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BioStar 2, Install, database

How to Install BioStar 2 with MSSQL

BioStar 2 is a web-based, open, and integrated security platform that provides comprehensive functionality for access control and time & attendance. There are two types of databases to use in BioStar 2 (Maria DB and MSSQL). The databases each have different methods for installing BioStar 2. Here, we will cover how to install BioStar2 with MSSQL step-by-step.

Note: Direct installation of BioStar 2 with the MS-SQL database currently is not supported. Therefore, users who want to use BioStar 2 through the MS-SQL database need to configure the MS-SQL settings to set up the environment for BioStar 2 prior to the BioStar 2 installation process.

MS-SQL Installation

- 1. Download Microsoft SQL Server Express or Install Microsoft SQL Server Standard Edition.
- 2. Right-click the Setup file and run as administrator.
- 3. Choose the installation type as "Custom."



4. Click the first item on the list.

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5. At Feature Selection, you can select the Instance Features on the MS-SQL to your preference.

6. At Instance Configuration, specify the name of ID for the SQL Server. It is highly recommended to name it "SUPREMA."

7. At Database Engine Configuration, select "Mixed Mode," and the set the password for the sa account.

8. After completing the installation, open SQL Server Configuration Manager.



9. Right-click "Protocols for SUPREMA" and click "TCP/IP Properties."

10. Choose "Yes" for Enabled, and set up the TCP Port (ex. Here, it is set to 1433). Press Apply.

11. You must restart the service to apply changes. Go to SQL Server Services, and right-click the second item from the list. Click "Restart."

12. Go back to SQL Server Installation Center. Click the third item on the list. This will redirect you to the link to download the SQL. Server Management Studio.

13. Download the SQL Server Management Studio. Run as administrator. You will need to restart to complete the installation.

14. After restart, open Microsoft SQL Server Management Studio.

15. Create 3 New databases. Right-click Databases and select New Database. Name the Databases "BioStar2_AC," "BioStar2_TA," and "BioStar2_VE."

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	New Database						-		×	×
File Edit View Tools	Select a page	🗊 Script 👻 😮	Help							î
0-0 1 3- 11-1	General Dotions Filegroups	Database name Owner:		BioStar <defaul< th=""><th>2_VE</th><th></th><th></th><th></th><th></th><th></th></defaul<>	2_VE					
Object Explorer		🗸 Use full-text i	ndexing						<u> </u>	
Connect - ₩ ¥₩ = Y		Database files:								
DESKTOP-4EDKRR3\S Desktop-4EDKRR3\S Detabases	5	Logical Name BioStar2_VE	File Type ROWS	Filegroup PRIMARY	Initial Size (MB) 8	Autogrowth By 64 MB,	/ Maxsize Unlimited		Path C:₩F	
System Date Database Snar		BioStar2_VE	LOG	Not Applicable	e 8	By 64 MB.	Unlimited		C:₩F	
BioStar2_AC BioStar2_TA BioStar2_TA Security Server Objects Replication PolyBase Management XEvent Profiler	Connection Server: DESKTOP-4EDKRR3₩SUPREMA Connection: sa v ^{**} <u>View connection properties</u>									
	Progress								_	
٤	C Ready	¢				Add	Re	emove	,	
🗇 Ready							OK	Can	cel	4

16. In the Database Files section, we recommend setting the Initial Size (MB) to 3000 and setting the Autogrowth/Maxsize to (By 10MB, Unlimited).

	Database Properties - BioStar2_A	c				-	0 X
Microsoft SQL Server N File Edit View Tools ♥ ♥ ♥ Object Explorer Connect - ♥ ♥ ■ Detabases ■ Detabases ■ Detabases ■ System Database ■ BioStar2_AC ■ BioStar2_VE ■ Security ■ Server Objects	Select a page General Files Filegroups Options Change Tracking Permissions Extended Properties Query Store	☐ Script ▼	Help ndexing File Type ROWS LOG	BioStar2. Sa Filegroup PRIMARY Not Applicable	AC Size (MB) 3,000 3,000	Autogrowth / Maxsize By 64 MB, Unlimited By 64 MB, Limited to 2	Path C:\\P C
Explication PolyBase Management XEvent Profiler	Connection Server: DESKTOP-4EDKRR3₩SUPREMA Connection: sa ¥ <u>View connection properties</u> Progress						

