

# MindAccess DevOps Plan

## Product Sheet

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# 1. Introduction



MindAccess DevOps Plan consists of the following:

- MindAccess Developer Plan provides you with an Account to your own Resources on MindSphere to develop and test your applications. After development, the application can be transferred to productive resources provided as part of the MindAccess Operator Plan.
- MindAccess Operator Plan provides you with an Account to your own resources on MindSphere for productive operation and support of applications. MindAccess Operator Plan also enables you to provide the application to MindAccess IoT Value Plan subscribers.

## 1.1. Prerequisites

| Item                | Description  |
|---------------------|--|
| Web browser         | An HTML5 capable Internet browser is required (e.g. Mozilla Firefox, Google Chrome or Microsoft Internet Explorer). The recommended screen resolution is 1024x768 or higher. |
| Internet connection | The bandwidth of your Internet connection will determine your experience of the performance of the Services.   |
| Data import         | Import data to your MindAccess Developer Plan Account or MindAccess Operator Plan Account through use of our designated MindSphere APIs.                                     |

## 2. MindAccess Developer Plan

| Item                   | Description  |
|------------------------|--|
| Access to your Account | MindAccess Developer Plan provides you with a dedicated Account on MindSphere. You can login into your Account via the respective URL provided by us.                      |
| General                | Different sizes of MindAccess Developer Plan are available (Small/Medium/ Large). You are only authorized to utilize the Plan size to which you hold a valid subscription. |

### 2.1. MindAccess Developer Plan – Size Overview

| Item  | Size   |        |       |
|---|--|--------|-------|
|   | Small  | Medium | Large |
| Cloud Foundry development space   | √  | √      | √     |
| Highly available system <sup>1</sup>  | √  | √      | √     |
| Developer tenant  | √  | √      | √     |
| Developer Cockpit   | √  | √      | √     |
| Fleet Manager incl. rules and events <sup>2</sup>   | √  | √      | √     |
| Services via MindSphere APIs <sup>3</sup>   | √  | √      | √     |
| Unlimited number of routes  | √  | √      | √     |
| Supported build packs   | Go, Java, Node.js, .Net core, PHP, Python, Ruby, Static File, Mendix |        |       |
| <sup>1)</sup> Redundant application deployment possible; <sup>2)</sup> One active concurrent rule included in all Plan sizes; <sup>3)</sup> Comprehensive set of certain Services available via MindSphere APIs, e.g. Analytics Services, Notification Service, Token Manager Service etc. Authorized limits set out in this Product Sheet or in the MindSphere Supplemental Terms apply. |  |        |       |

## 2.2. MindAccess Developer Plan – Authorized Limits

Should the actual usage of your Plan size repeatedly exceed one or more of the applicable limits below (e.g. the number of Users for your Plan size), and should you not order the appropriate increase of usage capacities for an additional fee, we reserve the right to suspend the Service. Other contractual rights and remedies remain unaffected.

| Item  | Size   |            |            |
|---|--|------------|------------|
|   | Small  | Medium     | Large      |
| Users <sup>1</sup>  | 10   | 50         | 100        |
| Subtenants  | 1  | 5          | 10         |
| Asset types   | 5  | 25         | 50         |
| Asset instances   | 20   | 100        | 200        |
| Connected Agents <sup>2</sup>   | 1  | 5          | 10         |
| Time series data ingest rate <sup>3, 4</sup>  | 3 KB/s   | 13 KB/s    | 25 KB/s    |
| Time series data storage volume (in developer tenant) <sup>3</sup>  | 20 GB  | 100 GB     | 200 GB     |
| MindConnect IoT Extension data ingest volume <sup>5, 6</sup>  | 5 GB/month   | 5 GB/month | 5 GB/month |
| File storage  | 10 GB  | 50 GB      | 100 GB     |
| Cloud Foundry RAM size  | 2 GB   | 10 GB      | 20 GB      |
| Concurrent instances of Backing Services – XS   | 2  | 4          | 6          |
| Event types   | 10   | 50         | 100        |
| Event instances   | 250 000  | 1 250 000  | 2 500 000  |
| Notifications per month   | 1 000  | 5 000      | 10 000     |
| Analytics Services:<br>Number of API calls per month  | 500  | 1 000      | 1 500      |
| Application uploads to MindAccess Operator Plan Account per month   | 1  | 5          | 10         |
| Outbound Traffic <sup>7</sup> per month   | 60 GB  | 300 GB     | 600 GB     |
| Supported build packs   | Go, Java, Node.js, .Net core, PHP, Python, Ruby, Static File, Mendix |            |            |
| <sup>1)</sup> User can have different roles e.g. Admin, Developer etc.; <sup>2)</sup> Assets connected via MindConnect IoT Extension are not counted as Agents. Each connected Agent leads to one used asset instance; <sup>3)</sup> Includes data ingested via MindConnect IoT Extension; <sup>4)</sup> Data ingest is based on number of assets, number of variables per asset, size per variable, read cycle |  |            |            |

