



TIBCO® Patterns

Security Guidelines

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Introduction

This document describes guidelines to ensure security within the various components of TIBCO® Patterns. It also provides additional security-related guidance and recommendations for other aspects of internal and external communication. In particular, this document provides details of product connectivity and configuration of security options.

Product Connectivity

Overview of Network Communications

TIBCO Patterns supports encrypting network communications to ensure security.

The communication between the components of TIBCO Patterns standalone server and a cluster of servers is demonstrated in the following images:

Figure 1: Standalone Server

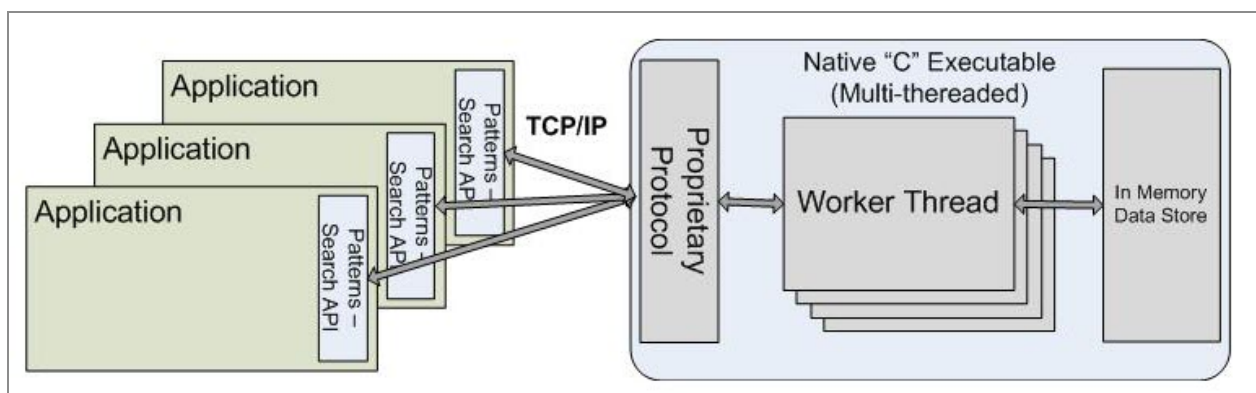
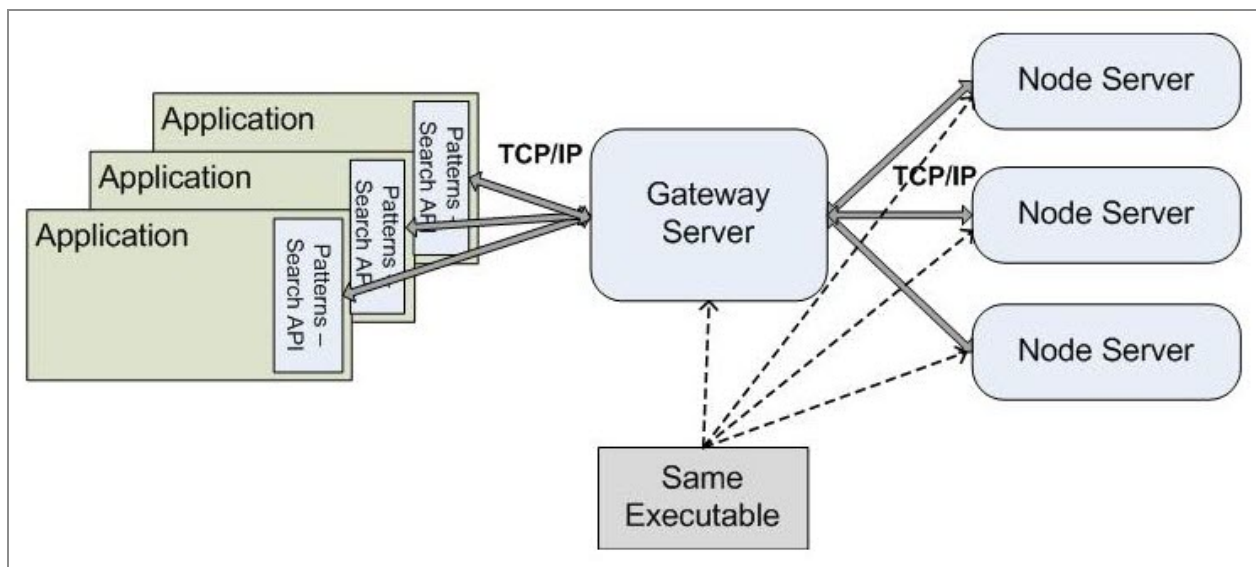