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	Database Properties - BioStar2_	AC			-	- ×
Microsoft SQL Server M File Edit View Tools O - O 10 - 0 View Tools View Tools Object Explorer	Select a page General Files Filegroups Options Change Tracking Permissions Extended Properties	☐ Script - ② Help Database name: Owner: ☑ Use full-text indexing	BioStar2_AC sa			
Connect • • • • • • • • • • • • • • • • • • •	Cuery Store	Change Autogrowth for BioStar2_AC C Enable Autogrowth File Growth In Percent In Megabytes		× ۱۵ ټ ۱۲ ټ	th / Maxaize 1B, Unlimited 1B, Limited to 2,	Path C:₩P C:₩P
 Beref Objects Replication PolyBase Management E Management E XEvent Profiler 	Connection Server: DESKTOP-4EDKRR3₩SUPREN Connection: sa ₩ <u>Mew connection propertie</u>	Maximum File Size	ОК	100 ‡ Cancel		

17. Expand Security and right-click Logins. Select New Login.

18. Choose Login name. It is recommended to choose biostar2. Then select "SQL Server authentication" and set the password.

Login - New			-	o ×	×
File Edit View Tools	🞵 Script 👻 😮 Help				Î
C - O 13 - O - Server Roles User Mapping Serverables	Login name:	biostar2		Search	2
Object Explorer	SQL Server authentication			٦	
Connect •	Confirm password:	•••••			
🖃 🛑 Databases 🗉 💼 System Databa	Old password:			-	
Database Snap BioStar2_AC PinStar2_TA	Enforce password policy	Z			
BioStar2_VE	User must change pass	word at next login	_		
E Connection	O Mapped to asymmetric key				
Credentials Server: DESKTOP-4EDKRR3₩SUPREMA	 Map to Credential Mapped Credentials 	Credential Provider	~	Add	
		FIGHTINE FIGHTINE			
Replication PolyBase					
Management XEvent Profiler Progress				Bemove	

19. At "Server Roles," select "sysadmin" to give privileges to the new user (biostar2). At User Mapping, select the newly created databases to assign to biostar2. Also assign biostar2 as the db_owner for each database. This account will be used to log into the three MS-SQL databases.

	📱 Login - New				-		×
File Edit View Tools	Select a page General Server Roles	L Scrip	t 👻 🕜 Help napped to this login:				Î
Object Explorer Connect - ♥ ♥♥ ■ ♥ B DESKTOP-4EDKRR3\S Databases B Databases B Database Sna B Database	Securables Status		Database BioStar2_AC BioStar2_TA BioStar2_VE master model msdb tempdb	User biostar2 biostar2 biostar2	Default Schema		
Security Security Security Server Roles Security Server Roles Securits Secur	Connection Server: DEXTOP-4EDKRR3₩SUPREMA Connection: sa V ^{**} <u>View connection properties</u>	Gue: Databa: db.i db.i db.i db.i db.i db.i db.i	st account enabled for: se role membership for accessadmin backupoperator datareader datareiter ddladmin	BioStar2_VE : BioStar2_VE			^
	Progress Ready	db_0 db_0 db_0 db_1 db_3	denydatareader denydatawriter owner securityadmin lic			Caper	
					UK.	Cance	

BioStar 2 Installation

Before installing BioStar 2, please refer to the BioStar 2 Installation Guide at BioStar 2 Package to check the system requirements for your computer.