interval, sending frequency and overhead: <sup>5)</sup> Time series data storage volume and ingest rate apply; <sup>6)</sup> Not applicable to MindAccess Developer Plan Small (Trial); <sup>7)</sup> Outbound Traffic is the total network traffic that is generated by the use of our Services by you and by Users of your application or operated application to devices, locations, databases, applications or other destinations outside the Platform via the exit of the wide area network of the data centers used by us to provide the respective Services. Outbound Traffic includes also data transfer for visualization purposes to e.g. a web browser.

### 2.3. MindAccess Developer Plan – Tools

| Item               | Description   |
|--------------------|---|
| General            | <p>The following administration tools are available on your MindSphere Launchpad:</p> <ul style="list-style-type: none"> <li>• Developer Cockpit</li> <li>• Usage Transparency</li> <li>• Settings</li> <li>• Asset Manager</li> </ul>  |
| Developer Cockpit  | <p>Use Developer Cockpit to:</p> <ul style="list-style-type: none"> <li>• Assign a new application to your own developer tenant.</li> <li>• Manage versions of your application. A User can perform an update of an application in order to transfer and assign it to a MindAccess Operator Plan Account.</li> <li>• Transfer of new or updated applications to a MindAccess Operator Plan Account: You decide which application you want to make available for productive deployment by uploading it together with additional information to an intermediate repository. The transfer process cannot be withdrawn after the upload. You will be notified via the Developer Cockpit and via email once the transfer of your application has been successful and the application is available to run on the MindAccess Operator Plan Account.</li> </ul> <p>For detailed information on the individual process steps, please refer to the MindSphere DevOps Guide.</p> |
| Usage Transparency | <p>Usage Transparency provides information regarding your resource consumption e.g.</p> <ul style="list-style-type: none"> <li>• API calls</li> </ul>   |

|               |  |
|---------------|--|
|               | <ul style="list-style-type: none"> <li>• Number of Users</li> <li>• Inbound and outbound traffic</li> </ul>  |
| Settings      | <p>Settings allow managing Users, permissions, rights, roles, subtenants and tenant provider information.</p> <p>For every User, an individual login is required.</p> <p>A third party User which you permit to test the application for such third parties' end use shall not be granted with administration rights, except for administration rights that are offered by the user management of a subtenant.</p> |
| Asset Manager | <p>Use Asset Manager to:</p> <ul style="list-style-type: none"> <li>• Onboard and offboard Agents to your Account.</li> <li>• Configure assets, asset types and aspect types.</li> </ul>   |

### 3. MindAccess Operator Plan

| Item                   | Description   |
|------------------------|---|
| Access to your Account | MindAccess Operator Plan provides you with a dedicated Account on MindSphere. You can login into your Account via the respective URL provided by us.                      |
| General                | Different sizes of MindAccess Operator Plan are available (Small/Medium/ Large). You are only authorized to utilize the Plan size to which you hold a valid subscription. |

#### 3.1. MindAccess Operator Plan – Size Overview

| Item  | Size   |        |       |
|---|--|--------|-------|
|   | Small  | Medium | Large |
| Cloud Foundry productive space  | √  | √      | √     |
| Highly available system <sup>1</sup>  | √  | √      | √     |
| Productive tenant   | √  | √      | √     |
| Operator Cockpit  | √  | √      | √     |
| Fleet Manager incl. rules and events <sup>2</sup>   | √  | √      | √     |
| Services via MindSphere APIs <sup>3</sup>   | √  | √      | √     |
| Unlimited number of routes  | √  | √      | √     |
| Supported build packs   | Go, Java, Node.js, .Net core, PHP, Python, Ruby, Static File, Mendix |        |       |
| <sup>1)</sup> Redundant application deployment possible; <sup>2)</sup> One active concurrent rule included in all Plan sizes; <sup>3)</sup> Comprehensive set of certain Services available via MindSphere APIs, e.g. Analytics Services, Notification Service, Token Manager Service etc. Authorized limits set out in this Product Sheet or in the MindSphere Supplemental Terms apply. |  |        |       |