Figure 2: Cluster of Servers



Encrypting Network Communications

TIBCO Patterns supports the Secure Sockets Layer (SSL) and Transport Layer Security (TLS) standards for encrypting network communications.

TIBCO Patterns supports both self-signed certificates and certificates signed by a trusted Certificate Authority. However, the configuration for self-signed certificates is significantly more complex. Using self-signed certificates with the Java API or .NET API might require custom API programming.

Encrypting network communications incurs a performance penalty. In most use cases, this penalty is very less.



Warning: Private Key files must be placed only on encrypted drives, and must not be accessible to unauthorized users.

Data Storage

Data Persistence Directories

To use the Checkpoint /Restore feature, or Data-Durability feature, a separate directory must be allocated for each running TIBCO Patterns server. The server must have full permission to add and delete files in this directory. The data for the checkpoint/restore and durable-data features are stored in this directory. No two running TIBCO Patterns servers can share the same data-persistence directory. Also, no other process must attempt to modify this directory or its contents in any way. When using the directory for the first time, ensure it is empty. Then, the directory is managed by the TIBCO Patterns server.

In a typical production environment, there would be one TIBCO Patterns server per machine. A data-persistence directory is created on the machine. The TIBCO Patterns server must always be run by the same user that owns the checkpoint directory. Typically, a special user ID is created for the TIBCO Patterns server and the same user should own the data-persistence directory. The server is then started using the `--restore-dir directory` command line argument, where `directory` is the full path name to the created directory. The TIBCO Patterns server then takes over full responsibility for managing the contents of the directory and no user actions are needed. On starting the server, it performs the necessary cleanup of incomplete operations.



Warning: The data-persistence directory must be placed on an encrypted drive and must not be accessible to unauthorized users.

For more information about data-persistence directories, see the "Data Persistence Directories" section in the *TIBCO Patterns* Installation Guide.

Configuring Security Options

With TIBCO® Patterns, you can secure data by configuring security options in the server and APIs. For more information, see the "Running the TIBCO Patterns Server" section in *TIBCO® Patterns* Installation guide.

For more information about APIs, see the following documentation:

- The "NetricsConMgr" or "NetricsServerInterface" class in the Java API online documentation
- The "NetricsConMgr" or "NetricsServerInterface" class in the .NET API online documentation

TIBCO Documentation and Support Services

For information about this product, you can read the documentation, contact TIBCO Support, and join TIBCO Community.

How to Access TIBCO Documentation

Documentation for TIBCO products is available on the [Product Documentation website](#), mainly in HTML and PDF formats.

The [Product Documentation website](#) is updated frequently and is more current than any other documentation included with the product.

Product-Specific Documentation

Documentation for TIBCO® Patterns is available on the [TIBCO® Patterns Product Documentation](#) page.

How to Contact Support for TIBCO Products

You can contact the Support team in the following ways:

- To access the Support Knowledge Base and getting personalized content about products you are interested in, visit our [product Support website](#).
- To create a Support case, you must have a valid maintenance or support contract with a Cloud Software Group entity. You also need a username and password to log in to the [product Support website](#). If you do not have a username, you can request one by clicking **Register** on the website.

How to Join TIBCO Community

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from TIBCO products. In addition, users can submit and vote on feature requests from within the [TIBCO Ideas Portal](#). For a free registration, go to [TIBCO Community](#).

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