TOSHIBA
Leading Innovation

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Security Guide

- Security is a growing concern for companies of all sizes. Toshiba has innovative methods of protecting valuable data in order to ensure that what is yours stays yours.
- There are various ways of controlling who can access what is stored on your Toshiba MFP - ensure that your confidential data and information is only available to those who are authorised
- In order to protect the confidentiality and integrity of your data, we continually develop comprehensive security measures for our systems.

TOGETHER INFORMATION

KEEPING YOUR BUSINESS YOUR BUSINESS

Every day millions of confidential documents - such as legal documents or financial data - are produced and distributed via multifunctional products (MFPs) and printers. With these devices being able to store large amounts of data on their hard disk drives (HDD), they have become an integral part of business networks and thus are a critical point of vulnerability. Sensitive data and business-critical information can easily be tampered with if security measures are not in place. However, although the vast majority of organisations secure their IT networks, the same level of attention is not being given to MFPs. An insecure MFP leaves those working with sensitive information vulnerable to attack and at risk of prosecution if they do not keep data safe.

Toshiba offers various options for securing your data and documents, in order to help your business meet the increasing security challenges. These security measures can be grouped into the following three categories:

- Access Security
- Document Security
- Device Security

Access security

Control who, what and how much

Toshiba has developed simple yet highly effective methods of establishing access security without inconveniencing users.

User/Department Codes

Not only do user codes control access, they also provide beneficial data tracking and usage information. User codes require users to enter a code in order to use the MFP device. Codes may be required for all walk-up functions, including copying, scanning and faxing, as well as printing from the desktop. Users are required to input a five-digit code either at the control panel for scan, copy or fax functions, or within the print driver when sending print jobs from a computer.

Device administrators are able to easily track and view the volume and type of jobs being produced by each department or user. Additionally, these codes restrict unauthorised users from abusing company resources or gaining access to confidential information.

Strong Passwords

With the advent of password recovery tools that can crack passwords instantaneously, it is recommended that users create a strong password. A strong password is one that is at least eight characters, includes a combination of letters, numbers and symbols, and is easy for the user to remember, but difficult for others to guess.

Unauthorised persons will find it difficult to access the administrative and network properties of each device, as well as to gain access to the device's control panel without the proper username and password. For further protection, a login limitation of up to three times can be employed. This sequence slows down the ability to crack the password by locking the screen after three failed attempts.

Usage Limitations
Usage limitations allow the administrator to control and track output at the device, by setting limits for the number of copies or prints available at an account or a departmental level. The use of colour is also an optional restriction when dealing with a colour-capable device. This in turn provides a further level of security to complement the controlled device access, as well as the visibility to track and control costs associated with the device's use.

Furthermore, the user login process can be streamlined wth the use of optional **card readers** - these require a simple swipe of a card to provide user access to specific features and functions.

Network Authentication
For authentication, users are required to input their network user name and password to gain access to the control panel. Network administrators can control access to the device in the same manner that they control network access. If a user is authorised on the corporate network, then he or she can gain access to the MFP. Authentication ensures that only those users who have been authorised can gain access to data stored on the device. In addition, it lets e-mail recipients know the identity of the sender, deterring users from sending prohibited material.

E-mail Authentication
Authenticate natively with Microsoft Exchange e-mail servers.

Lightweight Directory Access Protocol (LDAP) Integration
LDAP provides a centralised address book of all employees and enables the administrator to establish rules and access rights based on specified user groups. For example, the administrator may prohibit employees employed by the company for less than 90 days from scanning or faxing. With LDAP authentication, the rules set by the administrator will apply to all MFPs on the company network.

Card Authentication
Card Authentication offers extensive security features designed to eliminate unauthorised operation and reduce costs and downtime. By utilising a streamlined, single point of entry, it facilitates the user log-in process by requiring a card swipe instead of typing a user name and password. With security taking a top priority among many companies, Toshiba is committed to providing solutions that ensure data integrity and accountability going to and from the MFP device. The administrator controls who has authorisation, thereby maintaining cost efficiency and security.

CERTIFICATES

Common Criteria Evaluated Assurance Level 3 (EAL 3)
The Common Criteria for IT Security Evaluation has different levels which describe in detail the requirements of an IT security inspection. The evaluation confirms that the security functionality stated by a manufacturer is valid. EAL3 evaluates the security behaviour of a device and uses development environment controls to confirm secure delivery procedures.

ISO/IEC 15408
Standard containing a common set of requirements for the security functions of IT products and systems and for assurance measures applied to them during a security evaluation.

IEEE 2600.1 standards
Standard for a Protection Profile for Hardcopy Devices in a restrictive commercial information processing environment in which a relatively high level of document security, operational accountability, and information assurance, are required. Typical information processed in this environment is trade secret, mission-critical, or subject to legal and regulatory considerations such as for privacy or governance. This environment is not intended to support life-critical or national security applications.

Document security

For your eyes only

Confidential data needs to be protected at all times. To ensure printed documents do not fall into the wrong hands, Toshiba offers the following solutions.