### 3.2. MindAccess Operator Plan – Authorized Limits

| <p>Should the actual usage of your Plan size repeatedly exceed one or more of the applicable limits below (e.g. the number of Users for your Plan size), and should you not order the appropriate increase of usage capacities for an additional fee, we reserve the right to suspend the Service. Other contractual rights and remedies remain unaffected.</p>   |  |           |           |
|---|--|-----------|-----------|
| Item  | Size   |           |           |
|   | Small  | Medium    | Large     |
| Users   | 5  | 10        | 25        |
| Subtenants  | 2  | 2         | 2         |
| Asset types   | 5  | 25        | 50        |
| Asset instances   | 20   | 100       | 200       |
| Connected Agents <sup>1</sup>   | 1  | 5         | 10        |
| Time series data ingest rate <sup>2</sup>   | 3 KB/s   | 13 KB/s   | 25 KB/s   |
| Time series data storage volume   | 20 GB  | 100 GB    | 200 GB    |
| File storage  | 10 GB  | 50 GB     | 100 GB    |
| Cloud Foundry RAM size  | 2 GB   | 10 GB     | 20 GB     |
| Event types   | 10   | 50        | 100       |
| Event instances   | 250 000  | 1 250 000 | 2 500 000 |
| Notifications per month   | 1 000  | 5 000     | 10 000    |
| Analytics Services:<br>Number of API calls per month  | 500  | 1 000     | 1 500     |
| Outbound Traffic <sup>3</sup> per month   | 60 GB  | 300 GB    | 600 GB    |
| Supported build packs   | Go, Java, Node.js, .Net core, PHP, Python, Ruby, Static File, Mendix |           |           |
| <p><sup>1)</sup> Each connected Agent leads to one used asset instance; <sup>2)</sup> Data ingest is based on number of assets, number of variables per asset, size per variable, read cycle interval, sending frequency and overhead; <sup>3)</sup> Outbound Traffic is the total network traffic that is generated by the use of our Services by you and by Users of your application or operated application to devices, locations, databases, applications or other destinations outside the Platform via the exit of the wide area network of the data centers used by us to provide the respective Services. Outbound Traffic includes also data transfer for visualization purposes to e.g. a web browser.</p> |  |           |           |



### 3.3. MindAccess Operator Plan – Tools

| Item               | Description  |
|--------------------|--|
| General            | <p>The following administration tools are available on your MindSphere Launchpad:</p> <ul style="list-style-type: none"> <li>• Operator Cockpit</li> <li>• Usage Transparency</li> <li>• Settings</li> <li>• Asset Manager</li> </ul>  |
| Operator Cockpit   | <p>Use Operator Cockpit to:</p> <ul style="list-style-type: none"> <li>• Accept the transfer of an application from a MindAccess Developer Plan Account to your MindAccess Operator Plan Account.</li> <li>• Deploy the Cloud Foundry application to the productive environment and operate.</li> <li>• Register self-hosted applications in the productive environment and operate.</li> <li>• Get an overview of all your applications running on your MindAccess Operator Plan Account.</li> <li>• Get information on usage and traffic.</li> <li>• Check health status of all your applications.</li> <li>• Receive and display notifications concerning your applications.</li> <li>• Provision applications to MindAccess IoT Value Plan subscribers (and their Users) on the basis of an App Customer Contract between you and their subscribers.</li> </ul> <p>For detailed information on the individual process steps, please refer to the MindSphere DevOps Guide and MindSphere Marketing Guide. Please note that MindAccess IoT Value Plan is not available in certain countries.</p> |
| Usage Transparency | <p>Usage Transparency provides information regarding your resource consumption e.g.</p> <ul style="list-style-type: none"> <li>• API calls</li> <li>• Number of Users</li> <li>• Inbound and outbound traffic</li> </ul>   |
| Settings           | <p>Settings allow managing Users, permissions, rights, roles, subtenants and tenant provider information.</p>  |

|               |  |
|---------------|--|
|               | <p>For every User, an individual login is required.</p> <p>A third party User which you permit to test the application for such third parties' end use shall not be granted with administration rights, except for administration rights that are offered by the user management of a subtenant.</p> |
| Asset Manager | <p>Use Asset Manager to:</p> <ul style="list-style-type: none"><li>• Onboard and offboard Agents to your Account.</li><li>• Configure assets, asset types and aspect types.</li></ul>  |

## 4. Other Services as part of MindAccess DevOps Plan

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Your subscription to MindAccess DevOps Plan also includes access and the use of other Services made available to you. This includes e.g. the Fleet Manager and additional Services available via their respective MindSphere APIs. Such Services may be subject to specific terms and conditions that are set out in the MindSphere Supplemental Terms. The MindSphere Supplemental Terms form part of your agreement with us.

