

# MATLAB Production Server™ Interface for Tableau® software

## Reference Architecture Brief

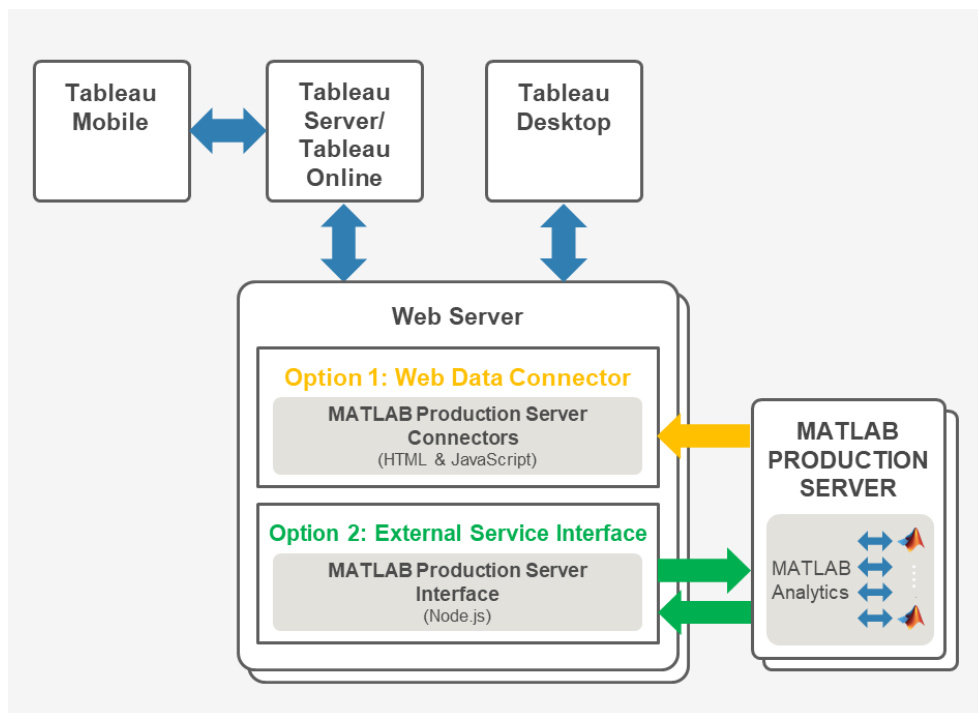
MATLAB Production Server™ Interface for Tableau® Software provides a link to a robust and scalable MATLAB® analytics engine through both an External Service Connection and a Web Data Connector. These interfaces support advanced data pre-processing and external analytics processing for multiple concurrent users within the Tableau environment



## Reference Diagram

The MATLAB Production Server interface for Tableau software provides two web hosted interfaces.

- 1) An example of a Web Data Connector for use in accessing data that is pre-processed by functions running on MATLAB Production Server.
- 2) A Node.js application that allows passing of data to functions running on MATLAB Production Server as an External Service Connection.

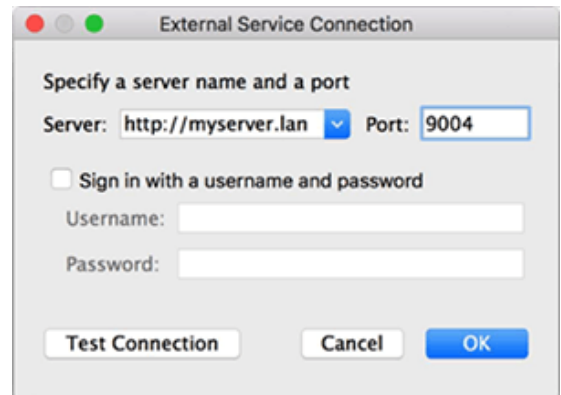


MATLAB programs are packaged using MATLAB Compiler SDK and hosted on MATLAB Production Server. Tableau clients can then use either the Web Data Connector or External Service Connection interfaces to make calls to these MATLAB programs.

- MATLAB programs are packaged and encrypted for use on MATLAB Production Server.
- MATLAB Production Server capacity can be scaled-out using basic round robin load balancing techniques.
  - MATLAB programs are called as stateless functions
  - RESTful API using HTTP protocol (default port of 9910)
- Requirements for data marshalling are detailed in the reference architecture documentation.

## Configuration

The Web Data Connector html/JavaScript template provides user-defined controls for creating and importing into Tableau from MATLAB Production Server. The standard External Service Connection dialogue is used when establishing connections for use in pushing data to MATLAB Production Server for external processing.



## System Components

In addition to MATLAB Production Server™ Interface for Tableau®, the following products are required:

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| MathWorks Products (R2016b or later)<br><a href="#">MATLAB</a><br><a href="#">MATLAB Compiler</a><br><a href="#">MATLAB Compiler SDK</a><br><a href="#">MATLAB Production Server</a> | Tableau Products<br>Tableau Desktop 10.3.1 (or later)<br>Tableau Server 10.5.3 (or later) |
|--|---|

## For More Information

About Data Analytics with MATLAB

[www.mathworks.com/solutions/data-analytics/](http://www.mathworks.com/solutions/data-analytics/)

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