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|  | Product Requirement Document | | |
|  | Doc Rev  <Rev> <State> — <Modify Date> | |  |

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| Info | Content |
| Author | John Le |
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| Revision | Date | Description | Author |
| 0.1 |  | Initial draft | John Le |
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Release Version Tracking

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| --- | --- | --- | --- |
| Date | Version | Description | Author |
| 2024/08/16 | 0.1 | Template | John Le |
| 2024/08/23 | 0.2 | - Add Open Questions and Answers via last Confenrence call with P2Tech ( 2024/08/20)  - Add Current Infrastructure: researched from the “P2T\_構成図\_20240627.pdf”  - Add Current Pain Points collect via Conference Call ( P2Tech please help to confirm)  - Add Goal and Metrics ( User Access Part). (P2Tech please set the Point accordingly) | John Le |
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# Document purpose

## Purpose

## Target Audience

The document is meant for developers, software architects of the 3rd parties who want to register their devices to

## Reference

# Current Infrastructure System

## Host Locations

In 3 main zones:

+ AWS in EC2

+ Akamai

+ Sakura Internet

## OS Types

- Linux:

as Ubuntu, Almalinux

- Windows:

all are Enterprise Server

## Central User Management System

There is no Central User Management System, all are managed manually ( [Open Questions and Answers (From Bstar)](#_Open_Questions_and) )

## Remote Access Interface

A lot of Linux instances have Static Public IP with SSH Port open. So the user can direct remote access to the Server

For Windows we use RDP ( [Open Questions and Answers (From Bstar)](#_Open_Questions_and) )

## Domains and SSL Certificates

Use a mix of different SSL Certificate Providers ( some use wildcard, some not):

* Letsencrypt 🡪 fxsignup.com
* Sectigo 🡪 fxplus.com
* Cloudflare via Cloudflare Proxy 🡪 mediamarket.jp, p2t.sg, tfx.fxsignup.com
* AWS LB 🡪 portal.fxon.com
* Self-signed: svlin25.fxt.com 🡪 fxon.com

- Cloudflare via CloudFlare Proxy

## Internal Services

MySQL via AWS Aurora and self-hosted on VPC

Redis via self-hosted on VPC

## Infrastructure Monitoring System

No at the moment each project has it own monitoring system but there is NONE Central ( [Open Questions and Answers (From Bstar)](#_Open_Questions_and) )

# Current Pain Points

There are 3 main critical issues:

## Lack of User Management

The current way of managing users via Excel sheet and manually generated access credentials create a lot of labors for the Admin. Moreover, it led to a lot of security issues especially when P2T has nearly tens of devices that even can access via public Internet port.  
  
Any missing of removing ex-users will create a tremendous life-long security issue because there is NONE PROTECTION.  
  
Also No Audit Mechanism will make P2T no way to detect any hack if there is any misuse.

## Lack of SSL Certificates Management

P2Tech has a lot of websites from a lot of clouds. To make it more difficult, there are a lot of certificate providers as well.  
  
Normally, each certificate provider has its own way of grant/revoke/checking status mostly via each own tool. And depending on the Host, the way of deploying the Certificates is also different.

Letting a Certificate expire can bring a lot of big issues for any public websites. Therefore, an alert mechanism to admin is always a must to avoid such tragical accident happening

## Lack of Infrastructure Monitoring System

Ensuring that numerous websites, backend systems, and databases operate seamlessly demands significant effort from the DevOps team.   
  
Relying solely on project developers for monitoring each initiative is insufficient;   
  
Therefore implementing a centralized infrastructure monitoring system enables DevOps to efficiently oversee operations, manage costs, reduce labor, and proactively prevent incidents

# Goals and Successful Metrics

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| --- | --- | --- | --- |
| Idx | Metrics | Category | Important Points (1 is highest – 5 is lowest) |
| 1 | Easy to manage up to 1000 Users, 1000 Devices, View User Access Rights to each Device | Remote Access |  |
| 2 | Allow to Grant/Revoke User Access via UI | Remote Access |  |
| 3 | Allow to Add/Remove User via UI | Remote Access |  |
| 4 | When the User is Removed, completely Remove User Access to Any Device | Remote Access |  |
| 5 | Session Access 🡪 Provide a limited time. When the time expire, User Auto not allow to access without Admin | Remote Access |  |
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# Core Assumptions

# Product Specifications

# Milestones

# Out of Scopes

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| Idx | Items | Approved |
| 1 | No Monitoring Dashboard Implementation |  |
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# Open Questions and Answers (From Bstar)

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| Idx | Questions | Answers |
| 1 | Do you have an AD to manage user? If yes, can it be used for both Windows and Linux, or different or None at all?  Can you help to describe current User Provision ( Add new user, Remove Leaving Staff)? | No, we don’t have. Right now, what we do is all manual  1. For Windows and Linux, we pre-create and maintain a pool of users  2. Then we use Excel Sheet to keep track of real users mapping with pre-made users.   3. When a New User A request to access Machine X:  a. If X is a Windows, the admin will provide user A with X pre-made credentials and update to Excel Sheet. Then User will access via RDP  b. If X is a Linux, the admin will collect the public key from A device and manually update to SSH authorized file, also need to update to Excel Sheet. Then User will access via SSH  4. When Admin need to remove User A’s right: Admin need to undo point 3 |
| 2 | With so many SSL Certificate Providers, what is your current way to manage them?  Are they coming from end customer or project by project?  Who is responsible to manage them? Any alert mechanism once the cert expired? |  |
| 3 | What are your current ways for remote access ( For Linux, For Windows)? Any security item we need to note before implementing?  For example:  - Are we allow to install service/app to any Instance? | See point .1 which already cover the answer |
| 4 | You mentioned about you need a way to remote control the MySQL DB with UI?  Any specific requirement? Can something like mysqlphpadmin enough? Or you want any generic DB Client? | We don’t need it anymore |
| 5 | Do you have any current Infrastructure Monitoring Tool in your system?  Are you familiar with any tool to develop/add more Dashboard? | Totally NO at the moment |
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# Open Questions and Answers (From P2Tech)

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| Idx | Questions | Answers |
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# Acceptance Reviews and Approvals

| Name | Role | Location | Date |
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Acceptees

Approvers

| Name | Role | Location | Date | Signature  (if required) |
| --- | --- | --- | --- | --- |
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# Document Management

## Abbreviations and terminology

| Abbreviation | Description |
| --- | --- |
| AD | Active Directory (AD) is a database and set of services that connect users with the network resources they need to get their work done. Mostly used in Windows but can be shared with Linux |
| RDP | The Remote Desktop Protocol (RDP) is a protocol, or technical standard, for using a desktop computer remotely used in Windows |
| SSH | The Secure Shell (SSH) protocol is a method for securely sending commands to a computer over an unsecured network |
| UI | User Interface |
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Abbreviations and terminology

## Referenced documents

| Doc ID | Doc Title | Version | Author | Issue Date |
| --- | --- | --- | --- | --- |
| A01 | P2T\_構成図\_20240627.pdf |  |  | 20240818 |
| A02 | サーバ一覧.xlsx |  |  | 20240818 |
| A03 | Server Management Req.xlsx |  | Quang Le | 20240818 |

Referenced documents

## Distribution

Distribution

| Name | Role | Location |
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