When we introduce new features, supplements, enhancements, capabilities or Services (e.g. that were not previously included with the subscription to your MindAccess Developer Plan and/or MindAccess Operator Plan but are added at no additional fee), we may make updates to the MindSphere Supplemental Terms that apply to your use of these new features, supplements, enhancements, capabilities or Services.

Please review the MindSphere Supplemental Terms before using a Service that is not described in this Product Sheet.

## 5. Security Information for MindAccess DevOps Plan

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| Item               | Description  |
|--------------------|--|
| Access credentials | Authentication and authorization on User level based on user name and password.  |
| General            | In order to protect plants, systems, machines and networks against cyber threats, it is necessary that you implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. |

## 6. Export Control Regulations for MindAccess DevOps Plan

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| Item | Description |
|------|-------------|
| AL   | N           |
| ECCN | EAR99       |

## 7. Definitions for MindAccess DevOps Plan

| Item                       | Description   |
|----------------------------|---|
| Asset                      | An asset is the logical representation of a thing which can be a machine or an automation system with a single or multiple automation unit(s) e.g. PLC or even a factory site. Assets are defined using an asset type.  |
| Asset type                 | Asset type describes the type of an asset (e.g. a generic motor) including one or several attributes. An asset type is a template that describes the attributes of a homogenous group of physical or logical assets. Used for asset modeling.<br><br>Asset type is a grouping of assets with common characteristics that distinguish those assets as a group or class.  |
| Asset instance             | Asset instance reflects a physical and/or logical device within your Account, e.g. a specific motor within a factory would be an asset instance. Each instance belongs to an asset type.  |
| Agent                      | An Agent is a field device or software application which you connect to your Account (e.g. MindConnect Nano or a third party agent). Each Agent can ingest data into your Account and send data from one or more asset instances. The number of Agents equals the number of parallel data ingest channels. The data points that are ingested into the Account are associated to asset instances.  |
| Backing Services           | Backing Services include any services which an application utilizes over the network as part of its normal operation.<br><br>Examples include data stores (such as PostgreSQL), messaging/queueing systems (such as RabbitMQ) or caching systems (such as Redis).<br><br>Backing Services are available in different sizes, e.g. XS or M. This relates to available memory, storage space and additional properties like high availability. |
| Backing Service instance   | Backing Service instance is a running and instantiated Backing Service in a certain configuration/size.   |
| Cloud Foundry Org (CF Org) | CF Org is an environment to test and operate applications.  |

|                        |   |
|------------------------|---|
| Event                  | An event documents the occurrence of a defined situation (e.g. exceed temperature threshold or starting a motor).   |
| Event type             | The order and the content of an event instance are specified in the corresponding event type (e.g. timestamp, priority and description).  |
| Event instance         | Event instance represents the actual occurrence and includes the information defined in the event type (e.g.2018-07-10 15:45:23   HIGH   Temperature high).   |
| Fleet Manager          | Fleet Manager provides an overview of your assets configured in a respective Account, and allows for searching and filtering of relevant assets based on various criteria. You can define rules in the Fleet Manager that monitor the data points of the respective assets and define resulting actions like sending notifications or setting the status indication after the occurrence of an event set by you, e.g. in case the data relating to a certain asset exceeds a threshold defined by you in the Fleet Manager. |
| MindSphere Launchpad   | After the login into your Account, the Launchpad appears. Similar to a desktop on any common operating system (OS), the MindSphere Launchpad facilitates starting various assigned applications.<br><br>If you provide services to your customers, you must replace the service and support information provided in the MindSphere Launchpad with your companies' service and support information.  |
| Subtenant              | A subtenant is a certain limited resource of a tenant and represents a subpart of your own real-world organization. In a MindAccess Developer Plan, a subtenant also represents the real-world organization of a third party that you permit to test applications for such third parties' end use. A subtenant is also used to assign applications and provide access to applications.  |
| Tenant                 | A tenant is a representation of a real-world organization. It covers properties like users, data, assets, entities etc.   |
| Additional definitions | All other capitalized terms in this document shall have the meaning given to them in the MindSphere Agreement.  |