



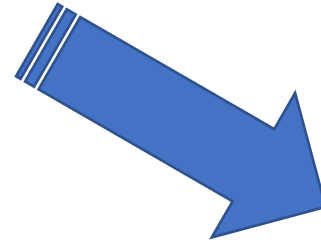
Hybrid QR Code



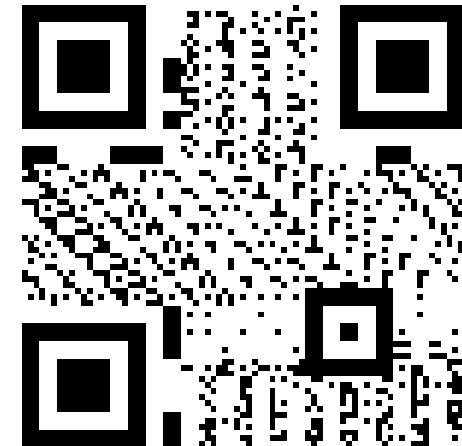
What We Provide: The **Hybrid QR Code**



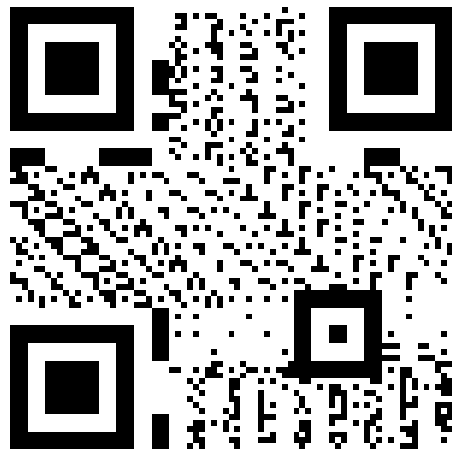
The **QR Code** is well-known and is very useful.



With our **Hybrid QR Code**, a composite code, we can make electronic transactions even **more convenient**.



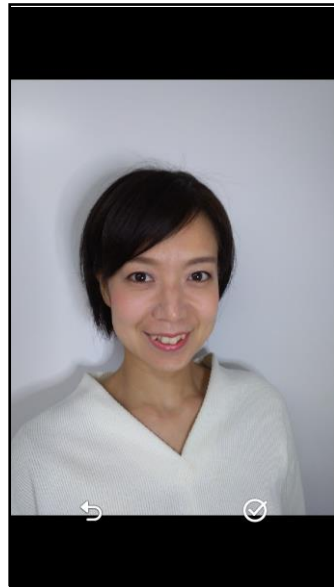
What is a Hybrid QR Code?



Main Features

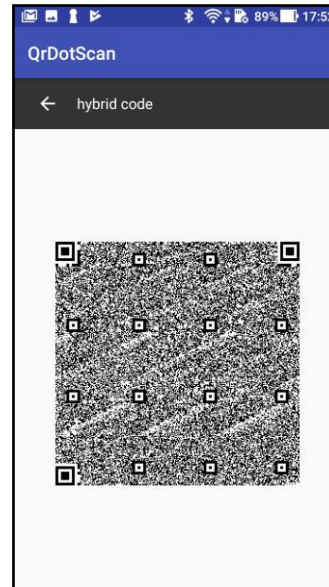
- ✓ QR Code data is retained and can be read.
- ✓ The Hybrid QR Code can carry an additional 8 times the amount of data compared with a QR code of the same version.
- ✓ The large volume allows for the incorporation of security measures.
- ✓ The large volume allows for off-line use.

Storing and Reading of Photo Data



(a) Facial photo (Size 3 MB) taken with a smartphone.

encoded

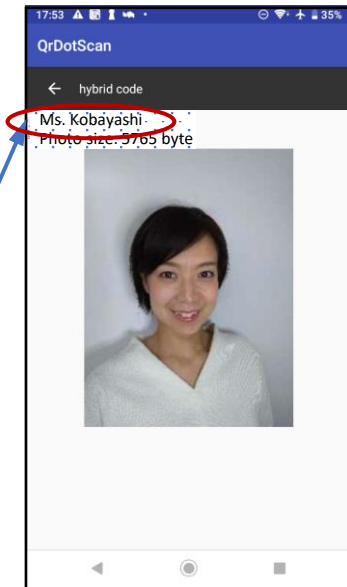


(b) Generated of a Hybrid QR Code after compression of the face-photo data.

code read and decoded



QR Code data



(c) The actual photo image (5.8 KB) reproduced from the Hybrid QR Code on another smartphone.