System Requirements

It	em	Small	Medium	Enterprise
Environment	Total Devices	1 to 50	51 to 100	101 to 1,000
	OS	Windows 7(SP1 or higher), W R2(SP2 or higher), Windows 2016, Windows Server 2019 • Windows virtual environe	Vindows 8, Windows 8.1, Wind Server 2012, Windows Server ments on Mac Boot Camp are	ows 10, Windows Server 2008 2012 R2, Windows Server not supported.
system requirement (Server)	Database	MariaDB 10.1.10, MS SQL Se SP1, MS SQL Server 2017, MS	rver 2012, MS SQL Server 2014 S SQL Server 2019	4 SP2, MS SQL Server 2016
	CPU	2 GHz Dual Core	4 GHz Quad Core	4 GHz 16 Core
	RAM	8 GB	16 GB	32 GB
	SSD	512 GB	1 TB	1 TB
System	CPU	1 GHz	1 GHz	1 GHz
requirement	RAM	4 GB	4 GB	4 GB
(Client)	Web Browser	Google Chrome 75 or later		

BioStar 2 Video Extension

Item	Medium	Recommended
CPU	4 GHz Quad Core	4 GHz Quad Core
RAM	8 GB	16 GB
HDD	2 TB	4 TB

1. Download the latest BioStar 2 Setup file at BioStar 2 Package. You can choose the (x64) or (x86) setup based on your computer's system requirements.

2. After downloading the BioStar 2 setup file, right-click and click "Extract All...".

3. Right-click the BioStar 2 Setup and run as administrator.

4. Select Setup Language.

5. After carefully reading the license agreement, select "I accept the agreement" and click "Next >" to proceed.

ense Agree	ment				
Please read t	he following impo	ortant information	before continuing.		ų
Please read t agreement be	he following Licer efore continuing	nse Agreement. Yo with the installatio	ou must accept the n.	terms of th	is
	Software	End User Licen	ise Agreement		^
		SUPREMA IN	с.		
	SOFT	WARE LICENSE A	GREEMENT		
PLEASE RE BEFORE INS	AD THE FOLL	OWING TERMS	AND CONDITION	S CAREFU	JLLY YING ↓
I accept t	he agreement				
OI do not a	ccept the agreen	ment			

6. The first account that will be used to login to BioStar 2 will be the admin. Customize the admin password based on the password requirements displayed at the Setup. Please note that it is difficult to recover the admin password, so make sure to not forget the admin password once you have set it. Click "Next >" to proceed.

ជ	Setup - BioStar 2(x64)			_		×
	Admin User Enter the password for	admin user.			Į	3
	Username :	admin				
	Password :	••				
	Confirm password :					
	1. It must contain betw	een 8 and 16 char	racters.			
	It can contain only E and certain special d	nglish letters, num haracters (e.g. !,	bers from 0 to 9, \$, #, %).			
	3. It must contain at le	ast one alphabet o	haracter and at leas	st one number.		
	Warning -Admin user password i	nust be managed	carefully not to be f	orgotten.		
			< Back	Next >	Can	cel

7. Choose "Custom installation" as the Database installation type.

tabase installation type			
Select a database type for BioStar 2. You can either install a new d connect the existing database.	atabase or	K	
Express installation			
Use this option for quick installation with the built-in MariaDB ser The installer will automatically install the MariaDB database serve and create the database.	ver. er		
Custom installation			
Use this option to create database schema on an existing datab on a database server (MariaDB / MSSQL) on the local or remote Make sure that the database and user account are created and before starting the installation.	ase server. configured		
Make sure that the database and user account are created and before starting the installation.	configured		

How to Install BioStar 2 with MSSQL

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8. Choose DB Type as MS-SQL. Input the Server IP (you can see the Server IP by typing "ipconfig" on the Command Prompt). Input the Server port (Here, it is 1433 configured previously at MS-SQL).

9. Input the DB name based on the database created at the Server Management Studio.

Custom installati If you choose da information.	on tabase type, you must	enter the Root privile	ge account	Ę	C
DB Type :	MS-SQL V	mssql window	s auth.		
Server IP :	192.168.116.45	VE DB name :	BioStar2_VE]
Server port :	1433	VE Username :	biostar2]
AC DB name :	BioStar2_AC	VE Password :	•••••]
AC Username :	biostar2				
AC Password :	•••••				
TA DB name :	BioStar2_TA				
TA Username :	biostar2				
TA Password :	•••••	Generate the	database tables		
			-		

10. Select destination location for the installation.

11. Select the folder for the Encrypt Key Storage Directory. The encrypt key is critical for operating BioStar 2, and please do not alter the location of the file or the file once you have set the location. Click "Next >" to proceed.

