON Validation Failed",
}
```

```
"errors": [  
  {  
    "code": "400",  
    "field": " inventionReportNumber ",  
    "message": "Invention Report Number value is required."  
  }  
]
```

Example of HTTP Status 401 (Unauthorized) Response

```
{  
  "message": "Access Denied",  
  "timestamp": "2022-06-10T09:58:10.534055700"  
}
```

7.3 Search Invention v2

Any desired combination of the attributes can be used to perform the Invention Report search. The search will encompass all the Invention Reports from user's organization and from other organizations that have granted the user permission to view their Invention reports. Once the user finds the Invention report, they will be able to modify the Invention, add a Patent Report, or add a Utilization Report.

Note: Search Invention, Version 1 (v1) will be no longer supported after July 18th, 2025. The following changes were made in Version 2 (v2):

- Renamed attribute 'isInventionUnderFundingAgreement' to 'isExceptionCircumstanceDetermination' in invention response data object.
- Added 'id' attribute to invention response for 'invention', 'inventor', 'fundingAgreement', 'subContractInfo', 'explanatoryNote', and 'governmentNote' JSON objects.

7.3.1 Endpoint URI

This is an example of the endpoint for the Search Invention resource.

POST	/iedison/api/v2/inventions/search
-------------	-----------------------------------

7.3.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides a description of the Search Invention POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Data Type	Version	In
accept	Setting to application/JSON	String	v1+	header
inventionSearchCriteria	The Invention search criteria with the filters the client selected for the search.	String	v1+	form-data

Table 7-9: Search Invention Request Parameters

The table below lists the attributes that will be included in the **inventionSearchCriteria** parameter when searching for an invention report. The attributes are included in the JSON object as part of the **inventionSearchCriteria** form-data text element.

Request Parameter	Description	Data Type	Length	Version	In
limit	Total number of records to be retrieved per page. This field must be a number. <ul style="list-style-type: none"> Max Value = 100 Default = 20 	Integer		v1+	body
offset	Page index specified by the user. <ul style="list-style-type: none"> Default offset starts with 0 if user does not provide any offset in the request 	Integer		v1+	body
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	String	100	v1+	body
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s)	String	30	v1+	body
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	String	80	v1+	body
inventorFirstName	First name of the inventor.	String	50	v1+	body
inventorLastName	Last name of the inventor.	String	50	v1+	body
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison.	String	50	v1+	body

Request Parameter	Description	Data Type	Length	Version	In
	Click here for a list of valid abbreviations.				
granteeOrganizationName	The name of the organization established at registration.	String	100	v1+	body
titleElectionStatus	The status of the title to rights in the reported Invention. Refer to Section 12.11 for a list of valid values.	JSON Object	10	v1+	body
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	255	v1+	body
inventionReportDateFrom	The From Date that the inventor disclosed in the subject Invention in writing to the recipient institution. • Format: MM/DD/YYYY	String	10	v1+	body
inventionReportDateTo	The To Date that the inventor disclosed in the subject Invention in writing to the recipient institution. • Format: MM/DD/YYYY	String	10	v1+	body
inventionKeyword	This field enables the grantee/contractor organization to designate key terms for searching for Invention Reports.	String	80	v1+	body
doeWaiver	DOE Waiver	String		v1+	body
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String		v1+	body
governmentStaff	Used to identify government staff.	String		v1+	body
lastUpdatedFrom	The 'start from' search date against the Patent last updated date. • Format: MM/DD/YYYY	String		v1+	body
lastUpdatedTo	The 'up to' search date against the Patent last updated date. • Format: MM/DD/YYYY	String		v1+	body

Table 7-10: inventionSearchCriteria JSON Attributes

7.3.3 Response Parameters

This section contains examples of the different responses based on the HTTP Status Code.

Attributes in the HTTP Status 200 (OK) Response

When the request parameters are process successfully, the Search Invention API endpoint returns a list of inventions that match the search criteria. Each of the invention has the **inventionResponse** data object attribute definitions are available in **Section 7.4**. An example of the JSON output is available in **Section 7.3.4**.

JSON Attribute Name	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v1+
limit	Limit entered by the user while making the request i.e., total number of records the user wished to retrieve per page.	Number	v1+
offset	Page index specified by the user. <ul style="list-style-type: none"> Default = 0 if the user does not provide any offset in the request. 	Number	v1+
inventions	A list of Invention records with inventionResponse JSON attributes in Section 7.4.	Array [JSON Object]	v1+

Table 7-11: Search Invention JSON Success Response Parameters

Attributes in the HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error) Response

JSON Attribute Name	Description	Data Type	Version
responseCode	Response code	String	v1+
message	Response message	String	v1+
errors	Errors	Array [JSON Object]	v1+
code	Error code	String	v1+
field	Error Field of the parameter that fails validation or cause the error.	String	v1+
message	Error message	String	v1+

Table 7-12: Search Invention JSON Server Error 400 and 500

Attributes in the HTTP Status 401 (Unauthorized) Response

JSON Attribute Name	Description	Data Type	Version
message	The message to indicate Access Denied.	String	v1+

timestamp	The time and date string when the access was denied.	String	v1+
-----------	--	--------	-----

Table 7-13: Search Invention JSON Server Error 401

7.3.4 Request and Response Examples

This section contains examples of the request and response for searching for an invention.

Example of inventionSearchCriteria JSON Object

```
{
  "primaryAgency": "NIST",
  "inventionReportDateFrom": "2015-01-01",
  "inventionReportDateTo": "2015-12-31",
  "grantContractNumber": "60NANB14D279"
}
```

Example of Search Invention Results JSON

```
{
  "inventions": [
    {
      "id": 490047,
      "granteeOrganizationName": "UNIV OF MARYLAND, COLLEGE PARK",
      "institutionCode": "0820102",
      "dunsNumber": "790934285",
      "inventionTitle": "The Cyber Supply Chain Risk Management Portal",
      "inventionDocketNumber": "IS-2015-016",
      "doesNumber": "",
      "parentInventionNumber": "",
      "inventionReportDate": "01/29/2015",
      "inventionSubmitDate": "07/28/2017",
      "reportingOverdue": false,
      "domesticManufactureWaiver": false,
      "doeWaiver": "",
      "isExceptionCircumstanceDetermination": false,
      "keywords": [],
      "inventionReportNumber": "0820102-15-0070",
      "inventors": [
        {
          "id": 490047,
          "firstName": "Sandor",
          "lastName": "Boyson",
          "fedEmployee": false,
          "middleInitial": "",

```

```
        "fedAgency": ""
      },
      {
        "id": 490048,
        "firstName": "Holly",
        "lastName": "Mann",
        "fedEmployee": false,
        "middleInitial": "",
        "fedAgency": ""
      },
      {
        "id": 490049,
        "firstName": "Hart",
        "lastName": "Rossman",
        "fedEmployee": false,
        "middleInitial": "",
        "fedAgency": ""
      }
    ],
    "primaryAgency": "National Institute of Standards and Technology",
    "fundingAgreements": [
      {
        "id": 245047,
        "agreementType": "",
        "agency": "National Institute of Standards and Technology",
        "grantNumber": "60NANB14D279",
        "awardType": ""
      }
    ],
    "subContractInfos": [],
    "inventionStatus": "NOT ELECT TITLE; ASSIGN TO OTHER PARTY",
    "explanatoryNotes": [
      {
        "id": 490047,
        "note": "By: DAUERBACH_EDl\nOn: 2017-07-28\n\nI attempted to report this Invention to iEdison in 2015 but was unable to due to a glitch in iEdison so I reported it (as well as the release of Patent rights) directly to the Grants Officer and Grants Specialist listed on the award document on 11/11/2015. "
      }
    ],
    "governmentNotes": []
  }
],
"totalRecords": 1,
"limit": 100,
```

```
"offset": 0
}
HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error)
{
  "responseCode": 400,
  "message": "Invalid form-data content",
  "errors": [
    {
      "code": "400",
      "field": "inventionSearchCriteria",
      "message": "One or more parameters in request JSON are Invalid. Please verify and submit again :
'primaryAgencfday'"
    }
  ]
}
```

Example of HTTP Status 401 (Unauthorized) Response

```
{
  "message": "Access Denied",
  "timestamp": "2022-06-10T09:58:10.534055700"
}
```

7.4 inventionResponse Data Object

The invention create, update, and search API endpoints share a common **inventionResponse** data object. The JSON attributes are described in the table below.

JSON Attribute Name	Description	Data Type	Version
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	String	v1+
granteeOrganizationName	The name of the organization established at registration.	String	v1+
institutionCode	The unique code assigned to the reporting organizations.	String	v1+
dunsNumber	The Data Universal Numbering System (DUNS) number provided by Dun & Bradstreet that identifies the grantee/contractor.	String	v1+
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v1+
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	v1+

JSON Attribute Name	Description	Data Type	Version
doesNumber	The DOE S-number is assigned to each DOE Invention. The number is mainly used in DOE's Invention tracking system.	String	v1+
parentInventionNumber	Invention Report number used when an Invention is combined into another Invention as a parent Invention.	String	v1+
inventionReportDate	The date that the inventor discloses the subject Invention in writing to the recipient institution.	String	v1+
inventionSubmitDate	The date when Invention is submitted to the agency.	String	v1+
reportingOverdue	Invention Reporting Overdue field to indicate if an Invention is submitted outside limit of 60 days or 6 months.	Boolean	v1+
firstPublicationDate	The date of first publication, on sale, or public use initiating the on- year statutory period wherein valid Patent protection can still be obtained in the United States.	String	v1+
domesticManufactureWaiver	Used to indicate whether a Domestic Manufacture Waiver was requested by the organization.	Boolean	v1+
doeWaiver	DOE Waiver	String	v1+
institutionCodeForOtherInstitutions	Institution code for other organizations to view the Invention. A maximum of three additional iEdison registered organizations may be granted view-only access to an Invention Report.	Array [String]	v1+
keywords	This contains a list of keywords for the Invention report.	Array [String]	v1+
isExceptionCircumstanceDetermination	Is this invention made under a funding agreement subject to a determination of exceptional circumstances?	Boolean	v2+
inventors	List of Inventors	Array [JSON Object]	v1+
firstName	First name of the inventor.	String	v1+
lastName	Last name of the inventor.	String	v1+
middleInitial	Middle name or first initial of the inventor.	String	v1+
fedEmployee	Is the inventor a federal employee?	Boolean	v1+
fedAgency	If the inventor is a federal employee, what agency does the inventor work for. Click here for a list of valid abbreviations.	String	v1+
id	The Inventor primary unique identifier in the iEdison system.	Integer	v2+
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Click here for a list of valid abbreviations.	String	v1+

JSON Attribute Name	Description	Data Type	Version
fundingAgreements	The funding agreement is identified and reported in two parts, the Agency Designation (the acronym for the Federal Agency name) and the grant or contract award number corresponding to the agency that contributed to the Invention.	Array [JSON Object]	v1+
agency	The federal government agency that made an award that was used to support the conception of the Invention or its first actual reduction to practice. Refer to Section 12.8 for a list of valid abbreviations.	String	v1+
grantNumber	The corresponding grant or contract number. The format of the grant or contract number is specified by the associated agency.	String	v1+
awardType	Identify if an award is a primary award or sub-award. Refer to Section 12.4 for a list of valid values.	String	v1+
agreementType	Identify cooperative agreement type of an agency agreement. Refer to Section 12.5 for a list of valid values.	String	v1+
id	The funding agreement primary unique identifier in the iEdison system.	Integer	v2+
subContractInfos	Subcontractor Information	Array [JSON Object]	v1+
subContractNumber	An additional grant or contract number for an Invention or Patent.	String	v1+
contractorName	The name of the subcontractor that provided the grant or contract.	String	v1+
contractorDUNS	The DUNS number of the subcontractor that provided the grant or contract.	String	v1+
contractorCity	The city of the subcontractor that provided the grant or contract.	String	v1+
contractorState	The state of the subcontractor that provided the grant or contract. Refer to Section 12.10 for a list of valid values.	String	v1+
contractorCountry	The country of the subcontractor that provided the grant or contract. Refer to Section 12.9 for a list of valid values.	String	v1+
id	The subcontractor primary unique identifier in the iEdison system.	Integer	v2+
inventionStatus	Title Election Status and Disposition Status	JSON Object	v1+
titleElectionStatus	The status of the title to rights in the reported Invention. Refer to Section 12.11 for a list of valid values.	String	v1+
titleElectionDate	The legally binding date that the grantee/contractor elected to retain title to an Invention.	String	v1+

JSON Attribute Name	Description	Data Type	Version
notElectTitleReason	This field is for the grantee/contractor to select the reason for choosing Does Not Retain Title in an Invention Report. Refer to Section 12.19 for a list of valid values.	String	v1+
notElectTitleOtherReason	If the titleElectionStatus is 'Does Not Retain Title' and notElectTitleReason is 'Other', this field is used to provide the description of the custom reason for not electing title.	String	v1+
dispositionStatus	Government's decision/outcome of the disposition of rights. Refer to Section 12.12 for a list of valid values.	String	v1+
dispositionRightsDate	The date the government decided on the disposition of rights.	String	v1+
doesNotRetainTitleDate	The date the grantee/contractor chose to Not Elect Title or retain Title in an Invention Report.	String	v1+
explanatoryNotes	Explanatory Notes	Array [JSON Object]	v1+
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v1+
creatorName	The full name of the user who entered the Explanatory Note.	String	v1+
createdDate	The date when the user entered the Explanatory Note. • Format: MM/DD/YYYY	String	v1+
id	The Explanatory Note primary unique identifier in the iEdison system.	Integer	v2+
governmentNotes	Government Notes which only return for agency system users.	Array [JSON Object]	v1+
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v1+
creatorName	The full name of the user who entered the Government Note.	String	v1+
createdDate	The date when the user entered the Government Note. • Format: MM/DD/YYYY	String	v1+
id	The Government Note primary unique identifier in the iEdison system.	Integer	v2+
budgetIdentifiers	This contains a list of Budget Identifiers for the Invention report.	Array [String]	v1+
agencyCustom1	Agency custom note field only available for agency users.	String	v1+

JSON Attribute Name	Description	Data Type	Version
agencyCustom2	Agency custom note field only available for agency users.	String	v1+
agencyCustom3	Agency custom note field only available for agency users.	String	v1+
governmentStaff	Used to identify government staff.	String	v1+
governmentCounsel	Used to identify the Government Counsel (law firm) for an Invention Report.	String	v1+
disclosureDocumentAcceptDate	Disclosure document accept date	Date	v1+
disclosureDocumentRejectDate	Disclosure document reject date	Date	v1+
disclosureDocumentRejectReasons	Disclosure document reject reasons	Array [String]	v1+
createdDate	The date created in the iEdison system for the Invention Record.	String	v1+
lastUpdatedDate	The date last updated in the iEdison system for the Invention Report.	String	v1+
id	The Invention Report primary unique identifier in the iEdison system.	Integer	v2+

Table 7-14: InventionResponse JSON Attributes

8 Patent API Reference

8.1 Create Patent v2

The Create Patent API endpoint allows an organization/agency to create a Patent record in iEdison system.

Note: Create Patent, Version 1 (v1) will no longer be supported after July 18th, 2025. Updating your system to incorporate the following changes are in Version 2 (v2) are strongly recommended:

- Renamed attribute 'confLicenseReceiptDate' to 'confLicenseAcceptDate' in patent response data object.
- Renamed attribute 'govtSuppClauseReceiptDate' to 'govtSuppClauseAcceptDate' in patent response data object.
- Added 'id' attribute to invention response for 'inventor', 'fundingAgreement', and 'parents' JSON objects.

8.1.1 Endpoint URI

Below is the endpoint for the Create Patent resource.

POST	/iedison/api/v2/patents/create
-------------	--------------------------------

8.1.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the Create Patent POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Required	Data Type	Version	In
accept	Setting to application/JSON.	Yes	String	v1+	header
patentRequest	The Patent JSON object content use to create the Patent in iEdison. Refer Table 8-2 for the attribute list.	Yes	String	v1+	form-data
confirmatoryLicense	The Confirmatory License document file for the Patent record. The following file types are allowed: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 25MB.	No	Binary Attachment	v1+	form-data
governmentSupportClause	The Government Support Clause document file for the Patent record. The following file types are allowed: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 25MB.	No	Binary Attachment	v1+	form-data

Table 8-1: Create Patent Request Parameters

The table below lists the attributes that will be included in the **patentRequest** parameter when creating a patent request. The attributes are included in the JSON object as part of the **patentRequest** form-data text element.

JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	Yes	String	25	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1+
patentDocketNumber	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	Integer	30	v1+
patentStatus	Used to identify the status of a Patent. Refer to Section 12.7 for a list of valid values.	Yes	String	255	v1+
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	Yes	String	255	v1+
patentApplicationType	Patent Application Type of a record. Refer to Section 12.3 for a list of valid values.	Yes	String	255	v1+
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	Yes	String	25	v1+
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1+
patentDocketNumber	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	Integer	30	v1+
patentStatus	Used to identify the status of a Patent. Refer to Section 12.7 for a list of valid values.	Yes	String	255	v1+
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	Yes	String	255	v1+
patentApplicationType	Patent Application Type of a record. Refer to Section 12.3 for a list of valid values.	Yes	String	255	v1+
confirmatoryLicenseExecution Date	The date when the Confirmatory License was executed for the Patent. This is required when the confirmatoryLicense document is provided in form-data.	Conditional	String	10	v1+
nonProvisionalPatentApplication	The Non-provisional Patent Application number and date object. This is required only when ORD, DIV, CON, CIP is	Conditional	JSON Object		v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
	used for patentApplicationType.				
nonProvisionalApplicationNumber	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	Yes	String	18	v1+
nonProvisionalApplicationDate	This field is used for the filing date of the non-provisional Patent application with the U.S. Patent and Trademark Office (USPTO). <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes	String	10	v1+
issuedApplicationNumber	The unique identifier of a Patent.	No	String	50	v1+
issuedApplicationDate	The date the Patent number was issued. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1+
expirationDate	Estimated date of Patent expiration. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1+
provisionalPatentApplication	The Non-provisional Patent Application number and date object. This is required only when PROV is used for patentApplicationType.	Conditional	JSON Object		v1+
provisionalApplicationNumber	The unique identifier for a provisional Patent application created upon filing at the USPTO.	Yes	String	10	v1+
provisionalApplicationDate	Used for the filing date of the U.S. provisional Patent application with the USPTO. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes	String	10	v1+
pctPatentApplication	The Non-provisional Patent Application number and date object. This is required only when PCT is used for patentApplicationType.	Conditional	JSON Object		v1+
pctApplicationNumber	(Patent Cooperation Treaty) number is used to uniquely identify a PCT type Patent application.	Yes	String	10	v1+
pctApplicationDate	This field is used for the filing date of the Patent Cooperation Treaty (PCT) application provided by the World Intellectual Property Organization (WIPO). <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes	String	10	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
parentPatents		No	Array [JSON Object]		v1+
inventionReportNumber	The unique Invention Report Number for the parent Patent.	No	String	25	v1+
patentDocketNumber	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1+
inventors	List of Inventors	Yes	Array [JSON Object]		v1+
firstName	First name of the inventor.	Yes	String	80	v1+
lastName	Last name of the inventor.	Yes	String	80	v1+
middleInitial	Middle name or first initial of the inventor.	No	String	30	v1+
fedEmployee	Is the inventor a federal employee?	No	Boolean		v1+
fedAgency	If the inventor is a federal employee, what agency does the inventor work for. Refer to Section 12.8 for a list of valid abbreviations.	No	String	80	v1+
foreignFilings	Patent Foreign Filing	No	Array [JSON Object]		v1+
countryName	The country name of the foreign filing. Refer to Section 12.9 for a list of valid country Name values.	Yes	String	15	v1+
status	The foreign filing status for the Patent. Refer to Section 12.2 for a list of valid values.	Yes	String		v1+
filingDate	The date that the foreign Patent was issued. • Format: MM/DD/YYYY	Yes	String	10	v1+
explanatoryNotes	Explanatory notes may be used to note information about the report.	No	JSON Object		v1+
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Yes	String	500	v1+
governmentNotes	Notes written by the agency regarding the report.	No	JSON Object		v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	Yes	String	500	v1+

Table 8-2: patentRequest JSON Attributes

8.1.3 Response Parameters

This section contains examples of the different responses based on the HTTP Status Code.

Example of HTTP Status 200 (OK) Response

The Create Patent API endpoint returns the **patentResponse** data object that contains has the attribute described **Section 8.4**.

Attributes in the HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error) Response

JSON Attribute Name	Description	Data Type	Version
responseCode	Response code	String	v1+
message	Response message	String	v1+
errors	Errors	Array [JSON Object]	v1+
code	Error code	String	v1+
field	The field that failed validation or caused the error.	String	v1+
message	Error message	String	v1+

Table 8-3: Create Patent JSON Server Error 400 and 500

Attributes in the HTTP Status 401 (Unauthorized) Response

JSON Attribute Name	Description	Data Type	Version
message	The message to indicate access was denied.	String	v1+
timestamp	The date and time when access was denied.	String	v1+

Table 8-4: Create Patent JSON Server Error 401

8.1.4 Request and Response Examples

This section contains examples of the request and response for creating a patent.

Example of patentRequest JSON Object

{