code read

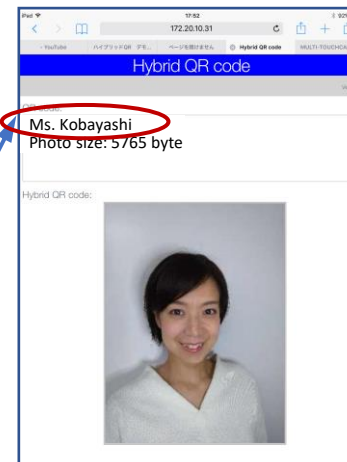


Dedicated Hybrid QR Code reader with a smartphone placed upon it

code transmitted and decoded



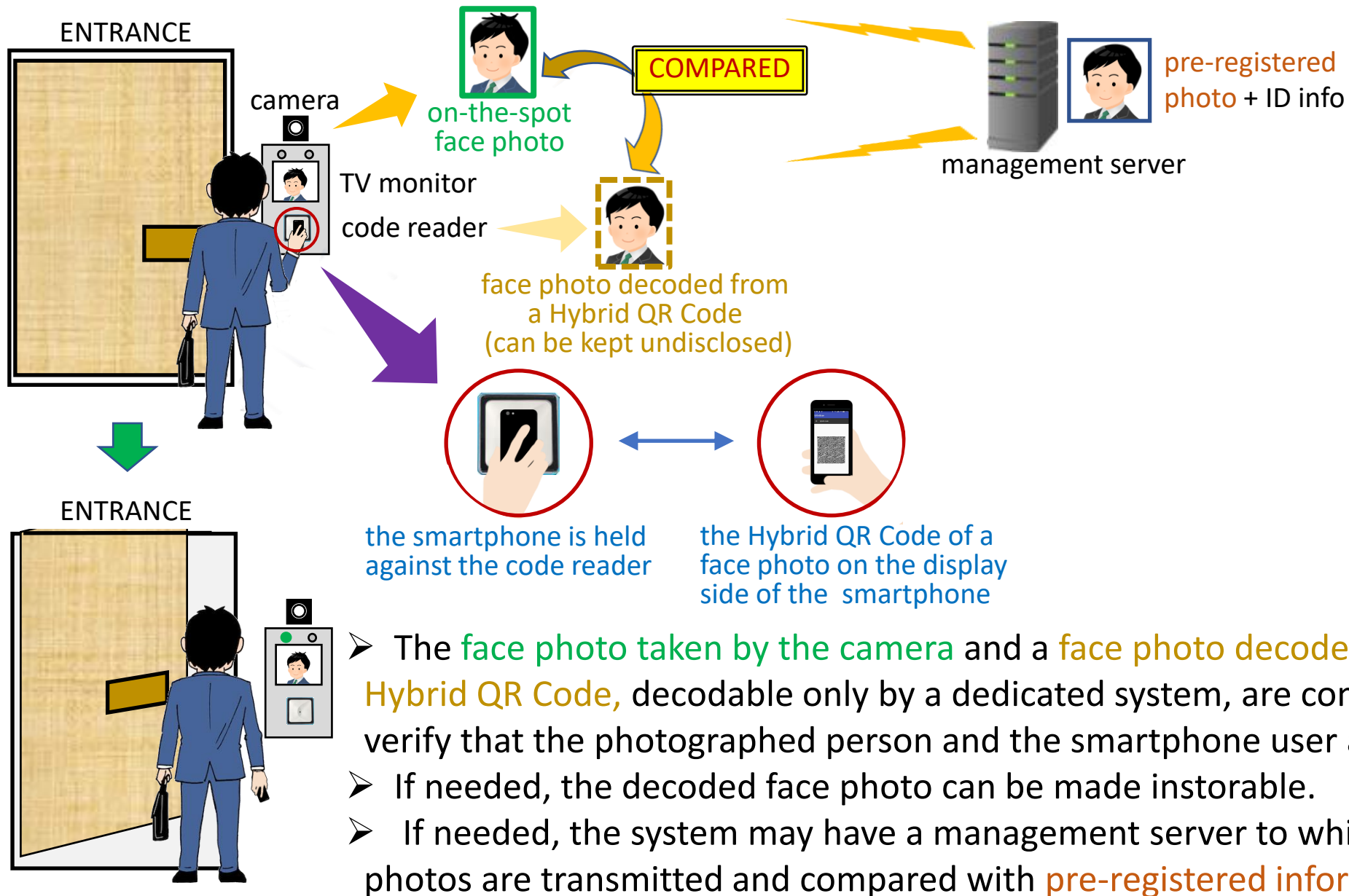
QR Code data



(c') The actual photo image (5.8 KB) reproduced from the Hybrid QR Code on an iPad.

Face Recognition System in the Making

<Face Recognition System in a Closed System>



Comparison with Known Technology

	Our Technology	Conventional Technology	Competitive Technology A	Competitive Technology B
Code Name	Hybrid QR Code	QR Code	iQR Code	SQRC Code
Code Structure	QR code with a dot code embedded in QR code cells	A matrix-type 2-D code invented by Denso Inc.	A new format QR code with added storage capacity	A QR code with a public and a private area
Storage Capacity	Excellent Ver. 40: ca. 39,000 alphanumeric characters	Unsatisfactory Ver. 40: 4,296 alphanumeric characters	Excellent Ver. 61: ca. 24,500 alphanumeric characters	Unsatisfactory Ver. 40: ca. 4,000 alphanumeric characters
Security Aspects	Excellent Generation method undisclosed, encryption key can be used.	Unsatisfactory Fully disclosed and thus forgery is easy.	Satisfactory Although fully disclosed, storage capacity allows use of encryption methods	Satisfactory Encryption key can be used for the private area
QR Code Compatibility	Excellent Compatible	–	Unsatisfactory Incompatible	Excellent Compatible