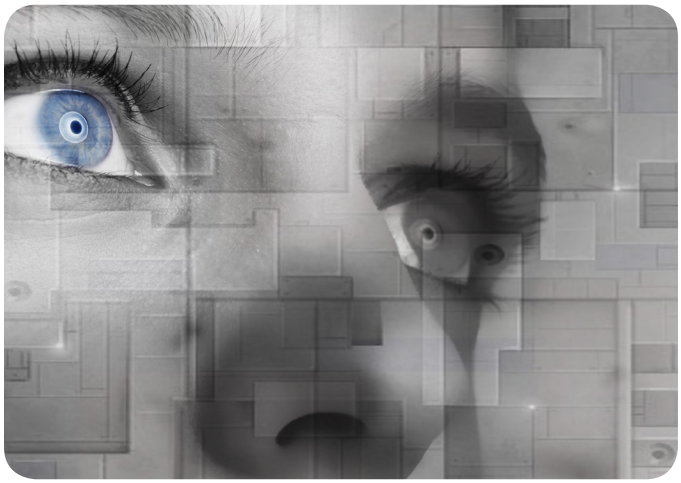
Private Print

This functionality offers complete control of print output, requiring users to input a password before their document is output from the machine. When users are at the device to retrieve their document, they first have to enter their individually selected confidential password or swipe their authentication card. Only then will the documents sent by the user be released.

Toshiba also offers a batch private print feature to print jobs under the user's print queue. This eliminates the need to re-enter a password for each individual document if the user has sent multiple jobs. Private print is ideal for organisations printing confidential information, and prevents other people from accidentally or intentionally picking up the wrong print job. The private print feature is essential to controlling print data output at the MFP.

Secure PDF

Much like the private print feature, further control and protection are needed when scanning documents to e-mail and network locations. With Secure PDF, users can assign a password to scanned PDF documents directly from control panel of the MFP. The password allows for various levels of control such as access, printing, editing and copying the content. Furthermore, up to 128 bit AES encryption can be applied to ensure the document is protected. Secure PDF is the perfect solution for those wanting to e-mail or store scanned documents without compromising the content.



Hard Copy Security

Embedded pattern print is a security function, which effectively restrains unauthorised copying and prevents the leakage of information by embedding hidden character strings during printing which reveal themselves when the document is copied. Example – Copying Prohibited.

Pull-printing Solutions

Pull-printing solutions hold print jobs in a central queue until the user logs on to any pull-printing enabled MFP, ensuring that the correct user is physically present before the document is printed.

End-of-life security

Serious consideration also needs to be given to what happens to MFPs once they have reached their end-of-life and/or are taken off site. If the HDD falls into the wrong hands, the data stored on it is at stake.

Toshiba's innovative Secure Hard Disk Drive has set new security standards and provides ultimate security for sensitive data. The 256-bit AES encryption happens in near real-time and the encryption key is stored on the hard disc drive itself. Furthermore, the Toshiba Secure HDD knows which device it has been built into and requires the system to authenticate itself against the hard disc before allowing the data to be accessed. If this authentication fails, the encryption key will be deleted, guaranteeing that your data is safe.

And while in the past invalidating the data on an hard disk at the end of a products life-time was extremely time-consuming, Toshiba's Secure HDD puts an end to this. The data on the disk is safe forever.

All our e-BRIDGE Next MFPs are equipped with the Toshiba Secure HDD. For a complete list, please contact your local Toshiba partner.

Device security

Protecting you and your network

MFPs and network printers function as complex network devices, Toshiba has developed several solutions that specifically address network security.

SSL

Secure Sockets Layer (SSL) is a cryptographic protocol widely used on the Internet to provide secure communications for transfer of personal information during online credit card transactions, order fulfilment, and accessing online accounts. MFP devices employ this common encryption technology to protect all data travelling to and from the MFP. Print jobs sent via SSL are encrypted through symmetric cryptography, ensuring that the print data is secure and will not be used for any purpose other than print output.

IPv6

IPv6 is the latest version of IP and offers several features to address IP security needs such as:

- Increased address size
- Built in support for authentication
- Stronger confidentiality

IP Filtering

IP filtering essentially acts like a firewall to protect your internal network from intruders. IP filtering lets you control what IP traffic to allow into and out of your network by filtering data from specified network addresses. MFP devices utilise this mechanism as a means of controlling which computers have access.

SMB Signing

SMB (server message block) signing is a form of data authentication. During network authentication, once the MFP is authenticated on the server, SMB signing adds a digital signature to the data transferred between MFP and server. The signatures verify that the identity of the server matches the credentials expected by the MFP, and vice versa. By verifying that the data received comes from an authenticated source, the signature ensures the integrity of all communications.

IPsec

IPsec (IP Security Protocol) protects communication in the IP layer. It provides authenticated and encrypted submission of print jobs from desktop to a Toshiba MFP.

Advanced Encryption

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Data Overwrite Kit

Data overwriting ensures that the hard drive is absolutely clear of readable data needed to process a print, scan copy or fax job. It works by overwriting the actual data with random and numerical characters. The disk is automatically cleared immediately after the device is done using the information after every job, thus preventing the data from being recovered by unauthorised users.

About Toshiba Tec

Toshiba TEC UK Imaging Systems LTD is part of the globally operating Toshiba Tec Corporation, active in various high-tech industrial sectors.

Toshiba Tec Corporation is a leading provider of information technology, operating across multiple industries.
With headquarters in Japan and over 80 subsidiaries worldwide, Toshiba Tec Corporation helps organisations transform the way they create, record, share, manage and display information.

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Together Information is Toshiba's vision for how people and organisations create, record, share, manage and display ideas and data.

It is based on our belief that the most successful organisations are those that communicate information in the most efficient way.

We make that possible through an integrated portfolio of ndustry-specific solutions, all of which reflect Toshiba's commitment to the future of the planet.