```
"inventionReportNumber": "07654321-22-0103",
"patentDocketNumber": "REST-PAT-0017",
"patentStatus": "Institution Retains Rights",
"patentTitle": "REST PAT 0017",
"patentApplicationType": "PROV",
"provisionalPatentApplication": {
  "provisionalApplicationNumber": "64/999,910",
  "provisionalApplicationDate": "02/02/2022"
},
"inventors": [
  {
    "firstName": "John",
    "lastName": "Stewart",
    "fedEmployee": true,
    "middleInitial": "Q",
    "fedAgency": "NIST"
  },
  {
    "firstName": "Jane",
    "lastName": "Doe",
    "fedEmployee": false,
    "middleInitial": "",
    "fedAgency": ""
  }
],
"foreignFilings": [
  {
    "countryName": "AFGHANISTAN",
    "status": "active",
    "filingDate": "02/02/2021"
  }
]
}
```

Example of HTTP Status 200 (OK) Response

```
{
  "id": 338529127,
  "patentDocketNum": "REST-PAT-0018",
  "inventionReportNumber": "07654321-22-0103",
  "issuedApplicationNumber": "",
  "pctAppNum": "",
  "provisionalAppNum": "64/999,911",
  "provisionalAppDate": "02/02/2022",
  "nonProvisionalAppNum": "",
  "patentApplicationType": "PROV",
}
```

```
"patentTitle": "REST PAT 0018",
"confLicenseRejectComment": "",
"govtSuppClauseRejectComment": "",
"abandonedReason": "",
"usptoAppStatus": "",
"assigned": false,
"patentStatus": "Institution Retains Rights",
"explanatoryNotes": [],
"governmentNotes": [],
"govSupClauseActions": [],
"inventors": [
  {
    "id": "10001",
    "firstName": "John",
    "lastName": "Stewart",
    "fedEmployee": true,
    "middleInitial": "Q"
  },
  {
    "id": "10002"
    "firstName": "Jane",
    "lastName": "Doe",
    "fedEmployee": false
  }
],
"foreignFilings": [
  {
    "id": "1000",
    "patentForeignFilingId": 12345,
    "countryName": "AFGHANISTAN",
    "status": "active",
    "filingDate": "02/02/2021"
  }
]
}
```

Example of HTTP Status 400 (Bad Request) or 500 (Internal Server Error) Response

```
{
  "responseCode": 400,
  "message": "Failed Validation",
  "errors": [
    {
      "code": "400",
      "field": "provAppNum",
      "message": "Provisional Application Number value is required."
    }
  ]
}
```



```
}
]
}
```

Example of HTTP Status 401 (Unauthorized) Response

```
{
  "message": "Access Denied",
  "timestamp": "2022-06-10T09:58:10.534055700"
}
```

8.2 Update Patent v2

The Update Patent API endpoint allows organization/agency to update a Patent record in the iEdison system.

Note: Update Patent, Version 1 (v1) will no longer be supported after July 18th, 2025. Updating your system to incorporate the following changes are in version 2 (v2) are strongly recommended:

- Renamed attribute 'confLicenseReceiptDate' to 'confLicenseAcceptDate' in patent response data object.
- Renamed attribute 'govtSuppClauseReceiptDate' to 'govtSuppClauseAcceptDate' in patent response data object.
- Added 'id' attribute to invention response for 'inventor', and 'parents' JSON objects.

8.2.1 Endpoint URI

This is an example of the endpoint for the Update Patent resource.

POST	/iedison/api/v2/patents/update
-------------	--------------------------------

8.2.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the description of the Update Patent POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Required	Data Type	Version	In
accept	Setting to application/JSON.	Yes	String	v1+	header
patentRequest	The Patent JSON object content used to create the Patent. Refer to Table 8-6 for a list of attributes.	Yes	String	v1+	form-data
confirmatoryLicense	The Confirmatory License document file for the Patent record. The following file types are allowed: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 25MB	No	Binary Attachment	v1+	form-data
governmentSupportClause	The Government Support Clause document file for the Patent record. The following file types are allowed: CSV, GIF, JPEG, JPG, PNG, PDF, DOCX, DOC, TIFF, TIF, TXT, XLS, XLSX, PPT, PPTX, ODT, and RTF. The maximum file size is 25MB	No	Binary Attachment	v1+	form-data

Table 8-5: Update Patent Request Parameters

The table below lists the attributes that will be included in the **patentRequest** parameter when creating an invention request. The attributes are included in the JSON object as part of the **patentRequest** form-data text element.

The system updates the government clause file if it is provided during the update operation. If the government clause file is not provided during the update operation, the system checks for the presence of a government clause file uploaded in previous operations. If a government clause file is not present, the system will not perform an update operation and returns an error.

JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	Yes	String	100	v1+
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
patentDocketNumber	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1+
patentStatus	Used to identify the status of a Patent. Refer to Section 12.7 for a list of valid values.	Yes	String	255	v1+
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	Yes	String		v1+
patentApplicationType	Patent Application Type of a record. Refer to Section 12.3 for a list of valid values.	Yes	String		v1+
pctPatentApplication		Conditional	JSON Object		v1+
pctAppNum	Patent Cooperation Treaty (PCT) number is used to uniquely identify a PCT type Patent application.	Yes	String		v1+
pctAppDate	This field is used for the filing date of the Patent Cooperation Treaty (PCT) application. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes	String		v1+
provisionalPatentApplication		Conditional	JSON Object		v1+
provisionalAppNum	The unique identifier a provisional Patent application created upon filing at the USPTO.	Yes	String		v1+
provisionalAppDate	This field is used for the filing date of the U.S. provisional Patent application with the USPTO. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes	String		v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
nonProvisionalPatentApplication		Conditional	JSON Object		v1+
nonProvisionalApplicationNumber	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	Yes	String	10	v1+
nonProvisionalApplicationNumber	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	Yes	String	10	v1+
nonProvisionalApplicationDate	This field is used for the filing date of the non-provisional Patent application with the U.S. Patent and Trademark Office (USPTO). <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes	String	10	v1+
issuedApplicationNumber	The unique identifier of a Patent.	No	String	50	v1+
issuedApplicationDate	The date the Patent number was issued. Format: MM/DD/YYYY	No	String	10	v1+
expirationDate	Estimated date of Patent expiration. Format: MM/DD/YYYY	No	String	10	v1+
parentPatents	Parent Patent	No	Array [JSON Object]		v1+
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	No	String	100	v1+
patentDocketNumber	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1+
inventors	List of Inventors	Yes	Array [JSON Object]		v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
firstName	First name of the inventor.	Yes	String	80	v1+
lastName	Last name of the inventor.	Yes	String	80	v1+
middleInitial	Middle name or first initial of the inventor.	No	String	30	v1+
fedEmployee	Is the inventor a federal employee? <ul style="list-style-type: none"> Default = false 	No	Boolean		v1+
fedAgency	If the inventor is a federal employee, what agency does the inventor work for. Refer to Section 12.8 for a list of valid abbreviations.	No	String	80	v1+
foreignFilings	Patent Foreign Filing	No	JSON Object		v1+
countryName	The country name of the foreign filing. Refer to Section 12.9 for a list of valid values.	Yes	String	15	v1+
status	The foreign filing status for the Patent. Refer to Section 12.7 for a list of valid values.	Yes	String		v1+
filingDate	The date that the foreign Patent was issued. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes	String	10	v1+

Table 8-6: *patentRequest JSON Attributes*

8.2.3 Response Parameters

This section contains examples of the different responses based on the HTTP Status Code.

Example of HTTP Status 200 (OK) Response

The Update Patent API endpoint returns the **patentResponse** data object that contains the attributes described **Section 8.4**.

Attributes in HTTP Status 400 (Bad Request) and HTTP Status 500 (Internal Server Error) Response

JSON Attribute Name	Description	Data Type	Version
responseCode	Response code	String	v1+
message	Response message	String	v1+
errors	Errors	JSON Object	v1+
code	Error code	String	v1+
field	Error Field of the parameter that fails validation or cause the error.	String	v1+
message	Error message	String	v1+

Table 8-7: Update Patent JSON Server Error 400 and 500

Attributes in HTTP Status 401 (Unauthorized) Response

JSON Attribute Name	Description	Data Type	Version
message	The message to indicate Access Denied.	String	v1+
timestamp	The time and date string when the access was denied.	String	v1+

Table 8-8: Update Patent JSON Server Error 401

8.2.4 Request and Response Examples

This section contains examples of the request and response for updating a patent.

Example of patentRequest JSON Object

```
{
  "inventionReportNumber": "07654321-22-0103",
  "patentDocketNumber": "REST-PAT-0017",
  "patentStatus": "Institution Retains Rights",
  "patentTitle": "REST PAT 0017-updated",
  "patentApplicationType": "PROV",
  "provisionalPatentApplication": {
    "provisionalApplicationNumber": "64/999,910",
    "provisionalApplicationDate": "02/02/2022"
  },
  "inventors": [
    {
      "firstName": "John",
      "lastName": "Stewart",
      "fedEmployee": true,
      "middleInitial": "Q",

```

```
    "fedAgency": "NIST"
  },
  {
    "firstName": "Jane",
    "lastName": "Doe",
    "fedEmployee": false,
    "middleInitial": "",
    "fedAgency": ""
  },
],
"foreignFilings": [
  {
    "countryName": "AFGHANISTAN",
    "status": "active",
    "filingDate": "02/02/2021"
  }
]
}
```

Example of Patent Update Response

```
{
  "id": 338529126,
  "patentDocketNum": "REST-PAT-0017",
  "inventionReportNumber": "07654321-22-0103",
  "issuedApplicationNumber": "",
  "pctAppNum": "",
  "provisionalAppNum": "64/999,910",
  "provisionalAppDate": "02/02/2022",
  "nonProvisionalAppNum": "",
  "patentApplicationType": "PROV",
  "patentTitle": "REST PAT 0017-updated",
  "confLicenseRejectComment": "",
  "govtSuppClauseRejectComment": "",
  "parentPatents": [],
  "abandonedReason": "",
  "usptoAppStatus": "",
  "assigned": false,
  "patentStatus": "Institution Retains Rights",
  "explanatoryNotes": [],
  "governmentNotes": [],
  "govSupClauseActions": [],
  "inventors": [
    {
      "firstName": "John",
      "lastName": "Stewart",

```

```
{
  "fedEmployee": true,
  "middleInitial": "Q",
  "fedAgency": "NIST"
},
{
  "firstName": "Jane",
  "lastName": "Doe",
  "fedEmployee": false
}
],
"foreignFilings": [
  {
    "patentForeignFilingId": 12345,
    "countryName": "AFGHANISTAN",
    "status": "active",
    "filingDate": "02/02/2021"
  }
]
}
```

Example of HTTP Status 400 (Bad Request) or 500 (Internal Server Error) Response

```
{
  "responseCode": 400,
  "message": "Failed Validation",
  "errors": [
    {
      "code": "400",
      "field": "provAppNum",
      "message": "Provisional Application Number value is required."
    }
  ]
}
```

Example of HTTP Status 401 (Unauthorized) Response

