Windows 2008
terminal service
Architecture
Design and Server
Sizing Approach
Document for

FamilyCredit
Objective

The purpose of this document is to provide an overview of the planning and design for setting up terminal services infrastructure based on Windows server 2008 at the office of Family Credit, Kolkata. This document also includes various Microsoft recommendations and benefits for Terminal Services implementation at Family Credit.

Business Challenge

Family Credit is the Indian wing of SOCIETE GENERALE CONSUMER FINANCE (SGCF), a division of Societe General Group, one of the leading financial service providers in Euro Zone. Now Family Credit has become one of the leading financial companies in India. Around two thousand four hundred employees are working over 42 branches across the country. Family Credit has set up their centralized Data centre in Kolkata office. All the remote branches are connected through MPLS and Vsat. Users are accessing the centralized web application through Internet explorer. But the access speed is not up to the mark and also data are travelling in clear text. Now Family Credit is looking for a solution that can accelerate access to remote network applications, allow for greater mobility of employees, and minimize security risks.

Solution

After Family Credit evaluated competitive solutions, it chose to deploy Windows Server 2008, Terminal service which offers new features that address the company’s issues without third-party components.

Benefits
- Simplifies remote access
- Improves performance and accelerates application deployment
- Reduces costs
- Bolsters security
- Streamlines administration

Terminal Services in Windows Server 2008 provides components such as Terminal Services Gateway, Terminal Services RemoteApp and Terminal Services Web Access. These features would allow end users at Family Credit to connect to network resources—including the Web based applications—by using the Remote Desktop Protocol and HTTP over Secure Sockets Layer (HTTPS) rather than a VPN. This capability would simplify system access and eliminate the need for vpn.
Key Features in Windows Server 2008 Terminal Service

Some of the enhancements to Terminal Services in Windows Server 2008 include:

- **TS RemoteApp** integrates Terminal Services application shortcuts with the desktop and Start menu:
  - No need to launch an application from the Remote Desktop Protocol (RDP) client. Applications appear no different than local applications. TS RemoteApp helps improve end-user productivity.

- **TS Web Access** presents the Terminal Services applications available to a user through a Web page without installing them on the local PC. Speed application deployment by quickly connecting users with the applications they need.

- **TS Gateway** provides a means for remote users to connect to Terminal Services through a firewall and provides simple and highly secure delivery of critical applications and data without a VPN client.

- **TS Session Broker** directs a new connection to a terminal server farm to the server with the fewest sessions. TS Session Broker also ensures that a user with a disconnected session reconnects to the server from which he or she was disconnected. It delivers session-based load balancing to a TS farm. TS Session Broker helps bring better uptime and performance to the TS environment.
• **TS Easy Print** could be called *virtual printing*. When the user wants to print, the terminal server sends an .xml file to the client. It’s the client that actually sends the job to the printer. This behaviour removes the need to have a driver for each printer loaded on the terminal server and solves many of the printer problems in earlier versions. End users can more productively work from remote locations.

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**High level solution Architecture**

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[Diagram of the high level solution architecture showing the locations of Kolkata, Guwahati, Maniktala, and Russell Street with the components such as Domain Controller, TS RemoteApp, TS Web Access, TS Session Broker, TS Easy Print, and Terminal Services Gateway.]
Terminal Services is a server role that consists of several sub-components, known as "role services." In Windows Server 2008, Terminal Services consists of the following role services:

- **Terminal Server**: The Terminal Server role service enables a server to host Windows-based programs or the full Windows desktop. Users can connect to a terminal server to run programs, to save files, and to use network resources on that server.
- **TS Web Access**: Terminal Services Web Access (TS Web Access) enables users to access RemoteApp programs and a Remote Desktop connection to the terminal server through a Web site. TS Web Access also includes Remote Desktop Web Connection, which enables users to remotely connect to any computer where they have Remote Desktop access.
- **TS Licensing**: Terminal Services Licensing (TS Licensing) manages the Terminal Services client access licenses (TS CALs) that are required for each device or user to connect to a terminal server. TS Licensing is used to install, issue, and monitor the availability of TS CALs on a Terminal Services license server.
- **TS Gateway**: Terminal Services Gateway (TS Gateway) enables authorized remote users to connect to resources on an internal corporate network, from any Internet-connected device that can run the Remote Desktop Connection (RDC) client.
- **TS Session Broker**: Terminal Services Session Broker (TS Session Broker) supports session load balancing between terminal servers in a farm, and reconnection to an existing session in a load-balanced terminal server farm.
Assumption

It is assumed that the number of users connecting the remote web based application will be 100.

Sizing Recommendation

The following Server Sizing has been done based on the number of remote users family Credit is having at present:

<table>
<thead>
<tr>
<th>Server Roles</th>
<th>Number of Servers</th>
<th>Hardware Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS Web Access</td>
<td>Two- in clustered form</td>
<td>1. Quad Core Dual Proc</td>
</tr>
<tr>
<td>TS Licensing</td>
<td></td>
<td>2. 8 GB RAM for each Server</td>
</tr>
<tr>
<td>TS Session Broker</td>
<td></td>
<td>Hardware:-</td>
</tr>
<tr>
<td>TS Remote App</td>
<td></td>
<td>TS Web Access - 2GB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TS License Server- 1GB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TS Session Broker- 2GB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TS Remote App – 3GB</td>
</tr>
<tr>
<td>TS Gateway</td>
<td>One</td>
<td>3. 146*2 HDD for Each Server(Mirrored )</td>
</tr>
</tbody>
</table>

Benefits of Proposed Solution

The benefits of using Terminal Services include:

- Terminal Services **accelerates and extends** deployment of applications to a wide array of client devices, making your organization more agile and responsive.
- Terminal Services helps **improve remote worker efficiency**, enabling rich applications to be accessed from a Web page and seamlessly integrated with a local desktop.
- Terminal Services helps organizations **keep critical intellectual property secure** and helps simplify regulatory compliance by removing applications and data from the desktop.