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Setup - BioStar 2(x64)	-		×
Encrypt Key Storage Directory			
Select the location to store the encrpyt key			R.
'Select a folder to store the encrypt key and click 'Next'			
To continue, dick Next. If you would like to select a different f	older, dick	Browse.	
C:₩Program Files₩BioStar 2(x64)₩util		Browse	
Warning Select the path where the encrypt key file will be stored. Please do not alter the file once the location is set.			

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12. Read the Responsibility for protecting personal information.

Setup - BioStar 2(x64)	_		×
Responsibility for protecting personal information		Į	R
Please be aware the system administrator has the responsibility with the applicable laws of each country when using personal in biometric data or any other stored material. To protect the dat it is recommended to use the Encrypt Personal Data on Databa	y to comply nformation, a stored in th ase option.	e databas	æ
< Back	Next	Can	icel

13. Here, you can customize the port setting. Change the default port setting if that port is being used.

Setup - BioStar 2(x64)		_)
Port Setting			_	
Port Setting Enter a valid port number.			Ų	5
HTTPS Port for Web Server				
Enter the desired port number between 10 and The default port number is 443.	d 65534.			
443 Availability: OK				
Device Port for Communication				
Enter the desired port number between 10 and The default port number is 51212.	d 65534.			
51212 Availability: OK				
	< Back	Next>	Cano	el
	< Back	Next >	Cano	e

14. Select the components to be installed at BioStar 2. Choose the USB Device Agent if the installation of the USB Fingerprint Reader (BioMini Plus 2) or the USB Card Reader (DE620) is required. If you install the USB Device Agent, you will need to restart your computer to complete the installation process.

elect Components			
Which components should be installed?	?		Ų
Select the components you want to ins install. Click Next when you are ready	stall; clear the compo to continue.	onents you do no	t want to
Full installation			~
BioStar 2		3	3,650.7 MB
Server		3	3,650.7 MB
Current selection requires at least 3,73	36.0 MB of disk spac	e.	

15. After the installation process has been completed, open BioStar 2 Settings to confirm the system status. Check the Service Status and the HTTPS Port.

The	Core Web Server servic	ce has been started.	Running	Stop
2 The	BioStar 2 service has be	een started.	Running	Stop
The	T&A Web Server servic	te has been started.	Running	Stop
The	Video License is not ac	tivated.	Stopped	Start
ase Server (Configuration	□ Windows Au	ithentication	
ase Server (DB Type Host	Configuration MSSQL 192.168.116.45	Port 1	ithentication	
ase Server (DB Type Host	Configuration MSSQL 192.168.116.45 Database Name	Port 1 Database User	thentication 433 Database Passo	word
ase Server (DB Type Host AC	Configuration MSSQL 192.168.116.45 Database Name BioStar2_AC	Port 3 Database User biostar2	thentication 433 Database Passo	word
ase Server (DB Type Host AC TA	Configuration MSSQL 192.168.116.45 Database Name BioStar2_AC BioStar2_TA	Port 1 Database User biostar2 biostar2	thentication 433 Database Passo	word
ase Server (DB Type Host AC TA Video	Configuration MSSQL 192.168.116.45 Database Name BioStar2_AC BioStar2_TA BioStar2_VE	Port 1 Database User biostar2 biostar2 biostar2 biostar2	thentication 433 Database Pass ******** *********	word

How to Install Certificate for BioStar 2

If you try to open BioStar 2 right after installation, you will get the following privacy error message. Currently, there is no certificate installed at BioStar 2. So, the web protocol is displaying "Not secure." Please refer to How to configure HTTP or HTTPS protocol for steps to install the certificate for BioStar 2. Then, it will be displayed as "Connection is secure."

BioStar 2		×	+	
$\ \ \leftarrow \ \ \rightarrow \ \ G$	A Not secure	htt	ps ://	92.1

BioStar Setting

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Note: For the best experience at BioStar 2, use Google Chrome as the browser to access BioStar 2.

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