```
{
  "message": "Access Denied",
  "timestamp": "2022-06-10T09:58:10.534055700"
}
```

8.3 Search Patent v2

The search conditions for the Patent Search are based on an “AND” operation with different Patent fields in the JSON Request.

For Example, If the patent search has a Patent Docket Number and Primary Agency, the search results include all the searches that match both the Patent Docket Number and the Primary Agency.

Note: Search Patent, Version 1 (v1) will no longer be supported after July 18th, 2025. Updating your system to incorporate the following changes are in Version 2 (v2) are strongly recommended:

- Renamed attribute 'confLicenseReceiptDate' to 'confLicenseAcceptDate' in patent response data object.
- Renamed attribute 'govtSuppClauseReceiptDate' to 'govtSuppClauseAcceptDate' in patent response data object.
- Added 'id' attribute to invention response for 'inventor', and 'parents' JSON objects.

8.3.1 Endpoint URI

This is an example of the endpoint for the Search Patent resource.

POST	/iedison/api/v2/patents/search
-------------	--------------------------------

8.3.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the Search Patent POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Data Type	Version	In
accept	Setting to application/JSON	String	v1+	header
patentSearchCriteria	The Patent search criteria filters in JSON string.		v1+	

Table 8-9: Search Patent Request Parameters

The table below shows the parameters that will be included in the JSON body only one time during the processing of Search Patents Request.

The table below lists the attributes that will be included in the **patentSearchCriteria** parameter when creating an invention request. The attributes are included in the JSON object as part of the **patentSearchCriteria** form-data text element.

JSON Attribute Name	Description	Required	Data Type	Length	Version
limit	Total number of records to be retrieved per page. This field must be a number.	No	Integer		v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
	<ul style="list-style-type: none"> Max Value = 100 Default = 20 				
offset	<p>Indicates the page index.</p> <ul style="list-style-type: none"> Default offset starts with 0. 	No	Integer		v1+
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	No	String	100	v1+
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	No	String	30	v1+
inventionReportDateFrom	<p>The From Date that the inventor disclosed the subject Invention in writing to the recipient institution.</p> <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1+
inventionReportDateTo	<p>The To Date that the inventor disclosed the subject Invention in writing to the recipient institution.</p> <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1+
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	No	String	255	v1+
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Click here for a list of valid abbreviations.	No	String	1	v1+
titleElectionStatus	The status of the title to rights in the reported Invention. Refer to Section 12.11 for a list of valid values.	No	Array [String]	50	v1+
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1+
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	No	String	50	v1+
patentApplicationType	Patent Application Type of a record. Refer to Section 12.3 for a list of valid values.	No	String	25	v1+
patentStatus	Used to identify the status of a Patent. Refer to Section 12.7 for a list of valid values.	No	String	50	v1+
patentDocketNumber	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1+
patentFilingDateFrom	<p>The 'starting from' search date against the PCT, Provisional, Non-Provisional Patent application filing date.</p> <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
patentFilingDateTo	The 'up to' search date against the PCT, Provisional, Non-Provisional Patent application filing date. • Format: MM/DD/YYYY	No	String	10	v1+
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	No	String	50	v1+
inventorFirstName	Inventor First Name.	No	String	50	v1+
inventorLastName	Inventor Last Name.	No	String	50	v1+
lastUpdatedFrom	The 'start from' search date against the Patent last updated date. • Format: MM/DD/YYYY	No	String	10	v1+
lastUpdatedTo	The 'up to' search date against the Patent last updated date. • Format: MM/DD/YYYY	No	String	10	v1+

8.3.3 Response Parameters

The Search Patent API endpoint returns a response with the following attributes.

JSON Attribute Name	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v1+
limit	Limit entered by the user while making the request, i.e., total number of records the user wants to retrieve per page.	Number	v1+
offset	Page index specified by the user. • Default offset starts with 0 if user does not provide any offset in the request.	Number	v1+
patents	A list of patentResponse data objects. Section 8.4 contains a list of the JSON response attributes.	Array [JSON Object]	v1+

Table 8-10: patentSearchCriteria JSON Attributes

8.3.4 Request and Response Examples

This section contains examples of the request and response for searching for patents.

Example of patentSearchCriteria JSON Object

```
{
  "patentApplicationType": "DIV",
  "patentDocketNumber": "1087.3A"
}
```

Example of patentSearchCriteria Response

```
{
```

```
"patents": [  
  {  
    "id": 62978,  
    "patentDocketNum": "1087.3A",  
    "inventionReportNumber": "07654321-01-0001",  
    "patentNum": "6197595",  
    "patentDate": "03/05/2001",  
    "provisionalAppNum": "",  
    "provisionalAppDate": "04/19/1999",  
    "nonProvisionalAppNum": "09/294,700",  
    "nonProvisionalAppDate": "04/19/1999",  
    "applicationType": "DIV",  
    "expireDate": "04/19/2019",  
    "patentTitle": "Integrated Nucleic Acid Diagnostic Device",  
    "confLicenseRejectComment": "",  
    "confLicenseOutdated": false,  
    "govtSuppClauseRejectDate": "05/14/2021",  
    "govtSuppClauseRejectComment": "Government Agency that awarded grant is missing. Also,  
the language of the Government Support Clause is incorrect.",  
    "oldPatentRule": true,  
    "abandonedReason": "",  
    "usptoAppStatus": "",  
    "assigned": false,  
    "patentStatus": "Institution Retains Rights",  
    "explanatoryNotes": [],  
    "governmentNotes": [],  
    "userNotes": [],  
    "govSupClauseActions": [  
      {  
        "id": 53038,  
        "actionType": "R",  
        "documentType": "SC",  
        "actionDate": "12/31/2023",  
        "reasonText": "Government Agency that awarded grant is missing. Also, the language of  
the Government Support Clause is incorrect."  
      }  
    ]  
  },  
  {  
    "totalRecords": 1,  
    "limit": 100,  
    "offset": 0  
  }  
]
```

8.4 patentResponse Data Object

The create, update, and search Patent API shares the same **patentResponse** data object. The JSON attributes are described in the table below.

Response Parameter	Description	Data Type	Version
id	System generated sequence number used for ID of the Patent	Integer	v1+
patentDocketNum	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1+
inventionReportNumber	The unique Invention Report Number which identifies the Invention record in iEdison that the Patent is associated with.	String	v1+
issuedApplicationNumber	The Patent number provided by USPTO when the Patent is issued.	String	v1+
issuedApplicationDate	The date the Patent number was issued.	String	v1+
pctAppNum	Patent Cooperation Treaty (PCT) number is used to uniquely identify a PCT type Patent application.	String	v1+
pctAppDate	This field is used for the filing date of the Patent Cooperation Treaty (PCT) application.	String	v1+
provisionalAppNum	The unique identifier a provisional Patent application created upon filing at the USPTO.	String	v1+
provisionalAppDate	This field is used for the filing date of the U.S. provisional Patent application with the USPTO.	String	v1+
nonProvisionalAppNum	The Non-provisional Patent Application Number field is for the non-provisional Patent application.	String	v1+
nonProvisionalAppDate	This field is used for either the filing date of the non-provisional Patent application with the U.S. Patent and Trademark Office (USPTO)	String	v1+
patentApplicationType	Patent Application Type of a record. Refer to Section 12.3 for a list of valid values.	String	v1+
patentReceiptDate	Date Patent was received by government.	String	v1+
expireDate	Estimated date of Patent expiration.	String	v1+
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	String	v1+
patentStatus	Patent Status	String	v1+
confLicenseAcceptDate	The date the Confirmatory License was accepted.	String	v2+
confLicenseRejectDate	The date the Confirmatory License was rejected by the Government Agency.	String	v1+
confLicenseRejectComment	Reason for Confirmatory License rejection shared with the organization.	String	v1+
confLicenseOutdated	Used to indicate if the Confirmatory License is outdated.	String	v1+
govtSuppClauseAcceptDate	The date the Federal Support Clause was accepted by the government.	String	v2+
govtSuppClauseRejectDate	The date the Government Support Clause inclusion was rejected by the Government Agency.	String	v1+

Response Parameter	Description	Data Type	Version
govtSuppClauseRejectComment	Reason for Government Support Clause rejection displayed to grantee/contractor institution.	String	v1+
govtactionDate	Government Action Date	String	v1+
domesticWaiverDecisionFlag	Used to indicate Domestic Waiver decision.	Boolean	v1+
domesticWaiverDecisionDate	Domestic Waiver Decision Date	String	v1+
parentPatents	List of Parent Patents	Array [JSON Object]	v1+
id	The unique identifier for the parent patent record in iEdison system	Integer	v2+
inventionReportNumber	The unique Invention Report Number for the parent Patent.	String	v1+
patentDocketNumber	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1+
confirmatoryLicenseExecutionDate	Confirmatory license date of execution for EPAS submission.	String	v1+
abandonedReason	The reason why a Patent is abandoned.	String	v1+
extensionDays	Number of days Patent provisional application date has been extended.	Integer	v1+
usptoAppStatus	USPTO application status of the Patent.	String	v1+
usptoAppStatusDate	Date of USPTO application.	String	v1+
usptoLastSyncDate	Date of last sync with USPTO.	String	v1+
assigned	Used to indicate if the Patent has been assigned to another organization.	Boolean	v1+
explanatoryNotes	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	Array [JSON Object]	v1+
id	The unique identifier for the explanatory note record in the iEdison system.	Integer	v2+
note	Explanatory notes may be used to note information about an Invention Report or Patent Report. Explanatory notes should not be used for data that is provided by other iEdison data fields.	String	v1+
creatorName	The full name of the user who entered the Explanatory Note.	String	v1+
createdDate	The date when the user entered the Explanatory <ul style="list-style-type: none"> Format: MM/DD/YYYY 	String	v1+
governmentNotes	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record. This is populated only for agency system accounts.	Array [JSON Object]	v1+
id	The unique identifier for the government note record in the iEdison system.	Integer	v2+
note	Government Notes are used to note information about an Invention Report or Patent Report by federal users who have access to view the record.	String	v1+
creatorName	The full name of the user who entered the Government Note.	String	v1+

Response Parameter	Description	Data Type	Version
createdDate	The date when the user entered the Government Note. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	String	v1+
govSupClauseActions	Government Support Clause Actions	Array [JSON Object]	v1+
id	System generated sequence number used for ID of the Government Support Clause Action	Int	v2+
actionType	Type of Action. Refer to Section 12.23 for a list of valid values.	String	v1+
documentType	Type of document. Refer to Section 12.24 for a list of valid values.	String	v1+
actionDate	Date the action was taken. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Date	v1+
reasonText	Reason for the action.	String	v1+
foreignFilings	Foreign Filings for the patent.	Array [JSON Object]	v1+
id	The unique identifier for the foreign filing record in the iEdison system.	Integer	v2+
countryName	The country name of the foreign filing record.	String	v1+
status	The status of the foreign filing.	String	v1+
filingDate	The patent foreign filing date. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	String	v1+
inventors	The inventor records for the patent.	Array [JSON Object]	v1+
id	The unique identifier of the patent inventor record in the iEdison system.	Integer	v2
firstName	First name of the inventor.	String	v1+
lastName	Last name of the inventor.	String	v1+
middleInitial	Middle name or first initial of the inventor.	String	v1+
fedEmployee	Is the inventor a federal employee?	Boolean	v1+
fedAgency	If the inventor is a federal employee, what agency does the inventor works for. Refer to Section 12.8 for a list of valid values.	String	v1+
createdDate	The date the Patent record was created.	String	v2
lastUpdatedDate	The last updated date for the Patent record.	String	v2

Table 8-11: patentResponse Data Object Attributes

9 Utilization API Reference

9.1 Create Utilization v2

The Create Utilization API allows organization/agency to add a new utilization to an invention for utilization reporting fiscal year for both legacy questions prior 2023 and new questions for 2023 and beyond.

Note: Create Utilization, Version 1 (v1) is no longer be supported. Update your system to incorporate the following changes are in version 2 (v2):

- Attribute 'commercialProds' can only be used for utilization with fiscal year prior 2023.
- Attribute 'manufacturingCommProds' is used for both fiscal year prior 2023 and 2023 and beyond.
- Attributes 'exclusiveLicensees', 'nonExclusiveLicensees', 'isUSManufacturingRequired1', 'isUSManufacturingRequired2', 'isUSManufacturingRequired3', and 'notes' are added to collect data for new questions in utilizations with fiscal year 2023 and beyond.

9.1.1 Endpoint URI

This is an example of the endpoint for the Create Utilization resource.

POST	/iedison/api/v2/utilizations/create
-------------	-------------------------------------

9.1.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides a description of the Create Utilization POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Required	Data Type	Version	In
accept	Setting to application/JSON.	Yes	String	v1+	header
utilizationRequest	The utilization request JSON content in string format contains the utilization attributes. Refer to Table 9-5 for the list of attributes.	Yes	String	v2+	raw

Table 9-1: Create Utilization Request Parameters

The table below lists the attributes that will be included in the **utilizationRequest** parameter when creating a utilization request. The attributes are included in the JSON object as part of the **utilizationRequest** form-data text element.

JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	The Invention Report number the Utilization Report is associated with.	Yes	String	25	v1+
reportingYear	The year for which the Utilization Report is being submitted.	Yes	Integer		v1+
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 12.1 for a list of latest valid values.	Yes	String	30	v1+

JSON Attribute Name	Description	Required	Data Type	Length	Version
firstCommercialSaleYear	<p>Year product embodying the Invention was first sold (date of first commercial sale).</p> <p>This is required when latestStageDev has a value of "Commercialized" or "Licensed".</p>	Yes (Conditionally)	Integer		v1+
totalIncome	<p>Total income from royalty or option agreements for the Invention.</p> <p>This is required when latestStageDev has a value of "Commercialized" or "Licensed".</p>	Yes (Conditionally)	Number (float)		v1+
exclusiveLicensesOptions	<p>Number of exclusive licenses/option agreements for the Invention.</p> <p>In the designated reporting period, how many exclusive licenses and/or options are active?</p> <p>This is required when latestStageDev has a value of "Commercialized" or "Licensed".</p>	Yes (Conditionally)	Integer		v2+
nonExclusiveLicensesOptions	<p>Number of non-exclusive licenses/option agreements for the Invention.</p> <p>In the designated reporting period, how many non-exclusive licenses and/or options are active?</p> <p>This is required when latestStageDev has a value of "Commercialized" or "Licensed".</p>	Yes (Conditionally)	Integer		v2+
smallBusinessLicensesOptions	<p>Number of small business licenses/option agreements for the Invention.</p> <p>How many licenses and/or options of any type to small businesses (<500 employees) are active in the designated reporting period?</p> <p>This is required when latestStageDev has a value of "Commercialized" or "Licensed".</p>	Yes (Conditionally)	Integer		v2+

JSON Attribute Name	Description	Required	Data Type	Length	Version
IsUSManufacturingRequired1	<p>Other than U.S. Preference (35 U.S.C. 204), is the invention subject to any U.S. manufacturing requirements (e.g., U.S. Competitiveness provision, a U.S. Manufacturing DEC, etc.)?</p> <p>Accepted values are N (for No) and Y (for Yes).</p> <p>This is required when latestStageDev has a value of "Commercialized" or "Licensed".</p>	Yes (Conditionally)	String	1	v2+
IsUSManufacturingRequired2	<p>1. If IsUSManufacturingRequired1 is N: In the designated reporting period do all grants to any person of the exclusive right to use or sell the subject invention in the United States require that any products embodying the subject invention or produced using the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204?</p> <p>2. If IsUSManufacturingRequired1 is Y: In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced using the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)?</p> <p>If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", accepted value for this attribute can be "N" (for No), or "Y" (for Yes).</p> <p>If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", accepted value for this attribute can be "N" (for No), or</p>	Yes (Conditionally)	String	3	v2+

JSON Attribute Name	Description	Required	Data Type	Length	Version
	<p>“Y” (for Yes), or “N/A” (for Not Applicable).</p> <p>See Sections 12.21 and 12.22 for the questions logic.</p>				
IsUSManufacturingRequired3	<p>1. If IsUSManufacturingRequired2 is N: In the designated reporting period are all products embodying the subject invention or produced using the subject invention manufactured substantially in the United States for all grants to any person of the exclusive right to use or sell the subject invention in the United States as required by 35 U.S.C. 204?</p> <p>2. If IsUSManufacturingRequired2 is Y: In the designated reporting period, are all products embodying the subject invention or produced using the subject invention manufactured substantially in the United States(including manufacturing requirements other than 35 U.S.C. 204)?</p> <p>If latestStageDev is “Commercialized” or “Licensed” and isUSManufacturingRequired1 is “Y”, accepted value for this attribute can be “N” (for No), or “Y” (for Yes).</p> <p>If latestStageDev is “Commercialized” or “Licensed” and isUSManufacturingRequired1 is “N”, accepted value for this attribute can be “N” (for No), or “Y” (for Yes), or “N/A” (for Not Applicable).</p> <p>See Sections 12.21 and 12.22 for the questions logic.</p>	Yes (Conditionally)	String	3	v2+
notes	General notes	Yes (Conditionally)	String	1000	v2+

JSON Attribute Name	Description	Required	Data Type	Length	Version
	This is required when commercializationPlanId has a value of 3 or 6.				
commercializationPlanId	<p>The commercialization plan for the invention. What are your current commercialization plans for this invention?</p> <p>This is required when latestStageDev has a value of “Not Licensed or Commercialized”.</p> <p>Refer to Section 12.20 for a list of valid values.</p>	Yes (Conditionally)	Number		v2+
exclusiveLicensees	<p>The exclusive licensee names for the invention.</p> <p>This is required when exclusiveLicensesOptions has a value greater than 0.</p>	Yes (Conditionally)	Array [String]		v2+
nonExclusiveLicensees	<p>The non-exclusive licensee names for the invention.</p> <p>This is required when nonExclusiveLicensesOptions has a value greater than 0.</p>	Yes (Conditionally)	Array [String]		v2+
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period. For DOE Invention only.	No	Integer		v2+
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	No	Integer		v2+
manufacturingCommProds	The manufacturing commercial products made using or Embodying the Subject Invention(s). Object attributes below.	No	Array [JSON Object]		v2+
productName	The unique commercial product name.	Yes	String	100	v2+
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business	No	String	6	v2+

JSON Attribute Name	Description	Required	Data Type	Length	Version
	establishments. For DOE invention only.				
licensees	The licensees associated with the product.	No	Array [JSON Object]		v2+
licenseeName	The name of the licensee. The name must come from the exclusiveLicensees list, the nonExclusiveLicensees list, or the institution name can be used if the institution itself is the licensee.	Yes	String	255	v2+
manufacturers	The manufacturers for the manufacturing commercial product.	Yes	Array [JSON Object]		v2+
manufacturerName	The name of the manufacturer	Yes	String	255	v2+
productLocation	The manufacturing production location(s). Object attributes below.	Yes	Array [JSON Object]		v2+
country	The manufacturing country for the location. Refer to Section 12.9 for a list of valid values.	No	String	30	v2+
state	The manufacturing state for the location for applicable country. Refer to Section 12.10 for a list of valid values.	No	String	14	v2+
firstDate	The first date of manufacturing. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	Yes (Conditionally)	String	10	v2+
firstDateType	The type for the first date of manufacturing. Refer to 12.18 for a list of acceptable type values. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.	Yes (Conditionally)	String	8	v2+
productQuantity	The total number of products at the manufacturing location. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.	Yes (Conditionally)	Integer		v2+

JSON Attribute Name	Description	Required	Data Type	Length	Version
commercialProds	FDA Approved Commercial products for the utilization with fiscal year prior 2023.	No	Array [JSON Object]		v2+
commercialName	The name of the FDA approved commercial product.	Yes	String	80	v2+
fdaApprovalNumber	The number of the FDA approved commercial product.	No	String	20	v2+
fdaApprovalType	The type of the FDA approved commercial product. Please refer to Section 12.15 for a list of acceptable utilization Commercial Product Type values.	No	String	15	v2+
govtReviewStatus	The status of the FDA approved commercial product. Please refer to Section 12.16 for a list of acceptable utilization Government Review Status values.	No	String	10	v2+
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to Section 12.17 for a list of acceptable utilization commercial product Public Announced values.	No	String	3	v2+

Table 9-2: utilizationRequest JSON Attributes

9.1.3 Response Parameters

This section contains examples of the different responses based on the HTTP Status Code.

Example of HTTP Status 200 (OK) Response

The Create Utilization API endpoint returns the **utilizationResponse** data object that contains the attributes described in **Section 9.4**.

9.1.4 Request and Response Examples

This section contains examples of the request and response for creating a utilization report.

Example of utilizationRequest JSON Object

