

OnlineSuite^{plus}

System pre-requisites for installing OnlineSuite^{plus}

General Information	The OnlineSuite ^{plus} is a computer software application that needs to be installed under the below mentioned pre-requisites.
Operating System	<p>Recommended:</p> <p>Linux (RedHeadLinux, Debian, Ubuntu, or equivalent)</p> <ul style="list-style-type: none"> ▪ Docker Engine <p>Windows 10/20H2 with Docker Desktop support Windows Server 2019 or later with Hyper V support</p>
Server Hardware	<p>At least the following server hardware needs to be provided, when up to 5000 single devices are connected to the OnlineSuite^{plus}</p> <ul style="list-style-type: none"> ▪ CPU: 4x 2.7 Ghz ▪ RAM: at least 16 GB ▪ HDD: > 200 GB (free Docker space)
Ports	<p>The following ports need to be provided/maintained by the Hospital Organization in order to allow execution of OnlineSuite^{plus} application</p> <ul style="list-style-type: none"> ▪ 80 (only used for https redirect) ▪ 443 (HTTPS) ▪ 8443 (HTTPS) ▪ 9093 (Kafka)
Browser	Firefox ESR, Chrome and Microsoft Edge (chromium based)

Further information on OnlineSuite^{plus} applications

OnlineSuite ^{plus} Applications	<ul style="list-style-type: none"> ▪ Drug Library Manager^{plus} ▪ Device Manager^{plus} ▪ DoseLink^{plus} (HL7-IHE interface) ▪ Health cloud connector ▪ DoseTrac^{plus} ▪ OneView^{plus 1}
OnlineSuite ^{plus} Technology stack	<p>The core functions of the OnlineSuite^{plus} application are based on:</p> <ul style="list-style-type: none"> ▪ Docker-based container environment ▪ PostgreSQL database management system ▪ Keycloak identity management ▪ Vault by HashiCorp for secret management ▪ Kafka message broker ▪ Java, Springboot, Angular

¹ applications will be added later on via firmware/software update

System pre-requisites for using the B. Braun Health Cloud service

General Information	Cloud Service
Network connectivity	<p>Network connectivity:</p> <ol style="list-style-type: none"> 1) Websocket / Port 443 available 2) AMQP protocol is used 3) Enable the following cloud endpoints <ul style="list-style-type: none"> ▪ IoT Hub: bbraun-iomt.azure-device.net ▪ Device Provisioning Service: global.azure-devices-provisioning.net ▪ Software Distribution: sd.iomt.bbraun.cloud
B. Braun Cloud authentication method	Pre-shared secret key
Data Storage	Microsoft Azure cloud services. Data is stored in the following data centre locations: Western Europe (Amsterdam, Netherlands), peered with Northern Europe (Dublin, Ireland)

Data transmission between OnlineSuite^{plus} & B. Braun Health cloud

Data and Message exchange	<p>The following information will be exchanged between OnlineSuite^{plus} and B. Braun Health cloud:</p> <ul style="list-style-type: none"> ▪ Device authorization token ▪ Time information ▪ Pump Device information (Serial Number, installed software version, and Product type / article number)
---------------------------	---