```
{
  "inventionReportNumber": "8046501-22-0004",
  "reportingYear": 2023,
  "latestStageDev": "Commercialized",
  "firstCommercialSaleYear": 2023,
  "totalIncome": 50000.0,
```

```
"exclusiveLicensesOptions": 2,  
"nonExclusiveLicensesOptions": 2,  
"smallBusinessLicensesOptions": 10,  
"isUSManufacturingRequired1": "Y",  
"isUSManufacturingRequired2": "N",  
"isUSManufacturingRequired3": "Y",  
"notes": "new utilization notes",  
"exclusiveLicensees": [  
  "John Wick",  
  "Peter Griffin"  
],  
"nonExclusiveLicensees": [  
  "John Wick",  
  "James Doe"  
],  
"newUsJobs": 100,  
"newUsCompanies": 500,  
"manufacturingCommProds": [  
  {  
    "productName": "widgets",  
    "naicsCode": "ABC123",  
    "licensees": [  
      {  
        "licenseeName": "John Wick",  
        "manufacturers": [  
          {  
            "manufacturerName": "Intel",  
            "productLocation": [  
              {  
                "country": "CHINA"  
              },  
              {  
                "state": "MARYLAND",  
                "country": "UNITED STATES"  
              }  
            ]  
          },  
          {  
            "manufacturerName": "IBM",  
            "productLocation": [  
              {  
                "state": "FLORIDA",  
                "country": "UNITED STATES"  
              }  
            ]  
          }  
        ]  
      }  
    ]  
  }  
]
```

```
]
},
{
  "licenseeName": "James Doe",
  "manufacturers": [
    {
      "manufacturerName": "IBM",
      "productLocation": [
        {
          "state": "MARYLAND",
          "country": "UNITED STATES"
        }
      ]
    }
  ]
}
]
},
{
  "productName": "gadgets",
  "licensees": [
    {
      "licenseeName": "STANFORD UNIVERSITY",
      "manufacturers": [
        {
          "manufacturerName": "Google",
          "productLocation": [
            {
              "state": "COLORADO",
              "country": "UNITED STATES"
            }
          ]
        }
      ]
    }
  ]
},
{
  "licenseeName": "John Wick",
  "manufacturers": [
    {
      "manufacturerName": "Apple",
      "productLocation": [
        {
          "state": "TEXAS",
          "country": "UNITED STATES"
        }
      ]
    }
  ]
}
```



```
    }  
  ]  
}  
],  
"commercialProds": [  
  {  
    "commercialName": "nih prods",  
    "fdaApprovalNumber": "1234",  
    "publicInd": "Yes",  
    "govtReviewStatus": "Approved",  
    "fdaApprovalType": "Medical Device"  
  }  
]  
} ]  
}
```

Example of HTTP Status 200 (OK) Response

```
{  
  "inventionReportNumber": "8046501-22-0004",  
  "granteeOrganizationName": "STANFORD UNIVERSITY",  
  "inventionTitle": "Multiplexed in vivo DNA parsing and stitching",  
  "primaryAgency": "National Institutes of Health",  
  "inventionReportDate": "01/30/2022",  
  "titleElectDate": "01/30/2022",  
  "reportingYear": 2023,  
  "latestStageDev": "Commercialized",  
  "firstCommercialSaleYear": 2023,  
  "totalIncome": 50000.0,  
  "exclusiveLicensesOptions": 2,  
  "nonExclusiveLicensesOptions": 2,  
  "smallBusinessLicensesOptions": 10,  
  "totalGrossSales": 0.0,  
  "isUSManufacturingRequired1": "Y",  
  "isUSManufacturingRequired2": "N",  
  "isUSManufacturingRequired3": "Y",  
  "notes": "new utilization notes",  
  "exclusiveLicensees": [  
    "John Wick",  
    "Peter Griffin"  
  ],  
  "nonExclusiveLicensees": [  
    "John Wick",  
    "James Doe"  
  ]  
}
```

```
],
"newUsJobs": 100,
"newUsCompanies": 500,
"manufacturingCommProds": [
  {
    "productName": "widgets",
    "naicsCode": "ABC123",
    "licensees": [
      {
        "licenseeName": "James Doe",
        "manufacturers": [
          {
            "manufacturerName": "IBM",
            "productLocation": [
              {
                "state": "MARYLAND",
                "country": "UNITED STATES"
              }
            ]
          }
        ]
      }
    ]
  },
  {
    "licenseeName": "John Wick",
    "manufacturers": [
      {
        "manufacturerName": "Intel",
        "productLocation": [
          {
            "state": "",
            "country": "CHINA"
          },
          {
            "state": "MARYLAND",
            "country": "UNITED STATES"
          }
        ]
      }
    ]
  },
  {
    "manufacturerName": "IBM",
    "productLocation": [
      {
        "state": "FLORIDA",
        "country": "UNITED STATES"
      }
    ]
  }
]
```

```
    }
  ]
}
],
{
  "productName": "gadgets",
  "licensees": [
    {
      "licenseeName": "John Wick",
      "manufacturers": [
        {
          "manufacturerName": "Apple",
          "productLocation": [
            {
              "state": "TEXAS",
              "country": "UNITED STATES"
            }
          ]
        }
      ]
    }
  ],
  {
    "licenseeName": "STANFORD UNIVERSITY",
    "manufacturers": [
      {
        "manufacturerName": "Google",
        "productLocation": [
          {
            "state": "COLORADO",
            "country": "UNITED STATES"
          }
        ]
      }
    ]
  }
],
"commercialProds": [
  {
    "commercialName": "nih prods",
    "fdaApprovalNumber": "1234",
    "publicInd": "Yes",
    "govtReviewStatus": "Approved",
    "fdaApprovalType": "Medical Device"
  }
]
```

```
    }  
  ],  
  "createdDate": "08/11/2023"  
}
```

Example of HTTP Status 400 (Bad Request) or 500 (Internal Server Error) Response

```
{  
  "responseCode": 400,  
  "message": "Invalid form-data content",  
  "errors": [  
    {  
      "code": "400",  
      "field": "reportingYear",  
      "message": "Reporting Year (YYYY) * value is required."  
    }  
  ]  
}
```

Example of HTTP Status 400 (Bad Request) or 500 (Internal Server Error) Response

```
{  
  "message": "Access Denied",  
  "timestamp": "2022-06-10T09:58:10.534055700"  
}
```

9.2 Update Utilization v2

The Update Utilization API allows organization/agency to add a new utilization to an invention for utilization reporting fiscal year for both legacy questions prior 2023 and new questions for 2023 and beyond.

Note: Update Utilization version 1 (v1) will no longer be supported. Update your system to incorporate the following changes are in version 2 (v2):

- Attribute 'commercialProds' can only be used for utilization with fiscal year prior 2023.
- Attribute 'manufacturingCommProds' is used for both fiscal year prior 2023 and 2023 and beyond.
- Attributes 'exclusiveLicensees', 'nonExclusiveLicensees', 'isUSManufacturingRequired1', 'isUSManufacturingRequired2', 'isUSManufacturingRequired3', and 'notes' are added to collect data for new questions in utilizations with fiscal year 2023 and beyond.

9.2.1 Endpoint URI

This is an example of the endpoint for the Update Utilization resource.

POST	/iedison/api/v2/utilizations/update
-------------	-------------------------------------

9.2.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides a description of the Update Utilization POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Required	Data Type	Version	In
accept	Setting to application/JSON.	Yes	String	v1+	header
utilizationRequest	The utilization request JSON content in string format contains the utilization attributes. Refer to Table 9-4 for the list of attributes.	Yes	String	v2	raw

Table 9-3: Update Utilization Request Parameters

The table below shows the parameters that will be included in the JSON body during the processing of Update Utilization Request. The parameters are included as JSON object in JSON body. The JSON object represents the metadata of the Patent that needs to be updated.

The table below lists the attributes that will be included in the **utilizationRequest** parameter when creating an invention request. The attributes are included in the JSON object as part of the **utilizationRequest** form-data text element.

JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	The Invention Report number the Utilization Report is associated with.	Yes	String	25	v2
reportingYear	The year for which the Utilization Report is being submitted.	Yes	Integer		v2
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 12.1 for a list of latest valid values.	Yes	String	30	v2
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale).	Yes (Conditionally)	Integer		v2

JSON Attribute Name	Description	Required	Data Type	Length	Version
	This is required when latestStageDev has a value of "Commercialized" or "Licensed".				
totalIncome	Total income from royalty or option agreements for the Invention. This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Condition ally)	Number (float)		v2
exclusiveLicensesOptions	Number of exclusive licenses/option agreements for the Invention. In the designated reporting period, how many exclusive licenses and/or options are active? This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Condition ally)	Integer		v2
nonExclusiveLicensesOptions	Number of non-exclusive licenses/option agreements for the Invention. In the designated reporting period, how many non-exclusive licenses and/or options are active? This is required when latestStageDev has a value of "Commercialized" or "Licensed".	Yes (Condition ally)	Integer		v2
smallBusinessLicensesOptions	Number of small business licenses/option agreements for the Invention. How many licenses and/or options of any type to small businesses (<500 employees) are active in the designated reporting period?	Yes (Condition ally)	Integer		v2

JSON Attribute Name	Description	Required	Data Type	Length	Version
	This is required when latestStageDev has a value of "Commercialized" or "Licensed".				
IsUSManufacturingRequired 1	<p>Other than U.S. Preference (35 U.S.C. 204), is the invention subject to any U.S. manufacturing requirements (e.g., U.S. Competitiveness provision, a U.S. Manufacturing DEC, etc.)?</p> <p>Accepted values are N (for No) and Y (for Yes).</p> <p>This is required when latestStageDev has a value of "Commercialized" or "Licensed".</p>	Yes (Conditionally)	String	1	v2
IsUSManufacturingRequired 2	<p>1. If IsUSManufacturingRequired1 is N: In the designated reporting period do all grants to any person of the exclusive right to use or sell the subject invention in the United States require that any products embodying the subject invention or produced using the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204?</p> <p>2. If IsUSManufacturingRequired1 is Y: In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced using the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)?</p> <p>If latestStageDev is "Commercialized" or "Licensed" and</p>	Yes (Conditionally)	String	3	v2

JSON Attribute Name	Description	Required	Data Type	Length	Version
	<p>isUSManufacturingRequired1 is “Y”, accepted value for this attribute can be “N” (for No), or “Y” (for Yes).</p> <p>If latestStageDev is “Commercialized” or “Licensed” and isUSManufacturingRequired1 is “N”, accepted value for this attribute can be “N” (for No), or “Y” (for Yes), or “N/A” (for Not Applicable).</p> <p>See Sections 12.21 and 12.22 for the questions logic.</p>				
IsUSManufacturingRequired3	<p>1. If IsUSManufacturingRequired2 is N: In the designated reporting period are all products embodying the subject invention or produced using the subject invention manufactured substantially in the United States for all grants to any person of the exclusive right to use or sell the subject invention in the United States as required by 35 U.S.C. 204?</p> <p>2. If IsUSManufacturingRequired2 is Y: In the designated reporting period, are all products embodying the subject invention or produced using the subject invention manufactured substantially in the United States(including manufacturing requirements other than 35 U.S.C. 204)?</p> <p>If latestStageDev is “Commercialized” or “Licensed” and isUSManufacturingRequired1 is “Y”, accepted value for this attribute can be “N” (for No), or “Y” (for Yes).</p>	Yes (Conditionally)	String	3	v2

JSON Attribute Name	Description	Required	Data Type	Length	Version
	<p>If latestStageDev is “Commercialized” or “Licensed” and isUSManufacturingRequired1 is “N”, accepted value for this attribute can be “N” (for No), or “Y” (for Yes), or “N/A” (for Not Applicable).</p> <p>See Sections 12.21 and 12.22 for the questions logic.</p>				
notes	<p>General notes</p> <p>This is required when commercializationPlanId has a value of 3 or 6.</p>	Yes (Conditionally)	String	1000	v2
commercializationPlanId	<p>The commercialization plan for the invention.</p> <p>What are your current commercialization plans for this invention?</p> <p>This is required when latestStageDev has a value of “Not Licensed or Commercialized”.</p> <p>Refer to Section 12.20 for a list of valid values.</p>	Yes (Conditionally)	Number		v2
exclusiveLicensees	<p>The exclusive licensee names for the invention.</p> <p>This is required when exclusiveLicensesOptions has a value greater than 0.</p>	Yes (Conditionally)	Array [String]		v2
nonExclusiveLicensees	<p>The non-exclusive licensee names for the invention.</p> <p>This is required when nonExclusiveLicensesOptions has a value greater than 0.</p>	Yes (Conditionally)	Array [String]		v2
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period. For DOE Invention only.	No	Integer		v2
newUsCompanies	Number of new U.S.-based companies created from the	No	Integer		v2

JSON Attribute Name	Description	Required	Data Type	Length	Version
	commercialization efforts during the reporting period. For DOE Invention only.				
manufacturingCommProds	The manufacturing commercial products made using or Embodying the Subject Invention(s). Object attributes below.	No	Array [JSON Object]		v2
productName	The unique commercial product name.	Yes	String	100	v2
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments. For DOE invention only.	No	String	6	v2
licensees	The licensees associated with the manufacturing commercial product.	No	Array [JSON Object]		v2
licenseeName	The name of the licensee. The name must come from the exclusiveLicensees list, the nonExclusiveLicensees list, or the institution name can be used if the institution itself is the licensee.	Yes	String	255	v2
manufacturers	The manufacturers for the licensee associated with the manufacturing commercial product.	Yes	Array [JSON Object]		v2
manufacturerName	The name of the manufacturer	Yes	String	255	v2
productLocation	The manufacturing production location(s) for a manufacturer in the licensee. Object attributes below.	Yes	Array [JSON Object]		v2
country	The manufacturing country for the productLocation. Refer to Section 12.9 for a list of valid values.	No	String	30	v2
state	The manufacturing state for the location for applicable country. Refer to Section 12.10 for a list of valid values.	No	String	14	v2
firstDate	The first date of manufacturing. This is required when DOE is one of the funding agencies for	Yes (Conditionally)	String	10	v2

JSON Attribute Name	Description	Required	Data Type	Length	Version
	the Invention Report this utilization is associated with. <ul style="list-style-type: none"> Format: MM/DD/YYYY 				
firstDateType	The type for the first date of manufacturing at the productLocation. Please refer to Section 12.18 for a list of valid values. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.	Yes (Conditionally)	String	8	v2
productQuantity	The total number of products at the manufacturing productLocation. This is required when DOE is one of the funding agencies for the Invention Report this utilization is associated with.	Yes (Conditionally)	Integer		v2
commercialProds	FDA Approved Commercial products.	No	Array [JSON Object]		v2
commercialName	The name of the FDA approved commercial product.	Yes	String	80	v2
fdaApprovalNumber	The number of the FDA approved commercial product.	No	String	20	v2
fdaApprovalType	The type of the FDA approved commercial product. Please refer to Section 12.15 for a list of acceptable utilization Commercial Product Type values.	No	String	15	v2
govtReviewStatus	The status of the FDA approved commercial product. Please refer to Section 12.16 for a list of acceptable utilization Government Review Status values.	No	String	10	v2
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to Section 12.17 for a list of utilization commercial product Public Announced values.	No	String	3	v2

Table 9-4: utilizationRequest JSON Attributes

9.2.3 Response Parameters

Example of HTTP Status 200 (OK) Response

The Update Utilization API endpoint returns the **utilizationResponse** data object that contains the attributes described in **Section 9.4**

9.2.4 Request and Response Examples

This section contains examples of the request and response for updating a utilization report.

Example of utilizationRequest JSON Object

```
{
  "inventionReportNumber": "8046501-22-0004",
  "reportingYear": 2023,
  "latestStageDev": "Commercialized",
  "firstCommercialSaleYear": 2023,
  "totalIncome": 50000.0,
  "exclusiveLicensesOptions": 2,
  "nonExclusiveLicensesOptions": 2,
  "smallBusinessLicensesOptions": 10,
  "isUSManufacturingRequired1": "Y",
  "isUSManufacturingRequired2": "N",
  "isUSManufacturingRequired3": "Y",
  "notes": "new utilization notes",
  "exclusiveLicensees": [
    "John Wick",
    "Peter Griffin"
  ],
  "nonExclusiveLicensees": [
    "John Wick",
    "James Doe"
  ],
  "newUsJobs": 100,
  "newUsCompanies": 500,
  "manufacturingCommProds": [
    {
      "productName": "motherboards",
      "naicsCode": "ABC123",
      "licensees": [
        {
          "licenseeName": "John Wick",
          "manufacturers": [
            {
```

```
        "manufacturerName": "Intel",
        "productLocation": [
            {
                "country": "CHINA"
            },
            {
                "state": "MARYLAND",
                "country": "UNITED STATES"
            }
        ]
    },
    {
        "manufacturerName": "IBM",
        "productLocation": [
            {
                "state": "FLORIDA",
                "country": "UNITED STATES"
            }
        ]
    }
]
},
{
    "licenseeName": "James Doe",
    "manufacturers": [
        {
            "manufacturerName": "IBM",
            "productLocation": [
                {
                    "state": "MARYLAND",
                    "country": "UNITED STATES"
                }
            ]
        }
    ]
}
]
},
{
    "productName": "gadgets",
    "licensees": [
        {
            "licenseeName": "STANFORD UNIVERSITY",
            "manufacturers": [
                {
                    "manufacturerName": "Google",
```

```
        "productLocation": [
          {
            "state": "COLORADO",
            "country": "UNITED STATES"
          }
        ]
      },
      {
        "licenseeName": "John Wick",
        "manufacturers": [
          {
            "manufacturerName": "Apple",
            "productLocation": [
              {
                "state": "TEXAS",
                "country": "UNITED STATES"
              }
            ]
          }
        ]
      }
    ],
    "commercialProds": [
      {
        "commercialName": "nih prods",
        "fdaApprovalNumber": "431",
        "publicInd": "Yes",
        "govtReviewStatus": "Pending",
        "fdaApprovalType": "Biologic"
      }
    ]
  }
}
```

Example of HTTP Status 200 (OK) Response

```
{
  "inventionReportNumber": "8046501-22-0004",
  "granteeOrganizationName": "STANFORD UNIVERSITY",
  "inventionTitle": "Multiplexed in vivo DNA parsing and stitching",
  "primaryAgency": "National Institutes of Health",
  "inventionReportDate": "01/30/2022",
  "titleElectDate": "01/30/2022",
}
```

```
"reportingYear": 2023,
"latestStageDev": "Commercialized",
"firstCommercialSaleYear": 2023,
"totalIncome": 50000.0,
"exclusiveLicensesOptions": 2,
"nonExclusiveLicensesOptions": 2,
"smallBusinessLicensesOptions": 10,
"totalGrossSales": 0.0,
"isUSManufacturingRequired1": "Y",
"isUSManufacturingRequired2": "N",
"isUSManufacturingRequired3": "Y",
"notes": "new utilization notes",
"exclusiveLicensees": [
  "John Wick",
  "Peter Griffin"
],
"nonExclusiveLicensees": [
  "John Wick",
  "James Doe"
],
"newUsJobs": 100,
"newUsCompanies": 500,
"manufacturingCommProds": [
  {
    "productName": "motherboards",
    "naicsCode": "ABC123",
    "licensees": [
      {
        "licenseeName": "James Doe",
        "manufacturers": [
          {
            "manufacturerName": "IBM",
            "productLocation": [
              {
                "state": "MARYLAND",
                "country": "UNITED STATES"
              }
            ]
          }
        ]
      }
    ]
  },
  {
    "licenseeName": "John Wick",
    "manufacturers": [
      {
        "manufacturerName": "Intel",
```

```
        "productLocation": [
          {
            "state": "",
            "country": "CHINA"
          },
          {
            "state": "MARYLAND",
            "country": "UNITED STATES"
          }
        ],
        {
          "manufacturerName": "IBM",
          "productLocation": [
            {
              "state": "FLORIDA",
              "country": "UNITED STATES"
            }
          ]
        }
      ]
    }
  ],
  {
    "productName": "gadgets",
    "licensees": [
      {
        "licenseeName": "STANFORD UNIVERSITY",
        "manufacturers": [
          {
            "manufacturerName": "Google",
            "productLocation": [
              {
                "state": "COLORADO",
                "country": "UNITED STATES"
              }
            ]
          }
        ]
      }
    ],
    {
      "licenseeName": "John Wick",
      "manufacturers": [
        {
          "manufacturerName": "Apple",
```



```
        "productLocation": [
          {
            "state": "TEXAS",
            "country": "UNITED STATES"
          }
        ]
      }
    ]
  },
  "commercialProds": [
    {
      "commercialName": "nih prods",
      "fdaApprovalNumber": "431",
      "publicInd": "Yes",
      "govtReviewStatus": "Pending",
      "fdaApprovalType": "Biologic"
    }
  ],
  "createdDate": "08/11/2023",
  "lastUpdatedDate": "08/11/2023"
}
```

Example of HTTP Status 400 (Bad Request) or 500 (Internal Server Error) Response

```
{
  "responseCode": 400,
  "message": "Invalid form-data content",
  "errors": [
    {
      "code": "400",
      "field": "reportingYear",
      "message": "Reporting Year (YYYY) * value is required."
    }
  ]
}
```

Example of HTTP Status 401 (Unauthorized) Response

```
{
  "message": "Access Denied",
  "timestamp": "2022-06-10T09:58:10.534055700"
}
```

9.3 Search Utilization v2

The search conditions for the Utilization Search are based on an “AND” operation with different Utilization fields in the JSON Request.

For Example, If the utilization search has a has Invention Report Number and Invention Report Year, the search results include all the searches that matches Invention Report Number and Invention Report Year.

Note: Search Utilization, Version 1 (v1) will no longer be supported. Updating your system to incorporate the following changes are in version 2 (v2):

- Attribute ‘commercialProds’ can only be used for utilization with fiscal year prior 2023.
- Attribute ‘manufacturingCommProds’ is used for both fiscal year prior 2023 and 2023 and beyond.
- Attributes ‘exclusiveLicensees’, ‘nonExclusiveLicensees’, ‘isUSManufacturingRequired1’, ‘isUSManufacturingRequired2’, ‘isUSManufacturingRequired3’, and ‘notes’ are added to collect data for new questions in utilizations with fiscal year 2023 and beyond.

9.3.1 Endpoint URI

This is an example of the v2 endpoint for the Search Utilization resource.

POST	/iedison/api/v2/utilizations/search
-------------	-------------------------------------

9.3.2 Request Parameters

The API POST request has the following elements:

- Headers: These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- Body: The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the Search Utilization POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Data Type	Version	In
accept	Setting to application/JSON.	String	v2	header
utilizationSearchCriteria	The search utilization criteria filters in JSON String format.	String	v2	raw

Table 9-5: Search Utilization Request Parameters

The table below shows the parameters that will be included in the JSON body only one time during the processing of Search Utilization Request.

The table below lists the attributes that will be included in the **utilizationSearchCriteria** parameter when creating an invention request. The attributes are included in the JSON object as part of the **utilizationSearchCriteria** form-data text element.

JSON Attribute Name	Description	Data Type	Length	Version
limit	Total number of records to be retrieved per page. This field must be a number. <ul style="list-style-type: none"> Max Value = 100 Default = 20 	Integer		v2
offset	Indicates the page index. <ul style="list-style-type: none"> Default = 0 	Integer		v2
inventionReportNumber	The Invention Report Number filter to search for utilization.	String	25	v2
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	String	30	v2
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	String	50	v2
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 12.1 for a list of latest valid values.	String	30	v2
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Click here for a list of valid abbreviations.	String	50	v2
granteeOrganizationName	The name of the organization established at registration.	String	100	v2
titleElectionStatus	The Title Election Status the institution's decision regarding the election of title for this Invention. Refer to Section 12.11 for a list of valid values.	Array [String]	50	v2
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	255	v2
inventionReportDateFrom	The From Date that the inventor disclosed the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	String	10	v2
inventionReportDateTo	The To Date that the inventor disclosed the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	String	10	v2

JSON Attribute Name	Description	Data Type	Length	Version
fiscalYear	The year for which the Utilization Report is being submitted.	Int	50	v2
commercialProductName	The name of the product that was developed.	String	80	v2
fdaApprovalNumber	FDA Approval Number	String	20	v2
fdaReportType	FDA Report Type			v2
lastUpdatedFrom	The 'start from' search date against the utilization last updated date. • Format: MM/DD/YYYY	String	10	v2
lastUpdatedTo	The 'up to' search date against the utilization last updated date. • Format: MM/DD/YYYY	String	10	v2

Table 9-6: utilizationSearchCriteria JSON Attributes

9.3.3 Response Parameters

Based on request parameters, Search Utilization provides the below response parameters.

Response Parameter	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v2
limit	Limit entered by the user while making the request, i.e., the total number of records the user wished to retrieve per page	Integer	v2
offset	Page index specified by the user. • Default offset starts with 0 if user does not provide any offset in the request.	Integer	v2
utilizations	A list of utilizations which contains the UtilizationResponse data object data object are described in Section 9.4.	Array [JSON Object]	v2

Table 9-7: utilizationSearchCriteria JSON Attributes

9.3.4 Request and Response Examples

This section contains examples of the request and response for searching for a utilization report.

Example of Search by inventionTitle and fiscalYear Request

```
{
  "inventionTitle": "Free-space time-domain method for measuring thin film dielectric properties",
  "fiscalYear": 2001
}
```

Example of Search by Grant/Contract Number Request

```
{
```

```
"grantContractNumber": "SB222222B2222"  
}
```

Example of HTTP Status 200 (OK) Response

```
{  
  "utilizations": [  
    {  
      "inventionReportNumber": "8046501-22-0004",  
      "granteeOrganizationName": "STANFORD UNIVERSITY",  
      "inventionTitle": "Multiplexed in vivo DNA parsing and stitching",  
      "primaryAgency": "National Institutes of Health",  
      "inventionReportDate": "01/30/2022",  
      "titleElectDate": "01/30/2022",  
      "reportingYear": 2023,  
      "latestStageDev": "Commercialized",  
      "firstCommercialSaleYear": 2023,  
      "totalIncome": 50000.0,  
      "exclusiveLicensesOptions": 2,  
      "nonExclusiveLicensesOptions": 2,  
      "smallBusinessLicensesOptions": 10,  
      "totalGrossSales": 0.0,  
      "isUSManufacturingRequired1": "Y",  
      "isUSManufacturingRequired2": "N",  
      "isUSManufacturingRequired3": "Y",  
      "notes": "new utilization notes",  
      "exclusiveLicensees": [  
        "John Wick",  
        "Peter Griffin"  
      ],  
      "nonExclusiveLicensees": [  
        "James Doe",  
        "John Wick"  
      ],  
      "newUsJobs": 100,  
      "newUsCompanies": 500,  
      "manufacturingCommProds": [  
        {  
          "productName": "gadgets",  
          "licensees": [  
            {  
              "licenseeName": "STANFORD UNIVERSITY",  
              "manufacturers": [  
                {  
                  "manufacturerName": "Google",
```

```
        "productLocation": [
          {
            "state": "COLORADO",
            "country": "UNITED STATES"
          }
        ]
      },
      {
        "licenseeName": "John Wick",
        "manufacturers": [
          {
            "manufacturerName": "Apple",
            "productLocation": [
              {
                "state": "TEXAS",
                "country": "UNITED STATES"
              }
            ]
          }
        ]
      }
    ],
    },
    {
      "productName": "motherboards",
      "naicsCode": "ABC123",
      "licensees": [
        {
          "licenseeName": "James Doe",
          "manufacturers": [
            {
              "manufacturerName": "IBM",
              "productLocation": [
                {
                  "state": "MARYLAND",
                  "country": "UNITED STATES"
                }
              ]
            }
          ]
        }
      ]
    },
    {
      "licenseeName": "John Wick",
      "manufacturers": [
```

```
{
  {
    "manufacturerName": "Intel",
    "productLocation": [
      {
        "state": "MARYLAND",
        "country": "UNITED STATES"
      },
      {
        "state": "",
        "country": "CHINA"
      }
    ]
  },
  {
    "manufacturerName": "IBM",
    "productLocation": [
      {
        "state": "FLORIDA",
        "country": "UNITED STATES"
      }
    ]
  }
]
}
],
"commercialProds": [
  {
    "commercialName": "nih prods",
    "fdaApprovalNumber": "431",
    "publicInd": "Yes",
    "govtReviewStatus": "Pending",
    "fdaApprovalType": "Biologic"
  }
],
"createdDate": "08/11/2023",
"lastUpdatedDate": "08/11/2023"
}
],
"totalRecords": 1,
"limit": 100,
"offset": 0
}
```

Example of HTTP Status 400 (Bad Request) or 500 (Internal Server Error) Response

```
{
  "responseCode": 400,
  "message": "Invalid form-data content",
  "errors": [
    {
      "code": "400",
      "field": "utilizationSearchCriteria",
      "message": "There in one of more JSON field not 88ilen: 'fiscaldaYear'. Please verify the Rest parameters and submit request again."
    }
  ]
}
```

Example of HTTP 401 (Unauthorized) Response

```
{
  "message": "Access Denied",
  "timestamp": "2022-06-10T09:58:10.534055700"
}
```

9.4 utilizationResponse Data Object

The create, update, and search Utilization API shares the same **utilizationResponse** data object. The JSON attributes are described in the table below.

JSON Attribute Name	Description	Data Type	Version
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	String	v2+
granteeOrganizationName	The name of the organization established at registration.	String	v2+
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	String	v2+
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Click here for a list of valid abbreviations.	String	v2+
inventionReportDate	The date the inventor discloses the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	String	v2+
titleElectDate	The Invention Elect Title Date.	String	v2+
reportingYear	The year for which the Utilization Report is being submitted.	Integer	v2+

JSON Attribute Name	Description	Data Type	Version
latestStageDev	The latest stage of development of any product arising from this Invention. Refer to Section 12.1 for a list of latest valid values.	String	v2+
firstCommercialSaleYear	Year product embodying the Invention was first sold (date of first commercial sale).	Integer	v2+
totalIncome	Total income from royalty or option agreements for the Invention.	Integer	v2+
exclusiveLicensesOptions	Number of exclusive licenses/option agreements for the Invention.	Integer	v2+
nonExclusiveLicensesOptions	Number of non-exclusive licenses/option agreements for the Invention.	Integer	v2+
smallBusinessLicensesOptions	Number of small business licenses/option agreements for the Invention.	Integer	v2+
IsUSManufacturingRequired1	Other than U.S. Preference (35 U.S.C. 204), is the invention subject to any U.S. manufacturing requirements (e.g., U.S. Competitiveness provision, a U.S. Manufacturing DEC, etc.)? <ul style="list-style-type: none"> N = No Y = Yes 	String	v2+
IsUSManufacturingRequired2	1. If IsUSManufacturingRequired1 is N: In the designated reporting period do all grants to any person of the exclusive right to use or sell the subject invention in the United States require that any products embodying the subject invention or produced using the subject invention will be manufactured substantially in the United States as required by 35 U.S.C. 204? 2. If IsUSManufacturingRequired1 is Y: In the designated reporting period, do all licenses include a requirement that any products embodying the subject invention or produced using the subject invention will be manufactured substantially in the United States (including manufacturing requirements other than 35 U.S.C. 204)? If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "Y", the value for this attribute can be "N" (for No), or "Y" (for Yes). If latestStageDev is "Commercialized" or "Licensed" and isUSManufacturingRequired1 is "N", the	String	v2+

JSON Attribute Name	Description	Data Type	Version
	<p>value for this attribute can be “N” (for No), or “Y” (for Yes), or “N/A” (for Not Applicable).</p> <p>See Sections 12.21 and 12.22 for the questions logic.</p>		
IsUSManufacturingRequired3	<p>1. If IsUSManufacturingRequired2 is N: In the designated reporting period are all products embodying the subject invention or produced using the subject invention manufactured substantially in the United States for all grants to any person of the exclusive right to use or sell the subject invention in the United States as required by 35 U.S.C. 204?</p> <p>2. If IsUSManufacturingRequired2 is Y: In the designated reporting period, are all products embodying the subject invention or produced using the subject invention manufactured substantially in the United States(including manufacturing requirements other than 35 U.S.C. 204)?</p> <p>If latestStageDev is “Commercialized” or “Licensed” and isUSManufacturingRequired1 is “Y”, the value for this attribute can be “N” (for No), or “Y” (for Yes).</p> <p>If latestStageDev is “Commercialized” or “Licensed” and isUSManufacturingRequired1 is “N”, the value for this attribute can be “N” (for No), or “Y” (for Yes), or “N/A” (for Not Applicable).</p> <p>See Sections 12.21 and 12.22 for the questions logic.</p>	String	v2+
notes	General notes	String	v2+
commercializationPlanId	<p>The commercialization plan for the invention.</p> <p>What are your current commercialization plans for this invention?</p> <p>Refer to Section 12.20 for a list of valid commercialization plans.</p>	Number	v2+

JSON Attribute Name	Description	Data Type	Version
exclusiveLicensees	The exclusive licensee names for the invention.	Array [String]	v2+
nonExclusiveLicensees	The non-exclusive licensee names for the invention.	Array [String]	v2+
newUsJobs	Approximate number of new U.S.-based jobs created because of commercialization efforts during the reporting period. For DOE Invention only.	Integer	v2+
newUsCompanies	Number of new U.S.-based companies created from the commercialization efforts during the reporting period. For DOE Invention only.	Integer	v2+
manufacturingCommProds	The manufacturing commercial products made using or Embodying the Subject Invention(s). Object attributes below.	Array [JSON Object]	v2+
productName	The unique commercial product name.	String	v2+
naicsCode	The North American Industry Classification System (NAICS) code is used by Federal agencies in classifying business establishments. For DOE inventions only.	String	v2+
licensees	The licensees associated with the product.	Array [JSON Object]	v2+
licenseeName	The name of the licensee. The name must come from the exclusiveLicensees list, the nonExclusiveLicensees list, or the institution name can be used if the institution itself is the licensee.	String	v2+
manufacturers	The manufacturers for the manufacturing commercial product.	Array [JSON Object]	v2+
manufacturerName	The name of the manufacturer	String	v2+
productLocation	The manufacturing production location(s). Object attributes below.	Array [JSON Object]	v2+
country	The manufacturing country for the location. Refer to Section 12.9 for a list of valid values.	String	v2+
state	The manufacturing state for the location for applicable country. Refer to Section 12.10 for a list of valid values.	String	v2+
firstDate	The first date of manufacturing. • Format: MM/DD/YYYY	String	v2+
firstDateType	The type for the first date of manufacturing. Please refer to Section 12.18 for a list of valid values.	String	v2+
productQuantity	The total number of products at the manufacturing location.	Integer	v2+
commercialProds	FDA Approved Commercial products. Object Attributes are below.	Array [JSON Object]	v2+
commercialName	The name of the FDA approved commercial product.	String	v2+

JSON Attribute Name	Description	Data Type	Version
fdaApprovalNumber	The number of the FDA approved commercial product.	String	v2+
fdaApprovalType	The type of the FDA approved commercial product. Please refer to Section 12.15 for a list of acceptable utilization Commercial Product Type values.	String	v2+
govtReviewStatus	The status of the FDA approved commercial product. Please refer to Section 12.16 for a list of acceptable utilization Government Review Status values.	String	v2+
publicInd	The public announced indicator flag of the FDA approved commercial product. Please refer to Section 12.17 for a list of acceptable utilization commercial product Public Announced values.	String	v2+
createdDate	The date the utilization record was created.	String	v2+
updatedDate	The date the utilization record was last updated.	String	v2+

Table 9-8: utilizationResponse Data Object JSON Attributes

10 Document API Reference

The document APIs provide ways to search for a list of disclosure document, Confirmatory License, Government Support Clause, and others document type from the Inventions and Patents; or download a specific document.

10.1 Search Document

Search condition for documents is the combination of attributes of the **searchDocumentCriteria** JSON object. The system will only return documents that are granted access permission to the user's organization.

10.1.1 Endpoint URI

This is an example of the endpoint for the Search Documents resource.

POST	/iedison/api/v1/documents/search
-------------	----------------------------------

10.1.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the Search Document POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Required	Data Type	Version	In
accept	Setting to application/JSON.	Yes	String	v1	header
documentSearchCriteria	The documentSearchCriteria JSON objects containing fields to be used in the search. See the table below.	Yes	String	v1	form-data

Table 10-1: Search Document Request Parameters

The table below lists the attributes that will be included in the **searchDocumentCriteria** parameter when searching for a document. The attributes are included in the JSON object as part of the **searchDocumentCriteria** form-data text element.

Request Parameter	Description	Required	Data Type	Length	Version
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	No	String	100	v1
inventionDocketNumber	An internal reference number of the grantee/contractor organization to help track a reported Invention(s).	No	String	30	v1
patentDocketNumber	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1
primaryAgency	A Primary Agency must be designated for each Invention Report in iEdison. Click here for a list of valid abbreviations.	No	String	30	v1
granteeOrganizationName	The name of the organization established at registration.	No	String	100	v1
titleElectionStatus	The status of the title to rights in the reported Invention. Refer to Section 12.11 for a list of valid values.	No	String	80	v1
inventionTitle	The title of the Invention as it appears in the grantee/contractors employee's Invention Report.	No	String	255	v1
inventionReportDateFrom	The From Date that the inventor disclosed in the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1

Request Parameter	Description	Required	Data Type	Length	Version
inventionReportDateTo	The To Date that the inventor disclosed in the subject Invention in writing to the recipient institution. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1
patentFilingDateFrom	The 'starting from' search date against the PCT, Provisional, Non-Provisional Patent application filing date. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1
patentFilingDateTo	The 'up to' search date against the PCT, Provisional, Non-Provisional Patent application filing date. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1
patentApplicationType	Patent Application Type of a record. Refer to Section 12.3 for a list of valid values.	No	String	25	v1
patentStatus	Used to identify the status of a Patent. Refer to Section 12.7 for a list of valid values.	No	String	50	v1
patentTitle	The exact title of the U.S. Patent or Patent application as submitted by the Institution to iEdison or to the USPTO.	No	String	50	v1
grantContractNumber	The grant or contract number as specified by the agency. The format is defined by the agency.	No	String	50	v1
inventorFirstName	First name of the inventor.	No	String	50	v1
inventorLastName	Last name of the inventor.	No	String	50	v1
lastUpdatedFrom	Search the "From Date" of the document last updated date. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1
lastUpdatedTo	Search the "To Date" of the document last updated date. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1
lastUpdatedDate	Document last updated date. <ul style="list-style-type: none"> Format: MM/DD/YYYY 	No	String	10	v1
limit	Total number of records to be retrieved per page. This field must be a number.	No	Integer		v1

Request Parameter	Description	Required	Data Type	Length	Version
	<ul style="list-style-type: none"> Max Value = 100 Default = 20 				
offset	Indicates the page index. <ul style="list-style-type: none"> Default offset starts with 0. 	No	Integer		v1

Table 10-2: searchDocumentCriteria JSON Attributes

10.1.3 Response Parameters

This section contains response examples for searching for documents.

Attributes in the HTTP Status 200 (OK) Response

JSON Attribute Name	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v1
documentsList	A list of document response Objects. Refer to Table 10-4 for a list of JSON attributes.	Array [JSON Object]	v1
limit	The limit used in the request	Integer	v1
offset	The offset used in the request	Integer	v1

Table 10-3: Search Document JSON Success Response Parameters

10.1.4 Request and Response Examples

This section contains examples of the request and response for searching for a document.

Example of documentSearchCriteria Request

```
{
  "inventionReportNumber": "7654321-22-0181"
}
```

Example of HTTP Status 200 (OK) Response

```
{
  "documentsList": [
    {
      "inventionReportNumber": "7654321-22-0181",
      "documentType": 6,
      "documentTypeName": "General",
      "documentID": 739268034,
      "fileName": "1408.txt",
      "documentCreateDate": "2022-10-28 10:26:32",
      "documentUpdateDate": "2022-11-02 11:20:58"
    },
  ],
}
```

```
{
  "inventionReportNumber": "7654321-22-0181",
  "documentType": 9,
  "documentTypeName": "Invention Disclosure",
  "documentID": 739267910,
  "fileName": "1320_7654321-22-0181.txt",
  "documentCreateDate": "2022-10-18 20:22:41",
  "documentUpdateDate": "2022-11-02 11:20:58"
},
{
  "inventionReportNumber": "7654321-22-0181",
  "documentType": 6,
  "documentTypeName": "General",
  "documentID": 739268013,
  "fileName": "1717.txt",
  "documentCreateDate": "2022-10-26 16:04:18",
  "documentUpdateDate": "2022-11-02 11:20:58"
},
{
  "inventionReportNumber": "7654321-22-0181",
  "documentType": 20,
  "documentTypeName": "Publication",
  "documentID": 739268014,
  "fileName": "1361.txt",
  "documentCreateDate": "2022-10-26 16:05:30",
  "documentUpdateDate": "2022-11-02 11:20:58"
}
],
"totalRecords": 4
}
```

Example of Search Document by Invention Report Number and Patent Docket Number Request

```
{
  "inventionReportNumber": "7654321-22-0181",
  "patentDocketNumber": "22-0181-01"
}
```

Example of Search Document by Invention Report Number and Patent Docket Number Response

```
{
  "documentsList": [
    {
      "inventionReportNumber": "7654321-22-0181",
```



```

"patentDocketNum": "22-0181-01",
"documentType": 2,
"documentTypeName": "Confirmatory License",
"documentID": 739268015,
"fileName": "confirmatorylicense338527583338529874.pdf",
"documentCreateDate": "2022-10-26 16:12:15",
"documentUpdateDate": "2022-11-02 17:15:16"
},
{
  "inventionReportNumber": "7654321-22-0181",
  "patentDocketNum": "22-0181-01",
  "documentType": 7,
  "documentTypeName": "Government Support Clause",
  "documentID": 739268016,
  "fileName": "Government Support Clause338529874.txt",
  "documentCreateDate": "2022-10-26 16:12:16",
  "documentUpdateDate": "2022-11-02 11:20:58"
},
{
  "inventionReportNumber": "7654321-22-0181",
  "patentDocketNum": "22-0181-01",
  "documentType": 17,
  "documentTypeName": "Waiver",
  "documentID": 739268017,
  "fileName": "1307338529874.txt",
  "documentCreateDate": "2022-10-26 16:12:17",
  "documentUpdateDate": "2022-11-02 11:20:58"
}
],
"totalRecords": 3
}

```

10.1.5 searchDocument Data Object

The JSON attributes are described in the table below.

Response Parameter	Description	Data Type	Version
inventionReportNumber	System generated sequence number used for ID of the Patent.	String	v1
patentDocketNum	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
documentType	The unique identifier for document category types.	Number	v1
documentTypeName	The name of document category types.	String	v1
documentID	Unique identifier.	String	v1

Response Parameter	Description	Data Type	Version
fileName	Name of the download file.	String	v1
documentCreateDate	Date the document was created.	String	v1
documentUpdateDate	Last document update date.	String	v1

Table 10-4: searchDocument Data Object Attributes

10.2 Download Document

The Download Document API requires a document ID. This information is available by performing a document search which returns one or multiple records. Each returned document will have its document ID.

10.2.1 Endpoint URI

This is an example of the endpoint for the Download Document resource.

POST	/iedison/api/v1/documents/download
-------------	------------------------------------

10.2.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the Download Document POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Required	Data Type	Version	In
accept	Setting to */*	Yes	String	v1	header
document	The document JSON objects containing fields to be used in the search download file. See the table below.	Yes	String	v1	form-data

Table 10-5: Download Document Request Parameters

The table below lists the attributes that will be included in the **document** parameter when creating an invention request. The attributes are included in the JSON object as part of the **document** form-data text element.

JSON Attribute Name	Description	Required	Data Type	Length	Version
documentID	Unique document identifier.	Yes	Number		v1

Table 10-6: document JSON Attributes

10.2.3 Response Parameters

This section contains examples of the different responses based on the HTTP Status Code.

Attributes in HTTP Status 200 (OK) Response

Based on the request parameters, the Download Document API provides the below response parameters.

JSON Attribute Name	Description	Data Type	Version
file	The actual file document.	Input stream	v1

Table 10-7: Download Document JSON Success Response Parameters

10.2.4 Request and Response Examples

This section contains examples of the request and response for downloading a document.

Example of document JSON Object

```
{  
  "documentID": 739268017  
}
```

Download Document Response Example

A sample response for the Document Download API is shown below. The response header contains the filename in the content-disposition header attribute.

body	Cookies (1)	Headers (14)	Test Results	200 OK	3.23 s	1.09 KB	Save Response
		Content-Security-Policy ⓘ					default-src 'self'; frame-ancestors 'self'; style-src 'unsafe-inline' 'sel
		content-disposition ⓘ					attachment; filename=1307338529874.txt
		Content-Type ⓘ					application/octet-stream
		Content-Length ⓘ					445
		Date ⓘ					Fri, 18 Nov 2022 19:56:53 GMT
		Keep-Alive ⓘ					timeout=20
		Connection ⓘ					keep-alive

11 Notification API Reference

The notification APIs provide ways to search for a list of pending notifications. Search condition for notifications is the combination of attributes of the **notificationSearchCriteria** JSON object. The system will only return pending notifications which granted access permission to the user's organization.

11.1 Endpoint URI

This is an example of the endpoint for the Notification resource.

POST	/iedison/api/v1/notifications/search
-------------	--------------------------------------

11.2 Request Parameters

The API POST request has the following elements:

- **Headers:** These are the request headers such as Accept or Content-Type. The Accept header parameter defines the expected response body format when the API returns the response. For example, you can define a response as JSON by modifying the Accept header. The Accept header is required for all requests.
- **Body:** The body contains the data that will be submitted as the post request. For example, when submitting a form, format data and file content are sent in the body of the request.

The table below provides the explanation of the Notification POST request header and body parameters that are expected by the iEdison API.

Request Parameter	Description	Required	Data Type	Version	In
accept	Setting to application/JSON.	Yes	String	v1	header
notificationSearchCriteria	The notificationSearchCriteria JSON objects containing fields to be used in the search. See the table below.	Yes	String	v1	form-data

Table 11-1: Notification Request Parameters

The table below lists the attributes that will be included in the **notificationSearchCriteria** parameter when creating an invention request. The attributes are included in the JSON object as part of the **notificationSearchCriteria** form-data text element.

JSON Attribute Name	Description	Required	Data Type	Length	Version
inventionReportNumber	Automatically generated by iEdison for an Invention Report after data has been submitted, checked for errors, and verified.	No	String	100	v1
patentDocketNumber	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	No	String	30	v1
messageNumber	Search for the "MessageNumber" of a pending notification	No	Integer	4	v1
fiscalYear	Search for the "FiscalYear" of a pending notification, • Format: 4-digit "YYYY"	No	Integer	4	v1
postedDateFrom	Search the "From Date" of a notification posting date. • Format: MM/DD/YYYY	No	String	10	v1

JSON Attribute Name	Description	Required	Data Type	Length	Version
postedDateTo	Search the "To Date" of a notification posting date. • Format: MM/DD/YYYY	No	String	10	v1
dueDateFrom	Search the "From Date" of a notification due date. • Format: MM/DD/YYYY	No	String	10	v1
dueDateTo	Search the "To Date" of a notification due date. • Format: MM/DD/YYYY	No	String	10	v1
limit	Total number of records to be retrieved per page. This field must be a number. • Max Value = 100 • Default = 20	No	Integer		v1
offset	Indicates the page index. • Default offset starts with 0.	No	Integer		v1

Table 11-2: notificationSearchCriteria JSON Attributes

11.3 Response Parameters

This section contains examples of the different responses based on the HTTP Status Code.

Attributes in the HTTP Status 200 (OK) Response

Response Parameter	Description	Data Type	Version
totalRecords	Total number of records for the search.	Number	v1
notificationsList	A list of notification response objects.	Array [JSON Object]	v1
limit	The limit used in the request	Integer	v1
offset	The offset used in the request	Integer	v1

Table 11-3: Notification JSON Success Response

11.4 Request and Response Examples

This section contains examples of the request and response for searching for notifications.

Example of notificationSearchCriteria Request

```
{
  "inventionReportNumber": "7654321-0",
  "messageNumber": 310,
  "fiscalYear": 2019
}
```

Example of HTTP Status 200 (OK) Response

```
{
  "notifications": [
    {
      "inventionReportNumber": "7654321-03-0010",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "messageDescription": "A utilization report must be submitted annually for every invention to
which title has been elected. A utilization report for this invention was due on <DUE DATE>.",
      "organization": "DAN'S INSTITUTION",
      "fiscalYear": 2019,
      "status": "Active",
      "postedDate": "2020-12-31 19:05:01",
      "dueDate": "2019-12-31 19:00:00"
    },
    {
      "inventionReportNumber": "7654321-04-0039",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "messageDescription": "A utilization report must be submitted annually for every invention to
which title has been elected. A utilization report for this invention was due on <DUE DATE>.",
      "organization": "DAN'S INSTITUTION",
      "fiscalYear": 2019,
      "status": "Active",
      "postedDate": "2020-12-31 19:05:01",
      "dueDate": "2019-12-31 19:00:00"
    },
    {
      "inventionReportNumber": "7654321-04-0023",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "messageDescription": "A utilization report must be submitted annually for every invention to
which title has been elected. A utilization report for this invention was due on <DUE DATE>.",
      "organization": "DAN'S INSTITUTION",
      "fiscalYear": 2019,
      "status": "Active",
      "postedDate": "2022-04-03 02:00:13",
      "dueDate": "2019-12-31 19:00:00"
    },
    {
      "inventionReportNumber": "7654321-05-0064",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "messageDescription": "A utilization report must be submitted annually for every invention to
which title has been elected. A utilization report for this invention was due on <DUE DATE>.",

```

```
{
  "organization": "DAN'S INSTITUTION",
  "fiscalYear": 2019,
  "status": "Active",
  "postedDate": "2022-09-08 22:00:03",
  "dueDate": "2019-12-31 19:00:00"
},
{
  "totalRecords": 4,
  "limit": 100,
  "offset": 0
}
```

Example of HTTP Status 200 (OK) Response

```
{
  "notifications": [
    {
      "inventionReportNumber": "7654321-03-0010",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "organization": "DAN'S INSTITUTION",
      "fiscalYear": 2019,
      "status": "Active",
      "postedDate": "2020-12-31 19:05:01",
      "dueDate": "2019-12-31 19:00:00"
    },
    {
      "inventionReportNumber": "7654321-04-0039",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "organization": "DAN'S INSTITUTION",
      "fiscalYear": 2019,
      "status": "Active",
      "postedDate": "2020-12-31 19:05:01",
      "dueDate": "2019-12-31 19:00:00"
    },
    {
      "inventionReportNumber": "7654321-04-0023",
      "patentDocketNumber": "N/A",
      "messageNumber": 310,
      "organization": "DAN'S INSTITUTION",
      "fiscalYear": 2019,
      "status": "Active",
      "postedDate": "2022-04-03 02:00:13",
      "dueDate": "2019-12-31 19:00:00"
    }
  ]
}
```

```
{
  "inventionReportNumber": "7654321-05-0064",
  "patentDocketNumber": "N/A",
  "messageNumber": 310,
  "organization": "DAN'S INSTITUTION",
  "fiscalYear": 2019,
  "status": "Active",
  "postedDate": "2022-09-08 22:00:03",
  "dueDate": "2019-12-31 19:00:00"
},
"totalRecords": 4,
"limit": 120,
"offset": 0
}
```

11.5 notificationResponse Data Object

The Utilization create, update, and search API endpoints return a common **utilizationResponse** data object. The JSON attributes are described in the table below.

Response Parameter	Description	Data Type	Version
inventionReportNumber	System generated sequence number used for ID of the Patent.	String	v1
patentDocketNum	The Patent Docket Number is an internal reference number of the grantee/contractor organization to help track a reported Patent(s).	String	v1
messageNumber	The Message Number of a notification.	Number	v1
messageDescription	The Message Description of a notification.		
organization	The recipient organization of a notification. It can be either be a federal agency of a grant contractor	String	v1
fiscalYear	The Fiscal Year of a notification.	Number	V1
status	The Status (Active/Inactive) of a notification.	String	V1
postedDate	Date when the notification was posted.	String	v1
dueDate	The Due Date of a notification.	String	v1

Table 11-4: notificationResponse Data Object Attributes

12 Lookup Values

The tables below contain lookup values used in the API.

12.1 Invention Development Stage

List of available Invention Development Stages

Value
Commercialized

Value
Licensed
Not Licensed

12.2 Patent Filing Status

List of available Patent filing status

Value
Active
Expired
Abandoned

12.3 Patent Application Types

List of available Patent Application Types

Patent Application Type	Description	Notes
CIP	Continuation-In-Part	Active Patent application type. This can be used in the Patent create and update API requests.
CON	Continuation	Active Patent application type. This can be used in the Patent create and update API requests.
CPA	Continued Prosecution Application	Non-Active Patent application type. This can NOT be used in the Patent create and update API requests.
DIV	Divisional	Active Patent application type. This can be used in the Patent create and update API requests.
FWC	File Wrapper Continuing	Non-Active Patent application type. This can NOT be used in the Patent create and update API requests.
ORD	Ordinary Utility	Active Patent application type. This can be used in the Patent create and update API requests.
PROV	Provisional	Active Patent application type. This can be used in the Patent create and update API requests.
PVP	Plant Variety Protection	Active Patent application type. This can be used in the Patent create and update API requests.
RCE	Request for Continued Examination	Non-Active Patent application type. This can NOT be used in the Patent create and update API requests.
PCT	PCT Designating the US	Active Patent application type. This can be used in the Patent create and update API requests.

12.4 Award Type

List of the Invention funding agreement Award types

Value
Prime Award
Sub-Award

12.5 Agreement Types

List of available Agreement Types

Value
Cooperative Agreement
Grant
Contract
ACT = DoE Specific
Other Funding Agreement

12.6 Inventor US Federal Employee

Is inventor a federal employee?

Value
true
false

12.7 Patent Status

The iEdison Patent status list of value.

Value	Notes
Transferred/Assigned	This status value shall not be used in API request. Organization needs to use the UI to submit a Transfer Patent Request.
Voided	This status value shall not be used in API request. Organization needs to use the UI to submit a Void Patent Request.
Expired	This status value shall be used for the Patent Application Types of DIV, ORD, PVP, CIP, and CON
Abandoned/Intent to Abandon	This value can be used for both organization and agency clients in the Patent request
Institution Retains Rights	This value can be used for both organization and agency clients in the Patent request

12.8 Agency Mapping List

Click [here](#) to see list of all iEdison enrolled agencies. Be advised that you cannot use the API for agencies that have the following red notice "**THIS AGENCY IS CURRENTLY INACTIVE IN IEDISON**"

12.9 Country List

A list of valid country Names and FIPs Country Codes.

Name	FIPs Country Codes
AFGHANISTAN	AF
African Intellectual Property Organization	OAPI
African Regional Intellectual Property Organization	ARIPO
ALBANIA	AL
ALGERIA	AG
ANDORRA	AN
ANGOLA	AO
ANGUILLA	AV
ANTIGUA/BARBUD	AC
ARGENTINA	AR
ARMENIA	AM
ARUBA	AA
AUSTRALIA	AS
AUSTRIA	AU
AZERBAIJAN	AJ
BAHAMAS	BF
BAHRAIN	BA
BANGLADESH	BG
BARBADOS	BB
BELARUS	BO
BELGIUM	BE
BELIZE	BH
BENIN	BN
BERMUDA	BD
BHUTAN	BT
BOLIVIA	BL
BOSNIA/HERZEG	BK
BOTSWANA	BC
BRAZIL	BR
BRITISH VI ISS	VI
BRUNEI	BX
BULGARIA	BU
BURKINA	UV
BURUNDI	BY
CABO VERDE	CV
CAMBODIA	CB

Name	FIPs Country Codes
CAMEROON	CM
CANADA	CA
CAYMAN ISLANDS	CJ
CENTRAL AFR R	CT
CHAD	CD
CHILE	CI
CHINA	CH
COLOMBIA	CO
COMOROS	CN
CONGO	CF
CONGO DEM REP	CG
COSTA RICA	CS
COTE D'IVOIRE	IV
CROATIA	HR
CUBA	CU
CYPRUS	CY
CZECH REPUBLIC	EZ
DENMARK	DA
DJIBOUTI	DJ
DOMINICA	DO
DOMINICAN REP	DR
ECUADOR	EC
EGYPT	EG
EL SALVADOR	ES
EQUATOR GUINEA	EK
ERITREA	ER
ESTONIA	EN
ESWATINI	WZ
ETHIOPIA	ET
Eurasian Patent Organization	EAPO
European Patent Organization	EPO
FALKLAND ISS	FX
FIJI	FJ
FINLAND	FI
FRANCE	FR
FRENCH POLYNES	FP
GABON	GB
GAMBIA	GA
GAZA STRIP	GZ

Name	FIPs Country Codes
GEORGIA	GG
GERMANY	GM
GHANA	GH
GIBRALTAR	GI
GREECE	GR
GREENLAND	GL
GRENADA	GJ
GUATEMALA	GT
GUERNSEY	GK
GUINEA	GV
GUINEA-BISSAU	PU
GUYANA	GY
HAITI	HA
HONDURAS	HO
HONG KONG	HK
HUNGARY	HU
ICELAND	IC
INDIA	IN
INDONESIA	ID
IRAN	IR
IRAQ	IZ
IRELAND	EI
ISRAEL	IS
ITALY	IT
JAMAICA	JM
JAPAN	JA
JERSEY	JE
JORDAN	JO
KAZAKHSTAN	KZ
KENYA	KE
KIRIBATI	KR
KOREA PEO REP	KN
KOREA REP OF	KS
KOSOVO	KV
KUWAIT	KU
KYRGYZSTAN	KG
LAOS	LA
LATVIA	LG
LEBANON	LE

Name	FIPs Country Codes
LESOTHO	LT
LIBERIA	LI
LIBYA	LY
LIECHTENSTEIN	LS
LITHUANIA	LH
LUXEMBOURG	LU
MACAU	MC
MADAGASCAR	MA
MALAWI	MI
MALAYSIA	MY
MALDIVES	MV
MALI	ML
MALTA	MT
MAURITANIA	MR
MAURITIUS	MP
MEXICO	MX
MOLDOVA	MD
MONACO	MN
MONGOLIA	MG
MONTENEGRO	MW
MONTserrat	MH
MOROCCO	MO
MOZAMBIQUE	MZ
MYANMAR	BM
NAMIBIA	WA
NAURU	NR
NEPAL	NP
NETHERLANDS	NL
NEW ZEALAND	NZ
NICARAGUA	NU
NIGER	NG
NIGERIA	NI
NORTH MACEDONIA	MK
NORWAY	NO
OMAN	MU
PAKISTAN	PK
PANAMA	PM
PAPUA N GUINEA	PP
PARAGUAY	PA

Name	FIPs Country Codes
Patent Office of the Cooperation Council for the Arab States of the Gulf	GCCPO
PERU	PE
PHILIPPINES	RP
POLAND	PL
PORTUGAL	PO
QATAR	QA
ROMANIA	RO
RUSSIA	RS
RWANDA	RW
SAMOA	WS
SAN MARINO	SM
SAO TOME/PRINC	TP
SAUDI ARABIA	SA
SENEGAL	SG
SERBIA	SR
SEYCHELLES	SE
SIERRA LEONE	SL
SINGAPORE	SN
SLOVAKIA	LO
SLOVENIA	SI
SOLOMON ISS	BP
SOMALIA	SO
SOUTH AFRICA	SF
SOUTH SUDAN	SS
SPAIN	SP
SRI LANKA	CE
ST HELENA	SH
ST KITTS/NEVIS	SC
ST LUCIA	ST
ST VINCENT/GRN	VC
SUDAN	SU
SURINAME	NS
SWEDEN	SW
SWITZERLAND	SZ
SYRIA	SY
TAIWAN	TW
TAJKISTAN	TI
TANZANIA U REP	TZ

Name	FIPs Country Codes
THAILAND	TH
TIMOR-LESTE	TT
TOGO	TO
TONGA	TN
TRINIDAD/TOBA	TD
TUNISIA	TS
TURKEY	TU
TURKMENISTAN	TX
TURKS/CAICOS I	TK
TUVALU	TV
UGANDA	UG
UKRAINE	UP
Unified Patent Court	UPC
UNITED ARAB EM	TC
UNITED KINGDOM	UK
UNITED STATES	US
URUGUAY	UY
UZBEKISTAN	UZ
VANUATU	NH
VENEZUELA	VE
VIETNAM	VM
WEST BANK	WE
YEMEN	YM
YUGOSLAVIA	YO
ZAMBIA	ZA
ZIMBABWE	ZI

12.10 States List

This is the state value use for contractorState in Invention and state in Utilization Manufacturing location. Find the valid **'Code'** value for your requests.

Name	Code
ALABAMA	AL
ALASKA	AK
ALBERTA	AB
AMERICAN SAMOA	AS
APO/FPO EUROPE	AE
APO/FPO OT PAC	AP
APO/FPO S AMER	AA
ARIZONA	AZ
ARKANSAS	AR

Name	Code
BAKER ISLAND	FQ
BR. COLUMBIA	BC
CALIFORNIA	CA
COLORADO	CO
CONNECTICUT	CT
DELAWARE	DE
DIST OF COL	DC
FED MICRONESIA	FM
FLORIDA	FL
GEORGIA	GA
GUAM	GU
HAWAII	HI
HOWARD ISLAND	HQ
IDAHO	ID
ILLINOIS	IL
INDIANA	IN
IOWA	IA
JOHNSTON ATOLL	JQ
KANSAS	KS
KENTUCKY	KY
KINGMAN REEF	KQ
LOUISIANA	LA
MAINE	ME
MANITOBA	MB
MARSHALL IS	MH
MARYLAND	MD
MASSACHUSETTS	MA
MICHIGAN	MI
MIDWAY ISLANDS	MQ
MINNESOTA	MN
MISSISSIPPI	MS
MISSOURI	MO
MONTANA	MT
NAVASSA ISLAND	BQ
NEBRASKA	NE
NEVADA	NV
NEW BRUNSWICK	NB
NEW HAMPSHIRE	NH
NEW JERSEY	NJ
NEW MEXICO	NM
NEW YORK	NY
NEWFOUNDLAND	NL
NORTH CAROLINA	NC
NORTH DAKOTA	ND
NORTHN MARIANA	MP
NOVA SCOTIA	NS
NW TERRITORIES	NT
OHIO	OH

Name	Code
OKLAHOMA	OK
ONTARIO	ON
OREGON	OR
PALAU	PW
PALMYRA ATOLL	LQ
PENNSYLVANIA	PA
PR. EDWARD ISL	PE
PUERTO RICO	PR
QUEBEC	PQ
QUEBEC	QC
RHODE ISLAND	RI
SASKATCHEWAN	SK
SOUTH CAROLINA	SC
SOUTH DAKOTA	SD
TENNESSEE	TN
TEXAS	TX
TRUST TER PACF	PS
US MINOR OUTLY	UM
UTAH	UT
VERMONT	VT
VIRGIN ISLANDS	VI
VIRGINIA	VA
WAKE ISLAND	WQ
WASHINGTON	WA
WEST VIRGINIA	WV
WISCONSIN	WI
WYOMING	WY
YUKON	YT

12.11 Title Election Status

Indication of your institution's decision regarding the election of title for this Invention. The Draft, Voided, and Transferred status values shall not be used when submitting Invention Create or Update API requests.

Value	Notes
Elect to Retain Title	This can be used for both organization and agency clients in the create or update request.
Does Not Retain Title	This can be used for both organization and agency clients in the Invention request. Once the Invention is saved with this status, organization client will no longer allow to modify the Invention metadata.
Designated as Unpatented Biological Material or Research Tool	This can be used for both organization and agency clients in the create or update request.
Under Evaluation	Allow both organization and agency clients to use in the create or update request.
Draft	This status is used in response data only. This status value shall not be used in API create or update request.

Value	Notes
Voided	This status is used in response data only. This status value shall not be used in API request. The organization is required to use the UI to submit an Invention Void Request.
Transferred	This status is use in response data only. This status value shall not be used in API request. The organization is required to use the UI to submit an Invention Transfer Request.
Government Takes Title (Award Terms)	If the invention is made by a private for-profit large-size organization that is funded by the DOE, and the DOE Waiver ID has not been given, the iEdison system will automatically set the status to "Not Waived." This value should not be used in the API request.

12.12 Invention Disposition

The decision of the agency as to how to proceed with the technology. This field will be auto populated or set by the Primary Agency. It will be populated automatically to

- "Barred" if a Patent is not filed within one year of the "Date of the First Publication/Sale/Public Use" or as "Void,"
- "Transferred"/Assigned" after a request is granted.

Otherwise, the Disposition Status will be set by the Primary Agency in response to the selection of "Does Not Retain Title."

Value	Notes
Government Does Not Retain Rights	Active status to allow for agency clients to use in the request only. Organization can only view this in response data.
Government Retains Rights	Active status to allow for agency clients to use in the request only. Organization can only view this in response data.
Not Elect Title – Waive to Government	Non-Active status for response data view only. This shall not be used in the request for create or update.
Not Elect Title – Waive to Third Party	Non-Active status for response data view only. This shall not be used in the request for create or update.
Request for Inventor Waiver	Non-Active status for response data view only. This shall not be used in the request for create or update.
Assignment Approved	Non-Active status for response data view only. This shall not be used in the request for create or update.
Assignment Denied	Non-Active status for response data view only. This shall not be used in the request for create or update.
Barred	Active status to allow system to automatically set the Barred status. This status is used in response data only. This value shall not be used in API create or update request.
Voided	Active status value. But it cannot be used in API create or update request. Organization needs to use UI to submit a Void request for the Invention. This will be set automatically when the Primary Agency approves the request.

Value	Notes
Transferred	Active status value. But it cannot be used in API create or update request. Response data for Organization. This will be set automatically when the Primary Agency approves the request. Note: Transferred status is for response data only. Updating an Invention to transfer status must go through Web Application Interface.

12.13 Utilization Reporting Year

The Utilization Reporting Year value is any 4 digits year which is the 5 years back from the Date Invention Reported to Organization up to current Calendar year. For example, if Invention Reported to Organization is 03/01/2016 and Calendar year is 2022. The following table contains the valid year.

Note: Utilization Reporting year is temporarily disabled due to an upcoming Utilization questionnaire change. The iEdison support team will communicate with the grantee/contractor organizations and agencies when the new feature is ready.

Value
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022

12.14 Year of First Commercial Sale

The Year of First Commercial Sale value is any 4 digits year which is the 5 years back from the Date Invention Reported to Organization up to current Calendar year. For example, if Invention Reported to Organization is 03/01/2016 and Calendar year is 2022. The following table contains the valid year.

Value
2011
2012
2013
2014
2015
2016
2017
2018
2019

Value
2020
2021
2022

12.15 Utilization Commercial Product Type

Value
Biologic
Medical Device
Drug

12.16 Utilization Commercial Product Government Review Status

Value
Approved
Rejected
Pending

12.17 Utilization Public Announced

Value
Yes
No

12.18 Utilization Manufacturing Location First Date Type

Value
Actual
Expected

12.19 Invention Does Not Retain Title Reason

The Invention Does Not Retain Title Reason values must be provided when the Title Election Status is set to "Does Not Retain Title".

Value
Low Commercial Potential
Non-Patentable (Not Novel)
Non-Patentable (Not Useful)
Non-Patentable (Obvious)
Did Not Yield Expected Results
Budget Limitation
Immature Market
Other

12.20 Utilization Commercialization Plan

Value	Notes
1	Seeking additional funding to further develop this invention

Value	Notes
2	Marketing and/or furthering development of this invention to attract commercial partners
3	Developing and/or using this invention for internal purposes only
4	Developing and/or preparing this invention with intent to commercialize ourselves
5	Making available for distribution and/or licensing for research purposes only
6	No current commercialization plan

12.21 Licensed Utilization Questions Logics for US Manufacturing

This section shows the answer relationship between the fields latestStageDev, isUSManufacturingRequired1, and isUSManufacturingRequired2 when latestStageDev value has "Licensed" in the request.

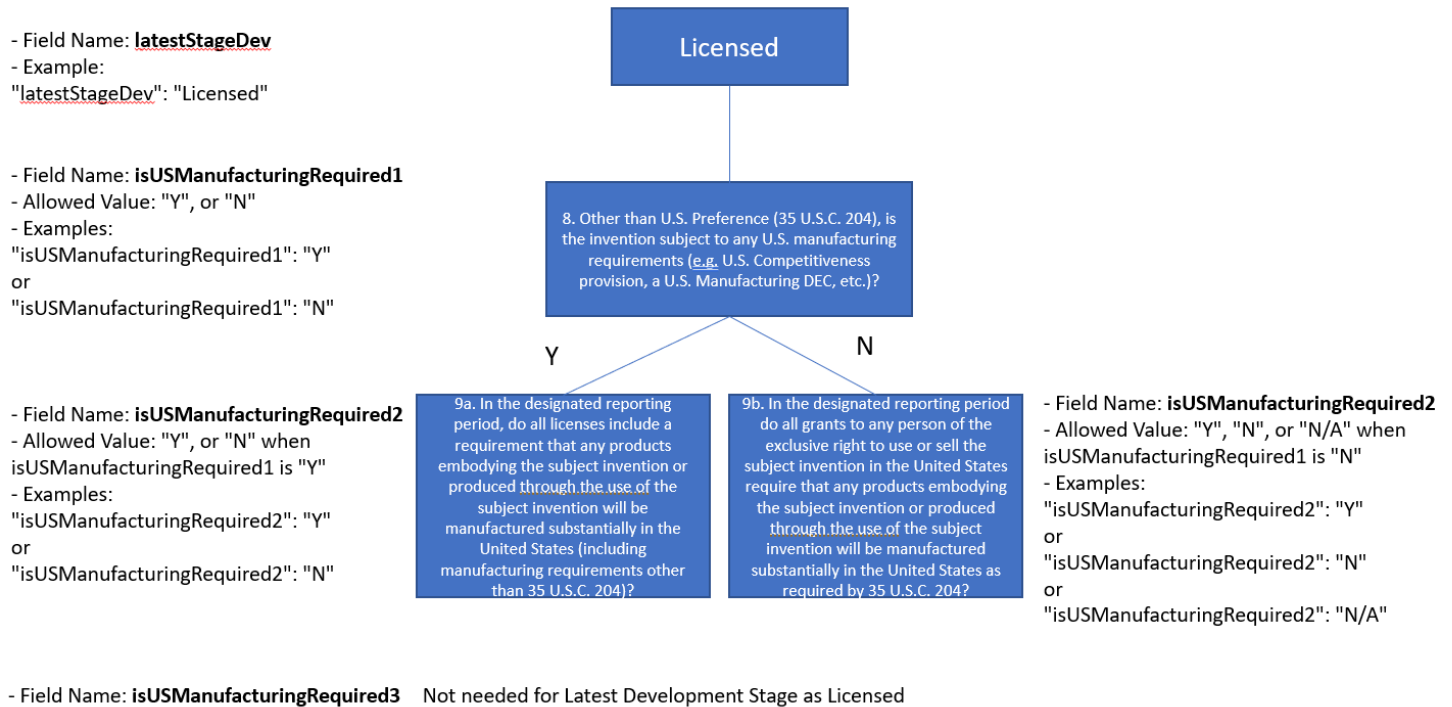


Figure 12-1: Licensed Utilization Questions

12.22 Commercialized Utilization Questions Logics for US Manufacturing

This section shows the answer relationship between the fields latestStageDev, isUSManufacturingRequired1, isUSManufacturingRequired2, and isUSManufacturingRequired3 when latestStageDev value has "Commercialized" in the request.

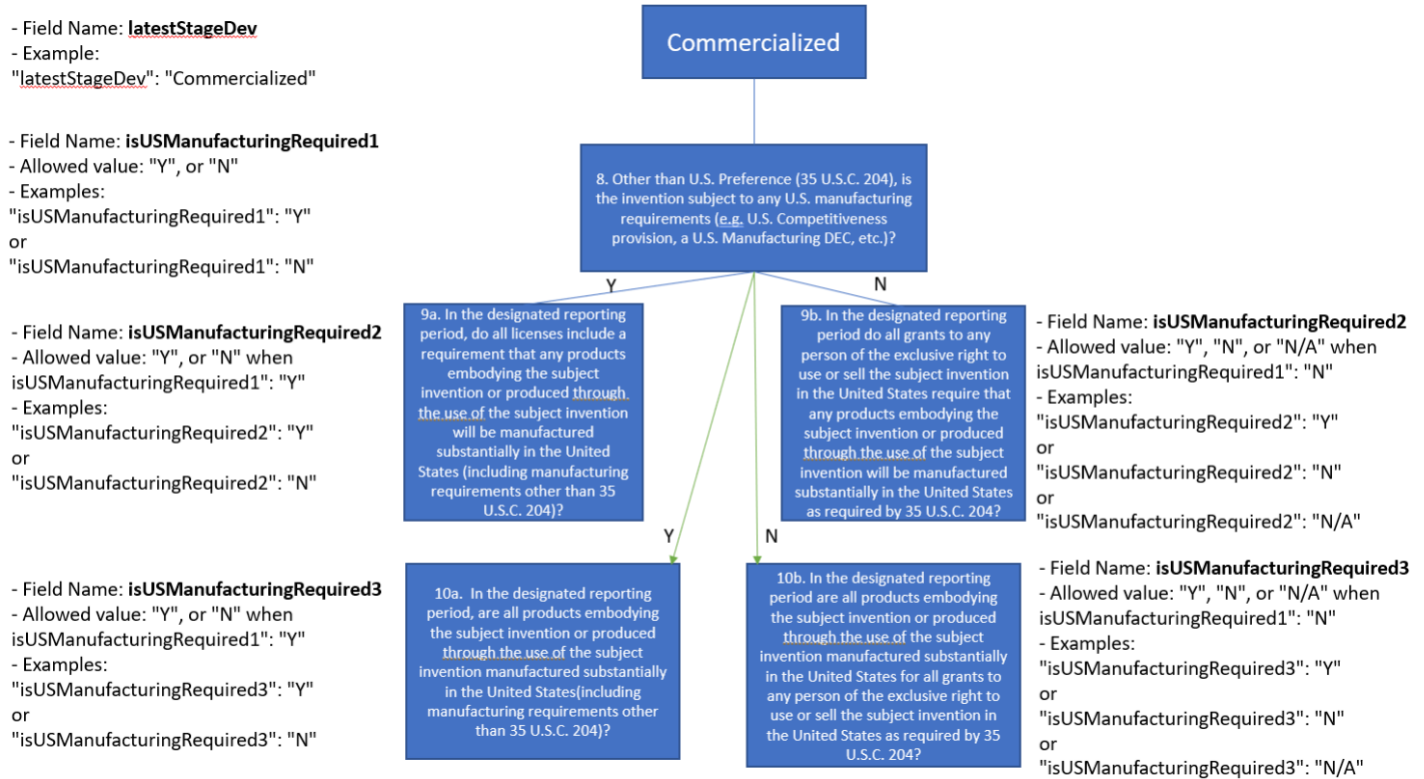


Figure 12-2: Commercialized Utilization Questions

12.23 Patent Action Type

The iEdison Patent Action Type.

Value	Notes
A	Accept
R	Reject

12.24 Patent Action Document Type

The iEdison Patent Action Document Type.

Value	Notes
CL	Confirmatory License
SC	Government Support Clause

13 Sample Code Snippet to Consume APIs

The following code snippets show how to connect to iEdison API and consume its services.

The code below is a sample Java code snippet to consume the iEdison Invention search API service. Find the following variables below in the code snippet and replace them with your changes.

- INVENTIONS_SEARCH = Build and assign a request JSON string
- HOST_NAME = iEdison API URL (Ex. <https://api-iedisonuat.nist.gov/>)
- KEY_STORE.JKS = Location of a key store with imported certificate
- KEYSTORE_PASSWORD = Key Store password

```
String INVENTION_SEARCH = "{ \"inventionTitle\": \"\" }";
String VENDOR_API_URL = {HOST_NAME} + "/iedison/api/v1/inventions/search";

SSLContext scl = SslConfigurator.newInstance()
    .keyStoreFile("{KEY_STORE.jks}")
    .keyPassword("{KEYSTORE_PASSWORD}")
    .securityProtocol("TLS")
    .createSSLContext();

final Client client = ClientBuilder
    .newBuilder()
    .sslContext(scl)
    .register(MultiPartFeature.class)
    .build();

FormDataMultiPart formDataMultiPart = new FormDataMultiPart();

final FormDataMultiPart multipart = (FormDataMultiPart)
    formDataMultiPart.field("inventionSearchCriteria", INVENTION_SEARCH);

final WebTarget target = client.target(VENDOR_API_URL);

final Response response = target.request()
    .post(Entity.entity(multipart, multipart.getMediaType()));

assertEquals(response.getStatus(), 200);
formDataMultiPart.close();
multipart.close();
```

This is a sample curl code snippet to consume the iEdison Invention search API service.

```
curl --key /home/lgt2/client-store.key.pem -E /home/lgt2/client-store.crt.pem -X POST -F  
'inventionSearchCriteria={"primaryAgency": "NIST", "grantContractNumber": "T25252"}' https://api-  
iedisonuat.nist.gov/iedison/api/v1/inventions/search
```